

Agenda

Planning Commission - Regular Meeting City and Borough of Juneau Ben Haight, Chair

May 24, 2016
Assembly Chambers
7:00 PM

I. ROLL CALL

II. APPROVAL OF MINUTES

A. April 26, 2016 Regular Planning Commission Meeting

III. PUBLIC PARTICIPATION ON NON-AGENDA ITEMS

IV. PLANNING COMMISSION LIAISON REPORT

V. RECONSIDERATION OF THE FOLLOWING ITEMS

VI. CONSENT AGENDA

A. USE2016 0013, Conditional Use permit for marijuana cultivation in the Industrial zone.

VII. CONSIDERATION OF ORDINANCES AND RESOLUTIONS

VIII. UNFINISHED BUSINESS

A. USE2016 0003, A Conditional Use Permit for an asphalt plant at the Alaska Marine Lines Yard.

IX. REGULAR AGENDA

A. USE2016 0012, Conditional Use permit for marijuana product manufacturing facility in the Industrial zone.

B. AME2016 0005. Rezone of USS 2136 Lot 2 from D-1 (T) D-3 to D-5 and D-1 (T) D-10 to D-10.

X. BOARD OF ADJUSTMENT

XI. OTHER BUSINESS

A. AME2015 0014, Draft Juneau Wetlands Management Plan Update.

XII. DIRECTOR'S REPORT

XIII. REPORT OF REGULAR AND SPECIAL COMMITTEES

XIV. PLANNING COMMISSION COMMENTS AND QUESTIONS

XV. ADJOURNMENT

MINUTES
Planning Commission
Regular Meeting
 CITY AND BOROUGH OF JUNEAU
Ben Haight, Chairman
 April 26, 2016

ROLL CALL

Paul Voelckers, Vice Chairman, called the Regular Meeting of the City and Borough of Juneau (CBJ) Planning Commission (PC), held in the Assembly Chambers of the Municipal Building, to order at 7:00 p.m.

Commissioners present: Paul Voelckers, Vice Chairman; Bill Peters, Michael LeVine, Percy Frisby, (telephonically) Nathaniel Dye, Matthew Bell, Carl Greene

Commissioners absent: Ben Haight

Staff present: Rob Steedle, CDD Director; Beth McKibben, Planning Manager; Laura Boyce, Senior Planner; Teri Camery, Senior Planner; Jill Maclean, Senior Planner; Eric Feldt, Planner II; Jonathan Lange, Planner II; Allison Eddins, Planner I; Tim Felstead, Planner II; Robert Palmer, Assistant Municipal Attorney II; Trinidad Contreras, Assistant Municipal Attorney

Assembly members: Loren Jones, Jerry Nankervis, Jesse Kiehl

- I. **APPROVAL OF MINUTES**- None
- III. **PUBLIC PARTICIPATION ON NON-AGENDA ITEMS** - None
- IV. **PLANNING COMMISSION LIAISON REPORT** - None
- V. **RECONSIDERATION OF THE FOLLOWING ITEMS** - None
- VI. **CONSENT AGENDA**

CSP2016 0005: A State Project Review for extension and replacement of the sidewalk on the uphill side of Douglas Highway from Lawson Creek Road to Gastineau Elementary School.

Applicant: State of Alaska

Location: Douglas Highway from Lawson Creek to I Street

Staff Recommendation

Staff recommends that the Planning Commission recommend approval to the Assembly that CSP2016 0005, a State Project Review for extension and replacement of the sidewalk on the uphill side of Douglas Highway from Lawson Creek Road to Gastineau Elementary School is consistent with Title 49, the 2001 CBJ Area Wide Transportation Plan, the 2009 Juneau Non-Motorized Transportation Plan, the 2012 Juneau Safe Routes to Schools Plan, and the 2013 Comprehensive Plan; with the following condition:

1. If any historic, prehistoric, or archeological sites, locations, or objects are discovered within intact soils in a subsurface context during development activity, all work in the area should cease, and the applicant, AKDOT&PF, should immediately notify the State Historic Preservation Officer at the Department of Natural Resources. Given the fill nature of the project area and prior grave removal outside the APE any human remains that are discovered "in situ", in their original place or position, with an associated feature context, all work should cease until work is authorized by the agency with jurisdiction. See Attachment D – Human Remains Discovery Guide for further guidelines.

USE2016 0008: Amendment of existing Conditional Use Permit for expansion of Fred Meyer Fuel Center.

Applicant: Barghausen Consulting Engineers, Inc.

Location: 8181 Glacier Highway

Staff Recommendation

It is recommended that the Planning Commission adopt the Director's analysis and findings and **APPROVE** the requested Conditional Use permit. The permit would allow the expansion of an existing gasoline dispensing facility by adding two multi-product fuel pumps (4 fueling positions) and extending the existing canopy.

The approval is subject to the following conditions:

1. Prior to issuance of a building permit a drainage plan should be submitted. Runoff from the fueling area directly under the canopy should be directed towards the existing Oil/Water Separator. Remediation of existing catch basins surrounding the fuel center should be undertaken with additional Spill Control devices used to treat surface water runoff from the area surrounding the fuel center as necessary.
2. The Spill Control devices should be regularly maintained with an inspection and maintenance log kept by the site operator. Inspections should be done monthly to ensure proper operation, and during and immediately after a large storm event of ≥ 2 inches per 24 hours (based on official National Weather Service figures for Juneau Airport). Oils should be removed when thickness exceeds 1 inch and sediment should

be removed when thickness exceeds 6 inches. Inlets and outlets should be kept free from debris and blockages. During maintenance inspections, all oily waste collected shall be removed and disposed of in accordance with applicable regulations. The basin should be structurally maintained to ensure continued operation.

3. The vegetation in the new planter should match existing vegetation elsewhere in the parking lot.
4. "Spill buckets" located on underground fuel tank fill pipes shall be cleaned at least once a month. All oily waste collected must be disposed of in accordance with applicable regulations. *(Repeated from USE2001-00048)*
5. The Oil/Water Separator units shall be regularly maintained with an inspection and maintenance log kept by the site operator. It should be cleaned at least once a month or if rainfall exceeds 1" in a 24 hour period (based on official National Weather Service figures for Juneau Airport). Inlets and outlets should be kept free from debris and blockages. During maintenance inspections, all oily waste collected shall be removed and disposed of in accordance with applicable regulations. The basin should be structurally maintained to ensure continued operation. *(Modified from USE2001-00048).*
6. Prior to issuance of a building permit a circulation plan, to be evaluated by Community Development staff, showing signage, striping and directional arrows should be submitted.
7. Prior to issuance of a Certificate of Occupancy (or Temporary Certificate of Occupancy) for the fuel station facility, directional signage must be placed in the parking lot as agreed to in the circulation plan. *(Modified from USE2001-00048)*
8. Prior to issuance of a Certificate of Occupancy (or Temporary Certificate of Occupancy) for the fuel station facility, striping and directional arrows at the main entrance on the east side of the lot shall be repainted in order to clarify traffic lanes. The striping at the entrance shall clearly separate vehicles turning left or right at the exit. *(Modified from USE2001-00048)*
9. Directional signage, striping and painted directional arrows shall be maintained in good condition for the fuel station's operational life at least yearly, or more often as needed. *(Modified from USE2001-00048)*
10. Prior to issuance of a building permit, the applicant shall submit a lighting plan, to be evaluated by Community Development Department staff. Where lighting used is different from that already present, a lighting specification should be provided in order

to demonstrate that lighting will be shielded and directed away from surrounding properties and rights-of-way. *(Modified from USE2001-00048)*

11. The owner of the fire hydrants on the applicant's property shall maintain the fire hydrants on the applicant's property. *(Repeated from USE2001-00048)*

USE2016 0009: A Conditional Use permit to allow the continued use of an asphalt and concrete batch plant in Lemon Creek.
 Applicant: SECON, Inc.
 Location: 5771 Concrete Way

Staff Recommendation

It is recommended that the Planning Commission adopt the Director's analysis and findings and grant the requested Conditional Use permit. The permit will allow the continuation of an asphalt and concrete manufacturing, rock crushing, selling of rock, and general rock storage on Lot 8A and Horecny Industrial Park.

The approval is subject to the following conditions:

1. The applicant will operate the asphalt plant in conformance with all provisions of Chapter 50 of Title 4, CBJ Administrative code.
2. All runoff from the site will be directed away from Lemon Creek and into an approved receiving water body.
3. Wash down water from the mixing trucks and the batch may need to be treated prior to disposal, and all discharges into a receiving water body must comply with state and federal regulations.
4. That a containment device complying with federal, state, and local standards shall be constructed and maintained around the oil storage area.
5. Advisory. The asphalt plant shall operate in accordance with all applicable federal, state and local environmental, health and safety standards including spill prevention, notification, and clean up.
6. Operations will comply with applicable standards as set forth by the Alaska Departments of Environmental Conservation and Fish & Game.

MOTION: *by Mr. Peters, to approve the Consent Agenda with any findings, analysis, and recommendations by staff.*

The motion passed with no objection

VII. CONSIDERATION OF ORDINANCES AND RESOLUTIONS - None

VIII. UNFINISHED BUSINESS

USE2016 0003: A Conditional Use Permit for an asphalt plant at the Alaska Marine Lines Yard.
 Applicant: Knik Construction Co., LLC.
 Location: 0 Jacobsen Drive

Staff Recommendation

Staff recommends that the Planning Commission adopt the Director's analysis and findings and grant the requested Conditional Use permit. The permit would allow the development of an asphalt plant and related stockpiling at the Alaska Marine Lines yard. The approval is subject to the following conditions:

- 1) *Prior to issuance of a building permit, the applicant shall submit a lighting plan illustrating the location and type of exterior lighting proposed for the development. Exterior lighting shall be designed and located to minimize offsite glare.*
- 2) *Prior to the issuance of a building permit, the applicant shall provide the final Stormwater Pollution Prevention Plan, in conformance with ADEC requirements, to ensure protection of adjacent waters.*

Ms. Camery explained this item is once again before the Commission primarily due to truck traffic concerns which the Commission felt still needed addressing. Since the last meeting the staff has received three public comments, said Ms. Camery, all expressing their concern over the truck traffic and its impact on South Franklin during already crowded conditions during the tourist season.

Since the last meeting the staff has also received revised traffic counts from the applicant, Knik Construction, said Ms. Camery. The staff received truck traffic estimates from the Department of Transportation (DOT) today, said Ms. Camery.

The applicant has refined their traffic counts to a reduced estimate of approximately 180 truck trips per day, said Ms. Camery. They also estimated a lower count on some projects of 108 trips per day, and of a larger project at 210 trips per day, she added.

DOT has provided counts of the number of articulated trucks and buses, based upon counts last year during the height of the summer season, said Ms. Camery. There were four large tourist ships in town that day, she said. The count was based upon traffic at Egan and Main Streets, she said. Total truck traffic that day was 195, with total bus traffic counted at 932 trips.

Applicant

Knik Construction representative Parry Rekers said they adjusted their truck traffic counts based upon a more realistic scenario. Their initial estimate had been based upon a worst case scenario, he added. Their current estimate is for 100 – 110 trucks a day, he said, over a 12 to 15 hour day. Their shifts actually work out to 10 to 12 hour days, he said. Mr. Rekers said if a day was heavily scheduled with cruise ships, that it would make sense to them to hold off for a less crowded day.

Commission Comments and Questions

Mr. Voelckers asked if the company had the type of flexibility to delay work on a project on heavy cruise ship days.

Mr. Rekers said they had some flexibility, especially if they could look ahead and plan for the anticipated busy traffic days.

Mr. Voelckers asked if asphalt in a truck needed to be off loaded within a set timeframe, or if it could sit in the truck if there were delays due to high traffic.

Mr. Rekers said it depended on the weather. Also, if they wanted asphalt to hold longer in a truck it would be extracted from the plant in a warmer state, he added.

Mr. LeVine asked how feasible it may be while the permit was still in effect for the company to acquire a larger asphalt plant enabling them to up their production of asphalt.

They had acquired a larger plant specifically for the Sitka Airport job, said Mr. Rekers. It was a big plant and they have subsequently sold it, he added.

Mr. Greene asked if the trucks worked continuously in a loop, disposing of the asphalt and then returning to the plant for more.

Mr. Rekers responded that their estimates were based upon round trips.

Mr. Greene asked if in addition there would be delivery trucks travelling to the plant with supply.

Mr. Rekers replied that they were primarily obtaining their supply through deliveries from Alaska Marine Yard, not via truck deliveries. The aggregate arrives on a barge, said Mr. Rekers.

Public Comment

Resident and Tour Operator Dennis Harris said that there is a need for asphalt to complete projects in Juneau. He told the Commission he felt this was the wrong plant in the wrong location. There are already enough problems with Alaska Marine Lines traffic making its way through the South Franklin tourist zone. He said there are already 407 north bound buses and 525 south bound busses proceeding through the area on a daily basis. There are 20,000 people coming into that area on a daily basis. He said asphalt trucks are smelly and dirty and that they drop asphalt on cars which is difficult to remove.

He said it was also a poor location from the operator's point of view because they have to continually stop for traffic as indicated by the traffic guards. It would more than double the existing truck traffic, said Mr. Harris.

Thane resident Paula Terrel said she just heard about this item over the weekend. The downtown business association did not know about this, she said. Tour operators and store owners were also not aware of this item, said Ms. Terrel. The truck traffic deeply impacts the downtown area and the tourist experience, she said. This is not a good place from which to generate truck traffic, she added. Ms. Terrel asked for more time to be taken on this item so that affected businesses and individuals would have more opportunity to comment.

South Franklin business owner Suzanne Cohen said their business would be impacted from the traffic proceeding by their business from the asphalt plant. She asked if other alternatives for the location of the plant could be located. Store owners work hard to make this a good experience for the visitors in the area, and loud, smelly trucks would detract from this experience, she said. She said she has looked at the schedule for the season and there are very few days with low tourist counts.

Annette Ulmer, with Tlingit and Haida Central Council, told the Commission that their concerns were based upon the high traffic which would be generated by the additional trucks in the area, and that they were concerned about the safety of the tourists and the Juneau residents in that area in the summer. There are already a significant amount of buses in the area transporting visitors from the downtown area into the community. The road near the Goldbelt tram is very narrow with numerous walking visitors, said Ms. Ulmer.

Marian Cummings, owner of M and M Tours, told the Commission that at a DOT meeting she just attended, that there had been discussion about losing one of the driving lanes near Willoughby Street which would further aggravate the traffic congestion. There are a lot of busses in the area, she said. She said she did not want to stop another business owner from progressing, but that she hoped another location for the plant could be identified, without the big impacts on the community.

Douglas resident Britt Waters said that she lives right across the channel from the barge lines, and that she was concerned about the hours of operation as they pertain to noise, which comes

right across the channel to Douglas. She said the current barge facility has large bright lights which also have a strong impact across the channel. She said she was also concerned about the environmental toxins generated when asphalt is made.

Resident Marciano Duran said he supported Knik as a business. He said the location of the plant and the traffic it would generate would create a bad situation in the already congested area. Mr. Marciano said they own property in Lemon Creek, which would be a better location for the plant. He said they have 27 acres which are adjacent to SECON, which may work for the company. He said as a community that another asphalt plant should be supported, and that a situation could be worked out where everyone benefited.

Applicant

Mr. Rekers said they would be interested in property located in the Lemon Creek area. He said they had asked the City if there was land available on the other side of town which could be used for their company, and were told there was not any land available. They have a temporary permit, which means they will have to move their operation in the future, said Mr. Rekers. They are not interested in fighting through the town traffic either, said Mr. Rekers. Transferring aggregate from a barge is not as noisy of an operation as offloading barges with freight, said Mr. Rekers. They would prefer to work at night, said Mr. Rekers, but were prevented from doing so due to the stipulated hours of operation.

Commission Comments and Questions

Mr. LeVine asked if there was a similar type of traffic analysis which could be performed on the roundabout portion of the street located near the library.

Ms. Camery responded that information does not currently exist, and that she is not sure what the process is regarding the accrual of additional information.

Mr. Peters said they have received several comments this evening regarding what those who commented felt was a lack of communication regarding this conditional use request. He asked about the public notice procedure for this permit.

Ms. Camery said they followed the standard procedure and notified those residing within 500 feet of the operation about the Conditional Use request. Notice of all Conditional Use Permit and Commission agenda items are also sent to all of the neighborhood associations, she said. The public notice sign is up at the location, and there have been several weeks that notices of the hearing have been posted in the newspaper as well, said Ms. Camery.

MOTION: *by Mr. Peters, that USE2016 0003 be approved with the staff analysis, findings and recommendations.*

Speaking in favor of the motion, Mr. Peters said that industrial land is very hard to come by in this community. He said he does acknowledge the concern of the individuals who gave public

testimony on the trouble of congestion in the high tourist area to which the additional trucks would contribute. This will continue to be a problem in the community, said Mr. Peters, until long term action could be taken such as putting in a deep water port on the other side of Douglas, and constructing a second crossing between Juneau and Douglas.

Mr. LeVine offered a friendly amendment accepted by Mr. Peters that the approval expires in two years, since the Knik operation was only two years in length.

Speaking against the motion, Mr. Voelckers said the Commission is just now obtaining a full grasp on the issue, which is the magnitude of the truck traffic and the fact that it must travel through the most congested stretch on South Franklin in the summer months. He said there may be options for the plant to be established in Lemon Creek, which would alleviate the additional congestion that the trucks would cause traveling through South Franklin.

Mr. LeVine said he concurs with Mr. Peters, that industrial zoned land is minimal in Juneau, and that there is a need for the asphalt provided by the business. There does not seem to be a way the Commission could make a condition on the amount of truck traffic generated by Knik. There is not an effective way under the current Conditional Use Permit to mitigate the effect the additional truck traffic would have on South Franklin, he said.

Mr. Greene asked if there was some way to limit the operation of the business, such as no truck traffic during the peak tourist months of June, July and August.

Mr. Voelckers said he had not seen any material indicating that action would be under the purview of the Commission. The obvious issue is those are the months when the peak paving season is underway in the community, he said.

Mr. Bell said he supports the goals of the applicant, and that from their perspective it would make sense to place it at the AML (Alaska Marine Lines) dock. He said he also appreciated and recognized the public's concerns about the congested traffic in the South Franklin area.

Mr. Frisby said he did have a problem granting the Conditional Use permit and that he felt they needed to perform more a more in depth analysis on the situation, and that the people that would be most affected by this business were not even aware of it. He said it would be a good thing to identify alternatives for the applicant, should any be available.

Roll Call Vote:

Yeas: Dye, Peters, Bell

Nays: LeVine, Frisby, Greene, Voelckers

The motion failed.

Mr. Voelckers asked the Commission if this meant that they were giving the applicant an appropriate period to consider other options or if there would be another motion.

MOTION: *by Mr. LeVine, that USE 2016 0003 be denied, and that they must therefore change the staff's affirmative finding regarding the permit. He said he would change the staff's findings on Criterion 4 that as currently presented, that this application is not within the harmony of the existing uses of the neighborhood.*

Mr. LeVine said he took no joy in making the motion for denial of the permit. He could see that it was an ideal location for the applicant. His preference would have been to grant the permit with mitigating measures, but that as it is written, the business would supply a lot of increased truck traffic through town, which he felt was inconsistent with the way the downtown area is used. He said he would encourage the applicant to identify a new location from which to operate their batch plant.

Roll Call Vote:

Yeas: LeVine, Frisby, Greene, Voelckers

Nays: Bell, Dye, Peters

The motion failed.

Mr. LeVine asked for immediate reconsideration of the motion, because they are stuck. Otherwise, he pointed out, they have a motion to approve the CUP (Conditional Use Permit) that failed, and a motion to deny the CUP that failed.

MOTION: *by Mr. LeVine, to reconsider his previous motion so they could proceed with the rest of the meeting.*

Explaining his motion, Mr. LeVine said they had denied a motion to approve the conditional Use Permit, and they had denied a motion to deny a Conditional Use Permit. A "yes" vote to this motion would be a reconsideration of the previous motion to deny the permit, he explained.

The motion to reconsider passed with no objection.

Mr. Bell asked Mr. Voelckers for his thoughts on this topic.

Mr. Voelckers said he supported the motion, because the Commission is currently at a stand-still with this issue. He said he felt they needed more time and more people to progress in one direction or other.

IX. REGULAR AGENDA

USE2016 0004 is rescheduled to the May 10, 2016 Regular Planning Commission meeting.

~~USE2016-0004: A Conditional Use Permit to extract/mine gravel from
patent lands in Hidden Valley, Lemon Creek.
Applicant: SECON, Inc.
Location: End of Anka Drive~~

Staff Recommendation

It is recommended that the Planning Commission adopt the Director's analysis and findings and **APPROVE** the requested Conditional Use permit. The permit would allow extraction of gravels from the Lemon Creek stream bed in the areas shown in the application for a 10 year period.

The approval is subject to the following conditions:

Annual Grading Permit and Bank Protection –

1. The operator shall maintain dry channel berms required by ADFG to prevent their breach.
2. Prior to issuance of the first year's grading permit and approval of the first year mining plan, the operator shall submit a bond of \$30,000, sufficient to perform any site remediation necessary to meet the conditions of this permit.
3. Prior to issuance of the first year's grading permit and approval of the first year mining plan, the operator shall submit evidence that the proposed activities under this permit would not invalidate use of the Upper Lemon Creek explosives storage as permitted by USE 2009-00018.
4. Each year, by February 28th, or other date agreed with CDD staff which takes into account the applicant's seasonal mining intentions, the applicant shall submit a draft mining plan. The plan shall be submitted to the CBJ Permit Center as a grading permit application. This is to enable BBJ and other external agencies to understand more specific aspects of the forthcoming operation that are not provided in this Conditional Use permit application although some of the documentation may be repeated. This plan will be reviewed by relevant CBJ departments and external agencies within 28 days of submission.

The mining plan shall take account of comments received regarding the annual inspection report. The mining plan shall be processed by the Engineering Department as an annual grading permit. The plan shall include:

- a. Estimation of material to be removed
 - b. Map of area to be worked (showing property lines and buffers)
 - c. Map showing location of proposed screening and gravel wash activities, on-site gravel storage locations, culverts, access roads, bridges, bank stabilizations, berm details (including height, location, material composition and removal plan) stream relocations and other proposed features.
 - d. Map showing designated site parking location for employees and visitors, and location of access easement for adjacent parcels.
 - e. Methods for protecting Lemon Creek from oil, fuel and hydraulic fluid (including leaks from heavy equipment) – This should include the project SWPPP documentation.
 - f. Methods for protecting Lemon Creek from sediment and turbidity both at the extraction site, and to Anka Street along access road. This should include the project SWPPP documentation.
 - g. Proposed inspection schedule by State of Alaska licensed Engineer and /or professionally recognized Hydrologist as per Conditions 10 and 11.
 - h. Copies of relevant permits from external agencies including, but not limited to, ADFG, ACOE, DNR and DEC.
5. To protect interests of neighboring property owners, prior to the commencement of mining, the applicant shall clearly delineate, in the field, the location of the access easement to adjacent properties. No work activities, except transportation of materials from the site and movement of vehicles/equipment, shall occur in the easement.
 6. For the purposes of habitat protection requirements in the CBJ Land Use code, as per the ADFG permit, the top of excavation slopes shall be prohibited within 30' of any active stream channels (or as required by the valid ADFG permit).
 7. To protect interests of neighboring property owners, the top of excavation slopes shall be prohibited 15 feet of the property lines. Prior to the commencement of mining, the applicant shall verify property line location and physically delineate buffer distance to the extraction area as required.
 8. For the purposes of habitat protection requirements in the CBJ Land Use code, as per the ADFG permit, prior to commencement of mining, an ADFG biologist should physically delineate the area allowed to be mined with respect to the

valid ADFG permit.

9. To ensure operations are consistent with the approved annual mining plan, the applicant shall directly hire, or pay permit inspection fees to provide for inspection of the mining area by State of Alaska licensed Engineer and/or appropriately licensed hydrologist.
10. Periodic inspections shall be made as determined by the engineer and/or hydrologist, sufficient to monitor the operation to ensure operations are consistent with the approved annual mining plan. Such periodic inspections shall include visits during or after high water events.
11. An Inspection report by a State of Alaska licensed Engineer and/or professionally recognized Hydrologist shall be submitted annually. The report shall be submitted to the Engineering Department and to the Community Development Department by November 31st each year, or a date agreed with CDD staff, in order for comments to be incorporated into the next annual mining report. The Inspection reports shall include the following information:
 - a. Volume of material removed
 - b. Map of area worked showing required buffers from active stream channel, property boundaries and stream banks
 - c. Verification of compliance with mining plan
 - d. Report of bank destabilizations
 - e. Results of sediment and turbidity monitoring
 - f. Opinion whether bank/property line setbacks are adequately protecting adjacent properties
 - g. Bank protection/stabilization measures if merited
12. The applicant/operator shall protect the structural integrity of existing stream banks and rip-rap banks. A no-disturbance zone of 15 feet horizontal distance from the toe of adjacent rip-rap and banks is required except as authorized for access points. (This condition is necessary because rip-rap boundaries may or may not correlate with property boundaries, as noted in the earlier requirement to mine 15 feet from property boundaries.)
13. The applicant shall protect all vegetated slopes outside of the severance zones and maintain a similar non-disturbance buffer identified in Condition 12, unless a site-specific engineering analysis indicates otherwise.
14. All cut-slopes on the creek bank shall be less than 2 horizontal to 1 vertical unless a site-specific engineering analysis proves that a steeper slope protects adjacent properties. This measure shall be integrated into the annual grading permit.

15. Excavated areas within the creek bed in Zone 2 must be clearly marked with warning signs to discourage users of Lemon Creek trail approaching the site.
16. If extraction operations cause ponding or retained water in the excavated area, the slope of the submerged working face shall not exceed a slope of 3:1 from the edge of the usual water line to a water depth of seven feet. This slope ratio may not be exceeded during extraction operations unless casual or easy access to the site is prevented by a fence, natural barriers, or both. This measure shall be integrated into the annual grading permit.
17. Alterations to the proposed access to the stream will require approval by the Community Development Department and the CBJ Engineering Department.

Project Expiration and Dates and Times of Operation -

18. Gravel operations shall be permitted year round.
19. Operating hours are limited to 7 am to 7 pm on weekdays and 9 a.m. to 7 p.m. on Saturdays (except on State, Federal, or Local Holidays) unless otherwise authorized by a permit from the CBJ Building Official.
20. The permit shall expire after 10 years.

Truck Traffic and Street Maintenance -

21. Truck traffic from the development shall be routed only through the Anka Street/Glacier Highway intersection.
22. To prevent water or load spillage from trucks, prior to leaving the applicants property, the transport truck bed, with the tailgate locked, shall be raised for a period based on the project engineer's visual assessment and approval.
23. The applicant shall inspect the traveled route for escaped material from the haul a minimum of once daily on any day material is hauled from the site.
24. The applicant shall sweep and clean Anka Street at the end of each day if any water or material has escaped, or if a major spill occurs.
25. The applicant shall immediately respond to any reasonable clean-up and mitigation requests during the from the project engineer, CBJ or ADOT.

Habitat Protection -

26. No sediment migration from the trucks or ramps shall be allowed in the waterway. Best Management Practices to control sediment shall be employed and documented in the SWPPP.
27. A suitably sized spill response kit shall be present on site during operations.
28. The applicant shall place any large woody debris encountered during excavation activities at the surface of the floodplain, upstream or adjacent to the excavation area to encourage gravel bar formation and/or side channel creation. The woody material shall be partially buried to anchor the material during high flows.
29. There shall be no on-site fueling or equipment maintenance performed within 100 feet of the creek banks. This includes fueling or maintenance of portable equipment such as generators and pumps.
30. There shall be no on-site storage of fuel or other chemicals 100 feet of the Ordinary High Water Mark (as defined by the CBJ Land Use Code).

SMP2016 0001: Preliminary plat for 24 common wall lots; the remaining land will be subdivided into two larger lots located at 7400 Glacier Highway and zoned D-18.

Applicant: Richard Harris

Location: 7400 Glacier Highway

Staff Recommendation

Staff recommends that the Planning Commission adopt the Director's analysis and findings and approve the Preliminary Plat for Ridgeview Subdivision. This approval would allow the applicant to submit for the Final Plat Application. We further recommend that the approval be subject to the following conditions:

1. The applicant must submit a revised preliminary plat with all required revisions for approval prior to the submittal of a final plat.
2. A Traffic Impact Analysis will be required at the development of Lot 13 and/or Track B1A to ensure adequate road capacity and design to meet forecasted use resulting from the proposed subdivision.
3. Per CBJ 49.35.210(a)(2), and CBJ 49.15.401(c)(4)(E)(ii), and the 2013 Comprehensive Plan Policy 10.4 Design Guidelines 1 and 2, the applicant must provide for street connectivity from Track B1A and Lot 13 to adjacent undeveloped properties.

4. The preliminary plat and final plat shall include the note that states that "A through connection to Vista del Sol Drive is required for the development of Tract B1A".
5. Per the Director's findings, the ROW for Wildview Court may be reduced from 60 ft. in width to 50 ft. in width, providing the applicant construct a sidewalk on the southern side of Wildview Court from Seymour Way through the extent of Lot 3.
6. The conditions and findings in the memo from General Engineering dated March 29, 2016 and found in Attachment H must be met prior to a final plat being accepted.
7. Per the Wetlands Review Board recommendation, the applicant must adhere to the CBJ Stormwater Manual of Best Management Practices, and that the applicant must submit a Stormwater Management Plan for approval prior to the submittal of the final plat.
8. Per CBJ 49.15.411, the preliminary plat requires the following revisions, in addition to those listed above:
 - a. (f)(2)(J) Setbacks must be shown on each lot;
 - b. (f)(5)(D, E, F) Easements must include ownership;
 - c. (f)(5)(I) Site access, circulation, and utilities – as phasing is proposed, the preliminary plat must submit a sketch plat of the prospective street system of Lot 13 and Tract B1A; the applicant has submitted a plat to Army Corps of Engineers with lots sketched for Lot 13);
 - d. (i)(4) Drainage report and calculations (drainage/grading plan sheet provided does not meet requirements);
 - e. (i)(6) Erosion control report must be submitted for approval prior to submittal of the final plat;
 - f. Revise Tract A to Track B1A in the plat notes.

Ms. Maclean told the Commission this was a preliminary plat for a major subdivision located at 7400 Glacier Highway which is zoned D-18. It is approximately 19.71 acres. The Comprehensive Plan future land use designation for this land is medium density residential zoning, which calls for residential zoning for multi dwelling units ranging from 5 to 20 units per acre, she said. The land is on CBJ water and sewer. The access is off of Glacier Highway, said Ms. Maclean. The existing use is forest and wetlands, she said.

This is the first subdivision to come before the Commission with the new regulations, said Ms. Maclean. A major subdivision is for 14 lots or more, said Ms. Maclean. It requires a two-step Commission planning approval process. The first is for the preliminary plat as is before the Commission this evening, said Ms. Maclean. With approval at the first stage, the subdivision request would then move on to the final plat, said Ms. Maclean. This preliminary plat is also for a common wall subdivision, said Ms. Maclean. That would create 24 common lots, with the addition of Lot 13 and Tract B1A totaling 26 lots, she added. The Commission would only see lots 1 – 12, Lot 13 and Tract B1A on the final plat, said Ms. Maclean. Once the contractor starts

constructing the common wall dwellings, they will be reviewed by the staff only, she said.

The lot is located next to the Vista Del Sol subdivision off of Glacier Highway, said Ms. Maclean. There is a mixture of zoning surrounding the land, from Rural Reserve to General Commercial zoning.

The applicant came to the CDD last year requesting a rezone of the land from D-5 to D-18 and Light Commercial. Since Light Commercial was inconsistent with the Comprehensive Plan land use maps, only D-18 zoning was approved by the CDD staff, said Ms. Maclean. In April of 2015, the Planning Commission found that D-18 zoning was not in keeping with the harmony of the neighborhood, and recommended denial of the rezone to the Assembly.

In June, 2015, the Assembly approved the rezone from D-5 to D-18, said Ms. Maclean. Where the land meets Vista Del Sol property, said Ms. Maclean, the rules state the applicant must meet the greater requirements for setbacks, which in this case would be 20 feet, said Ms. Maclean. She noted this is just a setback, not a buffer, so that it could be clear cut by the applicant if desired.

The minimum lot width is 50 feet, with side setbacks at five feet, said Ms. Maclean. The maximum lot coverage is 50 percent, said Ms. Maclean. The applicant is not developing the property to its maximum units within the zone, coming in at more of a D-10 zoning than D-18 zoning, noted Ms. Maclean. The total parcel of 19.71 acres has a total build-out potential of 355 dwelling units, said Ms. Maclean.

There are three large drainage avenues which traverse the hillside from north to south, noted Ms. Maclean.

At this time General Engineering was unable to complete the initial review due to inadequate storm drainage sizing, said Ms. Maclean. They do believe the drainage can be constructed to CBJ standards, said Ms. Maclean.

The total amount of wetlands is 4.72 acres which is about one quarter of the site, said Ms. Maclean. There are also four small perennial streams which depart the site at the lower edge of the property at the Glacier Highway edge, she said. There are no known habitats that are protected by the land use code other than the wetlands, said Ms. Maclean. Access will be granted through two new rights-of-way which will be built to CBJ standards, said Ms. Maclean. Those roads would later be adopted by the CBJ, said Ms. Maclean. Seymour Way is the 60 foot right-of-way entering off of Glacier Highway, said Ms. Maclean. For this stage of development, the road is 65 feet in length with adequate frontage for both Tract B1A and Lot 13, she added.

The first proposed development for this parcel of Wildview Court with 24 common wall dwelling units falls under the condominium townhouse category for the determination of average daily trips, said Ms. Maclean. The weekday trips are about 140 average daily trips with Saturdays and Sundays having lower numbers. These numbers at this point do not require a traffic impact analysis, said Ms. Maclean. The right-of-way, street designs and improvements do meet the code, she said. The applicant is requesting that the sixty foot right-of-way be

reduced to 50 feet, said Ms. Maclean.

The 50 right-of-way to Wildview Court does provide adequate room for utilities and easements, said Ms. Maclean. The driveways must be constructed to accommodate elevations of future sidewalks, which they do, she noted. If the right-of-way was reduced to 50 feet, the applicant states they will construct one sidewalk on the southern side of Wildview Court, said Ms. Maclean. There is sufficient room for snow storage, and additional right-of-way width is not necessary to access abutting lands. The Director approves the reduction from 60 to 50 feet, said Ms. Maclean.

Seymour Way is the main entrance off of Glacier Highway, said Ms. Maclean. Without a plan for the development of Lot B1A and Lot 13, the staff finds that the build-out of these parcels at 18 units per acre is approximately 324 units, said Ms. Maclean. Depending on the development of these lots, a traffic impact analysis may or may not be required at the next phase, she said. Street lights will be required at Wildview Court and Glacier Highway, with sidewalks on both sides of the 60 foot wide street, she said.

The staff received comments from DOT in February that at this time a traffic impact analysis is not likely, but future development in the area may require it, said Ms. Maclean. The applicant has already begun the process for an approach road permit, she said. DOT would also need documentation that any construction activity would not negatively affect these culverts, said Ms. Maclean. The U.S. Fish and Wildlife Service stressed that the storm water manual on best practices be adhered to by the applicant, said Ms. Maclean. They also received two comments from the public which were not in support of the project, she said. One of those letters is signed by 16 Vista Del Sol Residents, she said. Both of those communications stressed the need for a natural buffer between the two properties, not just a 20 foot setback, said Ms. Maclean. They were also against a through connection to Vista Del Sol Drive, she added.

While several of the findings for this project were not met at this time, the staff felt that those findings could be met if revisions by the staff are completed, said Ms. Maclean.

Approval of this preliminary plat will allow the applicant to submit their final plat application, said Ms. Maclean.

Commission Comments and Questions

Mr. Voelckers asked what the Commission would be approving now and what would they approve later with the final plat. He asked if the issue of buffer instead of setback would be reviewed by the Commission during the final plat or if that should be decided upon at this juncture in the process.

Ms. Maclean said the preliminary approval involves approval of lots 1 – 12 which are common wall lots, and Lot 13 and Tract B1A. The Commission would be approving the plat for 26 lots, she said. If the Commission wished to establish a buffer between the proposed subdivision and Vista Del Sol, they could stipulate that during the preliminary plat process, she said.

Mr. Voelckers said there had been concerns expressed about drainage on the property, but that

the maps did not show that level of specificity. He said he did not know if this was the time to go into that amount of detail.

Mr. LeVine said that this is a preliminary plat that as it exists does not satisfy the standards for a preliminary plat, and yet they were being asked to approve the preliminary plat assuming that the conditions suggested by the staff would be met. He asked if there was a reason why they were seeing this preliminary plat before it was a complete preliminary plat.

Ms. Maclean said as she mentioned at the beginning this is the first major subdivision to come before the Commission under the new regulation. As they were working through the process with the applicant, these questions arose about what would be required at this time for the preliminary plat, and about what would be needed if the preliminary plat was approved. They would move forward with that information at the final plat level, she said.

Mr. LeVine asked if the staff was asking the Commission to decide if it needed to review the outstanding items, in order to make a decision on the preliminary plat.

They could leave those issues such as drainage up to the staff, or they could choose to first see that report, said Ms. Maclean.

Ms. McKibben clarified that the recommendation in the report is that it would not come back to the Commission for review prior to the final approval of the plat. She clarified that the Commission could choose to view this information if it desired.

Mr. LeVine said as he understood the recommendation from the staff, it was to approve a preliminary plat that does not comport with all the recommendations, but might once the Director approved the revised preliminary plat.

If the information in the conditions was approved then it would comply, said Ms. Maclean.

Mr. Voelckers said for a site of this gradient there was supposed to be a two foot topographic map. He said in their packet all they had was a grainy ten foot contour map. He asked if there was more information not yet viewed by the Commission which has more detail about the proposed development.

Ms. Maclean said the drawing that Mr. Voelckers viewed was from Mr. King, an engineer with the City, not the applicant's engineer. She said she believed the drawings were formulated by the Engineering Department to back up what Mr. King was stating in his written memo.

Applicant

Mr. Richard Harris showed the Commission a contour map of the parcel. He said at the preliminary plat phase that there were still items which needed to be worked out with the Engineering Department, but that he did not know if those items should be labeled as conditions of a preliminary plat. He said that was just his interpretation of the subdivision ordinance in Title 49. They are not unplatted, so do not need to meet the requirements for unplatted parcels, he said. They intend to meet all of the requirements for engineering, said Mr. Harris.

Commission Comments and Questions

Mr. Voelckers asked if Mr. Harris could offer insight on the lower boundary of lots 4, 5, and 6 which were located near the adjoining property, in light of the testimony they had received about buffers and drainage.

They were required to basically design the entire drainage for the subdivision, as well as street design, said Mr. Harris. The drainage will work and does work and an engineer is signing off that it is adequate, said Mr. Harris. He said he felt they were muddying up a preliminary plat approval by adding all of the engineering issues to the initial preliminary plat approval. They fully intend to meet any requirements specified by the Engineering Department, said Mr. Harris.

Public Comment

Co-developer of the adjacent subdivision, Vista Del Sol, Josette Duran, read a letter signed by the subdivision residents which stated they did not feel the proposed development allowed an acceptable amount of privacy for their neighborhood. The recent rezone of the proposed subdivision from D-5 to D-18 against Planning Commission recommendations is out of harmony with property on both sides of the parcel, she read. There should be conditions to shield the neighbors from the impacts of the development, she read, which she said was verbiage taken from the Comprehensive Plan.

The 20 foot easement between the neighborhoods, since there is no provision for any vegetation to remain within the easement, is inadequate to provide the required privacy, she said. The proposed parcel has sufficient acreage for a more effective natural vegetative buffer, said Ms. Duran. She said a similar rezone down the road required a 200 foot natural buffer with the density reduced to D-6 directly adjacent to the D-5 neighborhood. They would like an adequate buffer provided for all of the adjacent properties, she said, that preserves the natural vegetation.

Ms. Duran said when Vista Del Sol was developed, that the preliminary plat required that there be no disturbance along the drainage line between the two properties. They are also opposed to the staff recommendation which she said is being removed, to the requirement of road connectivity between the proposed subdivision and Vista Del Sol. The code calls for adjacent roads to be provided to adjacent undeveloped parcels, and Vista Del Sol is a developed parcel, she said.

Marciano Duran, co-developer of the adjacent subdivision, said he felt there were more questions than answers on the preliminary plat. He said he did not see how the Commission could approve what was before it without all of the items which were still not meeting conditions unresolved. The hillside development is not the proper use for the parcel, he said. The typography of the land needed to be given closer scrutiny, he said.

The proper drainage for the subdivision needed to be addressed, said Mr. Duran. He said he saw no requirements for an on-site sediment pond, as was required of his subdivision. There should be a no disturbance area along the property line, said Mr. Duran. It will be necessary to

have an Army Corps of Engineers permit to build on the wetlands, he said. There is no mitigation proposed for the wetlands, he said. He noted in the applicant's application to the Corps that a line was drawn pointing to the Vista Del Sol sediment pond. Mr. Duran said there is enough land that a good proposal could be developed.

Commission Comments and Questions

Mr. Voelckers asked Mr. Duran to clarify what he mentioned about the no disturbance line required for his property. He asked how wide it was, and the circumstance under which it was imposed. The Commission at the time felt that a no disturbance from the creek on the property line should be required. This is the creek which runs between the property lines, said Mr. Duran.

Applicant

Mr. Harris said this is not a hillside development. They are working at a 6.5 percent grade. He said they are fully aware that the top of the hill is steep, and as they develop further they will have to deal with it, he said. The Assembly did not impose any buffers, said Mr. Harris, at the time the zone change was before them.

The Engineering Department approves the development, said Mr. Harris, as long as they meet the Engineering Department requirements, which they fully intend to do. They already have an Army Corps of Engineers approval, said Mr. Harris.

Mr. Voelckers asked if any on site mitigation was required by the Corps.

Mr. Harris said that no mitigating measures were required. This housing meets a community need, said Mr. Harris. Even the Corps recognized this, he said. Mr. Harris said it really says something about the process that he would already have received an Army Corps of Engineers permit and was just now making it before the Commission. Their subdivision is being built way below what it could be and he did not see why this should be a problem with the developers of the Vista Del Sol subdivision.

Mr. Voelckers asked if Mr. Harris could relate what would happen within the 20 foot setback between the subdivisions.

Mr. Harris said he did not know what would be within the easement; that the engineers were still figuring it out.

Mr. Greene said there seemed to be a lot of contradiction within the memo from the City Engineer. He asked if it would be appropriate to go back to that engineer for clarification on the unresolved points.

Commission Comments and Questions

Mr. Voelckers asked if Ms. Maclean felt all the matters within the Engineer's report were resolved.

Ms. Maclean said she does know that Mr. King has concerns, and that she did know that he has also stated that this development could work as proposed as long as the drainage, storm water

and the calculations meet the code. She said she knew Mr. King had some ideas on how to go about that.

Mr. King's memo mentioned something about how in no case could the City accept the responsibility for the varied culvert features, said Mr. Voelckers. He said he did not think that would be the City's responsibility in any case.

Ms. Maclean said Seymour Way and Wildview Court are proposed to be adopted by the CBJ once they are constructed to CBJ standards. He did refer to a particular drainage ditch and state that it would need to remain under the ownership of the developer, said Ms. Maclean.

MOTION: *by Mr. Peters, to approve SMP2016 0001, the preliminary plat for Ridgeview Subdivision, with the findings, recommendations and analysis as outlined by staff.*

Speaking in favor of his motion, Mr. Peters said this is a preliminary plat at the initial stages, and that the applicant and the staff have clearly outlined what the next stage of the process will be. Housing is needed in this community, said Mr. Peters.

Mr. LeVine offered a friendly amendment to the motion altering Condition 1 to replace "by staff" with "by the Planning Commission".

Mr. Peters asked Mr. LeVine if he really felt this was necessary.

In support of his proffered amendment, Mr. LeVine said that his concern is that he is not sure if the question of the nature of the buffer and the drainage is something that the Commission can resolve at this point. He said he was also uncomfortable with a previous conversation with staff about what it means to have an approval of a preliminary plat that does not satisfy the requirements for a preliminary plat. He added he was concerned about creating some sort of precedent where the approval from the Commission of a preliminary plat subject to conditions that have not yet been met would be meaningless. He said for him this is much more a procedural rather than a substantive concern.

Mr. Peters did not accept the friendly amendment offered by Mr. LeVine. He said at this preliminary stage he felt the staff and applicant should work out the necessary conditions.

Mr. LeVine then offered his amendment to the Commission so they could vote on it; that Condition 1 be altered to replace "by staff" with "by the Planning Commission".

Roll Call Vote on the amendment:

Yeas: Greene, Bell, LeVine, Voelckers

Nays: Dye, Frisby, Peters

The motion failed.

Roll Call Vote on the main motion: *(to approve SMP2016 0001, the preliminary plat for Ridgeview Subdivision, with the findings, recommendations and analysis as outlined by staff).*

Ayes: Bell, Dye, Frisby, Peters, Greene,

Nays: LeVine, Voelckers

The motion passed.

X. BOARD OF ADJUSTMENT

The Commission reconvened as the Board of Adjustment.

VAR2016 0002; 0005: Variance requests to reduce the rear yard setback from 15 feet to 0.81 feet and the side yard setback from 5 feet to 0.81 feet.

Applicant: Joseph and Brenda Donohue

Location: 2515 Sunset Drive

Staff Recommendation

Staff recommends that the Board of Adjustment adopts the Director's analysis and findings and **DENY** the requested Variance, VAR2016 0002 for the reduction of the rear yard setback.

Staff Recommendation

Staff recommends that the Board of Adjustment adopts the Director's analysis and findings and **DENY** the requested Variance, VAR2016 0005, for the reduction of the side yard setback.

Mr. Dye said that while he had no conflict, he did want the Commission to know that he lived next to this property, but that he does not own it, and does not have any connections with this agenda item.

Ms. Eddins told the Commission these are two setback requests combined because they are for the same property. The lot is zoned D-15 for multi residential zoning. The home was built in 2005 and the common wall subdivision of the property took place in 2006, said Ms. Eddins. The owners bought the property in 2012 and have inherited these setback encroachment issues, she explained.

The City Building Inspector examined the home and upon measuring it, established that the small retaining wall on the property did not violate setback requirements, said Ms. Eddins. The Building Inspector determined that the sheds did need building permits. Ms. Eddins said this is because the sheds at one time shared one roof. Since they were under one roof, their overall square footage was over 120 square feet, said Ms. Eddins. That square footage requires a building permit, she said. The larger shed had electricity, and any structure, regardless of its size, requires a building permit if it is wired for electricity, said Ms. Eddins.

Since the deck is less than 30 inches above grade, no building permit is required, said Ms. Eddins.

After work by the applicants, the Building Inspector returned to the site. The shared roof of the two sheds had been removed, as was the electricity from the shed which had it, eliminating the need for a building permit, said Ms. Eddins. The remaining issues to be resolved are the setback encroachment issues at the rear of the property and on the side, said Ms. Eddins. The code allows for the encroachment of unheated structures to encroach into setbacks, said Ms. Eddins. Therefore the smaller shed can encroach into the rear yard setback, said Ms. Eddins. It can be no closer than three feet from the property line, she added. The larger shed is encroaching both into the rear yard and side yard setbacks, said Ms. Eddins. It needs to be moved three feet from those side and rear yard setbacks, said Ms. Eddins.

The deck needs to be five feet from each of the side setbacks, said Ms. Eddins. The roof eaves need to be at least two feet from the side or rear lot lines, said Ms. Eddins, and it appears that they are encroaching.

Commission Comments and Questions

Mr. Voelckers stated that in this unique instance where properties shared a lot line, those setbacks would not be required along the shared lot line.

Ms. Eddins acknowledged that Mr. Voelckers was correct. A setback is not required on the shared lot line.

The staff finds that Criterion 1 has been met, said Ms. Eddins. While granting a variance would provide substantial relief to the property owner, the majority of the accessory structures do not meet the setback requirements, said Ms. Eddins.

Criterion 2 is not met because the requirement of setbacks is a primary way to make sure there is adequate space, light and air, said Ms. Eddins. Criteria 3 and 4 have been met, she said. Criterion 5 has not been met, she said. Criterion 6 has also not been met, said Ms. Eddins. The staff finds there are no unique physical features about the property that would make compliance difficult, she said. Criterion 6 is not applicable, since the existing structures were built within the setback illegally and there is no nonconforming situation, she said.

There is nothing that indicates that allowing the sheds to remain where they are would result in any benefits to the neighborhood should the variances be granted, she said. Therefore, the staff recommends denial of both variance requests, said Ms. Eddins. Should the Commission want to grant the variances, the staff recommends two conditions: that the roof eaves of the two sheds are brought into compliance with Title 49, and that a new asbuilt showing the location of the eaves be provided to CDD within 18 months of the variance being approved, said Ms. Eddins.

Mr. Voelckers said that according to the individuals who initially brought the variance issue to light that drainage was listed as the primary problem.

Fill was never brought in to the lot in question, said Ms. Eddins, while it was brought in for the neighboring properties, which has resulted in drainage issues for that property. The Engineering Department does not think the existence of the shed and the deck has any impact on the neighbor's drainage, said Ms. Eddins.

Mr. Voelckers asked if there was a graphic available to illustrate the problem the neighbors were experiencing with their drainage. Mr. Voelckers said he could not understand the specific change to the drainage the neighbors had recommended. The applicants have met all of the stormwater runoff requirements, said Ms. Eddins.

Mr. Dye noted that there are other connecting decks within the neighborhood.

Ms. McKibben noted that the setbacks in the staff report were for a standard D-5 lot, not a common wall lot. There is a zero setback on the common line, said Ms. McKibben, and a ten foot side yard setback on the opposite side yard. Viewing the asbuilt, it is evident that one of the sheds can rest upon the shared sideline, she said. The shed that is not located along the shared line must have a ten foot setback, she explained. The findings would not change as a result of this revised analysis, she said. The staff recommendation would still be for denial of the variance, she stated.

The deck, as it rests along the common lot line, would not need to be removed, verified Ms. McKibben in answer to a question from Mr. Dye. The portion of the deck residing on the opposite side of the property would need to be 10 feet from the lot line, stated Ms. Eddins.

Ms. McKibben added that in order for the sheds to meet the rear setback requirement, a portion of the deck abutting the sheds would need to be removed.

Applicant

Applicant Brenda Donohue said the deck was constructed after they bought the property and that the builder must have made a mistake when checking the setback requirements. She said she understood they would need to make some adjustments with the shed that is not in compliance.

Commission Comments and Questions

Mr. Voelckers asked if the applicant could offer insight into the drainage situation.

Ms. Donohue said each winter the retaining wall constructed of concrete blocks began to crumble. With the concurrence of the neighbor they built a retaining wall along the common lot line. The contractor who did the job left the neighbor's yard in bad shape when the job was complete as a result of using it for access to the job site. They subsequently settled out of court, said Ms. Donohue. This same contractor distributed a lot of dirt that would not drain, exacerbating the neighbor's drainage problem, said Ms. Donohue.

Mr. Greene asked that the staff reiterate the issues before the Commission.

Ms. Eddins verified that the sideline for the deck on the side yard opposite the common wall is ten feet.

Mr. Greene said he felt allowing the variance would be setting a precedent for future requests of a similar nature.

Acknowledging that this could be so to some extent, Mr. Voelckers said it would not be legally binding upon the next circumstance. He said it certainly was a consideration.

Mr. Peters clarified that if the necessary actions were taken by the applicant regarding the movement of the sheds and the narrowing of the deck then a variance would not be required.

Ms. Eddins said under those circumstances a variance would not be required.

Mr. LeVine said he thought the right hand shed would still be out of compliance with the rear yard setback.

Ms. Eddins concurred.

MOTION: *by Mr. Peters, to approve VAR2016 0002 and VAR2016 0005 if the applicants were amendable to removing the deck ten feet from the non-shared side yard and relocated the 10 by 12 foot shed, that the Commission approve a variance for the back yard setback and for the other shed to remain as long as the drainage is not affecting the other property owner.*

Mr. LeVine asked if the two variances were for the different sheds or if they were for different setbacks. He asked which of the variances was for the rear yard setback.

Ms. Eddins said it was VAR2016 0002.

Mr. LeVine clarified that the motion of Mr. Peters was to grant VAR2016 0002 and deny VAR2016 0005.

Mr. LeVine asked how they should amend the findings in the staff report. He said he has a lot of sympathy for someone who has inherited this problem and that he would like to reach an agreeable compromise.

Mr. Peters said he thought that Criterion 1 could be met if the applicants were willing to relocate the 10 by 12 shed, and that he would be amenable to having a three foot yard setback variance be approved.

Ms. Eddins said by approving a rear yard setback the Commission would be approving a setback that would be reduced to 0.81 feet. Therefore it would not need to be moved up three feet, she said.

Mr. Peters said that was the intent of his motion.

Mr. LeVine asked what the requirement was regarding roof eaves.

For every foot of setback, a roof eave can project into the setback four inches, said Ms. Eddins, but it cannot be closer than two feet.

The condition could read “There shall be no roof eaves”, said Mr. LeVine.

Ms. Eddins concurred.

Mr. Voelckers said the eave from the rear shed should not be an issue since it does not hang over the side lot line.

Ms. Eddins said this is correct.

Mr. Voelckers offered some additional language for the motion of Mr. Peters on the floor. He said the first criterion was satisfied because relaxation would provide considerable relief to the property owner, and should not create any dissonance in the neighborhood.

Criterion 2 was met because aside from some possible work on the drainage issue, there were no substantive issues of public safety and that they were addressing an anomalous condition that was inherited by an owner who purchased the property in good faith, said Mr. Voelckers. Mr. Voelckers said that he felt that item (C) within Criterion 5 would be met as if not granted it would be, “...unnecessarily burdensome because the unique physical features of the property would render compliance with the standards unreasonably expensive”. Staff notes that given the history of the property the applicant has inherited a condition they are trying to remedy.

Criterion 6 stipulates that a granting of the variance would result in more benefits than detriments to the neighborhood. Mr. Voelckers said that could be answered with a “yes”. The benefit would be harmony, and a reasonable compromise, he said.

Mr. Peters accepted the criteria adjustments of Mr. Voelckers for his motion on the floor.

Ms. McKibben clarified this is for VAR2016 0002 for the rear yard setback.

FINAL MOTION: *by Mr. Peters, with revised findings by Mr. Voelckers, that VAR2016 0002 be approved, and VAR2016 0005 be denied, and that the motion reflects the revised findings as outlined by Mr. Voelckers.*

Roll Call Vote:

Yeas: Frisby, Bell, Dye, Peters, Greene, Voelckers

Nays: LeVine

The motion passed.

VAR2016 0003: Variance request to reduce the lot depth requirement from 85 feet to 68.75 feet to allow a two lot subdivision.
 Applicant: Rand E. Thatcher
 Location: 8479 Mendenhall Loop Road

Staff Recommendation

Staff recommends that the Board of Adjustment adopt the Director's analysis and findings, and **DENY** the requested Variance, VAR2016 0003.

The parcel is within a D-5 zone, said Ms. Eddins. The lot is located on a little over one half acre, she said, and is currently zoned as a single family home. The home is located near Mendenhall River School, said Ms. Eddins. The staff finds that sub Criterion 5A is not met, said Ms. Eddins, which would "unreasonably prevent the owner from using the property for a permissible principle use". Sub Criterion 5B was met, as the proposed lot and the requested variance does meet the minimum lot size requirements in Title 49 as well as the road frontage requirements, said Ms. Eddins. The staff finds that sub Criteria 5(C) has not been met, said Ms. Eddins. There are not unique physical features of the lot, she added. Sub Criterion 5(D) has been met, as analyzed by the staff, said Ms. Eddins. The maximum density in the area allows two dwelling units on a lot this size, said Ms. Eddins. They do not foresee much impact on the surrounding neighborhood, she said. Criterion 6 is met, said Ms. Eddins, due to the favorable location of the lot near a school, bus lines and sidewalks.

Due to not meeting Criterion one, specifically, the staff found that this variance request does not meet all the criteria for a variance, said Ms. Eddins. They recommend denial of the variance, she said.

Applicant

Applicant Kathy Thatcher said they are requesting the lot depth be reduced so they can subdivide their land into two separate lots. Ms. Thatcher said she did not agree with not meeting Criterion 1. She said she felt the analysis was weak on that item and that it is very subjective. Other property owners in the area had been granted variances, said Ms. Thatcher, not putting their request out of line with other property in the area.

Granting a variance for this property would be providing additional housing and relief to the community, said Ms. Thatcher. The property had already been granted a lot variance in 1976, said Ms. Thatcher.

MOTION: *by Mr. LeVine, to approve VAR2016 0003 and accept staff's findings with the exceptions of deleting the last line of the staff report under finding number 1 and change it to read "Yes, this criterion had been met", and that the variance not stipulate the lot depth requirement but state that it be "reduced from 85 feet to allow this subdivision".*

In support of his motion Mr. LeVine said the one other exception he has with the variance is that he would like the variance not to be to reduce the lot depth requirement from 85 feet to 68.75 feet but simply to allow the variance to reduce the lot depth requirement from 85 feet to allow this subdivision.

Speaking in favor of his motion, Mr. LeVine said that the staff has done an excellent job on its report, but that given the fact that there are similar subdivisions that do not meet the depth requirement in the vicinity, and that the applicant had purchased a lot that already had this depth reduced, coupled with the fact that the subdivision will actually result in a new lot that meets the requirements, makes him in favor of changing that first criterion to a "yes".

The motion was unanimously approved.

The Board of Adjustment adjourned and was reconvened as the Planning Commission.

XI. OTHER BUSINESS - None

XII. DIRECTOR'S REPORT

New City Assistant Attorney

Mr. Palmer introduced new Assistant City Attorney Trinidad Contreras.

Landscape Alaska Appeal, Haven House Appeal, Yankee Appeal

Mr. Palmer added that about two weeks ago the final brief was submitted to the Alaska Supreme Court regarding the Landscape Alaska appeal. Oral argument has now transpired on the Haven House appeal at Superior Court. The judge has roughly five months to decide that case, said Mr. Palmer. The Yankee appeal regarding a fence on land off the Back Loop Road has now gone to the Alaska Supreme court, said Mr. Palmer.

Subdivision Review Committee Meetings

Mr. Steedle said Ms. Boyce requested Subdivision Review Committee meetings in May, as she has several subdivisions waiting.

The Commission members on that committee are Mr. Voelckers, Mr. Peters and Mr. Dye, with Mr. LeVine as an alternate, said Mr. Steedle.

XIII. REPORT OF REGULAR AND SPECIAL COMMITTEES - None

XIV. PLANNING COMMISSION COMMENTS AND QUESTIONS - None

XV. ADJOURNMENT

The meeting was adjourned at 10:26 p.m.



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

PLANNING COMMISSION NOTICE OF DECISION

Date: May 27, 2016

File No.: USE2016 0013

Seaweed Ventures
2315 Industrial Boulevard
Juneau, AK 99801

Application For: Marijuana Cultivation Facility
Legal Description: Mason Industrial Park 2 LT 7A1
Property Address: 2315 Industrial Boulevard
Parcel Code No.: 4-B17-0-108-007-1
Hearing Date: May 24, 2016

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated May 11, 2016 and approved the development of a marijuana cultivation facility at 2315 Industrial Boulevard to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Parking spaces shall meet CBJ 49.40.210(b)(1); 8 spaces including 1 ADA signed space shall be marked and maintained. A parking and circulation plan shall be submitted with the building permit application.
2. The applicant shall pass all CBJ Fire Marshall inspections.
3. No offsite glare shall be produced by exterior doorway lights.
4. Security cameras shall have an unobstructed view of each doorway to the processing building and cultivation building.
5. Security cameras shall have an unobstructed view of the regular activity without sight blockage from lighting hoods, fixtures, or other equipment in the processing building and cultivation building.
6. Security cameras shall have a battery back-up system installed that operates for a minimum of 24 hours; all batteries must be replaced annually.
7. Prior to the issuance of a Certificate of Occupancy, all security devices shall be inspected to ensure they are fully operational and required signage displayed.

Attachments: May 11, 2016 memorandum from Chrissy Steadman, Community Development, to the CBJ Planning Commission regarding USE2016 0013.

Genuine Ventures, LLC
 File No.: USE2016 0013
 May 27, 2016
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This Notice of Decision does not authorize construction activity. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

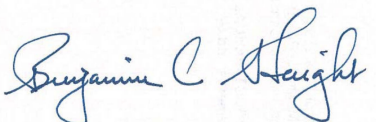
This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Effective Date: The permit is effective upon approval by the Commission, May 24, 2016.

Expiration Date: The permit will expire 18 months after the effective date, or November 24, 2017 if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the development permit was authorized. Application for permit extension must be submitted thirty days prior to the expiration date.

Project Planner:


 Chrissy Steadman, Planner II
 Community Development Department


 Ben Haight, Chair
 Planning Commission


 Filed With City Clerk

June 3, 2016

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



Community Development

City & Borough of Juneau • Community Development
 155 S. Seward Street • Juneau, AK 99801
 (907) 586-0715 Phone • (907) 586-4529 Fax

DATE: May 11, 2016

TO: Planning Commission

FROM: Chrissy Steadman, Planner *Chris Steadman*
 Community Development Department

FILE NO.: USE2016 0013

PROPOSAL: Conditional Use permit for marijuana cultivation in the Industrial zone.

GENERAL INFORMATION

Applicant: Top Hat, LLC

Property Owner: Genuine Ventures, LLC

Property Address: 2315 Industrial Boulevard

Legal Description: Mason Industrial Park 2 Lot 7A1

Parcel Code Number: 4-B17-0-108-007-1

Site Size: 15,148 square feet

Comprehensive Plan Future Land Use Designation: Heavy Industrial (HI)

Zoning: Industrial (I)

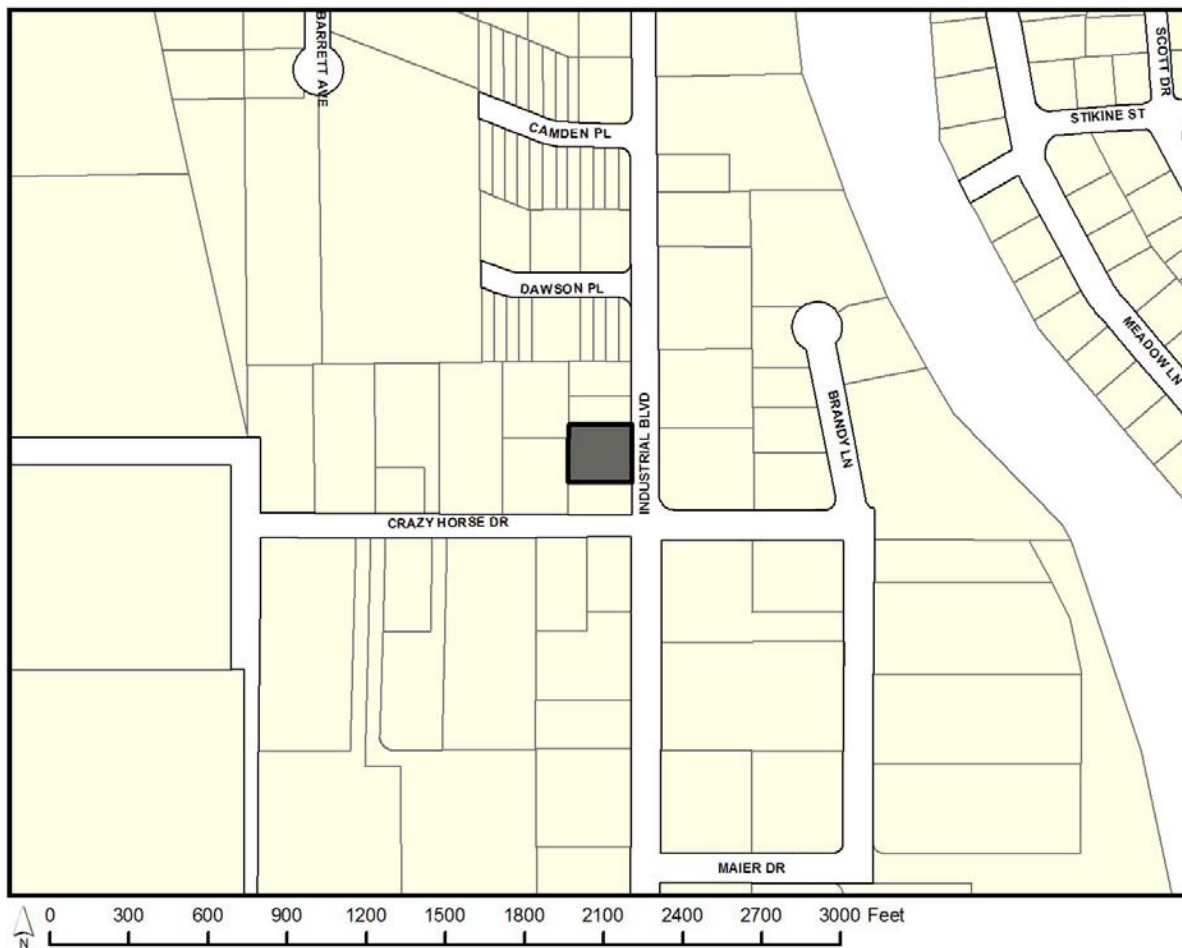
Utilities: City Water and Sewer

Access: Industrial Boulevard

Existing Land Use: Warehouse

Surrounding Land Use:	North	-	Industrial/Vacant
	South	-	Industrial/Auto repair
	East	-	Industrial/Industrial Blvd/Vacant
	West	-	Industrial/Lumber mill

Vicinity Map



ATTACHMENTS

- Attachment A: Conditional Use Permit Application
- Attachment B: Narrative
- Attachment C: As-Built Survey
- Attachment D: Floor Plan & Security Plan
- Attachment E: Photos of Warehouse
- Attachment F: Public Comment
- Attachment G: Public Notice

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PROJECT DESCRIPTION

The applicant requests a Conditional Use permit for the development of a 1,600 square foot marijuana cultivation facility in the Industrial Zone.

BACKGROUND

The building for the proposed marijuana cultivation and product manufacturing was originally used for an auto repair business. The structure on the south side of the lot is used for seafood processing and has a caretaker apartment on the second floor. The applicant has stated that an employee of the seafood processing business is currently the caretaker and they intend to only have employees of either facility as caretakers.

The site was granted a Variance in 2001 with VAR2001 00019 to the rear yard setback of 10 feet to 4.3 feet to construct an enclosure that runs between the two buildings. The two original buildings were constructed in 1984.

Ordinance 2015—38, the Special Use Regulations for Marijuana Establishments, was passed by the Assembly on May 2, 2016 and becomes effective on June 2, 2016. This permit has been reviewed for conformity with the regulations contained in that ordinance. The applicant has addressed the marijuana specific conditional use permit application submittal requirements in their application as demonstrated in the listed attachments to this report.

ANALYSIS

Project Site - The subject lot was platted in 1985 as part of a lot consolidation of lots 7A and 8A. The As-built survey provided in attachment C identifies the original two lots that were later consolidated. The subject lot is 120 feet wide and 126.17 feet in length, totaling 15,148 square feet. The minimum lot size in the Industrial Zone is 2,000 square feet.

There are two structures on the lot. The building on the north side of the property is proposed to be used for the marijuana cultivation and product manufacturing facility. There would be no other uses in the structure. That structure is 100 feet by 40 feet. The northern corner of the building is two feet from the rear lot line and the southern rear corner of the building is 2.6 feet from the rear property line.

The second structure on the southern portion of the lot is 75 feet by 35 feet. This northern rear corner of this structure is 4.4 feet from the rear property line and the southern rear corner is 4.5 feet from the rear property line.

Setbacks in the Industrial zone are ten feet on the front and rear yards and zero feet on the side

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yards. When the buildings were constructed there were no side or rear yard setbacks and there was a 20 foot front yard setback in the Industrial Zone. The structures meet those setback requirements and are therefore legally nonconforming. The structure to the north will be renovated for the cultivation and product manufacturing facility. There will be no changes to the footprint of the building. None of the marijuana uses will occur in the structure on the south end of the lot.

Project Design – The existing structure will undergo a major remodel and renovation to accommodate the proposed marijuana facilities. There is an existing second story that is approximately 700 square feet. To the west of the second floor the warehouse opens back up to a single story. This area is proposed to be used as an indoor loading and storage area accessed by a bay door. While suppliers will be allowed in this area, there will be no access to the rest of the facility where cultivation and product manufacturing will occur. The remaining first floor area will be secure and accessed only by those with a Marijuana Handlers Permit and company issued radio frequency identification (RFID) card. The proposed structure currently has three bay doors, two man doors, and two windows on the south facing side. There are two windows on the east facing side. All windows will be removed and walled in. The western most man door and two eastern most bay doors will also be walled in. As previously stated, the third bay door will be used to access the indoor storage and loading area (Attachment E).

The marijuana cultivation proposal requires three separate rooms for the cultivation process. The approximately 72 square foot mother plant room (those plants that remain in state of constant vegetation in order to be cloned) will be on the second floor adjacent to the approximately 66 square foot drying room. The second floor will also have a secure office, packaging area, and the proposed concentrate extraction room, which are addressed in USE2016 0012. The second story extends over a portion of the first story; therefore, much of the space has high vaulted ceilings. The cloning room will be located on the first floor and occupy approximately 152 square feet. The flowering room is also on the first floor and will occupy approximately 1,600 square feet. The applicant expects to have 250 - 300 plants in the flowering room at a time (Attachment D).

The HVAC system will consist of air handlers as indicted in Attachment D. The air handlers have contaminant and odor filters. This facility will be further supported by a cooling system, including fans for air circulation, and dehumidifiers. The air handling system along with fans will protect against mold and mildew. Pesticide control will be handled through the release of lady bugs into the flowering room. Lady bugs eat plant pests and are a common organic nontoxic method for indoor pest control. Additional equipment includes carbon filters for odor control and T5 florescent & 1000 watt Gavita Pro grow lights. The carbon filters are designed to scrub the air clean and are designed for commercial operations in other industries, as well as, marijuana (see Attachment A).

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CO2 will be used in the cultivation process. A tube with perforated holes will be strung along the wall just above the canopy. The CO2 tanks will be stored in the storage enclosure that runs between the two buildings. The CO2 emissions are computer monitored and the system has an automatic shut off.

Waste from the marijuana cultivation process will primarily be stems since the majority of the leaves will be used in extraction of concentrate. However, there could be instances where buds or even entire plants must be disposed of due to some defect. Waste will be ground up and mixed with another organic material in order to be rendered unusable as required by state regulations. The waste will be stored in the indoor loading area before being taken to the landfill.

Traffic - Traffic to and from the site will consist of employees, supply delivery, including CO2 supplier, and marijuana product deliveries to other locations. The applicant anticipates 3 to 5 full time employees for the facility. Trimming and harvesting do not require full time employees, but will occur approximately for one week a month. The project narrative states that during those times there could be up to twenty employees in the facility.

CO2 canisters would likely be refilled once to twice a month. The applicant owns and operates restaurants and has stated the same canisters are used for beverages in the restaurant and need to be filled once a month. Other supply deliveries will include soil, fertilizers, state required tracking tags, packaging material, and any professional services required of any large warehouse. These deliveries are not expected more than once every two weeks.

Parking and Circulation - According to CBJ 49.40.210 the proposed product manufacturing and cultivation facility requires 1 parking space for the office, 2 parking spaces for the cultivation, and 1 parking space for the product manufacturing. The other existing building requires 1 parking space for the caretaker residence and 3 parking spaces for the seafood processing.

CBJ 49.40.210(b)(3) requires that for 1 to 25 parking spaces, one space must be ADA accessible. Accessible spaces are required to be 13 feet by 17 feet, including an access aisle that measures 5 feet by 17 feet.

Therefore, the site requires a total of 8 parking spaces, one of which is ADA accessible. Standard parking spaces are required to be 8.5 feet by 17 feet and parallel spaces are required to be 6.5 feet by 22 feet. There is space for four standard parking spaces with adequate circulation in front of the south building. Two spaces can be provided on the east side of the north building with two additional parallel spaces provided on the south side of the north building. Therefore, the site has adequate space to provide the required parking.

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According to CBJ 49.40.210(c) (1) and (2), the site requires 1 off-street loading space. The off-street loading area is required to be a minimum of 30 feet by 12 feet and 14 feet high. In discussions with staff, the applicant proposes using the space between the two buildings as a loading space. There is also the indoor storage and loading area which will be used in addition to the outdoor loading space.

Staff recommends, as a condition of approval, that the applicant submit with the building permit plans a parking and circulation plan.

Noise - Surrounding uses include a lumber yard and warehouse adjacent to the west, a printing company adjacent to the south, a vacant lot directly across Industrial Boulevard to the east, two vacant lots adjacent to the north, and auto repair shops to the east, south, and southeast. All activity for the cultivation and concentrate extraction processes will take place inside the building. The building will not have any windows and doors will be secure at all times. The HVAC system in the cultivation facility will produce noise within the building, but it is not expected to be audible outside the building. Noise is not expected to be of concern with the development of the marijuana product manufacturing facility. Noise is expected to be less than other uses that may be permitted outright in the Industrial Zone.

Public Health or Safety – The applicant has indicated that they plan to use non-toxic fertilizers and use organic means of pest control. Therefore, any risk of toxic substances being transferred to a consumer is mitigated by this growing method.

Besides product quality control, security is a concern in the legal marijuana industry. State regulations provide for processes and standards to ensure legal marijuana does not end up in the illegal market, is sold only to those 21 and over, and that licensed marijuana establishments are secure from theft. Ordinance 2015-38 requires that Conditional Use Permit applications include a security plan indicating how the applicant will comply with the requirements imposed by State law. Those requirements include;

- Exterior lighting;
- Security alarm system on exterior doors;
- Continuous video monitoring;
- and,
- Commercial grade door locks on exterior points of entry

The applicant has included a floor plan indicating where each camera, motion sensor, door sensor, and RFID card reader will be placed as part of the surveillance system. While not required, the applicant intends to use a RFID access system to the facility, adding an additional layer of security with its personnel tracking capabilities. All surveillance can be monitored by the licensee remotely through a laptop or smartphone.

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Staff recommends as condition of approval, that prior to a Certificate of Occupancy, staff conduct a site visit to ensure surveillance system is fully operational and all health and safety signs are displayed.

The proposal identifies the use of filtration, ventilation, pesticides, and sanitation as methods to be used to reduce the chance of mold, mildew, fungus, or pests. As described in the project narrative found in Attachment A, the air handling system provides contaminant filtration as well as odor filtration. Filtered air will exit the building through an exhaust. Samples of marijuana and manufactured product must be tested in a state licensed facility prior to sale. Testing facilities are required to test for harmful contaminants and residual solvents from extraction processes. Therefore, any harmful chemicals or microbial will be detected prior to consumer consumption.

Habitat – No habitat regulated by Title 49 is affected by this proposal.

CBJ 49.50.300 requires five percent of the site be maintained with vegetative cover. For this site, 757 square feet of vegetative cover is required. By using aerial photography, staff estimates the vegetative cover to be approximately 995 square feet, or 6.5 percent of the site. Therefore, the minimum vegetative cover requirement is met.

Property Value or Neighborhood Harmony - Existing uses in the neighborhood include several automotive repair shops, a printing company, and a lumber mill. This use is expected to generate less daily traffic and noise than other uses in the area. The proposed use is in harmony with surrounding industrial uses.

At the time this staff report was due, staff received comments from two community members in support of the proposal (Attachment F). The two letters were not property owners in the neighborhood.

Conformity with Adopted Plans - The subject site is located in Subarea 3 of the 2013 Comprehensive Plan and has a land use designation of Heavy Industrial (HI). According to the HI land use designation definition found on page 149 of the Comprehensive Plan, large scale food production and processing, and other manufacturing processes should be allowed on these lands. The proposed marijuana cultivation facility is a similar type of use.

Staff further reviewed the 2013 Comprehensive Plan for policies that may be relevant to the proposal:

POLICY 5.1. TO DEVELOP AND SUSTAIN A DIVERSE ECONOMY, PROVIDING OPPORTUNITIES FOR EMPLOYMENT FOR ALL RESIDENTS.

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POLICY 5.18. TO ENCOURAGE AND SUPPORT ENTREPRENEURSHIP AND INNOVATION IN THE ECONOMY OF JUNEAU AND SOUTHEAST ALASKA.

The proposed development would help to diversify the economy and is a new business as encouraged by these policies.

FINDINGS

CBJ §49.15.330 (e)(1), Review of Director's Determinations, states that the Planning Commission shall review the Director's report to consider:

1. Whether the application is complete;
2. Whether the proposed use is appropriate according to the Table of Permissible Uses;
and,
3. Whether the development as proposed will comply with the other requirements of this chapter.

The Commission shall adopt the Director's determination on the three items above unless it finds, by a preponderance of the evidence, that the Director's determination was in error, and states its reasoning for each finding with particularity.

CBJ §49.15.330 (f), Commission Determinations, states that even if the Commission adopts the Director's determination, it may nonetheless deny or condition the permit if it concludes, based upon its own independent review of the information submitted at the public hearing, that the development will more probably than not:

1. Materially endanger the public health or safety;
2. Substantially decrease the value of or be out of harmony with property in the neighboring area;
or,
3. Not be in general conformity with the Comprehensive Plan, Thoroughfare Plan, or other officially adopted plans.

Per CBJ §49.15.330 (e) & (f), Review of Director's & Commission's Determinations, the Director makes the following findings on the proposed development:

1. Is the application for the requested conditional use permit complete?

Yes. Staff finds the application contains the information necessary to conduct full review of the proposed operations. The application submittal by the applicant, including the appropriate fees, substantially conforms to the requirements of CBJ Chapter 49.15.

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2. *Is the proposed use appropriate according to the Table of Permissible Uses?*

Yes. The requested permit is appropriate according to the Table of Permissible Uses. The permit is listed at CBJ §49.25.300, Section 14.240 for the Industrial zoning district.

3. *Will the proposed development comply with the other requirements of this chapter?*

Yes. The proposed development complies with the other requirements of this chapter. Public notice of this project was provided in the May 14, 2016 and May 23, 2016 issues of the Juneau Empire's "Your Municipality" section, and a Notice of Public Hearing was mailed to all property owners within 500 feet of the subject parcel. Moreover, a Public Notice Sign was posted on the subject parcel, visible from the public Right of Way.

4. *Will the proposed development materially endanger the public health or safety?*

No. The applicant has proposed a surveillance and security system that exceeds the minimum state and local regulations. Further, much of the use, aside from employee and other occasional delivery traffic is contained indoors in a secure facility where non-employees are not permitted.

5. *Will the proposed development substantially decrease the value of or be out of harmony with property in the neighboring area?*

No. The use is adjacent to vacant lots and other industrial uses with similar and more intense off-site impacts such as noise and traffic. The proposed marijuana product manufacturing facility will not decrease the value of or be out of harmony with property in the neighborhood.

6. *Will the proposed development be in general conformity with the land use plan, thoroughfare plan, or other officially adopted plans?*

Yes. The development of private businesses in Juneau is supported by the Comprehensive Plan. Further, the HI land use designation supports manufacturing uses.

Per CBJ §49.70.900 (b)(3), General Provisions, the Director makes the following Juneau Coastal Management Program consistency determination:

7. *Will the proposed development comply with the Juneau Coastal Management Program?*

N/A

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RECOMMENDATION

It is recommended that the Planning Commission adopt the Director's analysis and findings and grant the requested Conditional Use permit. The permit would allow the development of a marijuana cultivation facility in the Industrial zone.

The approval is subject to the following conditions:

1. Parking spaces shall meet CBJ 49.40.210(b)(1); 8 spaces including 1 ADA signed space shall be marked and maintained. A parking and circulation plan shall be submitted with the building permit application.
2. The applicant shall pass all CBJ Fire Marshall inspections.
3. No offsite glare shall be produced by exterior doorway lights.
4. Security cameras shall have an unobstructed view of each doorway to the processing building and cultivation building.
5. Security cameras shall have an unobstructed view of the regular activity without sight blockage from lighting hoods, fixtures, or other equipment in the processing building and cultivation building.
6. Security cameras shall have a battery back-up system installed that operates for a minimum of 24 hours; all batteries must be replaced annually.
7. Prior to the issuance of a Certificate of Occupancy, all security devices shall be inspected to ensure they are fully operational and the required signage is displayed.

DEVELOPMENT PERMIT APPLICATION

Project Number <i>USE 16-12</i>	CITY and BOROUGH of JUNEAU	Date Received: <i>3/30/16</i>
Project Name (City Staff to Assign Name)		

INFORMATION PROJECT / APPLICANT	Project Description <i>Marijuana Product Manufacturing Facility</i>		
	PROPERTY LOCATION		
	Street Address <i>2315 Industrial Blvd</i>	City/Zip <i>Juneau, AK 99801</i>	
	Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot) <i>Mason Industrial Park, Block 2 Lt 7A1</i>		
	Assessor's Parcel Number(s) <i>4-B17-0-108-007-1</i>		
	LANDOWNER/ LESSEE		
	Property Owner's Name <i>Seaweed Ventures, LLC / Tracy LaBarge</i>	Contact Person: <i>Tracy LaBarge</i>	Work Phone: <i>907-723-2004</i>
	Mailing Address <i>2315 Industrial Blvd, Juneau, AK</i>	Home Phone:	Fax Number:
	E-mail Address <i>tracy@kingcrabshack.com</i>	Other Contact Phone Number(s):	
	LANDOWNER/ LESSEE CONSENT ***Required for Planning Permits, not needed on Building/ Engineering Permits***		
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
X <i>Tracy LaBarge</i> Landowner/Lessee Signature		<i>3/30/16</i> Date	
X _____ Landowner/Lessee Signature		_____ Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as OWNER, write "SAME" and sign and date at X below			
Applicant's Name <i>John S. Namethy (Top Hat Concentrates) LLC</i>		Contact Person: <i>SAME</i>	Work Phone:
Mailing Address <i>406 S. Franklin St, Juneau, 99801</i>		Home Phone:	Fax Number:
E-mail Address <i>john@thealaska.com</i>		Other Contact Phone Number(s):	
X <i>John S. Namethy</i> Applicant's Signature		<i>3/30/16</i> Date of Application	

-----OFFICE USE ONLY BELOW THIS LINE-----

STAFF APPROVALS	✓	Permit Type	***SIGN	Date Received	Application Number(s)	
		Building/Grading Permit				
		City/State Project Review and City Land Action				
		Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)				
		Mining Case (Small, Large, Rural, Extraction, Exploration)				
		Sign Approval (If more than one, fill in all applicable permit #'s)				
		Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)				
	✓	Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)	✓	<i>3/30/16</i>	<i>USE 20160012</i>	
		Variance Case (De Minimis and all other Variance case types)				
		Wetlands Permits				
		Zone Change Application				
		Other (Describe)				
	***Public Notice Sign Form filled out and in the file.					
	Comments:					Permit Intake Initials <i>JKL</i>

ALLOWABLE/CONDITIONAL USE PERMIT APPLICATION

Project Number	Project Name (15 characters)	Case Number	Date Received
TYPE OF ALLOWABLE OR CONDITIONAL USE PERMIT REQUESTED			
☐ Accessory Apartment*** (AAP) ☐ Driveway in Right-of-Way (ADW)			
☒ Use Listed in \$49.25.300 (USE) (Table of Permissible Uses)			
Please list the Table of Permissible Uses Category: <u>Marijuana Product 4.220</u> <u>Manufacturing Facility</u>			
***An Accessory Apartment Application will also be required.			
DESCRIBE THE PROJECT FOR WHICH AN ALLOWABLE OR CONDITIONAL USE APPROVAL IS NEEDED. <u>Marijuana product manufacturing facility</u>			
IS THIS A MODIFICATION OF AN EXISTING APPROVAL? ☒ NO ☐ YES - Case # _____			
CURRENT USE OF LAND OR BUILDING(S): <u>Commercial machine shop</u>			
PROPOSED USE OF LAND OR BUILDING(S): <u>Marijuana product manufacturing with commercial marijuana cultivation</u>			
UTILITIES PROPOSED: WATER: ☒ Public ☐ On Site SEWER: ☒ Public ☐ On Site			
SITE AND BUILDING SPECIFICS:			
Total Area of Lot <u>15,148</u> square feet Total Area of Existing Structure(s) <u>7360</u> square feet			
Total Area of Proposed Structure(s) _____ square feet			
EXTERNAL LIGHTING:			
Existing to remain ☐ No ☒ Yes - Provide fixture information, cutoff sheets, and location of lighting fixtures			
Proposed ☐ No ☒ Yes - Provide fixture information, cutoff sheets, and location of lighting fixtures			
PROJECT NARRATIVE AND SUBMITTAL CHECKLIST:			
☒ Site Plan ☒ Existing and proposed parking areas (including dimensions) and proposed traffic circulation			
☒ Floor Plan of proposed buildings ☒ Existing Physical Features of the site (drainage, habitat, hazard areas, etc.)			
☒ Elevation view of existing and proposed buildings			
☒ Proposed Vegetative Cover			
ALLOWABLE/CONDITIONAL USE FEES			
Fees Check No. Receipt Date			
Application Fees \$ <u>350</u> _____ <u>CD 7854</u> <u>3/30/16</u>			
Admin. of Guarantee \$ _____ _____ _____			
Adjustment \$ _____ _____ _____			
Pub. Not. Sign Fee \$ <u>50</u> _____ _____			
Pub. Not. Sign Deposit \$ <u>100</u> _____ _____			
Total Fee \$ <u>500</u> _____ _____			
For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.			
If you need any assistance filling out this form, please contact the Permit Center at 586-0770.			

NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM

THC Alaska, LLC

2315 Industrial BLVD • Juneau, AK 99801 • Phone: 313.318.5322

Mail: john@thcalaska.com

CBJ Conditional Use Permit Application for Top Hat Concentrates, LLC: Narrative and Site Plan, 3/28/2016

RECEIVED

MAR 30 2016

PERMIT CENTER/CDD

CONTENTS

-Business Structure & Operations

-Extraction Overview

-Site Construction / Development

-Safety & Security

-Equipment / HVAC Specs

-Site Plan & Drawings

-Attachments

BUSINESS & OPERATIONS

Top Hat Concentrates, LLC is comprised of three individuals, John S Nemeth, Benjamin Wilcox, and Tracy LaBarge, licensed by the State of Alaska and managed by JBT Development, LLC. The company seeks a Conditional Use Permit for a marijuana product manufacturing facility (table of permissible uses code 4.220). CEO John S Nemeth will oversee the company and VP Benjamin Wilcox will manage cultivation. Top Hat Concentrates, LLC strives to be the best cannabis extraction company in North America with the highest regard for quality production and the environment. The extracts produced under our own label will be Co2 extracted, free of chemical pesticides, and will always be Vegan/Organic. This company and its' equipment will be in secured access room inside the cannabis cultivation facility, Top Hat, LLC. Top Hat Concentrates, LLC will extract for Top Hat Cannabis, LLC as well as other properly licensed facilities within the CBJ.

EXTRACTION PROCESS

When you hear the word "extraction" or "processing" of cannabis what that is referring to in the case of Top Hat Concentrates, LLC is removing the cannabinoids (THC, CBD, CBG...) from the plant material. This process is extremely safe and requires a special closed loop botanical extractor and Co2 (the same substance used to carbonate your favorite soft drink). The extractor uses the compressed gas to remove the cannabinoids from the plant material. This is the same process used by other companies to make essential oils, perfumes, and other extracts. We chose the more expensive Co2 method to keep our cannabis, and others who use our extraction company, as healthy as possible. Co2 for the process is brought to the facility by a beverage gas supply company in the form of 60lb refillable tanks that attach to the side of the extractor.

After the product is extracted it goes through what's known as a winterization process. Simply stated this the process that stabilizes the product and separates any remaining plant material. Co2 extracted product is placed in a round bottom (same as you'd find in any lab) and dissolved into alcohol. This substance is then frozen in a laboratory freezer, filtered, and then placed in a laboratory vacuum oven to remove any remaining alcohol from the extraction. What you're left with is a clean THC/CBD product free of plant material that is ready to be used as is, placed in vaporizer cartridges, edibles, or capsules.

Alcohol is the only flammable and potentially dangerous substance in the entire facility (aside from a few house hold cleaners). Being that there are no open or any flames in the facility. Alcohol is just as safe to have around as it is in doctor's offices, hospitals, and art studios.

USE OF SITE

The extraction room will utilize approx. 200sqft in total of an existing structure located on lot 8A of the parcel 4-B17-0-108-007-1 in the Mason Industrial Park #2 (GPS coordinates 58.3664 (lat), -134.605 (long), zoned industrial) at 2315 Industrial Blvd, Juneau, AK 99801. The structure will be permitted and constructed to reflect the plans attached here following all State and CBJ guidelines for such facilities. Growing areas use approx. 1824 of the available 3000 square feet. The processing facility is located in a secure area behind a secured RFID access only door. During the expected operating hours of 8am - 12am the extraction facility will have 1, maybe 2 people working in the room at a time. ALL employees will be documented in accordance to State and Federal Law and possess marijuana handling certifications on their person at all times. There will also be photocopies of all employees' cards in the office.

Electrical usage for the extraction room has been factored into the electrical plan/upgrade for Top Hat, LLC. The entire building will be 480amp 3 phase and the extraction room will use 125 of those amps.

Parking for up to 8 vehicles will be provided on the south and east side of the structure.

SAFETY & SECURITY

The safety and security of our people and surrounding neighbors is top priority. The attached security plan shows the location of 2.3mm 1.3mp security cameras, secured door/access points, door sensors, motion sensors, and location of stored equipment/data backup. There will be no windows and only 2 secured access doors for ingress and egress. Cameras will have coverage of 100% of the entire facility leaving no opportunity for blind spots. The storage of data back up and all security processing equipment will "owner only" accessible with an access log located inside the cabinet to record when and who accessed. There is backup power provided for the security system for 4 hours. The exterior of the building will be lit with motion sensor lighting to highly illuminate the access door and allow for clear visibility on cameras at any time of the day/night. The safes will be fire proof up to 2 hours in accordance to State regulations. Security system will be monitored locally to ensure prompt service in the event it is needed. System also includes a "panic" feature.

As part of the safety plan all MSDS sheets for products used in the facility will be easily accessible to every employee. Clear evacuation plans and emergency numbers will be posted as well.

Transportation of product will begin as it is logged "out for transfer" within the State tracking system to licensed dispensary operations. The vehicle will be in a secured garage area in a building attached to the processing/cultivation facility. Product will be loaded into the vehicles' secured and lockable vessel and immediately transported to the purchasing dispensary. From there it is signed off on, recounted and logged into their tracking system. Transport of large quantities of cannabis products will be kept to a minimum frequency of around 2-3 random times per week to limit any risk.

ODOR, WASTE & NOISE

The air handling system provided by Surna, LLC includes filtration for intake and exhaust air via hepa filters. This is to prevent contaminants from entering the facility as well as remove odor from flowering plants in the air exiting the building. Currently, the lot next door that is closest to where exit air will be coming out, is vacant. In the future if that land is developed the exit air is not harmful and will possess no noticeable smell.

There will be little to no water run off associated with the cultivation or processing facility. Water will be used as a part of strict cleaning procedures to hose dirt off cultivation room floors. This water will run into floor drains (according to an attached permit issued on the property in 2008 all of the buildings previous waste systems connected to a municipal sewer system and previous drain field and holding tank have been properly decommissioned). As stated above there will be no materials harmful to humans or the environment entering the ground or city municipal system.

Plant waste discarded from the botanical extractor will be the only waste generated by the extraction company. This will be logged and combined with non-hemp waste at the 50/50 State mandated ratio, locked in secured trash bins where it will await removal by waste management company.

The only noticeable noise heard on the outside of the facility by all operations will be that of the air conditioning compressors or dry cooler when in use. Neighboring condensers for existing equipment on the property are louder than this system.

HVAC SYSTEM

Surna, LLC out of Denver, CO are experts in the indoor horticultural industry. They will be drafting the engineering plan and SOW for HVAC with a State of Alaska certified stamp. The system is made up of a series of air handlers that move air in the various cultivation rooms. The air handlers are noted on the floor plan for the facility. They also include electric heat elements should the facility ever need to be heated.

Cooling will come from a "dry cooler" a majority of the time. Utilizing the cool ambient temperatures in Juneau as it's cooling source this makes for a very efficient, energy saving system. The system is ductless and connected by pipes vs. traditional ducting. All condensation water will be collected by dehumidification equipment and then re-used for watering plants.

Aiding in pest/microbial prevention the system is equipped with an Airoclean Microbial Environmental Control Kit. Similar to what's used in hospitals.

SUMMARY

Top Hat Cannabis, Top Hat Concentrates, and Kannavi will operate together as vertically integrated Alaskan cannabis companies operated by JBT Development, LLC. The primary goal is to produce the world's best and safest cannabis products, but education, medical research, and philanthropy are key drivers of success for the group. Through our educational programs at Kannavi, continued partnerships in medicine & lab research, and commitment to give back to numerous groups in the local community; current generations and businesses of other industry in the future to come will look up to our practices and business model.

We look forward to driving a successful future for Juneau and the cannabis industry!

*Top Hat, LLC; Top Hat Concentrates, LLC; Kannavi, LLC; and JBT Dev., LLC are all registered and trademarked entities by THC Alaska, LLC. Use of names or any proprietary information other than for the purpose of this application within this document is unlawful.

John S Nemeth

Owner/President

313.318.5322

john@thcalaska.com

Benjamin Wilcox

Owner/Vice President

907.419.0065

thcalaska@yahoo.com

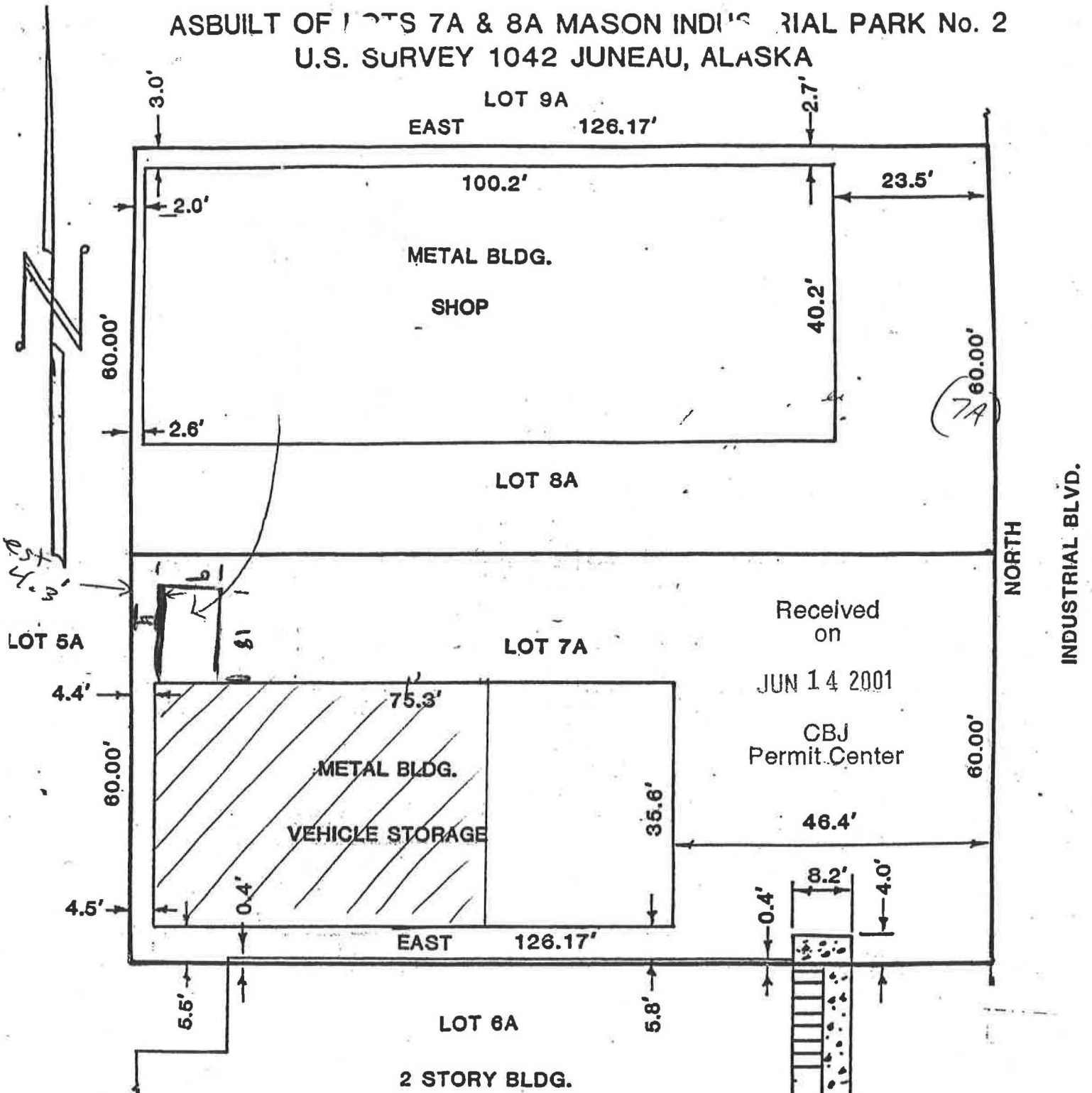
Tracy LaBarge

Owner/ Secretary Treasurer

907.723.2004

tracy@kingcrabshack.com

ASBUILT OF LOTS 7A & 8A MASON INDUSTRIAL PARK No. 2
U.S. SURVEY 1042 JUNEAU, ALASKA



4-B17-0-108-007
008

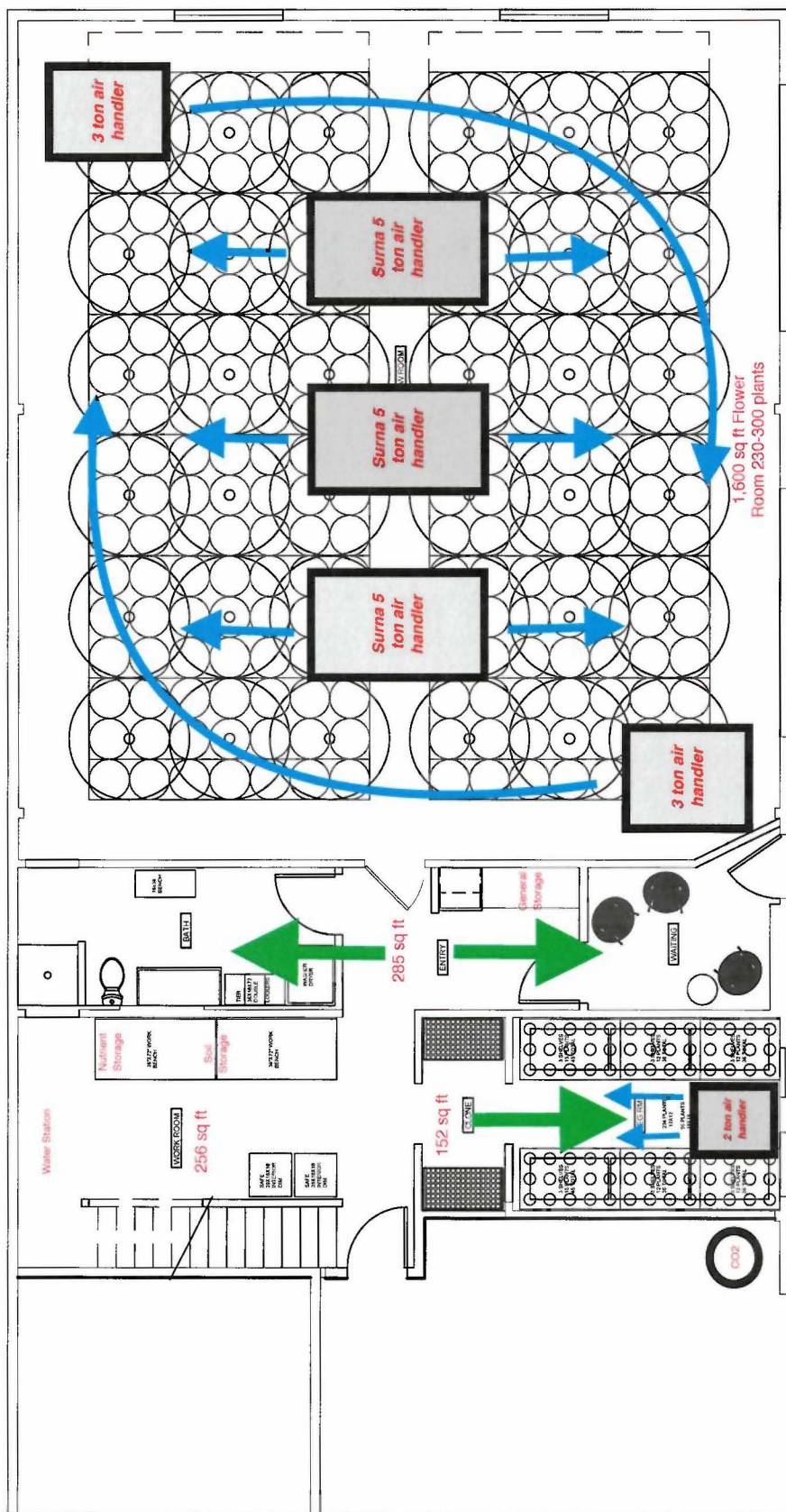
CERTIFICATE OF REGISTERED LAND SURVEYOR

I hereby certify I am a registered professional land surveyor and that this plat represents the survey made by me or under my direct supervision and that all dimensions, encroachments, easements and other details are correct to the best of my knowledge.

Date: Jan 28, 1985

Attachment C





TOTAL 1st FLOOR SQ FT 2,293



**BAUER/CLIFF
INTERIO**
 119a 2nd street
 Juneau, AK 99801
 [p] 907.789.9120
 [f] 907.789.9121
 info@bauercliff.com
 www.bauercliff.com

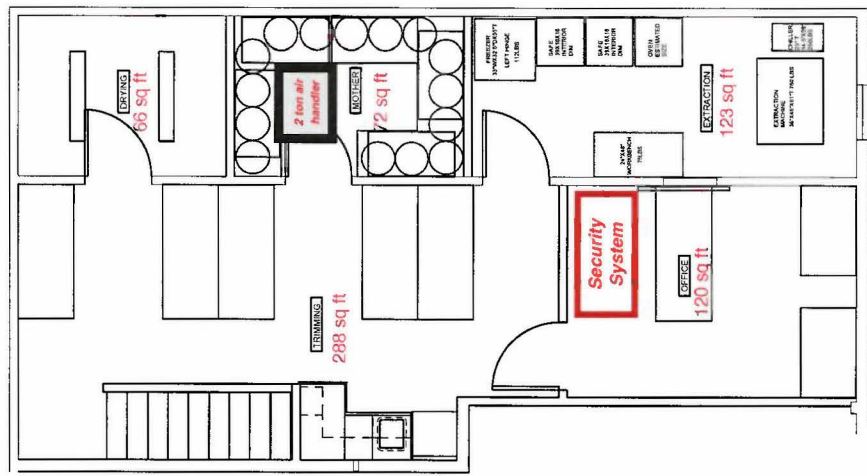
JUNEAU, AK 99801
 313-318-5322

THC ALASKA
 GROW FACILITY

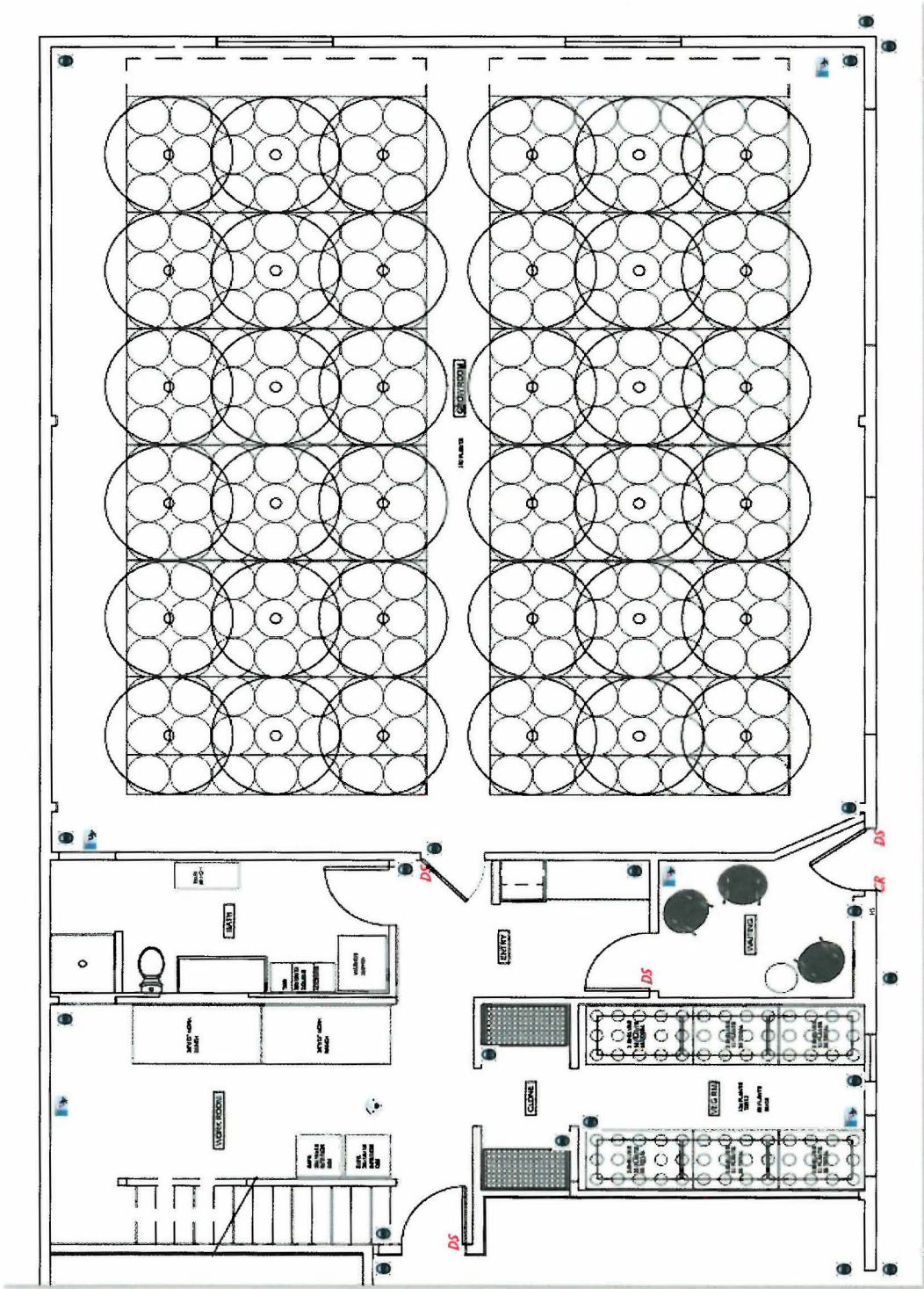
job #
 drawn by:
 checked by:
 date: 9/10/
 scale: 3/16

SECOND FLOOR
 PLAN

SHEET
A2
 OF X SHEET

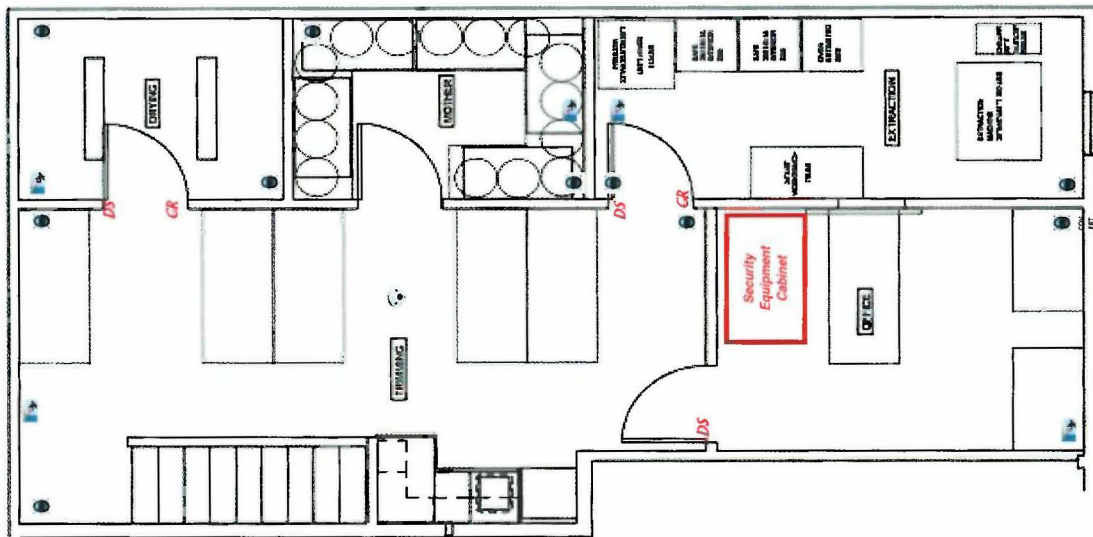


TOTAL 2nd FLOOR SQ FT 669



- Door Sensor
- Card Reader
- Motion
- 360 Camera
- Surveillance Camera

1 CBJ CUP PERMIT APPLICATION FOR TOP HAT, LLC



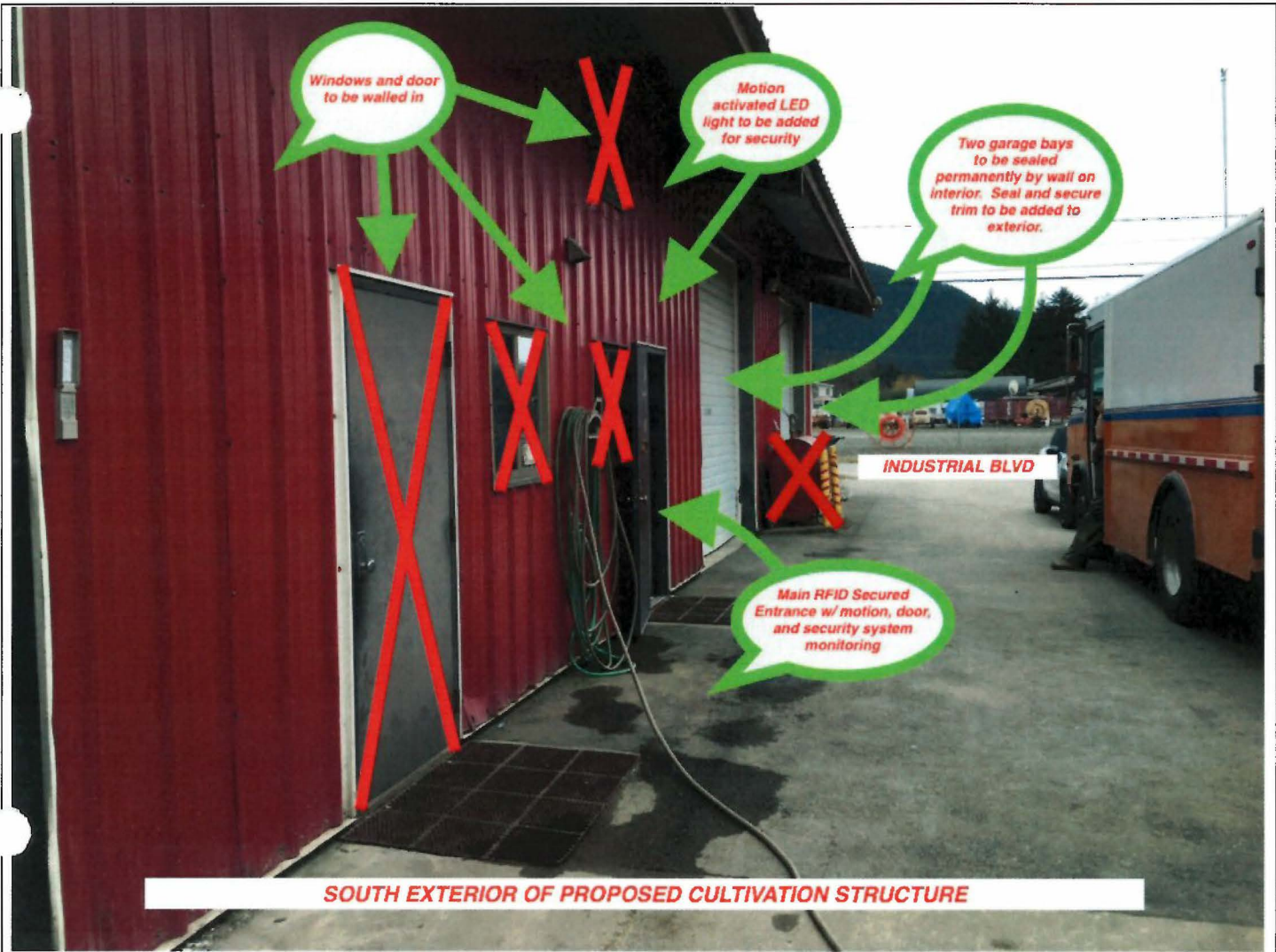
Door Sensor

CR Card Reader

Motion

360 Camera

 Surveillance Camera





Emily A. Kane, ND LAc

Naturopathic Doctor

Alaska License № 22

Licensed Acupuncturist

Alaska License № 18

May 5 2016

Dear Members of the CBJ Assembly and Planning Commission,

I am writing in support of the ongoing development of a wide variety of hemp and cannabis products in Juneau and state-wide. In particular I'm deeply interested in the therapeutic benefits of CBD, the non hallucinogenic phytocannabinoid, cannabidiol. I have seen positive responses to relatively low doses of CBD for insomnia, anxiety, mild to moderate depression, obsessive compulsive disorders, including eating disorders, which are notoriously difficult to treat, and pain. There is a large body of published research validating the medical uses of marijuana, particularly in the areas of managing pediatric epilepsy, and mitigating cancer pain and cancer growth.

As you are aware we are experiencing an epidemic of opioid abuse, leading to more overdose deaths than fatal car accidents in the US in the past months. CBD has no potential for addiction. It is a very exciting medicine and despite the US being nearly 70 years behind in scientific research because of years of unfortunate vilification of this beautiful and useful plant -- these barriers are lifting all over the country. Alaska, and Juneau, is poised to be a leader in moving forward with all things hemp. I applaud the work of the Assembly in carrying out the will of CBJ voters, which will not only bring jobs and revenue diversification to Juneau, but help stem the tragedies engendered by abuse of heroin, meth and alcohol.

The commercial leaders in the cannabis arena in Juneau are stellar citizens, mostly well known to you. Tracy LaBarge is arguably the most popular and steady restaurant owner in Juneau and has provided not only great dining options for the Borough for decades, but employs many people including younger folk during the summer months. John Nemeth, who has a background in restaurant development and urban planning, has been part of our community for only a few years but brings a great deal of business acumen to the Downtown Business Association Infrastructure Committee and plays an active role in DIG. He looks forward to being a generous contributor to the CBJ school district, and working with physicians to improve understanding of the therapeutic potential of cannabis. The third major partner is Ben Wilcox, a 20+ year Juneau resident who is passionate, as am I, about reducing the dependency on addictive substances we are witnessing in Juneau.

I recently heard JPD office Chris Sell say on the radio that to solve the heroin problem in Juneau we can't just focus on supply. We need to look at the demand side. Why are folks in such pain that they are willing to wreck their lives with quickly addictive substances? Cannabis is also known as "ditch weed." It grows easily, all over the world. It is an incredible gift from nature that can produce rope, clothing, fiber, animal feed, and gentle effective medicine. Moving forward with the cannabis industry is win-win-win. Please feel free to contact me if you are interested in scientific studies attesting to the healing powers of cannabis, particularly CBD, in an astonishing array of human ailments.

Sincerely,



Dr Emily A Kane

418 Harris Street, Suite 329 Juneau, AK 99801

Phone: 907-586-3655 FAX: 907-586-4326 email: DrEmilyKane@gmail.com

Attachment F

May 9, 2016

Dear Ladies and Gentlemen of the Juneau Assembly,

As a downtown retail store owner for nearly twenty years, I fully support the business plans and ideas of THC Alaska. John Nemeth, Tracy LaBarge and Benjamin Wilcox not only each have proven track records in creative concepts, but are also community members who care about the economic and social wellness of Juneau. This thoughtful, bright, focused team will spearhead a respectable, responsible cannabis business that I know I can feel comfortable with as a downtown neighbor and Juneau can be proud of as a top-notch operation.

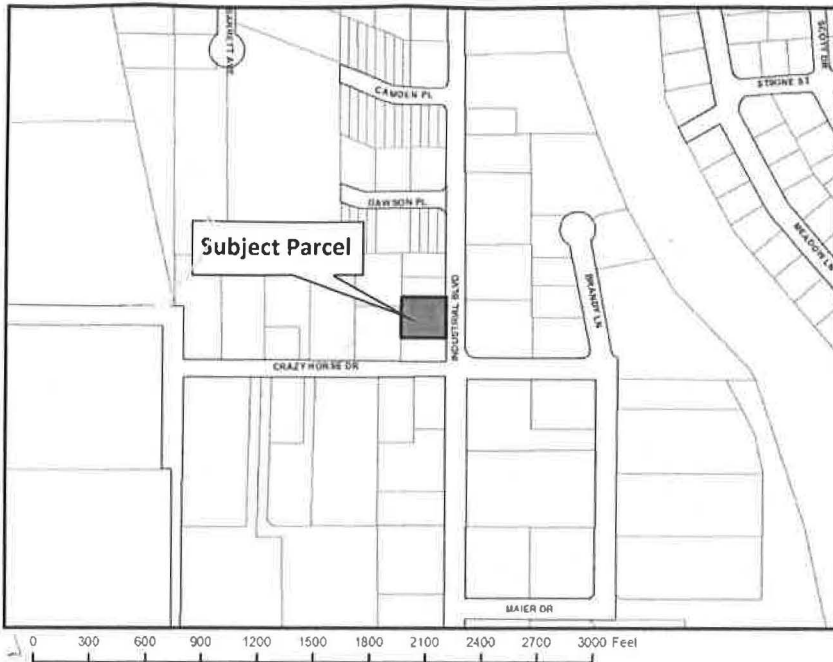
Sincerely,

A handwritten signature in black ink, reading "Tanja Cadigan". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Tanja Cadigan
Caribou Crossings

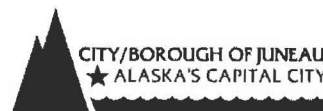


NOTICE OF PUBLIC HEARING



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



PROPOSALS: USE2016 0012: Conditional Use permit for marijuana product manufacturing facility in the Industrial zone.
USE2016 0013: Conditional Use permit for marijuana cultivation in the Industrial zone.

File No:	USE2016 0012 and USE2016 0013	Applicant:	Top Hat Concentrates, LLC.
To:	Adjacent Property Owners	Property PCN:	4-B17-0-108-007-1
Hearing Date:	May 24, 2016	Owner:	Seaweed Ventures, LLC
Hearing Time:	7:00 PM	Size:	15,148 Square Feet
Place:	Assembly Chambers Municipal Building 155 South Seward Street Juneau, Alaska 99801	Zoned:	I - Industrial
		Site Address:	2315 Industrial Boulevard
		Accessed Via:	Industrial Boulevard

PROPERTY OWNERS PLEASE NOTE:

You are invited to attend this Public Hearing and present oral testimony. The Planning Commission will also consider written testimony. You are encouraged to submit written material to the Community Development Department 14 days prior to the Public Hearing. Materials received by this deadline are included in the information packet given to the Planning Commission a week before the Public Hearing. Written material received after the deadline will be provided to the Planning Commission at the Public Hearing.

If you have questions, please contact Christine Steadman at Christine.Steadman@juneau.org or 586-0761.

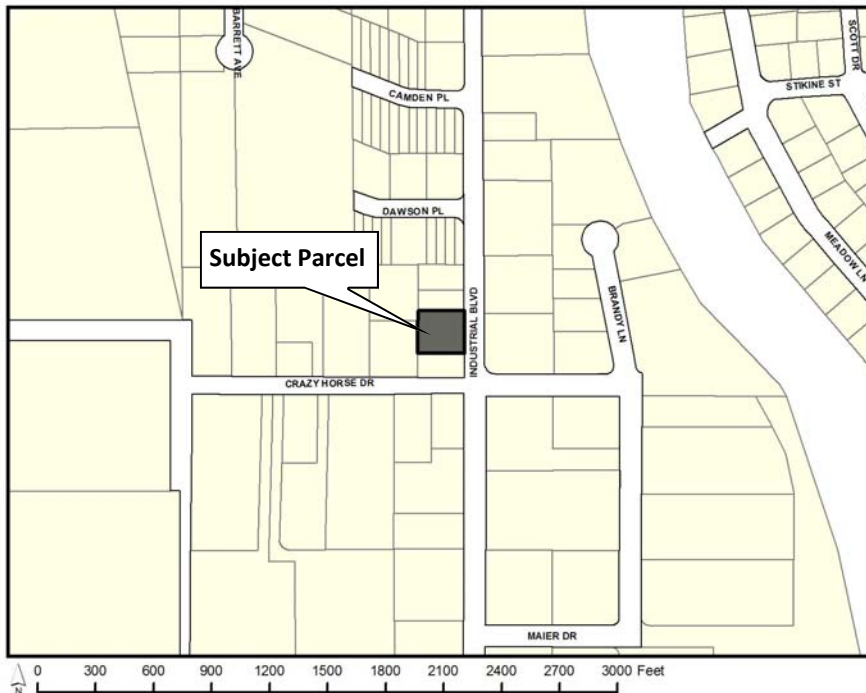


Planning Commission Agendas, Staff Reports and Meeting Results can be viewed at <http://www.juneau.org/assembly/novus.php>

Date notice was printed: April 21, 2016



NOTICE OF PUBLIC HEARING



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



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Planning Commission Agendas, Staff Reports and Meeting Results can be viewed at <http://www.juneau.org/assembly/novus.php>

Date notice was printed: April 21, 2016



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

PLANNING COMMISSION

NOTICE OF DECISION

Date: May 27, 2016

File No.: USE2016 0003

Knik Construction Co., Inc.
19000 International Boulevard, Suite 800
Juneau, AK 99801

Application For: A Conditional Use Permit for an asphalt plant at the Alaska Marine Lines Yard

Legal Description: Alaska Juneau IIIA Lot 3C
Alaska Juneau II Lot 4F
Alaska Juneau II Lot 4E
Alaska Juneau II Lot 4D

Property Address: 0 Jacobsen Drive

Parcel Code No.: 1-C11-0-K11-001-0
1-C11-0-K10-006-0
1-C11-0-K10-005-0
1-C11-0-K10-004-0

Hearing Date: May 24, 2016

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated March 29, 2016, except that the Planning Commission made the following finding at the meeting as a result of additional information:

5. Will the proposed development substantially decrease the value of or be out of harmony with property in the neighboring area?

Yes. The proposed development is not in harmony with property in the neighboring area due to the increased traffic downtown.

Based on the findings listed above, the Planning Commission denied the Conditional Use Permit for an asphalt plant at the Alaska Marine Lines Yard as described in the project description and application.

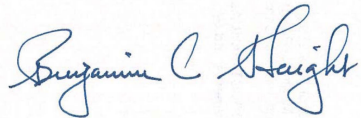
Knik Construction Co., Inc.
 File No.: USE2016 0003
 May 27, 2016
 Page 2 of 2

Attachments: March 29, 2016 memorandum from Teri Camery, Community Development, to the CBJ Planning Commission regarding USE2016 0003.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Project Planner:


 Teri Camery, Senior Planner
 Community Development Department


 Ben Haight, Chair
 Planning Commission


 Filed With City Clerk

June 3, 2016
 Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

DATE: March 29, 2016

TO: Planning Commission

FROM: Teri Camery, Senior Planner 
Community Development Department

FILE NO.: USE2016 0003

PROPOSAL: A Conditional Use Permit for an asphalt plant at the Alaska Marine Lines Yard

GENERAL INFORMATION

Applicant: Knik Construction Co., Inc.

Property Owner: O Jacobsen Drive Juneau LLC
(this has been verified as the correct owner title)

Property Address: O Jacobsen Drive

Parcel Code Numbers: 1C110K110010; 1C110K100060; 1C110K100050;
1C110K100040

Site Size: Approximately two acres

Comprehensive Plan Future Land Use Designation: Heavy Industrial; Waterfront Commercial Industrial

Zoning: Industrial

Utilities: city water and sewer

Access: Jacobsen Drive

Existing Land Use: industrial storage yard

Surrounding Land Use:

North	-	cruise ship dock
South	-	active area of Alaska Marine Lines yard; Gastineau Channel

East - Delta Western
West - Gastineau Channel

Vicinity Map



Planning Commission
 File No.: USE2016 0003
 March 29, 2016
 Page 3 of 11

ATTACHMENTS

Attachment A - Application

- Section One: Overview
- Section Two: Pre-application conference report
- Section Three: Development Permit Application
- Section Four: Conditional Use Permit Application
- Section Five: Sub-lease Agreement with Alaska Marine Lines
- Section Six: Master lease agreement between 0 Jacobsen Drive, Juneau, LLC and Alaska Marine Lines LLC
- Section Seven: State of Alaska Approved Asphalt Plant Permits
- Section Eight: Fugitive Dust Control Plan
- Section Nine: Stormwater Plan and Hazardous Material Control Plan
- Section Ten: Astec Plant layout and process flow diagram

Attachment B - CBJ Code 49.20.095 Disturbing the Peace and 04 CBJ AC 050.020 Performance Standards

Attachment C - Revised Project Overview

Attachment D - Revised site plan

Attachment E - ADEC email regarding site distances from asphalt plants

PROJECT DESCRIPTION

The applicant requests a Conditional Use Permit for an asphalt plant, with assorted stockpiling, at the Alaska Marine Lines yard at the Rock Dump. The plant would be used on a project-by-project basis according to contracts from the city and state. The applicant states that they do not plan on setting up for commercial sales other than times when the plant is operating for other contracts.

The plant will typically operate from March through September depending on contract demands. In full production, the potential operating days and hours would be Monday through Friday, 7 am until 10 pm, and Saturday and Sunday from 9 am until 10 pm. These hours conform with the CBJ noise ordinance (Attachment B) as discussed in following review.

BACKGROUND

An agency review period was conducted from February 18, 2016 through March 4, 2016. The CBJ Building Division, CBJ Fire Department, CBJ Streets Division, CBJ General Engineering, and the Alaska Department of Environmental Conservation (ADEC) Division of Water, Non-Point Source section responded with statements that they had no concerns or no comment.

The Alaska Department of Transportation and Public Facilities (ADOT&PF) responded that they

Planning Commission
File No.: USE2016 0003
March 29, 2016
Page 4 of 11

had no objection to the proposal. However, ADOT/PF noted that “the increased traffic could lead to further congestion of the route; may be a slow route for the asphalt trucks since they will often be stuck in traffic. Still, this does not result in an objection from ADOT&PF.”

The ADEC Division of Water, Wastewater Discharge Authorization Program, commented that the plant could be covered by ADEC’s Construction General Permit, and noted that the site needs Best Management Practices that are described in an approved ADEC Stormwater Pollution Prevention Plan (SWPPP). The applicant has prepared a draft SWPPP, as discussed in the Habitat section of this report. Staff recommends a condition to require a final SWPP prior to issuance of a building permit.

ANALYSIS

Project Site and Design –

The project will be located in the northwest corner of the Alaska Marine Lines yard, which is currently being used for truck trailer storage and other miscellaneous items. The site is surrounded by industrial-zoned properties, with Gastineau Channel to the south and west. The Princess cruise ship dock is adjacent to the project site to the north, while Delta Western is located to the east. The Delta Western property includes a large parking lot occupied by buses and large fuel tanks, while the building is located in the far eastern corner. The Delta Western building, the closest occupied structure to the asphalt plant, is 500 feet from the plant.

The application explains that Knik Construction ships asphalt cement in a cooled state and reheats it for use. The company uses specially-designed shipping containers with built-in heating systems, so it is possible to transfer the hot asphalt plant from the tank to the plant without hitting the ground. (Attachment C, Project Narrative)

Aggregate will be stockpiled on site. The aggregate will either be imported via barge direct to Alaska Marine Lines, or trucked in from a local material source. Front-end loaders will be used to construct the stockpiles. No rock crushing operations will be established on site. Attachment D shows the layout of the operation.

Traffic, Parking, and Circulation -

Parking requirements for commercial and industrial developments, established in CBJ Code 49.40.210(a) are based on gross floor area, which is not applicable to the proposed development. The code does not have an established parking requirement for asphalt plants or similar uses that utilize large outdoor plants and outdoor storage areas.

The development includes parking for up to ten employees, as noted on the revised site plan, Attachment D. Portable restrooms will be placed on site during operations. Trucks used for

Planning Commission
File No.: USE2016 0003
March 29, 2016
Page 5 of 11

asphalt hauling will be parked in an equipment staging area when not in use.

The amount of truck traffic will be variable depending on the project, the size of trucks being used, and the location of the project. A typical project requires material to be supplied at a rate of 100-500 tons per hour. Assuming a legal load of 25 tons, this would result in a range of 4-20 truckloads per hour. Since the applicant's operations will be on an on-demand basis and subject to weather, there will be gaps when no trucking will take place. Truck traffic will be routed through the existing industrial area on Mt. Roberts Street, then to Thane Road, Marine Way, and on to Egan Drive as needed for projects.

CBJ Code 49.40.300 establishes the standards for a traffic impact analysis (TIA). The applicant's estimate of a maximum of 20 trucks per hour, for a maximum of 15 hours per day, equates to 300 truck trips per day. This estimate falls under CBJ Code 49.40.300(3), which states:

A development projected to generate more than 250 ADT (average daily trips) but fewer than 500 ADT shall be required to have a traffic impact analysis if the Community Development Department Director determines that an analysis is necessary based on the type of development, its location, the likelihood of future expansion, and other factors found relevant by the director.

The Community Development Department Director has determined that a traffic impact analysis is not needed. This determination is based on the following reasons: 1) the truck traffic pattern is within an established industrial route that already experiences truck traffic from the Alaska Marine Lines Yard and other industrial developments in the vicinity; 2) the truck route does not go through residential areas and has no evidence of public safety concerns; 3) the maximum traffic estimates for the project, which will occur rarely, fall at 300 ADT, just above the 250 ADT where no traffic impact analysis is required, and 4) though ADOT/PF notes that the traffic route may be slow and congested at times, ADOT/PF has no objection to the development.

Noise -

The plant will be powered by generators, including one main generator (1000 kw) and one standby generator (125 kw). A standard electricity hook-up from shorepower may be available and will be pursued if feasible.

The applicant states that noise from the project will be primarily from back-up alarms from operating trucks, from truck traffic, and from asphalt plant operation. The applicant's proposed hours of operation, described in the Project Description section, meet the requirements of the CBJ Noise Ordinance, CBJ Code 49.20.095. This standard, as well as CBJ Performance Standards, 04CBJ AC 050.20, has been included in Attachment B for reference.

Planning Commission
File No.: USE2016 0003
March 29, 2016
Page 6 of 11

The applicant notes that if noise becomes a concern in the area, they have the ability to construct a noise barrier by stacking shipping containers. The noise barrier would typically be three containers high, for a total height of 24 feet, and would be placed to best block noise from carrying across the channel. (See revised project overview, Attachment C)

Public Health or Safety -

The applicant's site plan shows that two fire hydrants are located in close proximity to the project area. The CBJ Fire Department was notified of the project during the agency review period (see Background section) and had no concerns.

The applicant has authorized permits from the Alaska Department of Environmental Conservation (ADEC) for three different asphalt plants. The asphalt plant permit requirements state that the plant may not be operated within 330 feet of the nearest residential or occupied structure for more than two construction seasons. According to the email message from ADEC dated January 20, 2016, DEC's definition of "occupied" would include office buildings or any other structure with people routinely in and around it. This email has been included in Attachment E.

The plant will be further than 330 feet from the nearest residential or occupied structure, as verified in the revised site plan, Attachment D. The three nearest structures are 500-520 feet away, in conformance with ADEC's requirement.

In the revised Project Overview, Attachment C, the applicant has explained that after more than two construction seasons, the ADEC distance requirement increases to 800 feet from the nearest residential or occupied structure. However, if Knik Construction returns to the same plant location at the AML yard for a different project, the ADEC clock "re-sets" and the distance requirement goes back to 330 feet. This interpretation has been verified in the ADEC email, Attachment E, and also in CDD staff conversations with ADEC staff. The applicant notes in the Project Overview that is not Knik Construction's intention to operate on a continuous basis.

Lastly, the development is in an established industrial area with security fencing and a single gated entry point. Section One of the application describes site security measures. Staff is unaware of any other public health or safety issues.

Habitat -

The proposed operation does not affect the conservation area established in a previous U.S. Army Corps of Engineers permit, as shown on the revised site plan, Attachment D. The site is not adjacent to any salmon streams, eagle nests, wetlands, or other sensitive habitat.

Planning Commission
File No.: USE2016 0003
March 29, 2016
Page 7 of 11

The applicant has prepared a draft Stormwater Pollution Prevention Plan (SWPPP) for ADEC, provided in Section Nine of the application. The SWPPP addresses stormwater management, spill prevention and response, erosion and sediment controls, and more. The SWPPP requires that erodible material be covered if not in use for an extended period. CBJ Engineering has reviewed the applicant's proposed drainage plan and noted that all concerns have been addressed.

Staff recommends a condition to require a final SWPPP before commencement of the activity, as follows:

Prior to the issuance of a building permit, the applicant shall provide the final Stormwater Pollution Prevention Plan, in conformance with ADEC requirements, to ensure protection of adjacent waters.

Dust Control

The applicant explains that primary source of dust will be from dry stockpiles and dry road surfaces where loaders and trucks are running. Other potential areas include the screening, conveyors, and baghouse components of the asphalt plant. The applicant will monitor these areas and will use water from a metered city water hydrant as needed. The application includes a detailed dust control plan in Section Eight of Attachment A. Water needed for dust control will be from a metered city water hydrant.

Lighting

The applicant has shown the general location of lighting on the site plan, and lighting is mentioned in the project narrative, in application Section One. Staff recommends a standard project condition on lighting as follows:

Prior to issuance of a building permit, the applicant shall submit a lighting plan illustrating the location and type of exterior lighting proposed for the development. Exterior lighting shall be designed and located to minimize offsite glare.

Property Value or Neighborhood Harmony -

The site is zoned Industrial and is surrounded by other industrial-zoned properties, including the Alaska Marine Lines yard and Delta Western fuel. The Princess cruise ship dock is immediately north of the property, also on industrial-zoned property.

The primary impact of the development is likely to be noise, which may carry across the

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channel to residential neighborhoods on Douglas Island. These neighborhoods are already affected by the Alaska Marine Lines operations, which may operate at all hours through the day and night.

The applicant's proposed hours of operation comply with the CBJ Noise Ordinance, as noted in the previous section. The plant will operate on a contract basis only and will not be continuous. The applicant has explained that they have the ability to construct a 24-foot noise barrier from containers if necessary. However staff notes that this measure may or may not be effective; this method has not been used before, and at least some of the noise impact to Douglas residents probably comes from noise bouncing off the mountains on both sides of the channel. Because of these limitations, staff is not recommending any additional conditions to address noise impacts.

Conformity with Adopted Plans -

2013 Juneau Comprehensive Plan

Map N of the 2013 Juneau Comprehensive Plan designates the subject parcels as Heavy Industrial and Waterfront Commercial Industrial, which are both appropriate for heavy industry such as the proposed asphalt plant.

Policy 5.11 of the Comprehensive Plan states:

To encourage the location and growth of locally-based basic sector industries that provide year-round, full-time employment and provide tax revenues that support public services.

Implementing action 5.11-1A4 states:

Create heavy industrial zoning areas appropriate for the basic industry sector, including fisheries, mining support services, forest products, and others.

The proposed development substantially conforms to these designations and policies.

2004 Long Range Waterfront Plan

The 2004 Long Range Waterfront Plan shows the Rock Dump as Area E. The plan states that "Area E remains an industrial zone for the region with cruise pier and related accessway improvements slated for the AJ Dock."

The plan calls for the Rock Dump "to continue as an important economic engine and logistics point for the community of Juneau by preserving and encouraging a continuation of waterfront dependent and industrial uses at this location."

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The proposed development substantially conforms with this plan.

FINDINGS

CBJ §49.15.330 (e)(1), Review of Director's Determinations, states that the Planning Commission shall review the Director's report to consider:

1. Whether the application is complete;
2. Whether the proposed use is appropriate according to the Table of Permissible Uses; and,
3. Whether the development as proposed will comply with the other requirements of this chapter.

The Commission shall adopt the Director's determination on the three items above unless it finds, by a preponderance of the evidence, that the Director's determination was in error, and states its reasoning for each finding with particularity.

CBJ §49.15.330 (f), Commission Determinations, states that even if the Commission adopts the Director's determination, it may nonetheless deny or condition the permit if it concludes, based upon its own independent review of the information submitted at the public hearing, that the development will more probably than not:

1. Materially endanger the public health or safety;
2. Substantially decrease the value of or be out of harmony with property in the neighboring area; or,
3. Not be in general conformity with the comprehensive plan, thoroughfare plan, or other officially adopted plans.

Per CBJ §49.15.330 (e) & (f), Review of Director's & Commission's Determinations, the Director makes the following findings on the proposed development:

1. Is the application for the requested conditional use permit complete?

Yes. Staff finds the application contains the information necessary to conduct full review of the proposed operations. The application submittal by the applicant, including the appropriate fees, substantially conforms to the requirements of CBJ Chapter 49.15.

2. Is the proposed use appropriate according to the Table of Permissible Uses?

Yes. The requested permit is appropriate according to the Table of Permissible Uses. The permit is listed at CBJ §49.25.300, Section 4.100, Heavy Manufacturing, for the Industrial zoning district.

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3. Will the proposed development comply with the other requirements of this chapter?

Yes. The proposed development complies with the other requirements of this chapter. Public notice of this project was provided in the April 1, 2016 and April 11, 2016 issues of the Juneau Empire's "Your Municipality" section, and a Notice of Public Hearing was mailed to all property owners within 500 feet of the subject parcel. Moreover, a Public Notice Sign was posted on the subject parcel, visible from the public Right of Way.

4. Will the proposed development materially endanger the public health or safety?

No. No evidence indicates that the proposed development will materially endanger the public health or safety. The development meets ADEC distance requirements from the asphalt plant to occupied structures, and includes adequate security fencing.

5. Will the proposed development substantially decrease the value of or be out of harmony with property in the neighboring area?

No. No evidence indicates that the proposed development will substantially decrease the value of or be out of harmony with property in the neighboring area. The property is surrounded by industrial uses. The primary noise impacts may be to Douglas residents across the channel, however these impacts have been addressed through compliance with the CBJ Noise Ordinance.

6. Will the proposed development be in general conformity with the land use plan, thoroughfare plan, or other officially adopted plans?

Yes. The proposed development is in general conformity with adopted plans including the 2004 Long Range Waterfront Plan and the 2013 Juneau Comprehensive Plan. The development specifically conforms with Comprehensive Plan policy 5.11 regarding industrial uses.

7. Will the proposed development comply with the Juneau Coastal Management Program?

Not applicable. The project does not affect any sensitive habitat. Stormwater management and spill prevention controls are in place to preserve water quality in the adjacent Gastineau Channel.

RECOMMENDATION

Staff recommends that the Planning Commission adopt the Director's analysis and findings and grant the requested Conditional Use permit. The permit would allow the development of an asphalt plant and related stockpiling at the Alaska Marine Lines yard. The approval is subject

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to the following conditions:

- 1) *Prior to issuance of a building permit, the applicant shall submit a lighting plan illustrating the location and type of exterior lighting proposed for the development. Exterior lighting shall be designed and located to minimize offsite glare.*
- 2) *Prior to the issuance of a building permit, the applicant shall provide the final Stormwater Pollution Prevention Plan, in conformance with ADEC requirements, to ensure protection of adjacent waters.*

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1. OVERVIEW
2. PRE-APPLICATION CONFERENCE REPORT
3. DEVELOPMENT PERMIT APPLICATION
4. CONDITIONAL USE PERMIT APPLICATION
5. SUB-LEASE AGREEMENT WITH ALASKA MARINE LINES
6. MASTER LEASE AGREEMENT BETWEEN O JACOBSEN
DRIVE, JUNEAU, LLC AND ALASKA MARINE LINES, INC.
7. STATE OF ALASKA APPROVED ASPHALT PLANT PERMITS
8. FUGITIVE DUST CONTROL PLAN
9. STORM WASTE WATER PLAN AND HAZARDOUS MATERIAL
CONTROL PLAN
10. ASTEC PLANT LAYOUT & PROCESS FLOW DIAGRAM



Development Permit Application – February 2016
City and Borough of Juneau
Knik Construction Additional Information

Project Description: Knik would like to operate an asphalt plant on the property that is owned by our sister company, Alaska Marine Lines. The site would be used for the setup and operation of a portable asphalt plant which would include stockpiling of aggregates as needed for the operations. The asphalt plant operations would be on a project by project basis, i.e. projects for the City and/or State procured on a contract basis. We do not plan on setting up for commercial sales other than during times when we are operating the plant in support of any of the above type projects in the Juneau area. Knik has been operating asphalt plants in Alaska for over 30 years; we understand all of the environmental and regulatory requirements that are apart of these operations and how to comply with these requirements.

We currently have permits (copies attached) for 3 different Astec asphalt plants with the State of Alaska:

- Astec II – AQ1322MG301.1 – Rated 400 TPH
- Astec III – AQ1217MG301.1 – Rated 400 TPH
- Astec V – AQ1439MG301.2 – Rated 300 TPH

The attached copies of the permits show the type of equipment for each plant.

Utilities Proposed: Knik asphalt plants are powered by generators. Typically configuration is one main generator (1000 kw) and one standby generator (125kw). Shore power may be available and will be pursued if feasible. Water needed for dust control will be from a metered city water hydrant. We have spoken to Mark Millay with CBJ Engineering to discuss best approaches. Our water needs will be temporary on an as needed basis, so using meters will be required.

Lighting Plan: Lights will be non-glare, facing down at approximately a 45° angle from 38 feet above ground mounted to the silo. Portable light towers (non-glare) will be available to be used as needed in addition to the silo mounted lights. See attached site map for locations

Site Plan: See attached Site Plan. Parking typically will be for up to 10 employees. Sanicans will be brought in for restrooms. Trucks used for hauling of asphalt will be parked in an equipment staging area when not in use. Knik will set up the asphalt plant taking into consideration all set-backs in the Industrial zoning district, making sure to have the minimum of 10 feet in the front and rear of the area. Actual acreage of plant location is appx .84 acres.



Knik Construction's MG3 asphalt plant permits specify that we can't operate within 330 feet of the nearest residential or occupied structure or within 800 feet of the nearest residential or occupied residential or occupied structure for *more than two construction seasons*. Our plant will be further than 330 feet of the nearest residential or occupied structure. The clock on two construction seasons would reset if we move our plant to a different project and then need to move it back to work on a project unrelated to the original construction project. Because Knik's plants are mobile, we will be relocating the plants to other locations when not needed in Juneau.

Site Security: Alaska Marine Lines is an MTSA regulated facility, with an approved facility security plan. The area that Knik Construction will be operating is in a fenced area that has one main entry control point, which is gated. The gate is open during normal business hours and when barge operations take place after hours. TWIC cards are required for all workers in this area.

Hours of Operation to include hours, days and months of operation – With the successful bid for Knik Construction, we would operate typically from March until September, depending on the amount of asphalt that is needed for the project. While in full production, potential operating days/hours would be Monday thru Friday from 7:00 a.m. until 10:00 p.m.; Saturday and Sunday from 9:00 a.m. until 10:00 p.m.

Noise Concerns: Anticipated noise from the project will be mainly from backup alarms from operating trucks, truck traffic, and asphalt plant operation. Knik will observe CBJ Noise Ordinance found in section **42.20.095** and will not operate outside of the approved times of Monday through Friday, 7:00 a.m. – 10 p.m. and Saturday and Sunday, 9:00 a.m. – 10:00 p.m. If noise becomes an issue in the area or across the Channel, Knik will have the ability to construct a noise barrier by stacking shipping containers.

Truck Traffic – Truck Traffic will vary depending on the project Knik is working on, the size of trucks being used and the location of the project. Typically a job will require material to be supplied at between 100 tons per hour (TPH) and 500 TPH. Using those rates and assuming the use of belly dump trailers hauling a legal load of 25 tons; this would result in a low of four truck loads per hour to a high of twenty truck loads per hour. Since Knik's operations will be on an on-demand basis and subject to weather, there will be gaps where no trucking will take place. Truck drivers will be trained and knowledgeable in laws and regulations as well as local traffic patterns. As Knik procures work, Traffic Control Plans specific to the new work will be established to ensure the safety of the public and Knik employees.

Asphalt Cement – Knik ships asphalt cement in a cooled state and reheated for use. Knik has the unique ability to ship asphalt cement in specially designed shipping containers constructed



with built-in heating systems. These containers make it possible to transfer asphalt cement in a way that is less harmful to the environment. Not only are the containers reusable but they transfer the hot asphalt from tank to plant without a drop hitting the ground.

Dust Control Plan and Narrative: Knik Construction Co., Inc. personnel will take all reasonable precautions to prevent particulate matter from becoming airborne. In Juneau, the primary source of dust will be from dry stockpiles and any dry road surfaces where loaders and trucks are running. Other potential areas include the Asphalt Plant operations of screening, conveyors, and baghouse. These areas will be monitored and should conditions warrant, Knik personnel will apply water to the road surfaces or other effected areas to prevent the generation of Fugitive Dust. Stockpile erosion will be addressed in the site storm water plan. Water will be from a metered city fire hydrant.

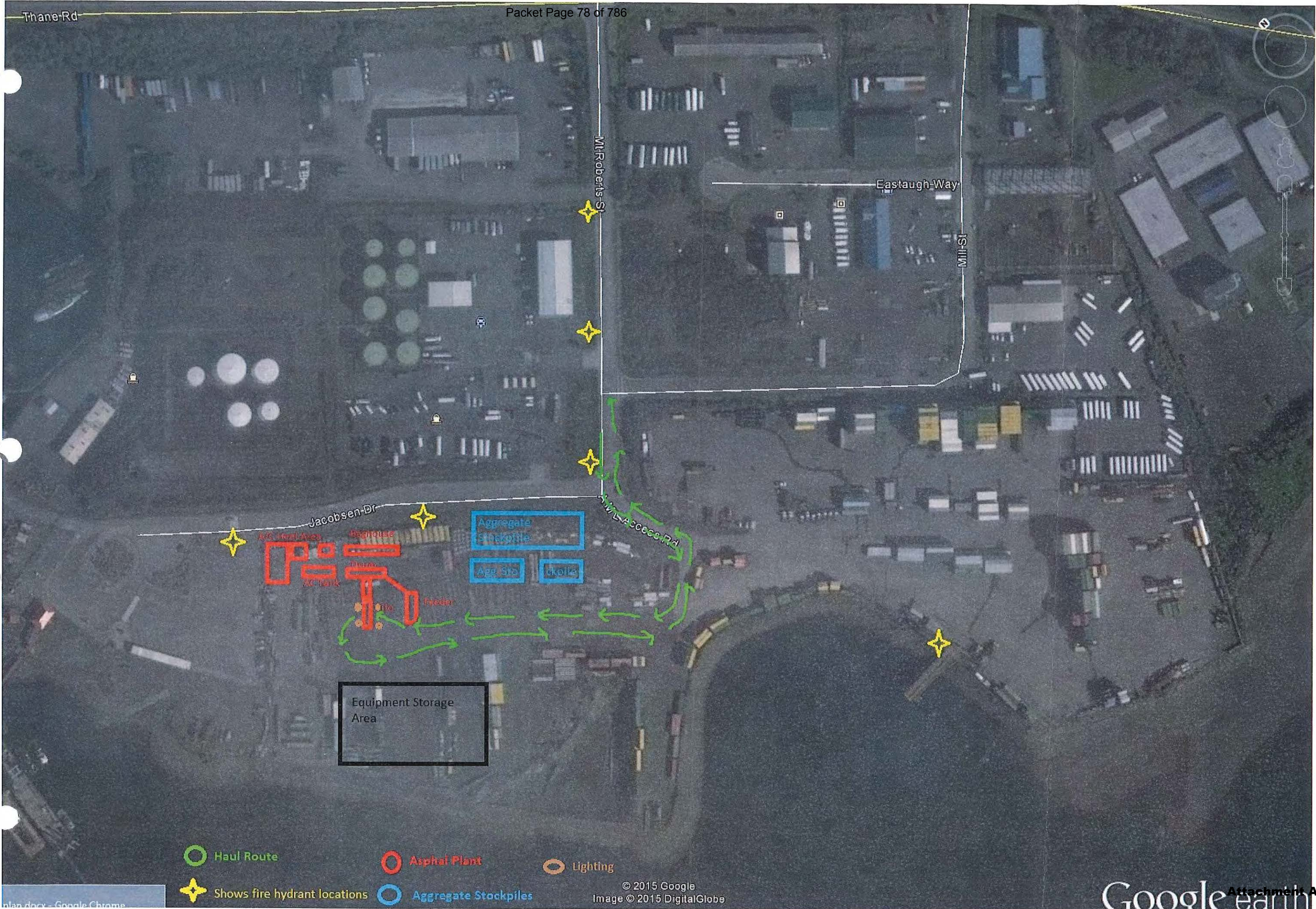
A copy of our typical fugitive dust control is attached for your review.

Stockpile details – Aggregate will be stockpiled on site; see the attached Site Plan for location of stockpiles. The aggregate will be either imported via barge direct to the AML facility or trucked in from a local Juneau material source. Front end loaders will be used to construct the stockpiles. No crushing operations will be established on site. Knik's Storm Water Pollution Prevention Plan (SWPPP) requires that erodible material be covered if not in use for an extended period. Fines would need to be covered to prevent erosion and runoff. Please see the attached SWPPP for complete details.

Grading and Drainage Plan: Area has crushed rock graded to drain to the settlement pond and infiltration point (see Figure #2 BMP Site Map located in the draft SWPPP)

Spill Containment – All measures will be taken to ensure that a spill will not occur. Should a spill occur the first action in spill response is to stop the source of the spill. Once the source of the spill has been stopped, personnel shall begin containing the spill with sorbent pads, booms, or granular sorbent, depending on the site conditions. The primary focus of containment is to keep the spill from reaching wetlands, drains, ditches, or other waterbodies and to limit the extent of contamination. Once the limits of a spill have been contained, the spill area shall be cleaned up using spill kit supplies and/or other materials. Emergency response numbers for environmental cleanup will be posted on site. Waste materials generated in the containment and cleanup of a spill shall be placed in disposal bags and stored in the overpack drum until waste can be disposed of properly at a facility approved to accept the type of waste generated.

SWPPP: We have attached a draft Storm Water Pollution Prevention Plan. Once work is secured, we are prepared to submit this to the ADEC for their review. This plan follows several guidelines we use for other Knik construction projects and facilities.



○ Haul Route

○ Asphalt Plant

○ Lighting

★ Shows fire hydrant locations

○ Aggregate Stockpiles

© 2015 Google
Image © 2015 DigitalGlobe

Google earth Attachment A



SITE LOCATION MAP (PARCEL 2)



**City and Borough of Juneau
Community Development Department**

155 South Seward Street
Juneau, Alaska 99801

Telephone: 586-0715 Facsimile: 586-3365

Project Name: Asphalt Plant

Case Number: not given yet
 Project Description: Development of a mobile asphalt plant at the AML yard
 Applicant: Knik Construction
 Property Owner: Alaska Marine Lines
 Property Address: 209 Mount Roberts Street
 Parcel Code Number: 1-C11-0-K15-0080
 Zoning: Industrial
 Existing Land Use: vacant marine yard

Conference Date: August 19, 2015, 10:30 a.m.

Report Issued: August 19, 2015

List of attendees

Note: Copies of the Pre-Application Conference Report will be emailed, instead of mailed, to participants who have provided their email address below.

Name	Title	Email address
Ron King	Chief Regulatory Engineer ; CBJ Engineering	ron.king@juneau.org
Teri Camery	Senior Planner, CBJ Community Development Department	teri.camery@juneau.org
Linda Sheehan	Contract Administrator, Knik Construction	lindag@lynden.com

Pre-Application Conference Final Report

Conference Summary

Questions/issues/agreements identified at the conference that were not already identified in the attached reports.

The following is a list of issues, comments and proposed actions, and requested technical submittal items that were discussed at the pre-application conference.

Applicant:

- Development includes two generators
- Tanks are double-walled
- SWPPP is being prepared
- Development will have 5-10 trucks per hour at peak times
- Three different plants are available, each with its own air quality permit; not sure which ones will be used at this site

CBJ Engineering:

- Need grading and drainage plan to coordinate with state SWPPP; needs to include contours and elevations; needs to conform with CBJ Manual of Stormwater Best Management Practices, which is similar to the SWPPP but is better defined for individual lots. CBJ will send the link to this plan.
- Check Corps of Engineers permit requirements for the area—a vegetative buffer may be required
- Note locations of closest fire hydrants on site plan
- Note water sources, on-site restrooms
- Project narrative should address spill containment
- Include lease agreement from AML for use of the area

CBJ Community Development/Planning:

- A lighting plan which utilizes downward-facing, non-glare lighting will be required prior to issuance of a Certificate of Occupancy. The final SWPPP will also be required prior to issuance of a Certificate of Occupancy.
- Include information on all three types of asphalt plants with copies of the three accompanying air quality permits, if all three types might be used during the course of the development. Confirm conformance with site distance requirements from adjacent buildings, and describe this in the project narrative.
- Site plan should include any parking needed on site for trucks and employees
- Project narrative should list hours, days, and months of operations.
- Project narrative should describe site security, gates etc.
- Project narrative should list the anticipated daily and weekly truck traffic, in a range from a typical week to the busiest week. Describe the operation as on-demand, with potential gaps of weeks without any use.
- Project narrative should address anticipated noise from the project and measures to minimize noise—buffering, etc. Noise is a significant concern for neighborhoods across the channel from AML and the project may be challenged on these grounds.
- Provide more detail on stockpiling and processing of aggregate. Note whether rock will be crushed on site.
- Dust control plan looks excellent. Provide an explanation of this plan in the project narrative.
- The Conditional Use Permit review process requires a mandatory 15-day agency review period. CDD will then address any questions and requests for additional information, and then proceed with scheduling before the Planning Commission. Projects typically require 8-10 weeks for approval.
- Setbacks in the Industrial zoning district are 10 feet in the front and rear and zero on the sides. I'm sure you have plenty of room, but please note this on your site plan.
- Please note the site size for the asphalt plant (not the whole acreage for the AML yard). This is what our fees are based on. The permit fee for this project is likely to be the range of \$1000-\$1600. \$1600 would be the maximum.
-

List of required applications

Based upon the information submitted for pre-application review, the following list of applications must be submitted in order for the project to receive a thorough and speedy review.

1. Development Permit Application

Pre-Application Conference Final Report

2. Conditional Use Permit Application**Additional submittal requirements:**

Submittal of additional information, given the specifics of the development proposal and site, are listed below. These items will be required in order for the application to be determined Counter Complete.

1. A copy of this pre-application conference report.

For informational handouts with submittal requirements for development applications, please visit our website at www.juneau.org.

Submit your completed application

You must submit your application(s) in person with payment to:

City/Borough of Juneau
Permit Center
230 S. Franklin Street,
Fourth Floor Marine View Center
Juneau, AK 99801

Phone: (907) 586-0715
Fax: (907) 586-3365
Web: www.Juneau.org

DEVELOPMENT PERMIT APPLICATION

Project Number	CITY and BOROUGH of JUNEAU	Date Received:
Project Name (City Staff to Assign Name)		

PROJECT / APPLICANT INFORMATION

Project Description
Knik Construction to locate and operate an asphalt plant in Juneau as jobs become available and as successful in the bidding process

PROPERTY LOCATION

Street Address: 0 Jacobsen Drive City/Zip: Juneau, AK 99801

Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot)
Alaska Juneau Subdivision II & III-A, according to the official plat thereof, recorded under Plant No. 96-17

Assessor's Parcel Number(s)
Lots 4D, 4E, 4F, & 3C,

LANDOWNER/LESSEE

Property Owner's Name 0 Jacobsen Drive, Juneau, LLC	Contact Person: Rod Dewalt	Work Phone: 206-439-5663
Mailing Address 18000 International Blvd., Ste 800	Home Phone: 425-243-2074	Fax Number: 206-243-8415
E-mail Address dewalt@lynden.com	Other Contact Phone Number(s):	

LANDOWNER/LESSEE CONSENT ***Required for Planning Permits, not needed on Building/Engineering Permits***

I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows:
A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.
B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.

X Bill Hopley, Secretary, AMG, Prime Tent 2-10-16
Landowner/Lessee Signature Date

X Bill Hopley, Manager, 0 Jacobsen Drive, Owner 2-10-16
Landowner/Lessee Signature Date

NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.

APPLICANT If the same as OWNER, write "SAME" and sign and date at X below

Applicant's Name Knik Construction Co., Inc.	Contact Person: Linda Sheehan	Work Phone: 206-439-5521
Mailing Address 18000 International Blvd., Ste 800	Home Phone: 206-790-9416	Fax Number: 206-243-8415
E-mail Address lindag@lynden.com	Other Contact Phone Number(s):	

X [Signature] 2-10-16
Applicant's Signature Date of Application

OFFICE USE ONLY BELOW THIS LINE					
STAFF APPROVALS	☒	Permit Type	Division	Date Received	Application Number(s)
		Building/Grading Permit			
		City/State Project Review and City Land Action			
		Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)			
		Mining Case (Small, Large, Rural, Extraction, Exploration)			
		Sign Approval (If more than one, fill in all applicable permit #'s)			
		Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)			
		Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)			
		Variance Case (Do Minimis and all other Variance case types)			
		Wetlands Permits			
		Zone Change Application			
		Other (Describe)			
***Public Notice Sign Form filled out and in the file.					
Comments:					Permit/Intake Initials:

NOTE: DEVELOPMENT PERMIT APPLICATION FORMS MUST ACCOMPANY ALL OTHER COMMUNITY DEVELOPMENT DEPARTMENT APPLICATIONS

1:FORMS\2010 Applications

Revised November 2009

Attachment A

TO BE COMPLETED BY THE APPLICANT

Attachment A

Allowable/Conditional Use Permit Application Instructions

Pre-Application Conference: A pre-application conference is required prior to submitting an application. The applicant will meet with City & Borough of Juneau and Agency staff to discuss the proposed development, the permit procedure and to determine the application fees. To schedule a pre-application conference, please contact the Permit Center at 586-0770 or via e-mail at Permits@ci.juneau.ak.us.

Application: An application for an Allowable/Conditional Use Permit will not be accepted by the Community Development Department until it is determined to be complete. The items needed for a complete application are:

Forms: A completed Allowable/Conditional Use Permit Application and Development Permit Application form. The "land owner or lessee consent" signature and initials are mandatory on the Development Permit Application form.

Fees: The fee is dependent upon the class of the proposed use. Land Use fees generally range from \$300 to \$1,350. Any development, work or use done without a permit issued will be subject to double fees. All fees are subject to change.

Project Description: A detailed letter or narrative describing the project.

Plans: All plans are to be drawn to scale and clearly show the items listed below:

- A. Site plan, floor plan and elevation views of existing and proposed structures
- B. Existing and proposed parking areas, including dimensions of the spaces, aisle width and driveway entrances
- C. Proposed traffic circulation within the site including access/egress points and traffic control devices
- D. Existing and proposed lighting (including cut sheets for each type of lighting)
- E. Existing and proposed vegetation with location, area, height and type of plantings
- F. Existing physical features of the site (i.e. drainage, eagle trees, hazard areas, salmon streams, wetlands, etc.)

Document Format: All information that is submitted as part of an application shall be submitted in either of the following formats:

- A. Electronic copies may be submitted by CD, DVD or E-mail in the following formats: .doc, .txt, .xls, .bmp, .pdf, .jpg, .gif, .xml, .rtf or other formats pre-approved by the Community Development Department.
- B. Paper copies may not be larger than 11" X 17" (Unless a larger paper size is preapproved by the Community Development Department).

Application Review & Hearing Procedure: Once the application is determined to be complete, the Community Development Department will initiate the review and scheduling of the application. This process includes:

Review: As part of the review process the Community Development Department will evaluate the application for consistency with all applicable City & Borough of Juneau codes and adopted plans. Depending on unique characteristics of the permit request the application may be required to be reviewed by other municipal boards and committees. During this review period, the Community Development Department also sends all applications out for a 15-day agency review period. Review comments may require the applicant to provide additional information, clarification, or submit modifications/alterations for the proposed project.

Hearing: All Allowable/Conditional Use Permit Applications must be reviewed by the Planning Commission. Once an application has been deemed complete and has been reviewed by all applicable parties the Community Development Department will schedule the requested permit for the next appropriate meeting.

Public Notice Responsibilities: As part of the Allowable/Conditional Use permitting process, all permit requests must be given proper public notice, which consists of the following:

Community Development Department: Will give notice of the pending Planning Commission meeting and its agenda in the local newspaper a minimum of 10-days prior to the meeting. Furthermore, the department will mail abutters notices to all property owners within 500-feet of the project site.

Applicant: Will post a sign on the site at least 14-days prior to the meeting. The sign shall be visible from a public right-of-way or where determined to be appropriate by the Department. Signs may be produced by the Community Development Department for a preparation fee of \$50, and a \$100 deposit that will be refunded in full if the sign is returned by 4:30 p.m. on the Monday following the scheduled hearing date. If the sign is returned later than the Monday after the Planning Commission meeting, but within two weeks of the meeting, \$50.00 may be refunded. The applicant may make and erect their own sign. Please speak with the Community Development Department for more information.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

49.25.300

PART II: CODE OF ORDINANCES

		Zones																	
	Use Description	RR 3 ^Q	D-1 3 ^Q	D-3	D-5	D-10 SF	D-10	D-15	D-18	LC	GC	MU	MU2	WC	WI	I			
4.100	Asphalt and concrete plants, chemical refining, manufacture, storage or sale, explosives and ammunition, manufacture, lumber, plywood and paper mills, petroleum or flammable liquid production, refining or storage, foundries and all uses determined by the Community Development Director to be similar to the foregoing	3 ^Q	3 ^Q												3 ^N	3			
4.150	Rock crusher	1 ^Q	1 ^Q	1 ^Q											3 ^N	3			
4.200	Storage of explosives and ammunition	3													3 ^N	3			
4.220	Seafood processing													3	3				
4.300	All remaining category 4.000 uses														1 ^N , 2 ^N	1, 2			
5.000	EDUCATIONAL, CULTURAL, RELIGIOUS, PHILANTHROPIC, SOCIAL, FRATERNAL USES																		
5.100	Schools																		
5.110	Elementary and secondary schools including associated grounds and other facilities	3	3	3	3	3	3	3	3	3	3	3	3						
5.120	Trade and vocational schools and other commercial schools									2	2	2	2	3 ^N		3			
5.130	Colleges, universities, community colleges	3	3	3	3	3	3	3	3	3	3	3	3	3 ^N					
5.200	Churches, synagogues, and temples		3	3	3	3	3	3	3	3	3	1, 2	1, 2						
5.300	Libraries, museums, art galleries, and similar uses		3	3	3	3	3	3	3	2	2	1, 2	1, 2	3 ^N					
5.400	Social, fraternal clubs and lodges, union halls, yacht clubs, and similar uses									1, 2	1, 2	1, 2	1, 2	3 ^N		3			
6.000	RECREATION, AMUSEMENT, ENTERTAINMENT																		
6.100	Activity conducted entirely within building or substantial structure																		
6.110	Bowling alleys, billiard and pool halls									3	1, 2	1, 2	1, 2			3			
6.120	Indoor tennis and racquetball/squash courts, skating rinks, exercise facilities, and similar uses				3	3	3	3	3	1, 2	1, 2	1, 2	1, 2			3			
6.130	Theaters										1, 2	1, 2	1, 2	3 ^N		3			



5615 West Marginal Way SW

Seattle, WA 98106

206-764-8346

January 25, 2016

Ms. Teri Camery, Senior Planner
City and Borough of Juneau
155 South Seward Street
Juneau, AK 99801

Subject: Asphalt Plant Operations

Dear Ms. Camery:

Alaska Marine Lines has agreed to sub-lease a portion of our dock facility (Lot 3c, 4D, 4E, & 4F of attached map) to Knik Construction for their asphalt plant to be located in Juneau. We understand that they will be bidding on potential projects, and once awarded will need to locate one of their asphalt plants to this site for the duration of the project. We have attached a draft lease agreement that we are willing to put into place once the need arises.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Everett Billingslea', is written over a faint, larger signature.

Everett Billingslea
Secretary

Enclosures

SUBLEASE

THIS SUBLEASE is entered into and executed as of _____, by and among Alaska Marine Lines, Inc. ("Sublessor"), and Knik Construction Co., Inc. ("Sublessee"):

Sublessor is the tenant under that certain Lease dated December 1, 2010 (a copy of which is attached hereto as Exhibit A) (the "Master Lease") by and between Sublessor, as lessee, and O Jacobsen Drive, Juneau, LLC, as lessor (the "Landlord") pursuant to which Sublessor leases from Landlord approximately 429,328 square feet of space within Landlord's Juneau Waterfront Lot and Lot 3C Rock Dump (the "Rock Dump") in Juneau, Alaska, as further described in the Master Lease (the "Premises"). Sublessor desires to sublease to Sublessee, and Sublessee desires to sublease from Sublessor, the portion described as "Rock Dump" of the said Premises, upon the terms, covenants and conditions set forth in this Sublease.

For good and valuable consideration, Sublessor and Sublessee agree as follows:

1. Sublease. Sublessor hereby subleases to Sublessee, and Sublessee hereby takes and subleases from Sublessor, the Rock Dump portion of the Premises, subject to the terms, covenants and conditions of this Sublease. Sublessee accepts the Premises in its AS IS condition as of the commencement date, subject to all applicable laws, ordinances, regulations, covenants and restrictions. Sublessee agrees that neither Sublessor nor Landlord has made (and Sublessee hereby waives), any representation or warranty of any kind or nature, whether express or implied, as to the condition, fitness or suitability of the Premises for the conduct of Sublessee's business or otherwise. As used herein, the Premises include certain coolers, fixtures and other tenant improvements located therein and thereon that are owned by Sublessor ("Sublessor's tenant improvements").

2. Conditions Precedent. This Sublease and the obligations of the parties hereunder shall be contingent upon: (a) the successful securing of work requiring the need for an asphalt plant; and (b) Sublessor's receipt of Landlord's written consent to this Sublease.

3. Initial Fixed Term; Month to Month Tenancy. This Sublease shall have an initial fixed term commencing on _____ and ending on _____ (the "Fixed Term"), and thereafter shall continue on a month-to-month basis. After expiration of the Fixed Term, this Sublease may be terminated by either Sublessor or Sublessee upon at least thirty (30) days prior written notice to the other party.

4. Permitted Use. Sublessee may use the Premises for the permitted uses set forth in the Master Lease as well as the location of an asphalt plant, equipment, and aggregate needs, and Sublessee shall not use the Premises for any other use or purpose. In addition to its use of the Premises, Sublessee may use the parking and exterior areas adjacent to the Rock Dump allocated to Sublessor, as lessee, in accordance with and subject to the terms of the Master Lease.

5. Compliance with Master Lease. Sublessee acknowledges that it has received and reviewed a copy of the Master Lease. Every term and condition of this Sublease is subject to the Master Lease and, subject to the terms of this Sublease, all terms and conditions of the Master Lease are incorporated herein as if between Sublessee and Sublessor. Sublessee agrees to comply with and be subject to the terms and conditions of the Master Lease and not to act in any manner that would constitute a default or breach under the Master Lease. In the event of a conflict, ambiguity or inconsistency between the provisions of this Sublease and the provisions of the Master Lease then, as between Sublessor and Sublessee, the terms of this Sublease shall prevail. Sublessee acknowledges that Sublessor is not in a position to render any of the services or to perform any of the obligations required by Landlord under the Master Lease. Therefore, notwithstanding anything to the contrary contained in this Sublease, Sublessee agrees that performance by Sublessor of any obligations hereunder are conditional upon due performance by the Landlord of its corresponding obligations under the Master Lease.

6. Rent.

a. Sublessee shall pay Sublessor monthly rent for the Premises in the amount of \$_____ (consisting of _____), plus applicable City and Borough of Juneau sales tax ("Base Rent"). Sublessee shall pay all Base Rent, in advance, commencing on _____, and on or before the first (1st) day of each calendar month thereafter, at 18000 International Blvd., Suite 800, Seattle, Washington 98188, or at such other address a Sublessor shall from time to time advise in writing. Amounts shall become past due after the fifth (5th) day of the month.

b. In addition to Base Rent, Sublessee shall pay Sublessor all additional amounts Sublessor is charged by Landlord pursuant to the first paragraph in Section 8 of the Master Lease with respect to adjustments due to increases in real property taxes assessed with respect to the Rock Dump and associated land and increases to Landlord's property insurance costs, plus applicable City and Borough of Juneau sales tax. Sublessor shall invoice Sublessee for such adjustment amounts on an annualized basis, and Sublessee shall pay such amount in full within thirty (30) days following the date of Sublessor's invoice.

c. In addition to Base Rent and the adjustments set forth in paragraph 6.b. above, all other sums that Sublessee is required to pay to Sublessor pursuant to the terms of this Sublease shall be additional rent, payable by Sublessee, and all amounts due under this Sublease shall be due and payable without offset of any kind. All sums which are past due and unpaid by Sublessee hereunder shall be assessed and accrue a service charge in the amount of 1-1/2% per month, 18% per annum. The minimum service charge for handling late payment is \$25.00.

7. Required Insurance. Sublessee shall obtain and maintain in full force and effect throughout the Fixed Term and month-to-month tenancy of this Sublease, at its sole cost and expense (including the cost deductibles), the same insurances, under the same conditions and to the same requirements, deductibles and limits as are required of Sublessor, as lessee, under the Master Lease, and shall name Sublessor and Landlord as additional insured on all policies except workers' compensation and USL&H coverage, for which Sublessee shall waive subrogation as to Sublessor and Landlord. Without limiting the foregoing, Sublessee's property insurance, as required hereunder, shall be extended to cover Sublessor's tenant improvements located on / in the Premises, and shall further be endorsed to name Sublessor as sole loss payee with respect thereto. Sublessee shall provide Sublessor with a certificate of insurance and copies of endorsements evidencing its compliance with this Section 7. Sublessor shall not be obligated to provide any insurances in connection with the Sublease.

8. Property Taxes. Sublessee shall pay before delinquency all personal property taxes and assessments, if any, on all of Sublessor's tenant improvements on / in the Premises as of the commencement date hereof, as well as personal property taxes and assessments on cargoes, inventory, tenant improvements and other property which Sublessee maintains on or around or attaches to the Premises.

9. Utilities. Sublessee shall pay when due all telephone service, electrical services, fuel, oil, water, garbage removal, and alarm services and other utilities furnished to, charged against or consumed on the Premises during the Fixed Term and month-to-month tenancy hereof. Pursuant to the Master Lease, Sublessee shall be entitled to bill Landlord for the amount of electricity used by the adjoining space in the Rock Dump, which shall have a separate meter.

10. Repair and Maintenance. Sublessee shall, at its own expense, perform all maintenance, repairs and restoration of the Premises as required by Sublessor, as lessee, under the Master Lease. Without limiting the foregoing, Sublessee shall, at its own expense and at all times keep the Premises neat, clean and in a sanitary condition, and keep and use the Premises in accordance with applicable laws, ordinances, rules, regulations and requirements of governmental authorities, and Sublessee shall permit no waste, damage or injury to the Premises and shall keep it cleared of dirt, dunnage and debris.

11. Alterations. Sublessee shall make no alterations to the Premises absent the prior written consent of Sublessor, which consent Sublessor may withhold in its absolute discretion. Sublessor shall have no obligation to make any alterations or improvements to the Premises.

12. Liens and Insolvency. Sublessee shall keep the Premises free from any liens or encumbrances arising out of any work performed for, materials furnished to, or obligations incurred by Sublessee, and shall immediately cause any such liens or encumbrances to be immediately released and removed of record. Sublessee shall indemnify and hold harmless Sublessor and Landlord (including legal fees and costs) from and against any costs, expenses, claims or damages incurred by Landlord or the Premises in connection with any such liens or their discharge.

13. Environmental Matters. Tenant shall not cause or permit any Hazardous Substance to be treated, spilled, leaked, disposed of, or otherwise released on or under the Premises. Tenant may locate, store, use or sell on the Premises only those Hazardous Substances typically stored, transported, used and sold in the prudent and safe operation of the use permitted above. Tenant may store such Hazardous Substances on the Premises, but only in quantities necessary to satisfy Tenant's reasonably anticipated needs, and in the ordinary course of its business. Tenant may not use or store on the Premises any Hazardous Substance that is inherently or potentially radioactive, explosive, ignitable, corrosive or reactive, other than petroleum fuels, without Landlord's written approval, which Landlord may withhold in Landlord's sole discretion if the quantities used or stored are greater than de minimis quantities. Tenant shall comply with all environmental laws and exercise the highest degree of care in the use, handling, and storage of Hazardous Substances, and shall take all practical measures to minimize the quantity and toxicity of Hazardous Substances used, handled or stored on the Premises.

14. Sublessor Notification. Sublessee shall immediately furnish Sublessor with a copy of each notice received from the Landlord and from all courts, attorneys, governmental agencies and others with respect to the Premises.

15. No Assignment or Sublease. Sublessee shall not have a right to assign this Sublease or enter into a sublease for any portion of the Premises without Sublessor's prior written consent, given in Sublessor's sole discretion.

16. Damage or Destruction. In the event the Premises are damaged or destroyed as addressed in Section 19 of the Master Lease during the Fixed Term of this Sublease, and such damage or destruction is not repaired within sixty (60) days, either Sublessor or Sublessee may terminate this Sublease upon thirty (30) days prior written notice to the other party. If such damage or destruction occurs following expiration of the Fixed Term, then Sublessor and Sublessee shall each be entitled to terminate this Sublease in accordance with Section 3 above. If neither Sublessor nor Sublessee elects to cancel this Sublease, then Sublessee shall be entitled to abatement of rent, but only to the extent rent abatement is available to Sublessor under the terms of the Master Lease. In no event shall Sublessor have any duty or obligation to rebuild or restore the Premises in the event of such damage or destruction, whether or not Landlord elects to rebuild or restore pursuant to the terms of the Master Lease.

17. Indemnification. Sublessee agrees to indemnify, defend and hold Sublessor and Landlord harmless (including legal fees and costs) from and against: (a) any and all losses, damages, claims, suits, actions, judgments, liabilities and expenses arising out of, or with respect to any injury to, or death of, persons and/or any damage to, or destruction or loss of, property on or about the Premises arising from and/or attributable to the negligence or misconduct of Sublessee, or its officers, employees, agents, contractors, customers or invitees, except to the extent caused by the negligence or misconduct of Sublessor or Landlord, or any of their respective officers, employees, agents, contractors or invitees; and (b) any and all claims or liabilities which may at any time be asserted against Sublessor by Landlord (i) for failure of Sublessee to perform any of the covenants, terms, provisions or conditions contained in the

Master Lease which by reason of the provisions of this Sublease Sublessee is obligated to perform and/or (ii) otherwise arising from Sublessee's possession or occupancy of the Premises.

18. Default and Remedies. Time is of the essence hereof. If Sublessee fails to keep or perform any term or condition of this Sublease or any obligation that Sublessee is required to perform pursuant to the terms of this Sublease, including causing or allowing any event of default under the Master Lease to occur, within five (5) days after notice in writing thereof given by the Landlord or Sublessor to Sublessee specifying the matter claimed to be in default, Sublessor, at its option, may immediately declare Sublessee's rights under this Sublease terminated, or re-enter and attempt to relet, without terminating this Sublease, and remove all persons and property from the Premises, and otherwise proceed as allowed by law. In addition, if Sublessor elects to cure any default on Sublessee's behalf, it shall be permitted to do so on Sublessee's behalf and as its agent, and Sublessee shall immediately reimburse Sublessor for the cost thereof, plus interest at the maximum rate permitted by law from date incurred.

19. Quiet Enjoyment. So long as Sublessee pays all rent and performs all of its obligations in this Sublease, Sublessee's possession and enjoyment of the Premises will not be disturbed or hindered by Sublessor or any other part claiming through (including, without limitation, any vendors or other tenants of) Sublessor, its successors and assigns.

20. No Consequential Damages. Sublessor shall not be responsible for any indirect, consequential or special damages whatsoever, including, without limitation, business interruption, extra expense, loss of profits or income, loss of use of property, delay or damages consequential upon delay and/or loss of use, whether resulting from negligence, breach hereof or otherwise, and even if the possibility of such is or was foreseeable by Sublessee, Sublessor, or any person or entity.

21. Master Lease Extension Options. Sublessee acknowledges that Sublessor may or may not exercise any option to extend under the terms of the Master Lease, which options may be exercised by Sublessor, or not, in its absolute sole discretion.

22. Non-Waiver. No failures of Sublessor to insist upon the strict performance of any provision of this Sublease will be construed as depriving Sublessor of the right to insist on strict performances of any such provision or any other provision in the future. No waiver by Sublessor of any provision of this Sublease will be deemed to have been made unless expressed in writing and signed by Sublessor. Consent by Sublessor in one instance will not dispense with the necessity of consent by Sublessor in any other instance.

23. Survival. Sublessee's obligations to indemnify Sublessor hereunder shall survive expiration or termination of the Fixed Term or month-to-month tenancy of this Sublease.

24. Notices. Any notices required herein shall be sent by commercial express courier service, registered or certified mail, return receipt requested, or hand delivered to the attention of the party's corporate secretary. For notice delivered by mail or courier, notice from Sublessee to Sublessor shall be addressed to: Alaska Marine Lines, Inc., 18000 International Blvd, Suite 800, Seattle, WA 98188 (ATTN: Everett Billingslea); if from Sublessor to Sublessee, notice shall be addressed to: Knik Construction Co., Inc., 18000 International Blvd., Suite 800 (ATTN: Steve Jansen).

25. Legal Costs. Should either party to this Sublease commence any action or proceeding related to this Sublease, the prevailing party shall be entitled to recover from the other party all of its costs incurred therein, including reasonable legal fees and costs.

26. Execution. This Sublease may be executed in counterparts and/or by facsimile or other electronic exchange of signatures, with all such counterparts deemed the same single agreement and signatures exchanged by electronic means deemed equivalent to originals and binding.

27. Construction and Integration. The headings used herein are for convenience of reference only. This Sublease shall be construed neutrally, and as the commemoration of the mutual assent of both parties, rather than for or against a party. This Sublease constitutes the entire agreement between the parties and expressly supersedes all prior and contemporaneous agreements or understandings, written and oral. This agreement may not be modified except through a writing signed by both parties.

SUBLESSOR:
ALASKA MARINE LINES, INC.

SUBLESSEE:
KNIK CONSTRUCTION CO., INC.

By _____

By _____

Its _____

Its _____

DRAFT

CONSENT TO SUBLEASE

0 Jacobsen Drive, Juneau, LLC, ("Landlord") in that certain Operating Lease (AML Juneau Waterfront Lot, Upland Lot, Dock Lot 8 and Lot 3C) ("Master Lease") dated December 1, 2010, hereby acknowledges and consents to a Sublease dated _____, 2016, between Alaska Marine Lines, Inc. ("Sublessor") and KNIK Construction Co., Inc. ("Sublessee") for:

The use of a portion of the Juneau Waterfront Lot and Lot 3C Rock Dump for the purpose of securing work requiring the need for an asphalt plant.

The Landlord consents to the Sublease provided that:

(i) The Sublessor submits any renewal of the Sublease to the Landlord for approval.

(ii) Nothing within this consent shall be considered as an approval to extend the Sublease.

(iii) The Sublessor shall remain responsible to the Landlord for compliance with all the terms of the Master Lease

Dated this _____ day of _____, 2016.

0 JACOBSEN DRIVE, JUNEAU, LLC

By: _____
Its: Manager

0 Jacobsen Drive, Juneau, LLC

18000 International Blvd., Suite 800

Seattle, WA 98188

206-241-8778

January 25, 2016

Ms. Teri Camery, Senior Planner
City and Borough of Juneau
155 South Seward Street
Juneau, AK 99801

Subject: Asphalt Plant Operations

Dear Ms. Camery:

0 Jacobsen Drive, Juneau, LLC, Gives permission to Alaska Marine Lines, Inc. to sub-lease property owned by 0 Jacobsen Drive, Juneau, LLC, described as has agreed Lot 3c, 4D, 4E, & 4F, Alaska Juneau Subdivision II & III, Plat No. 91-67 of attached map to Knik Construction for their asphalt plant to be located in Juneau. We understand that they will be bidding on potential projects, and once awarded will need to locate one of their asphalt plants to this site for the duration of the project. We have attached a draft lease agreement that we are willing to put into place once the need arises.

Sincerely,



Everett Billingslea

~~Secretary~~ *Manager*

Enclosures

OPERATING LEASE
(AML JUNEAU WATERFRONT LOT, UPLAND LOT, DOCK LOT 8 & LOT 3C)

Date: December 1, 2010

Between: 0 Jacobsen Drive, Juneau, LLC, an Alaska limited liability company
("Landlord")
18000 International Blvd., Suite 800
Seattle, WA 98188

And: Alaska Marine Lines, Inc., a Washington corporation ("Tenant")
5615 W. Marginal Way S.W.
Seattle, WA 98106

Landlord leases to Tenant and Tenant leases from Landlord the following described property (the "Premises") on the terms and conditions stated below: the premises located in the Juneau Recording District, First District of Alaska, and more particularly described on Exhibits A thru D attached hereto.

1. OCCUPANCY

- 1.1. **Original Term.** The term of this lease shall be for a period of approximately seven (7) years commencing December 1, 2009, for the portion of the Premises described on Exhibits A, B and D, and commencing January 1, 2010, for the portion of the Premises described on Exhibit C, and terminating on December 31, 2016, unless sooner terminated or renewed as hereinafter provided.
- 1.2. **Possession.** Tenant's right to possession and obligations under this lease shall commence on the first day of the term, or on such later date as the Premises are available for possession by Tenant if possession is not given on the first day of the term. Landlord shall have no liability for delays in delivery of possession, other than abatement of rent, and Tenant will not have the right to terminate this lease because of delay in delivery of possession except as hereinafter provided.
- 1.3. **Renewal Option.** So long as there have been no material defaults, and if this lease is not in default at the time each option is exercised or at the time the renewal term is to commence, Tenant shall have the option to renew this lease for three (3) additional terms of seven (7) years each, as follows:
 - 1.3.1. The renewal terms shall commence on the day following expiration of the preceding term.
 - 1.3.2. The option may be exercised by written notice to Landlord given not less than 120 days prior to the last day of the expiring term. The giving of such notice shall be sufficient to make this lease binding for the renewal term without further act of the parties. Landlord and Tenant shall then be bound to take the steps required in connection with the determination of rent as specified below.

- 1.3.3. The terms and conditions of this lease for the renewal term shall be the same as for the original term, except for rent and except that Tenant will no longer have any option to renew this lease that has been exercised. Base rent at the commencement of a renewal term shall be reasonable fair market rent for the first year of the renewal term, subsequently escalated pursuant to sections 2.3 and 2.4 below.
- 1.3.4. If do not agree on the fair market rent within 90 days after notice of election to renew, the rent shall be determined by a qualified, independent real property appraiser familiar with commercial rental values in the area. The appraiser shall be chosen by Tenant from a list of not fewer than five such individuals submitted by Landlord. If Tenant does not make the choice within five days after submission of the list, Landlord may do so. If Landlord does not submit such a list within 10 days after written request from Tenant to do so, Tenant may name as an arbitrator any individual with such qualifications. Within 30 days after his/her appointment, the appraiser shall return his/her decision, which shall be final and binding upon both parties. The cost of the appraisal shall be borne equally by both parties.

2. RENT

- 2.1. **Base Rent.** During the first year, Tenant shall pay to Landlord as base rent the sum of **\$123,308.33 per month**. Rent shall be payable on the first day of each month in advance at such place and to such property manager or other agent as may be designated by Landlord from time to time, except that rent for the first month has been paid upon the execution of this lease. Initially, Landlord designates that rent be made payable to Alagnak Holdings, LLC for the benefit of Landlord, delivered in care of its property manager, Douglas Management Company, at 18000 International Blvd., Suite 800 Seattle, WA 98188.
- 2.2. **Additional Rent.** All personal property taxes, insurance costs and utility charges that Tenant may be required to pay by the terms of this lease, as well as any other sum that Tenant is required to pay to Landlord or any third parties shall be additional rent. Tenant shall also pay to Landlord as additional rent all rental and other payments of Landlord under any master ground lease, associated tidelands area lease, right-of-way lease or other obligation of Landlord for which Tenant receives benefit under this lease, increased by a management fee or other reasonable mark-up.
- 2.3. **Escalation.** The base rent shall be increased on January 1 of each year (except for 2010) by 50% of any increase in the Consumer Price Index for All Urban Consumers (CPI-U) (1982-84 = 100) for Western Cities with Populations Over 1,500,000 (the "Index"), but not decreased. The "*Base Index*" shall mean the Index in effect for the month in which the original term commenced, and the "*New Index*" shall mean the current Index in each successive December during the term or any renewal thereof. The increased base rent shall be the original base rent (as adjusted upon each renewal pursuant to Section 2.4 below) multiplied by a fraction, the numerator of which is the New Index and the denominator of which is the Base Index, divided by two.
- 2.4. **FMV Adjustment.** The base rent shall be adjusted upon every renewal, effective on the first January 1 of the given renewal term, to then-current local market rates. If the parties do not agree on the fair market base rent for the renewal term within 90

days after notice of election to renew, each party shall select a qualified, independent real estate professional familiar with commercial rental values in the area to provide a determination the fair market renewal base rent. Formal appraisals are not necessary so long as the professionals' work includes reasonable bases for their conclusions such as fair market value and capitalization rate assumptions. The two renewal base rent determinations shall be averaged to determine the renewal base rent; *provided however*, that if the lower of the two renewal base rent determinations is less than 90% of the higher of the two, then the two real estate professionals shall select a third qualified, independent real estate professional familiar with commercial rental values in the area to provide a determination of the fair market renewal base rent within thirty (30) days. This determination of the fair market renewal base rent shall not be more than the higher or less than the lower of the determinations of the two prior professionals. The cost of the third professional shall be shared equally by Landlord and Tenant.

3. USE OF THE PREMISES

- 3.1. **Permitted Use.** The Premises shall be used for the purposes of a trucking, marine, aircraft, or freight forwarding terminal and related operations or offices, and for no other purpose without the prior written consent of Landlord, which shall not be unreasonably withheld.
- 3.2. **Restrictions on Use.** In connection with the use of the Premises, Tenant shall:
 - 3.2.1. Conform to all applicable laws and regulations of any public authority affecting the Premises and the use, and correct at Tenant's own expense any failure of compliance created through Tenant's fault or by reason of Tenant's use.
 - 3.2.2. Refrain from any activity that would make it impractical or impossible to insure the Premises against casualty, or would increase the insurance rate, unless Tenant pays the additional cost of the insurance.
 - 3.2.3. Refrain from any use that would be reasonably offensive to other tenants or owners or users of neighboring premises or that would tend to create a nuisance or damage the reputation of the Premises.
 - 3.2.4. Refrain from loading the electrical system or floors beyond the point considered safe by a competent engineer or architect selected by Landlord.

4. FIRST REFUSAL

- 4.1. If, at any time during the term of this lease, or any renewal thereof, Landlord chooses to accept any bona fide offer to purchase the Premises or any portion thereof, Tenant shall have the right to purchase the Premises, as described below. Landlord may, in its sole discretion, refuse any such bona fide purchase offer received, without further obligation to Tenant.
 - 4.1.1. Landlord shall immediately notify Tenant of Landlord's receipt of, and intent to accept, a bona fide offer to purchase the Premises and shall immediately provide Tenant with a copy of such offer signed by the offeror, together with

a signed irrevocable written offer of the Landlord to sell the Premises to Tenant upon the same terms and conditions as contained in the offer received by Landlord, except as to the date of closing, which shall be no earlier than sixty (60) days after Tenant's acceptance of Landlord's offer.

- 4.1.2. Tenant shall notify Landlord in writing within thirty (30) days of Tenant's receipt of the documents specified above of its intent to exercise the right to purchase the Premises. Landlord and Tenant shall then immediately execute an agreement of purchase and sale. If Tenant fails to timely notify Landlord of its intent to exercise its right to purchase, Tenant's purchase right shall expire as to the offer to purchase then under consideration only.

5. ENVIRONMENTAL

- 5.1. The term *Environmental Law* shall mean any federal, state, or local statute, regulation, or ordinance or any judicial or other governmental order pertaining to the protection of health, safety or the environment or in anyway regulating or controlling the handling, use, transportation, storage, possession, treatment or disposal of Hazardous Substances. The term *Hazardous Substance* shall mean any hazardous, toxic, ignitable, explosive, corrosive, reactive, carcinogenic, infectious or radioactive substance, waste, and material as defined or listed by any Environmental Law and shall include, without limitation, petroleum oil and its fractions.
- 5.2. Tenant shall not cause or permit any Hazardous Substance to be treated, spilled, leaked, disposed of, or otherwise released on or under the Premises. Tenant may locate, store, use or sell on the Premises only those Hazardous Substances typically stored, transported, used and sold in the prudent and safe operation of the use permitted above. Tenant may store such Hazardous Substances on the Premises, but only in quantities necessary to satisfy Tenant's reasonably anticipated needs, and in the ordinary course of its transportation and warehousing business. Tenant may not use or store on the Premises any Hazardous Substance that is inherently or potentially radioactive, explosive, ignitable, corrosive or reactive, other than petroleum fuels, and that being moved or stored as commercial cargoes, without Landlord's written approval, which Landlord may withhold in Landlord's sole discretion if the quantities used or stored are greater than *de minimis* quantities. Tenant shall comply with all environmental laws and exercise the highest degree of care in the use, handling, and storage of Hazardous Substances, and shall take all practical measures to minimize the quantity and toxicity of Hazardous Substances used, handled or stored on the Premises.
- 5.3. Tenant shall immediately notify Landlord upon becoming aware of the following: (a) any spill, leak, disposal or other release of a Hazardous Substance on, under or adjacent to the Premises; (b) any notice or communication from a governmental agency or any other person relating to any Hazardous Substance on, under or adjacent to the Premises; or (c) any violation of any Environmental Law with respect to the Premises or Tenant's activities on or in connection with the Premises.
- 5.4. In the event of a spill, leak, disposal or other release of a Hazardous Substance on or under the Premises caused by Tenant or any of its contractors, agents or employees or invitees, or the suspicion or threat of the same, Tenant shall: (a) immediately undertake all emergency response necessary to contain, clean up and remove the

released Hazardous Substance; (b) promptly undertake investigatory, remedial removal and other response action necessary or appropriate to insure that any Hazardous Substances contamination is eliminated to Landlord's reasonable satisfaction; and (c) provide Landlord copies of all correspondence with any governmental agency regarding the release (or threatened or suspected release) or the response action, a detailed report documenting all such response action and a certification that any contamination has been eliminated. All such response action shall be performed, all such reports shall be prepared and all such certifications shall be made by an environmental consultant reasonably acceptable to Landlord.

- 5.5. Upon expiration or sooner termination of this lease for any reason, unless otherwise agreed by Landlord, Tenant shall remove all Hazardous Substances and, if requested by Landlord, facilities used for the storage or handling of Hazardous Substances from the Premise and shall restore the affected areas by repairing any damage caused by the installation or removal of the facilities. Following such removal, Tenant shall certify, in writing to Landlord, that all such removal is complete.
- 5.6. Notwithstanding any provision to the contrary, it shall not be unreasonable for Landlord to withhold its consent to any assignment, sublease or other transfer of the Tenant's interest in this lease if a proposed transferee's anticipated use of the Premises involves the generation, storage, use, sale, treatment, release or disposal of any Hazardous Substance.
- 5.7. Tenant shall indemnify, defend and hold harmless Landlord, its employees and agents and the respective successors and assigns of each of them from and against all claims, demands, liabilities, damages, fines, losses, costs (including without limitation the cost of any investigation, remedial, removal or other response action required by Environmental Law) and expenses (including without limitation attorney fees and expert fees in connection with any trial, appeal, petition for review or administrative proceeding) arising out of or in any way relating to the use, treatment, storage, generation, transport, release, leak, spill, disposal or other handling of Hazardous Substances on the Premises by Tenant during the original and any renewal terms of this lease. Tenant's obligations under this section shall survive the expiration or termination of this lease for any reason. Landlord's rights under this section are in addition to and not in lieu of any other rights or remedies to which Landlord may be entitled under this Agreement or otherwise.

6. REPAIRS AND MAINTENANCE

- 6.1. **Landlord's Obligations.** Landlord shall ensure that the following are in good condition on the first day of the term. Thereafter, all repair and maintenance of the following shall be Tenant's responsibility:
 - 6.1.1. Roof and gutters, exterior walls (including painting), bearing walls, structural members, floor slabs, and foundation.
 - 6.1.2. Sidewalks, driveways, curbs, parking areas, and areas used in common by Tenant and Landlord or tenants of other portions of the same building.

6.1.3. Exterior water, sewage, gas, and electrical services up to the point of entry to the leased Premises.

6.1.4. Heating and air conditioning systems.

6.2. **Tenant's Obligations.** The following shall be the responsibility of Tenant:

6.2.1. Repair of interior walls, ceilings, doors, windows, and related hardware, light fixtures, switches, and wiring and plumbing from the point of entry to the Premises.

6.2.2. Any repairs necessitated by the negligence of Tenant, its agents, employees, and invitees.

6.2.3. Any repairs or alterations required to comply with laws and regulations.

6.3. **Reimbursement for Repairs Assumed.** If Tenant fails or refuses to make repairs that are required, Landlord may make the repairs and charge the actual costs of repairs to Tenant. Such expenditures by Landlord shall be reimbursed by Tenant on demand together with interest at the rate of 12% per annum from the date of expenditure by Landlord. Tenant shall have neither right to an abatement of rent nor any claim against Landlord for any inconvenience or disturbance resulting from Landlord's activities.

6.4. **Inspection of Premises.** Landlord shall have the right to inspect the Premises at any reasonable time or times.

7. ALTERATIONS

7.1. **Alterations Prohibited.** Tenant shall make no improvements or alterations on the Premises of any kind without first obtaining Landlord's written consent, which consent shall not be unreasonably withheld. All alterations shall be made in a good and workmanlike manner and in compliance with applicable laws and building codes.

7.2. **Ownership and Removal of Alterations.** All improvements and alterations performed on the Premises by either Landlord or Tenant shall be the property of Landlord when installed unless Landlord specifically provides otherwise. Improvements and alterations installed by Tenant shall, at Landlord's option, be removed by Tenant and the Premises restored.

8. LIABILITY AND INDEMNITY

8.1. **Liens.** Tenant shall pay as due all claims for work done on and for services rendered or material furnished to the Premises, and shall keep the Premises free from any liens. If Tenant fails to pay any such claims or to discharge any lien, Landlord may do so and collect the cost as additional rent. Any amount so added shall bear interest at the rate of 12% per annum from the date expended by Landlord and shall be payable on demand. Such action by Landlord shall not constitute a waiver of any right or remedy which Landlord may have on account of Tenant's default.

- 8.2. **Indemnification.** Tenant shall indemnify and defend Landlord from any claim, loss, or liability arising out of or related to any activity of Tenant on the Premises or any condition of the Premises in the possession or under the control of Tenant. Landlord shall have no liability to Tenant for any injury, loss, or damage caused by third parties, or by any condition of the Premises.

9. INSURANCE

During the term of this lease Tenant shall carry, at Tenant's cost, (i) comprehensive general liability insurance with limits of not less than \$5,000,000 per occurrence covering all risks arising directly or indirectly out of Tenant's activities on or any condition of the Premises whether or not related to an occurrence caused or contributed to by Landlord's negligence, and protecting Tenant against the claims of Landlord under the indemnity obligations assumed by Tenant in this lease, and naming Landlord and its affiliates as additional insureds; (ii) property damage and fire insurance for the replacement value of the buildings on the Premises and on Tenant's personal property located on the Premises, including flood and earthquake coverage if requested by Landlord, all naming Landlord as an additional insured; (iii) worker's compensation insurance in accordance with applicable law as well as employer's liability coverage of not less than \$1,000,000, and, if applicable, long shore and harbor workers' coverage, and including a waiver of subrogation in favor of Landlord and its affiliates; and (iv) such other insurance or endorsements as Landlord or its lender may require. Any of the required insurances shall name Landlord's lender and affiliates as additional insureds and waive subrogation in favor of Landlord's lender and affiliates, upon Landlord's request. Certificates evidencing such insurance and bearing endorsements requiring 30 days' written notice to Landlord prior to any decrease in limits or cancellation shall be furnished to Landlord upon request. All references to Landlord's affiliates shall include Landlord's property manager.

10. TAXES AND UTILITIES

- 10.1. **Property Taxes.** Tenant shall pay as due all taxes on its personal property located on the Premises. Tenant shall pay as additional rent all real property taxes and special assessments levied against the Premises. As used herein, real property taxes include any fee or charge relating to the ownership, use, or rental of the Premises, other than taxes on the net income of Landlord or Tenant.
- 10.2. **Special Assessments.** If an assessment for a public improvement is made against the Premises, Landlord may elect to cause such assessment to be paid in installments, in which case all of the installments payable with respect to the lease term shall be treated the same as general real property taxes.
- 10.3. **Contest of Taxes.** Tenant shall be permitted to contest the amount of any tax or assessment as long as such contest is conducted in a manner that does not cause any risk that Landlord's interest in the Premises will be foreclosed for nonpayment.
- 10.4. **Payment of Utilities Charges.** Tenant shall pay when due all charges for services and utilities incurred in connection with the use, occupancy, operation, and maintenance of the Premises, including, but not limited to, charges for fuel, water, gas, electricity, sewage disposal, power, refrigeration, air conditioning, telephone, and janitorial services. If any utility services are provided by or through Landlord, charges to Tenant shall be comparable with prevailing rates for comparable services.

If the charges are not separately metered or stated, Landlord shall apportion the charges on an equitable basis, and Tenant shall pay its apportioned share on demand.

11. DAMAGE AND DESTRUCTION

- 11.1. **Partial Damage.** If the Premises are partly damaged and the subsection immediately below does not apply, the Premises shall be repaired by Tenant at Tenant's expense. Repairs shall be accomplished with all reasonable dispatch.
- 11.2. **Destruction.** If the Premises are destroyed or damaged such that the cost of repair exceeds 50% of the value of the structure before the damage, Landlord may elect to terminate this lease as of the date of the damage or destruction by notice given to Tenant in writing not more than 45 days following the date of damage. In such event all rights and obligations of the parties shall cease as of the date of termination, and Tenant shall be entitled to the reimbursement of any prepaid amounts paid by Tenant and attributable to the anticipated term. If Landlord elects not to terminate, Tenant shall proceed at Tenant's expense to restore the Premises to substantially the same form as prior to the damage or destruction. Work shall be commenced as soon as reasonably possible and thereafter shall proceed without interruption except for work stoppages on account of labor disputes and matters beyond Tenant's reasonable control.
- 11.3. **Rent Abatement.** Rent shall be abated during the repair of any damage to the extent the Premises are untenantable, except that there shall be no rent abatement where the damage occurred as the result of the fault of Tenant.

12. EMINENT DOMAIN

- 12.1. **Partial Taking.** If a portion of the Premises is condemned and Section 12.2 does not apply, this lease shall continue on the following terms:
 - 12.1.1. Landlord shall be entitled to all of the proceeds of condemnation; Tenant shall have no claim against Landlord as a result of the condemnation.
 - 12.1.2. Landlord shall proceed as soon as reasonably possible to make such repairs and alterations to the Premises as are necessary to restore the remaining Premises to a condition as comparable as reasonably practicable to that existing at the time of the condemnation.
 - 12.1.3. After the date on which title vests in the condemning authority or an earlier date on which alterations or repairs are commenced by Landlord to restore the balance of the Premises in anticipation of taking, the rent shall be reduced in proportion to the reduction in value of the Premises as an economic unit on account of the partial taking. If the parties are unable to agree on the amount of the reduction of rent, the amount shall be determined by arbitration in the manner provided below.
- 12.2. **Total Taking.** If a condemning authority takes all of the Premises or a portion sufficient to render the remaining Premises reasonably unsuitable for the use that Tenant was then making of the Premises, this lease shall terminate as of the date the title vests in the condemning authorities. Such termination shall have the same effect

as termination by Landlord under Section 11.2. Landlord shall be entitled to all of the proceeds of condemnation, and Tenant shall have no claim against Landlord as a result of the condemnation.

- 12.3. **Sale in Lieu of Condemnation.** Sale of all or part of the Premises to a purchaser with the power of eminent domain in the face of a threat or probability of the exercise of the power shall be treated as a taking by condemnation.

13. ASSIGNMENT AND SUBLETTING

No part of the Premises may be assigned, mortgaged, or subleased, nor may a right of use of any portion of the Premises be conferred on any third person by any other means, without the prior written consent of Landlord. In the event Landlord consents to an assignment at any time during this lease, Tenant shall continue to remain liable to Landlord under the terms of this lease, unless otherwise agreed in writing. This provision shall apply to all transfers by operation of law. If Tenant is a corporation, LLC, or partnership, this provision shall apply to any transfer of a majority voting interest in stock or ownership interest of Tenant. No consent in one instance shall prevent the provision from applying to a subsequent instance. Landlord may withhold or condition such consent in its sole and arbitrary discretion.

14. DEFAULT

The following shall be events of default:

- 14.1. **Default in Rent.** Failure of Tenant to pay any rent or other charge within ten (10) days after it is due.
- 14.2. **Default in Other Covenants.** Failure of Tenant to comply with any term or condition or fulfill any obligation of this lease (other than the payment of rent or other charges) within twenty (20) days after written notice by Landlord specifying the nature of the default with reasonable particularity. If the default is of such a nature that it cannot be completely remedied within the 20-day period, Tenant shall be in compliance with this provision if Tenant begins correction of the default within the 20-day period and thereafter proceeds with reasonable diligence and in good faith to effect the remedy as soon as practicable.
- 14.3. **Insolvency.** Insolvency of Tenant; an assignment by Tenant for the benefit of creditors; the filing by Tenant of a voluntary petition in bankruptcy; an adjudication that Tenant is bankrupt or the appointment of a receiver of the properties of Tenant; the filing of any involuntary petition of bankruptcy and failure of Tenant to secure a dismissal of the petition within 30 days after filing; attachment of or the levying of execution on the leasehold interest and failure of Tenant to secure discharge of the attachment or release of the levy of execution within 10 days shall each constitute a default. If Tenant consists of two or more individuals or business entities, the events of default specified in this subsection shall apply to each individual unless within 10 days after an event of default occurs, the remaining individuals produce evidence satisfactory to Landlord that they have unconditionally acquired the interest of the one causing the default. If this lease has been assigned, the events of default specified shall apply only with respect to the entity then exercising the rights of Tenant under this lease.

- 14.4. **Abandonment.** Failure of Tenant for thirty (30) days or more to occupy the Premises for one or more of the purposes permitted under this lease, unless such failure is excused under other provisions of this lease, shall constitute abandonment.

15. REMEDIES OF DEFAULT

- 15.1. **Termination.** In the event of a default this lease may be terminated at the option of Landlord by written notice to Tenant. Whether or not this lease is terminated by the election of Landlord or otherwise, Landlord shall be entitled to recover damages from Tenant for the default, and Landlord may reenter, take possession of the Premises, and remove any persons or property by legal action or by self-help with the use of reasonable force and without liability for damages and without having accepted a surrender.

- 15.2. **Reletting.** Following reentry or abandonment, Landlord may relet the Premises and in that connection may make any suitable alterations or refurbish the Premises, or both, or change the character or use of the Premises, but Landlord shall not be required to relet for any use or purpose other than that specified in this lease or which Landlord may reasonably consider injurious to the Premises, or to any tenant that Landlord may reasonably consider objectionable. Landlord may relet all or part of the Premises, alone or in conjunction with other properties, for a term longer or shorter than the term of this lease, upon any reasonable terms and conditions, including the granting of some rent-free occupancy or other rent concessions.

- 15.3. **Damages.** In the event of termination or retaking of possession following default, Landlord shall be entitled to recover immediately, without waiting until the due date of any future rent or until the date fixed for expiration of the lease term, the following amounts as damages:

15.3.1. The loss of rental from the date of default until a new tenant is, or with the exercise of reasonable efforts could have been, secured and paying rent.

15.3.2. The reasonable costs of reentry and reletting including without limitation the cost of any cleanup, refurbishing, removal of Tenant's property and fixtures, costs incurred under Section 15.5, or any other expense occasioned by Tenant's default including but not limited to, any remodeling or repair costs, attorney fees, court costs, broker commissions, and advertising costs.

15.3.3. Any excess of the value of the rent and all of Tenant's other obligations under this lease over the reasonable expected return from the Premises for the period commencing on the date the Premises are relet, and continuing through the end of the term. The present value of future amounts will be computed using a discount rate equal to the prime loan rate of major Washington banks in effect on the date the Premises are relet.

- 15.4. **Right to Sue More than Once.** Landlord may sue periodically to recover damages during the period corresponding to the remainder of the lease term, and no action for damages shall bar a later action for damages subsequently.

- 15.5. **Landlord's Right to Cure Defaults.** If Tenant fails to perform any obligation under this lease, Landlord shall have the option to do so after ten (10) days' written notice

to Tenant. All of Landlord's expenditures to correct the default shall be reimbursed by Tenant on demand with interest at the rate of twelve percent (12%) per annum from the date of expenditure by Landlord. Such action by Landlord shall not waive any other remedies available to Landlord because of the default.

- 15.6. **Remedies Cumulative.** The foregoing remedies shall be in addition to and shall not exclude any other remedy available to Landlord under applicable law.

16. SURRENDER AT EXPIRATION

- 16.1. **Condition of Premises.** Upon expiration of the lease term or earlier termination, Tenant shall deliver all keys to Landlord and surrender the Premises in first-class condition and broom clean. Alterations constructed by Tenant with permission from Landlord shall not be removed or restored to the original condition unless the terms of the permission for the alteration so require. Depreciation and wear from ordinary use for the purpose for which the Premises are leased shall be excepted, but repairs for which Tenant is responsible shall be completed to the latest practical date prior to such surrender. Tenant's obligations under this section shall be subordinate to the provisions of Section 11 relating to destruction.

16.2. Fixtures

- 16.2.1. All fixtures placed upon the Premises during the term, other than Tenant's trade fixtures, shall, at Landlord's option, become the property of Landlord. If Landlord so elects, Tenant shall remove any or all fixtures that would otherwise remain the property of Landlord, and shall repair any physical damage resulting from the removal. If Tenant fails to remove such fixtures, Landlord may do so and charge the cost to Tenant with interest at the rate of twelve percent (12%) per annum from the date of expenditure.
- 16.2.2. Prior to expiration or other termination of the lease term Tenant shall remove all furnishings, furniture, and trade fixtures that remain its property. If Tenant fails to do so, this shall be an abandonment of the property, and Landlord may retain the property and all rights of Tenant with respect to it shall cease or, by notice in writing given to Tenant within twenty (20) days after removal was required, Landlord may elect to hold Tenant to its obligation of removal. If Landlord elects to require Tenant to remove, Landlord may effect a removal and place the property in public storage for Tenant's account. Tenant shall be liable to Landlord for the cost of removal, transportation to storage, and storage, with interest at the rate of twelve percent (12%) per annum on all such expenses from the date of expenditure by Landlord.

16.3. Holdover

- 16.3.1. If Tenant does not vacate the Premises at the time required, Landlord shall have the option to treat Tenant as a tenant from month to month, subject to all of the provisions of this lease except the provisions for term and renewal subject to a rental rate equal to one hundred fifty percent (150%) of the rent last paid by Tenant during the original term, or to eject Tenant from the Premises and recover damages caused by wrongful holdover. Failure of Tenant to remove fixtures, furniture, furnishings, or trade fixtures that Tenant

is required to remove under this lease shall constitute a failure to vacate to which this section shall apply, if the property not removed will substantially interfere with occupancy of the Premises by another tenant or with occupancy by Landlord for any purpose including preparation for a new tenant.

- 16.3.2. If a month-to-month tenancy results from a holdover by Tenant, the tenancy shall be terminable at the end of any monthly rental period on written notice from Landlord given not less than ten (10) days prior to the termination date which shall be specified in the notice. Tenant waives any notice that would otherwise be provided by law with respect to a month-to-month tenancy.

17. QUIET ENJOYMENT AND MORTGAGE PRIORITY

- 17.1. This lease is and shall be prior to any mortgage or deed of trust ("*Encumbrance*") recorded after the date of this lease and affecting the Premises. However, if any Lender holding such an Encumbrance requires that this lease be subordinate to the Encumbrance, then Tenant agrees to execute the written agreement and any other documents required by the holder of the Encumbrance. If the Premises are sold as a result of foreclosure of any Encumbrance thereon or otherwise transferred by Landlord any successor, Tenant agrees to attorn to the purchaser or transferee.
- 17.2. **Estoppel Certificate.** Either party will, within twenty (20) days after notice from the other, execute and deliver to the other party a certificate stating whether or not this lease has been modified and is in full force and effect and specifying any modifications or alleged breaches by the other party. The certificate shall also state the amount of monthly base rent, the dates to which rent has been paid in advance, and the amount of any security deposit or prepaid rent. Failure to deliver the certificate within the specified time shall be conclusive upon the party from whom the certificate was requested that this lease was in full force and effect and has not been modified except as represented in the notice requesting the certificate.

18. MISCELLANEOUS

- 18.1. **Nonwaiver.** Waiver by either party of strict performance of any provision of this lease shall not be a waiver of or prejudice the party's right to require strict performance of the same or any other provision in the future.
- 18.2. **Attorney Fees.** If arbitration, suit or action is instituted in connection with any controversy arising out of this lease, the prevailing party shall be entitled to recover, in addition to costs, such sum as the court may adjudge reasonable as attorney fees at trial, arbitration, on petition for review, and on appeal.
- 18.3. **Notices.** Any notice required or permitted under this lease shall be given when actually delivered or forty-eight (48) hours after deposited in United States mail as certified mail, by overnight courier, or hand delivery addressed to the address first given in this lease or to such other address as may be specified from time to time by either of the parties in writing.

- 18.4. **Succession.** Subject to the above-stated limitations on transfer of Tenant's interest, this lease shall be binding on and inure to the benefit of the parties and their respective successors and assigns.
- 18.5. **Recordation.** Neither this lease nor a memorandum hereof shall be recorded without the written consent of Landlord.
- 18.6. **Entry for Inspection.** Landlord shall have the right to enter upon the Premises at any time to determine Tenant's compliance with this lease, to make necessary repairs to the building or to the Premises, or to show the Premises to any prospective tenant or purchaser, and in addition shall have the right, at any time during the last two months of the term of this lease, to place and maintain upon the Premises notices for leasing or selling of the Premises.
- 18.7. **Interest on Rent and Other Charges.** Any rent or other payment required of Tenant by this lease shall, if not paid within ten (10) days after it is due, bear interest at the rate of twelve percent (12%) per annum (but not in any event at a rate greater than the maximum rate of interest permitted by law) from the due date until paid, as additional rent. In addition, if Tenant fails to make any rent or other payment required by this lease to be paid to Landlord within five days after it is due, Landlord may elect to impose a late charge of five cents per dollar of the overdue payment to reimburse Landlord for the costs of collecting the overdue payment. Tenant shall pay the late charge upon demand by Landlord as additional rent. Landlord may levy and collect such late charge in addition to all other remedies available for Tenant's default, and collection of a late charge shall not waive the breach caused by the late payment.
- 18.8. **Proration of Rent.** In the event of commencement or termination of this lease at a time other than the beginning or end of one of the specified rental periods, then the rent shall be prorated as of the date of commencement or termination and in the event of termination for reasons other than default, all prepaid rent shall be refunded to Tenant or paid on its account.
- 18.9. **Time of Essence.** Time is of the essence of the performance of each of Tenant's obligations under this lease.
- 18.10. **Authority to Convey Fee Title.** Landlord retains the absolute and unconditional right to convey fee title in the Premises, or an interest or estate therein, subject to this lease and the interest of any subtenant under this lease.

19. ARBITRATION

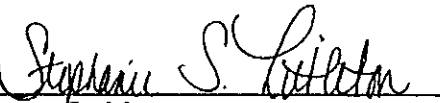
- 19.1. **Disputes to Be Arbitrated.** If any dispute arises between the parties either party may request arbitration. If the parties cannot agree on a single arbitrator within ten (10) days, then either party can appoint as an arbitrator a lawyer familiar with real estate and landlord/tenant law in the state where the Premises are located; provided, however, that such lawyer cannot be associated with a firm that is then performing services for either party or has performed services for either party within two (2) years of the date of arbitration. The other party shall also choose an arbitrator with such qualifications, and the two arbitrators shall choose a third. If the choice of the second or third arbitrator is not made within 10 days of the choosing of the prior

arbitrator, then either party may apply to the presiding judge of the judicial district where the Premises are located to appoint the required arbitrator.

19.2. Procedure for Arbitration. The arbitration shall proceed according to the statutes governing arbitration in the state where the Premises are located, with the rights to discovery as provided in the Rules of Civil Procedure of such state, and the award of the arbitrator shall have the effect therein provided. The arbitration shall take place in King County, Washington, unless the parties agree upon another location.

IN WITNESS WHEREOF, the parties hereto have executed this lease the date and year first above written.

Landlord:
0 JACOBSEN DRIVE, JUNEAU, LLC

By 
Its Manager

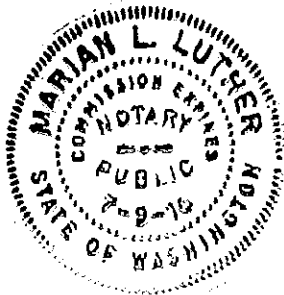
Tenant:
ALASKA MARINE LINES, INC.

By 
Its Secretary

STATE OF WASHINGTON)
) ss.
 COUNTY OF KING)

On this 1st day of December, 2009, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Stephanie Littleton to me known to be the Manager of 0 Jacobsen Drive, Juneau, LLC, the company that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute the said instrument and that the seal affixed, if any, is the corporate seal of said corporation.

Witness my hand and official seal hereto affixed the day and year first above written.



Notary Public in and for the State
 of Washington, residing at Kirkland, WA

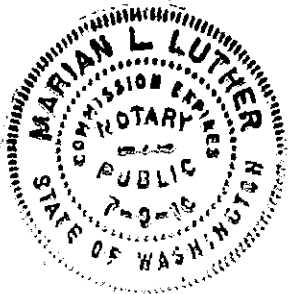
Marian L. Luther

My commission expires: 7-9-10

STATE OF WASHINGTON)
) ss.
 COUNTY OF KING)

On this 1st day of January, 2009, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Everett H. Billingslea to me known to be the Secretary of Alaska Marine Lines, Inc., the company that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute the said instrument and that the seal affixed, if any, is the corporate seal of said corporation.

Witness my hand and official seal hereto affixed the day and year first above written.



Notary Public in and for the State
 of Washington, residing at Kirkland, WA

Marian L. Luther

My commission expires: 7-9-10

**EXHIBIT A
TO
OPERATING LEASE**

(AML JUNEAU WATERFRONT LOT)

Lots 4D, 4E and 4F, Alaska Juneau Subdivision II, Plat No. 91-67 a re-subdivision of Lot 4, Alaska Juneau Subdivision, Plat No. 90-62, Records of the Juneau Recording District, First Judicial District, State of Alaska.

...Including the buildings, in-ground truck scales, foundations, fill material, underground storage tanks, pavement, docks, ramps, conveyors, railroad tracks, and other fixtures that may be located thereon.

**EXHIBIT B
TO
OPERATING LEASE**

(AML JUNEAU UPLAND LOT)

Lot 4A, Block A, Resubdivision of Lots 3 & 4, Block A, ALASKA JUNEAU Subdivision V, according to the official plat thereof, filed under Plat Number 2000-6, Records of the JUNEAU Recording District, FIRST District, State of ALASKA.

Lot 5, Block A, ALASKA JUNEAU Subdivision V, according to the official plat thereof, filed under Plat Number 99-46, Records of the JUNEAU Recording District, FIRST District, State of ALASKA.

Lot 6, Block A, ALASKA JUNEAU Subdivision V, according to the official plat thereof, filed under Plat Number 99-46, Records of the JUNEAU Recording District, FIRST District, State of ALASKA.

Lot 7, Block A, ALASKA JUNEAU Subdivision V, according to the official plat thereof, filed under Plat Number 99-46, Records of the JUNEAU Recording District, FIRST District, State of ALASKA.

...Including the buildings, in-ground truck scales, foundations, fill material, underground storage tanks, pavement, docks, ramps, conveyors, railroad tracks, and other fixtures that may be located thereon.

**EXHIBIT C
TO
OPERATING LEASE**

.(AML JUNEAU DOCK LOT 8)

Lot 8, Block A, Alaska Juneau Subdivision V, a subdivision of Lots 3A-1A & 3B-1, Alaska Juneau Subdivision IV, according to the official Plat thereof, recorded under Plat No. 99-46, Juneau Recording District, First Judicial District, State of Alaska.

...Including the buildings, in-ground truck scales, foundations, fill material, underground storage tanks, pavement, docks, ramps, conveyors, railroad tracks, and other fixtures that may be located thereon.

**EXHIBIT D
TO
OPERATING LEASE**

. (AML JUNEAU LOT 3C)

Lot 3C, Alaska Junenu Subdivision III-A, according to the official Plat thereof, recorded under Plat No. 96-17, Juneau Recording District, First Judicial District, State of Alaska.

...Including the buildings, in-ground truck scales, foundations, fill material, underground storage tanks, pavement, docks, ramps, conveyors, railroad tracks, and other fixtures that may be located thereon.

Example of typical dust control plan - proposed Juneau operation

MG3 – Asphalt Plant Minor General Permit – Final Revision 1

Appendix B: Fugitive Dust Control Plan

Please note, it is the responsibility of the Permittee to ensure that no part of their fugitive dust control plan violates any local, state, or federal law.

Section 1 – General Information

1-A Facility Information	
Company Name:	Knik Constuction Co. - plant rented to Alaska Interstate Construcion
Plant Name:	Knik Astec Mobile Plant II
Permit No.:	AQ1322MG301.1
1-B Contacts	
Report the names, address, and phone numbers of persons and owners or operators responsible for the implementation of the Dust Control Plan and responsible for the dust generating operation and dust control applications.	
<i>Responsible Official</i> (authorized under 18 AAC 50.990(93))	
Name:	Parry Rekers, Vice President
Phone Number:	206-439-5560
<i>On-site Manager/Operator or Point of Contact</i> (if different from above)	
Name:	Dan Meng
Phone Number:	907-545-1232
1-C Recordkeeping and Reporting	
Keep copy of Fugitive Dust Control Plan on-site at all times.	
Keep records of deviations from dust plan, reasons for the deviation, and corrective actions taken for at least five years.	

Section 2 – Fugitive Emission Points

2-A Fugitive Emission Points	
Identify the relative locations of actual and potential sources of fugitive dust emissions.	
☒ Bulk material handling and storage areas. ☒ Paved and unpaved access roads, haul roads, traffic areas, and equipment storage yards. ☒ Exit points where carryout and trackout onto paved public roads may occur. ☒ Water supply locations if water application will be used for controlling visible dust emissions. ☐ Rock crushing operations. ☐ Screening ☐ Conveyors ☐ Fines Screening ☒ Asphalt plant operations ☒ Screening ☒ Conveyors ☒ Baghouse Catch ☐ Drum Mixer Discharge ☐ Hot mix storage silo receiving point	
2-B Comments – Fugitive Emission Points	

Section 3 – Control of Fugitive Dust Sources

3-A Control of Fugitive Dust Sources

Check any boxes that apply. Checked boxes represent methods that will be used *as needed*.

Active Operations

- ☒ Water will be applied to dry areas during leveling, grading, trenching, and earthmoving activities.
- ☐ Wind barriers will be constructed and maintained, and water or dust suppressants will be applied to the disturbed surface areas.

Inactive Operations, including after work hours, weekends, and holidays

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☐ Water or dust suppressants will be applied on disturbed surface areas to form a visible crust, and vehicle access will be restricted to maintain the visible crust.

Sites Inactive for Seven or More Days

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☒ Vehicle access will be restricted and water/dust suppressants will be applied at all un-vegetated areas.
- ☐ Vegetation will be established on all previously disturbed areas.
- ☐ Gravel will be applied and maintained at all previously disturbed areas.
- ☐ Previously disturbed areas will be paved.

Unpaved Access and Haul Roads, Traffic and Equipment Storage Areas

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☒ Apply water or dust suppressants to unpaved haul and access roads.
- ☐ Post speed limit signs of not more than 15 mph at each entrance, and again every 500 ft.
- ☒ Water or dust suppressants will be applied to vehicle traffic and equipment storage areas.

Wind Events

- ☒ Water application equipment will apply water to control fugitive dust during wind events, unless unsafe to do so. Outdoor construction activities that disturb the soil will cease whenever visible dust emissions cannot be effectively controlled.

3-B Bulk Materials

Check any boxes that apply. Checked boxes represent methods that will be used *as needed*.

Outdoor Handling of Bulk Materials

- ☒ Water or dust suppressants will be applied when handling bulk materials.
- ☐ Wind barriers with less than 50 percent porosity will be installed and maintained, and water or dust suppressants will be applied.

Outdoor Storage of Bulk Materials

- ☒ Water or dust suppressants will be applied to storage piles.
- ☐ Storage piles will be covered with tarps, plastic, or other suitable material and anchored in such a manner that prevents the cover from being removed by wind actions.
- ☐ Wind barriers with less than 50 percent porosity will be installed and maintained around the storage piles and water or dust suppressants will be applied.
- ☐ A three-sided structure (< 50% porosity) will be used that is at least as high as the storage piles.

On-Site Transporting of Bulk Materials

- ☒ Vehicle speed will be limited on the work site.
- ☒ All haul trucks will be loaded such that the freeboard is not less than six inches when transported across any paved public access road.
- ☐ A sufficient amount of water will be applied to the top of the load to limit visible dust emissions.
- ☐ Haul trucks will be covered with a tarp or other suitable cover.

Section 3 – Control of Fugitive Dust Sources (cont.)

3-B Bulk Materials - continued

Off-Site Transporting of Bulk Materials

- ☐ No bulk materials will be transported to or from the project site.
- ☒ Materials for transport will be wetted as needed.
- ☐ Covers will be used, as needed. Some or all of the following will be used as necessary:
- The interior of emptied truck cargo compartments will be cleaned or covered before leaving the site.
 - Spillage or loss of bulk materials from holes or other openings in the cargo compartment's floor, sides, and tailgates will be prevented.
 - Haul trucks will be covered with a tarp or other suitable cover or will be loaded such that the freeboard is not less than six inches when transported on any paved public access road to or from the project site.

Outdoor Transport using a Chute or Conveyor

- ☐ No chutes or conveyors will be used.
- ☐ Chute or conveyor will be fully enclosed.
- ☒ Water spray equipment will be used to sufficiently wet the materials.
- ☐ Transported materials will be washed or screened to remove fines (PM-10 or smaller).

3-C Comments – Control of Fugitive Dust Sources

Section 4 – Dust Control Methods

4-A Water Application

Complete this section if water application will be used as a control method for limiting visible dust emissions and stabilizing surface areas. Check and answer everything that applies. Checked boxes represent methods that will be used *as needed*.

Water Application Equipment:

☐ Sprinklers:

Describe the activities that will utilize sprinklers: _____

☒ Water Truck, ☐ Water Trailer, ☐ Water Wagon, ☐ Other: _____

Describe the activities that will utilize this equipment: _____

Water application equipment is available to operate after normal working hours, on weekends, and holiday.

After-hours contact: Dan Meng Phone number: 907-454-1232

Water Supply (as needed):

☐ Fire hydrants. Obtain necessary approval to use specific hydrants.

☐ Storage tanks Number and capacity: _____

☐ Wells Number and flow rate: _____

☒ Canal, River, Pond, Lake, etc. Describe: Klawock Lake

Approval granted by the owner or public agency to use their water source for this project.

Owner or Agency: _____

Contact: _____ Phone number: _____

☒ Other: City Hydrant

Section 4 – Dust Control Methods (cont.)

4-B Dust Suppressant Products

Suppressant materials include, but are not limited to: hygroscopic suppressants (road salts), adhesives, petroleum emulsions, polymer emulsions, and bituminous material (road oils).

Copy this section if more than one dust suppressant product will be used.

☐ Not applicable. Only water application will be the control method used.

☐ Applicable.

Product Name: _____

Application Equipment: _____

Number of Application Equipment Available: _____

Attach each of the following information that fully describes this product. Use the checklist below to make sure all information is submitted with this plan.

☐ Product Specifications (MSDS, Product Safety Data Sheet, etc.).

☐ Manufacturer's Usage Instructions (method, frequency, and intensity of application).

☐ Environmental impacts and approvals or certifications related to the appropriate and safe use for ground application.

4-C Other Dust Control Methods

Check the other types of dust control methods that will be implemented at the construction site.

☐ Physical barriers for restricting unauthorized vehicle access:

☐ Fences

☐ Gates

☐ Posts

☐ Berms

☐ Concrete Barriers

☐ Other: _____

☐ Wind barriers – Describe: _____

☐ Posted speed limit signs meet state and Federal Department of Transportation standards.

☐ Posted at 15 miles per hour, ☐ Posted at _____ miles per hour (less than 15 mph)...

☐ Re-establish vegetation for temporarily stabilizing previously disturbed surfaces.

Explain: _____

☐ Apply and maintain gravel:

☐ On haul roads

☐ On access roads

☐ At equipment storage yards

☐ At vehicle traffic areas

☐ For temporarily stabilizing previously disturbed areas.

Explain: _____

☐ Apply pavement – Explain: _____

☐ Other: _____

4-D Comments – Dust Control Methods

Section 5 – Carryout and Trackout

5-A Treatments for Preventing Trackout

Trackout is any material that adheres to vehicle tires and is deposited onto a paved public road or the paved shoulder of a paved public road. Check one or a combination that will apply.

☐ *Grizzly*: Rails, pipes, or grates used to dislodge debris off of vehicles before exiting the site. Extends from the intersection with the paved public road surface for the full width of the unpaved exit surface for the distance of at least 25 feet.

Describe: _____

☒ *Gravel Pad*: A layer of washed gravel at least one inch or larger in diameter, three inches deep, and extends from the intersection with the public paved road surface for the full width of the unpaved exit surface for a distance of at least 50 feet.

Describe: _____

☐ *Paved Surface*: Extends from the intersection with the paved public road surface for the full width of the unpaved access road for at least 100 feet to allow mud and dirt to drop off of vehicles before exiting the site.

Describe: _____

Mud and dirt deposits accumulating on paved interior roads will be removed with sufficient frequency, but not less frequently than once per workday.

Clean-up Frequency: _____

☐ *Wheel Washer*: Uses water to dislodge debris from tires and vehicle undercarriage.

Describe: _____

☐ *Other*: _____

5-B Treatments for Preventing Carryout

Carryout occurs when materials from emptied or loaded haul trucks, vehicles, or trailers falls onto a paved public road or paved shoulder of a paved public road. Check all methods that apply.

☐ No haul trucks will be routinely entering or leaving the project site.

Emptied Haul Trucks:

☐ Interior cargo compartments will be cleaned before leaving the project site.

☐ Cargo compartment will be covered with a tarp or suitable cover before leaving the project site.

Loaded Haul Trucks: Spillage or loss of materials from holes or other opening in the cargo compartment will be prevented when material is transported onto any paved public access road.

☒ Haul trucks will be loaded such that the freeboard is not less than six inches with water applied to the top of the load before leaving the project site.

☐ Cargo compartment and load will be covered with a tarp or suitable cover before leaving the project site.

☐ *Other*: _____

5-C Cleaning up Carryout and Trackout

Clean up Method: Check the method(s) below that will be used for cleaning carryout and trackout.

☒ Manually sweeping and picking up.

☒ Mechanical sweeping with a rotary brush or broom accompanied or preceded by water.

Describe the types of equipment that will be used: _____

☐ Operating a PM10-efficient street sweeper.

Make and Model: _____

☐ Flushing with water – allowed if:

- No curbs or gutters are present.
- Using water will not result as a source of trackout and carryout.
- Using water will not result in adverse impacts on storm water drainage systems.
- Using water will not violate any National Pollutant Discharge Elimination System permit program or Alaska Department of Environmental Conservation, Division of Water Permit.

5-D Comments - Carryout and Trackout

**MULTI-SECTOR GENERAL PERMIT
STORM WATER POLLUTION PREVENTION PLAN**

Prepared for:
**Knik Construction
Juneau Asphalt Plant
Juneau, AK
Location: 58.287917° N, 134.394417° W**



KNIK CONSTRUCTION
6400 South Airpark Place, Suite 1
Anchorage, Alaska 99503
(907) 265-0285

MSGP Tracking Number:	
-----------------------	--

SWPPP Preparation Date:
1/11/2016

[illegible]

SWPPP PURPOSE AND CONTENTS

This Storm Water Pollution Prevention Plan (SWPPP) for the Knik Construction Juneau Asphalt Plant Facility was developed in accordance with the Alaska Department of Environmental Conservation (ADEC), Wastewater Discharge Authorization Program, Multi-Sector General Permit for Storm Water Discharge Associated with Industrial Activity (MSGP) permit number AKR060000. This general permit covers waters of the United States located in the State of Alaska, except for the Indian Reservation of Metlakatla and the Denali National Park & Preserve. MSGP AKR060000 became effective April 1, 2015 under Alaska Statute 46.03.

The ADEC was granted primacy by the United States Environmental Protection Agency (EPA) and assumed authority of the permit in accordance with 18 AAC 83 on October 31, 2009. This permit complies with the Clean Water Act, 33 U.S.C. 1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4 (CWA).

A SWPPP includes the following elements:

- An assessment and description of existing and potential pollutant sources;
- A site map showing storm water drainage and drainage areas, discharge structures, paved areas and buildings, and areas where storm water could potentially contact pollutants and surface water bodies;
- A list of pollutants that are or have a reasonable potential to be present in storm water discharges in significant amounts; and
- A description of the BMPs that have been or may be implemented to reduce the potential for discharge of significant amounts of pollutants, including operational control and source control BMPs.

BMPs are the physical, structural, operational, or administrative means of providing the appropriate controls. Operational BMPs consist of company policies, operating and maintenance procedures, personnel training, good housekeeping, prohibitions of undesirable practices, and other administrative practices to prevent or reduce pollution of waters of the United States. Source control BMPs are physical, structural, or mechanical devices or structures that are intended to prevent pollutants from entering storm water.

The ADEC administers the Alaska Pollutant Discharge Elimination System (APDES) program in Alaska. This SWPPP was developed in accordance with the requirements of 40 CFR Part 419 and the goals of the EPA guidance manual. The SWPPP outlines the BMPs that will be employed to prevent pollution if storm water is discharged from the site. Appendix A includes the General Location Map. Appendix B contains Site Maps and Best Management Practice Specification. Appendix C contains the 2015 MSGP and Notice of Intent (NOI). Appendix D includes Monitoring and Inspection Forms and will contain monitoring and inspection reports as they are completed. Appendix E contains records of all spills and releases for the past three years.

The SWPPP will be amended whenever there is a change in design, construction, operation, or maintenance at the facility that could have an effect on the discharge of pollutants to waters of the United States. All changes that occur to the plan or the figures will be recorded in the Revisions Log on Page ii of this SWPPP.

A copy of this SWPPP and all appendices will be retained at the facility. It will be available for the ADEC or appropriate regulating agencies. If a member of the public makes a request in writing, the SWPPP will be made available for review. Confidential Business Information (CBI) may not be withheld from regulatory agencies, but may be withheld from the public. All portions of the SWPPP not considered CBI must be provided to the public when requested.

If this SWPPP is considered to be inadequate by the ADEC, it will be modified within 7 calendar days of ADEC inspection or notification by the owner or document preparer.

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- Appendix A – General Location Map***
- Appendix B – Site Map and BMP Specifications***
- Appendix C – 2015 MSGP and NOI***
- Appendix D – Monitoring and Inspection Forms and Reports***
- Appendix E – Environmental Documentation***
- Appendix F – Personnel Training Records***
- Appendix G – Spill Documentation***
- Appendix H – SWPPP Record of Review***

1.0 FACILITY DESCRIPTION AND CONTACT INFORMATION

The Knik Construction Juneau Facility is located at 0 Jacobsen Drive in Juneau Alaska (Appendix A). The facility encompasses approximately 10 acres along the Gastineau Channel at the end of Mount Roberts Street.

The primary business at the Knik Construction Juneau Asphalt Plant Facility is asphalt production.

1.1 FACILITY INFORMATION

Facility Information

Name of Facility: Knik Construction Juneau Asphalt Plant

Street: 0 Jacobsen Drive

City: Juneau

State: AK

ZIP Code: 99801

County or Similar Subdivision: Juneau

Permit Tracking Number: _____ (if covered under a previous permit)

Latitude/Longitude (Use **one** format, and specify method): Decimal Degrees

Latitude:

Longitude:

58.287917° North Latitude

132.3994° W Longitude

Method for determining latitude/longitude (check one):

☐ USGS topographic map (specify scale: _____)

☐ EPA Web site

☐ GPS

☒ Other (please specify): Google Earth

Is the facility located in Indian Country? ☐ Yes ☒ No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable (NA)." NA

Is this facility considered a Federal Facility? ☐ Yes ☒ No

Estimated area of industrial activity at site exposed to storm water: 10 (acres)

Discharge Information

Does this facility discharge storm water into an MS4? ☐ Yes ☒ No

If yes, name of MS4 operator: _____

Name(s) of water(s) that receive storm water from your facility Gastineau Channel

Are any of your discharges directly into any segment of an "impaired" water?

☐ Yes ☒ No

If Yes, identify name of the impaired water (and segment, if applicable): NA

Identify the pollutant(s) causing the impairment: _____

For pollutants identified, which do you have reason to believe will be present in your discharge? _____

For pollutants identified, which have a completed TMDL? _____

Do you discharge into a receiving water designated as a Tier 2 (or Tier 2.5) water?

☐ Yes ☒ No

Are any of your storm water discharges subject to effluent guidelines? ☒ Yes ☐ No

If Yes, which guidelines apply? Sectors D

Primary SIC Code or 2-letter Activity Code: 2951

(refer to Appendix D of the 2015 MSGP)

Identify your applicable sector and subsector: Sector D – Subsector D1,

Within the asphalt production area, water drains towards the property boundaries toward the south to the Gastineau Channel. There is a water settlement pond that is the discharge location for all storm water. See Appendix B for Maps.

1.2 CONTACT INFORMATION/RESPONSIBLE PARTIES

Facility Owner:

Name: 0 Jacobsen Drive, Juneau, LLC
Address: 209 Mount Roberts Street
City, State, Zip Code: Juneau, AK 99801
Telephone Number: 907-265-0285

Facility Operator:

Name: Knik Construction
Address: 6400 South Airpark
City, State, Zip Code: Anchorage, AK 99502
Telephone Number: 907-543-2969

SWPPP Contact:

Name: Eryn Jones, Environmental Technician
Telephone number: 907-265-0285
Email address: erynk@lynden.com

1.3 STORM WATER POLLUTION PREVENTION TEAM

The pollution prevention team, as outline below, must develop, implement, maintain, revise, and ensure compliance with the facility's SWPPP.

Staff Names	Individual Responsibilities
Facility Manager TBD	Responsible for oversight operations, staff, the SWPPP and permit compliance.
Staff Names	Individual Responsibilities
Eryn Jones Environmental Technician (907)304-9005	Responsible for undertaking routine, monthly visual and annual comprehensive facility inspections and monitoring oversight to ensure SWPPP and permit compliance, storm water runoff management, hazardous material control, spill response and taking corrective action where required.

Inspections will be performed by the Environmental Technician or designated Knik Construction personnel. Inspections are a critical aspect of maintaining and implementing any changes on site in regard to storm water compliance with the ADEC. Routine inspections are the only means of ensuring the reliability and integrity of onsite storm water controls. The Facility Manager will be responsible for ensuring inspections are performed as outlined in Section 5.0 of this SWPPP. A current and easily accessible paper copy of the SWPPP will be maintained by the Environmental

Technician on site.

1.4 ACTIVITIES AT THE FACILITY

The industrial activities performed at the Knik Construction Juneau Asphalt plant include asphalt production and sales. Support activities for the aforementioned industrial activities include heavy equipment storage and maintenance and administrative office support operations.

1.5 GENERAL LOCATION MAP

A general location and vicinity map for this facility is provided in Appendix A.

1.6 SITE MAP(S)

The site map(s) for this facility are included in Appendix B and include the following:

- The size of the property in acres;
- The location and extent of significant structures;
- Directions of storm water flow (arrows);
- Locations of all existing structural control measures;
- Locations of all receiving waters in the immediate vicinity of your facility, indicating if any of the waters are impaired;
- Locations of all storm water conveyances including ditches, pipes, and swales;
- Locations of potential pollutant sources identified under MSGP, Part 5.2.4.2;
- Locations where significant spills or leaks identified under MSGP, Part 5.2.4.3 have occurred;
- Locations of all storm water monitoring points;
- Locations of storm water inlets and outfalls, with a unique identification code for each outfall (e.g., Outfall No. 1, No. 2, etc), indicating if one or more outfalls are to be treated as “substantially identical” under MSGP, Parts 6.2.3, 5.2.6.2, and 7.1.1, and an approximate outline of the areas draining to each outfall;
- Municipal separate storm sewer systems, where your storm water discharges to them;
- Locations and descriptions of all non-storm water discharges identified under MSGP, Part 4.2.10;
- Locations of the following activities where such activities are exposed to precipitation:
 - Fueling stations;
 - Vehicle and equipment maintenance and/or cleaning areas;
 - Liquid storage tanks;
 - Processing and storage areas;
 - Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
 - Transfer areas for substances in bulk;
 - Machinery; and
- Locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants.

2.0 POTENTIAL POLLUTANT SOURCES

Section 2.1 through 2.5 describe the areas of the facility where industrial materials or activities are exposed to storm water or from which allowable non-storm water discharges are released.

2.1 INDUSTRIAL ACTIVITY AND ASSOCIATED POLLUTANTS

The following is a list of industrial activities exposed to storm water and the pollutants associated with these activities. All significant materials that have been handled, treated, stored, or disposed and exposed to storm water in the three years prior to SWPPP preparation are included below.

Industrial Activity	Associated Pollutants
Asphalt Paving and Roofing Materials	
Outdoor stockpiling of materials	Total suspended solids (TSS), total dissolved solids (TDS) biochemical oxygen demand (BOD5), chemical oxygen demand (COD), oil and grease (O&G), benzene, methylene blue active substances (MBAS), metals, pH
Storage of materials in above ground tanks	TSS, TDS, BOD5, COD, O&G, benzene, MBAS, metals, pH
Transport of materials by a conveyor or front-end loader	TSS, TDS, BOD5, COD, O&G, benzene, MBAS, metals, pH
Support Activities	
Vehicle/Equipment washing and maintenance	Oil, heavy metals, chlorinated solvents, acid/alkaline wastes, ethylene glycol
Outdoor vehicle and equipment storage and parking	Oil, hydraulic fluids, arsenic, heavy metals, organics, fuel
Vehicle and equipment fueling	Gas/diesel fuel, fuel additives, oil, lubricants, heavy metals

2.2 SPILLS AND LEAKS

Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602.

The ADEC Spill Prevention and Response website indicates that there have been no significant spills reported at the facility within the last three years.

Areas of Site Where Potential Spills/Leaks Could Occur

Location	Outfalls
Asphalt plant	Outfall 1

2.3 NON-STORM WATER DISCHARGES DOCUMENTATION

The following pertains to the evaluation of non-storm water discharges and the elimination of any unauthorized non-storm water discharges in accordance with 2015 MSGP Part 5.2.4.4. Each inspection will record the following:

- Date of any evaluation;
- A description of the evaluation criteria used;
- A list of the outfalls or onsite drainage points that were directly observed during the evaluation;
- The different types of non-storm water discharge(s) and source locations;
- The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an APDES permit application was submitted for an unauthorized cooling water discharge.

Section 5.0 of this SWPPP describes the frequency and methodology for all inspections. All completed inspections are stored in Appendix D of this plan.

Allowable Non-Storm Water Discharges

Discharges of non-storm water from certain sources are allowed under this permit. The SWPPP must describe discharge locations and appropriate BMPs for each allowable non-storm water source except firefighting discharges. These locations must be outlined on the site plan drawings on a consistent basis. The Facility Manager must document all allowable non-storm water discharges to meet administrative requirements. Upon discharge, the Facility Manager must note the location of the activity on the site plan drawings and sign and date the note. These locations and drawings may be amended to the SWPPP to suit on site demands.

2.4 SALT STORAGE

There are no storage piles containing salt used for deicing or other commercial or industrial purposes at the Knik Construction Juneau Asphalt Plant.

2.5 SAMPLING DATA SUMMARY

There are no previous storm water discharge sampling data for the Knik Construction Juneau Asphalt Plant. Any available data are to be included in Appendix D.

The MSGP requires quarterly storm water discharge monitoring unless weather conditions, such as dry or frozen conditions, preclude storm water flow. If discharge monitoring is not possible

due to adverse weather, those conditions must be documented on the monitoring report. Quarters are defined as three-month intervals beginning on the first day of January, April, July, and October. If permit coverage begins with less than one month left in a quarter, monitoring shall begin at the start of the next quarter. Discharge monitoring samples will be collected from all outfalls if available.

3.0 STORM WATER CONTROL MEASURES

Sections 3.1 through 3.12 describe storm water control measures installed to meet each of the MSGP's "non-numeric effluent limits" as described in Part 4.2 in the MSGP. Sector specific "non-numeric effluent limits" are discussed in Section 3.7 of this SWPPP.

The development of the housekeeping measures and BMPs explained in the following sections were developed in accordance with EPA's Storm Water Management for Industrial Sites: Developing Pollution Prevention Plans and Best Management Practices. Storm water control measures are identified on the site maps in Appendix B. BMP specifications are also included in Appendix B.

3.1 MINIMIZE EXPOSURE

Areas and activities with pollution potential are listed in sections 2.1 and 2.2 of this SWPPP. These areas and activities have been located to minimize exposure to storm water and precipitation to the extent practical. Listed materials will be protected with storm-resistant coverings to prevent exposure to rain, snow, snowmelt, and runoff.

- Equipment containing coolants, petroleum, oil, and lubricants are staged appropriately;
- Materials that are highly erodible shall be covered when not in use for extended periods of time;
- Fueling operations are conducted by trained staff;
- Fuel storage area is contained;
- Solid waste is collected and disposed off site; and
- Spill response equipment is readily available and stored in specific areas.

3.2 GOOD HOUSEKEEPING

The intent of good housekeeping is to maintain a clean and orderly work environment, which in turn reduces the probability of accidental spills caused by mishandling of equipment and materials. Good housekeeping, therefore, is considered an effective first step in preventing the pollution of storm water. Examples of good housekeeping practices employed at the facility include:

- Maintain a neat and orderly work place;
- Do not let scrap accumulate around work areas;
- Sweep up after each shift;
- Clean up drips and spills promptly;
- Keep containers closed tightly;

- Keep lids and covers on all containers unless you are actively using them;
- Make sure all containers are properly labeled;
- Use drip pans when making product transfers;
- Place drip pans under small leaks until they can be permanently repaired; and
- Protect drip pans from overflowing.

The facility management requires proper material storage in order to prevent the release of substances that may cause storm water pollution. Good housekeeping practices for material storage include the following:

- Store materials out of the weather;
- Do not let industrial materials remain exposed to storm water or snow melt;
- Place materials indoors, under a shelter or roof overhang if possible;
- Do not store materials near a down spout or storm drain;
- Place temporary covers over exposed materials;
- Place a waterproof tarp or other waterproof cover over a material until it can be moved to a more suitable location;
- Check the covered materials regularly to insure the cover is in place;
- Load and unload out of the weather (if possible);
- Use skirts at loading docks; and
- Insure that storm drains in the area are protected from potential spills by placing a mat over them or using absorbent boom around them.

Waste management BMPs at the facility are designed to reduce or eliminate waste coming into contact with storm water. Specific waste management practices include:

- Never using ditches for waste disposal;
- Insuring that all containers are covered;
- Closing dumpster lids;
- Draining fuel storage secondary containment only with approval; and
- Never releasing water if there is sheen on the water or other possible contaminants are observed.

Material inventory practices can reduce the waste that results from overstocking and the disposal of outdated materials. Careful tracking of material inventories can also result in more efficient use of materials. The following material inventory BMPs will be employed at the facility:

- A Safety Data Sheet (SDS) shall be maintained for each product used at the facility;
- Containers will be clearly labeled with the name and type of the contained materials; and
- When appropriate or when otherwise required, containers will be labeled with the contained materials, expiration date, and suggestions for handling, cleanup, and first aid information.

3.3 MAINTENANCE

Preventive maintenance involves the inspection and maintenance of equipment and systems to uncover conditions that could cause breakdowns, and correction of these conditions by adjustment,

repair, or replacement of worn parts before the equipment or systems fail. One goal of a preventive maintenance program is to discover conditions that could result in discharge of pollutants to storm water. The preventive maintenance program at the facility includes inspection and maintenance of the storm water drainage system. The preventive maintenance program involves:

- Identifying equipment and systems which could potentially fail and release hazardous substances;
- Ensuring slopes are graded to drain;
- Adjusting, repairing and replacing parts and equipment where necessary; and
- Cleaning and routine maintenance of storm water systems.

Since inspection records can permit early detection of potential problems, personnel will document inspections in field notebooks as a good preventive maintenance technique. Records are also kept which document spills, leaks, and other discharges, including discharges of reportable quantities of hazardous substances. Copies of completed records and forms will be kept on file at the facility.

All BMPs will be properly maintained. Performing the inspections will ensure that all BMPs are intact and are in fact providing environmental protection from sediment entering into Waters of the United States. All maintenance and repairs will be recorded with dates, deficiencies noted, and the repairs needed.

3.4 SPILL PREVENTION AND RESPONSE

Spill prevention and response provisions include at a minimum:

- Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
- Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases; and
- Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies.

Spill prevention and response procedures will be discussed periodically during employee safety meetings to ensure that all personnel understand the procedures. The following specific guidance for spill prevention and response will be provided to all personnel:

- Never hose down a spill;
- Do not wash a spill into a ditch;
- Clean up all leaks, spills, and drips immediately;
- Use absorbents to pick up liquid materials;
- Ensure that all material is picked up;
- Do not leave any residues that storm water runoff might wash away;
- Protect ditches by utilizing absorbent boom or geotextiles; and

- Dispose of all cleanup waste properly by placing it in an appropriate container, covering, labeling, and taking it to the designated storage area.

3.5 EROSION AND SEDIMENT CONTROLS

General erosion and sediment controls required by the APDES MSGP require the facility operator to.

- Stabilize exposed areas;
- Contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation and the resulting discharge of pollutants; and
- Place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants.

The erosion and sediment controls or BMPs that will be implemented as part of this MSGP may include topographic controls, vegetation buffer/vegetative berms, earthen berms, stabilized construction entrance/exits points, dust controls, stockpile stabilization, and street cleaning. The BMP specifications are included in Appendix B of this SWPPP.

3.6 MANAGEMENT OF RUNOFF

General runoff management procedures specified in the APDES MSGP require the facility operator to divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff, to minimize pollutants in their discharges.

The erosion and sediment controls or BMPs that will be implemented as part of this MSGP are topographic controls, vegetated buffers/vegetated berms, earthen berms, dust control, and street cleaning. The BMP specifications are included in Appendix B of this SWPPP.

3.7 SALT STORAGE PILES OR PILES CONTAINING SALT

There are no storage piles containing salt used for deicing or other commercial or industrial purposes at the Knik Construction Juneau Asphalt Plant.

3.8 MSGP SECTOR-SPECIFIC NON-NUMERIC EFFLUENT LIMITS

Sector D

There are no non-numeric effluent limits specific to Sector D.

3.9 EMPLOYEE TRAINING

An employee storm water training program will be implemented at the facility. All employees who work in areas where industrial material or activities are exposed to storm water will attend training meetings. Training will cover the components of this MSGP SWPPP and will include the following topics:

- Spill response;

- Good housekeeping;
- Material management practices; and
- BMP operations and maintenance.

Employee training will be documented and records will be located at the facility and made available upon request.

3.10 NON-STORM WATER DISCHARGES

Unauthorized

Non-storm water discharges to waters of the United States that are not authorized by an NPDES permit are unlawful and must be eliminated. If inspection or monitoring indicates that unauthorized discharges are occurring, the facility operator shall:

1. Immediately stop the unauthorized discharge if possible;
2. Identify measures to prevent the unauthorized discharge from comingling with storm water or permissible discharges under the APDES MSGP; and
3. Either eliminate the discharge or permit the unauthorized discharge under the appropriate APDES permit for the unauthorized discharge.

See Section 2.3 of this SWPPP for documentation of unauthorized non-storm water discharges and actions taken to eliminate them.

Sector D

There are no Sector D specific unauthorized non-storm water discharges that apply to the Knik Construction Juneau Asphalt Plant.

Authorized

The following non-storm water discharges are authorized under the 2015 MSGP permit (Section 1.2.3, 2015 MSGP) and may occur on the facility:

1. Discharges from fire-fighting activities;
2. Fire hydrant flushing;
3. Potable water, including water line flushing;
4. Uncontaminated air conditioner or compressor condensate;
5. Irrigation drainage;
6. Landscape watering if all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions;
7. Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
8. Routine external building wash down that does not use detergents;
9. Uncontaminated ground water or spring water;
10. Foundation or footing drains where flows are not contaminated with process materials; and
11. Incidental windblown mist from cooling tower that collects on rooftops or adjacent portions of the facility, but NOT intentional discharges from the cooling tower.

For each allowable non-storm water source except fire fighting discharges, the SWPPP must include the discharge locations and descriptions of appropriate BMPs for each source. These locations need to be outlined on the site plan drawings on a consistent basis. All allowable non-storm water discharges must be documented to meet administrative requirements. Upon discharge, note the location of the activity on the site plan drawings, date, and sign. These locations and drawings can always be amended to the SWPPP to suit onsite demands.

3.11 WASTE, GARBAGE AND FLOATABLE DEBRIS

Waste, garbage, and floatable debris will be eliminated from storm water discharge by storing garbage in covered dumpsters and other wastes in appropriate storm-proof containers or sealed drums. This includes covering/sealing all drums of waste fluids (e.g. used motor oil). Waste accumulation will be minimized through the regular disposal of accumulated wastes. Litter will be picked up on a regular basis during the operational season. A dumpster is located on the subject property for trash and refuse. A garbage service empties the dumpster on a weekly basis.

3.12 DUST GENERATION AND VEHICLE TRACKING OF INDUSTRIAL MATERIALS

The access road into the facility is Mount Roberts Street, a paved access Road. Gravel stabilized construction entrance/exits will be at the facility access point. Vehicle tracking of industrial materials will be minimized with street cleaning.

Dust control practices within the active mine and material storage areas are accomplished by the following:

- a. Limiting access to the material areas to authorized personnel and equipment;
- b. Adhering to posted vehicle traffic speed of 15 mph throughout the site;
- c. Ensuring that the loader is close to the hauling vehicle during loading operations; and
- d. Instructing operators to slowly tip the loader bucket while loading vehicles.
- e. Covering non-active erodible stockpiles

4.0 SCHEDULES AND PROCEDURES FOR MONITORING

Most precipitation infiltrates before runoff can accumulate on site. It is not expected that runoff will occur except perhaps the most extreme conditions. Any runoff would likely drain into the Gastineau outfalls noted on Figure 2. BMP's will be in place to limit runoff. However, the facility will keep monitoring equipment on site, in preparation for possible sampling opportunities.

The 2015 MSGP requires regular monitoring of storm water discharges. Monitoring includes visual assessment/qualitative monitoring of discharges; indicator/benchmark sampling, and compliance sampling.

Indicator/benchmark sampling and compliance sampling are analytical monitoring. There are five types of analytical monitoring that a facility may have to perform to comply with the 2015 MSGP.

Depending on a facility's specific characteristics, one or more of the following types of monitoring will be required:

1. Quarterly benchmark monitoring
2. Annual effluent limitations guidelines monitoring
3. State specific monitoring

In addition to visual assessment monitoring, the analytical monitoring types required for the facility are quarterly benchmark monitoring, annual effluent limitations guidelines monitoring, and state specific requirements.

The Facility Manager will be trained to sample the storm water by a Qualified Sampler (in accordance with ADEC standards).

In addition the sampling personnel will review and follow the EPA procedures manual NPDES Storm Water Sampling Guidance Document (EPA Office of Water, July 1992). All sampling will be conducted in accordance with 40 CFR 136 as well as 18 AAC 70. The analytical laboratory will conduct analyses in accordance with methods dictated in 10 CFR 136. The following details the necessary sampling required by the general permit.

Any monitoring would be conducted in accordance with Section 7 of the 2015 MSGP. Each outfall must be monitored unless any outfalls are deemed to be substantially identical to another outfall.

4.1 VISUAL ASSESSMENT/QUALITATIVE MONITORING

For every quarter of the permit term, in accordance with Part 6.2 of the 2015 MSGP, the facility must visually assess storm water samples from each outfall for the following parameters:

- Color; example: - milky, brown
- Odor; example: -none, sulfur, decay
- Clarity; example: -clear, opaque
- Floating Solids; example: -present or none
- Settled Solids
- Suspended Solids; example: -present, none, or few
- Foam; example: -present or absent
- Oil Sheen; example: - present or absent
- Other obvious indicators of storm water pollution.

The visual examination will be made during daylight hours. If no storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, or if no runoff is observed during or after the storm event, it will be documented that no runoff occurred.

The examination will be conducted in a well-lit area. When possible, the same individual will carry out the collection and examination of discharges for the entire permit term. Staff will maintain visual examination reports (Appendix D) on site with the SWPPP.

Quarters are defined as follows:

- January 1 – March 31;
- April 1 – June 30;
- July 1 – September 30; and
- October 1 – December 31.

All visual samples required for quarterly visual assessment will be performed during a “measurable storm event,” that results in an actual discharge from the facility or, in the case of snow melt, when a measurable discharge occurs at the facility. In accordance with Part 7.1.3 of the 2015 MSGP, at least one of the quarterly samples will capture snow melt discharge. Grab samples should be collected within the first 30 minutes of the measurable storm event, or if that is not possible, as soon as practicable and provide an explanation why the sample could not be collected in the first 30 minutes. The event from which samples will be collected must be at least 72 hours after the preceding discrete event.

Applicable exceptions to quarterly visual assessments include:

Adverse weather conditions- if adverse weather conditions prevent the collection of samples during the quarter, a substitute sample must be collected during the following storm event. Documentation of rationale for no visual assessment must be included in the SWPPP. Adverse weather conditions include local flooding, high winds, electrical storms, or situations that otherwise make sampling impractical such as drought or extended frozen conditions.

4.1.1 QUARTERLY VISUAL ASSESSMENT DOCUMENTATION

Quarterly visual assessment monitoring must be documented in accordance to Part 6.2.2 of the 2015 MSGP. Documentation must be kept on site with the SWPPP. The Inspection Reports are available in Appendix D. Documentation must include the following information:

- Sample location(s);
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snow melt);
- Results of observations of the storm water discharge- for rainfall record the date of the event, the number of hours in duration, the number of days since the previous measurable storm event; for snow melt identify the date of monitoring;
- Probable sources of any observed storm water contamination;
- If applicable, why it was not possible to take samples within the first 30 minutes.
- Corrective action, if any necessary.

4.2 EFFLUENT LIMITATIONS GUIDELINES MONITORING

A description of the sampling locations, pollutant parameters to be sampled, monitoring schedule and numeric limitations for each applicable sector is outlined in the following tables.

Benchmark Monitoring Requirements

Location	Pollutant Parameters	Monitoring Schedule	Numeric Limitations
Specific Benchmarks - Sector D			
Outfall #1	Total Suspended Solids	Quarterly	100 mg/L
Specific Benchmarks - Sector J			
Outfall #1	Nitrate plus Nitrite Nitrogen	Quarterly	0.68 mg/L
	Total Suspended Solids		100 mg/L

mg/L – milligrams per liter

Effluent Limitations

Location	Pollutant Parameters	Monitoring Schedule	Numeric Limitations
Sector D			
Discharges from asphalt emulsion facilities	Total Suspended Solids	Annually	23.0 mg/L daily maximum 15.0 mg/L 30-day average
	pH		6.5-8.5
	Oil and Grease		15.0 mg/L daily maximum 10 mg/L 30 day average

mg/L – milligrams per liter

Pursuant to part 7.1.7 of the APDES MSGP benchmark monitoring is to be conducted quarterly, however, liquid water is typically not available during the winter. Pursuant to the provisions of §7.1.6 one monitoring event will occur during the April-May-June quarter and one will occur during the July-August-September quarter. An additional monitoring event will occur during snow melt.

4.3 STATE PROVISIONS

The facility is not subject to state monitoring requirements in accordance with the 2015 MSGP part 7.2.5.

Inactive and Unstaffed sites exception (if applicable)

If you are invoking the exception for inactive and unstaffed sites for benchmark monitoring, include information to support this claim.

Monitoring forms and completed monitoring reports are available in Appendix D.

5.0 INSPECTIONS

The 2015 MSGP requires three types of inspections. Routine facility inspections (conducted monthly or quarterly), quarterly visual assessment of storm water discharges as described in Section 4.1, and annual comprehensive site inspections. Records of all inspections will be compiled in Attachment D of this SWPPP. Inspection forms are included in Attachment D.

Routine Facility Inspections

Routine facility inspections must be conducted at least quarterly, though monthly inspections are recommended. In accordance with section 4.1.1 of the MSGP, the inspection schedule must be included in this SWPPP. Routine inspections will be conducted on the first Monday of each month. At least once each calendar year, the routine facility inspection must be conducted during a period when storm water discharge is occurring. To accommodate this requirement, a routine facility inspection will be conducted during the first significant rain event of the summer. If an inspection has already been completed for the month at the time of this storm event inspection, then this inspection will be in addition to the normally scheduled inspection. If the regularly scheduled inspection has not yet been completed, this inspection will replace the normally scheduled inspection.

Routine facility inspections must include the documentation of:

- The inspection time and date;
- The name(s) and signature(s) of the inspector(s);
- Weather information and a description of any discharges occurring at the time of the inspection;
- Any previously unidentified discharges of pollutants from the site;
- Any control measures needing maintenance or repairs;
- Any failed control measures that need replacement;
- Any incidents of noncompliance observed; and
- Any additional control measures needed to comply with permit requirements.

Routine facility inspections must be conducted by qualified personnel. Exceptions to routine facility inspections are included in section 6.1.3 of the MSGP.

Comprehensive Site Inspections

In accordance with section 6.3 of the MSGP, a comprehensive site inspection must be conducted once per year by a qualified person with at least one member of the storm water pollution prevention team. For simplicity and thoroughness, each routine facility site inspection will include all of the requirements of the comprehensive site inspection. At least one of the summer comprehensive site inspections will be conducted by a qualified person along with a member of the storm water pollution prevention team.

The following must be inspected during a comprehensive site inspection:

- Industrial materials, residue, or trash that may have or could come into contact with storm water;
- Leaks or spills from industrial equipment, drums, tanks, or other containers;
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;

- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and
- Control measures needing replacement, maintenance, or repair.

The following documentation of each comprehensive site inspection must be maintained onsite with the SWPPP and submitted with the annual report required in part 9.2 of the MSGP:

- The date of the inspection;
- The name(s) and title(s) of the personnel making the inspection;
- Findings from the examination of items listed above;
- All observations relating to the implementation of control measures including:
 - previously unidentified discharges from the site;
 - previously unidentified pollutants in existing discharges;
 - evidence of, or the potential for, pollutants entering the drainage system;
 - evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of and around the outfall, including flow dissipation measures to prevent scouring, and
 - additional control measures needed to address any conditions requiring corrective action identified during the inspection.
- Any required revisions to the SWPPP resulting from the inspection;
- Any incidents of noncompliance observed or a certification stating the facility is in compliance with this permit (if there is no noncompliance); and
- A statement, signed and certified in accordance with Appendix A, subsection 1.12 of the 2015 MSGP.

6.0 SWPPP CERTIFICATION

I certify under penalty of law that I have read the terms and conditions of the general Alaska Pollutant Discharge Elimination System (APDES) permit that authorizes the storm water discharges associated with industrial activity identified as part of this certification. This document and all attachments were prepared in accordance with reasonable business standards. The information contained in this document and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Eryn Jones
Safety and Environmental Manager
Knik Construction Co., Inc.

Date: _____

7.0 SWPPP MODIFICATIONS

This SWPPP is a “living” document and is required to be modified and updated, as necessary, in response to corrective actions. See Part 8.4 of the 2015 MSGP.

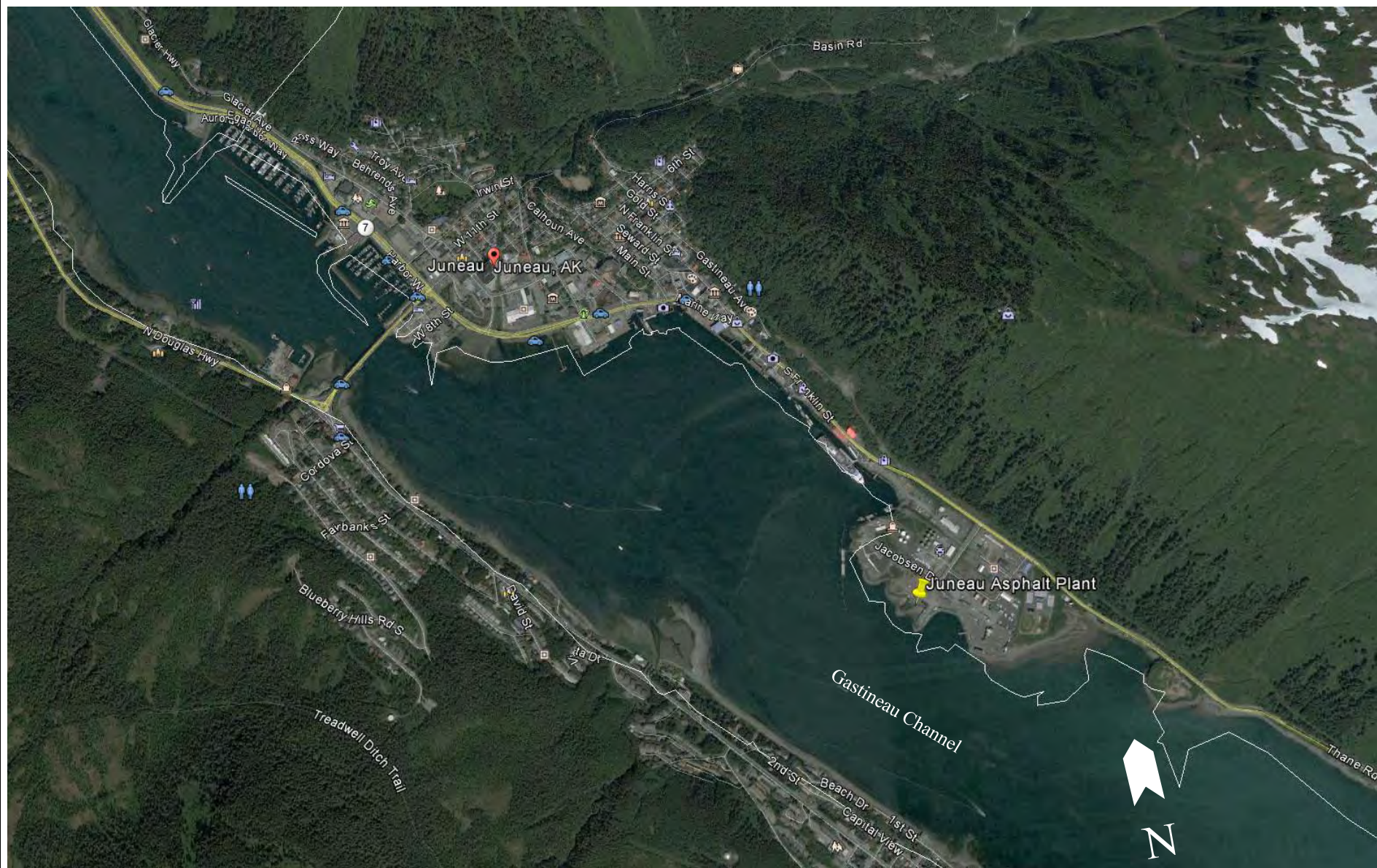
- If SWPPP modification is required in response to any of the following corrective actions required by Part 8.1 of the 2015 MSGP, then the certification statement in section 7.0 of this SWPPP must be re-signed in accordance with 2015 MSGP Appendix A, Subsection 1.12.5.
 - A discharge violates a numeric effluent limit;
 - The permittee becomes aware, or DEC determines, that the permittee’s control measures are not stringent enough for the discharge to meet a WQS in the receiving water;
 - An inspection or evaluation of the permittees facility by an DEC or EPA official determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this permit; or
 - The permittee finds in their routine facility inspection, quarterly visual assessment, or comprehensive site inspection that their control measures are not being properly operated and maintained.
- For any other SWPPP modification, Knik Construction Juneau Asphalt Plant must keep a log with a description of the modification, the name of the person making it, and the date and signature of that person. See 2015 MSGP Appendix A, Subsection 1.12.

SWPPP modifications are to be recorded in the Revision Log included on page ii of this SWPPP.

LIST OF APPENDICES

- Appendix A – General Location Map*
- Appendix B – Site Map and BMP Specifications*
- Appendix C – 2015 MSGP and NOI*
- Appendix D – Monitoring and Inspection Forms and Reports*
- Appendix E – Environmental Documentation*
- Appendix F – Personnel Training Records*
- Appendix G – Spill Documentation*
- Appendix H – SWPPP Record of Review*

Appendix A
General Location Map



Juneau Asphalt Plant
 Knik Construction Co., Inc
 6400 South Airpark
 Anchorage AK 99502

Figure #1
General Location Map
Multi-Sector General Permit

Attachment A

Appendix B
Site Maps
BMP Specifications

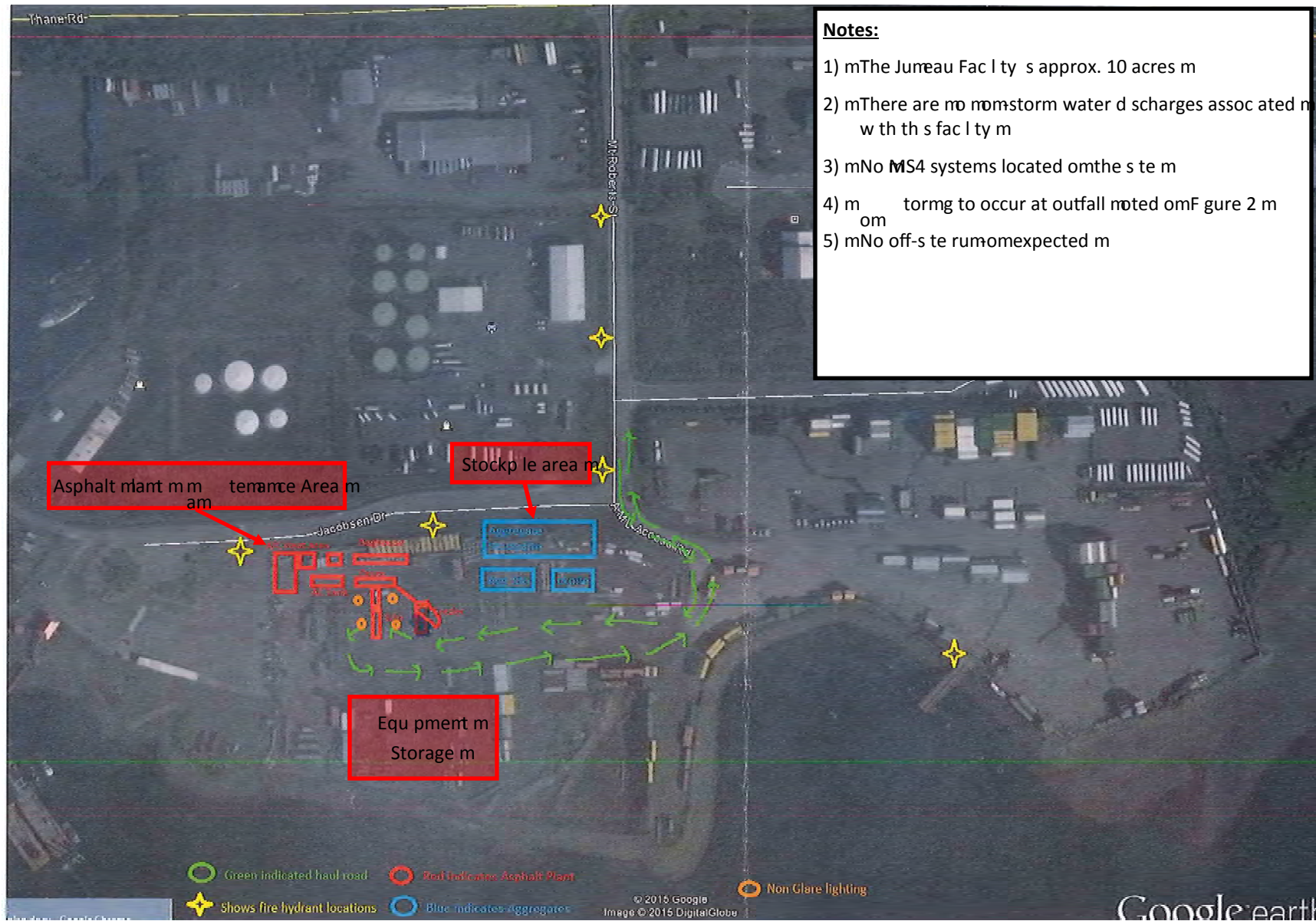


	Facility Boundary		Vehicle Entrance
	Settlement Pond and Infiltration Point		
	Outfall #1		
	Sediment Barrier		

Juneau Asphalt Plant
Knik Construction Co., Inc
6400 South Airpark

Figure #2
BMP Site Map
Multi-Sector General Permit

m



Juneau Asphalt Plant
Knik Construction Co., Inc
6400 South Airpark
Anchorage AK 99502

Figure #3
Site Map
Multi-Sector General Permit

Earth Dike

BMP 41

Description	An earth dike is a temporary berm or ridge (or ridge-and-channel combination) of compacted soil located in a manner to channel water to a desired location. Earth dikes are used to protect work areas from upslope runoff and to divert sediment-laden water to appropriate traps or stable outlets. The channel portion (if used) generally has a lining of stone, riprap, or vegetation for stabilization.								
Applications	Earth dikes are used in construction areas to control erosion, sedimentation, or flood damage. Earth dikes can be used in the following situations: ▪ Across unprotected slopes, as slope breaks, to reduce length. ▪ Below slopes to divert excess runoff to stabilized outlets. ▪ At or near the perimeter of the construction area to keep sediment-laden runoff from leaving the site. ▪ To protect cut or fill slopes by diverting upslope flows away from disturbed areas to a stabilized outlet. ▪ To direct any sediment-laden runoff to a sediment-trapping device. ▪ To direct clean water away from disturbed areas								
Limitations	<table border="0"> <tr> <td>Drainage area – 10 ac.</td><td>Maximum slope – 10%</td></tr> <tr> <td>Minimum bedrock depth – 5 ft</td><td>Minimum water table – 5 ft</td></tr> <tr> <td>NRCS soil type - ABC</td><td>Freeze/thaw – fair</td></tr> <tr> <td>Drainage/flood control – yes</td><td></td></tr> </table> ▪ Despite an earth dike's simplicity, improper design can limit its effectiveness. ▪ Frequent inspection and maintenance are essential to the proper performance of this BMP. ▪ When the drainage area above the earth dike is greater than 10 ac., consult the NRCS standards and specifications for diversions.	Drainage area – 10 ac.	Maximum slope – 10%	Minimum bedrock depth – 5 ft	Minimum water table – 5 ft	NRCS soil type - ABC	Freeze/thaw – fair	Drainage/flood control – yes	
Drainage area – 10 ac.	Maximum slope – 10%								
Minimum bedrock depth – 5 ft	Minimum water table – 5 ft								
NRCS soil type - ABC	Freeze/thaw – fair								
Drainage/flood control – yes									
Targeted Pollutants	Sediment Trace metals								
Design Parameters	The earth dike should be constructed of compacted soil or coarse aggregate according to the criteria in Table 41-1 below. The channel formed behind the dike should have a positive grade to a stabilized outlet. The channel should be stabilized with vegetation or other stabilization measures. Grades over 10% may require site-specific design developed or approved by a registered engineer.								
Construction Guidelines	▪ Some general considerations include proper compaction of the earth dike, appropriate location to divert the intercepted runoff, and proper ridge height and thickness. Earth dikes should be constructed along a positive grade. Other than the discharge point, there should be no dips or low points where stormwater will collect.								

- Runoff intercepted from disturbed areas should be diverted to a sediment-trapping device. Runoff from undisturbed areas can be channeled to an existing swale or to a level spreader. Stabilization for the dike and flow channel (or drainage swale) should be stabilized as soon as possible. Stabilization materials can include vegetation, stone, or riprap.
- Construct the dike where it will not interfere with major areas of construction traffic so that vehicle damage to the dike will be kept to the minimum.
- Install the dike prior to the majority of soil disturbing activity. The dike may be removed when stabilization of the drainage area and outlet are complete.
- Clear the area of all trees, brush, stumps, or other obstructions.
- Construct the dike to the designed cross-section, line and grade making sure that there are no irregularities or bank projections to impede the flow. Construct the connecting portion to any stream channel last.
- The dike should be compacted using earth-moving equipment (to prevent failure of the dike).
- The dike should be stabilized at least 10 days after installation. The flow channel should be stabilized according to the criteria in Table 41-2 below. In highly erodible soils, as defined by NRCS Soil Survey of the project's county, refer to the next higher slope grade for type of stabilization.
- Earth dikes should have an outlet that function with a minimum of erosion. Runoff should be conveyed to a sediment-trapping device until the drainage area above the dike is adequately stabilized. The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet.

Maintenance

- Inspect diversion dikes regularly and after every storm. Make any repairs necessary to ensure they are in good working order.
- Inspect the dike, flow channel and outlet for deficiencies or signs of erosion.
- If material should be added to the dike, be sure it is properly compacted.
- Reseed/stabilize the dike as needed to maintain its stability regardless if there has been a storm event or not.

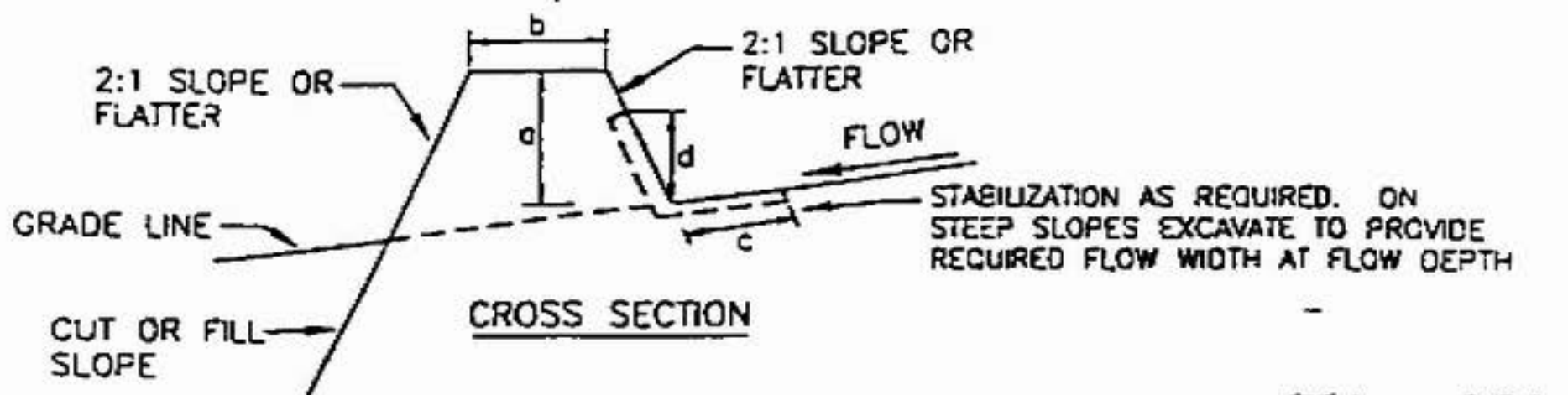
Table 41-1. Suggested Dike Design Criteria

Criteria	Drainage area < 5 acres	Drainage area between 5 to 10 acres
Dike Height	18 in.	3 ft
Dike Width	2 ft	3 ft
Flow Width	4 ft	6 ft
Flow Depth in channel	8 in.	15 in.
Side Slopes	2:1 or flatter	2:1 or flatter
Grade	0.5% - 20%	0.5% - 20%

Table 41-2. Criteria for Earth Dike Construction

Type of treatment	Channel grade (percent)	Flow channel A (less than 5 acres)	Flow channel B (5-10 acres)
1	0.5-3.0	Seed and Straw Mulch	Seed and Straw Mulch
2	3.1-5.0	Seed and Straw Mulch	Seed and cover with Jute or Excelsior; Sod, or line with 2 in. stone
3	5.1-8.0	Seed and cover with Jute or Excelsior; Sod, or line with 2 in. stone	Line with 4-8 in. stone or Recycled Concrete Equivalent
4	8.1-20	Line with 4-8 in. stone or Recycled Concrete Equivalent	Engineering Design

^a Recycled Concrete Equivalent should be concrete broken into the required size, and should contain no steel reinforcement.



DIKE A
(3 oc. or less)

DIKE B
(5-10 oc.)

a-DIKE HEIGHT
b-DIKE WIDTH
c-FLOW WIDTH
d-FLOW DEPTH

18"
24"
4"
8"

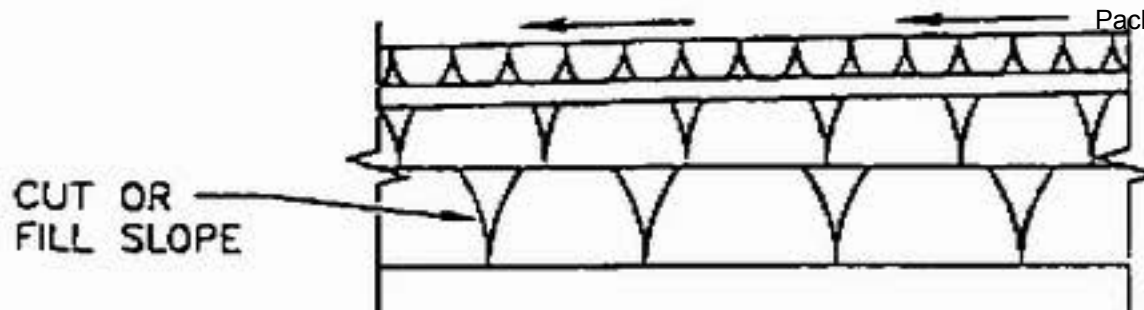
36"
36"
6"
15"

POSITIVE DRAINAGE-GRADE
SUFFICIENT TO DRAIN

Packet Page 151 of 786

STANDARD SYMBOL

A-2 / B-3



CONSTRUCTION SPECIFICATIONS

- 1 ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- 2 ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- 3 TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- 4 FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- 5 EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
- 6 STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR; 500; 2" STONE
3	5.1-8.0%	SEED WITH JUTE OR 500; 2" STONE.	LINED RIP-RAP 4"-8"
4	8.1-20%	LINED RIP-RAP 4"-8"	ENGINEERING DESIGN
A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT. B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES IN THICKNESS AND PRESSED INTO THE SOIL. C. APPROVED EQUIVALANTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.			
7	PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.		

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TOOTHMAN-ORTON ENGINEERING COMPANY
BOISE, IDAHO McCALL, IDAHO

EARTH DIKE

STANDARD
DRAWING

Attachment A1

Dust Control

BMP 7

Description	This BMP describes products or measures used for reducing or preventing wind erosion by protecting the soil surface, roughening the surface, and reducing the surface wind velocity. Several dust control treatments are described below. Other methods are also available. Vegetative Cover: For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control (see BMP 21-Seeding and BMP 22-Sodding). Mulch (including gravel mulch): When properly applied, mulch offers a fast, effective means of controlling dust (see BMP 15-Mulching). Spray-On Adhesive: Asphalt emulsions, latex emulsions, or resin in water can be sprayed onto mineral soil to control dust (see BMP 16-Hydromulching). Sprinkling: The site may be sprinkled with water until the surface is wet. Sprinkling is especially effective for dust control on haul roads and other traffic routes. Stone: Stone or gravel used to stabilize construction roads and disturbed soils can also be effective for dust control and reduce soil losses from those areas by up to 80% . Surface Roughening: Tilling or discing the surface of disturbed soils to produce a rough surface or ridges which when perpendicular to prevailing winds can reduce soil losses due to wind by 80% (see BMP 25-Slope Roughening). Barriers: A board fence, wind fence, sediment fence, or similar barrier can control air currents and blowing soil. All of these fences are normally constructed of wood. Perennial grass and stands of existing trees may also serve as wind barriers. Barriers prevent erosion by obstructing the wind near the ground and preventing the soil from blowing off site.
Applications	The above measures for dust control should be used when open, dry areas of soil are anticipated on the site. Clearing and grading activities create the opportunity for large amounts of dust to become airborne. Therefore, one or several dust control measures should be considered prior to clearing and grading. In many cases, water erosion control measures incorporated into the project will indirectly prevent wind erosion. As a standard practice, any exposed area should be stabilized using vegetation to prevent both wind and water erosion. When rainfall is insufficient to establish vegetative cover, mulching is an effective way of conserving moisture, preventing surface crusting, reducing

runoff and erosion, and helping to establish vegetation. It is a critical treatment on sites with erosive slopes.

Limitations

Drainage area – N/A	Maximum slope – 5%
Minimum bedrock depth – N/A	Minimum water table - N/A
NRCS soil type – N/A	Freeze/thaw – N/A
Drainage/flood control – no	

Vegetative measures may not be practical during dry periods unless a reliable supply of establishment water is available. Other methods should be stipulated in the project contract to ensure that dust control is not overlooked.

Barriers (such as walls or fences) can be part of the long-term dust control strategy in arid and semiarid areas, but they are not a substitute for permanent stabilization.

Targeted Pollutants

Sediment
Trace Metals
Hydrocarbons

Design Parameters

Dust Prevention: The best method of controlling dust is to prevent dust production. This can best be accomplished by limiting the amount of bare soil exposed at one time. In project design, identify all areas where ground disturbance will not be allowed. Design and locate haul roads, detours, and staging areas to avoid unnecessary exposure of bare ground and avoid using areas that are the most susceptible to wind erosion.

In the stormwater site plan, specify staging or work sequencing techniques that minimize the risk of wind erosion from bare soil. In most cases, this will require a change from traditional construction techniques that allow large areas to be disturbed at the outset of construction and to remain exposed for long periods of time.

Vegetative Cover: Follow recommended seeding and planting specifications. If site conditions are favorable, use an extended seeding season to ensure that seeding becomes established over as much of the project as possible before winter shutdown or substantial completion. Specify the use of establishment water to accelerate vegetative stabilization if other means of long-term slope protection are not feasible.

Mulch: Apply according to the design parameter for BMP 16-Hydromulching.

Sprinkling: Apply at a rate of 3 gallons per acre so that the soil is wet but not saturated or muddy and so that no dust is being generated.

Stone: At ingress/egress to public highways, apply as indicated in BMP 5-Stabilization of Construction Entrance. For detours, haul roads, or temporary traffic routes through the construction site, provide a layer of fractured stone 2

to 4 in. thick and 1 to 2 in. in diameter.

Surface Roughening: Tilling or discing should leave 6 in. (minimum) furrows, preferably perpendicular to the prevailing wind direction, to gain the greatest reduction in wind erosion. If the surface cannot be furrowed perpendicular to the prevailing wind direction, roughening the surface by using a ripper/scarifier (grader) or a ripper (cat) will produce the desired result of a 6 in. irregular surface.

Barriers: A wind barrier generally protects soil downwind for a distance of 10 times the height of the barrier. If additional protection is needed, use other methods in conjunction with the barrier.

Construction Guidelines

Site Assessment: Assess the potential problem of wind erosion and dust generation at the project site. Consider the soil type, prevailing wind direction, and the effect of other prescribed erosion control measures.

Use Preventive Strategies Wherever Possible:

- Minimize amount of bare ground exposed at one time.
- Minimize amount of ground disturbance occurring when wind erosion is highest.

Implement Dust Control Measures as Needed:

- Provide stabilized roadway to minimize amount of dust generated by construction vehicles and highway traffic (gravel, pave, or moisten the bare areas of the highway or detour route).
- Apply protective materials to exposed areas (e.g., stone, mulch, adhesive/emulsions).
- Install barriers to prevent dust from blowing off site.
- Establish vegetation at the earliest possible opportunity (using establishment water if necessary to ensure viability).
- Keep haul roads, detours, and other bare areas moist by sprinkling them with water.
- Perform street sweeping, as needed.

Maintenance

- Dust control requires constant attention: it is not a one-time or once-in-awhile activity. Dust control sprinkling may have to be done several times a day during hot, dry weather.
- Areas protected by mulch, adhesive emulsions, or barriers need to be checked at regular intervals according to the inspection schedule set forth in the stormwater plan. Remove sediments that accumulate behind any sediment fence or barrier when the accumulation reaches one half the height of the barrier. Dispose of the sediments only in an approved location (not in wetlands or where they will contribute to pollution at the disposal site).

Apply chemical controls (emulsions and resins) at the manufacturer's specified rates and in accordance with all federal, state, and local regulations governing their use. Chemical products should be stored, handled, and disposed of in accordance with all applicable regulations and department policies.

Cover for Materials and Equipment

BMP 8

Description	This BMP includes partial or total physical enclosure of materials, equipment, process operations, or activities. Covering prevents stormwater from coming into contact with potential pollutants and reduces material loss from wind blowing. Tarpaulins, plastic sheeting, roofs, buildings, and other enclosures are examples of covering that are effective in preventing stormwater pollution. Covering can be temporary or permanent.		
Applications	Covering is a simple, effective, and usually inexpensive way of reducing or preventing pollution. It is appropriate for outdoor material storage piles, such as stockpiles of dry materials, topsoil, spoils piles, gravel, sand, compost, sawdust, wood chips, and building materials. It is also effective where containers of liquids or solids are stored or transferred. Although it may be too expensive to cover or enclose all construction activities, the high-risk parts of a site can often be separated and covered. For example, chemical preparation areas, vehicle maintenance and washing areas, storage areas for chemically treated products and toxic wastes (e.g., used oils).		
Limitations	<table border="0"> <tr> <td> Drainage area – N/A Minimum bedrock depth – N/A NRCS soil type – N/A Drainage/flood control – no </td><td> Maximum slope – N/A Minimum water table – N/A Freeze/thaw – N/A </td></tr> </table> ▪ Covering alone may not protect exposed materials from contact with stormwater runoff/run-on. ▪ Requires frequent inspections. Consider curbing or an elevated platform to prevent pollution from run-on water.	Drainage area – N/A Minimum bedrock depth – N/A NRCS soil type – N/A Drainage/flood control – no	Maximum slope – N/A Minimum water table – N/A Freeze/thaw – N/A
Drainage area – N/A Minimum bedrock depth – N/A NRCS soil type – N/A Drainage/flood control – no	Maximum slope – N/A Minimum water table – N/A Freeze/thaw – N/A		
Targeted Pollutants	Sediment Trace Metals Hydrocarbons		
Design Parameters	▪ In selecting an appropriate covering, evaluate the strength and longevity of the covering, as well as its compatibility with the materials or items being enclosed. Cost, aesthetics, weather conditions, drainage patterns, and size of the stockpiles or storage area are other factors affecting the choice of covering. ▪ In designing a covering for materials, remember to provide adequate access for loading, handling, and transfer. Cost considerations may justify a less-than-optimum access arrangement in some cases. For instance, tarpaulins and plastic sheeting have to be removed or rearranged to allow continued access as materials are depleted, but they are less expensive than a permanent structure such as a roof or shed. ▪ Climate or weather conditions also influence the choice or design of a covering. Tarpaulins and sheeting may be difficult to keep secured in		

Waste Management

BMP 12

Description	This BMP entails meeting the regulatory requirements of hazardous waste management that includes hazardous waste determination; acquiring an EPA identification number; accumulation; record keeping reporting; and transportation manifesting. Good housekeeping will minimize the contribution of pollutants to stormwater discharges by handling and storing hazardous materials on site in a clean and orderly manner.		
Applications	Compliance with applicable regulations will protect human health and the environment from hazardous waste generated by construction activities, reduce liability, and prevent unnecessary interruptions to schedules (i.e., project shut down due to environmental investigations/enforcement actions). The first step in preventing pollution of stormwater runoff is to maintain a clean and orderly work environment. This will reduce the possibility of accidental spills. Common sense is the simplest and most inexpensive method to utilize. Improving the operation and maintenance of industrial machinery, material storage practices, material inventory controls, routine and regular clean-up, maintenance activities in work areas, and providing educational programs for employees regarding these practices will assist in reaching these goals.		
Limitations	<table border="0"> <tr> <td> Drainage area - N/A Minimum bedrock depth - N/A NRCS soil type - N/A Drainage/flood control – no </td><td> Maximum slope – N/A Minimum water table - N/A Freeze/thaw – N/A </td></tr> </table> Carelessness and poor judgment often result in problems associated with the disposal of hazardous materials. Not being fully aware of all the hazards at the site could increase the potential for mishandling of such wastes, resulting in stormwater contamination.	Drainage area - N/A Minimum bedrock depth - N/A NRCS soil type - N/A Drainage/flood control – no	Maximum slope – N/A Minimum water table - N/A Freeze/thaw – N/A
Drainage area - N/A Minimum bedrock depth - N/A NRCS soil type - N/A Drainage/flood control – no	Maximum slope – N/A Minimum water table - N/A Freeze/thaw – N/A		
Targeted Pollutants	Sediment Trace Metals		
Design Parameters	Select a designated waste collection area on site. Secure an adequate number of containers with lids or covers. If possible, provide a covered area or spill containment pallets. Arrange for waste collection before containers overflow (additional containers and more frequent pick-ups will be needed during the demolition phase). Provide immediate cleanup in case of a spill. Assure that waste is transported and disposed of at an approved facility. A liner, concrete pad, berm, etc., should be utilized to keep waste separated and to contain accidental spills so that stormwater runoff is not polluted. Provide labels and signs for the area to educate contractors about proper storage and handling and to comply with regulatory requirements.		

Construction Guidelines

The best way to avoid polluting runoff from outside material storage areas is to prevent stormwater run-on or rain from coming in contact with the materials.

These are some of the methods that can be utilized to accomplish this:

- Identify, control, and enforce storage and disposal/stockpile areas
- Provide a barrier such as a liner, concrete pad or berm
- Protect the storage area by:
 - ✓ Storing the material indoors
 - ✓ Covering the area with a roof
 - ✓ Covering the material with a temporary covering
- Engineer safeguards such as:
 - ✓ Overflow protection devices
 - ✓ Protective guards around tanks, storage area, etc.

Maintenance

- Regularly pick up and dispose of all garbage and waste material.
- Make sure equipment is working properly.
- Routinely inspect for leaks or conditions that could lead to discharges of chemicals and contact with stormwater:
 - ✓ External corrosion and structural failure
 - ✓ Installation problems
 - ✓ Evidence of spills or overfills
- Locate storage areas away from direct traffic routes.
- Stack according to directions to avoid damage due to improper weight distribution.
- Store likes together, separate incompatible wastes.
- Assign hazardous material inventory to a limited number of people.
- Keep up-to-date inventory of all hazardous materials and wastes.
- Identify all chemical substances present at the work site.
- Label all containers with name, hazards, handling, and first-aid information.
- Mark those that require special instructions.
- Cleanup of liquid or dry material spills.
- Provide initial and annual training for employees on the hazards and the proper handling procedures.
- Do not mix products together unless specifically recommended.
- Use the entire product before disposing of container.
- Do not remove original product label from container.

Vehicle/Equipment Washing & Maintenance

BMP 11

Description	A typical vehicle/equipment washing and maintenance system is a lined, depressed area that collects the water used in washing off the trucks, cars, or other construction vehicles/equipment, and drains the wastewater into a collection or treatment system.	
Applications	A wash-down area is used on projects where the soil is silty or heavy in clay, and has the likelihood of transporting dirt and mud off site. Projects that will take place over the course of the rainy season and areas where water is expected to be encountered (high ground water table) in the normal course of the project should be considered as candidates.	
Limitations	Drainage area - N/A Minimum bedrock depth – N/A NRCS soil type - N/A Drainage/flood control – no	Maximum slope – 5% Minimum water table - N/A Freeze/thaw – N/A
	Washing vehicles generates liquid, semi-solid, and solid wastes. These wastes should be contained on-site or treated to prevent pollution of surface and ground water. Off-site: Treatment is required for all discharges to waters of the state since it could be contaminated with degreasers, hydrofluoric acid, hydrochloric acid, nitric acid, phosphoric acid, oil, hydraulic fluids, lubrication, and engine cleaning solvents. Waters of the state include all surface waters (canals, rivers, ponds, streams and lakes), and all ground water. Contact the local permitting authority to determine proper treatment and disposal methods. On-site: If wash-water discharge to a sediment pond is the system of choice, sufficient acreage is required for the operation.	
Targeted Pollutants	Sediment Phosphorus Trace Metals Hydrocarbons	
Design Parameters	▪ Detergents used on site in Idaho for vehicle washing should not contain phosphates. Phosphates are a plant nutrient that can cause excessive growth of aquatic plants when discharged into a stream or lake. ▪ A stabilized construction entrance (BMP 5), used to reduce off-site tracking of mud, dirt and rocks, should be installed at the vehicle wash/maintenance area. Washing and maintenance should be conducted in disturbed areas (staging areas) but should not be conducted in a cut or fill area until grading has been performed or where there will be a high volume of construction traffic. Highly erodible soils or frequently wet areas should be avoided.	

Off-site discharge options:

- Lagoon: Pond-like structure that works on the principle of evaporation is easy to install and requires low maintenance. There is a need to be aware of safety issues (fencing the area from the public).
- Land application system: Large land area is required. This alternative is the lowest in out-of-pocket cost.
- Filtering and recycling of wash water: A good option for conservation measures. Initially, expense would be high. Monitoring of the operation would be more intensive.
- Municipal wastewater treatment plant: This option is available only in areas where a municipal wastewater treatment plant exists and the operation is capable of handling the load. This is the best option for limiting liability for larger construction projects.

**Construction
Guidelines**

Designate an area that can be graded and bermed. The design should collect wastewater for evaporation or direct it to an off-site containment or treatment system. A lined pond should be used where pollutants such as oil, grease, fuels, etc., may reach the high-ground water table.

Maintenance

Check that the system controls are working as designed. Clean up sediments that have been tracked by vehicles onto nearby roadways.

Vegetative Buffer Strip

BMP 37

Description A vegetative buffer strip is a gently sloping area of vegetative cover that runoff water flows through before entering a stream, storm sewer, or other conveyance. The buffer strip may be an undisturbed strip of natural vegetation or it can be a graded and planted area.

Vegetative buffer strips act as living sediment filters that intercept and detain stormwater runoff. They reduce the flow and velocity of surface runoff, promote infiltration, and reduce pollutant discharge by capturing and holding sediments and other pollutants carried in the runoff water. Vegetative buffer strips function much like vegetated or grassed swales. Buffer strips, however, are fairly level and treat sheet flow across them, whereas grassed swales are indentations that treat concentrated flows running along them (see BMP 40-Temporary Swale).

Applications

- Used for temporary or permanent control, usually in conjunction with other sediment collection and slope protection practices. Consider use with level spreaders or diversion measures such as earth dikes (BMP 41) and slope drains (BMP 24). Also, silt fences (BMP 36) installed upgradient can prevent overloading of the buffer strip.
- May be placed at many locations between the source of sediment (road surface, side slopes) and a natural or constructed waterway. They are inexpensive and easily constructed, and can be put into place at any time if climatic conditions allow for planting.
- May be used at almost any site that can support vegetation, but is best suited for areas where the soils are well drained or moderately well drained and where the bedrock and the water table are well below the surface.
- Provides low to moderate treatment of pollutants in stormwater while providing a natural look to a site.
- Can provide habitat for wildlife.
- Can screen noise and views if trees or high shrubs are planted on the filter strips.

Limitations

Drainage area - unlimited	Maximum slope – 20%
Minimum bedrock depth – 5 ft	Minimum water table – 3 ft
NRCS soil type – ABCD	Freeze/thaw – fair
Drainage/flood control – no	

- Not effective for filtering high velocity flows from large paved areas, steep slopes, or hilly areas. Consider other measures if slopes exceed 15%.
- Requires significant land space.
- May have a short useful life due to clogging by sediments and oil and grease.
- Do not use planted or seeded ground as a buffer strip for sediment trapping until the vegetation is well established.

Targeted Pollutants	Sediment
Design Parameters	▪ A buffer strip should be at least 20 ft wide to function well. Along live streams or above wetlands, the minimum width should be 100 ft. The length of the strip should be approximately 50 to 82 ft. Where slopes become steeper, increase the length of the strip. ▪ Tall, dense stands of grass form good sediment traps, as do willows and alder. The willows and alder can be native or planted. A combination of grasses with willows or alder is also effective. Any planted species should be deep rooted and able to adjust to low oxygen levels. Vegetative cover should be at least 75% to assure adequate removal of sediments. Forested strips are always preferred to vegetated strips, and existing vegetation is preferred to planted vegetation. In planning for vegetated strips, consider climatic conditions, since vegetation may not take hold in especially dry and/or cold regions. ▪ In many cases, a vegetative buffer strip will not effectively control runoff and retain sediments unless employed in conjunction with other control measures. Where heavy runoff or large volumes of sediment are expected, provide diversion measures or other filtering measures above or below the buffer strip.
Construction Guidelines	▪ Try to direct sediment-laden water onto naturally vegetated or stabilized planted ground. ▪ Fertilizing seeded or planted ground may enhance growth (and improve its effectiveness as a buffer strip). ▪ Do not place any equipment, construction debris, or extra soil in the buffer strip (or the strip will be damaged).
Maintenance	▪ Inspect the buffer strip at regular intervals to ensure proper functioning. Check for damage by equipment and vehicles. In newly planted areas, check the progress of germination and plant growth, and arrange for fertilizing, if needed, to enhance growth and establishment. (Planted ground should not be used for a sediment trap until the vegetation is well established.) Make sure that water flowing through the buffer strip is not causing additional erosion nearby and not forming ponds due to erosion within the buffer strip. ▪ Buffer strips in natural vegetation do not generally require maintenance; however, on some sites it may be necessary to remove sediments and replant on a regular basis. Promptly repair any damage from equipment, vehicles, or erosion.

7.5.5.8 Street Cleaning

Description and Purpose

Street cleaning is a temporary, procedural BMP designed to collect and remove sediment other pollutants that have escaped the perimeter of the construction site. It is also a post construction, procedural BMP for storm water management to help prevent road grit and other pollutants from entering the storm drain system.

Objectives

- Sediment Control
- Good Housekeeping/Materials Management

Targeted Pollutants

- Sediment
- Nutrients (N, P, K)
- Trash/Debris
- Metals

SECTION SEVEN

Best Management Practices

- Organics
- Petroleum Products

Applications

- Where off-site tracking sediment and other pollutants are encountered
- Where sediment and other pollutants from construction is on the street
- Where sediment and other pollutants have defeated installed BMPs and entered the street
- Where dirt or stone have escaped a stabilized construction entrance
- Where storage piles have migrated onto roadways
- To be used as storm water treatment or pretreatment
 - Where during winter weather sand/cinders/salt are used
 - Where dust from tires, brakes, etc. accumulate
 - Limitations
- Street sweeping will be difficult and inefficient when the dirt located in the roadway is wet or caked
- May be a safety hazard
- Parked vehicles along roadway may limit effects of sweeping

Implementation Considerations

- When roadway dirt is wet or caked, hand tools or road grading equipment may be required to loosen the dirt before sweeping efforts may be initiated
- Some street sweeping equipment may tend to redistribute the dirt in the roadway rather than collect it. Use equipment that will collect the sediment and other pollutants so that it may be disposed of appropriately
- Sediment not fouled by other pollutants may be incorporated back onto the site
- Schedule and timing in order to have streets clear of vehicles

Inspection

- Inspect according to regulatory timetables
- Proper collection and disposal of collected sediment and other pollutants
- Determine at point the street needs cleaning
- Verify scheduled cleaning if shown on the Plan

Maintenance

- Sweep when sediment or other pollutants accumulations warrant such action
- Sweep according to Plan schedule

Stabilization of Construction Entrance/Exit

BMP 5

Description	A temporary sediment removal device--normally a pad of crushed rock or stone--can be installed at the approach from a construction site to a public roadway to stabilize the road. This BMP is used to limit sediment tracking from vehicles and equipment leaving the construction site onto public rights-of-way and streets.	
Applications	A stabilized construction entrance is appropriate in the following locations: ▪ Wherever vehicles are entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area. ▪ At any unpaved entrance/exit location where there is risk of transporting mud or sediment onto paved roads.	
Limitations	Drainage area - unlimited Minimum bedrock depth – 3 ft NRCS soil type - ABCD Drainage/flood control – no	Maximum slope – 15% Minimum water table – N/A Freeze/thaw – good
Targeted Pollutants	▪ Sediment ▪ Phosphorus ▪ Trace Metals ▪ Hydrocarbons	
Design Parameters	Width: The width should be at least 10 ft but not less than the full width of points where ingress or egress occurs. At sites where traffic volume is high, the entrance should be wide enough for two vehicles to pass safely. Flare the entrance where it meets the existing road to provide a sufficient turning radius. Length: The minimum length should be 50 ft except on a single-residence lot where a 30 ft minimum would apply. Depth: Total depth of rock should be at least 6 in. Aggregate: Fractured stone 2 to 8 in. diameter (for the base layer) and crushed stone 2 in. diameter or reclaimed or recycled concrete equivalent (for the top layer). Geotextile (filter fabric): Most installations will include geotextile (filter fabric) with the products placed over the entire area to be covered with aggregate. Work on single residential lots will generally not need geotextile unless there is potential for excessive erosion, a high water table, or other risk factor. The geotextile should be a woven or	

nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The geotextile should be inert to commonly encountered chemicals, hydrocarbons, mildew, and rot resistant.

Drainage: Runoff from a stabilized construction entrance should drain to a sediment trap or a sediment basin. Piping of surface water under the entrance should be provided as needed. If piping is impossible, install a mountable berm with 5:1 slopes.

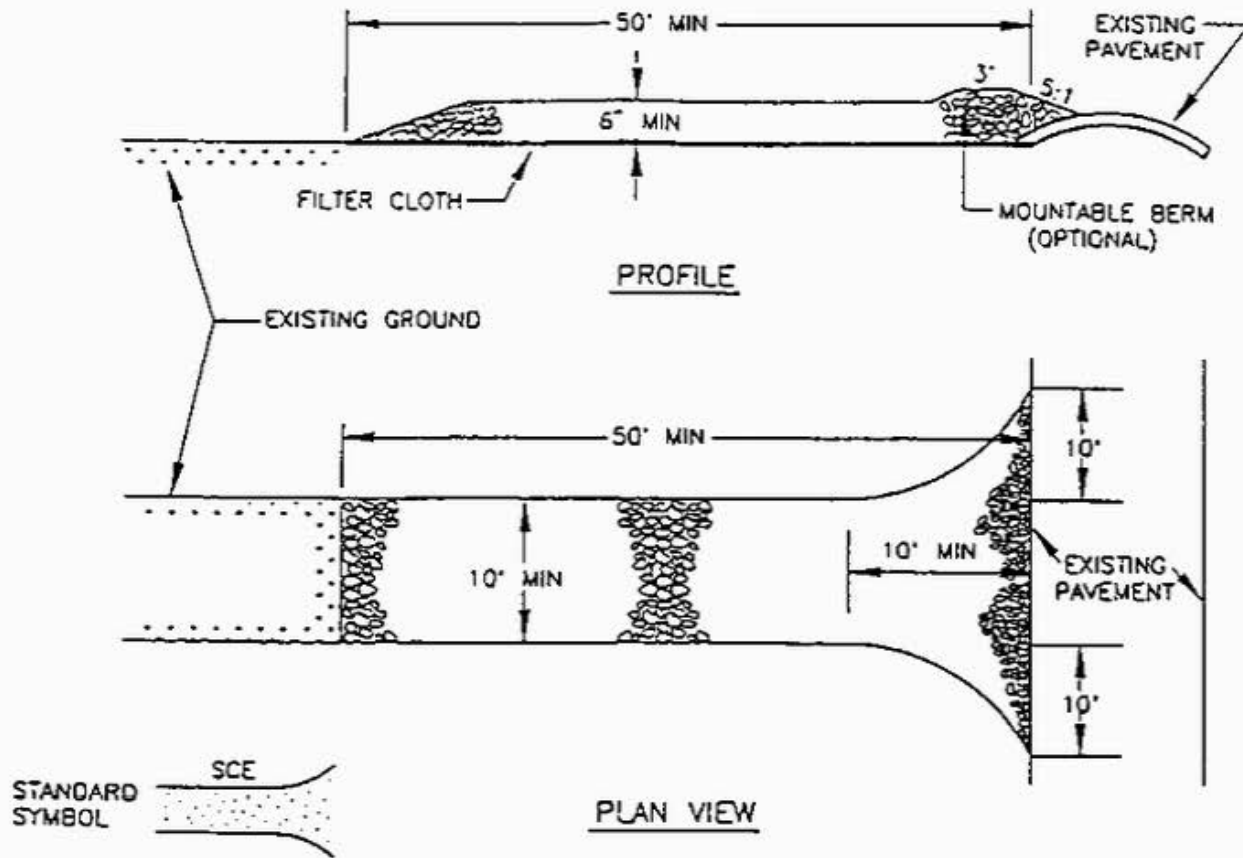
Dust Control: Dust control should be provided at all times (see BMP 7-Dust Control).

Construction Guidelines

- Clear all vegetation, roots, and all other obstructions in preparation for grading.
- Prior to placing geotextile (filter fabric), make sure that the entrance is properly graded and compacted.
- To reduce maintenance and loss of aggregate, place geotextile over the existing ground before placing the stone for the entrance.
- Place a 1 ft layer of fractured stone over the entire width and length of the entrance.
- Place a 4 in. layer of 2 in. crushed stone over the base layer.

Maintenance

- The entrance should be maintained in a condition that will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with additional 2 in. stone (as conditions demand) and repair or cleaning of any structures used to trap sediment.
- All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains should be removed immediately. When necessary, vehicle wheels should be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it should be done on an area stabilized with aggregate that drains into an approved sediment trap.
- Trapped sediment should be removed from the site or stabilized on site and prevented from entering storm drains, ditches, or waterways. Disturbed soil areas resulting from removal should be permanently stabilized.
- The stabilized construction entrance may be removed after final site stabilization is achieved or after the temporary BMPs are no longer needed.



CONSTRUCTION SPECIFICATIONS

- 1 STONE SIZE—USE 2" STONE OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2 LENGTH—AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- 3 THICKNESS—NOT LESS THAN 6 INCHES.
- 4 WIDTH—10 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- 5 FILTER CLOTH—WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- 6 SURFACE WATER—ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- 7 MAINTENANCE—THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 8 WASHING—WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9 PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TOOTHMAN-ORTON ENGINEERING COMPANY
BOISE, IDAHO McCALL, IDAHO

STABILIZED CONSTRUCTION ENTRANCE

STANDARD
DRAWING

SCE-1

Spill Prevention and Control

BMP 10

Description This BMP describes methods of minimizing exposure of pollutants to stormwater runoff by enclosing any drips, overflows, leaks, and other liquid material releases or by isolating pollutant spills from stormwater runoff. There are numerous spill containment methods, ranging from large structural barriers to simple, small drip pans. The benefits vary based on cost, maintenance requirements, and the size of spill control. Three possible options are discussed below:

Containment Diking: Temporary or permanent polyurethane or plastic berms, concrete berms, or retaining walls designed to hold spills. Diking is one of the best protective measures against stormwater pollution because it surrounds the area of concern and holds the spill, keeping spill materials separated from the stormwater outside of the diked area. Diking is one of the most common types of spill containment. Also see BMP 41-Earth Dike and BMP 43-Temporary Berms.

Curbing: Like containment diking, curbing is a barrier that surrounds an area of concern. It prevents spills or leaks from being released to the environment by routing runoff to treatment or control areas. The terms "curbing" and "diking" are sometimes used interchangeably, but curbing is usually small scale and cannot contain large spills like diking can. As with diking, common materials for curbing include earth, concrete, synthetic materials, metal, or other impenetrable materials. Asphalt is also a common material used in curbing.

Drip Pans: Pans used to contain very small volumes of leaks, drips, and spills. Drip pans can be depressions in concrete, asphalt, or other impenetrable materials, or they can be made of metals, plastic, or any material that does not react with the dripped chemicals. Empty or discarded containers may be used as drip pans. Catch drips so that the materials or chemicals can be cleaned up easily or recycled before they can contact stormwater. Drip pans can be a temporary or permanent measure.

Applications **Containment Diking:** Diking can be used at any construction site, but it is most commonly used for controlling large spills or releases from liquid storage areas and liquid transfer areas. It is an effective containment method around tank truck loading and unloading areas. Proper diking contains spills, leaks, and other releases and prevents them from flowing into runoff conveyances, nearby streams, or infiltration into groundwater. It also allows for proper disposal and/or recycling of materials captured within the dike.

Curbing: Curbing is usually small scale; it cannot contain large spills like diking can. However, many facilities use curbing to contain small areas used for handling and transferring liquid materials.

Curbing is already a common practice. It is inexpensive, easy to install, and

provides excellent control of run-on. As with diking, materials spilled within a curbed area can be collected for proper disposal and/or recycling.

Drip Pans: Drip pans can be used at any site where valves and piping are present and the potential for small-volume leakage and dripping exist. Although leaks and drips should be repaired and eliminated as part of preventive maintenance programs, drip pans can provide a temporary solution where repair or replacement should be delayed. In addition, drip pans can be an added safeguard when they are positioned beneath areas where leaks and drips may occur.

Drip pans are inexpensive, easy to install, and simple to operate. They allow for reuse or recycling of the collected material.

Limitations

Drainage area - N/A	Maximum slope – N/A
Minimum bedrock depth – N/A	Minimum water table – N/A
NRCS soil type - N/A	Freeze/thaw – N/A
Drainage/flood control – no	

Containment Diking:

- May be too expensive for some smaller facilities.
- Requires maintenance.
- Could collect polluted stormwater, with possible infiltration to ground water.

Curbing:

- Not effective for holding large spills.
- May require more maintenance than diking.

Drip Pans:

- Suitable only for small volumes.
- Should be inspected and cleaned frequently.
- Should be secured during poor weather conditions.
- Requires that personnel be trained in proper disposal methods so that contents are not disposed of improperly.

Targeted Pollutants

Trace Metals
Hydrocarbons

Design Parameters

Containment Diking:

Size: For tank truck loading and unloading operations, the diked area should be capable of holding an amount equal to any single tank truck compartment.

Materials: Materials used to construct the dike should be strong enough to safely hold spilled materials. The materials used usually depend on what is available on-site and the substance to be contained. Dikes may be made of earth (i.e., soil or clay), concrete, synthetic materials (liners), metal, or other impervious materials. Containment dikes may need to be designed with impervious materials to prevent leaking or pollution of stormwater, surface

water, and ground water supplies.

In general, strong acids and bases may react with metal containers, concrete, and some plastics. So where spills may consist of these substances, other alternatives should be considered. Some of the more reactive organic chemicals may also need to be contained with special liners. If uncertain about the suitability of certain dike construction materials, refer to the *Material Safety Data Sheet (MSDS)* for the chemical being contained.

Curbing: When using curbing for runoff control, protect the berm by limiting traffic and installing reinforced berms in areas of concern. Materials spilled within a curbed area can be tracked outside of that area when personnel and equipment leave the area. This tracking can be minimized by grading within the curbing to direct the spilled materials to a downslope side of the curbed area. This will keep the materials away from personnel and equipment that pass through the area. It will also allow the materials to accumulate in one area, making cleanup much easier. Manual or mechanical methods, such as those provided by sump systems, can be used to remove accumulated material from a curbed area.

Drip Pans: When using drip pans, consider local weather conditions, the location of the drip pans, materials used for the drip pans, and how the pans will be cleaned. The location of the drip pan is important. Because drip pans should be inspected and cleaned frequently, they should be easy to reach and remove. Take special care to avoid placing drip pans in precarious positions such as next to walkways or on an uneven surface. Drip pans in these locations are easily overturned and may present a safety or environmental hazard. Weather is also an important factor. Heavy winds and rainfall can move or damage drip pans because the pans are small and lightweight. To prevent this, secure the pans by installing or anchoring them. Drip pans may be placed on platforms or behind wind blocks or may be tied down.

Maintenance Cleaning guidelines should be included in the maintenance plan for all methods of spill prevention and control.

Containment Diking: Inspect containment dikes during or after significant storms or spills to check for washouts or overflows. In addition, regular testing to ensure that dikes are capable of holding spills is recommended. Soil dikes may need to be inspected on a more frequent basis.

Changes in vegetation, inability of the structure to retain stormwater, dike erosion, or soggy areas indicate problems with the dike's structure. Damaged areas should be patched and stabilized immediately, where necessary. Earthen dikes may require special maintenance of vegetation, such as mowing and irrigation.

When evaluating the performance of the containment system, pay special attention to the overflow system, since it is often the source of uncontrolled leaks. If overflow systems do not exist, accumulated stormwater should be

released periodically. Polluted stormwater should be treated prior to release. Mechanical parts (such as pumps) or manual systems (slide gates, stopcock valves) may require regular cleaning and maintenance.

Curbing: Since curbing is sized to contain small spill volumes, frequent maintenance is needed to prevent overflow of any spilled materials. Inspect all curbed areas regularly and clean clogging debris. Repair the curb by patching or replacing it as needed to ensure effective functioning. Inspections should be conducted before forecasted rainfall events and immediately after storm events. If spilled or leaked materials are observed, cleanup should start immediately to allow space for future spills. In addition, prompt cleanup of spilled materials will prevent dilution by rainwater, which can adversely affect recycling opportunities.

Drip Pans: For drip pans to be effective, site operators should pay attention to the pans and empty them when they are nearly full. Because of their small holding capacities, drip pans will easily overflow if not emptied. Also, recycling efforts can be affected if stormwater accumulates in drip pans and dilutes the spilled material. It is important to have clearly specified and easily followed practices of reuse, recycle and/or disposal, especially the disposal of hazardous materials. Consider dumping the drip pan contents into a nearby larger-volume storage container and periodically recycling the contents of the storage container.

Frequent inspection of the drip pans is necessary due to the possibility of leaks in the pan itself. Also check for random leaking of piping or valves and for irregular, slow drips that may increase in volume. Conduct inspections before forecasted rainfall events to remove accumulated materials. Empty accumulations immediately after each storm event.

extremely windy areas.

- Where a permanent structure is indicated for a particular area or activity, consider building a roof instead of a complete enclosure. This will reduce costs and may also eliminate the need for ventilation and lighting systems that could be needed in a building.
- Consider the nature of the materials being enclosed, especially if they pose environmental or safety dangers. Materials that are biological, flammable, explosive, or chemically reactive require special ventilation and temperature control measures.
- Covering alone may not protect exposed materials from stormwater contact. Where stormwater run-on is a potential problem, place the material on an elevated, impermeable surface or build curbing around the outside of the materials to prevent pollution of stormwater from adjacent areas.

Construction Guidelines

Tarpaulins and Plastic Sheeting: Obtain enough fabric or sheeting to cover the indicated volume or area. Anchor the edges of the covering with stakes, tie-down ropes, large rocks, tires, or other readily available, heavy objects. Maintain an overlap of 3 ft along the borders and securely anchor the overlap area so that it does not separate (through wind or other causes).

Roofs, Sheds, and Buildings: Construct according to plans or drawings in accordance with existing building codes and departmental standards for such construction.

Maintenance

Frequently inspect coverings for damage and general wear. Repair or replace them immediately, as needed.

Appendix C
2015 MSGP
NOI

General Permit No: AKR060000

**ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM****MULTI-SECTOR GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY (MSGP)**

Permit Number: AKR060000

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

In compliance with the provisions of the Clean Water Act (CWA), 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, this permit is issued under provisions of Alaska Statutes (AS) 46.03; the Alaska Administrative Code (AAC) as amended; and other applicable State laws and regulations. Operators of storm water discharges associated with industrial activity located in an area identified in Part 1.1 where the Alaska Department of Environmental Conservation (DEC) is the permitting authority are authorized to discharge to waters of the United States in accordance with the eligibility and Notice of Intent (NOI) requirements, effluent limitations, inspection requirements, and other conditions set forth in this permit. This permit is structured as follows:

- General requirements that apply to all facilities are found in Parts 1 through 10, and
- Industry sector-specific requirements are found in Part 11.

The Appendices (A through F) contain additional permit conditions that apply to all operators covered under this permit.

This permit becomes effective on April 1, 2015.

This permit and the authorization to discharge expire at midnight, March 31, 2020.

The applicant shall reapply for a permit reissuance on or before October 3, 2019, 180 days before the expiration of this permit.

Signature

February 19, 2015

Date

Wade Strickland

Printed Name

Program Manager

Title

**APDES MULTI-SECTOR GENERAL PERMITS FOR STORM WATER
DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY**

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Appendices

Appendix A – Standard Conditions

Appendix B – Abbreviations and Acronyms

Appendix C – Definitions

Appendix D – Facilities and Activities Covered

Appendix E – Calculating Hardness in Receiving Waters for Hardness Dependent Metals

Appendix F – MSGP Forms

Notice of Intent (NOI) Form

Notice of Termination (NOT) Form

Annual Report Form

Corrective Action Form

NOI Modification Form

MSGP Industrial Discharge Monitoring Report (MDMR)

No Exposure Certification Form

Noncompliance Notification Form

SCHEDULE OF SUBMISSIONS

The Schedule of Submissions summarizes some of the required submissions and activities the permittee must complete and/or submit to the Alaska Department of Environmental Conservation (DEC) during the term of this permit. The permittee is responsible for all submissions and activities even if they are not summarized below.

Table: Schedule of Submissions				
Permit Part	Submittal or Completion	Frequency	Due Date	Submit to ^a
1.3	No Exposure Certification	Once, depending on facility status	Once every five years	Permitting Program
2.1.3, 5.2	Storm Water Pollution Prevention Plan (SWPPP)	Once at beginning of coverage, updated as needed	At filing of NOI	Permitting Program
2.1.5, 2.2	Notice of Intent (NOI)	Once at beginning of coverage	Once per permit cycle	Permitting Program
2.7	NOI Modification	As needed	As needed	Permitting Program
7.2.1.2, 7.2.2.1	Monitoring	Quarterly during first year	30 days after receipt of lab results	Compliance Program
9.3	Noncompliance Notification Form	Upon exceedance of effluent limit	30 days after receipt of lab results	Compliance Program
8.4	Corrective Action Report	Upon exceedance (See Part 8.1 and 8.2)	Submit with Annual Report	Compliance Program
9.2	Annual Report	Annually	45 days after conducting comprehensive inspection	Compliance Program
9.4	Additional Reporting	See Section for details	See Section for details	Compliance Program
10.1	Notice of Termination	Once	At end of permit coverage	Permitting Program
Notes:				
a. See Part 9.6 Addresses for Reports				

Summary of Permit Required On-Site Documentation

Permit Part	Document Name or Title	Frequency	Purpose of Document
1.3	No Exposure Certification	Once every five years	To demonstrate facility has reviewed the permit and facility to determine they do not need to file for permit coverage
2.1.3, 5.2	SWPPP	Developed prior to submitting the NOI. Updated as necessary	To describe the project and the control measures to minimize the discharge of pollutants into waters of the U.S. Documents installation, maintenance, inspections, corrective actions, and reporting.
2.1.5, 2.2	NOI	Once at start of coverage	Applicant request for authorization to discharge under permit coverage
	DEC NOI Reply Letter	Once at start of coverage	To provide permittee with DEC permit tracking number indicating project is covered by MSGP
2.7	NOI Modification	As needed	To modify the original NOI if facility conditions or lead personnel change
5.8.3	Copy of Permit Part 1-10 and Sector specific section	Include in SWPPP	To provide reference during permit period
6.1, 6.3.2	Inspection Reports	Conducted at frequency specified in MSGP and SWPPP	To monitor compliance with SWPPP and MSGP
7.2, 7.2.2.1, 7.2.1.2	Monitoring Reports	Conducted at frequency specified in MSGP	To monitor compliance with MSGP
7.2.2.3, 9.3	Noncompliance Notification	As needed	To report any exceedances found during monitoring
8.4	Corrective Action Report	As needed	To report the corrective actions taken at the facility
9.2	Annual Report	Annually	To report annual results of inspections
9.4	Additional Reporting	As required	To provide additional information
10.1	Notice of Termination	Once	To close coverage by the permit.

1. Coverage under this Permit.

1.1 Permit Area.

This general permit covers waters of the United States (U.S.) located in the State of Alaska, except the Indian Reservation of Metlakatla and the Denali National Park and Preserve.

1.2 Eligibility.

- 1.2.1 **Facilities Covered.** To be eligible to discharge under this permit, a permittee must (1) have a storm water discharge associated with industrial activity from the permittee's primary industrial activity, as defined in Appendix C, provided their primary industrial activity is included in Appendix D, or (2) be notified by DEC that the permittee is eligible for coverage under Sector AD of this permit.
- 1.2.2 **Allowable Storm Water Discharges.** Unless otherwise made ineligible under Part 1.2.4, the following discharges are eligible for coverage under this permit:
- 1.2.2.1 Storm water discharges associated with industrial activity for any primary industrial activities and co-located industrial activities, as defined in Appendix C;
 - 1.2.2.2 Discharges designated by DEC as needing a storm water permit as provided in Sector AD;
 - 1.2.2.3 Discharges that are not otherwise required to obtain APDES permit authorization but are commingled with discharges that are authorized under this permit; and
 - 1.2.2.4 Discharges subject to any of the national storm water-specific effluent limitations guidelines listed in Table 1-1.

*(Table 1-1: Storm Water-Specific Effluent Limitations Guidelines
located on following page.)*

Table 1-1: Storm Water-Specific Effluent Limitations Guidelines

Regulated Discharge	40 CFR Section	MSGP Sector	New Source Performance Standard (NSPS)	New Source Date
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	A	Yes	1/26/81
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	C	Yes	4/8/74
Runoff from asphalt emulsion facilities	Part 443, Subpart A	D	Yes	7/28/75
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	E	Yes	2/20/74
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, and D	J	No	N/A
Runoff from hazardous waste and non-hazardous waste landfills	Part 445, Subparts A and B	K, L	Yes	2/2/00
Runoff from coal storage piles at steam electric generating facilities	Part 423	O	Yes	11/19/82 (10/8/74) ¹
Existing and new primary airports with 1,000 or more annual jet departures that discharge wastewater associated with airfield pavement deicing that contains urea commingled with stormwater	Part 449, Subpart A	S	Yes	6/15/12

1.2.3 Allowable Non-Storm Water Discharges. The following are the non-storm water discharges authorized under this permit, provided the non-storm water component of the permittees discharge is in compliance with Part 4.2.10:

- Discharges from fire-fighting activities;
- Fire hydrant flushings;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;

¹ NSPS promulgated in 1974 were not removed via the 1982 regulation; therefore wastewaters generated by Part 423-applicable sources that were New Sources under the 1974 regulations are subject to the 1974 NSPS.

- Pavement wash waters where no detergents or hazardous cleaning products are used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and the wash waters do not come into contact with oil and grease deposits or any other toxic or hazardous materials (unless cleaned up using dry clean-up methods). The permittee is prohibited from directing any authorized pavement wash waters directly into any surface water or storm drain inlet unless the permittee has implemented appropriate control measures that meet the non-numeric effluent limits in Part 4.2. Where appropriate control measures are not in place, wash water runoff must first undergo treatment prior to discharge such as filtration, detention, or settlement;
- Wheel wash water that does not use detergents;
- Routine external building washdown / power washwater that does not use detergents or hazardous cleaning products, (such as those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols);
- Uncontaminated ground water or spring water;
- Foundation or footing drains where flows are not contaminated with process materials;
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., “piped” cooling tower blowdown or drains);
- Discharges from the spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage (applicable only to Sector A facilities provided the non-stormwater component of the discharge is in compliance with the non-numeric effluent limits requirements in Part 4.2).

1.2.3.1 Also allowed are discharges of storm water listed above in Parts 1.2.2 or authorized non-storm water discharges in Part 1.2.3, commingled with a discharge authorized by a different APDES permit and/or a discharge that does not require APDES permit authorization.

1.2.4 Limitations on Coverage.

1.2.4.1 **Discharges Mixed with Non-Storm Water.** Storm water discharges that are mixed with non-storm water, other than those non-storm water discharges listed in Part 1.2.3, are not eligible for coverage under this permit.

- 1.2.4.2 **Discharges Associated with Construction Activity.** Storm water discharges associated with construction activity disturbing one acre or more, or that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more, are not eligible for coverage under this permit, unless in conjunction with mining activities or certain oil and gas extraction activities as specified in Sectors G, H, I, and J of this permit.
- 1.2.4.3 **Discharges Currently or Previously Covered by another Permit.** Unless the permittee received written notification from DEC specifically allowing these discharges to be covered under this permit, the permittee is not eligible for coverage under this permit for any of the following:
- Storm water discharges associated with industrial activity that are currently covered under an individual APDES permit or an alternative APDES general permit;
 - Discharges covered within five years prior to the effective date of this permit by an individual permit or alternative general permit where that permit established site-specific numeric water quality-based limitations developed for the storm water component of the discharge; or
 - Discharges from facilities where any APDES permit has been or is in the process of being denied, terminated, or revoked by EPA (this does not apply to the routine reissuance of permits every five years).
- 1.2.4.4 **Discharges Subject to Effluent Limitations Guidelines.** For discharges subject to storm water effluent limitation guidelines under 40 CFR, Subchapter N, only those storm water discharges identified in Table 1-1 are eligible for coverage under this permit.
- 1.2.4.5 **Eligibility for New Dischargers: Based on Water Quality Standards.** A new discharger (as defined in Appendix C), is not eligible for coverage under this permit for discharges that DEC, prior to authorization under this permit, determines will not meet any WQS. Where such a determination is made prior to authorization, DEC may notify the applicant that an individual or other general permit APDES application is necessary in accordance with Part 2.8. However, DEC may authorize coverage under this permit after the applicant has included appropriate controls and implementation procedures designed to ensure the discharge meets WQS. In the absence of information demonstrating otherwise, DEC expects that compliance with the storm water control requirements of this permit, including the requirements applicable to such discharges in Part 4, will meet WQS.

1.2.4.6 **New Discharges to Water Quality Impaired Waters.**² If the permittee is a new discharger they are not eligible for coverage under this permit to discharge to an “impaired water”, as defined in Appendix C unless they:

- Prevent all exposure to storm water of the pollutant(s) for which the waterbody is impaired, and retain documentation of procedures taken to prevent exposure onsite with the SWPPP; or
- Prior to submitting the permittee’s NOI, provide to the Department technical information or other documentation that the pollutant(s) for which the waterbody is impaired is not present at the site, and retain documentation of this finding with their SWPPP; or
- Prior to submitting the permittee’s NOI, provide to the Department data or other technical documentation to support a conclusion that the discharge is not expected to cause or contribute to an exceedance of a water quality standard (WQS), and retain such data onsite with the SWPPP. To do this, the permittee must provide data and other technical information to the Department sufficient to demonstrate:
 - For discharges to waters without an EPA approved or established Total Maximum Daily Load (TMDL), that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the waterbody; or
 - For discharges to waters with an EPA approved or established TMDL, that there are sufficient remaining wasteload allocations in an EPA approved or established TMDL to allow the permittees discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with WQS. The permittee must also evaluate the recommendations in the Implementation Section of the EPA approved or established TMDL and incorporate applicable measures into their operations.

A permittee is eligible under Part 1.2.4.6 if they receive an affirmative determination from the Department that their discharge will not contribute to the existing impairment, in which case the permittee must maintain such determination onsite with the SWPPP, or if the Department fails to respond within 30 days of submission of data to the Department.

² The project will be considered to discharge to an impaired water if the first water of the U.S. to which the discharge enters is identified by the Department pursuant to Section 303(d) of the CWA as not meeting a WQS, or is included in an EPA-approved or established total maximum daily load (TMDL). For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which the discharge is the waterbody that receives the stormwater discharge from the storm sewer system.

1.3 Conditional Exclusion for No Exposure.

If the permittee is covered by this permit, and becomes eligible for a no exposure exclusion from permitting under 40 CFR 122.26(g), the permittee may file a No Exposure Certification. The permittee is no longer required to have a permit upon submission of a complete and accurate no exposure certification to DEC. If the permittee is no longer required to have permit coverage because of a no exposure exclusion and has submitted a No Exposure Certification form to DEC, they are not required to submit a Notice of Termination (NOT). The permittee must submit a No Exposure Certification to DEC once every five years from the initial date of filing.

Facilities which have multiple industrial sectors covered under one permit can not use the No Exposure Certification form to remove those individual sectors from permit coverage. Upon a thorough evaluation to determine some sectors have no exposure to storm water, those areas must be noted in the facility wide SWPPP and inspected annually during the comprehensive site inspections to ensure no exposure exists. If inspections reveal those individual sectors eligible for coverage under this permit have exposure, the SWPPP must be updated to include those sectors and all permit requirements applied to those areas. The No Exposure Certification for Exclusion applies to an entire facility and not individual outfalls or areas located within the facility covered under a single permit.

2. Authorization under this Permit.

2.1 How to Obtain Authorization.

To obtain authorization under this permit, the permittee must:

- 2.1.1 Be located in the area where DEC is the permitting authority;
- 2.1.2 Meet the Part 1.2 eligibility requirements;
- 2.1.3 Develop a SWPPP according to the requirements in Part 5 of this permit. The permittee must submit a copy of the SWPPP to DEC as specified in Part 9.6;
- 2.1.4 Select, design, install, and implement control measures in accordance with Part 4.2 to meet numeric and non-numeric effluent limits;
- 2.1.5 Submit a complete and accurate Notice of Intent (NOI) either using DEC's electronic Notice of Intent (eNOI) system (accessible at <http://dec.alaska.gov/water/wnpspc/stormwater/APDESeNOI.html>) or using a paper form (included in Appendix F of this permit) and then submitting that paper form to the address listed in Part 2.2.2; and
- 2.1.6 Pay the general permit authorization fee in accordance with 18 AAC 72. Existing permittees when renewing permit coverage do not need to pay two permit authorization fees in one calendar year;

- 2.1.7 DEC will post on the Internet, at <http://dec.alaska.gov/Applications/Water/WaterPermitSearch/Search.aspx>, all authorizations issued. Late NOIs will be accepted but authorization to discharge will not be retroactive.
- 2.1.8 If the information on the NOI is incorrect or is missing, the NOI will be deemed incomplete and permit authorization will not be granted. A complete NOI shall include the following information, at a minimum:
- 2.1.8.1 The operator information includes: Organization name, contact person, complete mailing address, telephone number and fax number and email address if available;
 - 2.1.8.2 The billing contact information includes: organization name, contact person, complete mailing address, telephone number and fax number and email address if available. If the billing contact information is the same as the operator information, check the box on the NOI indicating that it is the same;
 - 2.1.8.3 The industrial facility information includes: facility name, physical location, the city and zip code, the borough, latitude and longitude, how the latitude and longitude were determined, an estimate of the area of industrial activity exposed to storm water, if the facility storm water discharges have been previously permitted under an APDES permit, and if this is a federal facility;
 - 2.1.8.4 The discharge information includes: does the facility discharge to a municipal separate storm sewer system (MS4), and if so the name of the MS4 operator, the name(s) of the water bodies to which the facility discharges, does the facility discharge to a water body that is impaired or have a TMDL, if it does then is the discharge consistent with the assumptions and requirements of the TMDL, if a new discharge is the discharge to a tier 2 or tier 3 waterbody, and is any storm water discharge subject to federal effluent limitation guideline and sector-specific requirements, and if so which affected MSGP Sector;
 - 2.1.8.5 The additional information includes: the four-digit Standard Industrial Classification (SIC) code or two-letter Activity Code that best represents the products or services rendered by the facility in which it is primarily engaged in and applicable sector and subsectors of industry activity, including co-located industrial activity for which coverage is requested, and is the facility presently inactive or unstaffed and if so for how long;
 - 2.1.8.6 The SWPPP information includes: SWPPP contact name, phone, email, and URL for SWPPP (if applicable) (the SWPPP does not need to be reposted on the internet each time it is updated);
 - 2.1.8.7 The signatory information in compliance with Appendix A, Part 1.12

2.2 How to Submit an NOI.

- 2.2.1 Electronically (strongly encouraged) at <http://dec.alaska.gov/water/wnpspc/stormwater/APDESeNOI.html>. Operators who submit an eNOI must pay the general permit authorization fee during a step in the eNOI process where payment is required.
- 2.2.2 Through use of a paper form (available at the above web site) and then submit that paper form to address in Appendix A, Part 1.1.1.
- 2.2.3 Each operator submitting the NOI via paper form³ must include a check payable to the “State of Alaska” for the amount of the General Permit Authorization Fee, in accordance with 18 AAC 72.

(Submission Deadlines continued on next page.)

³ Note: Electronic submittal of an NOI will likely be processed more quickly and result in faster receipt of an authorization to discharge.

2.3 Submission Deadlines.

Timeframes for discharge authorization are contained in Table 2-1.

Table 2-1: NOI Submittal Deadlines/Discharge Authorization Dates

Category	NOI Submission Deadline	Discharge Authorization Date ¹	Fee
<u>Existing Dischargers</u> – in operation as of September 29, 2013 and authorized for coverage under 2008 MSGP.	Existing Dischargers must submit new NOI and SWPPP no later than one hundred twenty (120) calendar days after the effective date of this permit.	Seven (7) calendar days after DEC posts the NOI. The permittees authorization under the 2008 MSGP is automatically continued until they have been granted coverage under this permit or an alternative permit, or coverage is otherwise terminated.	Existing Dischargers pay annual fee based on invoice from DEC
<u>New Dischargers or New Sources</u> - who commence discharging between September 29, 2013 and one hundred twenty (120) days after the effective date of this permit.	As soon as possible but no later than one hundred twenty (120) calendar days after the effective date of this permit.	Seven (7) calendar days after DEC posts the NOI.	New Discharges pay fee at time of submitting NOI
<u>New Dischargers or New Sources</u> - who commence discharging one hundred twenty (120) calendar days after the effective date of this permit.	A minimum of thirty (30) calendar days prior to commencing discharge.	Seven (7) calendar days after DEC posts the NOI.	New Discharges pay fee at time of submitting NOI
<u>New Owner/Operator of Existing Discharger</u> - transfer of ownership and/or operation of a facility whose discharge is authorized under this permit	New Owner shall submit a new NOI no later than thirty (30) calendar days after the date that the transfer will take place to the new owner/operator.	Seven (7) calendar days after DEC posts the NOI.	New Owner pays fee upon receipt of invoice from DEC
<u>Other Eligible Dischargers</u> - in operation prior to September 29, 2013, but not covered under the 2008 MSGP or another APDES permit.	Immediately, to minimize the time discharges from the facility will continue to be unauthorized.	Seven (7) calendar days after DEC posts the NOI.	
Note: - Based on a review of the permittees NOI or other information, DEC may delay their authorization for further review, notify the permittee that additional effluent limitations or control measures are necessary, or may deny coverage under this permit and require submission of an application for an individual or other APDES general permit, as detailed in Part 2.8. In these instances, DEC will notify the permittee in writing of the delay, of the need for additional effluent limits or control measures, or of the request for submission of an individual APDES permit application. - If the permittee has missed the deadline to submit the NOI, any and all discharges from the industrial activities will continue to be unauthorized under the CWA until they are covered by this or a different APDES permit. DEC may take enforcement action for any unpermitted discharges that occur between the commencement of discharging and discharge authorization. - Discharges are not authorized if the NOI is incomplete or inaccurate or if the permittee was never eligible for permit coverage.			

2.4 Date of Authorization to Begin Discharge.

An operator is authorized to discharge industrial storm water under the terms and conditions of this permit seven (7) calendar days after DEC's acknowledgment of receipt of the operators complete and paid for NOI is posted on DEC's APDES website (<http://dec.alaska.gov/water/wnpssc/stormwater/stormwater.htm>), unless DEC notifies the operator that the authorization is delayed. Once the authorization is granted by the Department the applicant is then considered a permittee covered by this permit.

2.5 Continuation of Expired General Permit.

- 2.5.1 If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 18 AAC 83.155 and remain in force and effect for discharges that were covered prior to expiration. The permittee is required to abide by all limitations, monitoring, and reporting included herein if the permit enters administrative extension until such time a permit is reissued authorizing the discharge or an NOT is submitted by the permittee. If a permittee is authorized to discharge under this permit prior to the expiration date, any discharges authorized under this permit will automatically remain covered by this permit until the earliest of:
 - 2.5.1.1 Authorization for coverage under a reissued permit or a replacement of this permit following a permittee's timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and compliance with the requirements of the new permit;
 - 2.5.1.2 Submittal of a NOT;
 - 2.5.1.3 Issuance or denial of an individual permit for the facility's discharges; or
 - 2.5.1.4 A formal decision by DEC not to reissue this general permit or not cover a particular discharger previously covered by the general permit, at which time DEC will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease at the end of this time period.
- 2.5.2 Any permittee with a discharge covered under the 2008 MSGP that the Department determines shall transition to a different APDES permit for that discharge that filed a timely and complete NOI and was granted administrative extension of the 2008 MSGP, the administrative extension (i.e., continued permit coverage) from the 2008 MSGP survives the effective date of the 2015 MSGP until the facility receives coverage under the new APDES permit.

2.6 Permit Compliance.

Any noncompliance with any of the requirements of this permit constitutes a violation of the CWA. As detailed in Part 8 (Corrective Actions) of this permit, failure to take any required corrective actions constitute an independent, additional violation of this permit and the CWA. Any actions and time periods specified for remedying noncompliance do not absolve parties of the initial underlying noncompliance. Where corrective action is triggered by an event that does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation provided the permittee takes the required corrective action within the relevant deadlines established in Part 8.3.

2.7 Submittal of Modification to Original NOI.

- 2.7.1 For an existing permittee, if any of the information supplied on the NOI form changes such as name of receiving waterbody, acreage of industrial area exposed to storm water, addition or deletion of industrial sectors, and facility contact information, the permittee must submit an NOI Modification form within thirty (30) calendar days after the change. See Appendix F for the modification form.
- 2.7.2 At facilities where there is a transfer of ownership and/or a new operator takes over operational control at an existing facility the new operator shall submit an NOI no later than thirty (30) calendar days after a change in owner/operator. The previous owner/operator must submit a NOT no later than thirty (30) calendar days after DEC authorization of the new operator. The new operator does not need to pay a permit authorization fee if the facility has paid for the year in which the transfer occurs.

2.8 Alternative Permits.

2.8.1 DEC Requiring Coverage under an Alternative Permit.

DEC may require a permittee to apply for and/or obtain authorization to discharge under an alternative permit, i.e., either an individual APDES permit or an alternative APDES general permit in accordance with 40 CFR 122.64 and 124.5. Any interested person may petition DEC to take action under this paragraph. If DEC requires the permittee to apply for an alternative APDES permit, DEC will notify the permittee in writing that a permit application is required. This notification will include a brief statement of the reasons for this decision and will contain alternative permit application requirements, including deadlines for completing the application.

In addition, if the permittee is an existing discharger authorized to discharge under this permit, the notice will set a deadline to file the permit application, and will include a statement that on the effective date of the individual APDES permit, or the alternative general permit as it applies to the permittee, coverage under this general permit will terminate. DEC may grant additional time to submit the application if the permittee requests it. If the permittee is covered under this permit and fails to submit an alternative APDES permit

application as required by DEC, then the applicability of this permit to the permittee is terminated at the end of the day specified by DEC as the deadline for application submittal. DEC may take appropriate enforcement action for any unpermitted discharge.

2.8.2 Permittee Requesting Coverage under an Alternative Permit.

A permittee may request to be excluded from coverage under this general permit by applying for an individual permit. In such a case, the permittee must submit an individual permit application in accordance with the requirements of 18 AAC 83.305 – 83.385 with reasons supporting the request, to DEC at the address listed in Part 9.6 of this permit. The request may be granted by issuance of an individual permit or authorization of coverage under an alternative general permit if the permittees reasons are adequate to support the request.

When an individual APDES permit is issued to a permittee or a permittee is authorized to discharge under an alternative APDES general permit, the permittees authorization to discharge under this permit is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit.

3. Compliance with Standards and Limits.

3.1 Requirements for all Facilities.

- 3.1.1 A permittee must select, install, implement and maintain control measures (described in Part 4) at the facility that minimize pollutants in the discharge as necessary to meet WQS (18 AAC 70). A permittee must comply with all permit conditions with respect to installation and maintenance of control measures, inspections, monitoring, corrective actions, reporting and recordkeeping.
- 3.1.2 In general, except in situations explained in part 3.1.3, the storm water controls planned, developed, implemented, maintained, and updated by the permittee that are consistent with the provisions of Parts 3 through 9 and Part 11 are considered to meet the requirements of this permit to ensure that the discharges do not cause or contribute to an excursion above any WQS (18 AAC 70).
- 3.1.3 At any time after authorization, upon a DEC determination that the permittee's storm water discharges will cause, have a reasonable potential to cause, or contribute to an excursion above any WQS, DEC may require the permittee to:
 - 3.1.3.1 Take corrective actions and modify storm water controls in accordance with Part 8 to adequately address the identified water quality concerns;
 - 3.1.3.2 Submit valid and verifiable data and information that are representative of ambient conditions and indicate that the receiving water is attaining WQS; or

3.1.3.3 Minimize discharges of storm water from the facility or activity, implement corrective actions, and submit an individual permit application in accordance with Part 2.8.

3.1.4 All written responses required under Part 3.1 must include a signed certification consistent with Appendix A, Part 1.12.

3.2 Water Quality-Based Effluent Limitations.

3.2.1 Water Quality Standards (WQS).

A permittees discharge must be controlled as necessary to meet a WQS (18 AAC 70) in relation to the pollutants of concern.

DEC expects that compliance with the other conditions in this permit will control discharges as necessary to meet a WQS. If at any time the permittee becomes aware, or DEC determines, that the permittees discharge causes or contributes to an exceedance of a WQS in the receiving water, the permittee must take corrective action as required in Part 8.1, document the corrective actions as required in Parts 8.4 and 5.8, and report the corrective actions to DEC as required in Part 9.2.

Additionally, DEC may impose additional permit stipulations on a site-specific basis, or require the permittee to obtain coverage under an individual permit, if information in a permittees NOI, required reports, or from other sources indicates that their discharges are not controlled as necessary to meet a WQS in the receiving water.

3.2.2 Discharges to Water Quality Impaired Waters.⁴

3.2.2.1 ***Existing Discharge to an Impaired Water with an EPA Approved or Established TMDL.*** If the permittee discharges to an impaired water with an EPA approved or established TMDL, DEC will inform the permittee if any additional limits or controls are necessary for their discharge to be consistent with the assumptions of any available wasteload allocation in the TMDL, or if coverage under an individual permit is necessary in accordance with Part 2.8.1.

⁴ The project will be considered to discharge to an impaired water if the first water of the U.S. to which the discharge enters is identified by the Department pursuant to Section 303(d) of the CWA as not meeting an WQS, or is included in an EPA-approved or established total maximum daily load (TMDL). For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which the discharge is the waterbody that receives the stormwater discharge from the storm sewer system.

- 3.2.2.2 **Existing Discharge to an Impaired Water without an EPA Approved or Established TMDL.** If the permittee discharges to an impaired water without an EPA approved or established TMDL, they are required to comply with Part 3.2.1 and the monitoring requirement of Part 7.2.3. Note that this provision also applies to situations where DEC determines that the permittees discharge is not controlled as necessary to meet WQS in a downstream water segment, even if their discharge is to a receiving water that is not specifically identified on a Section 303(d) list.
- 3.2.2.3 **New Discharge to an Impaired Water.** If a permittees authorization to discharge under this permit relied on Part 1.2.4.6 for a new discharge to an impaired water, the permittee must implement and maintain any control measures or conditions at the facility that enabled the permittee to become eligible under Part 1.2.4.6, and modify such measures or conditions as necessary pursuant to any Part 5 corrective actions. The permittee is also required to comply with Part 3.2.1 and the monitoring requirements of Parts 7.2.3.

4. Control Measures.

A permittee must select, design, install, and implement control measures (including best management practices) to address the selection and design considerations in Part 4.1, meet the non-numeric effluent limits in Part 4.2, and meet limits contained in applicable effluent limitations guidelines in Part 4.3. The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and manufacturer's specifications. Note that the permittee may deviate from such manufacturer's specifications where the permittee provides justification for such deviation and includes documentation of their rationale in the part of the SWPPP that describes the permittees control measures, consistent with Part 5.2.5. If the permittee finds that their control measures are not achieving their intended effect of minimizing pollutant discharges, the permittee must modify these control measures in accordance with the corrective action requirements set forth in Part 8. Regulated storm water discharges from the permittees facility include storm water run-on that commingles with storm water discharges associated with industrial activity at the permittees facility.

In the technology-based limits included in Part 4.2 and in Part 11, the term "minimize" means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.

4.1 Control Measure Selection and Design Considerations.

A permittee must use the following considerations when selecting and designing control measures:

- Preventing storm water from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from storm water;
- Using control measures in combination is more effective than using control measures in isolation for minimizing pollutants in the storm water discharge;

- Using technologically available and economically practicable and achievable in light of best industry practice;
- Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit;
- Minimizing impervious areas at the permittees facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce runoff and improve groundwater recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination;
- Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
- Conserving and/or restoring of riparian buffers will help protect streams from storm water runoff and improve water quality; and
- Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

4.2 Non-Numeric Technology-Based Effluent Limits.

In addition to complying with the non-numeric technology-based effluent limits in Part 11, the permittee must also:

4.2.1 Minimize Exposure.

A permittee must evaluate the facility regarding exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff and minimize exposure by either locating these industrial materials and activities inside or protecting them with storm resistant coverings (although significant enlargement of impervious surface area is not recommended). In minimizing exposure, the permittee should pay particular attention to the following:

- Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;
- Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas);
- Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;

- Use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible;
- Use spill/overflow protection equipment;
- Drain fluids from equipment and vehicles that will be decommissioned or will remain unused for extended periods of time;
- Perform all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and
- Ensure that all washwater, with the exception of discharges from pavement wash water and routine building washdown described in Part 1.2.3 drains to a sanitary sewer, sump, or other proper collection system (i.e., not the storm water drainage system).

The discharge of vehicle and equipment washwater, including tank cleaning operations, is not authorized by this permit. These wastewaters must be covered under a separate APDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law.

- 4.2.2 **Good Housekeeping.** A permittee must keep clean all exposed areas that are potential sources of pollutants, including but not limited to: using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers.
- 4.2.3 **Maintenance.** A permittee must regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in storm water discharged to receiving waters. The permittee must maintain all control measures that are used to achieve the effluent limits required by this permit in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If the permittee finds that their control measures need to be replaced or repaired, the permittee must make the necessary repairs or modifications within 14 days or as expeditiously as practicable.
- 4.2.4 **Spill Prevention and Response Procedures.** A permittee must minimize the potential for leaks, spills and other releases that may be exposed to storm water and develop plans for effective response to such spills if or when they occur. At a minimum, the permittee must implement:
- 4.2.4.1 Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;

- 4.2.4.2 Procedures for material storage and handling, including the use of secondary containment and barriers between material storage and traffic areas, or a similarly effective means designed to prevent the discharge of pollutants from these areas;
- 4.2.4.3 Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the permittees storm water pollution prevention team (see Part 5.1.1); and
- 4.2.4.4 Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302, AS 75.300 and 18 AAC 75 Article 3 occurs, the permittee must notify the National Response Center (NRC) at (800) 424-8802. During normal business hours call the nearest DEC Area Response Team Office – Southeast (Juneau) 465-5340; Central (Anchorage) 269-3063; or Northern (Fairbanks) 451-2121. Outside of normal business hours, the permittee must call (800) 478-9300 as soon as the permittee has knowledge of the discharge. State or local requirements may necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be posted, where practicable, in locations that are readily accessible and available.
- 4.2.4.5 The permittee must provide a description of the release, the circumstances leading to the release, and the date of the release to the nearest DEC Area Response Team Office, in accordance to AS 75.300 (See Part 4.2.4.4). The permittee must also implement measures to prevent the reoccurrence of such releases and to respond to such releases.
- 4.2.5 **Erosion and Sediment Controls.** A permittee must stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. Among other actions the permittee must take to meet this limit, the permittee must place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants. In selecting, designing, installing, and implementing appropriate control measures, the permittee is encouraged to consult with EPA's internet-based resources relating to BMPs for erosion and sedimentation, including the sector-specific Industrial Stormwater Fact Sheet Series, (www.epa.gov/npdes/stormwater/msgp), National Menu of Stormwater BMPs (www.epa.gov/npdes/stormwater/menuofbmps), and National Management Measures to Control Nonpoint Source Pollution from Urban Areas (www.epa.gov/owow/nps/urbanmm/index.html), and any similar State or Tribal publications such as the Alaska Storm Water guide (<http://dec.alaska.gov/water/wnpspc/stormwater/Guidance.html>.) and the Best Management Practices Manual for Gravel Quarries found at http://dec.alaska.gov/water/wnpspc/protection_restoration/bestmgmtpractices/Docs/ADECflier3.pdf .

- 4.2.6 **Management of Runoff.** A permittee must divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff, to minimize pollutants in their discharges. In selecting, designing, installing, and implementing appropriate control measures, permittees are encouraged to consult with EPA's internet-based resources relating to runoff management, including the sector-specific Industrial Storm Water Fact Sheet Series, (www.epa.gov/npdes/stormwater/msgp), National Menu of Storm Water BMPs (www.epa.gov/npdes/stormwater/menuofbmps), and National Management Measures to Control Nonpoint Source Pollution from Urban Areas (www.epa.gov/owow/nps/urbanmm/index.html), and any similar State or Tribal publications.
- 4.2.7 **Salt Storage Piles or Piles Containing Salt.** A permittee must enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces. A permittee must also implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile.
- 4.2.8 **Sector Specific Technology-Based Effluent Limits.** A permittee must achieve any additional non-numeric limits stipulated in the relevant sector-specific section(s) of Part 11.
- 4.2.9 **Employee Training.** A permittee must train all employees who work in areas where industrial materials or activities are exposed to storm water, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of the permittee's Pollution Prevention Team. Training must cover both the specific control measures used to achieve the effluent limits in this Part, and monitoring, inspection, planning, reporting, and documentation requirements in other parts of this permit. Training shall be conducted at least annually (or more often if employee turnover is high) and documented in the SWPPP.
- 4.2.10 **Non-Storm Water Discharges.** A permittee must eliminate non-storm water discharges not authorized by an APDES permit. See Part 1.2.3 for a list of non-storm water discharges authorized by this permit.
- 4.2.11 **Waste, Garbage and Floatable Debris.** A permittee must ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.
- 4.2.12 **Dust Generation and Vehicle Tracking of Industrial Materials.** A permittee must minimize generation of dust and off-site tracking of raw, final, or waste materials. Appropriate BMPs to minimize tracking include the establishment of stabilized access and exit points.

4.3 Numeric Effluent Limitations Based on Effluent Limitations Guidelines.

If the permittee is in an industrial category subject to one of the effluent limitations guidelines identified in Table 7-1 (see Part 7.2.2.1), the permittee must meet the effluent limits referenced in Table 4-1 below:

Table 4-1: Applicable Effluent Limitations Guidelines

Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	See Part 11.A.7
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	See Part 11.C.4
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Part 11.D.4
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Part 11.E.5
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, or D	See Part 11.J.9
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part 11.K.6
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part 11.L.10
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Part 11.O.8
Existing and new primary airports with 1,000 or more annual jet departures that discharge wastewater associated with airfield pavement deicing that contains urea commingled with stormwater	Part 449	See Part 11.S.9

4.4 Plan Approval for Nondomestic Wastewater Treatment Works.

For all new facilities operators who construct, install or operate any part of a nondomestic wastewater treatment works shall submit a copy of the engineering plans to DEC for review at the address in Part 9.6, and pay an engineering plan review fee (see 18 AAC 72.600 and 18 AAC 72.955). Engineering plan approval must be obtained from DEC prior to construction.

Nondomestic wastewater includes storm water runoff. All permanent storm water treatment devices shall receive engineering plan approval per 18 AAC 72.600. (For the purposes of Part 4.4 “permanent storm water treatment device” means a treatment device with a design life longer than two years.)

5. Storm Water Pollution Prevention Plan (SWPPP).

A permittee must prepare a SWPPP for their facility before submitting their Notice of Intent (NOI) for permit coverage. If a permittee prepared a SWPPP for coverage under a previous APDES permit, the permittee must review and update the SWPPP to implement all provisions of this permit prior to submitting their NOI. The SWPPP does not contain effluent limitations; the limitations are contained in Part 4 of the permit, and for some sectors, Parts 11 of the permit. The SWPPP is intended to document the selection, design, and installation of control measures. As distinct from the SWPPP, the additional

documentation requirements (see Part 5.8) are intended to document the implementation (including inspection, maintenance, monitoring, and corrective action) of the permit requirements.

5.1 Storm Water Pollution Prevention Plan (SWPPP).

For coverage under this permit, the SWPPP must contain all of the following elements:

- 5.1.1 Storm water pollution prevention team (see Part 5.2.2);
- 5.1.2 Site description (see Part 5.2.3);
- 5.1.3 Summary of potential pollutant sources (see Part 5.2.4);
- 5.1.4 Description of control measures (see Part 5.2.5);
- 5.1.5 Schedules and procedures (see Part 5.2.6); and
- 5.1.6 Signature requirements (see Part 5.2.7).

Where the SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure (SPCC) Plan or an Environmental Management System (EMS) developed for a National Environmental Performance Track facility, copies of the relevant portions of those documents must be kept with the SWPPP.

5.2 Contents of the SWPPP.

5.2.1 Permittee.

Identify the permittee for the facility.

5.2.2 Storm Water Pollution Prevention Team.

Identify the staff members (by name or title) that comprise the facility's storm water pollution prevention team as well as their individual responsibilities. The storm water pollution prevention team is responsible for assisting the facility manager in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions where required. Each member of the storm water pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit and the SWPPP.

5.2.3 Site Description.

The SWPPP must include the following:

- 5.2.3.1 **Activities at the Facility.** Provide a description of the nature of the industrial activities at the facility.

5.2.3.2 **General location map.** Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of the facility and all receiving waters for the storm water discharges.

5.2.3.3 **Site map.** Provide a map showing:

- the size of the property in acres;
- the location and extent of significant structures and impervious surfaces;
- directions of storm water flow (use arrows);
- locations of all existing structural control measures;
- locations of all receiving waters in the immediate vicinity of the permittees facility, indicating if any of the waters are impaired and, if so, whether the waters have TMDLs established for them;
- locations of all storm water conveyances including ditches, pipes, and swales;
- locations of potential pollutant sources identified under Part 5.2.4.2;
- locations where significant spills or leaks identified under Part 5.2.4.3 have occurred;
- locations of all storm water monitoring points;
- locations of storm water inlets and outfalls, with a unique identification code for each outfall (e.g., Outfall No. 1, No. 2, etc), indicating if permittees are treating one or more outfalls as “substantially identical” under Parts 6.2.3, 5.2.6.2, and 7.1.1, and an approximate outline of the areas draining to each outfall;
- municipal separate storm sewer systems, where the facilities storm water discharges to them;
- locations and descriptions of all non-storm water discharges identified under Part 4.2.10;
- Identify the location of existing public water system (PWS) drinking water protection areas for PWS (e.g. springs, wells, or surface water intakes) that intersect the boundary of the facility;
- locations of the following activities where such activities are exposed to precipitation:
 - fueling stations;
 - vehicle and equipment maintenance and/or cleaning areas;
 - loading/unloading areas;
 - locations used for the treatment, storage, or disposal of wastes;
 - liquid storage tanks;
 - processing and storage areas;
 - immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
 - transfer areas for substances in bulk; and

- machinery; and
- locations and sources of run-on to the facility from adjacent property that contains significant quantities of pollutants.

5.2.4 Summary of Potential Pollutant Sources.

A permittee must document areas at their facility where industrial materials or activities are exposed to storm water and from which allowable non-storm water discharges are released. Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each area identified, the description must include:

- 5.2.4.1 Activities in the Area.** A list of the industrial activities exposed to storm water (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).
- 5.2.4.2 Pollutants.** A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity. The pollutant list must include all significant materials that have been handled, treated, stored, or disposed, and that have been exposed to storm water in the three years prior to the date the permittee prepared or amended the SWPPP.
- 5.2.4.3 Spills and Leaks.** A permittee must document where potential spills and leaks could occur that could contribute pollutants to storm water discharges, and the corresponding outfall(s) that would be affected by such spills and leaks. The permittee must document all significant spills and leaks⁵ of oil or toxic or hazardous pollutants that occurred in the three years prior to the date the permittee prepared the SWPPP for this permit term. Specifically, include spills or leaks that occurred in areas exposed to storm water or that drained to a storm water conveyance. The spill or leak history must be maintained in the SWPPP throughout this permit term. The permit term goes from the permit effective date to the permit expiration date.
- 5.2.4.4 Non-Storm Water Discharges.** A permittee must document that they have evaluated for the presence of non-storm water discharges and that all unauthorized discharges have been eliminated. Documentation of the evaluation must include:

- The date of any evaluation;

⁵ Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602. This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117, 40 CFR 302, Alaska Statute 46.04 and Section 18 AAC Chapter 75 (i.e. 18 AAC 75.300) relating to spills or other releases of oils or hazardous substances. (See 4.2.4)

- A description of the evaluation criteria used;
- A list of the outfalls or onsite drainage points that were directly observed during the evaluation;
- The different types of non-storm water discharge(s) and source locations; and
- The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an APDES permit application was submitted for an unauthorized cooling water discharge.

5.2.4.5 ***Salt Storage.*** A permittee must document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes.

5.2.4.6 ***Sampling Data.*** A permittee must summarize all storm water discharge sampling data collected at their facility during the previous permit term.

5.2.5 Description of Control Measures.

5.2.5.1 ***Control Measures to Meet Technology-Based and Water Quality-Based Effluent Limits.*** A permittee must document the location and type of control measures installed and implemented at the facility to achieve the non-numeric effluent limits in Part 4.2, and where applicable in Part 11, the effluent limitations guidelines-based limits in Part 4.3, the water quality-based effluent limits in Part 3.2, and describe how the permittee addressed the control measure selection and design considerations in Part 4.1. This documentation must describe how the control measures at the facility address both the pollutant sources identified in Part 5.2.4, and any storm water run-on that commingles with any discharges covered under this permit.

5.2.6 Schedules and Procedures.

5.2.6.1 ***Pertaining to Control Measures Used to Comply with the Effluent Limits in Part 4.*** The following must be documented in the SWPPP:

- *Good Housekeeping* (See Part 4.2.2) – A schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers;
- *Maintenance* (See Part 4.2.3) – Preventative maintenance procedures, including regular inspections, testing, maintenance, and repair of all industrial equipment and systems, and control measures, to avoid situations that may result in leaks, spills, and other releases, and any back-up practices in place should a runoff event occur while a control measure is off-line;
- *Spill Prevention and Response Procedures* (See Part 4.2.4) – Procedures for preventing and responding to spills and leaks. The permittee may reference the existence of other plans for Spill Prevention Control and Countermeasure (SPCC)

developed for the facility under Section 311 of the CWA or BMP programs otherwise required by an APDES permit for the facility, provided that the permittee keeps a copy of that other plan onsite and makes it available for review consistent with Part 5.7; and

- *Employee Training* (Part 4.2.9) – A schedule for all types of necessary training.

5.2.6.2 ***Pertaining to Monitoring and Inspection.*** A permittee must document in the SWPPP procedures for conducting the four types of analytical monitoring specified by this permit, where applicable to the facility, including:

- Benchmark monitoring (see Part 7.2.1);
- Effluent limitations guidelines monitoring (see Part 7.2.2);
- Impaired waters monitoring (see Part 7.2.3); and
- Other monitoring as required by DEC (see Part 7.2.4).

For each type of monitoring, the SWPPP must document:

- Locations where samples are collected, including any determination that two or more outfalls are substantially identical;
- Parameters for sampling and the frequency of sampling for each parameter;
- Schedules for monitoring at the facility, including schedule for alternate monitoring periods for climates with irregular storm water runoff (see Part 7.1.6);
- Any numeric control values (benchmarks, effluent limitations guidelines, TMDL-related requirements, or other requirements) applicable to discharges from each outfall; and
- Procedures (e.g., responsible staff, logistics, laboratory to be used, etc.) for gathering storm event data, as specified in Part 7.1.
- If a permittee is invoking the exception for inactive and unstaffed sites for benchmark monitoring, the permittee must include in the SWPPP the information to support this claim as required by Part 7.2.1.6.

A permittee must document the following in the SWPPP if they plan to use the substantially identical outfall exception for quarterly visual assessment requirements in Part 6.2 or benchmark monitoring requirements in Part 7.2.1:

- Location of each of the substantially identical outfalls;

- Description of the general industrial activities conducted in the drainage area of each outfall;
- Description of the control measures implemented in the drainage area of each outfall;
- Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to storm water discharges;
- An estimate of the runoff coefficient of the drainage areas (low = under 40%; medium = 40 to 65%; high = above 65%); and
- Why the outfalls are expected to discharge substantially identical effluents.

A permittee must document in the SWPPP their procedures for performing, as appropriate, the three types of inspections specified by this permit, including:

- Routine facility inspections (see Part 6.1);
- Quarterly visual assessment of storm water discharges (see Part 6.2); and
- Comprehensive site inspections (see Part 6.3).

For each type of inspection performed, the SWPPP must identify:

- Person(s) or positions of person(s) responsible for inspection;
- Schedules for conducting inspections, including tentative schedule for facilities in climates with irregular storm water runoff discharges (see Part 6.2.3); and
- Specific items to be covered by the inspection, including schedules for specific outfalls.

If the permittee is invoking the exception for inactive and unstaffed sites relating to routine facility inspections and quarterly visual assessments, the permittee must include in the SWPPP the information to support this claim as required by Parts 6.1.3 and 6.2.3.

5.2.7 Signature Requirements.

A permittee must sign and date the SWPPP in accordance with Appendix A, Subsection 1.12, including the date of signature.

5.3 Inspections.

- 5.3.1 The SWPPP must document the procedures for performing facility inspections specified by this permit in Part 6, and where necessary, taking corrective actions, in accordance with Part 8. At a minimum the SWPPP must document the following:
 - 5.3.1.1 Person(s) or position of person(s) responsible for conducting facility inspections;
 - 5.3.1.2 Schedules to be followed for conducting inspections;
 - 5.3.1.3 Any inspection checklist or form that will be used; and
 - 5.3.1.4 How conditions that require corrective action will be addressed.
- 5.3.2 A record of each inspection and of any corrective actions taken in accordance with Parts 6 and 8 must be retained with the SWPPP for at least three (3) years from the date permit coverage expires or is terminated.
- 5.3.3 If a permittee is invoking the exception for inactive and unstaffed sites relating to routine facility inspections and quarterly visual assessments, the permittee must include in the SWPPP the information to support this claim as required by Parts 6.1.3 and 6.2.3.

5.4 Monitoring.

- 5.4.1 The SWPPP must document the procedures for performing facility monitoring specified by this permit in Part 7, and where necessary, taking corrective actions, in accordance with Part 8. At a minimum, the SWPPP must document the following:
 - 5.4.1.1 Person(s) or position of person(s) responsible for conducting facility monitoring;
 - 5.4.1.2 Schedules to be followed for conducting monitoring;
 - 5.4.1.3 Any monitoring checklist or form that will be used; and
 - 5.4.1.4 How conditions that require corrective action will be addressed.
- 5.4.2 A record of each monitoring event and of any corrective actions taken in accordance with Parts 7 and 8 must be retained with the SWPPP for at least three (3) years from the date permit coverage expires or is terminated.

5.5 Documentation of Permit Eligibility Related to a Total Maximum Daily Load.

The SWPPP must include documentation supporting determination of permit eligibility with regards to waters that have an EPA-established or approved TMDL. See Part 3.2.2 for additional information to determine permit eligibility related to a TMDL. The SWPPP must include the following:

- 5.5.1 Identification of whether the discharge is identified, either specifically or generally, in an EPA – established or approved TMDL and any associated allocations, requirements, and assumptions identified for the discharge;
- 5.5.2 Summaries of consultation with state or federal TMDL authorities on consistency of SWPPP conditions with the approved TMDL; and
- 5.5.3 Measures taken by the permittee to ensure that the discharge of pollutants from the facility is consistent with the assumptions and requirements of the EPA – established or approved TMDL, including any specific wasteload or load allocation that has been established that would apply to the discharge.

5.6 Maintaining and Updated SWPPP.

- 5.6.1 A permittee must modify the SWPPP whenever necessary to address any of the triggering conditions for corrective action in Part 8.1 and to ensure that they do not reoccur, or to reflect changes implemented when a review following the triggering conditions in Part 8.2 indicates that changes to the control measures are necessary to meet the effluent limits in this permit. Changes to the SWPPP document must be made in accordance with the corrective action deadlines in Parts 8.3 and 8.4, and must be signed and dated in accordance with Appendix A, Subsection 1.12.
- 5.6.2 A permittee must modify the SWPPP if inspections or investigations by facility staff or by state, federal, local or tribal officials determine that SWPPP modifications are necessary for compliance with this permit.
- 5.6.3 A permittee must modify the SWPPP to reflect any revisions to applicable state, federal, local or tribal law or regulations that affect the control measures implemented at the facility.
- 5.6.4 A permittee must keep a log showing dates, name of person authorizing the change, and a brief summary of changes for all significant SWPPP modifications (e.g. adding a new control measure, changes in facility layout or design, or significant storm events that cause for replacement of control measures).
- 5.6.5 A permittee must amend the SWPPP within thirty (30) calendar days whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to waters of the U.S., or if the SWPPP proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified in the SWPPP, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. The SWPPP must be updated at least annually.

5.7 SWPPP Availability.

A permittee must retain a copy of the current SWPPP required by this permit at the facility, and it must be immediately available to DEC or EPA at the time of an onsite inspection or upon request. If the facility is inactive the SWPPP must be retained at a readily available location or the office of the operator. DEC may provide access to portions of the SWPPP to a member of the public upon request. Confidential Business Information (CBI) may be withheld from the public, but may not be withheld from those staff cleared for CBI review within DEC, EPA, USFWS, or NMFS.

DEC encourages permittees to post their SWPPP online and provide the website address on the NOI (the SWPPP does not need to be reposted on the internet each time it is updated).

5.8 Additional Documentation Requirements.

A permittee is required to keep up-to-date copies of the following inspection, monitoring, corrective action, additional documentation, and certification records with the SWPPP:

- 5.8.1 A copy of the NOI submitted to DEC along with any correspondence exchanged between the permittee and DEC specific to coverage under this permit;
- 5.8.2 A copy of the acknowledgment letter the permittee receives from DEC or eNOI system assigning the permittees permit tracking number;
- 5.8.3 A copy of this permit (an electronic copy easily available to SWPPP personnel is also acceptable);
- 5.8.4 Descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants to waters of the U.S., through storm water or otherwise; the circumstances leading to the release and actions taken in response to the release; and measures taken to prevent the recurrence of such releases (see Part 4.2.4);
- 5.8.5 Records of employee training, including date training received (see Part 4.2.9);
- 5.8.6 Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part 4.2.3);
- 5.8.7 Log of SWPPP modifications;
- 5.8.8 All inspection reports, including the Routine Facility Inspection Reports (see Part 6.1), the Quarterly Visual Assessment Reports (see Part 6.2), and the Comprehensive Site Inspection Reports (see Part 6.3);

- 5.8.9 Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of discharge from a measurable storm event) (see Parts 6.2.1, 7.1.4, and 7.2.1.2);
- 5.8.10 Description of any corrective action taken at the permittees site shall be listed in a corrective action log, including triggering event and dates when problems were discovered and modifications occurred (see Part 8.4);
- 5.8.11 Documentation of any benchmark exceedances and how they were responded to, including either (1) corrective action taken, (2) a finding that the exceedence was due to natural background pollutant levels, or (3) a finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part 7.2.1.2;
- 5.8.12 Documentation of any effluent limitation exceedances and how they were responded to, including any corrective action;
- 5.8.13 Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if the permittee discharges directly to impaired waters, and that such pollutants were not detected in their discharge or were solely attributable to natural background sources (see Part 7.2.3.2); and
- 5.8.14 Documentation to support the permittees claim that the permittees facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part 6.1.3), quarterly visual assessments (see Part 6.2.3), and/or benchmark monitoring (see Part 7.2.1.6).

6. Inspections.

A permittee must conduct the inspections in Parts 6.1, 6.2, and 6.3 at their facility.

6.1 Routine Facility Inspections.

6.1.1 Routine Facility Inspection Procedures.

During normal facility operating hours, the permittee must conduct inspections of areas of the facility covered by the requirements in this permit, including the following:

- Areas where industrial materials or activities are exposed to storm water.
- Areas identified in the SWPPP and those that are potential pollutant sources (see Part 5.1.3).
- Areas where spills and leaks have occurred in the past 3 years.
- Discharge points.
- Control measures used to comply with the effluent limits contained in this permit.

Inspections must be conducted at least quarterly (i.e., once each permit quarter), or in some instances more frequently (e.g., monthly), as appropriate. Increased frequency may be appropriate for some types of equipment, processes and stormwater control measures, or areas of the facility with significant activities and materials exposed to stormwater. At least one of the routine inspections must be conducted during a period when a stormwater discharge is occurring (in arid areas of the state this requirement is to be met as practicable). The permittee must specify the relevant inspection schedules in their SWPPP document as required in Part 5.2.6.

Inspections must be performed by qualified personnel (as defined in Appendix C) with at least one member of the permittee's stormwater pollution prevention team participating. Inspector(s) must consider the results of visual and analytical monitoring (if any) for the past year when planning and conducting inspections.

During the inspection the inspectors must examine or look out for the following:

- Industrial materials, residue or trash that may have or could come into contact with stormwater.
- Leaks or spills from industrial equipment, drums, tanks and other containers.
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site.
- Tracking or blowing of raw, final or waste materials from areas of no exposure to exposed areas.
- Control measures needing replacement, maintenance or repair.

During an inspection occurring during a stormwater discharge, control measures implemented to comply with effluent limits must be observed to ensure they are functioning correctly. Discharge points, as defined in Appendix C, must also be observed during this inspection. If such discharge locations are inaccessible, nearby downstream locations must be inspected.

6.1.2 Routine Facility Inspection Documentation.

A permittee must document the findings of each routine facility inspection performed and maintain this documentation onsite with the SWPPP as required in Part 5.8. The permittee is not required to submit their routine facility inspection findings to DEC, unless specifically requested to do so. At a minimum, the permittees documentation of each routine facility inspection must include:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;
- All observations relating to the implementation of control measures at the facility, including:
 - A description of any discharges occurring at the time of the inspection;

- Any previously unidentified discharges of pollutants from the site;
- Any evidence of, or the potential for, pollutants entering the drainage system;
- Observations regarding the physical condition of and around all outfalls including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;
- Any control measures needing maintenance, repairs; or replacement;
- Any additional control measures needed to comply with the permit requirements; and
- Any incidents of noncompliance observed.

The inspection report must be signed and certified in accordance with Appendix A, Subsection 1.12 of the permit.

Any corrective action required as a result of a routine facility inspection must be performed consistent with Part 8 of this permit.

6.1.3 Exceptions to Routine Facility Inspections.

Inactive and Unstaffed Sites: The requirement to conduct routine facility inspections on a quarterly basis does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to storm water. Such a facility is only required to conduct an annual comprehensive site inspection in accordance with the requirements of Part 6.3. To invoke this exception, the permittee must maintain a statement in the SWPPP pursuant to Part 5.2.6.2 indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix A, Subsection 1.12. If circumstances change and industrial materials or activities become exposed to storm water or the facility becomes active and/or staffed, this exception no longer applies and the permittee must immediately resume quarterly facility inspections. If the permittee is not qualified for this exception at the time of authorization under this permit, but during the permit term becomes qualified because their facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to storm water, then the permittee must include the same signed and certified statement as above and retain it with the facility records pursuant to Part 5.8.

Inactive and unstaffed facilities or those undergoing winter shutdown covered under Sectors G (Metal Mining), H (Coal Mines and Coal Mining-Related Facilities), and J (Non-Metallic Mineral Mining and Dressing), are not required to meet the “no industrial materials or activities exposed to storm water” standard to be eligible for this exception from routine inspections, consistent with the requirements established in Parts 11.G.8.4, 11.H.8.1, and 11.J.8.1.

6.2 Quarterly Visual Assessment of Storm Water Discharges.

6.2.1 Quarterly Visual Assessment Procedures.

Once each calendar quarter for the entire permit term, the permittee must collect a storm water sample from each outfall (except as noted in Part 6.2.3) and conduct a visual assessment of each of these samples. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but should be collected in such a manner that the samples are representative of the storm water discharge. If no discharge occurs during the quarterly visual assessment period, the permittee must still report no discharge for this monitoring period and follow the requirements of Part 7.1.6.

The visual assessment must be made:

- Of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and the permittee must document why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from the permittees site; and
- For storm events, on discharges that occur at least 72 hours (3 days) from the previous discharge. The 72-hour (3-day) storm interval does not apply if the permittee documents that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period.

A permittee must visually inspect the sample for the following water quality characteristics:

- Color;
- Odor;
- Clarity (diminished);
- Floating solids;
- Settled solids;
- Suspended solids;
- Foam;
- Oil sheen; and
- Other obvious indicators of storm water pollution.

6.2.2 Quarterly Visual Assessment Documentation.

A permittee must document the results of their visual assessments and maintain this documentation onsite with the SWPPP as required in Part 6.2.3. The permittee is not required

to submit their visual assessment findings to DEC, unless specifically requested to do so. At a minimum, the permittees documentation of the visual assessment must include:

- Sample location(s)
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the storm water discharge;
- Probable sources of any observed storm water contamination, and
- If applicable, why it was not possible to take samples within the first 30 minutes.
- Quarterly Visual Assessment Documentation must be signed and certified in accordance with Appendix A, Subsection 1.12 of the permit.

Any corrective action required as a result of a quarterly visual assessment must be performed consistent with Part 8 of this permit.

6.2.3 **Exceptions to Quarterly Visual Assessments.**

Adverse Weather Conditions: When adverse weather conditions prevent the collection of samples during the quarter, the permittee must take a substitute sample during the next qualifying storm event. Documentation of the rationale for no visual assessment for the quarter must be included with the SWPPP records as described in Part 5.8. Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions.

Climates with Irregular Storm Water Runoff: If the facility is located in an area where limited rainfall occurs during many parts of the year (e.g., arid or semi-arid climate) or in an area where freezing conditions exist that prevent runoff from occurring for extended periods, then the samples for the quarterly visual assessments may be distributed during seasons when precipitation runoff occurs. (See Part 7.1.6)

Areas Subject to Snow: In areas subject to snow, at least one quarterly visual assessment must capture snowmelt discharge, as described in Part 7.1.3, taking into account the exception described above for climates with irregular storm water runoff.

Inactive and Unstaffed Sites: The requirement for a quarterly visual assessment does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to storm water. To invoke this exception, the permittee must maintain a statement in the SWPPP as required in Part 5.2.6.2 indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix A, Subsection 1.12. If circumstances

change and industrial materials or activities become exposed to storm water or the facility becomes active and/or staffed, this exception no longer applies and the permittee must immediately resume quarterly visual assessments. If the permittee is not qualified for this exception at the time they are authorized under this permit, but during the permit term they become qualified because their facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to storm water, then the permittee must include the same signed and certified statement as above and retain it with their records pursuant to Part 5.8.

Inactive and unstaffed facilities covered under Sectors G (Metal Mining), H (Coal Mines and Coal Mining-Related Facilities), and J (Non-Metallic Mineral Mining and Dressing), are not required to meet the “no industrial materials or activities exposed to storm water” standard to be eligible for this exception from quarterly visual assessment, consistent with the requirements established in Parts 11.G.8.4, 11.H.8.1, and 11.J.8.1.

Substantially Identical Outfalls: If a permittees facility has two or more outfalls that discharge substantially identical effluents, as documented in Part 5.2.6.2, the permittee may conduct quarterly visual assessments of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s) provided that the permittee performs visual assessments on a rotating basis of each substantially identical outfall throughout the period of coverage under this permit.

If storm water contamination is identified through visual assessment performed at a substantially identical outfall, the permittee must assess and modify their control measures as appropriate for each outfall represented by the monitored outfall.

6.3 Comprehensive Site Inspections.

6.3.1 Comprehensive Site Inspection Procedures.

A permittee must conduct annual comprehensive site inspections while covered under this permit. Annual, as defined in this Part, means once during each of the following inspection periods beginning with the period the permittee is authorized to discharge under this permit:

Year 1:	Permit Effective Date	–	December 31, 2015
Year 2:	January 1, 2016	–	December 31, 2016
Year 3:	January 1, 2017	–	December 31, 2017
Year 4:	January 1, 2018	–	December 31, 2018
Year 5:	January 1, 2019	–	Permit Expiration Date ¹
Note:			
1. Unless the permit is extended to or past December 31, 2019, in which case, December 31, 2019.			

A permittee is waived from having to perform a comprehensive site inspection for an inspection period, as defined above, if authorization to discharge is obtained less than three months before the end of that inspection period.

Should a permittees coverage be administratively continued after the expiration date of this permit, the permittee must continue to perform these inspections annually until they are no longer covered.

Comprehensive site inspections must be conducted by qualified personnel with at least one member of the storm water pollution prevention team participating in the comprehensive site inspections.

The comprehensive site inspections must cover all areas of the facility affected by the requirements in this permit, including the areas identified in the SWPPP as potential pollutant sources (see Part 5.2.4) where industrial materials or activities are exposed to storm water, any areas where control measures are used to comply with the effluent limits in Part 3, and areas where spills and leaks have occurred in the past 3 years. If the permittee has documented in the SWPPP that some industrial sector sites within the facility have no exposure to storm water the comprehensive site inspection should include those sector areas as well to verify no exposure still exists. The inspections must also include a review of monitoring data collected in accordance with Part 7.2. Inspectors must use the results of the past year's visual and analytical monitoring when planning and conducting inspections. Inspectors must examine the following:

- Industrial materials, residue, or trash that may have or could come into contact with storm water;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and
- Control measures needing replacement, maintenance, or repair.

Storm water control measures required by this permit must be observed to ensure that they are functioning correctly. If discharge locations are inaccessible, nearby downstream locations must be inspected.

The annual comprehensive site inspection may also be used as one of the routine inspections, as long as all components of both types of inspections are included.

6.3.2 Comprehensive Site Inspection Documentation.

A permittee must document the findings of each comprehensive site inspection and maintain this documentation onsite with the SWPPP as required in Part 5.8. In addition, the permittee must submit this documentation in an annual report as required in Part 9.2. At a minimum, the

permittees documentation of the comprehensive site inspection must include (see the Annual Reporting Form included as Appendix F):

- The date of the inspection;
- The name(s) and title(s) of the personnel making the inspection;
- Findings from the examination of areas of the facility identified in Part 6.3.1 including inspections of the individual industrial sectors within a facility under a single permit which have been noted as having no exposure in the SWPPP;
- All observations relating to the implementation of the permittees control measures including:
 - previously unidentified discharges from the site,
 - previously unidentified pollutants in existing discharges,
 - evidence of, or the potential for, pollutants entering the drainage system;
 - evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of and around the outfall, including flow dissipation measures to prevent scouring, and
 - additional control measures needed to address any conditions requiring corrective action identified during the inspection.
- Any required revisions to the SWPPP resulting from the inspection;
- Any incidents of noncompliance observed or a certification stating the facility is in compliance with this permit (if there is no noncompliance); and
- A statement, signed and certified in accordance with Appendix A, Subsection 1.12 of the permit.

Any corrective action required as a result of the comprehensive site inspection must be performed consistent with Part 8 of this permit.

7. Monitoring.

A permittee must collect and analyze storm water samples and document monitoring activities consistent with the procedures described in Part 7 and Appendix A, Subsections 3.0, and any additional sector-specific requirements in Part 11. Refer to Part 9 for reporting and recordkeeping requirements.

7.1 Monitoring Procedures.

7.1.1 Monitored Outfalls.

Applicable monitoring requirements apply to each outfall authorized by this permit, except as otherwise exempt from monitoring as a “substantially identical outfall.” If the permittees facility has two or more outfalls that they believe discharge substantially identical effluents, based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to storm water, and runoff coefficients of their drainage areas, they may monitor the effluent of just one of the outfalls and report that the results also apply to the substantially identical outfall(s). As required in Part 5.2.6.2, the SWPPP must identify each outfall authorized by this permit and describe the rationale for any substantially identical outfall determinations. The allowance for monitoring only one of the substantially identical outfalls is not applicable to any outfalls with numeric effluent limitations. The permittee is required to monitor each outfall covered by a numeric effluent limit as identified in Part 7.2.2.

7.1.2 Commingled Discharges.

If discharges authorized by this permit commingle with discharges not authorized under this permit, any required sampling of the authorized discharges must be performed at a point before they mix with other waste streams, to the extent practicable.

7.1.3 Measurable Storm Events.

All required monitoring must be performed on a storm event that results in an actual discharge from the facility (“measurable storm event”) that follows the preceding measurable storm event by at least 72 hours (three days). The 72-hour (three-day) storm interval does not apply if the permittee is able to document that less than a 72-hour (three-day) interval is representative for local storm events during the sampling period. In the case of snowmelt, the monitoring must be performed at a time when a measurable discharge occurs at the facility.

For each monitoring event, except snowmelt monitoring, the permittee must identify the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm event. For snowmelt monitoring, the permittee must identify the date of the sampling event.

7.1.4 Sample Type.

A permittee must take a minimum of one grab sample from a discharge resulting from a measurable storm event as described in Part 7.1.3. Samples must be collected within the first 30 minutes of a discharge produced from a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the SWPPP explaining why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge.

7.1.5 Adverse Weather Conditions.

When adverse weather conditions as described in Part 6.2.3 prevent the collection of samples according to the relevant monitoring schedule, the permittee must take a substitute sample during the next qualifying storm event. Adverse weather does not exempt a permittee from having to file a benchmark monitoring report in accordance with their sampling schedule. The permittee must report any failure to monitor as specified in Part 9.1 indicating the basis for not sampling during the usual reporting period.

7.1.6 Climates with Irregular Storm Water Runoff.

If a permittees facility is located in areas where limited rainfall occurs during parts of the year (e.g., arid or semi-arid climates) or in areas where freezing conditions exist that prevent runoff from occurring for extended periods, required monitoring events may be distributed during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from the facility. The permittee must still collect the required number of samples.

7.1.7 Monitoring Periods.

Monitoring requirements in this permit begin in the first full quarter following either January 1, 2015 or the permittees date of discharge authorization, whichever date comes later. If the permittees monitoring is required on a quarterly basis (e.g., benchmark monitoring), the permittee must monitor at least once in each of the following three-month intervals:

- **Quarter 1:** January 1 - March 31;
- **Quarter 2:** April 1 – June 30;
- **Quarter 3:** July 1 – September 30;
- **Quarter 4:** October 1 – December 31.

For example, if permit coverage was obtained on June 2, 2015, then the permittees first monitoring quarter is July 1 - September 30, 2015. This monitoring schedule may be modified in accordance with Part 7.1.6 if the revised schedule is documented with the SWPPP and provided to DEC with the first monitoring report.

7.1.8 Monitoring for Allowable Non-Storm Water Discharges.

The permittee is only required to monitor allowable non-storm water discharges (as delineated in Part 1.2.3) when they are commingled with storm water discharges associated with industrial activity.

7.2 Required Monitoring.

This permit includes four types of required analytical monitoring, one or more of which may apply to the permittees discharge:

- Quarterly benchmark monitoring (see Part 7.2.1)
- Annual effluent limitations guidelines monitoring (see Part 7.2.2);

- Impaired waters monitoring (see Part 7.2.3); and
- Other monitoring as required by DEC (see Part 7.2.4).

When more than one type of monitoring for the same parameter at the same outfall applies (e.g., total suspended solids once per year for an effluent limit and once per quarter for benchmark monitoring at a given outfall), the permittee may use a single sample to satisfy both monitoring requirements (i.e., one sample satisfying both the annual effluent limit sample and one of the four quarterly benchmark monitoring samples).

All required monitoring must be conducted in accordance with the procedures described in Appendix A, Subsection 3.0.

7.2.1 **Benchmark Monitoring.**

This permit stipulates pollutant benchmark concentrations that may be applicable to certain sectors / subsectors. Benchmark monitoring data are primarily for the permittees use to determine the overall effectiveness of the permittees control measures and to assist the permittee in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations in Part 4.

The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. However, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

At the permittee's discretion, more than four samples may be taken during separate runoff events and used to determine the average benchmark parameter concentration for facility discharges. These extra samples may be taken in any quarter of the permittees' choice.

- 7.2.1.1 ***Applicability of Benchmark Monitoring.*** A permittee must monitor for any benchmark parameters specified for the industrial sector(s), both primary industrial activity and any co-located industrial activities, applicable to the permittees discharge. The industry-specific benchmark concentrations are listed in the sector-specific sections of Part 11. If the facility is in one of the industrial sectors subject to benchmark concentrations that are hardness-dependent, the permittee is required to submit to DEC with their first benchmark report a hardness value, established consistent with the procedures in Appendix E, which is representative of the receiving water.

Samples must be analyzed consistent with 40 CFR Part 136 analytical methods and using test procedures with quantitation limits at or below benchmark values for all benchmark parameters for which the permittee is required to sample.

- 7.2.1.2 ***Benchmark Monitoring Schedule.*** Benchmark monitoring must be conducted quarterly, as identified in Part 7.1.7, for the permittees first four full quarters of permit coverage commencing no earlier than March 1, 2015. Facilities in climates with irregular storm water runoff, as described in Part 7.1.6, may modify this quarterly schedule provided that

this revised schedule is reported to DEC when the first benchmark sample is collected and reported, and that this revised schedule is kept with the facility's SWPPP as specified in Part 5.2.6. When conditions prevent the obtaining of four samples in four consecutive quarters, continue monitoring until achieving the four samples required for calculating the benchmark monitoring average.

7.2.1.3 Data Not Exceeding Benchmarks. After collection of four quarterly samples, if the average of the four monitoring values for any parameter does not exceed the benchmark, the permittee has fulfilled their monitoring requirements for that parameter for the permit term. For averaging purposes, use a value of zero for any individual sample parameter, analyzed using procedures consistent with Part 7.2.1.1, which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

7.2.1.4 Data Exceeding Benchmarks. After collection of four quarterly samples, if the average of the four monitoring values for any parameter exceeds the benchmark, the permittee must, in accordance with Part 8.2, review the selection, design, installation, and implementation of their control measures to determine if modifications are necessary to meet the benchmarks in this permit, and either:

- Make the necessary modifications and continue quarterly monitoring until the permittee has completed four additional quarters of monitoring for which the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limits or are necessary to meet the water-quality-based effluent limitations in Part 3 of this permit, in which case the permittee must continue monitoring once per year. The permittee must also document their rationale for concluding that no further pollutant reductions are achievable, and retain all records related to this documentation with their SWPPP. The permittee must also notify DEC of this determination in their next benchmark monitoring report.

In accordance with Part 8.2, the permittee must review its control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full four quarters of monitoring data, if an exceedance of the four quarter average is mathematically certain. If after modifying the permittees control measures and conducting four additional quarters of monitoring, their average still exceeds the benchmark (or if an exceedance of the benchmark by the four quarter average is mathematically certain prior to conducting the full four additional quarters of monitoring), the permittee must again review its control measures and take one of the two actions above.

7.2.1.5 **Natural Background Pollutant Levels.** Following the first four quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than four quarters of data, see above), if the average concentration of a pollutant exceeds a benchmark value, and the permittee determines that exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background, the permittee is not required to perform corrective action or additional benchmark monitoring provided that:

- The average concentration of the permittees benchmark monitoring results is less than or equal to the concentration of that pollutant in the natural background;
- The permittee must document and maintain with the SWPPP, as required in Part 5.8, the supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background pollutant levels. The permittee must include in their supporting rationale any data previously collected by the permittee or others (including literature studies) that describe the levels of natural background pollutants in their storm water discharge; and
- The permittee must notify DEC on their final quarterly benchmark monitoring report that the benchmark exceedances are attributable solely to natural background pollutant levels.

Natural background pollutants include those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity at the facility, or pollutants in run-on from neighboring sources which are not naturally occurring.

7.2.1.6 **Exception for Inactive and Unstaffed Sites⁶.** The requirement for benchmark monitoring does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to storm water. To invoke this exception, the permittee must do the following:

- Maintain a statement onsite with the SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Appendix A, Subsection 1.12; and
- If circumstances change and industrial materials or activities become exposed to storm water or the facility becomes active and/or staffed, this exception no longer applies and the permittee must immediately begin complying with the applicable benchmark monitoring requirements under Part 7.2 as if they were in their first year of permit coverage. The permittee must indicate in their first benchmark

⁶ This exception has different requirements for Sectors G, H, and J (see Part 11).

monitoring report that their facility has materials or activities exposed to storm water or has become active and/or staffed.

- If the permittee is not qualified for this exception at the time they are authorized under this permit, but during the permit term they become qualified because their facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to storm water, then the permittee must notify DEC of this change in their next benchmark monitoring report. A permittee may discontinue benchmark monitoring once they have notified DEC, and prepared and signed the certification statement described above concerning their facility's qualification for this special exception.

7.2.2 Effluent Limitations Monitoring.

7.2.2.1 **Monitoring Based on Effluent Limitations Guidelines.** Table 7-1 identifies the storm water discharges subject to effluent limitation guidelines that are authorized for coverage under this permit. Beginning in the first full quarter following January 1, 2015 or the permittees date of discharge authorization, whichever date comes later, the permittee must monitor once per year at each outfall containing the discharges identified in Table 7-1 for the parameters specified in the sector-specific section of Part 11.

Table 7-1: Required Monitoring for Effluent Limits Based on Effluent Limitations Guidelines

Regulated Activity	Effluent Limit	Monitoring Frequency	Sample Type
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	See Part 11.A.7	1/year	Grab
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	See Part 11.C.4	1/year	Grab
Runoff from asphalt emulsion facilities	See Part 11.D.4	1/year	Grab
Runoff from material storage piles at cement manufacturing facilities	See Part 11.E.5	1/year	Grab
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	See Part 11.J.9	1/year	Grab
Runoff from hazardous waste landfills	See Part 11.K.6	1/year	Grab
Runoff from non-hazardous waste landfills	See Part 11.L.10	1/year	Grab
Runoff from coal storage piles at steam electric generating facilities	See Part 11.O.8	1/year	Grab
Existing and new primary airports with 1,000 or more annual jet departures that discharge wastewater associated with airfield pavement deicing that contains urea commingled with stormwater	See Part 11.S.8	1/year	Grab

7.2.2.2 **Substantially Identical Outfalls.** A permittee must monitor each outfall discharging runoff from any regulated activity identified in Table 7-1. The substantially identical outfall monitoring provisions are not available for numeric effluent limits monitoring.

7.2.2.3 Follow-up Actions if Discharge Exceeds Numeric Effluent Limit. The permittee must follow-up monitoring within 30 calendar days (or during the next qualifying runoff event, should none occur within 30 days) of implementing corrective action(s) taken pursuant to Part 4 in response to exceedance of a numeric effluent limit contained in this permit. Monitoring must be performed for any pollutant(s) that exceeds the effluent limit. If this follow-up monitoring exceeds the applicable effluent limitation, you must:

- **Submit a Noncompliance Notification Form:** You must submit a Noncompliance Notification Form no later than 30 days after you have received the lab result; and
- **Continue to Monitor:** the permittee must monitor, at least quarterly, until the discharge is in compliance with the effluent limit or until DEC waives the requirement for additional monitoring.

7.2.3 Discharges to Impaired Waters Monitoring.

7.2.3.1 Permittees Required to Monitor Discharges to Impaired Waters. If a permittee discharges to an impaired water, the permittee must monitor for all pollutants for which the waterbody is impaired and for which a standard analytical method exists (see 40 CFR Part 136).

If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, the permittee must monitor for Total Suspended Solids (TSS) and turbidity. If the pollutant for which the waterbody is impaired is expressed in the form of an indicator or surrogate pollutant, the permittee must monitor for that indicator or surrogate pollutant. No monitoring is required when a waterbody's biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment, or when a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or other pollutant.

7.2.3.2 Impaired Waters Monitoring Schedule.

Discharges to impaired waters without an EPA approved or established TMDL:

Beginning in the first full calendar quarter following January 1, 2015 or the permittees date of discharge authorization, whichever date comes later, the permittee must monitor once per year at each outfall (except substantially identical outfalls) discharging storm water to impaired waters without an EPA approved or established TMDL. This monitoring requirement does not apply after one year if the pollutant for which the waterbody is impaired is not detected above natural background levels in their storm water discharge, and the permittee must document, as required in Part 5.8 (Additional Documentation Requirements), that this pollutant is not expected to be present above natural background levels in the permittees discharge.

If the pollutant for which the water is impaired is not present and not expected to be present in the permittee's discharge, or it is present but the permittee has determined that

its presence is caused solely by natural background sources, they should include a notification to this effect in their first monitoring report, after which they may discontinue annual monitoring. To support a determination that the pollutant's presence is caused solely by natural background sources, the permittee must keep the following documentation with their SWPPP records:

- An explanation of why the permittee believes that the presence of the pollutant causing the impairment in their discharge is not related to the activities at their facility; and
- Data and/or studies that tie the presence of the pollutant causing the impairment in their discharge to natural background sources in the watershed.

Natural background pollutants include those substances that are naturally occurring as a result of native soils, vegetation, wildlife, or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the site, or pollutants in run-on from neighboring sources which are not naturally occurring.

Discharges to impaired waters with an EPA approved or established TMDL WLA: For storm water discharges to waters for which there is an EPA approved or established TMDL waste load allocation (WLA), the permittee is not required to monitor for the pollutant for which the TMDL was written unless DEC informs the permittee, upon examination of the applicable TMDL and/or WLA, that they are subject to such a requirement consistent with the assumptions of the applicable TMDL and/or WLA. DEC's notice will include specifications on which pollutant to monitor and the required monitoring frequency during the first year of permit coverage. Following the first year of monitoring:

- If the TMDL pollutant is not detected in any of the permittees first year samples, they may discontinue further sampling, unless the TMDL has specific instructions to the contrary, in which case the permittee must follow those instructions. The permittee must keep records of this finding onsite with their SWPPP.
- If the permittee detects the presence of the pollutant causing the impairment in their storm water discharge for any of the samples collected in the first year, the permittee must continue monitoring annually throughout the term of this permit, unless the TMDL specifies more frequent monitoring, in which case the permittee must follow the TMDL requirements.

7.2.4 Additional Monitoring Required by DEC.

DEC may notify the permittee of additional discharge monitoring requirements. Any such notice will briefly state the reasons for the monitoring, locations, and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

8. Corrective Actions.

8.1 Conditions Requiring Review and Revision to Eliminate Problem.

If any of the following conditions occur, the permittee must review and revise the selection, design, installation, and implementation of their control measures to ensure that the condition is eliminated and will not be repeated in the future:

- 8.1.1 An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by this or another APDES permit) occurs at the permittees facility;
- 8.1.2 A discharge violates a numeric effluent limit;
- 8.1.3 The permittee becomes aware, or DEC determines, that the permittee's control measures are not stringent enough for the discharge to meet a WQS in the receiving water;
- 8.1.4 An inspection or evaluation of the permittees facility by an DEC or EPA official determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this permit; or
- 8.1.5 The permittee finds in their routine facility inspection, quarterly visual assessment, or comprehensive site inspection that their control measures are not being properly operated and maintained.

8.2 Conditions Requiring Review to Determine if Modifications Are Necessary.

If any of the following conditions occur, the permittee must review the selection, design, installation, and implementation of their control measures to determine if modifications are necessary to meet the effluent limits in this permit:

- 8.2.1 Construction or a change in design, operation, or maintenance at a permittees facility significantly changes the nature of pollutants discharged in storm water from their facility, or significantly increases the quantity of pollutants discharged; or
- 8.2.2 The average of four quarterly sampling results exceeds an applicable benchmark. If less than four benchmark samples have been taken, but the results are such that an exceedence of the four quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedence, triggering this review.

8.3 Corrective Action Deadlines.

A permittee must document their discovery of any of the conditions listed in Parts 8.1 and 8.2 within 24 hours of making such discovery. Subsequently, within 14 days of such discovery, the permittee must document any corrective action(s) to be taken to eliminate or further investigate the deficiency, or if no corrective action is needed, the basis for that determination. Specific documentation required within 24 hours and 14 days is detailed in Part 8.4. If a permittee determines that changes are necessary following

their review, any modifications to their control measures must be made before the next storm event if possible, or as soon as practicable following that storm event. These time intervals are not grace periods, but are schedules considered reasonable for documenting a permittees findings and for making repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely.

8.4 Corrective Action Report.

- 8.4.1 Within 24 hours of discovery of any condition listed in Parts 8.1 and 8.2, the permittee must document the following information (i.e., questions 3-5 of the Corrective Actions section in the Annual Reporting Form, provided in Appendix F):
 - 8.4.1.1 Identification of the condition triggering the need for corrective action review;
 - 8.4.1.2 Description of the problem identified; and
 - 8.4.1.3 Date the problem was identified.
- 8.4.2 Within 14 days of discovery of any condition listed in Parts 8.1 and 8.2, the permittee must document the following information (i.e., questions 7-11 of the Corrective Actions section in the Annual Reporting Form, provided in Appendix F):
 - 8.4.2.1 Summary of corrective action taken or to be taken (or, for triggering events identified in Part 8.2 where the permittee determines that corrective action is not necessary, the basis for this determination);
 - 8.4.2.2 Notice of whether SWPPP modifications are required as a result of this discovery or corrective action;
 - 8.4.2.3 Date corrective action initiated; and
 - 8.4.2.4 Date corrective action completed or expected to be completed.
- 8.4.3 A permittee must submit this documentation in an annual report as required in Part 9.2 and retain a copy onsite with the SWPPP as required in Part 5.8.

8.5 Effect of Corrective Action.

If the event triggering the review is a permit violation (e.g., non-compliance with an effluent limit), it must be documented using the Noncompliance Notification Form (see <http://dec.alaska.gov/water/Compliance/permittee.html>). Furthermore, correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with this section is an additional permit violation.

8.6 Substantially Identical Outfalls.

If the event triggering corrective action is linked to an outfall that represents other substantially identical outfalls, the permittees review must assess the need for corrective action for each outfall represented by the outfall that triggered the review. Any necessary changes to control measures that affect these other outfalls must also be made before the next storm event if possible, or as soon as practicable following that storm event.

9. Reporting and Recordkeeping.

9.1 Reporting Monitoring Data to DEC.

All monitoring data collected pursuant to Parts 7.2 and 7.2.2.3 must be submitted to DEC no later than 30 days (email date or postmark date) after the permittee has received the complete laboratory results for all monitored outfalls for the reporting period. Paper reporting forms must be submitted by the deadline to the appropriate address identified in Part 9.6. DEC requires the use of the MSGP discharge monitoring report (MDMR) as provided in Appendix F.

For benchmark monitoring, note that the permittee is required to submit sampling results to DEC no later than 30 days after receiving laboratory results for each quarter that are required to collect benchmark samples, in accordance with Part 7.2.1.2. If a permittee collects multiple samples in a single quarter (e.g., due to adverse weather conditions, climates with irregular storm water runoff, or areas subject to snow), they are required to submit all sampling results to DEC within 30 days of receiving the laboratory results. If no discharge occurs during the benchmark monitoring period, the permittee must still report no discharge for this monitoring period.

9.2 Annual Report.

A permittee must submit an annual report to DEC that includes the findings from their Part 6.3 comprehensive site inspection and any corrective action documentation as required in Part 8.4. If corrective action is not yet completed at the time of submission of this annual report, the permittee must describe the status of any outstanding corrective action(s). In addition to the information required in Parts 8.4 (Corrective Action Report) and 6.3.2 (Comprehensive Site Inspection Documentation), the permittee must include the following information with their annual report:

- Facility name;
- APDES permit tracking number;
- Facility physical address; and
- Contact person name, title, and phone number.

DEC requires the permittee submit this report using the Annual Report provided as Appendix F. The Annual Report may be submitted electronically through the DEC Online Application System (OASys) located at <http://www.dec.alaska.gov/water/oasys/index.html>. By February 15th of the year following the

reporting year, the permittee must submit the annual report to DEC to the address identified in Part 9.6 or via OASys.

9.3 Noncompliance Notification for Numeric Effluent Limits.

If follow-up monitoring pursuant to Part 7.2.2.3 exceeds a numeric effluent limit, the permittee must submit a Noncompliance Notification Form (see <http://dec.alaska.gov/water/Compliance/permittee.html>) to DEC no later than 30 days after they have received their lab results. The permittees report must include the following:

- APDES permit tracking number;
- Facility name, physical address and location;
- Name of receiving water;
- Monitoring data from this and the preceding monitoring event(s);
- An explanation of the situation; what the permittee has done and intend to do (should their corrective actions not yet be complete) to correct the violation; and
- An appropriate contact name and phone number.

9.4 Additional Reporting.

9.4.1 A permittee is subject to the standard permit reporting provisions of Appendix A, Subsection 3.0.

9.4.2 Where applicable, the permittee must submit, and DEC must receive, the following reports at the appropriate address in Part 9.6. If the facility discharges through an MS4, the permittee must also submit these reports to the MS4 operator (identified pursuant to Part 5.2.3).

9.4.2.1 24-hour reporting (see Appendix A, Subsection 3.4) - A permittee must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time the permittee becomes aware of the circumstances;

9.4.2.2 Five (5)-day follow-up reporting to the 24 hour reporting (see Appendix A, Subsection 3.4) - A written submission must also be provided within five days of the time the permittee becomes aware of the circumstances;

9.4.2.3 Reportable quantity spills (see Part 4.2.4) - A permittee must provide notification, as required under Part 4.2.4, as soon as they have knowledge of a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity.

9.4.3 Where applicable, the permittee must submit, and DEC must receive, the following reports at the appropriate address in Part 9.6:

- 9.4.3.1 Planned changes (see Appendix A, Subsection 2.1) – A Permittee must give notice to DEC as soon as possible of any planned physical alterations or additions to the permitted facility that qualify the facility as a new source or that could significantly change the nature or significantly increase the quantity of pollutants discharged;
- 9.4.3.2 Anticipated noncompliance (see Appendix A, Subsection 2.2) – A Permittee must give advance notice to DEC of any planned changes in the permitted facility or activity which they anticipate will result in noncompliance with permit requirements;
- 9.4.3.3 Transfer of ownership and/or operation – The new permittee must submit a complete and accurate NOI in accordance with the requirements of Appendix F of this permit and by the deadlines specified in Table 2-1;
- 9.4.3.4 Compliance schedules (see Appendix A, Subsection 2.4) – Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date;
- 9.4.3.5 Other noncompliance (see Appendix A, Subsection 3.5) - A permittee must report all instances of noncompliance not reported in their monitoring report (pursuant to Part 9.1), compliance schedule report, or 24-hour report at the time monitoring reports are submitted; and
- 9.4.3.6 Other information (see Appendix A, Subsection 2.5) – A permittee must promptly submit facts or information if they become aware that they failed to submit relevant facts in their NOI, or that they submitted incorrect information in their NOI or in any report.

9.5 Recordkeeping.

A permittee must retain copies of their SWPPP (including any modifications made during the term of this permit), additional documentation requirements pursuant to Part 5.8 (including documentation related to corrective actions taken pursuant to Part 5), all reports and certifications required by this permit, monitoring data, and records of all data used to complete the NOI to be covered by this permit, for a period of at least 3 years from the date that the permittees coverage under this permit expires or is terminated.

9.6 Addresses for Reports.

Notice of Intent, Notice of Intent modification, Notice of Termination, No Exposure Certificate, and SWPPP's should be submitted using DEC's eNOI system (<http://dec.alaska.gov/water/wnpspc/stormwater/APDESeNOI.html>) or sent to the address in Appendix A, Part 1.1.1.

Paper copies of any reports required in Parts 7 through 9, not otherwise submitted electronically via DEC's eNOI system (<http://dec.alaska.gov/water/wnpspc/stormwater/APDESeNOI.html>) must be sent to the address in Appendix A, Part 1.1.2.

9.7 Request for Submittal of Records.

The Department may request copies of all or a portion of the information collected and maintained in the SWPPP. A permittee must provide a response to written request for records to the Department within thirty (30) calendar days of receipt of a written request.

10. Terminating Coverage.

10.1 Submitting a Notice of Termination (NOT).

To terminate permit coverage, a permittee must submit a complete and accurate NOT using the paper NOT form included in Appendix F of this permit, to the address listed in Part 9.6. A permittees authorization to discharge under this permit terminates at midnight of the day that a valid NOT is signed *(If a permittee submits a NOT without meeting one or more of the conditions identified in Part 10.2, then a permittees NOT is not valid.)* The permittee is responsible for meeting the terms of this permit until their authorization is terminated.

10.2 When to Submit a NOT.

A permittee must submit a NOT within 30 calendar days after one or more of the following conditions have been met:

- 10.2.1 A new owner or operator has taken over responsibility for the facility;
- 10.2.2 The permittee has ceased operations at the facility, there are not or no longer will be discharges of storm water associated with industrial activity from the facility, and has already implemented necessary sediment and erosion controls as required by Part 4.2.5;
- 10.2.3 The permittee is a Sector G, H, or J facility and has met the applicable termination requirements; or
- 10.2.4 The permittee has obtained coverage under an individual or alternative general permit for all discharges required to be covered by an APDES permit, unless DEC has required that they obtain such coverage under authority of Part 2.8.1, in which case coverage under this permit will terminate automatically.

11. Sector-Specific Requirements for Industrial Activity.

11. Subpart A – Sector A – Timber Products.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.A.1 Covered Storm Water Discharges.

The requirements in Subpart A apply to storm water discharges associated with industrial activity from Timber Products facilities as identified by the SIC Codes specified under Sector A in Table D-1 of Appendix D of the permit.

11.A.2 Limitation on Coverage.

11.A.2.1 Prohibition of Discharges. (See also Part 1.2.4) Not covered by this permit: storm water discharges from areas where there may be contact with the chemical formulations sprayed to provide surface protection. These discharges must be covered by a separate APDES permit.

11.A.2.2 Authorized Non-Storm Water Discharges. (See also Part 1.2.3) Also authorized by this permit, provided the non-storm water component of the discharge is in compliance with the requirements in Part 4.2 (Non-Numeric Effluent Limits): discharges from the spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage.

11.A.3 Additional Technology-Based Effluent Limits.

11.A.3.1 Good Housekeeping. (See also Part 4.2.2) In areas where storage, loading and unloading, and material handling occur, perform good housekeeping to limit the discharge of wood debris, minimize the leachate generated from decaying wood materials, and minimize the generation of dust.

11.A.4 Additional SWPPP Requirements.

11.A.4.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in their SWPPP where any of the following may be exposed to precipitation or surface runoff: processing areas, treatment chemical storage areas, treated wood and residue storage areas, wet decking areas, dry decking areas, untreated wood and residue storage areas, and treatment equipment storage areas.

11.A.4.2 Inventory of Exposed Materials. (See also Part 5.2.4.2) Where such information exists, if the facility has used chlorophenolic, creosote, or chromium-copper-arsenic formulations for wood surface protection or preserving, document in the SWPPP the following: areas where contaminated soils, treatment equipment, and stored materials still remain and the management practices employed to minimize the contact of these materials with storm water runoff.

11.A.4.3 Description of Storm Water Management Controls. (See also Part 5.2.5) Document measures implemented to address the following activities and sources: log, lumber, and wood product storage areas; residue storage areas; loading and unloading areas; material handling areas; chemical storage areas; and equipment and vehicle maintenance, storage, and repair areas. If the permittees facility performs wood surface protection and preservation activities, address the specific control measures, including any BMPs, for these activities.

11.A.5 Additional Inspection Requirements.

See also Part 6.1. If the permittees facility performs wood surface protection and preservation activities, inspect processing areas, transport areas, and treated wood storage areas monthly to assess the usefulness of practices to minimize the deposit of treatment chemicals on unprotected soils and in areas that will come in contact with storm water discharges.

11.A.6 Sector-Specific Benchmarks.

Table 11.A.6-1 identifies benchmarks that apply to the specific subsectors of Sector A. These benchmarks apply to both the permittees primary industrial activity and any co-located industrial activities.

*(Table 11.A.6-1: Sector – Specific Benchmarks – Sector A
located on following page.)*

Table 11.A.6-1: Sector – Specific Benchmarks – Sector A

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector A1. General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD)	120.0 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Zinc (saltwater) ¹	0.09 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent
Subsector A2. Wood Preserving (SIC 2491)	Total Arsenic (saltwater) ¹	0.069mg/L
	Total Arsenic (freshwater) ²	0.15 mg/L
	Total Copper (saltwater) ¹	0.0048 mg/L
	Total Copper (freshwater) ²	Hardness Dependent
Subsector A3. Log Storage and Handling (SIC 2411)	Total Suspended Solids (TSS)	100 mg/L
Subsector A4. Hardwood Dimension and Flooring Mills; Special Products Sawmills, not elsewhere classified; Millwork, Veneer, Plywood, and Structural Wood; Wood Pallets and Skids; Wood Containers, not elsewhere classified; Wood Buildings and Mobile Homes; Reconstituted Wood Products; and Wood Products Facilities not elsewhere classified (SIC 2426, 2429, 2431-2439 (except 2434), 2441, 2448, 2449, 2451, 2452, 2493, and 2499)	Chemical Oxygen Demand (COD)	120.0 mg/L
	Total Suspended Solids (TSS)	100.0 mg/L

Note:

1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.
2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Copper (mg/L)	Zinc (mg/L)
0 – < 25 mg/L	0.0038	0.04
25 – < 50 mg/L	0.0056	0.05
50 – < 75 mg/L	0.0090	0.08
75 – < 100 mg/L	0.0123	0.11
100 – < 125 mg/L	0.0156	0.13
125 – < 150 mg/L	0.0189	0.16
150 – < 175 mg/L	0.0221	0.18
175 – < 200 mg/L	0.0253	0.20
200 – < 225 mg/L	0.0285	0.23
225 – < 250 mg/L	0.0316	0.25
250+ mg/L	0.0332	0.26

11.A.7 Effluent Limitations Based on Effluent Limitations Guidelines. (See also Part 7.2.2.1 of the permit.)

Table 11.A.7-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 11.A.7-1: Effluent Limitations Based on Effluent Limitations Guidelines¹

Industrial Activity	Parameter	Effluent Limit
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	pH	6.5 - 8.5 standard pH (s.u.)
	Debris (woody material such as bark, twigs, branches, heartwood, or sapwood)	No discharge of debris that will not pass through a 2.54-cm (1-in.) diameter round opening
Note: 1. Monitor annually.		

11. Subpart B – Sector B – Paper and Allied Products.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.B.1 Covered Storm Water Discharges.

The requirements in Subpart B apply to storm water discharges associated with industrial activity from Paper and Allied Products Manufacturing facilities, as identified by the SIC Codes specified under Sector B in Table D-1 of Appendix D of the permit.

11.B.2 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

Table 11.B.2-1: Sector – Specific Benchmarks – Sector B

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector B1. Paperboard Mills (SIC Code 2631)	Chemical Oxygen Demand (COD)	120 mg/L

11. Subpart C – Sector C – Chemical and Allied Products Manufacturing, and Refining.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.C.1 Covered Storm Water Discharges.

The requirements in Subpart C apply to storm water discharges associated with industrial activity from Chemical and Allied Products Manufacturing, and Refining facilities, as identified by the SIC Codes specified under Sector C in Table D-1 of Appendix D of the permit.

11.C.2 Limitations on Coverage.

11.C.2.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) The following are not covered by this permit: non-storm water discharges containing inks, paints, or substances (hazardous, nonhazardous, etc.) resulting from an onsite spill, including materials collected in drip pans; washwater from material handling and processing areas; and washwater from drum, tank, or container rinsing and cleaning.

11.C.3 Sector-Specific Benchmarks.

Table 11.C.3-1 identifies benchmarks that apply to the specific subsectors of Sector C. These benchmarks apply to both the permittees primary industrial activity and any co-located industrial activities.

*(Table 11.C.3-1: Sector – Specific Benchmarks – Sector C
located on following page.)*

Table 11.C.3-1: Sector – Specific Benchmarks – Sector C

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector C1. Agricultural Chemicals (SIC 2873-2879)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Lead (saltwater) ¹	0.21 mg/L
	Total Lead (freshwater) ²	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Zinc (saltwater) ¹	0.09 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent
Subsector C2. Industrial Inorganic Chemicals (SIC 2812-2819)	Phosphorus	2.0 mg/L
	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
Subsector C3. Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Zinc (saltwater) ¹	0.09 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent
Subsector C4. Plastics, Synthetics, and Resins (SIC 2821-2824)	Total Zinc (saltwater) ¹	0.09 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent

Notes:

1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.
2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Lead (mg/L)	Zinc (mg/L)
0 – < 25 mg/L	0.014	0.04
25 – < 50 mg/L	0.023	0.05
50 – < 75 mg/L	0.045	0.08
75 – < 100 mg/L	0.069	0.11
100 – < 125 mg/L	0.095	0.13
125 – < 150 mg/L	0.122	0.16
150 – < 175 mg/L	0.151	0.18
175 – < 200 mg/L	0.182	0.20
200 – < 225 mg/L	0.213	0.23
225 – < 250 mg/L	0.246	0.25
250+ mg/L	0.262	0.26

11.C.4 Effluent Limitations Based on Effluent Limitations Guidelines. (See also Part 7.2.2.1 of the permit.)

Table 11.C.4-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 11.C.4-1: Effluent Limitations Based on Effluent Limitations Guidelines¹

Industrial Activity	Parameter	Effluent Limit
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Total Phosphorus (as P)	105.0 mg/L, daily maximum
		35 mg/L, 30-day avg.
	Fluoride	75.0 mg/L, daily maximum
		25.0 mg/L, 30-day avg.
1 Monitor annually.		

11. Subpart D – Sector D – Asphalt Paving and Roofing Materials and Lubricant Manufacturing.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.D.1 Covered Storm Water Discharges.

The requirements in Subpart D apply to storm water discharges associated with industrial activity from Asphalt Paving and Roofing Materials and Lubricant Manufacturing facilities, as identified by the SIC Codes specified under Sector D in Table D-1 of Appendix D of the permit.

11.D.2 Limitations on Coverage.

The following storm water discharges associated with industrial activity are not authorized by this permit (See also Part 1.2.4)

11.D.2.1 Discharges from petroleum refining facilities, including those that manufacture asphalt or asphalt products, that are subject to nationally established effluent limitation guidelines found in 40 CFR Part 419 (Petroleum Refining); or

11.D.2.2 Discharges from oil recycling facilities; or

11.D.2.3 Discharges associated with fats and oils rendering.

11.D.3 Sector-Specific Benchmarks.

Table 11.D.3-1 identifies benchmarks that apply to the specific subsectors of Sector D. These benchmarks apply to both the permittees primary industrial activity and any co-located industrial activities, which describe their facility activities.

Table 11.D.3-1: Sector – Specific Benchmarks – Sector D		
Subsector	Parameter	Benchmark Monitoring Concentration
Subsector D1. Asphalt Paving and Roofing Materials (SIC 2951, 2952)	Total Suspended Solids (TSS)	100 mg/L

11.D.4 Effluent Limitations Based on Effluent Limitations Guidelines. (See also Part 7.2.2.1 of the permit.)

Table 11.D.4-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 11.D.4-1: Effluent Limitations Based on Effluent Limitations Guidelines¹

Industrial Activity	Parameter	Effluent Limit
Discharges from asphalt emulsion facilities.	Total Suspended Solids (TSS)	23.0 mg/L, daily maximum 15.0 mg/L, 30-day avg.
	pH	6.5 - 8.5 s.u.
	Oil and Grease	15.0 mg/L, daily maximum
		10 mg/L, 30-day avg.
1. Monitor annually.		

11. Subpart E – Sector E – Glass, Clay, Cement, Concrete, and Gypsum Products.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.E.1 Covered Storm Water Discharges.

The requirements in Subpart E apply to storm water discharges associated with industrial activity from Glass, Clay, Cement, Concrete, and Gypsum Products facilities, as identified by the SIC Codes specified under Sector E in Table D-1 of Appendix D of the permit.

11.E.2 Additional Technology-Based Effluent Limits.

11.E.2.1 Good Housekeeping Measures. (See also Part 4.2.2) With good housekeeping, prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), kiln dust, fly ash, settled dust, or other significant material in storm water from paved portions of the site that are exposed to storm water. Sweep regularly or use other equivalent measures to minimize the presence of these materials. Indicate in the SWPPP the frequency of sweeping or equivalent measures. Determine the frequency based on the amount of industrial activity occurring in the area and the frequency of precipitation, but it must be performed at least once a week if cement, aggregate, kiln dust, fly ash, or settled dust are being handled or processed. Permittee must also prevent the exposure of fine granular solids (cement, fly ash, kiln dust, etc.) to storm water, where practicable, by storing these materials in enclosed silos, hoppers, buildings, or under other covering.

11.E.3 Additional SWPPP Requirements.

11.E.3.1 Drainage Area Site Map. (See also Part 5.2.3) Document in the SWPPP the locations of the following, as applicable: bag house or other dust control device; recycle/sedimentation pond, clarifier, or other device used for the treatment of process wastewater; and the areas that drain to the treatment device.

11.E.3.2 Certification. (See also Part 5.2.4.4) For facilities producing ready-mix concrete, concrete block, brick, or similar products, include in the non-storm water discharge certification a description of measures that ensure that process waste waters resulting from washing trucks, mixers, transport buckets, forms, or other equipment are discharged in accordance with APDES requirements or are recycled.

11.E.4 Sector-Specific Benchmarks.

Table 11.E.4-1 identifies benchmarks that apply to the specific subsectors of Sector E. These benchmarks apply to both the permittees primary industrial activity and any co-located industrial activities, which describe their facility activities.

Table 11.E.4-1: Sector – Specific Benchmarks – Sector E

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Subsector E1. Clay Product Manufacturers (SIC 3251-3259, 3261-3269)	Total Aluminum	0.75 mg/L
Subsector E2. Concrete and Gypsum Product Manufacturers (SIC 3271-3275)	Total Suspended Solids (TSS)	100 mg/L
	Total Iron	1.0 mg/L

11.E.5 Effluent Limitations Based on Effluent Limitations Guidelines. (See also Part 7.2.2.1 of the permit.)

Table 11.E.5-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 11.E.5-1: Effluent Limitations Based on Effluent Limitations Guidelines¹

Industrial Activity	Parameter	Effluent Limit
Discharges from material storage piles at cement manufacturing facilities	Total Suspended Solids (TSS)	50 mg/L, daily maximum
	pH	6.5 - 8.5 s.u.
1. Monitor annually.		

11. Subpart F – Sector F – Primary Metals.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.F.1 Covered Storm Water Discharges.

The requirements in Subpart F apply to storm water discharges associated with industrial activity from Primary Metals facilities, as identified by the SIC Codes specified under Sector F in Table D-1 of Appendix D of the permit.

11.F.2 Additional Technology-Based Effluent Limits.

11.F.2.1 Good Housekeeping Measures. (See also Part 4.2.2) As part of the permittees good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and, where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For unstabilized areas where sweeping is not practicable, use storm water management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment and debris.

11.F.3 Additional SWPPP Requirements.

11.F.3.1 Drainage Area Site Map. (See also Part 5.2.3) Identify in the SWPPP where any of the following activities may be exposed to precipitation or surface runoff: storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, pollution control devices, losses from coal and coke handling operations, etc., and could result in a discharge of pollutants to waters of the United States.

11.F.3.2 Inventory of Exposed Material. (See also Part 5.2.4.2) Include in the inventory of materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities are possible

11.F.4 Additional Inspection Requirements. (See also Part 6.1) As part of conducting the permittees quarterly routine facility inspections (Part 6.1), address all potential sources of pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, and cyclones), for any signs of degradation (e.g., leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Monitor air flow at inlets and outlets (or use equivalent measures) to check for leaks (e.g., particulate deposition) or blockage in ducts. Also inspect all process and material handling equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or storm water runoff.

11.F.5 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

*(Table 11.F.5-1: Sector – Specific Benchmarks –Sector F
located on following page.)*

Table 11.F.5-1: Sector – Specific Benchmarks –Sector F		
Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector F1. Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Aluminum	0.75 mg/L
	Total Zinc (saltwater) ¹	0.09 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent
Subsector F2. Iron and Steel Foundries (SIC 3321-3325)	Total Aluminum	0.75 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Copper (saltwater) ¹	0.0048 Mg/L
	Total Copper (freshwater) ²	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Zinc (saltwater) ¹ Total Zinc (freshwater) ²	0.09 mg/L Hardness Dependent
Subsector F3. Rolling, Drawing, and Extruding of Nonferrous Metals (SIC 3351-3357)	Total Copper (saltwater) ¹ Total Copper (freshwater) ²	0.0048 mg/L Hardness Dependent
	Total Zinc (saltwater) ¹ Total Zinc (freshwater) ²	0.09 mg/L Hardness Dependent
	Total Copper (saltwater) ¹ Total Copper (freshwater) ²	0.0048 mg/L Hardness Dependent
Subsector F4. Nonferrous Foundries (SIC 3363-3369)	Total Copper (saltwater) ¹ Total Copper (freshwater) ²	0.0048 mg/L Hardness Dependent
	Total Zinc (saltwater) ¹ Total Zinc (freshwater) ²	0.09 mg/L Hardness Dependent
	Total Zinc (saltwater) ¹ Total Zinc (freshwater) ²	0.09 mg/L Hardness Dependent
Notes:		
1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.		
2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:		
	Water Hardness Range	Copper (mg/L) Zinc (mg/L)
	0 – < 25 mg/L	0.0038 0.04
	25 – < 50 mg/L	0.0056 0.05
	50 – < 75 mg/L	0.0090 0.08
	75 – < 100 mg/L	0.0123 0.11
	100 – < 125 mg/L	0.0156 0.13
	125 – < 150 mg/L	0.0189 0.16
	150 – < 175 mg/L	0.0221 0.18
	175 – < 200 mg/L	0.0253 0.20
	200 – < 225 mg/L	0.0285 0.23
	225 – < 250 mg/L	0.0316 0.25
	250+ mg/L	0.0332 0.26

11. Subpart G – Sector G – Metal Mining.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.G.1 Covered Storm Water Discharges.

The requirements in Subpart G apply to storm water discharges associated with industrial activity from Metal Mining facilities, including mines abandoned on Federal lands, as identified by the SIC Codes specified under Sector G in Table D-1 of Appendix D. Coverage is required for metal mining facilities that discharge storm water contaminated by contact with, or that has come into contact with, any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of the operation.

11.G.1.1 Covered Discharges from Inactive Facilities. All storm water discharges.

11.G.1.2 Covered Discharges from Active and Temporarily Inactive Facilities. Only the storm water discharges from the following areas are covered:

- Waste rock and overburden piles if composed entirely of storm water and not combining with mine drainage;
- Topsoil piles;
- Offsite haul and access roads;
- Onsite haul and access roads constructed of waste rock, overburden, or spent ore if composed entirely of storm water and not combining with mine drainage;
- Onsite haul and access roads not constructed of waste rock, overburden, or spent ore except if mine drainage is used for dust control;
- Runoff from tailings dams or dikes when not constructed of waste rock or tailings and no process fluids are present;
- Runoff from tailings dams or dikes when constructed of waste rock or tailings and no process fluids are present, if composed entirely of storm water and not combining with mine drainage;
- Concentration building if no contact with material piles;
- Mill site if no contact with material piles;

- Office or administrative building and housing if mixed with storm water from industrial area;
- Chemical storage area;
- Docking facility if no excessive contact with waste product that would otherwise constitute mine drainage;
- Explosive storage;
- Fuel storage;
- Vehicle and equipment maintenance area and building;
- Parking areas if mixed with industrial areas;
- Power plant;
- Truck wash areas if no excessive contact with waste product that would otherwise constitute mine drainage;
- Unreclaimed, disturbed areas outside of active mining area;
- Reclaimed areas released from reclamation requirements prior to December 17, 1990; and
- Partially or inadequately reclaimed areas or areas not released from reclamation requirements.

11.G.1.3 Covered Discharges from Exploration and Construction of Metal Mining and/or Ore Dressing Facilities. All storm water discharges.

11.G.1.4 Covered Discharges from Facilities Undergoing Reclamation. All storm water discharges.

11.G.2 Limitations on Coverage.

11.G.2.1 Prohibition of Storm Water Discharges. Storm water discharges not authorized by this permit include discharges from active metal mining facilities that are subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440).

Note: Storm water runoff from these sources are subject to 40 CFR Part 440 if they are mixed with other discharges subject to Part 440. In this case, they are not eligible for coverage under this permit.

Discharges from overburden/waste rock and overburden/waste rock-related areas are not subject to 40 CFR Part 440 unless they:

- (1) drain naturally (or are intentionally diverted) to a point source; and*
- (2) combine with "mine drainage" that is otherwise regulated under the Part 440 regulations.*

For such sources, coverage under this permit would be available if the discharge composed entirely of storm water does not combine with other sources of mine drainage that are not subject to 40 CFR Part 440, and meets the other eligibility criteria contained in Part 1.2 of the permit.

Permit applicants bear the initial responsibility for determining if they are eligible for coverage under this permit, or must seek coverage under another APDES permit. DEC recommends that permit applicants contact the DEC for assistance to determine the nature and scope of the "active mining area" on a mine-by-mine basis, as well as to determine the appropriate permitting mechanism for authorizing such discharges.

- 11.G.2.2 Prohibition of Non-Storm Water Discharges.** Not authorized by this permit: adit drainage, and contaminated springs or seeps discharging from waste rock dumps that do not directly result from precipitation events (see also the standard Limitations on Coverage in Part 1.2.4).

11.G.3 Definitions.

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

- 11.G.3.1 Mining Operation** - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.
- 11.G.3.2 Exploration Phase** - Entails exploration and land disturbance activities to determine the financial viability of a site. The exploration phase is not considered part of "mining operations."
- 11.G.3.3 Construction Phase** - Includes the building of site access roads, facilities, and removal of overburden and waste rock to expose mineable minerals. The construction phase is not considered part of "mining operations."
- 11.G.3.4 Active Phase** - Activities including the extraction, removal or recovery of metal ore. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 440.132(a). The active phase is considered part of "mining operations."

- 11.G.3.5 Reclamation Phase* - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the “active phase”, intended to return the land to an appropriate post-mining land use in order to meet applicable Federal and State reclamation requirements. The reclamation phase is considered part of "mining operations."
- 11.G.3.6 Active Metal Mining Facility* - A place where work or other activity related to the extraction, removal, or recovery of metal ore is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 440.132(a).
- 11.G.3.7 Inactive Metal Mining Facility* - A site or portion of a site where metal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive metal mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an APDES industrial storm water permit.
- 11.G.3.8 Temporarily Inactive Metal Mining Facility* - A site or portion of a site where metal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.

11.G.4 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

- 11.G.4.1 Erosion Control Measures.* A permittee must comply with the erosion control measures in this Part to minimize soil exposure on the site during construction.
- 11.G.4.1.1 Delineation of Site.* A permittee must generally delineate (e.g., with flagging, stakes, signs, silt fence, etc.) the location of specific areas that will be left undisturbed such as trees, boundaries of sensitive areas, or buffers established under Part 11.G.4.1.3.

11.G.4.1.2 Minimize the Amount of Soil Exposed during Construction Activity. A permittee must include the following considerations in the selection of control measures and the sequence of project construction as they apply to the project site:

- Preserve areas of native topsoil on the site, unless infeasible; and
- Sequence or phase construction activities to minimize the extent and duration of exposed soils to the extent practicable.

11.G.4.1.3 Maintain Natural Buffer Areas.

The permittee must maintain natural buffer areas at stream crossings and around the edge of any waters of the U.S. that are located within or immediately adjacent to the property where the construction activity will take place in accordance with the following:

- The buffer must be a minimum of twenty-five (25) feet wide, unless infeasible based on site dimensions, or the width as required by local ordinance.
- Exceptions are allowed for water dependent activities, specific water access activities, or necessary water crossings.
- A permittee should, to the extent practicable, use perimeter controls adjacent to buffers, and direct storm water sheet flow to buffer areas to increase sediment removal and maximize storm water infiltration, unless infeasible.

11.G.4.1.4 Control Storm Water Discharges and Flow Rates. A permittee must include the following control measures to handle storm water and total storm water volume discharges as they apply to the site:

- Divert storm water around the site so that it does not flow onto the project site and cause erosion of exposed soils;
- Slow down or contain storm water that may collect and concentrate within a site and cause erosion of exposed soils;
- Avoid placement of structural control measures in active floodplains to the degree technologically and economically practicable and achievable;
- Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters; and

- Install permanent storm water management controls, if present at a site and where practical, so that they must be functional prior to construction of site improvements (e.g., impervious surfaces).

11.G.4.1.5 Protect Steep Slopes. A permittee must include the following considerations in the selection of control measures as they apply to the project site:

- Design and construct cut-and-fill slopes in a manner that will minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (e.g., track walking);
- Divert concentrated flows of storm water away from and around the disturbed portion of the slope. Applicable practices include, but are not limited to, interceptor dikes and swales, grass-lined channels, pipe slope drains, subsurface drains, check dams; and
- Stabilize exposed areas of the slope in accordance with Part 11.G.4.4.

11.G.4.2 Sediment Control Measures. Sediment control measures (e.g. sediment ponds, traps, filters, etc.) must be constructed as one of the first steps in grading. These control measures must be functional before other land disturbing activities take place. A permittee must install, establish and use any of the following control measures that apply to the project site.

11.G.4.2.1 Storm Drain Inlet Protection Measures. A permittee must install appropriate protection measures (e.g. filter berms, perimeter controls, temporary diversion dikes, etc.) to minimize the discharge of sediment prior to entry into the inlet for storm drain inlets located on site or immediately downstream of the site. Inlet protection measures must be cleaned or removed and replaced when sediment has filled one-third of the available storage.

11.G.4.2.2 Water Body Protection Measures. A permittee must install appropriate protection measures (Part 11.G.4.1.4) to minimize the discharge of sediment prior to entry into the water body for water bodies located on site or immediately downstream of the site. Protection measures must be cleaned or removed and replaced when sediment has filled one-third of the available storage.

11.G.4.2.3 Down-Slope Sediment Controls. A permittee must establish and use down-slope sediment controls (e.g., silt fence, temporary diversion dike, etc.) for any portion of the down-slope and side-slope perimeter where storm water will be discharged from disturbed areas of the site.

11.G.4.2.4 Stabilized Construction Vehicle Access and Exit Points. A permittee must establish construction vehicle access and exit points which must be stabilized. Access and exit points should be limited to one route, if possible. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.

11.G.4.2.5 Dust Generation and Track-Out from Vehicles. A permittee must minimize the generation of dust through the application of water or other dust suppression techniques and prior to vehicle exit. A permittee must provide an effective way of minimizing off-site vehicle tracking of sediment from wheels to prevent track-out onto paved surfaces.

11.G.4.2.6 Soil Stockpiles. A permittee must stabilize or cover soil stockpiles, protect with sediment trapping measures, and where possible, locate soil stockpiles away from storm drain inlets, water bodies, and conveyance channels.

11.G.4.2.7 Authorized Non-Storm Water Discharges. A permittee must minimize any non-storm water authorized by this permit.

11.G.4.2.8 Sediment Basins, where applicable:

- For common drainage locations that serve an area with ten (10) or more acres disturbed at one time, a temporary (or permanent) sediment basin that provides storage for a calculated volume of runoff from the drainage area from a 2-year, 24-hour storm, or equivalent sediment control measures, must be installed, maintained, and used where practicable until final stabilization of the site. Where no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent sediment control measures, must be installed and used where practicable until final stabilization of the site. When computing the number of acres draining into a common location, it is not necessary to include flows from offsite areas and flows from on-site areas that are either undisturbed or have undergone final stabilization where such flows are diverted around both the disturbed area and the sediment basin. In determining whether installing a sediment basin is practicable, the permittee may consider factors such as site soils, slope, available area on-site, etc. In any event, the permittee must consider public safety, especially as it relates to children, as a design factor for the sediment basin, and alternative sediment control measures must be used where site limitations would preclude a safe design.
- For drainage locations which serve ten (10) or more disturbed acres at one time and where a temporary sediment basin or equivalent controls is not practicable, smaller sediment basins and/or sediment traps should be used. Silt fences, vegetative buffer strips, or equivalent sediment control measures are

required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions).

- For drainage locations serving less than ten (10) acres, smaller sediment basins and/or sediment traps should be used. Silt fences, vegetative buffer strips, or equivalent sediment control measures are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm event or 3,600 cubic feet of storage per acre drained is provided.
- When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface where practicable.
- Note: installing sediment basins in the presence of permafrost is challenging and might not be practicable in some instances because permafrost creates poor surface drainage that hinders the infiltration of runoff. Also, the excavation of permafrost in summer can trigger thawing and instability.

11.G.4.3 Dewatering.

11.G.4.3.1 If a construction activity includes excavation dewatering and has a discharge that could adversely impact a local drinking water well, an DEC-identified contaminated site, or a waters of the U.S., the permittee must review the DEC Excavation Dewatering General Permit (AKG002000, or most current version) for specific requirements the permittee may have to comply with in addition to the conditions of this permit.

11.G.4.3.2 A discharge from eligible dewatering activities, including discharges from dewatering of trenches and excavations are prohibited unless treated by appropriate control measures. Appropriate control measures include, but are not limited to, sediment basins or traps, dewatering tanks, weir tanks, or filtration systems designed to remove sediment.

11.G.4.4 Soil Stabilization.

11.G.4.4.1 *Minimum Requirements for Soil Stabilization.* A permittee must stabilize all disturbed areas of the site to minimize on-site erosion and sedimentation and the resulting discharge of pollutants according to the requirements of this Part. A permittee must ensure that existing vegetation is preserved wherever possible and that disturbed portions of the site are stabilized. Applicable stabilization control measures include, but are not limited to: temporary and permanent seeding, sodding, mulching, rolled erosion control product, compost blanket, soil application

of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control. A permittee should avoid using impervious surfaces for stabilization. See the Alaska Plant Materials Center's A Revegetation Manual for Alaska at <http://plants.alaska.gov> for help in efforts to select appropriate seed mixes and some information on methods for revegetation. Also see the manual for coastal Alaska, Coastal Revegetation & Erosion Control Guide at <http://plants.alaska.gov>.

11.G.4.5 Treatment Chemicals. The use of treatment chemicals to reduce erosion from the land or sediment in a storm water discharge is allowed provided that all of the requirements of this Part are met.

11.G.4.5.1 Treatment Chemicals. Documentation of treatment chemicals selected for use at a site must include, at a minimum, the following information:

- Manufacturer and/or supplier provided Material Safety Data Sheets, specifications, and instructions for the transport, handling, storage, application, and disposal of the treatment chemical;
- Approval by EPA for potable water use;
- Approval by EPA or the states of California, Minnesota, Oregon, Washington, or Wisconsin for use in controlling erosion or sediment runoff from agricultural land or construction projects;
- Manufacturer and/or supplier provided test results recognized by EPA or the states of California, Minnesota, Oregon, Washington, or Wisconsin that demonstrate that the treatment chemical is non-toxic to aquatic organisms when applied following the manufacturer or supplier recommended method of use and rate of application;
- A permittee is prohibited from using cationic polymers, except for the use of chitosan as part of an Active Treatment System in compliance with Part 11.G.4.5.4 or as approved by the Department in writing; and
- The names and titles of person(s) who handle and apply treatment chemicals at the construction site, the title of relevant training and date(s) the person(s) who apply the chemicals received training in the proper handling and application of treatment chemicals.

11.G.4.5.2 Treatment Chemical Use.

- A permittee must train employees who handle treatment chemicals to comply with the information required by Part 11.G.4.5.1; and

- A permittee must handle, store and dispose of treatment chemicals, waste chemicals, or flocculants in appropriate leak proof containers under a storm-resistant cover or surrounded by secondary containment structures so as to prevent their discharge to the waters of the U.S.

11.G.4.5.3 Project Site Conditions. Treatment chemicals are typically developed, tested, and approved in regions of the country that may have soils, soil and water temperatures, and other site conditions significantly different from Alaska. These differences must be considered in the selection of the treatment chemicals for use at the Alaskan site.

- A permittee must make certain the selected treatment chemical is appropriate for soils at the site through project-specific tests of the chemical with local soils or product use data on projects with similar soils.
- A permittee must ensure the selected treatment chemical is appropriate for the site topography, amount of precipitation expected at the site, and type of use.

11.G.4.5.4 Application of Treatment Chemicals. The application of treatment chemicals shall be in combination with appropriate physical control measures (e.g., rolled erosion control products, ditch check dams, sediment basins, sediment bags, filtration, etc.) to ensure effectiveness of the treatment chemical. The use of treatment chemicals is not considered a substitute for appropriate physical control measures and does not preclude any other requirement of this permit.

- *Land Application.*
 - A permittee shall comply with all Material Safety Data Sheet requirements and follow the manufacturer and/or suppliers written recommended application rate, including site-specific considerations.
 - A permittee shall use an application method that provides uniform coverage of the target area and avoids drift to non-target areas.
 - The application must always be a sufficient distance upgradient or upstream to allow adequate mixing and reaction prior to reaching a pre-constructed sediment trap, basin inflow structure, or filtering device of sufficient width to ensure adequate removal of sediments laden with treatment chemicals before discharges reach waters of the U.S.
- *Water Application.* (including conveyance channel)
 - A permittee shall follow the manufacturer and/or suppliers written recommended application rate, including site-specific considerations.

- The application shall always be upstream from a pre-constructed sediment trap, basin inflow structure, vegetated swale, filtering device or a vegetated buffer of sufficient width to ensure adequate removal of sediments laden with treatment chemicals before discharges reach waters of the U.S.
- Treatment chemicals shall not be applied directly to a water of the U.S.
- Application through the use of manufactured products (e.g. gel bars, gel logs, floc blocks, etc.) shall be used in combination with adequate ditch check dams, settling basins, or other physical control measures designed to settle out chemically treated soils and minimize the presence of treatment chemicals before discharges reach waters of the U.S.. At a minimum there must be at least 100 feet of ditch length downstream of the last manufactured product prior to reaching a water of the U.S. to provide a place for sedimentation to occur.
- *Active Treatment Systems.* A permittee who uses an Active Treatment System as a control measure must submit information required by the Department for review at least fourteen (14) days prior to start of operation of the active treatment system at the project and comply with Part 4.4. At a minimum, the information must provide details on the following: relevant information required by Part 11.G.4.5.1, engineering plans, description of treatment process, site conditions (including soil types), treatment chemicals, dose rates, monitoring to be conducted, expected residual chemical, proper operator training, methods for storage, procedures for spill prevention and containment, operation and maintenance, and record keeping and reporting.

11.G.4.6 Prohibited Discharge. A permittee is prohibited from discharging the following from the site:

- 11.G.4.6.1 Wastewater from concrete washout, unless managed by an appropriate control measure;
- 11.G.4.6.2 Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- 11.G.4.6.3 Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
- 11.G.4.6.4 Soaps or solvents used in vehicle and equipment washing.

11.G.4.7 Good Housekeeping Measures. A permittee must design, install, implement, and maintain effective good housekeeping measures to prevent and/or minimize the discharge of pollutants. A permittee must include appropriate measures for any of the following activities that are used at the site.

11.G.4.7.1 Washing of Equipment and Vehicles and Wheel Wash-Down. If a permittee conducts washing of equipment or vehicles and/or wheel wash-down at the site the permittee must comply with the following requirements:

- Designate areas to be used for washing of equipment and vehicles and/or wheel wash-down and conduct such activities only in these areas;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Treat all wash water in a sediment basin or use alternative control measures that provide equivalent or better treatment prior to discharge; and
- To comply with the prohibition in Part 11.G.4.6.4, the discharge of soaps and solvents used in equipment and vehicle washing and/or wheel wash-down is strictly prohibited.

11.G.4.7.2 Fueling and Maintenance Areas. If a permittee conducts fueling and/or maintenance activities for equipment and vehicles at the site the permittee must comply with the following requirements:

- Designate areas to be used for fueling and/or maintenance of equipment and vehicles and conduct such activities only in these areas (the designated area may move from one location to another on linear projects);
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets and waters of the U.S.;
- Minimize the exposure to precipitation and storm water or use secondary containment structures designed to eliminate the potential for spills or leaked chemicals; and
- To comply with the prohibition in Part 11.G.4.6.3, a permittee must:
 - Clean up spills or contaminated surfaces immediately;
 - Ensure adequate clean up supplies are available at all times to handle spills, leaks, and disposal of used liquids;
 - Use drip pans or absorbents under or around leaky equipment and vehicles; and

- Dispose of liquid wastes or materials used for fueling and maintenance in accordance with Part 11.G.4.11.

11.G.4.8 Staging and Material Storage Areas. If a permittee maintains staging and material storage areas at the site the permittee must comply with the following requirements:

- Designate areas to be used for staging and material storage areas;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.; and
- Minimize the exposure to precipitation and storm water and vandalism for all chemicals, treatment chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment.

11.G.4.9 Washout of Applicators/Containers used for Paint, Concrete, and Other Materials. If a permittee conducts washing of applicators and/or containers used for paint, concrete, and other materials at the site, the permittee must comply with the following requirements:

- Designate areas to be used for washout;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Direct all concrete, paint, and other material washout activities into a lined, water-tight container or pit to ensure there is no discharge into the underlying soil and onto the surrounding areas;
- Dispose of liquid wastes in accordance with Part 11.G.4.11; and
- For concrete washout areas, remove hardened concrete waste when it has reached one-half ($\frac{1}{2}$) the height of the container or pit and dispose of in accordance with Part 11.G.4.11.

11.G.4.10 Fertilizer or Pesticide Use. If a permittee uses fertilizers or pesticides the permittee must comply with the following requirements:

- Application of fertilizers and pesticides in a manner and at application rates that will minimize the loss of chemical to storm water runoff. Manufacturers' label requirements for application rates and disposal requirements must be followed; and
- Use pesticides in compliance with federal, state and local requirements.

11.G.4.11 Storage, Handling, and Disposal of Construction Waste. If a permittee stores, handles and/or disposes of construction waste at the site, the permittee must comply with the following requirements:

- Locate areas dedicated for management or disposal of construction waste, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Dispose of all collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other domestic wastes according to federal, state and local requirements;
- Store hazardous or toxic waste in appropriate sealed containers and dispose of these wastes in accordance with manufactures recommended method of disposal or federal, state or local requirements; and
- Provide containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water. Clean or replace sanitation facilities and inspect them regularly for leaks and spills.

11.G.4.12 Winter Considerations.

11.G.4.12.1 Winter Shutdown. A permittee who temporarily ceases construction for the winter and plans to resume construction the next summer must plan for winter shutdown. The permittee must identify the anticipated dates of fall freeze-up and spring thaw (see Appendix C) for their site and use these dates to plan for winter shutdown. For the purpose of planning ahead frozen ground by itself is not considered an acceptable control measure for stabilization. A permittee must provide for the following prior to, during, and at the conclusion of winter shutdown:

- Temporary or permanent stabilization for conveyance channels;
- Temporary or permanent stabilization for disturbed slopes, disturbed soils, and soil stockpiles; and
- Erosion and sediment control measures in anticipation of spring thaw.

11.G.4.12.2 Winter Construction. In several areas of Alaska, winter construction provides opportunities for construction not available during summer months. Permit coverage is not required for the construction of ice roads or the placement of sand or gravel on frozen tundra with no excavation or potential to pollute waters of the U.S. This permit does address those construction activities that have the potential for erosion or sediment runoff during spring thaw and summer rainfall. A permittee operating winter construction activities must plan for using appropriate control measures to minimize erosion or sediment runoff during spring thaw and summer rainfall. The Alaska Storm Water Guide, Chapters 3 and 4, provide guidance on the selection, design, and installation of winter construction practices and controls.

11.G.4.12.3 Late Winter Clearing. Cutting of trees and brush while the ground is frozen, without disturbing the vegetative mat, for the purpose of clearing in accordance with the U.S. Fish & Wildlife Service “Recommended Time Periods for Avoiding Vegetation Clearing” is allowed prior to the submittal of a project NOI. If the cutting occurs after the onset of spring thaw (as defined in Appendix C), conditions that consist of above freezing temperatures that cause melting of snow, then the permittee must develop a SWPPP and file an NOI, and receive authorization for coverage under this permit from DEC, and otherwise comply with the terms of this permit prior to such clearing.

11.G.4.13 Maintenance of Control Measures. A permittee must maintain all control measures, good housekeeping measures, and other protective measures in effective operating condition. If site inspections required by Part 6 identify control measures, good housekeeping measures, or other protective measures that are not operating effectively, the permittee must implement corrective actions in accordance with Part 8.

If existing control measures need to be modified or if additional control measures are necessary for any reason, the permittee must complete any corrective action in accordance with Part 8.3.

A permittee must remove sediment from silt fences, check dams, berms or other controls before the accumulated sediment reaches one-half ($\frac{1}{2}$) the distance up the above-ground height (or it reaches a lower height based on manufacturer’s specifications) of the control measure. For sediment traps or sediment ponds, the permittee must remove accumulated sediment when the design capacity has been reduced by fifty (50%) percent.

11.G.4.14 Inspection of Clearing, Grading, and Excavation Activities. (See also Part 6)

11.G.4.14.1 Inspection Frequency. Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a measurable storm event (see Part 7.1.3). If the entire site is temporarily stabilized, inspection frequency may be reduced to at least once every month and within two business days of the end of a measurable storm event at actively staffed sites which resulted in a discharge from the site (pursuant to Part 11.G.4.15.2). Once active mining has begun, those areas comply with inspections according to 11.G.7.

11.G.4.14.2 Winter Shutdown. If the exploration and construction phase is undergoing winter shutdown the permittee may stop inspections fourteen (14) calendar days after the anticipated fall freeze-up and must resume inspections at least twenty-one (21) calendar days prior to the anticipated spring thaw. The permittee shall identify the winter shutdown period in their SWPPP based upon the definitions of fall freeze-up and spring thaw.

11.G.4.14.3 Location of Inspections. Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

11.G.4.14.4 Inspection Reports. (See also Part 6.1) For each inspection required above, the permittee must complete an inspection report. At a minimum, the inspection report must include the information required in Part 6.1.

11.G.4.15 Requirements for Cessation of Clearing, Grading, and Excavation Activities.

11.G.4.15.1 Inspections and Maintenance. Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and/or excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area, or until the commencement of the active mining phase for those areas that have been temporarily stabilized as a precursor to mining.

11.G.4.15.2 Temporary Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable.

The permittee must identify the anticipated dates of fall freeze-up and spring thaw (see Appendix C) for the site and use those dates to plan for winter shutdown. For the purpose of planning ahead frozen ground by itself is not considered an acceptable control measure for stabilization. Where temporary stabilization by the 14th day is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable following the actual spring thaw.

Until temporary vegetative stabilization is achieved, interim measures (e.g., surface roughening or a surface cover, including but not limited to, establishment of ground vegetation, application of mulch, or surface tackifiers with an appropriate seed base) must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.

11.G.4.15.3 Final Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where mining, exploration, and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, final vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved, temporary stabilization measures must be used.

11.G.5 Additional Technology-Based Effluent Limits.

11.G.5.1 Employee Training. (See also Part 4.2.9) Conduct employee training at least annually at active and temporarily inactive sites.

- 11.G.5.2 Good Housekeeping Measures.* (See also Part 4.2.2) As part of the permittees good housekeeping program, implement the following, as practicable: use sweepers and covered storage, watering haul roads to minimize dust generation, and conserving vegetation (where possible) to minimize erosion.
- 11.G.5.3 Preventive Maintenance.* (See also Part 4.2.3) Perform inspections or other equivalent measures of storage tanks and pressure lines of fuels, lubricants, hydraulic fluid, and slurry to prevent leaks due to deterioration or faulty connections.
- 11.G.5.4 Storm Water Controls.* Apart from the control measures implemented to meet the Part 4 control measures, implement the following control measures at the facility, as practicable. The potential pollutants identified in Part 11.G.6.3 shall determine the priority and appropriateness of the control measures selected. If the permittee selects or develops a storm water control other than one described below, the permittee shall describe it in the SWPPP.
- 11.G.5.4.1 Storm Water Diversions.* Divert storm water away from potential pollutant sources. Implement the following options, as practicable: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.
- 11.G.5.4.2 Velocity Dissipation Devices.* Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) as practicable, along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.
- 11.G.5.4.3 Down-Slope Sediment Controls.* Establish and use down-slope sediment controls (e.g., silt fence or temporary diversion dike) for any portion of the down-slope and side-slope perimeter where storm water will be discharged from disturbed areas of the site.
- 11.G.5.4.4 Stabilized Construction Vehicle Access and Exit Points.* Establish stabilized vehicle access and exit points. Off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.
- 11.G.5.4.5 Capping.* When capping is necessary to minimize pollutant discharges in storm water, identify the source being capped and the material used to construct the cap.

11.G.5.4.6 Treatment. If treatment of storm water (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. All permanent storm water treatment devices shall receive engineering plan approval per 18 AAC 72.600. Passive and/or active treatment of storm water runoff is encouraged where practicable. Treated runoff may be discharged as a storm water source regulated under this permit provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440).

11.G.5.5 Certification of Discharge Testing. (See also Part 5.2.4.4) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-storm water discharges such as seeps or adit discharges, or discharges subject to effluent limitations guidelines (e.g., 40 CFR Part 440), such as mine drainage or process water. Alternatively (if applicable), the permittee may keep a certification with the SWPPP consistent with Part 11.G.6.6.

11.G.5.6 Overburden, Waste Rock, and Raw Material Piles. Overburden, topsoil, and waste rock, as well as raw material and intermediate and final product stockpiles, shall be located a minimum of 25 feet away from surface water, other sources of water, and from geologically unstable areas as practicable.

11.G.6 Additional SWPPP Requirements.

11.G.6.1 Nature of Industrial Activities. (See also Part 5.2.3) Document in the SWPPP the mining and associated activities that can potentially affect the storm water discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.

11.G.6.2 Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each storm water outfall within the facility with indications of the types of discharges from the drainage areas; location(s) of all permitted discharges covered under an individual APDES permit, outdoor equipment storage, fueling, and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage, and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils, or waste storage areas; location of mine drainage (where water leaves mine) or other process water; tailings piles and ponds (including proposed ones); heap leach pads; off-site points of discharge for mine drainage and process water; surface waters; boundary of tributary areas that are subject to effluent limitations guidelines; and location(s) of reclaimed areas.

- 11.G.6.3 Potential Pollutant Sources.* (See also Part 5.2.4) For each area of the mine or mill site where storm water discharges associated with industrial activities occur, identify the types of pollutants (e.g., heavy metals, sediment) likely to be present in significant amounts. Monitor these factors, as relevant: the mineralogy of the ore and waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water; vegetation of site (if any); and history of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing ore or waste rock or overburden characterization data and test results for potential generation of acid rock. If any new data is acquired due to changes in ore type being mined, update the SWPPP with this information.
- 11.G.6.4 Documentation of Control Measures.* Document all control measures that the permittee implements consistent with Part 11.G.5.4. If control measures are implemented or planned but are not listed in Part 11.G.5.4 (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in the SWPPP.
- 11.G.6.5 Employee Training.* To the extent practical, all supervisory personnel involved in directing the maintenance of storm water control measures shall be trained and qualified in the principles and practices of erosion and sediment control. All employee training(s) must be documented in the SWPPP.
- 11.G.6.6 Certification of Permit Coverage for Commingled Non-Storm Water Discharges.* If a permittee determines that they are able to certify, consistent with Part 11.G.5.5, that a particular discharge composed of commingled storm water and non-storm water is covered under a separate APDES permit, and that permit subjects the non-storm water portion to effluent limitations prior to any commingling, retain such certification with the SWPPP. This certification must identify the non-storm water discharges, the applicable APDES permit(s), the effluent limitations placed on the non-storm water discharge by the permit(s), and the points at which the limitations are applied.
- 11.G.6.7 SWPPP Submittal.* At least 45 calendar days prior to the start of initial construction of a new facility the permittee shall submit the construction phase SWPPP to DEC.
- 11.G.6.8 SWPPP Meeting.* At least 20 calendar days before the start of initial construction for a new facility, representatives of the permittee and the prime site construction contractor shall meet with DEC in a pre-construction conference to discuss the details of storm water management during construction.

11.G.7 Additional Inspection Requirements.

(See also Part 6.1 and 11.G.4.14.) Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Part 11.G.4.14.1, the permittee must inspect sites at least quarterly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters designated as outstanding waters or waters

which are impaired for sediment or nitrogen must be inspected monthly. See Part 11.G.8.4 for inspection requirements for inactive and unstaffed sites.

11.G.8 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

Note: There are no Part 11.G.8 monitoring and reporting requirements for inactive and unstaffed sites.

11.G.8.1 Benchmark Monitoring for Active Copper Ore Mining and Dressing Facilities. Active copper ore mining and dressing facilities, the permittee must sample and analyze storm water discharges for the pollutants listed in Table 11.G.8-1.

Table 11.G.8-1: Benchmark Monitoring for Active Copper Ore Mining and Dressing Facilities

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector G1. Active Copper Ore Mining and Dressing Facilities (SIC 1021)	Total Suspended Solids (TSS)	100 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L

11.G.8.2 Benchmark Monitoring Requirements for Discharges from Waste Rock and Overburden Piles at Active Metal Mining Facilities. For discharges from waste rock and overburden piles, perform benchmark monitoring once in the first year for the parameters listed in Table 11.G.8-2, and twice annually in all subsequent years of coverage under this permit for any parameters for which the benchmark has been exceeded. The permittee is also required to conduct analytic monitoring for the parameters listed in Table 11.G.8-3 in accordance with the requirements in Part 11.G.8.3. The Department may also notify the permittee that the permittee must perform additional monitoring to accurately characterize the quality and quantity of pollutants discharged from their waste rock and overburden piles.

(Table 11.G.8-2: Benchmark Monitoring Requirements for Discharges from Waste Rock and Overburden Piles at Active Metal Mining Facilities located on following page.)

Table 11.G.8-2: Benchmark Monitoring Requirements for Discharges from Waste Rock and Overburden Piles at Active Metal Mining Facilities

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector G2. Iron Ores; Copper Ores; Lead and Zinc Ores; Gold and Silver Ores; Ferroalloy Ores, Except Vanadium; and Miscellaneous Metal Ores (SIC Codes 1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099) (Note: when analyzing hardness for a suite of metals, it is more cost effective to add analysis of calcium and magnesium, and have hardness calculated than to require hardness analysis separately)	Total Suspended Solids (TSS)	100 mg/L
	Turbidity	See Note 1
	pH	6.5 - 8.5 s.u.
	Hardness (as CaCO ₃ ; calc. from Ca, Mg) ²	no benchmark value
	Total Antimony	0.64 mg/L
	Total Arsenic (saltwater) ²	0.069 mg/L
	Total Arsenic (freshwater)	0.15 mg/L
	Total Beryllium	0.13 mg/L
	Total Cadmium (saltwater) ²	0.04 mg/L
	Total Cadmium (freshwater) ³	Hardness Dependent
	Total Copper (saltwater) ²	0.0048 mg/L
	Total Copper (freshwater) ³	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Lead (saltwater) ²	0.21 mg/L
	Total Lead (freshwater) ³	Hardness Dependent
	Total Mercury (saltwater) ²	0.0018 mg/L
	Total Mercury (freshwater) ³	0.0014 mg/L
	Total Nickel (saltwater) ²	0.074 mg/L
	Total Nickel (freshwater) ³	Hardness Dependent
	Total Selenium	0.005 mg/L
	Total Silver (saltwater) ²	0.0019 mg/L
	Total Silver (freshwater) ³	Hardness Dependent
	Total Zinc (saltwater) ²	0.09 mg/L
	Total Zinc (freshwater) ³	Hardness Dependent

Note:

1. Turbidity in fresh water may not exceed 5 nephelometric turbidity units (NTU) above natural conditions when the natural turbidity is 50 NTU or less, and may not have more than 10% increase in turbidity when the natural turbidity is more than 50 NTU, not to exceed a maximum increase of 25 NTU. See 18 AAC 70.020(b)(12)(A)(i).
2. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.
3. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 7.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Nickel (mg/L)	Silver (mg/L)	Zinc (mg/L)
0 – < 25 mg/L	0.0005	0.0038	0.014	0.15	0.0007	0.04
25 – < 50 mg/L	0.0008	0.0056	0.023	0.20	0.0007	0.05
50 – < 75 mg/L	0.0013	0.0090	0.045	0.32	0.0017	0.08
75 – < 100 mg/L	0.0018	0.0123	0.069	0.42	0.0030	0.11
100 – < 125 mg/L	0.0023	0.0156	0.095	0.52	0.0046	0.13
125 – < 150 mg/L	0.0029	0.0189	0.122	0.61	0.0065	0.16
150 – < 175 mg/L	0.0034	0.0221	0.151	0.71	0.0087	0.18
175 – < 200 mg/L	0.0039	0.0253	0.182	0.80	0.0112	0.20
200 – < 225 mg/L	0.0045	0.0285	0.213	0.89	0.0138	0.23
225 – < 250 mg/L	0.0050	0.0316	0.246	0.98	0.0168	0.25
250+ mg/L	0.0053	0.0332	0.262	1.02	0.0183	0.26

11.G.8.3 Additional Analytic Monitoring Requirements for Discharges from Waste Rock and Overburden Piles at Active Metal Mining Facilities. In addition to the monitoring required in Part 11.G.8.2 for discharges from waste rock and overburden piles, the permittee must also conduct monitoring for additional parameters based on the type of ore they mine at their facility. Where a parameter in Table 11.G.8-3 is the same as a pollutant the permittee is required to monitor for in Table 11.G.8-2 (i.e., for all of the metals, the permittee must use the corresponding benchmark in Table 11.G.8-2 and they may use any monitoring results conducted for Part 11.G.8.2 to satisfy the monitoring requirement for that parameter for Part 11.G.6.3. For radium and uranium, which do not have corresponding benchmarks in Table 11.G.8-2, there are no applicable benchmarks.) The frequency and schedule for monitoring for these additional parameters is the same as that specified in Part 7.2.1.2.

Table 11.G.8-3: Additional Monitoring Requirements for Discharges from Waste Rock and Overburden Piles

Type of Ore Mined	Supplemental Requirements		
	Pollutants of Concern		
	Total Suspended Solids (TSS)	pH	Metals, Total
Tungsten Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Nickel Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Aluminum Ore	X	X	Iron
Mercury Ore	X	X	Nickel (H)
Iron Ore	X	X	Iron (Dissolved)
Platinum Ore			Cadmium (H), Copper (H), Mercury, Lead (H), Zinc (H)
Titanium Ore	X	X	Iron, Nickel (H), Zinc (H)
Vanadium Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Molybdenum	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Mercury, Zinc (H)
Uranium, Radium, and Vanadium Ore	X	X	Chemical Oxygen Demand, Arsenic, Radium (Dissolved and Total), Uranium, Zinc (H)
Note: An "X" indicated for TSS and/or pH means that permittees are required to monitor for those parameters. (H) indicates that hardness must also be measured when this pollutant is measured.			

11.G.8.4 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements for Quarterly Visual Assessments and Routine Facility Inspections. As a Sector G facility, if the permittee is seeking to exercise a waiver from the quarterly visual assessment and routine facility inspection requirements for inactive and unstaffed sites (including temporarily inactive sites), they are conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to storm water” in Part 6.2.3 and 7.2.1.6, respectively. Additionally, if the permittee is seeking to reduce their required quarterly routine inspection frequency to a once annual comprehensive inspection, as is allowed under Part 6.1.3, the permittee is also conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to storm water.” This exemption is conditioned on the following:

- If circumstances change and the permittees facility becomes active and/or staffed, this exception no longer applies and the permittee must immediately begin complying with the quarterly visual assessment requirements; and
- DEC retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above a WQS, including designated uses.

Subject to the two conditions above, if the permittees facility is inactive and unstaffed, they are waived from the requirement to conduct quarterly visual assessments and routine facility inspections. The permittee is not waived from conducting the Part 6.3 comprehensive site inspection. They are encouraged to inspect their site more frequently where they have reason to believe that severe weather or natural disasters may have damaged control measures or increased discharges.

(Table 11.G.8-4: Applicability of the Multi-Sector General Permit to Storm Water Runoff from Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation located on the following page.)

Table 11.G.8-4: Applicability of the Multi-Sector General Permit to Storm Water Runoff from Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation

Discharge/Source of Discharge	Note/Comment
Piles	
Waste rock/overburden	If composed entirely of storm water and not combining with mine drainage. See note below.
Topsoil	—
Roads Constructed of Waste Rock or Spent Ore	
Onsite haul roads	If composed entirely of storm water and not combining with mine drainage. See note below.
Offsite haul and access roads	—
Roads Not Constructed of Waste Rock or Spent Ore	
Onsite haul roads	Except if mine drainage is used for dust control
Offsite haul and access roads	—
Milling/Concentrating	
Runoff from tailings dams and dikes when constructed of waste rock/tailings	Except if process fluids are present and only if composed entirely of storm water and not combining with mine drainage. See Note below.
Runoff from tailings dams/dikes when not constructed of waste rock and tailings	Except if process fluids are present
Concentration building	If storm water only and no contact with piles
Mill site	If storm water only and no contact with piles
Ancillary Areas	
Office and administrative building and housing	If mixed with storm water from the industrial area
Chemical storage area	—
Docking facility	Except if excessive contact with waste product that would otherwise constitute mine drainage
Explosive storage	—
Fuel storage (oil tanks/coal piles)	—
Vehicle and equipment maintenance area/building	—
Parking areas	But coverage unnecessary if only employee and visitor-type parking
Power Plant	
Truck wash area	Except when excessive contact with waste product that would otherwise constitute mine drainage
Reclamation-Related Areas	
Any disturbed area (unreclaimed)	Only if not in active mining area
Reclaimed areas released from reclamation requirements prior to Dec. 17, 1990	—
Partially/inadequately reclaimed areas or areas not released from reclamation requirements	—

Note: Storm water runoff from these sources are subject to the APDES program for storm water unless mixed with discharges subject to 40 CFR Part 440 that are regulated by another permit prior to mixing. Non-storm water discharges from these sources are subject to APDES permitting and may be subject to the effluent limitation guidelines under 40 CFR Part 440. Discharges from overburden/waste rock and overburden/waste rock-related areas are not subject to 40 CFR Part 440 unless:

- (1) it drains naturally (or is intentionally diverted) to a point source; and
- (2) combines with "mine drainage" that is otherwise regulated under the Part 440 regulations. For such sources, coverage under this permit would be available if the discharge composed entirely of storm water does not combine with other sources of mine drainage that are not subject to 40 CFR Part 440, as well as meeting other eligibility criteria contained in Part 1.2 of the permit. Permit applicants bear the initial responsibility for determining the applicable technology-based standard for such discharges. DEC recommends that permit applicants contact the Department for assistance to determine the nature and scope of the "active mining area" on a mine-by-mine basis, as well as to determine the appropriate permitting mechanism for authorizing such discharges.

11.G.9 Termination of Permit Coverage.

- 11.G.9.1 Termination of Permit Coverage for Sites Reclaimed After December 17, 1990.* A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Part 11.G.3.5.
- 11.G.9.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990.* A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) storm water runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state WQS, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to storm water discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

11. Subpart H – Sector H – Coal Mines and Coal Mining-Related Facilities.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.H.1 Covered Storm Water Discharges.

The requirements in Subpart H apply to storm water discharges associated with industrial activity from Coal Mines and Coal Mining-Related facilities as identified by the SIC Codes specified under Sector H in Table D-1 of Appendix D.

11.H.2 Limitations on Coverage.

11.H.2.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) Not covered by this permit: discharges from pollutant seeps or underground drainage from inactive coal mines, adit discharges and refuse disposal areas that do not result from precipitation events, and discharges from floor drains in maintenance buildings and other similar drains in mining and preparation plant areas. These unauthorized discharges should be covered under a separate APDES discharge permit.

11.H.2.2 Discharges Subject to Storm Water Effluent Guidelines. (See also Part 1.2.4.4) Not authorized by this permit: storm water discharges subject to an existing effluent limitation guideline at 40 CFR Part 434.

11.H.3 Definitions.

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

11.H.3.1 Mining Operation - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

11.H.3.2 Exploration Phase - Entails exploration and land disturbance activities to determine the financial viability of a site. The exploration phase is not considered part of “mining operations.”

11.H.3.3 Construction Phase - Includes the building of site access roads, facilities, and removal of overburden and waste rock to expose mineable coal. The construction phase is not considered part of “mining operations.”

- 11.H.3.4 Active Phase* - Activities including the extraction, removal or recovery of coal. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 434.11(b). The active phase is considered part of “mining operations.”
- 11.H.3.5 Reclamation Phase* - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the “active phase”, intended to return the land to an appropriate post-mining land use. The reclamation phase is considered part of "mining operations."
- 11.H.3.6 Active Coal Mining Facility* - A place where work or other activity related to the extraction, removal, or recovery of coal is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 434.11(b).
- 11.H.3.7 Inactive Coal Mining Facility* - A site or portion of a site where coal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive coal mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an APDES industrial storm water permit.
- 11.H.3.8 Temporarily Inactive Coal Mining Facility* - A site or portion of a site where coal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.

11.H.4 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

- 11.H.4.1 Erosion Control Measures.* A permittee must comply with the erosion control measures in this Part to minimize soil exposure on the site during construction.
- 11.H.4.1.1 Delineation of Site.* A permittee must generally delineate (e.g., with flagging, stakes, signs, silt fence, etc.) the location of specific areas that will be left undisturbed such as trees, boundaries of sensitive areas, or buffers established under Part 11.H.4.1.3.

11.H.4.1.2 Minimize the Amount of Soil Exposed during Construction Activity. A permittee must include the following considerations in the selection of control measures and the sequence of project construction as they apply to the project site:

- Preserve areas of native topsoil on the site, unless infeasible; and
- Sequence or phase construction activities to minimize the extent and duration of exposed soils to the extent practicable.

11.H.4.1.3 Maintain Natural Buffer Areas.

The permittee must maintain natural buffer areas at stream crossings and around the edge of any waters of the U.S. that are located within or immediately adjacent to the property where the construction activity will take place in accordance with the following:

- The buffer must be a minimum of twenty-five (25) feet wide, unless infeasible based on site dimensions, or the width as required by local ordinance.
- Exceptions are allowed for water dependent activities, specific water access activities, or necessary water crossings.
- A permittee should, to the extent practicable, use perimeter controls adjacent to buffers, and direct storm water sheet flow to buffer areas to increase sediment removal and maximize storm water infiltration, unless infeasible.

11.H.4.1.4 Control Storm Water Discharges and Flow Rates. A permittee must include the following control measures to handle storm water and total storm water volume discharges as they apply to the site:

- Divert storm water around the site so that it does not flow onto the project site and cause erosion of exposed soils;
- Slow down or contain storm water that may collect and concentrate within a site and cause erosion of exposed soils;
- Avoid placement of structural control measures in active floodplains to the degree technologically and economically practicable and achievable;
- Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters; and

- Install permanent storm water management controls, if present at a site and where practical, so that they must be functional prior to construction of site improvements (e.g., impervious surfaces).

11.H.4.1.5 Protect Steep Slopes. A permittee must include the following considerations in the selection of control measures as they apply to the project site:

- Design and construct cut-and-fill slopes in a manner that will minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (e.g., track walking);
- Divert concentrated flows of storm water away from and around the disturbed portion of the slope. Applicable practices include, but are not limited to, interceptor dikes and swales, grass-lined channels, pipe slope drains, subsurface drains, check dams; and
- Stabilize exposed areas of the slope in accordance with Part 11.H.4.4.

11.H.4.2 Sediment Control Measures. Sediment control measures (e.g. sediment ponds, traps, filters, etc.) must be constructed as one of the first steps in grading. These control measures must be functional before other land disturbing activities take place. A permittee must install, establish and use any of the following control measures that apply to the project site.

11.H.4.2.1 Storm Drain Inlet Protection Measures. A permittee must install appropriate protection measures (e.g. filter berms, perimeter controls, temporary diversion dikes, etc.) to minimize the discharge of sediment prior to entry into the inlet for storm drain inlets located on site or immediately downstream of the site. Inlet protection measures must be cleaned or removed and replaced when sediment has filled one-third of the available storage.

11.H.4.2.2 Water Body Protection Measures. A permittee must install appropriate protection measures (Part 11.H.4.1.4) to minimize the discharge of sediment prior to entry into the water body for water bodies located on site or immediately downstream of the site. Protection measures must be cleaned or removed and replaced when sediment has filled one-third of the available storage.

11.H.4.2.3 Down-Slope Sediment Controls. A permittee must establish and use down-slope sediment controls (e.g., silt fence, temporary diversion dike, etc.) for any portion of the down-slope and side-slope perimeter where storm water will be discharged from disturbed areas of the site.

11.H.4.2.4 Stabilized Construction Vehicle Access and Exit Points. A permittee must establish construction vehicle access and exit points which must be stabilized. Access and exit points should be limited to one route, if possible. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.

11.H.4.2.5 Dust Generation and Track-Out from Vehicles. A permittee must minimize the generation of dust through the application of water or other dust suppression techniques and prior to vehicle exit. A permittee must provide an effective way of minimizing off-site vehicle tracking of sediment from wheels to prevent track-out onto paved surfaces.

11.H.4.2.6 Soil Stockpiles. A permittee must stabilize or cover soil stockpiles, protect with sediment trapping measures, and where possible, locate soil stockpiles away from storm drain inlets, water bodies, and conveyance channels.

11.H.4.2.7 Authorized Non-Storm Water Discharges. A permittee must minimize any non-storm water authorized by this permit.

11.H.4.2.8 Sediment Basins, where applicable:

- For common drainage locations that serve an area with ten (10) or more acres disturbed at one time, a temporary (or permanent) sediment basin that provides storage for a calculated volume of runoff from the drainage area from a 2-year, 24-hour storm, or equivalent sediment control measures, must be installed, maintained, and used where practicable until final stabilization of the site. Where no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent sediment control measures, must be installed and used where practicable until final stabilization of the site. When computing the number of acres draining into a common location, it is not necessary to include flows from offsite areas and flows from on-site areas that are either undisturbed or have undergone final stabilization where such flows are diverted around both the disturbed area and the sediment basin. In determining whether installing a sediment basin is practicable, the permittee may consider factors such as site soils, slope, available area on-site, etc. In any event, the permittee must consider public safety, especially as it relates to children, as a design factor for the sediment basin, and alternative sediment control measures must be used where site limitations would preclude a safe design.
- For drainage locations which serve ten (10) or more disturbed acres at one time and where a temporary sediment basin or equivalent controls is not practicable, smaller sediment basins and/or sediment traps should be used. Silt fences, vegetative buffer strips, or equivalent sediment control measures are

required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions).

- For drainage locations serving less than ten (10) acres, smaller sediment basins and/or sediment traps should be used. Silt fences, vegetative buffer strips, or equivalent sediment control measures are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm event or 3,600 cubic feet of storage per acre drained is provided.
- When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface where practicable.
- Note: installing sediment basins in the presence of permafrost is challenging and might not be practicable in some instances because permafrost creates poor surface drainage that hinders the infiltration of runoff. Also, the excavation of permafrost in summer can trigger thawing and instability.

11.H.4.3 Dewatering.

11.H.4.3.1 If a construction activity includes excavation dewatering and has a discharge that could adversely impact a local drinking water well, an DEC-identified contaminated site, or a waters of the U.S., the permittee must review the DEC Excavation Dewatering General Permit (AKG002000, or most current version) for specific requirements the permittee may have to comply with in addition to the conditions of this permit.

11.H.4.3.2 A discharge from eligible dewatering activities, including discharges from dewatering of trenches and excavations are prohibited unless treated by appropriate control measures. Appropriate control measures include, but are not limited to, sediment basins or traps, dewatering tanks, weir tanks, or filtration systems designed to remove sediment.

11.H.4.4 Soil Stabilization.

11.H.4.4.1 *Minimum Requirements for Soil Stabilization.* A permittee must stabilize all disturbed areas of the site to minimize on-site erosion and sedimentation and the resulting discharge of pollutants according to the requirements of this Part. A permittee must ensure that existing vegetation is preserved wherever possible and that disturbed portions of the site are stabilized. Applicable stabilization control measures include, but are not limited to: temporary and permanent seeding, sodding, mulching, rolled erosion control product, compost blanket, soil application

of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control. A permittee should avoid using impervious surfaces for stabilization. See the Alaska Plant Materials Center's A Revegetation Manual for Alaska at <http://plants.alaska.gov> for help in efforts to select appropriate seed mixes and some information on methods for revegetation. Also see the manual for coastal Alaska, Coastal Revegetation & Erosion Control Guide at <http://plants.alaska.gov>.

11.H.4.5 Treatment Chemicals. The use of treatment chemicals to reduce erosion from the land or sediment in a storm water discharge is allowed provided that all of the requirements of this Part are met.

11.H.4.5.1 Treatment Chemicals. Documentation of treatment chemicals selected for use at a site must include, at a minimum, the following information:

- Manufacturer and/or supplier provided Material Safety Data Sheets, specifications, and instructions for the transport, handling, storage, application, and disposal of the treatment chemical;
- Approval by EPA for potable water use;
- Approval by EPA or the states of California, Minnesota, Oregon, Washington, or Wisconsin for use in controlling erosion or sediment runoff from agricultural land or construction projects;
- Manufacturer and/or supplier provided test results recognized by EPA or the states of California, Minnesota, Oregon, Washington, or Wisconsin that demonstrate that the treatment chemical is non-toxic to aquatic organisms when applied following the manufacturer or supplier recommended method of use and rate of application;
- A permittee is prohibited from using cationic polymers, except for the use of chitosan as part of an Active Treatment System in compliance with Part 11.H.4.5.4 or as approved by the Department in writing; and
- The names and titles of person(s) who handle and apply treatment chemicals at the construction site, the title of relevant training and date(s) the person(s) who apply the chemicals received training in the proper handling and application of treatment chemicals.

11.H.4.5.2 Treatment Chemical Use.

- A permittee must train employees who handle treatment chemicals to comply with the information required by Part 11.H.4.5.1; and

- A permittee must handle, store and dispose of treatment chemicals, waste chemicals, or flocculants in appropriate leak proof containers under a storm-resistant cover or surrounded by secondary containment structures so as to prevent their discharge to the waters of the U.S.

11.H.4.5.3 Project Site Conditions. Treatment chemicals are typically developed, tested, and approved in regions of the country that may have soils, soil and water temperatures, and other site conditions significantly different from Alaska. These differences must be considered in the selection of the treatment chemicals for use at the Alaskan site.

- A permittee must make certain the selected treatment chemical is appropriate for soils at the site through project-specific tests of the chemical with local soils or product use data on projects with similar soils.
- A permittee must ensure the selected treatment chemical is appropriate for the site topography, amount of precipitation expected at the site, and type of use.

11.H.4.5.4 Application of Treatment Chemicals. The application of treatment chemicals shall be in combination with appropriate physical control measures (e.g., rolled erosion control products, ditch check dams, sediment basins, sediment bags, filtration, etc.) to ensure effectiveness of the treatment chemical. The use of treatment chemicals is not considered a substitute for appropriate physical control measures and does not preclude any other requirement of this permit.

- *Land Application.*
 - A permittee shall comply with all Material Safety Data Sheet requirements and follow the manufacturer and/or suppliers written recommended application rate, including site-specific considerations.
 - A permittee shall use an application method that provides uniform coverage of the target area and avoids drift to non-target areas.
 - The application must always be a sufficient distance upgradient or upstream to allow adequate mixing and reaction prior to reaching a pre-constructed sediment trap, basin inflow structure, or filtering device of sufficient width to ensure adequate removal of sediments laden with treatment chemicals before discharges reach waters of the U.S.
- *Water Application* (including conveyance channel).
 - A permittee shall follow the manufacturer and/or suppliers written recommended application rate, including site-specific considerations.

- The application shall always be upstream from a pre-constructed sediment trap, basin inflow structure, vegetated swale, filtering device or a vegetated buffer of sufficient width to ensure adequate removal of sediments laden with treatment chemicals before discharges reach waters of the U.S.
- Treatment chemicals shall not be applied directly to a water of the U.S.
- Application through the use of manufactured products (e.g. gel bars, gel logs, floc blocks, etc.) shall be used in combination with adequate ditch check dams, settling basins, or other physical control measures designed to settle out chemically treated soils and minimize the presence of treatment chemicals before discharges reach waters of the U.S.. At a minimum there must be at least 100 feet of ditch length downstream of the last manufactured product prior to reaching a water of the U.S. to provide a place for sedimentation to occur.
- *Active Treatment Systems.* A permittee who uses an Active Treatment System as a control measure must submit information required by the Department for review at least fourteen (14) days prior to start of operation of the active treatment system at the project and comply with Part 4.4. At a minimum, the information must provide details on the following: relevant information required by Part 11.H.4.5.1, engineering plans, description of treatment process, site conditions (including soil types), treatment chemicals, dose rates, monitoring to be conducted, expected residual chemical, proper operator training, methods for storage, procedures for spill prevention and containment, operation and maintenance, and record keeping and reporting.

11.H.4.6 Prohibited Discharge. A permittee is prohibited from discharging the following from the site:

- 11.H.4.6.1 Wastewater from concrete washout, unless managed by an appropriate control measure;
- 11.H.4.6.2 Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- 11.H.4.6.3 Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
- 11.H.4.6.4 Soaps or solvents used in vehicle and equipment washing.

11.H.4.7 Good Housekeeping Measures. A permittee must design, install, implement, and maintain effective good housekeeping measures to prevent and/or minimize the discharge of pollutants. A permittee must include appropriate measures for any of the following activities that are used at the site.

11.H.4.7.1 Washing of Equipment and Vehicles and Wheel Wash-Down. If a permittee conducts washing of equipment or vehicles and/or wheel wash-down at the site the permittee must comply with the following requirements:

- Designate areas to be used for washing of equipment and vehicles and/or wheel wash-down and conduct such activities only in these areas;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Treat all wash water in a sediment basin or use alternative control measures that provide equivalent or better treatment prior to discharge; and
- To comply with the prohibition in Part 11.H.4.6.4, the discharge of soaps and solvents used in equipment and vehicle washing and/or wheel wash-down is strictly prohibited.

11.H.4.7.2 Fueling and Maintenance Areas. If a permittee conducts fueling and/or maintenance activities for equipment and vehicles at the site the permittee must comply with the following requirements:

- Designate areas to be used for fueling and/or maintenance of equipment and vehicles and conduct such activities only in these areas (the designated area may move from one location to another on linear projects);
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets and waters of the U.S.;
- Minimize the exposure to precipitation and storm water or use secondary containment structures designed to eliminate the potential for spills or leaked chemicals; and
- To comply with the prohibition in Part 11.H.4.6.3, a permittee must:
 - Clean up spills or contaminated surfaces immediately;
 - Ensure adequate clean up supplies are available at all times to handle spills, leaks, and disposal of used liquids;
 - Use drip pans or absorbents under or around leaky equipment and vehicles; and

- Dispose of liquid wastes or materials used for fueling and maintenance in accordance with Part 11.H.4.11.

11.H.4.8 Staging and Material Storage Areas. If a permittee maintains staging and material storage areas at the site the permittee must comply with the following requirements:

- Designate areas to be used for staging and material storage areas;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S; and
- Minimize the exposure to precipitation and storm water and vandalism for all chemicals, treatment chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment.

11.H.4.9 Washout of Applicators/Containers used for Paint, Concrete, and Other Materials. If a permittee conducts washing of applicators and/or containers used for paint, concrete, and other materials at the site, the permittee must comply with the following requirements:

- Designate areas to be used for washout;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Direct all concrete, paint, and other material washout activities into a lined, water-tight container or pit to ensure there is no discharge into the underlying soil and onto the surrounding areas;
- Dispose of liquid wastes in accordance with Part 11.H.4.11; and
- For concrete washout areas, remove hardened concrete waste when it has reached one-half ($\frac{1}{2}$) the height of the container or pit and dispose of in accordance with Part 11.H.4.11.

11.H.4.10 Fertilizer or Pesticide Use. If a permittee uses fertilizers or pesticides the permittee must comply with the following requirements:

- Application of fertilizers and pesticides in a manner and at application rates that will minimize the loss of chemical to storm water runoff. Manufacturers' label requirements for application rates and disposal requirements must be followed; and
- Use pesticides in compliance with federal, state and local requirements.

11.H.4.11 Storage, Handling, and Disposal of Construction Waste. If a permittee stores, handles and/or disposes of construction waste at the site, the permittee must comply with the following requirements:

- Locate areas dedicated for management or disposal of construction waste, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Dispose of all collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other domestic wastes according to federal, state and local requirements;
- Store hazardous or toxic waste in appropriate sealed containers and dispose of these wastes in accordance with manufactures recommended method of disposal or federal, state or local requirements; and
- Provide containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water. Clean or replace sanitation facilities and inspect them regularly for leaks and spills.

11.H.4.12 Winter Considerations.

11.H.4.12.1 Winter Shutdown. A permittee who temporarily ceases construction for the winter and plans to resume construction the next summer must plan for winter shutdown. The permittee must identify the anticipated dates of fall freeze-up and spring thaw (see Appendix C) for their site and use these dates to plan for winter shutdown. For the purpose of planning ahead frozen ground by itself is not considered an acceptable control measure for stabilization. A permittee must provide for the following prior to, during, and at the conclusion of winter shutdown:

- Temporary or permanent stabilization for conveyance channels;
- Temporary or permanent stabilization for disturbed slopes, disturbed soils, and soil stockpiles; and
- Erosion and sediment control measures in anticipation of spring thaw.

11.H.4.12.2 Winter Construction. In several areas of Alaska, winter construction provides opportunities for construction not available during summer months. Permit coverage is not required for the construction of ice roads or the placement of sand or gravel on frozen tundra with no excavation or potential to pollute waters of the U.S. This permit does address those construction activities that have the potential for erosion or sediment runoff during spring thaw and summer rainfall. A permittee operating winter construction activities must plan for using appropriate control measures to minimize erosion or sediment runoff during spring thaw and summer rainfall. The Alaska Storm Water Guide, Chapters 3 and 4, provide guidance on the selection, design, and installation of winter construction practices and controls.

11.H.4.12.3 Late Winter Clearing. Cutting of trees and brush while the ground is frozen, without disturbing the vegetative mat, for the purpose of clearing in accordance with the U.S. Fish & Wildlife Service “Recommended Time Periods for Avoiding Vegetation Clearing” is allowed prior to the submittal of a project NOI. If the cutting occurs after the onset of spring thaw (as defined in Appendix C), conditions that consist of above freezing temperatures that cause melting of snow, then the permittee must develop a SWPPP and file an NOI, and receive authorization for coverage under this permit from DEC, and otherwise comply with the terms of this permit prior to such clearing.

11.H.4.13 Maintenance of Control Measures. A permittee must maintain all control measures, good housekeeping measures, and other protective measures in effective operating condition. If site inspections required by Part 6 identify control measures, good housekeeping measures, or other protective measures that are not operating effectively, the permittee must implement corrective actions in accordance with Part 8.

If existing control measures need to be modified or if additional control measures are necessary for any reason, the permittee must complete any corrective action in accordance with Part 8.3.

A permittee must remove sediment from silt fences, check dams, berms or other controls before the accumulated sediment reaches one-half ($\frac{1}{2}$) the distance up the above-ground height (or it reaches a lower height based on manufacturer’s specifications) of the control measure. For sediment traps or sediment ponds, the permittee must remove accumulated sediment when the design capacity has been reduced by fifty (50%) percent.

11.H.4.14 Inspection of Clearing, Grading, and Excavation Activities. (See also Part 6)

11.H.4.14.1 Inspection Frequency. Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a measurable storm event (see Part 7.1.3). If the entire site is temporarily stabilized, inspection frequency may be reduced to at least once every month and within two business days of the end of a measurable storm event at actively staffed sites which resulted in a discharge from the site (pursuant to Part 11.H.4.15.2). Once active mining has begun, those areas comply with inspections according to 11.H.7.

11.H.4.14.2 Winter Shutdown. If the exploration and construction phase is undergoing winter shutdown the permittee may stop inspections fourteen (14) calendar days after the anticipated fall freeze-up and must resume inspections at least twenty-one (21) calendar days prior to the anticipated spring thaw. The permittee shall identify the winter shutdown period in their SWPPP based upon the definitions of fall freeze-up and spring thaw.

11.H.4.14.3 Location of Inspections. Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

11.H.4.14.4 Inspection Reports. (See also Part 6.1) For each inspection required above, the permittee must complete an inspection report. At a minimum, the inspection report must include the information required in Part 6.1.

11.H.4.15 Requirements for Cessation of Clearing, Grading, and Excavation Activities.

11.H.4.15.1 Inspections and Maintenance. Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and/or excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area or until the commencement of the active mining phase for those areas that have been temporarily stabilized as a precursor to mining.

11.H.4.15.2 Temporary Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable.

The permittee must identify the anticipated dates of fall freeze-up and spring thaw (see Appendix C) for the site and use those dates to plan for winter shutdown. For the purpose of planning ahead frozen ground by itself is not considered an acceptable control measure for stabilization. Where temporary stabilization by the 14th day is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable following the actual spring thaw.

Until temporary vegetative stabilization is achieved, interim measures (e.g., surface roughening or a surface cover, including but not limited to, establishment of ground vegetation, application of mulch, or surface tackifiers with an appropriate seed base) must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.

11.H.4.15.3 Final Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where mining, exploration, and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, final vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved, temporary stabilization measures must be used.

11.H.5 Additional Technology-Based Effluent Limits.

11.H.5.1 Employee Training. (See also Part 4.2.9) Conduct employee training at least annually at active and temporarily inactive sites.

- 11.H.5.2 Good Housekeeping Measures.* (See also Part 4.2.2) As part of the permittees good housekeeping program, implement the following, as practicable: use sweepers and covered storage, watering haul roads to minimize dust generation, and conserving vegetation (where possible) to minimize erosion.
- 11.H.5.3 Preventive Maintenance.* (See also Part 4.2.3) Perform inspections or other equivalent measures of storage tanks and pressure lines of fuels, lubricants, hydraulic fluid, and slurry to prevent leaks due to deterioration or faulty connections.
- 11.H.5.4 Storm Water Controls.* Apart from the control measures implemented to meet the Part 4 control measures, implement the following control measures at the facility, as practicable. The potential pollutants identified in Part 11.H.6.3 shall determine the priority and appropriateness of the control measures selected. If the permittee selects or develops a storm water control other than one described below, the permittee shall describe it in the SWPPP.
- 11.H.5.4.1 Storm Water Diversions.* Diverting storm water away from potential pollutant sources. Implement the following options, as practicable: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.
- 11.H.5.4.2 Velocity Dissipation Devices.* Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) as practicable, along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.
- 11.H.5.4.3 Down-Slope Sediment Controls.* Establish and use down-slope sediment controls (e.g., silt fence or temporary diversion dike) for any portion of the down-slope and side-slope perimeter where storm water will be discharged from disturbed areas of the site.
- 11.H.5.4.4 Stabilized Construction Vehicle Access and Exit Points.* Establish stabilized vehicle access and exit points. Off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.
- 11.H.5.4.5 Capping.* When capping is necessary to minimize pollutant discharges in storm water, identify the source being capped and the material used to construct the cap.

11.H.5.4.6 Treatment. If treatment of storm water (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. All permanent storm water treatment devices shall receive engineering plan approval per 18 AAC 72.600. Passive and/or active treatment of storm water runoff is encouraged where practicable. Treated runoff may be discharged as a storm water source regulated under this permit provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Coal Mining Point Source Category (40 CFR Part 434).

11.H.5.5 Certification of Discharge Testing. (See also Part 5.2.4.4) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-storm water discharges such as discharges subject to effluent limitations guidelines (e.g., 40 CFR Part 434). Alternatively (if applicable), the permittee may keep a certification with the SWPPP consistent with Part 11.H.6.6.

11.H.5.6 Overburden, Waste Rock, and Raw Material Piles. Overburden, topsoil, and waste rock, as well as raw material and intermediate and final product stockpiles, should be located a minimum of 25 feet away from surface water, other sources of water, and from geologically unstable areas as practicable.

11.H.6 Additional SWPPP Requirements.

11.H.6.1 Other Applicable Regulations. Most active coal mining-related areas (SIC Codes 1221-1241) are subject to sediment and erosion control regulations of the U.S. Office of Surface Mining (OSM) that enforces the Surface Mining Control and Reclamation Act (SMCRA). OSM has granted authority to most coal-producing states to implement SMCRA through State SMCRA regulations. All SMCRA requirements regarding control of storm water-related pollutant discharges must be addressed and then documented with the SWPPP (directly or by reference).

11.H.6.2 Site Map. (See also Part 5.2.3) The permittee must document in their SWPPP where any of the following may be exposed to precipitation or surface runoff: haul and access roads; railroad spurs, sliding, and internal hauling lines; conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal handling buildings, areas, and structures; and inactive mines and related areas; acidic spoil, refuse, or unreclaimed disturbed areas; and liquid storage tanks containing pollutants such as caustics, hydraulic fluids, and lubricants.

11.H.6.3 Potential Pollutant Sources. (See also Part 5.2.4) The permittee must document in their SWPPP the following sources and activities that have potential pollutants associated with them: truck traffic on haul roads and resulting generation of sediment subject to runoff and dust generation; fuel or other liquid storage; pressure lines containing slurry, hydraulic fluid, or other potential harmful liquids; and loading or temporary storage of acidic refuse or spoil.

- 11.H.6.4 Employee Training.* To the extent practical, all supervisory personnel involved in directing the maintenance of storm water control measures shall be trained and qualified in the principles and practices of erosion and sediment control. All employee training(s) must be documented in the SWPPP.
- 11.H.6.5 Certification of Permit Coverage for Commingled Non-Storm Water Discharges.* If a permittee determines that they are able to certify, consistent with Part 11.G.5.5, that a particular discharge composed of commingled storm water and non-storm water is covered under a separate APDES permit, and that permit subjects the non-storm water portion to effluent limitations prior to any commingling, retain such certification with the SWPPP. This certification must identify the non-storm water discharges, the applicable APDES permit(s), the effluent limitations placed on the non-storm water discharge by the permit(s), and the points at which the limitations are applied.
- 11.H.6.6 SWPPP Submittal.* At least 45 calendar days prior to the start of initial construction of a new facility the permittee shall submit the construction phase SWPPP to DEC for review.
- 11.H.6.7 SWPPP Meeting.* At least 20 calendar days before the start of initial construction for a new facility, representatives of the permittee and the prime site construction contractor shall meet with DEC in a pre-construction conference to discuss the details of storm water management during construction.

11.H.7 Active Mining Additional Inspection Requirements.

- 11.H.7.1 Inspections of Active Mining-Related Areas.* (See also Part 6) Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Part 11.H.4.14.1 perform quarterly inspections of active mining areas covered by this permit, corresponding with the inspections as performed by SMCRA inspectors, of all mining-related areas required by SMCRA. Also maintain the records of the SMCRA authority representative. See Part 11.H.8.1 for inspection requirements for inactive and unstaffed sties.
- 11.H.7.2 Sediment and Erosion Control.* (See also Part 4.2.5) As indicated in Part 11.H.6.1, SMCRA requirements regarding sediment and erosion control measures must be complied with for those areas subject to SMCRA authority, including inspection requirements.
- 11.H.7.3 Comprehensive Site Inspections.* (See also Part 6.3) The permittees inspection program must include inspections for pollutants entering the drainage system from activities located on or near coal mining-related areas. Among the areas to be inspected are haul and access roads; railroad spurs, sliding, and internal hauling lines; conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal handling buildings, areas, and structures; and inactive mines and related areas.

11.H.8 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

Table 11.H.8-1: Sector – Specific Benchmarks – Sector H		
Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector H1. Coal Mines and Related Areas (SIC 1221-1241)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Suspended Solids (TSS)	100 mg/L

11.H.8.1 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirement for Routine Inspections, Quarterly Visual Assessments, and Benchmark Monitoring. As a Sector H facility, if the permittee is seeking to exercise a waiver from either the quarterly visual assessment or the benchmark monitoring requirements for inactive and unstaffed sites (including temporarily inactive sites), they are conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to storm water” in Parts 6.2.3 and 7.2.1.6, respectively. Additionally, if the permittee is seeking to reduce their required quarterly routine inspection frequency to a once annual comprehensive inspection, as is allowed under Part 6.1.3, the permittee is also conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to storm water.” These conditional exemptions are based on the following requirements:

- If circumstances change and the permittees facility becomes active and/or staffed, this exception no longer applies and the permittee must immediately begin complying with the applicable benchmark monitoring requirements as if the permittee was in their first year of permit coverage, and the quarterly visual assessment requirements; and
- DEC retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause or contribute to an instream excursion above a WQS, including designated uses.

Subject to the two conditions above, if the permittees facility is inactive and unstaffed, they are waived from the requirement to conduct quarterly visual assessments and routine facility inspections. The permittee is not waived from conducting the Part 6.3 comprehensive site inspection. The permittee is encouraged to inspect their site more frequently where they have reason to believe that severe weather or natural disasters may have damaged control measures or increased discharges.

11.H.9 Termination of Permit Coverage.

11.H.9.1 Termination of Permit Coverage for Sites Reclaimed After December 17, 1990. A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Part 11.H.3.5.

11.H.9.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990. A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) storm water runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state WQS, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to storm water discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

11. Subpart I – Sector I – Oil and Gas Extraction.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.I.1 Covered Storm Water Discharges.

The requirements in Subpart I apply to storm water discharges associated with industrial activity from Oil and Gas Extraction facilities as identified by the SIC Codes specified under Sector I in Table D-1 of Appendix D of the permit.

Discharges of storm water runoff from field activities or operations associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities are exempt from APDES permit coverage unless, in accordance with 40 CFR 122.26(c)(1)(iii), the facility:

- Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at anytime since November 16, 1987; or
- Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or
- Contributes to a violation of a WQS.

Any storm water discharges that require permit coverage as a result of meeting one of the conditions of 40 CFR 122.26(c)(1)(iii) may be covered under this permit unless otherwise required to obtain coverage under an alternative APDES general permit or an individual APDES permit as specified in Part 2.8.1

Oil and Gas Facilities in the North Slope Borough with industrial storm water discharges to waters of the U.S. or directly to the tundra must file under APDES permit AKG331000 rather than this permit.

11.I.2 Limitations on Coverage.

- 11.I.2.1 Storm Water Discharges Subject to Effluent Limitation Guidelines.* (See also Part 1.2.4.4)
This permit does not authorize storm water discharges from petroleum drilling operations that are subject to nationally established effluent limitation guidelines found at 40 CFR Part 435, respectively.

11.I.2.2 Non-Storm Water Discharges. Discharges of vehicle and equipment washwater, including tank cleaning operations, are not authorized by this permit. Alternatively, washwater discharges must be authorized under a separate APDES permit, or be discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements.

11.I.3 Additional Technology-Based Effluent Limits.

11.I.3.1 Storm Water Controls. Apart from the control measures implemented to meet Part 4 control measures, implement the following control measures at the facility, as practicable. The potential pollutants identified in Part 11.I.4.2 shall determine the priority and appropriateness of the control measures selected. If the permittee selects or develops a storm water control other than one described below, the permittee shall describe it in the SWPPP.

11.I.3.1.1 Vegetative Controls. Implement vegetative practices designed to preserve existing vegetation, where attainable, and revegetate open areas as soon as practicable after grade drilling. Use one or more of the following (or equivalent measures), as practicable: temporary or permanent seeding, mulching, sod stabilization, vegetative buffer strips, and tree protection practices. Begin implementing appropriate vegetative practices on all disturbed areas within 14 days following the last activity in that area.

11.I.3.1.2 Storm Water Diversions. Divert storm water away from potential pollutant sources. Implement the following options, as practicable: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.

11.I.3.1.3 Velocity Dissipation Devices. (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.

11.I.3.1.4 Down-Slope Sediment Controls.

Establish and use down-slope sediment controls (e.g., silt fence or temporary diversion dike) for any portion of the down-slope and side-slope perimeter where storm water will be discharged from disturbed areas of the site.

11.I.3.1.5 Stabilized Vehicle Access and Exit Points. Establish stabilized vehicle access and exit points. Off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.

11.I.4 Additional SWPPP Requirements.

- 11.I.4.1 Drainage Area Site Map.* (See also Part 5.2.3) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: Reportable Quantity (RQ) releases; locations used for the treatment, storage, or disposal of wastes; processing areas and storage areas; chemical mixing areas; construction and drilling areas; all areas subject to the effluent guidelines requirements for “No Discharge” in accordance with 40 CFR 435.32; and the structural controls to achieve compliance with the “No Discharge” requirements.
- 11.I.4.2 Potential Pollutant Sources.* (See also Part 5.2.4) Also document in the SWPPP the following sources and activities that have potential pollutants associated with them: chemical, cement, mud, or gel mixing activities; drilling or mining activities; and equipment cleaning and rehabilitation activities. In addition, include information about the reportable quantity (RQ) release that triggered the permit application requirements: the nature of the release (e.g., spill of oil from a drum storage area), amount of oil or hazardous substance released, amount of substance recovered, date of the release, cause of the release (e.g., poor handling techniques and lack of containment in the area), areas affected by the release (i.e., land and water), procedure to clean up release, actions or procedures implemented to prevent or improve response to a release, and remaining potential contamination of storm water from release (taking into account human health risks, the control of drinking water intakes, and the designated uses of the receiving water).
- 11.I.4.3 Erosion and Sedimentation Control.* (See also Part 4.2.5) The additional documentation requirements for sediment and erosion controls for well drillings and sand/shale mining areas include the following:
- 11.I.4.3.1 Site Description.* Also include a description in the SWPPP of the nature of the exploration activity, estimates of the total area of site and area disturbed due to exploration activity, an estimate of runoff coefficient of the site, a site drainage map, including approximate slopes, and the names of all receiving waters.
- 11.I.4.3.2 Vegetative Controls.* Document vegetative practices used consistent with Part 11.I.3.1 in the SWPPP.

11.I.5 Additional Inspection Requirements.

- 11.I.5.1* All erosion and sedimentation control measures must be inspected either: 1) every 7 days; or 2) once every 14 calendar days and within 24 hours of a storm event.

11. Subpart J – Sector J – Non-Metallic Mineral Mining and Dressing.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.J.1 Covered Storm Water Discharges.

The requirements in Subpart J apply to storm water discharges associated with industrial activity from Active, Inactive, or Non-Traditional Non-Metallic Mineral Mining and Dressing facilities as identified by the SIC Codes specified under Sector J in Table D-1 of Appendix D of the permit.

11.J.1.1 Covered Discharges from Inactive Facilities. All storm water discharges.

11.J.1.2 Covered Discharges from Active and Temporarily Inactive Facilities. All storm water discharges, except for most storm water discharges subject to the existing effluent limitation guideline at 40 CFR Part 436. Mine dewatering discharges composed entirely of storm water or uncontaminated ground water seepage from: construction sand and gravel, industrial sand, and crushed stone mining facilities is covered by this permit.

11.J.1.3 Covered Discharges from Exploration and Construction of Non-Metallic Mineral Mining Facilities. All storm water discharges.

11.J.1.4 Covered Discharges from Sites Undergoing Reclamation. All storm water discharges.

11.J.2 Limitations on Coverage.

Most storm water discharges subject to an existing effluent limitation guideline at 40 CFR Part 436 are not authorized by this permit. The exceptions to this limitation, which are covered by this permit, are mine dewatering discharges composed entirely of storm water or uncontaminated ground water seepage from construction sand and gravel, industrial sand, and crushed stone mining facilities.

11.J.3 Definitions.

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

11.J.3.1 Mining Operations - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

11.J.3.2 Exploration Phase - Entails exploration and land disturbance activities to determine the financial viability of a site. The exploration phase is not considered part of “mining operations.”

- 11.J.3.3 Construction Phase* - Includes the building of site access roads, facilities, and removal of overburden and waste rock to expose mineable minerals. The construction phase is not considered part of “mining operations”.
- 11.J.3.4 Active Phase* - Activities including the extraction, removal or recovery of minerals. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 440.132(a). The active phase is considered part of “mining operations.”
- 11.J.3.5 Reclamation Phase* - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the “active phase”, intended to return the land to an appropriate post-mining land use. The reclamation phase is considered part of “mining operations”.
- 11.J.3.6 Non-Traditional Non-Metallic Mineral Mining Facility* - Consists of non-metallic mineral mining facilities which conduct mineral mining and dressing for the sale or distribution of aggregate materials from a non-commercial establishment to be used on multiple unrelated projects. These facilities consist of operations without any permanent sales offices, scales, or other facilities being operated by a commercial establishment that would otherwise clearly fit within one of the Standard Industrial Classification (SIC) codes found in Sector J of [Appendix D](#) of the permit. These non-traditional facilities are managed by an operator, who oversees the removal of aggregate from the site, with either written contracts for specified aggregate quantities or an informal notice approving the distribution of material. The operator of these facilities who executes the contracts or provides the authority for individuals or parties to remove aggregate would meet the definition of an operator under this permit and be the sole party responsible to obtain permit coverage, maintain a SWPPP, maintain BMPs, conduct inspections and monitoring, and submit reports.

NOTE: The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

- 11.J.3.7 Active Mineral Mining Facility* - A place where work or other activity related to the extraction, removal, or recovery of minerals is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 440.132(a).

11.J.3.8 Inactive Mineral Mining Facility - A site or portion of a site where mineral mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive mineral mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an APDES industrial storm water permit.

11.J.3.9 Temporarily Inactive Mineral Mining Facility - A site or portion of a site where mineral mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency. A temporarily inactive facility includes sites that are temporarily stabilized and have small stockpiles of non-metallic mineral mining material (less than 250 cubic yards/year) for local use or road maintenance during the temporarily inactive phase.

11.J.4 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

11.J.4.1 Erosion Control Measures. A permittee must comply with the erosion control measures in this Part to minimize soil exposure on the site during construction.

11.J.4.1.1 Delineation of Site. A permittee must generally delineate (e.g., with flagging, stakes, signs, silt fence, etc.) the location of specific areas that will be left undisturbed such as trees, boundaries of sensitive areas, or buffers established under Part 11.J.4.1.3.

11.J.4.1.2 Minimize the Amount of Soil Exposed during Construction Activity. A permittee must include the following considerations in the selection of control measures and the sequence of project construction as they apply to the project site:

- Preserve areas of native topsoil on the site, unless infeasible; and
- Sequence or phase construction activities to minimize the extent and duration of exposed soils to the extent practicable.

11.J.4.1.3 Maintain Natural Buffer Areas.

The permittee must maintain natural buffer areas at stream crossings and around the edge of any waters of the U.S. that are located within or immediately adjacent to the property where the construction activity will take place in accordance with the following:

- The buffer must be a minimum of twenty-five (25) feet wide, unless infeasible based on site dimensions, or the width as required by local ordinance.
- Exceptions are allowed for water dependent activities, specific water access activities, or necessary water crossings.
- A permittee should, to the extent practicable, use perimeter controls adjacent to buffers, and direct storm water sheet flow to buffer areas to increase sediment removal and maximize storm water infiltration, unless infeasible.

11.J.4.1.4 Control Storm Water Discharges and Flow Rates. A permittee must include the following control measures to handle storm water and total storm water volume discharges as they apply to the site:

- Divert storm water around the site so that it does not flow onto the project site and cause erosion of exposed soils;
- Slow down or contain storm water that may collect and concentrate within a site and cause erosion of exposed soils;
- Avoid placement of structural control measures in active floodplains to the degree technologically and economically practicable and achievable;
- Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters; and
- Install permanent storm water management controls, if present at a site and where practical, so that they must be functional prior to construction of site improvements (e.g., impervious surfaces).

11.J.4.1.5 Protect Steep Slopes. A permittee must include the following considerations in the selection of control measures as they apply to the project site:

- Design and construct cut-and-fill slopes in a manner that will minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (e.g., track walking);
- Divert concentrated flows of storm water away from and around the disturbed portion of the slope. Applicable practices include, but are not limited to

interceptor dikes and swales, grass-lined channels, pipe slope drains, subsurface drains, check dams; and

- Stabilize exposed areas of the slope in accordance with Part 11.J.4.4.

11.J.4.2 Sediment Control Measures. Sediment control measures (e.g. sediment ponds, traps, filters, etc.) must be constructed as one of the first steps in grading. These control measures must be functional before other land disturbing activities take place. A permittee must install, establish and use any of the following control measures that apply to the project site.

11.J.4.2.1 Storm Drain Inlet Protection Measures. A permittee must install appropriate protection measures (e.g. filter berms, perimeter controls, temporary diversion dikes, etc.) to minimize the discharge of sediment prior to entry into the inlet for storm drain inlets located on site or immediately downstream of the site. Inlet protection measures must be cleaned or removed and replaced when sediment has filled one-third of the available storage.

11.J.4.2.2 Water Body Protection Measures. A permittee must install appropriate protection measures (Part 11.J.4.1.4) to minimize the discharge of sediment prior to entry into the water body for water bodies located on site or immediately downstream of the site. Protection measures must be cleaned or removed and replaced when sediment has filled one-third of the available storage.

11.J.4.2.3 Down-Slope Sediment Controls. A permittee must establish and use down-slope sediment controls (e.g., silt fence, temporary diversion dike, etc.) for any portion of the down-slope and side-slope perimeter where storm water will be discharged from disturbed areas of the site.

11.J.4.2.4 Stabilized Construction Vehicle Access and Exit Points. A permittee must establish construction vehicle access and exit points which must be stabilized. Access and exit points should be limited to one route, if possible. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.

11.J.4.2.5 Dust Generation and Track-Out from Vehicles. A permittee must minimize the generation of dust through the application of water or other dust suppression techniques and prior to vehicle exit. A permittee must provide an effective way of minimizing off-site vehicle tracking of sediment from wheels to prevent track-out onto paved surfaces.

11.J.4.2.6 Soil Stockpiles. A permittee must stabilize or cover soil stockpiles, protect with sediment trapping measures, and where possible, locate soil stockpiles away from storm drain inlets, water bodies, and conveyance channels.

11.J.4.2.7 Authorized Non-Storm Water Discharges. A permittee must minimize any non-storm water authorized by this permit.

11.J.4.2.8 Sediment Basins, where applicable:

- For common drainage locations that serve an area with ten (10) or more acres disturbed at one time, a temporary (or permanent) sediment basin that provides storage for a calculated volume of runoff from the drainage area from a 2-year, 24-hour storm, or equivalent sediment control measures, must be installed, maintained, and used where practicable until final stabilization of the site. Where no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent sediment control measures, must be installed and used where practicable until final stabilization of the site. When computing the number of acres draining into a common location, it is not necessary to include flows from offsite areas and flows from on-site areas that are either undisturbed or have undergone final stabilization where such flows are diverted around both the disturbed area and the sediment basin. In determining whether installing a sediment basin is practicable, the permittee may consider factors such as site soils, slope, available area on-site, etc. In any event, the permittee must consider public safety, especially as it relates to children, as a design factor for the sediment basin, and alternative sediment control measures must be used where site limitations would preclude a safe design.
- For drainage locations which serve ten (10) or more disturbed acres at one time and where a temporary sediment basin or equivalent controls is not practicable, smaller sediment basins and/or sediment traps should be used. Silt fences, vegetative buffer strips, or equivalent sediment control measures are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions).
- For drainage locations serving less than ten (10) acres, smaller sediment basins and/or sediment traps should be used. Silt fences, vegetative buffer strips, or equivalent sediment control measures are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm event or 3,600 cubic feet of storage per acre drained is provided.
- When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface where practicable.

- Note: installing sediment basins in the presence of permafrost is challenging and might not be practicable in some instances because permafrost creates poor surface drainage that hinders the infiltration of runoff. Also, the excavation of permafrost in summer can trigger thawing and instability.

11.J.4.3 Dewatering.

- 11.J.4.3.1 If a construction activity includes excavation dewatering and has a discharge that could adversely impact a local drinking water well, an DEC-identified contaminated site, or a waters of the U.S., the permittee must review the DEC Excavation Dewatering General Permit (AKG002000, or most current version) for specific requirements the permittee may have to comply with in addition to the conditions of this permit.
- 11.J.4.3.2 A discharge from eligible dewatering activities, including discharges from dewatering of trenches and excavations are prohibited unless treated by appropriate control measures. Appropriate control measures include, but are not limited to, sediment basins or traps, dewatering tanks, weir tanks, or filtration systems designed to remove sediment.

11.J.4.4 Soil Stabilization.

- 11.J.4.4.1 *Minimum Requirements for Soil Stabilization.* A permittee must stabilize all disturbed areas of the site to minimize on-site erosion and sedimentation and the resulting discharge of pollutants according to the requirements of this Part. A permittee must ensure that existing vegetation is preserved wherever possible and that disturbed portions of the site are stabilized. Applicable stabilization control measures include, but are not limited to: temporary and permanent seeding, sodding, mulching, rolled erosion control product, compost blanket, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control. A permittee should avoid using impervious surfaces for stabilization. See the Alaska Plant Materials Center's *A Revegetation Manual for Alaska* at <http://plants.alaska.gov> for help in efforts to select appropriate seed mixes and some information on methods for revegetation. Also see the manual for *Coastal Alaska, Coastal Revegetation & Erosion Control Guide* at <http://plants.alaska.gov>.

- 11.J.4.5 *Treatment Chemicals.* The use of treatment chemicals to reduce erosion from the land or sediment in a storm water discharge is allowed provided that all of the requirements of this Part are met.

- 11.J.4.5.1 *Treatment Chemicals.* Documentation of treatment chemicals selected for use at a site must include, at a minimum, the following information:

- Manufacturer and/or supplier provided Material Safety Data Sheets, specifications, and instructions for the transport, handling, storage, application, and disposal of the treatment chemical;
- Approval by EPA for potable water use;
- Approval by EPA or the states of California, Minnesota, Oregon, Washington, or Wisconsin for use in controlling erosion or sediment runoff from agricultural land or construction projects;
- Manufacturer and/or supplier provided test results recognized by EPA or the states of California, Minnesota, Oregon, Washington, or Wisconsin that demonstrate that the treatment chemical is non-toxic to aquatic organisms when applied following the manufacturer or supplier recommended method of use and rate of application;
- A permittee is prohibited from using cationic polymers, except for the use of chitosan as part of an Active Treatment System in compliance with Part 11.J.4.5.4 or as approved by the Department in writing; and
- The names and titles of person(s) who handle and apply treatment chemicals at the construction site, the title of relevant training and date(s) the person(s) who apply the chemicals received training in the proper handling and application of treatment chemicals.

11.J.4.5.2 Treatment Chemical Use.

- A permittee must train employees who handle treatment chemicals to comply with the information required by Part 11.J.4.5.1; and
- A permittee must handle, store and dispose of treatment chemicals, waste chemicals, or flocculants in appropriate leak proof containers under a storm-resistant cover or surrounded by secondary containment structures so as to prevent their discharge to the waters of the U.S.

11.J.4.5.3 Project Site Conditions. Treatment chemicals are typically developed, tested, and approved in regions of the country that may have soils, soil and water temperatures, and other site conditions significantly different from Alaska. These differences must be considered in the selection of the treatment chemicals for use at the Alaskan site.

- A permittee must make certain the selected treatment chemical is appropriate for soils at the site through project-specific tests of the chemical with local soils or product use data on projects with similar soils.

- A permittee must ensure the selected treatment chemical is appropriate for the site topography, amount of precipitation expected at the site, and type of use.

11.J.4.5.4 Application of Treatment Chemicals. The application of treatment chemicals shall be in combination with appropriate physical control measures (e.g., rolled erosion control products, ditch check dams, sediment basins, sediment bags, filtration, etc.) to ensure effectiveness of the treatment chemical. The use of treatment chemicals is not considered a substitute for appropriate physical control measures and does not preclude any other requirement of this permit.

- *Land Application.*
 - A permittee shall comply with all Material Safety Data Sheet requirements and follow the manufacturer and/or suppliers written recommended application rate, including site-specific considerations.
 - A permittee shall use an application method that provides uniform coverage of the target area and avoids drift to non-target areas.
 - The application must always be a sufficient distance upgradient or upstream to allow adequate mixing and reaction prior to reaching a pre-constructed sediment trap, basin inflow structure, or filtering device of sufficient width to ensure adequate removal of sediments laden with treatment chemicals before discharges reach waters of the U.S.
- *Water Application (including conveyance channel).*
 - A permittee shall follow the manufacturer and/or suppliers written recommended application rate, including site-specific considerations.
 - The application shall always be upstream from a pre-constructed sediment trap, basin inflow structure, vegetated swale, filtering device or a vegetated buffer of sufficient width to ensure adequate removal of sediments laden with treatment chemicals before discharges reach waters of the U.S.
 - Treatment chemicals shall not be applied directly to a water of the U.S.
 - Application through the use of manufactured products (e.g. gel bars, gel logs, floc blocks, etc.) shall be used in combination with adequate ditch check dams, settling basins, or other physical control measures designed to settle out chemically treated soils and minimize the presence of treatment chemicals before discharges reach waters of the U.S.. At a minimum there must be at least 100 feet of ditch length

downstream of the last manufactured product prior to reaching a water of the U.S. to provide a place for sedimentation to occur.

- *Active Treatment Systems.* A permittee who uses an Active Treatment System as a control measure must submit information required by the Department for review at least fourteen (14) days prior to start of operation of the active treatment system at the project and comply with Part 4.4. At a minimum, the information must provide details on the following: relevant information required by Part 11.J.4.5.1, engineering plans, description of treatment process, site conditions (including soil types), treatment chemicals, dose rates, monitoring to be conducted, expected residual chemical, proper operator training, methods for storage, procedures for spill prevention and containment, operation and maintenance, and record keeping and reporting.

11.J.4.6 Prohibited Discharge. A permittee is prohibited from discharging the following from the site:

- 11.J.4.6.1 Wastewater from concrete washout, unless managed by an appropriate control measure;
- 11.J.4.6.2 Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
- 11.J.4.6.3 Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
- 11.J.4.6.4 Soaps or solvents used in vehicle and equipment washing.

11.J.4.7 Good Housekeeping Measures. A permittee must design, install, implement, and maintain effective good housekeeping measures to prevent and/or minimize the discharge of pollutants. A permittee must include appropriate measures for any of the following activities that are used at the site.

11.J.4.7.1 Washing of Equipment and Vehicles and Wheel Wash-Down. If a permittee conducts washing of equipment or vehicles and/or wheel wash-down at the site the permittee must comply with the following requirements:

- Designate areas to be used for washing of equipment and vehicles and/or wheel wash-down and conduct such activities only in these areas;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Treat all wash water in a sediment basin or use alternative control measures that provide equivalent or better treatment prior to discharge; and

- To comply with the prohibition in Part 11.J.4.6.4, the discharge of soaps and solvents used in equipment and vehicle washing and/or wheel wash-down is strictly prohibited.

11.J.4.7.2 Fueling and Maintenance Areas. If a permittee conducts fueling and/or maintenance activities for equipment and vehicles at the site the permittee must comply with the following requirements:

- Designate areas to be used for fueling and/or maintenance of equipment and vehicles and conduct such activities only in these areas (the designated area may move from one location to another on linear projects);
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets and waters of the U.S.;
- Minimize the exposure to precipitation and storm water or use secondary containment structures designed to eliminate the potential for spills or leaked chemicals; and
- To comply with the prohibition in Part 11.J.4.6.3, a permittee must:
 - Clean up spills or contaminated surfaces immediately;
 - Ensure adequate clean up supplies are available at all times to handle spills, leaks, and disposal of used liquids;
 - Use drip pans or absorbents under or around leaky equipment and vehicles; and
 - Dispose of liquid wastes or materials used for fueling and maintenance in accordance with Part 11.J.4.11.

11.J.4.8 Staging and Material Storage Areas. If a permittee maintains staging and material storage areas at the site the permittee must comply with the following requirements:

- Designate areas to be used for staging and material storage areas;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.; and
- Minimize the exposure to precipitation and storm water and vandalism for all chemicals, treatment chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment.

11.J.4.9 Washout of Applicators/Containers used for Paint, Concrete, and Other Materials. If a permittee conducts washing of applicators and/or containers used for paint, concrete, and other materials at the site, the permittee must comply with the following requirements:

- Designate areas to be used for washout;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Direct all concrete, paint, and other material washout activities into a lined, water-tight container or pit to ensure there is no discharge into the underlying soil and onto the surrounding areas;
- Dispose of liquid wastes in accordance with Part 11.J.4.11; and
- For concrete washout areas, remove hardened concrete waste when it has reached one-half ($\frac{1}{2}$) the height of the container or pit and dispose of in accordance with Part 11.J.4.11.

11.J.4.10 Fertilizer or Pesticide Use. If a permittee uses fertilizers or pesticides the permittee must comply with the following requirements:

- Application of fertilizers and pesticides in a manner and at application rates that will minimize the loss of chemical to storm water runoff. Manufacturers' label requirements for application rates and disposal requirements must be followed; and
- Use pesticides in compliance with federal, state and local requirements.

11.J.4.11 Storage, Handling, and Disposal of Construction Waste. If a permittee stores, handles and/or disposes of construction waste at the site, the permittee must comply with the following requirements:

- Locate areas dedicated for management or disposal of construction waste, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Dispose of all collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other domestic wastes according to federal, state and local requirements;
- Store hazardous or toxic waste in appropriate sealed containers and dispose of these wastes in accordance with manufactures recommended method of disposal or federal, state or local requirements; and

- Provide containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water. Clean or replace sanitation facilities and inspect them regularly for leaks and spills.

11.J.4.12 Winter Considerations.

11.J.4.12.1 Winter Shutdown. A permittee who temporarily ceases construction for the winter and plans to resume construction the next summer must plan for winter shutdown. The permittee must identify the anticipated dates of fall freeze-up and spring thaw (see Appendix C) for their site and use these dates to plan for winter shutdown. For the purpose of planning ahead frozen ground by itself is not considered an acceptable control measure for stabilization. A permittee must provide for the following prior to, during, and at the conclusion of winter shutdown:

- Temporary or permanent stabilization for conveyance channels;
- Temporary or permanent stabilization for disturbed slopes, disturbed soils, and soil stockpiles; and
- Erosion and sediment control measures in anticipation of spring thaw.

11.J.4.12.2 Winter Construction. In several areas of Alaska, winter construction provides opportunities for construction not available during summer months. Permit coverage is not required for the construction of ice roads or the placement of sand or gravel on frozen tundra with no excavation or potential to pollute waters of the U.S. This permit does address those construction activities that have the potential for erosion or sediment runoff during spring thaw and summer rainfall. A permittee operating winter construction activities must plan for using appropriate control measures to minimize erosion or sediment runoff during spring thaw and summer rainfall. The Alaska Storm Water Guide, Chapters 3 and 4, provide guidance on the selection, design, and installation of winter construction practices and controls.

11.J.4.12.3 Late Winter Clearing. Cutting of trees and brush while the ground is frozen, without disturbing the vegetative mat, for the purpose of clearing in accordance with the U.S. Fish & Wildlife Service “Recommended Time Periods for Avoiding Vegetation Clearing” is allowed prior to the submittal of a project NOI. If the cutting occurs after the onset of spring thaw (as defined in Appendix C), conditions that consist of above freezing temperatures that cause melting of snow, then the permittee must develop a SWPPP and file an NOI, and receive authorization for coverage under this permit from DEC, and otherwise comply with the terms of this permit prior to such clearing.

11.J.4.13 Maintenance of Control Measures. A permittee must maintain all control measures, good housekeeping measures, and other protective measures in effective operating condition. If site inspections required by Part 6 identify control measures, good housekeeping measures, or other protective measures that are not operating effectively, the permittee must implement corrective actions in accordance with Part 8.

If existing control measures need to be modified or if additional control measures are necessary for any reason, the permittee must complete any corrective action in accordance with Part 8.3.

A permittee must remove sediment from silt fences, check dams, berms or other controls before the accumulated sediment reaches one-half ($\frac{1}{2}$) the distance up the above-ground height (or it reaches a lower height based on manufacturer's specifications) of the control measure. For sediment traps or sediment ponds, the permittee must remove accumulated sediment when the design capacity has been reduced by fifty (50%) percent.

11.J.4.14 Inspection of Clearing, Grading, and Excavation Activities. (See also Part 6)

11.J.4.14.1 Inspection Frequency. Inspections must be conducted either at least once every 7 calendar days or at least once every 14 calendar days and within 24 hours of the end of a measurable storm event (see Part 7.1.3). If the entire site is temporarily stabilized, inspection frequency may be reduced to at least once every month and within two business days of the end of a measurable storm event at actively staffed sites which resulted in a discharge from the site (pursuant to 11.J.4.15.2). Once active mining has begun, those areas comply with inspections according to 11.J.7.

11.J.4.14.2 Winter Shutdown. If the exploration and construction phase is undergoing winter shutdown the permittee may stop inspections fourteen (14) calendar days after the anticipated fall freeze-up and must resume inspections at least twenty-one (21) calendar days prior to the anticipated spring thaw. The permittee shall identify the winter shutdown period in their SWPPP based upon the definitions of fall freeze-up and spring thaw.

11.J.4.14.3 Location of Inspections. Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

11.J.4.14.4 Inspection Reports. (See also Part 6.1) For each inspection required above, the permittee must complete an inspection report. At a minimum, the inspection report must include the information required in Part 6.1.

11.J.4.15 Requirements for Cessation of Clearing, Grading, and Excavation Activities.

11.J.4.15.1 Inspections and Maintenance. Inspections and maintenance of control measures, including any BMPs, associated with clearing, grading, and/or excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area or until the commencement of the active mining phase for those areas that have been temporarily stabilized as a precursor to mining.

11.J.4.15.2 Temporary Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after exploration and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable.

The permittee must identify the anticipated dates of fall freeze-up and spring thaw (see Appendix C) for the site and use those dates to plan for winter shutdown. For the purpose of planning ahead frozen ground by itself is not considered an acceptable control measure for stabilization. Where temporary stabilization by the 14th day is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable following the actual spring thaw.

Until temporary vegetative stabilization is achieved, interim measures (e.g., surface roughening or a surface cover, including but not limited to, establishment of ground vegetation, application of mulch, or surface tackifiers with an appropriate seed base) must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.

11.J.4.15.3 Final Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where mining, exploration, and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, final vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved, temporary stabilization measures must be used.

11.J.5 Additional Technology-Based Effluent Limits.

11.J.5.1 Employee Training. (See also Part 4.2.9) Conduct employee training at least annually at active and temporarily inactive sites.

11.J.5.2 Good Housekeeping Measures. (See also Part 4.2.2) As part of the permittees good housekeeping program, implement the following, as practicable: use sweepers and covered storage, watering haul roads to minimize dust generation, and conserving vegetation (where possible) to minimize erosion.

11.J.5.3 Preventive Maintenance. (See also Part 4.2.3) Perform inspections or other equivalent measures of storage tanks and pressure lines of fuels, lubricants, and hydraulic fluid to prevent leaks due to deterioration or faulty connections.

11.J.5.4 Storm Water Controls. Apart from the control measures implemented to meet the Part 4 control measures, implement the following control measures at the facility as practicable. The potential pollutants identified in Part 11.J.5.5 shall determine the priority and appropriateness of the control measures selected. . If the permittee selects or develops a storm water control other than one described below, the permittee shall describe it in the SWPPP.

11.J.5.4.1 Storm Water Diversions. Divert storm water away from potential pollutant sources. Implement the following options, as practicable: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.

- 11.J.5.4.2 Velocity Dissipation Devices.* Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) as practicable, along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.
- 11.J.5.4.3 Down-Slope Sediment Controls.* Establish and use down-slope sediment controls (e.g., silt fence or temporary diversion dike) for any portion of the down-slope and side-slope perimeter where storm water will be discharged from disturbed areas of the site.
- 11.J.5.4.4 Stabilized Construction Vehicle Access and Exit Points.* Establish stabilized vehicle access and exit points. Off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.
- 11.J.5.4.5 Capping.* When capping is necessary to minimize pollutant discharges in storm water, identify the source being capped and the material used to construct the cap.
- 11.J.5.4.6 Treatment.* If treatment of storm water (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. All permanent storm water treatment devices shall receive engineering plan approval per 18 AAC 72.600. Passive and/or active treatment of storm water runoff is encouraged where practicable. Treated runoff may be discharged as a storm water source regulated under this permit provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Mineral Mining and Processing Point Source Category (40 CFR Part 436).
- 11.J.5.5 Certification of Discharge Testing.* (See also Part 5.2.4.4) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-storm water discharges such as discharges subject to effluent limitations guidelines (e.g., 40 CFR Part 436). Alternatively (if applicable), the permittee may keep a certification with the SWPPP consistent with 11.J.6.5.
- 11.J.5.6 Overburden, Waste Rock, and Raw Material Piles.* Overburden, topsoil, and waste rock, as well as raw material and intermediate and final product stockpiles, should be located a minimum of 25 feet away from surface water, other sources of water, and from geologically unstable areas as practicable.

11.J.6 Additional SWPPP Requirements.

The requirements in Part 11.J.6 are applicable for sites undergoing exploration and construction, active mineral mining facilities, temporarily inactive mineral mining facilities, and sites undergoing reclamation. The requirements in Part 11.J.6 are not applicable to inactive mineral mining facilities.

- 11.J.6.1 Nature of Industrial Activities.* (See also Part 5.2.3) Document in the SWPPP the mining and associated activities that can potentially affect the storm water discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.
- 11.J.6.2 Site Map.* (See also Part 5.2.3) The permittee must document in the SWPPP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each storm water outfall within the facility with indications of the types of discharges from the drainage areas; location(s) of all permitted discharges covered under an individual APDES permit, outdoor equipment storage, fueling, and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage, and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils, or waste storage areas; location of mine drainage dewatering or other process water; heap leach pads; off-site points of discharge for mine dewatering and process water; surface waters; boundary of tributary areas that are subject to effluent limitations guidelines; and location(s) of reclaimed areas.
- 11.J.6.3 Potential Pollutant Sources.* (See also Part 5.2.4) For each area of the mine or mill site where storm water discharges associated with industrial activities occur, document in the SWPPP the types of pollutants (e.g., heavy metals, sediment) likely to be present in significant amounts. For example, phosphate mining facilities will likely need to document pollutants such as selenium, which can be present in significant amounts in their discharges. Consider these factors: the mineralogy of the waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water; vegetation of site (if any); and history of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing waste rock or overburden characterization data and test results for potential generation of acid rock drainage.
- 11.J.6.4 Storm Water Controls.* To the extent that a permittee uses any of the control measures in Part 11.J.5.4, document them in the SWPPP pursuant to Part 5.2.5. If control measures are implemented or planned but are not listed here (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in the SWPPP.
- 11.J.6.5 Certification of Permit Coverage for Commingled Non-Storm Water Discharges.* If a permittee determines that they are able to certify, consistent with Part 11.J.5.5, that a particular discharge composed of commingled storm water and non-storm water is covered under a separate APDES permit, and that permit subjects the non-storm water portion to effluent limitations prior to any commingling, the permittee must retain such certification with their SWPPP. This certification must identify the non-storm water discharges, the applicable APDES permit(s), the effluent limitations placed on the non-storm water discharge by the permit(s), and the points at which the limitations are applied.

11.J.6.6 Dewatering. Mine dewatering discharges composed entirely of storm water or ground water seepage from mines located within fifteen hundred feet of a DEC-identified contaminated site are required to have additional discharge authorization under the DEC Excavation Dewatering General Permit (AKG002000), or most current version. The Notice of Intent, NOI, application for authorization to discharge mine dewatering which may influence a contaminated area can be completed through the DEC's online application system at <http://www.dec.alaska.gov/water/oasys/index.html>.

11.J.7 Additional Inspection Requirements.

Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Part 11.J.4.14.1, the permittee must inspect sites at least quarterly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters which are designated as outstanding waters or waters which are impaired for sediment or nitrogen must be inspected monthly. See Part 11.J.8.1 for inspection requirements for inactive and unstaffed sites. (See also Part 6.1 and 11.J.4.14.)

11.J.8 Sector-Specific Benchmarks.

Table 11.J.8-1 identifies benchmarks that apply to the specific subsectors of Sector J. These benchmarks apply to both the permittees primary industrial activity and any co-located industrial activities, which describe their site activities.

Table 11.J.8-1: Sector – Specific Benchmarks – Sector J

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector J1. Sand and Gravel Mining (SIC 1442, 1446)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Suspended Solids (TSS)	100 mg/L
Subsector J2. Dimension and Crushed Stone and Nonmetallic Minerals (except fuels) (SIC 1411, 1422-1429, 1481, 1499)	Total Suspended Solids (TSS)	100 mg/L

11.J.8.1 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirement for Routine Inspections, Quarterly Visual Assessments, and Benchmark Monitoring. As a Sector J facility, if the permittee is seeking to exercise a waiver from either the routine inspection, quarterly visual assessment or the benchmark monitoring requirements for inactive and unstaffed sites (including temporarily inactive sites), they are conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to storm water” in Parts 6.2.3 and 7.2.1.6, respectively. Additionally, if the permittee is seeking to reduce their required quarterly routine inspection frequency to a once annual comprehensive inspection, as is allowed under Part 6.1.3, the permittee is also conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to storm water.” This exemption is conditioned on the following:

- If circumstances change and the permittees facility becomes active and/or staffed, this exception no longer applies and the permittee must immediately begin complying with the applicable benchmark monitoring requirements as if they were in their first year of permit coverage, and the quarterly visual assessment requirements; and
- DEC retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above a WQS, including designated uses.

Subject to the two conditions above, if the permittees facility is inactive and unstaffed, they are waived from the requirement to conduct quarterly visual assessments and routine facility inspections. The permittee is not waived from conducting the Part 6.3 comprehensive site inspection. The permittee is encouraged to inspect their site more frequently where they have reason to believe that severe weather or natural disasters may have damaged control measures or increased discharges.

11.J.9 Effluent Limitations Based on Effluent Limitations Guidelines. (See also Part 7.2.2.1 of the permit)

Table 11.J.9-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 11.J.9-1: Effluent Limitations Based on Effluent Limitations Guidelines

Industrial Activity	Parameter	Effluent Limit ¹
Mine dewatering discharges at crushed stone mining facilities (SIC 1422 - 1429)	pH	6.5 – 8.5 ²
Mine dewatering discharges at construction sand and gravel mining facilities (SIC 1442)	pH	6.5 – 8.5 ²
Mine dewatering discharges at industrial sand mining facilities (SIC 1446)	Total Suspended Solids (TSS)	25 mg/L, monthly avg.
		45 mg/L, daily maximum
	pH	6.5 – 8.5 ²
Note: 1. Monitor annually. 2. pH shall be within the limits specified above.		

11.J.10 Termination of Permit Coverage.

11.J.10.1 Termination of Permit Coverage for Sites Reclaimed After December 17, 1990. A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Part 11.J.3.5.

11.J.10.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990. A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) storm water runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state WQS, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to storm water discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

11. Subpart K – Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.K.1 Covered Storm Water Discharges.

The requirements in Subpart K apply to storm water discharges associated with industrial activity from Hazardous Waste Treatment, Storage, or Disposal facilities (TSDFs) as identified by the Activity Code specified under Sector K in Table D-1 of Appendix D of the permit.

11.K.2 Industrial Activities Covered by Sector K.

This permit authorizes storm water discharges associated with industrial activity from facilities that treat, store, or dispose of hazardous wastes, including those that are operating under interim status or a permit under subtitle C of Resource Conservation and Recovery Act (RCRA).

Disposal facilities that have been properly closed and capped, and have no significant materials exposed to storm water, are considered inactive and do not require permits.

11.K.3 Limitations on Coverage.

11.K.3.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) The following are not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory-derived wastewater, and contact washwater from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

11.K.4 Definitions.

11.K.4.1 Contaminated Storm Water - Storm water that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 11.K.4.5. Some specific areas of a landfill that may produce contaminated storm water include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.

11.K.4.2 Drained Free Liquids - Aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

11.K.4.3 Landfill - An area of land or an excavation in which wastes are placed for permanent disposal, but that is not a land application or land treatment unit, surface impoundment, underground injection well, waste pile, salt dome formation, salt bed formation, underground mine, or cave as these terms are defined in 40 CFR 257.2, 258.2, and 260.10.

11.K.4.4 Landfill Wastewater - As defined in 40 CFR Part 445 (Landfills Point Source Category), all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated storm water, contaminated groundwater, and wastewater from recovery pumping wells. Landfill wastewater includes, but is not limited to, leachate, gas collection condensate, drained free liquids, laboratory derived wastewater, contaminated storm water, and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

11.K.4.5 Leachate - Liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

11.K.4.6 Non-Contaminated Storm Water - Storm water that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 11.K.4.4. Non-contaminated storm water includes storm water that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

11.K.5 Sector-Specific Benchmarks.

Table 11.K.5-1 identifies benchmarks that apply to the specific subsectors of Sector K. These benchmarks apply to both the permittees primary industrial activity and any co-located industrial activities, which describe their site activities.

*(Table 11.K.5-1: Sector – Specific Benchmarks – Sector K
located on following page.)*

Table 11.K.5-1: Sector – Specific Benchmarks – Sector K

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector K1. ALL - Industrial Activity Code “HZ” (Note: permit coverage limited in some States). Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A (see below).	Ammonia	2.14 mg/L
	Total Magnesium	0.064 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Arsenic (saltwater) ¹	0.069 mg/L
	Total Arsenic (freshwater) ²	0.15 mg/L
	Total Cadmium (saltwater) ¹	0.04 mg/L
	Total Cadmium (freshwater) ²	Hardness Dependent
	Total Cyanide (saltwater) ¹	0.001 mg/L
	Total Cyanide (freshwater) ²	0.022 mg/ L
	Total Lead (saltwater) ¹	0.21 mg/L
	Total Lead (freshwater) ²	Hardness Dependent
	Total Mercury (saltwater) ¹	0.0018
	Total Mercury (freshwater) ²	0.0014 mg/ L
	Total Selenium (saltwater) ¹	0.29 mg/L
	Total Selenium (freshwater) ²	0.005 mg/L
	Total Silver (saltwater) ¹	0.0019
	Total Silver (freshwater) ²	Hardness Dependent

Note:

1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.
2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Cadmium (mg/L)	Lead (mg/L)	Silver (mg/L)
0 – < 25 mg/L	0.0005	0.014	0.0007
25 – < 50 mg/L	0.0008	0.023	0.0007
50 – < 75 mg/L	0.0013	0.045	0.0017
75 – < 100 mg/L	0.0018	0.069	0.0030
100 – < 125 mg/L	0.0023	0.095	0.0046
125 – < 150 mg/L	0.0029	0.122	0.0065
150 – < 175 mg/L	0.0034	0.151	0.0087
175 – < 200 mg/L	0.0039	0.182	0.0112
200 – < 225 mg/L	0.0045	0.213	0.0138
225 – < 250 mg/L	0.0050	0.246	0.0168
250+ mg/L	0.0053	0.262	0.0183

11.K.6 Effluent Limitations Based on Effluent Limitations Guidelines. (See also Part 7.2.2.1 of the permit.)

Table 11.K.6-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 11.K.6-1: Effluent Limitations Based on Effluent Limitations Guidelines

Industrial Activity	Parameter	Effluent Limit
Discharges from hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart A (see footnote).	Biochemical Oxygen Demand (BOD ₅)	220 mg/L, daily maximum
		56 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.042 mg/L, daily maximum
		0.019 mg/L, monthly avg. maximum
	Aniline	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Benzoic Acid	0.119 mg/L, daily maximum
		0.073 mg/L, monthly avg. maximum
	Naphthalene	0.059 mg/L, daily maximum
		0.022 mg/L, monthly avg. maximum
	p-Cresol	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Phenol	0.048 mg/L, daily maximum
		0.029 mg/L, monthly avg. maximum
	Pyridine	0.072 mg/L, daily maximum
		0.025 mg/L, monthly avg. maximum
	Total Arsenic	1.1 mg/L, daily maximum
		0.54 mg/L, monthly avg. maximum
	Total Chromium	1.1 mg/L, daily maximum
		0.46 mg/L, monthly avg. maximum
	Total Zinc	0.535 mg/L, daily maximum
		0.296 mg/L, monthly avg. maximum
	pH	6.5 - 8.5 s.u. and within 0.5 s.u. of background level

Note:

1. Monitor annually. As set forth at 40 CFR Part 445 Subpart A, these numeric limitations apply to contaminated storm water discharges from hazardous waste landfills subject to the provisions of RCRA Subtitle C at 40 CFR Parts 264 (Subpart N) and 265 (Subpart N) except for any of the following facilities:
 - a. Landfills operated in conjunction with other industrial or commercial operations when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;
 - b. Landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
 - c. Landfills operated in conjunction with Centralized Waste Treatment (CWT) facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
 - d. Landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

11. Subpart L – Sector L – Landfills, Land Application Sites, and Open Dumps.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.L.1 Covered Storm Water Discharges.

The requirements in Subpart L apply to storm water discharges associated with industrial activity from Landfills and Land Application Sites and Open Dumps as identified by the Activity Code specified under Sector L in Table D-1 of Appendix D of the permit.

11.L.2 Industrial Activities Covered by Sector L.

This permit may authorize storm water discharges for Sector L facilities associated with waste disposal at landfills, land application sites, and open dumps that receive or have received industrial waste, including sites subject to regulation under Subtitle D of Resource Conservation and Recovery Act (RCRA). This permit does not cover discharges from landfills that receive only municipal wastes.

11.L.3 Limitations on Coverage.

11.L.3.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) The following discharges are not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory wastewater, and contact washwater from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility. Discharges from open dumps as defined under RCRA are also not authorized under this permit.

11.L.4 Definitions.

11.L.4.1 Contaminated Storm Water - Storm water that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Some areas of a landfill that may produce contaminated storm water include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.

11.L.4.2 Drained Free Liquids - Aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

- 11.L.4.3 Landfill Wastewater* - As defined in 40 CFR Part 445 (Landfills Point Source Category) all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated storm water, contaminated groundwater, and wastewater from recovery pumping wells. Landfill process wastewater includes, but is not limited to, leachate; gas collection condensate; drained free liquids; laboratory-derived wastewater; contaminated storm water; and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.
- 11.L.4.4 Leachate* - Liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.
- 11.L.4.5 Non-Contaminated Storm Water* - Storm water that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated storm water includes storm water that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

11.L.5 Additional Technology-Based Effluent Limits.

- 11.L.5.1 Preventive Maintenance Program.* (See also Part 4.2.3) As part of a permittees preventive maintenance program, maintain the following: all elements of leachate collection and treatment systems, to prevent commingling of leachate with storm water; the integrity and effectiveness of any intermediate or final cover (including repairing the cover as necessary), to minimize the effects of settlement, sinking, and erosion.
- 11.L.5.2 Erosion and Sedimentation Control.* (See also Part 4.2.5) Provide temporary stabilization (e.g., temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles) for the following: materials stockpiled for daily, intermediate, and final cover; inactive areas of the landfill or open dump; landfills or open dump areas that have gotten final covers but where vegetation has yet to establish itself; and land application sites where waste application has been completed but final vegetation has not yet been established.
- 11.L.5.3 Storm Water Diversions.* Divert storm water away from potential pollutant sources. Implement the following options, as practicable: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.
- 11.L.5.4 Place Velocity Dissipation Devices:* (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.

11.L.5.5 Unauthorized Discharge Test Certification. (See also Part 5.2.4.4) The discharge test and certification must also be conducted for the presence of leachate and vehicle washwater.

11.L.6 Additional SWPPP Requirements.

11.L.6.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in their SWPPP where any of the following may be exposed to precipitation or surface runoff: active and closed landfill cells or trenches, active and closed land application areas, locations where open dumping is occurring or has occurred, locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff, and leachate collection and handling systems.

11.L.6.2 Summary of Potential Pollutant Sources. (See also Part 5.2.4) Document in the permittees SWPPP the following sources and activities that have potential pollutants associated with them: fertilizer, herbicide, and pesticide application; earth and soil moving; waste hauling and loading or unloading; outdoor storage of significant materials, including daily, interim, and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; and failure or leaks from leachate collection and treatment systems.

11.L.7 Additional Inspection Requirements. (See also Part 6)

11.L.7.1 Inspections of Active Sites. Except in arid and semi-arid climates, inspect operating landfills, open dumps, and land application sites at least once every seven (7) days. Focus on areas of landfills that have not yet been finally stabilized; active land application areas, areas used for storage of material and wastes that are exposed to precipitation, stabilization, and structural control measures; leachate collection and treatment systems; and locations where equipment and waste trucks enter and exit the site. Ensure that sediment and erosion control measures are operating properly. For stabilized sites and areas where land application has been completed, or where the climate is arid or semi-arid, conduct inspections at least once every month.

11.L.7.2 Inspections of Inactive Sites. Inspect inactive landfills, open dumps, and land application sites at least quarterly. Qualified personnel must inspect landfill (or open dump) stabilization and structural erosion control measures, leachate collection and treatment systems, and all closed land application areas.

11.L.8 Additional Post-Authorization Documentation Requirements.

11.L.8.1 Recordkeeping and Internal Reporting. Keep records with the SWPPP of the types of wastes disposed of in each cell or trench of a landfill or open dump. For land application sites, track the types and quantities of wastes applied in specific areas.

11.L.9 Sector-Specific Benchmarks.

Table 11.L.9-1 identifies benchmarks that apply to the specific subsectors of Sector L. These benchmarks apply to both the permittees primary industrial activity and any co-located industrial activities, which describe their site activities.

Table 11.L.9-1: Sector – Specific Benchmarks – Sector L

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration ¹
Subsector L1. All Landfill, Land Application Sites and Open Dumps (Industrial Activity Code “LF”)	Total Suspended Solids (TSS)	100 mg/L
Subsector L2. All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60 (Industrial Activity Code “LF”)	Total Iron	1.0 mg/L
Note: 1. Benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B (see Table L-2).		

11.L.10 Effluent Limitations Based on Effluent Limitations Guidelines. (See also Part 7.2.2.1 of the permit.)

Table 11.L.10-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

(Table 11.L.10-1: Effluent Limitations Based on Effluent Limitations Guidelines located on following page.)

Table 11.L.10-1: Effluent Limitations Based on Effluent Limitations Guidelines¹

Industrial Activity	Parameter	Effluent Limit
Discharges from non-hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart B.	Biochemical Oxygen Demand (BOD ₅)	140 mg/L, daily maximum
		37 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.033 mg/L, daily maximum
		0.016 mg/L monthly avg. maximum
	Benzoic Acid	0.12 mg/L, daily maximum
		0.071 mg/L, monthly avg. maximum
	p-Cresol	0.025 mg/L, daily maximum
		0.014 mg/L, monthly avg. maximum
	Phenol	0.026 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Total Zinc	0.20 mg/L, daily maximum
		0.11 mg/L, monthly avg. maximum
	pH	6.5 - 8.5 s.u.

Note:

1. Monitor annually. As set forth at 40 CFR Part 445 Subpart B, these numeric limitations apply to contaminated storm water discharges from MSWLFs that have not been closed in accordance with 40 CFR 258.60, and to contaminated storm water discharges from those landfills that are subject to the provisions of 40 CFR Part 257 except for discharges from any of the following facilities:
 - a. Landfills operated in conjunction with other industrial or commercial operations, when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;
 - b. Landfills operated in conjunction with other industrial or commercial operations, when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation, or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
 - c. Landfills operated in conjunction with CWT facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
 - d. Landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

11. Subpart M – Sector M – Automobile Salvage Yards.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.M.1 Covered Storm Water Discharges.

The requirements in Subpart M apply to storm water discharges associated with industrial activity from Automobile Salvage Yards as identified by the SIC Code specified under Sector M in Table D-1 of Appendix D of this permit.

11.M.2 Additional Technology-Based Effluent Limits.

- 11.M.2.1 Spill and Leak Prevention Procedures.* (See also Part 4.2.4) Drain vehicles intended to be dismantled of all fluids upon arrival at the site (or as soon thereafter as feasible), or employ some other equivalent means to prevent spills and leaks. Collected automotive fluids should be containerized, labeled, and stored to minimize exposure to storm water. Salvage yard operators should develop and implement a mercury switch removal and disposal procedure to remove mercury as a potential pollutant source. All facilities should be provided with a nearby spill containment kit and fluids managed in accordance with all applicable state and federal regulations.
- 11.M.2.2 Employee Training.* (See also Part 4.2.9) If applicable to the facility, address the following areas (at a minimum) in the permittees employee training program: proper handling (collection, storage, and disposal) of oil, used mineral spirits, anti-freeze, mercury switches, and solvents.
- 11.M.2.3 Management of Runoff.* (See also Part 4.2.6) Use the following management practices, as practicable: berms or drainage ditches on the property line (to help prevent run-on from neighboring properties); berms for uncovered outdoor storage of oily parts, engine blocks, and above-ground liquid storage; installation of detention ponds; and installation of filtering devices and oil and water separators.
- 11.M.2.4 Vehicle Crushing Activities.* If a crusher is used on-site provide timely maintenance and inspection of the crusher to prevent any fluid leaks and document in the SWPPP. The crusher should be provided with a device to capture any automotive fluids generated during crushing.

11.M.3 Additional SWPPP Requirements.

11.M.3.1 Drainage Area Site Map. (See also Part 5.2.3) Identify locations used for dismantling, storage, and maintenance of used motor vehicle parts. Also identify where any of the following may be exposed to precipitation or surface runoff: dismantling areas, parts (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers) storage areas, and liquid storage tanks and drums for fuel and other fluids.

11.M.3.2 Potential Pollutant Sources. (See also Part 5.2.4) Assess the potential for the following to contribute pollutants to storm water discharges: vehicle storage areas, dismantling areas, parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers), and fueling stations.

11.M.4 Additional Inspection Requirements. (See also Part 6.1) Immediately (or as soon thereafter as feasible) inspect vehicles arriving at the site for leaks and inspect area designated for the draining and collecting of automotive fluids. Inspect quarterly for signs of leakage of all equipment containing oily parts, hydraulic fluids, any other types of fluids, or mercury switches. Also, inspect quarterly for signs of leakage of all vessels and areas where hazardous materials and general automotive fluids are stored, including, but not limited to, mercury switches, brake fluid, transmission fluid, radiator water, and antifreeze.

(Table 11.M.5-1: Sector – Specific Benchmarks – Sector M located on the following page.)

11.M.5 Sector-Specific Benchmarks. (See also Part 7 of the permit.)**Table 11.M.5-1: Sector – Specific Benchmarks – Sector M**

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector M1. Automobile Salvage Yards (SIC 5015)	Total Suspended Solids (TSS)	100 mg/L
	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Lead (saltwater) ¹	0.21 mg/L
	Total Lead (freshwater) ²	Hardness Dependent

Note:

1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.

2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Lead (mg/L)
0 – < 25 mg/L	0.014
25 – < 50 mg/L	0.023
50 – < 75 mg/L	0.045
75 – < 100 mg/L	0.069
100 – < 125 mg/L	0.095
125 – < 150 mg/L	0.122
150 – < 175 mg/L	0.151
175 – < 200 mg/L	0.182
200 – < 225 mg/L	0.213
225 – < 250 mg/L	0.246
250+ mg/L	0.262

11. Subpart N – Sector N – Scrap Recycling and Waste Recycling Facilities.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.N.1 Covered Storm Water Discharges.

The requirements in Subpart N apply to storm water discharges associated with industrial activity from Scrap Recycling and Waste Recycling facilities as identified by the SIC Code specified under Sector N in Table D-1 of Appendix D of the permit.

11.N.2 Limitation on Coverage.

Separate permit requirements have been established for recycling facilities that only receive source-separated recyclable materials primarily from non-industrial and residential sources (i.e., common consumer products including paper, newspaper, glass, cardboard, plastic containers, and aluminum and tin cans). This includes recycling facilities commonly referred to as material recovery facilities (MRF). See Part 11.N.3.3

11.N.2.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) Non-storm water discharges from turnings containment areas are not covered by this permit (see also Part 11.N.3.2.3). Discharges from containment areas as well as all others in the absence of a storm event are prohibited unless covered by a separate APDES permit.

11.N.3 Additional Technology-Based Effluent Limits.

11.N.3.1 Scrap and Waste Recycling Facilities (Non-Source Separated, Nonliquid Recyclable Materials). Requirements for facilities that receive, process, and do wholesale distribution of nonliquid recyclable wastes (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper). These facilities may receive both nonrecyclable and recyclable materials. This section is not intended for those facilities that accept recyclables only from primarily non-industrial and residential sources.

- 11.N.3.1.1 Inbound Recyclable and Waste Material Control Program.* Minimize the chance of accepting materials that could be significant sources of pollutants by conducting inspections of inbound recyclables and waste materials. Following are some control measure options: (a) provide information and education to suppliers of scrap and recyclable waste materials on draining and properly disposing of residual fluids (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles before delivery to the facility; (b) establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff; (c) establish procedures for accepting scrap lead-acid batteries (additional requirements for the handling, storage, and disposal or recycling of batteries are contained in the scrap lead-acid battery program provisions in Part 11.N.3.1.6); (d) provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; and (e) establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with the Resource Conservation and Recovery Act (RCRA).
- 11.N.3.1.2 Scrap and Waste Material Stockpiles and Storage (Outdoor).* Minimize contact of storm water runoff with stockpiled materials, processed materials, and nonrecyclable wastes. Following are some control measure options: (a) permanent or semi-permanent covers; (b) sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants; (c) dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage areas; (d) silt fencing; and (e) oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas).
- 11.N.3.1.3 Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage).* Minimize contact of surface runoff with residual cutting fluids by: (a) storing all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, or (b) establishing dedicated containment areas for all turnings that have been exposed to cutting fluids. Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with storm water run-on. Storm Water runoff from these areas can be discharged, provided that any runoff is first collected and treated by an oil and water separator or its equivalent. The permittee must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

11.N.3.1.4 Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage).

Minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. Following are some control measure options: (a) good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches; (b) not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and (c) disconnecting or sealing off all floor drains connected to the storm sewer system.

11.N.3.1.5 Scrap and Recyclable Waste Processing Areas. Minimize surface runoff from coming in contact with scrap processing equipment. Pay attention to operations that generate visible amounts of particulate residue (e.g., shredding) to minimize the contact of accumulated particulate matter and residual fluids with runoff (i.e., through good housekeeping, preventive maintenance, etc.). Following are some control measure options: (a) regularly inspect equipment for spills or leaks and malfunctioning, worn, or corroded parts or equipment; (b) establish a preventive maintenance program for processing equipment; (c) use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches; (d) on unattended hydraulic reservoirs over 150 gallons in capacity, install protection devices such as low-level alarms or equivalent devices, or secondary containment that can hold the entire volume of the reservoir; (e) containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of storm water runoff with outdoor processing equipment or stored materials; (f) oil and water separators or sumps; (g) permanent or semi-permanent covers in processing areas where there are residual fluids and grease; (h) retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); (i) catch basin filters or sand filters.

11.N.3.1.6 Scrap Lead-Acid Battery Program. Properly handle, store, and dispose of scrap lead-acid batteries. Following are some control measure options (a) segregate scrap lead-acid batteries from other scrap materials; (b) properly handle, store, and dispose of cracked or broken batteries; (c) collect and dispose of leaking lead-acid battery fluid; (d) minimize or eliminate (if possible) exposure of scrap lead-acid batteries to precipitation or runoff; and (e) provide employee training for the management of scrap batteries.

11.N.3.1.7 Spill Prevention and Response Procedures. (See also Part 4.2.4) Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used. Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas.

11.N.3.1.8 Supplier Notification Program. As appropriate, notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions.

11.N.3.2 Waste Recycling Facilities (Liquid Recyclable Materials).

11.N.3.2.1 Waste Material Storage (Indoor). Minimize or eliminate contact between residual liquids from waste materials stored indoors and from surface runoff. The plan may refer to applicable portions of other existing plans, such as Spill Prevention, Control, and Countermeasure (SPCC) plans required under 40 CFR Part 112. Following are some control measure options (a) procedures for material handling (including labeling and marking); (b) clean up spills and leaks with dry absorbent materials, a wet vacuum system; (c) appropriate containment structures (trenching, curbing, gutters, etc.); and (d) a drainage system, including appurtenances (e.g., pumps or ejectors, manually operated valves), to handle discharges from diked or bermed areas. Drainage should be discharged to an appropriate treatment facility or sanitary sewer system, or otherwise disposed of properly. These discharges may require coverage under a separate APDES wastewater permit or industrial user permit under the pretreatment program.

11.N.3.2.2 Waste Material Storage (Outdoor). Minimize contact between stored residual liquids and precipitation or runoff. The plan may refer to applicable portions of other existing plans, such as SPCC plans required under 40 CFR Part 112. Discharges of precipitation from containment areas containing used oil must also be in accordance with applicable sections of 40 CFR Part 112. Following are some control measure options (a) appropriate containment structures (e.g., dikes, berms, curbing, pits) to store the volume of the largest tank, with sufficient extra capacity for precipitation; (b) drainage control and other diversionary structures; (c) corrosion protection and/or leak detection systems for storage tanks; and (d) dry-absorbent materials or a wet vacuum system to collect spills.

11.N.3.2.3 Trucks and Rail Car Waste Transfer Areas. Minimize pollutants in discharges from truck and rail car loading and unloading areas. Include measures to clean up minor spills and leaks resulting from the transfer of liquid wastes. Following are two control measure options: (a) containment and diversionary structures to minimize contact with precipitation or runoff, and (b) dry clean-up methods, wet vacuuming, roof coverings, or runoff controls.

11.N.3.3 Recycling Facilities (Source-Separated Materials). The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.

11.N.3.3.1 Inbound Recyclable Material Control. Minimize the chance of accepting nonrecyclables (e.g., hazardous materials) that could be a significant source of pollutants by conducting inspections of inbound materials. Following are some control measure options: (a) providing information and education measures to inform suppliers of recyclables about acceptable and non-acceptable materials, (b) training drivers responsible for pickup of recycled material, (c) clearly marking public drop-off containers regarding which materials can be accepted, (d) rejecting nonrecyclable wastes or household hazardous wastes at the source, and (e) establishing procedures for handling and disposal of nonrecyclable material.

11.N.3.3.2 Outdoor Storage. Minimize exposure of recyclables to precipitation and runoff. Use good housekeeping measures to prevent accumulation of particulate matter and fluids, particularly in high traffic areas. Following are some control measure options (a) provide totally enclosed drop-off containers for the public; (b) install a sump and pump with each container pit and treat or discharge collected fluids to a sanitary sewer system; (c) provide dikes and curbs for secondary containment (e.g., around bales of recyclable waste paper); (d) divert surface water runoff away from outside material storage areas; (e) provide covers over containment bins, dumpsters, and roll-off boxes; and (f) store the equivalent of one day's volume of recyclable material indoors.

11.N.3.3.3 Indoor Storage and Material Processing. Minimize the release of pollutants from indoor storage and processing areas. Following are some control measure options (a) schedule routine good housekeeping measures for all storage and processing areas, (b) prohibit tipping floor washwater from draining to the storm sewer system, and (c) provide employee training on pollution prevention practices.

11.N.3.3.4 Vehicle and Equipment Maintenance. Following are some control measure options for areas where vehicle and equipment maintenance occur outdoors (a) prohibit vehicle and equipment washwater from discharging to the storm sewer system, (b) minimize or eliminate outdoor maintenance areas whenever practicable, (c) establish spill prevention and clean-up procedures in fueling areas, (d) avoid topping off fuel tanks, (e) divert runoff from fueling areas, (f) store lubricants and hydraulic fluids indoors, and (g) provide employee training on proper handling and storage of hydraulic fluids and lubricants.

11.N.4 Additional SWPPP Requirements.

11.N.4.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: scrap and waste material storage, outdoor scrap and waste processing equipment; and containment areas for turnings exposed to cutting fluids.

11.N.4.2 Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities. If the permittee is subject to Part 11.N.3.1.3, the SWPPP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

11.N.5 Additional Inspection Requirements.

11.N.5.1 Inspections for Waste Recycling Facilities. The inspections must be performed quarterly, pursuant to Part 6.1, and include, at a minimum, all areas where waste is generated, received, stored, treated, or disposed of and that are exposed to either precipitation or storm water runoff.

11.N.6 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

*(Table 11.N.6-1: Sector – Specific Benchmarks – Sector N
located on following page.)*

Table 11.N.6-1: Sector – Specific Benchmarks – Sector N

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector N1. Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Recoverable Aluminum	0.75 mg/L
	Total Copper (saltwater) ¹	0.0048 mg/L
	Total Copper (freshwater) ²	Hardness Dependent
	Total Recoverable Iron	1.0 mg/L
	Total Lead (saltwater) ¹	0.21 mg/L
	Total Lead (freshwater) ²	Hardness Dependent
	Total Zinc (saltwater) ¹	0.09 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent

Note:

1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.

2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Copper (mg/L)	Lead (mg/L)	Zinc (mg/L)
0 – < 25 mg/L	0.0038	0.014	0.04
25 – < 50 mg/L	0.0056	0.023	0.05
50 – < 75 mg/L	0.0090	0.045	0.08
75 – < 100 mg/L	0.0123	0.069	0.11
100 – < 125 mg/L	0.0156	0.095	0.13
125 – < 150 mg/L	0.0189	0.122	0.16
150 – < 175 mg/L	0.0221	0.151	0.18
175 – < 200 mg/L	0.0253	0.182	0.20
200 – < 225 mg/L	0.0285	0.213	0.23
225 – < 250 mg/L	0.0316	0.246	0.25
250+ mg/L	0.0332	0.262	0.26

11. Subpart O – Sector O – Steam Electric Generating Facilities.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.O.1 Covered Storm Water Discharges.

The requirements in Subpart O apply to storm water discharges associated with industrial activity from Steam Electric Power Generating Facilities as identified by the Activity Code specified under Sector O in Table D-1 of Appendix D.

11.O.2 Industrial Activities Covered by Sector O.

This permit authorizes storm water discharges from the following industrial activities at Sector O facilities:

- 11.O.2.1 Steam electric power generation using coal, natural gas, oil, nuclear energy, etc., to produce a steam source, including coal handling areas;
- 11.O.2.2 Coal pile runoff, including effluent limitations established by 40 CFR Part 423; and
- 11.O.2.3 Dual fuel facilities that could employ a steam boiler.

11.O.3 Limitations on Coverage.

11.O.3.1 Prohibition of Non-Storm Water Discharges. Non-storm water discharges subject to effluent limitations guidelines are not covered by this permit.

11.O.3.2 Prohibition of Storm Water Discharges. Storm water discharges from the following are not covered by this permit:

11.O.3.2.1 Ancillary Facilities (e.g., fleet centers and substations) that are not contiguous to a steam electric power generating facility;

11.O.3.2.2 Gas Turbine Facilities (providing the facility is not a dual-fuel facility that includes a steam boiler), and combined-cycle facilities where no supplemental fuel oil is burned (and the facility is not a dual-fuel facility that includes a steam boiler); and

11.O.3.2.3 Cogeneration (combined heat and power) facilities utilizing a gas turbine.

11.O.4 Additional Technology-Based Effluent Limits. The following good housekeeping measures are required in addition to Part 4.2.2:

- 11.O.4.1 Fugitive Dust Emissions.* Minimize fugitive dust emissions from coal handling areas. To minimize the tracking of coal dust offsite, adopt, as practicable, procedures such as installing specially designed tires or washing vehicles in a designated area before they leave the site and controlling the wash water.
- 11.O.4.2 Delivery Vehicles.* Minimize contamination of storm water runoff from delivery vehicles arriving at the plant site. Adopt procedures to inspect delivery vehicles arriving at the plant site and ensure overall integrity of the body or container and procedures to deal with leakage or spillage from vehicles or containers.
- 11.O.4.3 Fuel Oil Unloading Areas.* Minimize contamination of precipitation or surface runoff from fuel oil unloading areas. Use containment curbs in unloading areas, have personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and use spill and overflow protection devices (e.g., drip pans, drip diapers, or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).
- 11.O.4.4 Chemical Loading and Unloading.* Minimize contamination of precipitation or surface runoff from chemical loading and unloading areas. Use containment curbs at chemical loading and unloading areas to contain spills, have personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and loading and unloading in covered areas and storing chemicals indoors.
- 11.O.4.5 Miscellaneous Loading and Unloading Areas.* Minimize contamination of precipitation or surface runoff from loading and unloading areas. Use the following, as practicable, cover the loading area; grade, berm, or curb around the loading area to divert run-on; locate the loading and unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems; or equivalent procedures.
- 11.O.4.6 Liquid Storage Tanks.* Minimize contamination of surface runoff from above-ground liquid storage tanks. Use the following, as practicable, protective guards around tanks, containment curbs, spill and overflow protection, dry cleanup methods, or equivalent measures.
- 11.O.4.7 Large Bulk Fuel Storage Tanks.* Minimize contamination of surface runoff from large bulk fuel storage tanks. Use containment berms (or their equivalent) as required by applicable State and Federal Laws. The permittee must also comply with applicable State and Federal laws, including Spill Prevention, Control and Countermeasure (SPCC) Plan requirements.

- 11.O.4.8 Spill Reduction Measures.* Minimize the potential for an oil or chemical spill, or reference the appropriate part of the permittees SPCC plan. Visually inspect as part of the routine facility inspection the structural integrity of all above-ground tanks, pipelines, pumps, and related equipment that may be exposed to storm water, and make any necessary repairs immediately.
- 11.O.4.9 Oil-Bearing Equipment in Switchyards.* Minimize contamination of surface runoff from oil-bearing equipment in switchyard areas. Use level grades and gravel surfaces to retard flows and limit the spread of spills, or collect runoff in perimeter ditches.
- 11.O.4.10 Residue-Hauling Vehicles.* Inspect all residue-hauling vehicles for proper covering over the load, adequate gate sealing, and overall integrity of the container body. Repair vehicles without load covering or adequate gate sealing, or with leaking containers or beds.
- 11.O.4.11 Ash Loading Areas.* Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before departure of each loaded vehicle.
- 11.O.4.12 Areas Adjacent to Disposal Ponds or Landfills.* Minimize contamination of surface runoff from areas adjacent to disposal ponds or landfills. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.
- 11.O.4.13 Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse Sites.* Minimize the potential for contamination of runoff from these areas.

11.O.5 Additional SWPPP Requirements.

- 11.O.5.1 Drainage Area Site Map.* (See also Part 5.2.3) The permittee must document in the SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap yards, and general refuse areas; short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal or limestone piles).
- 11.O.5.2 Documentation of Good Housekeeping Measures.* The permittee must document in the SWPPP the good housekeeping measures implemented to meet the effluent limits in Part 11.O.4.

11.O.6 Additional Inspection Requirements.

11.O.6.1 Comprehensive Site Compliance Inspection. (See also Part 6.3) As part of the permittees inspection, inspect the following areas monthly: coal handling areas, loading or unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and long term and short term material storage areas.

11.O.7 Sector-Specific Benchmarks

Table 11.O.7-1 identifies benchmarks that apply to the specific subsectors of Sector O. These benchmarks apply to both the permittees primary industrial activity and any co-located industrial activities, which describe their facility activities.

Table 11.O.7-1: Sector – Specific Benchmarks – Sector O

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector O1. Steam Electric Generating Facilities (Industrial Activity Code “SE”)	Total Iron	1.0 mg/L

11.O.8 Effluent Limitations Based on Effluent Limitations Guidelines. (See also Part 7.2.2.1 of the permit.)

Table 11.O.8-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 11.O.8-1: Effluent Limitations Based on Effluent Limitations Guidelines¹

Industrial Activity	Parameter	Effluent Limit
Discharges from coal storage piles at Steam Electric Generating Facilities	TSS	50 mg/l ²
	pH	6.5 - 8.5 s.u.
Notes:		
1. Monitor annually.		
2. If the permittees facility is designed, constructed, and operated to treat the volume of coal pile runoff that is associated with a 10-year, 24-hour rainfall event, any untreated overflow of coal pile runoff from the treatment unit is not subject to the 50 mg/L limitation for total suspended solids.		

11. Subpart P – Sector P – Land Transportation and Warehousing.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.P.1 Covered Storm Water Discharges.

The requirements in Subpart P apply to storm water discharges associated with industrial activity from Land Transportation and Warehousing facilities as identified by the SIC Codes specified under Sector P in Table D-1 of Appendix D of the permit.

11.P.2 Limitation on Coverage.

11.P.2.1 Prohibited Discharges. (See also Part 1.2.4) This permit does not authorize the discharge of vehicle/equipment/surface washwater, including tank cleaning operations. Such discharges must be authorized under a separate APDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or recycled on-site.

11.P.3 Additional Technology-Based Effluent Limits.

11.P.3.1 Good Housekeeping Measures. (See also Part 4.2.2) In addition to the Good Housekeeping requirements in Part 4.2.2, the permittee must do the following. Recommended control measures are discussed as indicated:

11.P.3.1.1 Vehicle and Equipment Storage Areas. Minimize the potential for storm water exposure to leaky or leak-prone vehicles/equipment awaiting maintenance. Implement the following (or other equivalent measures), as practicable: use of drip pans under vehicles/equipment, indoor storage of vehicles and equipment, installation of berms or dikes, use of absorbents, roofing or covering storage areas, and cleaning pavement surfaces to remove oil and grease.

11.P.3.1.2 Fueling Areas. Minimize contamination of storm water runoff from fueling areas. Implement the following (or other equivalent measures), as practicable: Covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing storm water run-on/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected storm water runoff.

11.P.3.1.3 Material Storage Areas. Maintain all material storage vessels (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of storm water and plainly label them (e.g., “Used Oil,” “Spent Solvents,” etc.). Implement the following (or other equivalent measures), as practicable: storing the materials indoors; installing berms/dikes around the areas; minimizing runoff of storm water to the areas; using dry cleanup methods; and treating and/or recycling collected storm water runoff.

11.P.3.1.4 Vehicle and Equipment Cleaning Areas. Minimize contamination of storm water runoff from all areas used for vehicle/equipment cleaning. Implement the following (or other equivalent measures), as practicable: performing all cleaning operations indoors; covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the storm water drainage system); treating and/or recycling collected washwater, or other equivalent measures.

11.P.3.1.5 Vehicle and Equipment Maintenance Areas. Minimize contamination of storm water runoff from all areas used for vehicle/equipment maintenance. Implement the following (or other equivalent measures), as practicable: performing maintenance activities indoors; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting wet clean up practices if these practices would result in the discharge of pollutants to storm water drainage systems; using dry cleanup methods; treating and/or recycling collected storm water runoff, minimizing run on/runoff of storm water to maintenance areas.

11.P.3.1.6 Locomotive Sanding (Loading Sand for Traction) Areas. Implement the following (or other equivalent measures), as practicable: covering sanding areas; minimizing storm water run on/runoff; or appropriate sediment removal practices to minimize the offsite transport of sanding material by storm water.

11.P.3.2 Employee Training. (See also Part 4.2.9) Train personnel at least once a year and address the following activities, as applicable: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

11.P.4 Additional SWPPP Requirements.

11.P.4.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: Fueling stations; vehicle/equipment maintenance or cleaning areas; storage areas for vehicle/equipment with actual or potential fluid leaks; loading/unloading areas; areas where treatment, storage or disposal of wastes occur; liquid storage tanks; processing areas; and storage areas.

- 11.P.4.2 Potential Pollutant Sources.* (See also Part 5.2.4) Assess the potential for the following activities and facility areas to contribute pollutants to storm water discharges: Onsite waste storage or disposal; dirt/gravel parking areas for vehicles awaiting maintenance; illicit plumbing connections between shop floor drains and the storm water conveyance system(s); and fueling areas. Describe these activities in the SWPPP.
- 11.P.4.3 Description of Good Housekeeping Measures.* The permittee must document in the SWPPP the good housekeeping measures they implement consistent with Part 11.P.3.
- 11.P.4.4 Vehicle and Equipment Washwater Requirements.* If applicable, attach to or reference in the SWPPP, a copy of the APDES permit issued for vehicle/ equipment washwater; if an APDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, attach a copy to the SWPPP. In any case, implement all non-storm water discharge permit conditions or pretreatment conditions in the SWPPP. If washwater is handled in another manner (e.g., hauled offsite), describe the disposal method and attach all pertinent documentation/ information (e.g., frequency, volume, destination, etc.) in the plan.

11.P.5 Additional Inspection Requirements. (See also Part 6.1) Inspect all the following areas/activities: storage areas for vehicles/equipment awaiting maintenance, fueling areas, indoor and outdoor vehicle/equipment maintenance areas, material storage areas, vehicle/equipment cleaning areas, loading/unloading areas, and any petroleum bulk fuel storage areas. Quarterly visual assessment of the bulk fuel storage areas should focus on identifying any potential leaks in tanks, pipelines, valves, etc. and implementing temporary spill containment measures until permanent corrective actions can be made.

11. Subpart Q – Sector Q – Water Transportation.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.Q.1 Covered Storm Water Discharges.

The requirements in Subpart Q apply to storm water discharges associated with industrial activity from Water Transportation facilities as identified by the SIC Codes specified under Sector Q in Table D-1 of Appendix D of the permit.

11.Q.2 Limitations on Coverage.

11.Q.2.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) Not covered by this permit: bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels.

11.Q.3 Additional Technology-Based Effluent Limits.

11.Q.3.1 Good Housekeeping Measures. A permittee must implement the following good housekeeping measures in addition to the requirements of Part 4.2.2:

11.Q.3.1.1 Pressure Washing Area. If pressure washing is used to remove marine growth from vessels, the discharge water must be permitted by a separate APDES permit. Collect or contain the discharges from the pressure washing areas so that they are not co-mingled with storm water discharges authorized by this permit.

11.Q.3.1.2 Blasting and Painting Area. Minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. Contain all blasting and painting activities or use other measures to minimize the discharge of contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean storm water conveyances of deposits of abrasive blasting debris and paint chips.

11.Q.3.1.3 Material Storage Areas. Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. Specify which materials are stored indoors, and consider containment or enclosure for those stored outdoors. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Implement an inventory control plan to limit the presence of potentially hazardous materials onsite.

- 11.Q.3.1.4 Engine Maintenance and Repair Areas.* Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Implement the following (or their equivalents), as practicable: performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the maintenance area.
- 11.Q.3.1.5 Material Handling Area.* Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Implement the following (or their equivalents), as practicable: covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing runoff of storm water to material handling areas.
- 11.Q.3.1.6 Drydock Activities.* Routinely maintain and clean the drydock to minimize pollutants in storm water runoff. Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock. Implement the following (or their equivalents), as practicable: sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.
- 11.Q.3.2 Storm Water Diversions.* Divert storm water away from potential pollutant sources. Implement the following options, as practicable: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.
- 11.Q.3.3 Velocity Dissipation Devices.* (e.g., check dams, sediment traps, or riprap) Place velocity dissipation devices, as practicable, along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.
- 11.Q.3.4 Employee Training.* (See also Part 4.2.9) As part of the permittees employee training program, address, at a minimum, the following activities (as practicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

11.Q.3.5 Preventive Maintenance. (See also Part 4.2.3) As part of the permittees preventive maintenance program, perform timely inspection and maintenance of storm water management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

11.Q.4 Additional SWPPP Requirements.

11.Q.4.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance and repair; vessel maintenance and repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

11.Q.4.2 Summary of Potential Pollutant Sources. (See also Part 5.2.4) The permittee must document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

11.Q.5 Additional Inspection Requirements. (See also Part 6.1) Include the following in all quarterly routine facility inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

11.Q.6 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

*(Table 11.N.6-1: Sector – Specific Benchmarks – Sector N
located on following page.)*

Table 11.Q.6-1: Sector – Specific Benchmarks – Sector Q

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration																																				
Subsector Q1. Water Transportation Facilities (SIC 4412-4499)	Total Aluminum	0.75 mg/L																																				
	Total Iron	1.0 mg/L																																				
	Total Lead (saltwater) ¹	0.21 mg/L																																				
	Total Lead (freshwater) ²	Hardness Dependent																																				
	Total Zinc (saltwater) ¹	0.09 mg/L																																				
	Total Zinc (freshwater) ²	Hardness Dependent																																				
Note: 1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated. 2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below: <table> <tr> <th>Water Hardness Range</th><th>Lead (mg/L)</th><th>Zinc (mg/L)</th></tr> <tr> <td>0 – < 25 mg/L</td><td>0.014</td><td>0.04</td></tr> <tr> <td>25 – < 50 mg/L</td><td>0.023</td><td>0.05</td></tr> <tr> <td>50 – < 75 mg/L</td><td>0.045</td><td>0.08</td></tr> <tr> <td>75 – < 100 mg/L</td><td>0.069</td><td>0.11</td></tr> <tr> <td>100 – < 125 mg/L</td><td>0.095</td><td>0.13</td></tr> <tr> <td>125 – < 150 mg/L</td><td>0.122</td><td>0.16</td></tr> <tr> <td>150 – < 175 mg/L</td><td>0.151</td><td>0.18</td></tr> <tr> <td>175 – < 200 mg/L</td><td>0.182</td><td>0.20</td></tr> <tr> <td>200 – < 225 mg/L</td><td>0.213</td><td>0.23</td></tr> <tr> <td>225 – < 250 mg/L</td><td>0.246</td><td>0.25</td></tr> <tr> <td>250+ mg/L</td><td>0.262</td><td>0.26</td></tr> </table>			Water Hardness Range	Lead (mg/L)	Zinc (mg/L)	0 – < 25 mg/L	0.014	0.04	25 – < 50 mg/L	0.023	0.05	50 – < 75 mg/L	0.045	0.08	75 – < 100 mg/L	0.069	0.11	100 – < 125 mg/L	0.095	0.13	125 – < 150 mg/L	0.122	0.16	150 – < 175 mg/L	0.151	0.18	175 – < 200 mg/L	0.182	0.20	200 – < 225 mg/L	0.213	0.23	225 – < 250 mg/L	0.246	0.25	250+ mg/L	0.262	0.26
Water Hardness Range	Lead (mg/L)	Zinc (mg/L)																																				
0 – < 25 mg/L	0.014	0.04																																				
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50 – < 75 mg/L	0.045	0.08																																				
75 – < 100 mg/L	0.069	0.11																																				
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125 – < 150 mg/L	0.122	0.16																																				
150 – < 175 mg/L	0.151	0.18																																				
175 – < 200 mg/L	0.182	0.20																																				
200 – < 225 mg/L	0.213	0.23																																				
225 – < 250 mg/L	0.246	0.25																																				
250+ mg/L	0.262	0.26																																				

11. Subpart R – Sector R – Ship and Boat Building and Repair Yards.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.R.1 Covered Storm Water Discharges.

The requirements in Subpart R apply to storm water discharges associated with industrial activity from Ship and Boat Building and Repair Yards as identified by the SIC Codes specified under Sector R in Table D-1 of Appendix D of the permit.

11.R.2 Limitations on Coverage.

11.R.2.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) Discharges containing bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels are not covered by this permit.

11.R.3 Additional Technology-Based Effluent Limits.

11.R.3.1 Good Housekeeping Measures. (See also Part 4.2.2)

11.R.3.1.1 Pressure Washing Area. If pressure washing is used to remove marine growth from vessels, the discharged water must be permitted as a process wastewater by a separate APDES permit.

11.R.3.1.2 Blasting and Painting Area. Minimize the potential for spent abrasives, paint chips, and overspray to discharging into the receiving water or the storm sewer systems. To the extent practicable contain all blasting and painting activities, or use other measures to prevent the discharge of the contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean storm water conveyances of deposits of abrasive blasting debris and paint chips.

11.R.3.1.3 Material Storage Areas. Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Implement an inventory control plan to limit the presence of potentially hazardous materials onsite.

- 11.R.3.1.4 Engine Maintenance and Repair Areas.* Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Implement the following (or their equivalents), as practicable: perform all maintenance activities indoors, maintain an organized inventory of materials used in the shop, drain all parts of fluid prior to disposal, prohibit the practice of hosing down the shop floor, use dry cleanup methods, and treat and/or recycle storm water runoff collected from the maintenance area.
- 11.R.3.1.5 Material Handling Area.* Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Implement the following (or their equivalents), as practicable: cover fueling areas, use spill and overflow protection, mix paints and solvents in a designated area (preferably indoors or under a shed), and minimize storm water run-on to material handling areas.
- 11.R.3.1.6 Drydock Activities.* Routinely maintain and clean the drydock to minimize pollutants in storm water runoff. Clean accessible areas of the drydock prior to flooding and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, or fuel spills occurring on the drydock. Implement the following (or their equivalents), as practicable: sweep rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding, and have absorbent materials and oil containment booms readily available to clean up and contain any spills.
- 11.R.3.2 Storm Water Diversions.* Divert storm water away from potential pollutant sources. Implement the following options, as practicable: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.
- 11.R.3.3 Velocity Dissipation Devices.* (e.g., check dams, sediment traps, or riprap) Place along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.
- 11.R.3.4 Employee Training.* (See also Part 4.2.9) As part of the permittees employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

11.R.3.5 Preventive Maintenance. (See also Part 4.2.3) As part of the permittees preventive maintenance program, perform timely inspection and maintenance of storm water management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

11.R.4 Additional SWPPP Requirements.

11.R.4.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance or repair; vessel maintenance or repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; treatment, storage, and waste disposal areas; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

11.R.4.2 Potential Pollutant Sources. (See also Part 5.2.4) The Permittee must document in the SWPPP the following additional sources and activities that have potential pollutants associated with them (if applicable): outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting).

11.R.4.3 Documentation of Good Housekeeping Measures. The permittee must document in the SWPPP any good housekeeping measures implemented to meet the effluent limits in Part 11.R.3.

11.R.4.3.1 Blasting and Painting Areas. The permittee must document in the SWPPP any standard operating practices relating to blasting and painting (e.g., prohibiting uncontained blasting and painting over open water or prohibiting blasting and painting during windy conditions, which can render containment ineffective).

11.R.4.3.2 Storage Areas. Specify in the permittees SWPPP which materials are stored indoors, and describe containment or enclosure practices for those stored outdoors.

11.R.5 Additional Inspection Requirements.

(See also Part 6.1) Include the following in all quarterly routine facility inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

11. Subpart S – Sector S – Air Transportation.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.S.1 Covered Storm Water Discharges.

The requirements in Subpart S apply to storm water discharges associated with industrial activity from Air Transportation facilities identified by the SIC Codes specified under Sector S in Table D-1 of Appendix D of the permit at primary airports.

11.S.2 Limitation on Coverage.

11.S.2.1 Limitations on Coverage. This permit authorizes storm water discharges from only those portions of the air transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations or deicing operations.

Note: “deicing” will generally be used to imply both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made regarding anti-icing and/or deicing activities.

11.S.2.2 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4 and Part 11.S.3) This permit does not authorize the discharge of aircraft, ground vehicle, runway and equipment washwaters; nor the dry weather discharge of deicing chemicals. Such discharges must be covered by separate APDES permit(s). Note that a discharge resulting from snowmelt is not a dry weather discharge.

11.S.3 Multiple Operators at Air Transportation Facilities

Air transportation facilities often have more than one operator who could discharge stormwater associated with industrial activity. Operators include the airport authority and airport tenants, including air passenger or cargo companies, fixed based operators, and other parties who routinely perform industrial activities on airport property.

11.S.3.1 Permit Coverage/Submittal of NOIs. Where an airport transportation facility has multiple industrial operators that discharge stormwater, each individual operator must obtain coverage under an APDES stormwater permit. To obtain coverage under the MSGP, all such operators must meet the eligibility requirements in Part 1.2 and must submit an NOI, per Part 2.2 (or, if appropriate, a no exposure certification per Part 1.3).

11.S.3.2 *MSGP Implementation Responsibilities for Airport Authority and Tenants.* The airport authority, in collaboration with its tenants, may choose to implement certain MSGP requirements on behalf of its tenants in order to increase efficiency and eliminate redundancy or duplication of effort. Options available to the airport authority and its tenants for implementation of MSGP requirements include:

- 11.S.3.2.1 The airport authority performs certain activities on behalf of itself and its tenants and reports on its activities;
- 11.S.3.2.2 Tenants provide the airport authority with relevant inputs about tenants' activities, including deicing chemical usage*, and the airport authority compiles and reports on tenants' and its own activities; or
- 11.S.3.2.3 Tenants independently perform, document and submit required information on their activities.

**Tenants who report their deicing chemical usage to the airport authority and rely on the airport authority to perform monitoring should not check the glycol and urea use box on their NOI forms.*

11.S.3.3 *SWPPP Requirements.* A SWPPP must be developed for all stormwater discharges associated with industrial activity at the airport before submittal of any NOIs. The airport authority, in collaboration with its tenants, may choose to develop a single comprehensive SWPPP, or they may choose to develop individual SWPPP. The comprehensive SWPPP should be developed collaboratively by the airport authority and tenants. If any operator develops a SWPPP for discharges from its own areas of the airport, that SWPPP must be coordinated and integrated with the comprehensive SWPPP. All operators and their separate SWPPP contributions and compliance responsibilities must be clearly identified in the comprehensive SWPPP, which all operators must sign and certify per Part 5.2.7. As applicable, the comprehensive SWPPP must clearly specify the MSGP requirements to be complied with by:

- The airport authority for itself;
- The airport authority on behalf of its tenants;
- Tenants for themselves.

For each activity that an operator (e.g., the airport authority) conducts on behalf of another operator (e.g., a tenant), the comprehensive SWPPP must describe a process for reporting results to the latter operator and for ensuring appropriate follow-up, if necessary, by all affected operators. This is to ensure all actions are taken to correct any potential deficiencies or permit violations. For example, where the airport authority is conducting monitoring for itself and its tenants, the comprehensive SWPPP must identify how the airport authority will share the monitoring results with its tenants, and then follow-up with its tenants where there are any exceedances of benchmarks, effluent limits, or water quality standards. In turn, the comprehensive SWPPP must describe how the tenants will also follow-up to ensure permit compliance. If the airport authority and its tenants choose to use a comprehensive SWPPP, they have one hundred eighty (180) days after the effective date of this permit to develop a comprehensive SWPPP and file the NOI according to Part 2.1.

11.S.3.4 Duty to Comply. All individual operators are responsible for implementing their assigned portion of the comprehensive SWPPP, and operators must ensure that their individual activities do not render another operator's stormwater controls ineffective. In addition, the standard permit conditions found in Appendix A apply to each individual operator, including 1.2 Duty to Comply (which states, in part, "A permittee [each individual operator] shall comply with all conditions of the permittee's APDES permit."). For multiple operators at an airport this means that each individual operator remains responsible for ensuring all requirements of its own MSGP are met regardless of whether the comprehensive SWPPP allocates the actual implementation of any of those responsibilities to another entity. That is, the failure of the entity allocated responsibility in the SWPPP to implement an MSGP requirement on behalf of other operators does not negate the other operators' ultimate liability.

11.S.4 Additional Technology-Based Effluent Limits.

11.S.4.1 Good Housekeeping Measures. (See also Part 4.2.2) Implement control measures (as described in 11.S.4.1.1 through 11.S.4.1.7—each list is not exclusive) where determined to be practicable and that accommodate considerations of safety, space, operational constraints, and flight considerations.

11.S.4.1.1 Aircraft, Ground Vehicle and Equipment Maintenance Areas. Minimize the contamination of storm water runoff from all areas used for aircraft, ground vehicle and equipment maintenance (including the maintenance conducted on the terminal apron and in dedicated hangers). Consider the following control measures: performing maintenance activities indoors; maintaining an organized inventory of material used in the maintenance areas; draining all parts of fluids prior to disposal; prohibiting the practice of hosing down the apron or hanger floor; using dry cleanup methods; and collecting the storm water runoff from the maintenance area and providing treatment or recycling.

- 11.S.4.1.2 Aircraft, Ground Vehicle and Equipment Cleaning Areas.* Clearly demarcate these areas on the ground using signage or other appropriate means. Minimize the contamination of storm water runoff from cleaning areas.
- 11.S.4.1.3 Aircraft, Ground Vehicle and Equipment Storage Areas.* Store all aircraft, ground vehicles and equipment awaiting maintenance in designated areas only and minimize the contamination of storm water runoff from these storage areas. Consider the following control measures, including any BMPs: store aircraft and ground vehicles indoors; use drip pans for the collection of fluid leaks; and perimeter drains, dikes or berms surrounding the storage areas.
- 11.S.4.1.4 Material Storage Areas.* Maintain the vessels of stored materials (e.g., used oils, hydraulic fluids, spent solvents, and waste aircraft fuel) in good condition, to prevent or minimize contamination of storm water. Also plainly label the vessels (e.g., “used oil,” “Contaminated Jet A,” etc.). Minimize contamination of precipitation/runoff from these areas. Consider the following control measures: store materials indoors; store waste materials in a centralized location; and install berms/dikes around storage areas.
- 11.S.4.1.5 Airport Fuel System and Fueling Areas.* Minimize the discharge of fuel to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Consider the following control measures: implement spill and overflow practices; use only dry cleanup methods; and collect storm water runoff.
- 11.S.4.1.6 Source Reduction.* Minimize, and where practicable, eliminate the use of urea and glycol-based deicing chemicals, in order to reduce the aggregate amount of deicing chemicals used and/or lessen the environmental impact. Chemical options to replace ethylene glycol, propylene glycol and urea include: potassium acetate; magnesium acetate; calcium acetate; and anhydrous sodium acetate.
- *Runway Deicing Operation:* Minimize contamination of storm water runoff from runways as a result of deicing operations. Evaluate whether over-application of deicing chemicals occurs by analyzing application rates, and adjust as necessary, consistent with considerations of flight safety. Consider these control measure options: metered application of chemicals; pre-wetting dry chemical constituents prior to application; install a runway ice detection system; implement anti-icing operations as a preventive measure against ice buildup.
 - *Aircraft Deicing Operations.* Minimize contamination of storm water runoff from aircraft deicing operations. Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. Evaluate using alternative deicing/anti-icing

agents as well as containment measures for all applied chemicals. Consider these control measure options for reducing deicing fluid use: forced-air deicing systems, computer-controlled fixed-gantry systems, infrared technology, hot water, varying glycol content to air temperature, enclosed-basket deicing trucks, mechanical methods, solar radiation, hangar storage, aircraft covers, and thermal blankets for MD-80s and DC-9s. Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems. The evaluations and determinations required by this Part should be carried out by the personnel most familiar with the particular aircraft and flight operations and related systems in question (versus an outside entity such as the airport authority).

11.S.4.1.7 Management of Runoff.

(See also 4.2.6) Where deicing operations occur, implement a program to control or manage contaminated runoff to minimize the amount of pollutants being discharged from the site. Consider these control measure options: a dedicated deicing facility with a runoff collection/recovery system; using vacuum/collection trucks; storing contaminated storm water/deicing fluids in tanks and releasing controlled amounts to a publicly owned treatment works; collecting contaminated runoff in a wet pond for biochemical decomposition (be aware of attracting wildlife that may prove hazardous to flight operations); or directing runoff into vegetative swales or other infiltration measures. Also consider recovering deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent these materials from later becoming a source of storm water contamination. Deicing operations should be developed with an emphasis on using a combination of the BMPs listed above to contain, capture, and reuse deicing materials. Used deicing fluid should be recycled whenever practicable.

11.S.4.2 Deicing Season. (See also Part 11.S.7.) The permittee must determine the seasonal timeframe (e.g., December- February, October - March, etc.) during which deicing activities typically occur at the facility. Implementation of control measures, including any BMPs, facility inspections and monitoring must be conducted with particular emphasis throughout the defined deicing season. If the permittee meets the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea, the deicing season they identified is the timeframe during which the permittee must obtain the four required benchmark monitoring event results for deicing-related parameters, i.e., BOD, COD, ammonia and pH.

11.S.5 Additional SWPPP Requirements.

An airport authority and tenants of the airport are encouraged to work in partnership in the development of a SWPPP. If an airport tenant obtains authorization under this permit and develops a SWPPP for discharges from his or her own areas of the airport, prior to authorization, that SWPPP must be coordinated and integrated with the SWPPP for the entire airport. Tenants of the airport facility include air passenger or cargo companies, fixed based operators and other parties who have contracts with the airport authority to conduct business operations on airport property and whose operations result in storm water discharges associated with industrial activity.

- 11.S.5.1 Drainage Area Site Map.* (See also Part 5.2.3) The permittee must document in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: aircraft and runway deicing operations; fueling stations; aircraft, ground vehicle and equipment maintenance/cleaning areas; storage areas for aircraft, ground vehicles and equipment awaiting maintenance.
- 11.S.5.2 Potential Pollutant Sources.* (See also Part 5.2.4) In the permittees inventory of exposed materials, describe in the SWPPP the potential for the following activities and facility areas to contribute pollutants to storm water discharges: aircraft, runway, ground vehicle and equipment maintenance and cleaning; aircraft and runway deicing operations (including apron and centralized aircraft deicing stations, runways, taxiways and ramps). If the permittee uses deicing chemicals, they must maintain a record of the types (including the Material Safety Data Sheets [MSDS]) used and the monthly quantities, either as measured or, in the absence of metering, as estimated to the best of the permittees knowledge. This includes all deicing chemicals, not just glycols and urea (e.g., potassium acetate), because large quantities of these other chemicals can still have an adverse impact on receiving waters. Tenants or other fixed-based operations that conduct deicing operations must provide the above information to the airport authority for inclusion with any comprehensive airport SWPPPs.
- 11.S.5.3 Vehicle and Equipment Washwater Requirements.* Attach to or reference in the SWPPP, a copy of the APDES permit issued for vehicle/equipment washwater or, if an APDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, include a copy in the SWPPP. In any case, if the permittee is subject to another permit, describe the control measures for implementing all non-storm water discharge permit conditions or pretreatment requirements in the SWPPP. If washwater is handled in another manner (e.g., hauled offsite, retained onsite), describe the disposal method and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in the SWPPP.
- 11.S.5.4 Documentation of Control Measures Used for Management of Runoff.* Document in the SWPPP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

11.S.6 Additional Inspection Requirements.

11.S.6.1 Inspections. (See also Part 6.1) At a minimum, conduct routine facility inspections at least monthly during the deicing season (e.g., October through April for most airports). If a permittees facility needs to deice before or after this period, expand the monthly inspections to include all months during which deicing chemicals may be used. The Department may specifically require the permittee to increase inspection frequencies.

11.S.6.2 Comprehensive Site Inspections. (See also Part 6.3) Using only qualified personnel, conduct the annual site inspection during periods of actual deicing operations, if possible. If not practicable during active deicing because of weather, conduct the inspection during the season when deicing operations occur and the materials and equipment for deicing are in place.

11.S.7 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

Monitor per the requirements in Table 11.S.7-1.

Table 11.S.7-1: Sector – Specific Benchmarks – Sector S

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
For airports where a single permittee, or a combination of permitted facilities use more than 100,000 gallons of pure glycol in glycol-based deicing fluids and/or 100 tons or more of urea on an average annual basis, monitor the first four parameters in ONLY those outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581).	Biochemical Oxygen Demand (BOD ₅) ¹	30 mg/L
	Chemical Oxygen Demand (COD) ¹	120 mg/L
	Ammonia ^{1, 2}	2.14 mg/L
	pH ¹	6.5 – 8.5 s.u.
Note: 1. These are deicing-related parameters. Collect the four benchmark samples, and any required follow-up benchmark samples, during the timeframe defined in Part 11.S.4.2 when deicing activities are occurring. 2. If a permittee certifies annually that it does not use airfield deicing products that contain urea, then the permittee does not need to sample for ammonia.		

11.S.8 Sector-Specific Effluent Limitation Guideline.

There shall be no discharge of airfield pavement deicers containing urea, unless there is monitoring. To comply with this limitation, any existing point source must certify annually that it does not use airfield deicing products that contain urea or alternatively, airfield pavement discharges at every discharge point must achieve the numeric limitations for ammonia in Table 11.S.8-1, prior to any dilution or commingling with any non-deicing discharge. The certification statement shall be maintained in the SWPPP and signed in accordance with Appendix A, Part 1.12. Monitor per the requirements in Table 11.S.8-1.

Table 11.S.8-1: Effluent Limitations Based on 40 CFR Part 449 BAT Limitations

Wastestream	Parameter	Daily Maximum
Runoff containing urea from airfield pavement deicing at existing primary airports with 1,000 or more annual non-propeller aircraft ¹ departures.	Ammonia as Nitrogen ²	14.7 mg/l
Note: 1. Annual non-propeller aircraft is the average annual aircraft departures of commercial turbine-engine aircraft that are propelled by jet, i.e., turbojet or turbofan as tabulated by the Federal Aviation Administration. 2. Monitor twice a deicing season during the timeframe defined in Part 11.S.4.2 when deicing activities are occurring.		

11.S.9 Technology Based – Effluent Limits for New Sources with At Least 1,000 Annual Non-Propeller Aircraft Departures.

A new airport with at least 1,000 annual non-propeller aircraft departures must apply for an individual APDES permit.

11. Subpart T – Sector T – Treatment Works.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.T.1 Covered Storm Water Discharges.

The requirements in Subpart T apply to storm water discharges associated with industrial activity from Treatment Works as identified by the Activity Code specified under Sector T in Table D-1 of Appendix D of the permit.

11.T.2 Industrial Activities Covered by Sector T.

The requirements listed under this part apply to all existing point source storm water discharges associated with the following activities:

11.T.2.1 Treatment works treating domestic sewage, or any other sewage sludge or wastewater treatment device or system used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge; that are located within the confines of a facility with a design flow of 1.0 million gallons per day (MGD) or more; or are required to have an approved pretreatment program under 40 CFR Part 403.

11.T.2.2 The following are not required to have permit coverage: farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located within the facility, or areas that are in compliance with Section 405 of the CWA.

11.T.3 Limitations on Coverage.

11.T.3.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) Sanitary and industrial wastewater and equipment and vehicle washwater are not authorized by this permit.

11.T.4 Additional Technology-Based Effluent Limits.

11.T.4.1 Control Measures. (See also the non-numeric effluent limits in Part 4.2) In addition to the other control measures, implement the following, as practicable: routing storm water to the treatment works; or covering exposed materials (i.e., from the following areas: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station).

11.T.4.2 Employee Training. (See also Part 4.2.9) At a minimum, training must address the following areas when applicable to a facility: petroleum product management; process chemical management; spill prevention and controls; fueling procedures; general good housekeeping practices; and proper procedures for using fertilizer, herbicides, and pesticides.

11.T.5 Additional SWPPP Requirements.

11.T.5.1 Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and storage areas for process chemicals, petroleum products, solvents, fertilizers, herbicides, and pesticides.

11.T.5.2 Potential Pollutant Sources. (See also Part 5.2.4) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them, as applicable: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and access roads and rail lines.

11.T.5.3 Wastewater and Washwater Requirements. Keep a copy of all the permittees current APDES permits issued for wastewater and industrial, vehicle and equipment washwater discharges or, if an APDES permit has not yet been issued, a copy of the pending application(s) with the SWPPP. If the washwater is handled in another manner, the disposal method must be described and all pertinent documentation must be retained onsite.

11.T.6 Additional Inspection Requirements.

(See also Part 6.1) Include the following areas in all inspections: access roads and rail lines; grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station.

11. Subpart U – Sector U – Food and Kindred Products.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.U.1 Covered Storm Water Discharges.

The requirements in Subpart U apply to storm water discharges associated with industrial activity from Food and Kindred Products facilities as identified by the SIC Codes specified in Table D-1 of Appendix D of the permit.

11.U.2 Limitations on Coverage.

11.U.2.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) The following discharges are not authorized by this permit: discharges containing boiler blowdown, cooling tower overflow and blowdown, ammonia refrigeration purging, and vehicle washing and clean-out operations.

11.U.3 Additional Technology-Based Limitations.

11.U.3.1 Employee Training. (See also Part 4.2.9) Address pest control in the permittees employee training program.

11.U.4 Additional SWPPP Requirements.

11.U.4.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP the locations of the following activities if they are exposed to precipitation or runoff: vents and stacks from cooking, drying, and similar operations; dry product vacuum transfer lines; animal holding pens; spoiled product; and broken product container storage areas.

11.U.4.2 Potential Pollutant Sources. (See also Part 5.2.4) The permittee must document in the SWPPP, in addition to food and kindred products processing-related industrial activities, application and storage of pest control chemicals (e.g., rodenticides, insecticides, fungicides) used on plant grounds.

11.U.5 Additional Inspection Requirements.

(See also Part 6.1) Inspect on a quarterly basis, at a minimum, the following areas where the potential for exposure to storm water exists: loading and unloading areas for all significant materials; storage areas, including associated containment areas; waste management units; vents and stacks emanating from industrial activities; spoiled product and broken product container holding areas; animal holding pens; staging areas; and air pollution control equipment.

11.U.6 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

Table 11.U.6-1: Sector – Specific Benchmarks – Sector U

Subsector (Permittees may be subject to requirements for more than one Sector / Subsector)	Parameter	Benchmark Monitoring Concentration
Subsector U1. Grain Mill Products (SIC 2041-2048)	Total Suspended Solids (TSS)	100 mg/L
Subsector U2. Fats and Oils Products (SIC 2074-2079)	Biochemical Oxygen Demand (BOD ₅)	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Suspended Solids (TSS)	100 mg/L

11. Subpart V – Sector V – Textile Mills, Apparel, and Other Fabric Products.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.V.1 Covered Storm Water Discharges.

The requirements in Subpart V apply to storm water discharges associated with industrial activity from Textile Mills, Apparel, and Other Fabric Product manufacturing as identified by the SIC Codes specified under Sector V in Table D-1 of Appendix D of the permit.

11.V.2 Limitations on Coverage.

11.V.2.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.4) The following are not authorized by this permit: discharges of wastewater (e.g., wastewater resulting from wet processing or from any processes relating to the production process), reused or recycled water, and waters used in cooling towers. If the permittee has these types of discharges from the facility, the permittee must cover them under a separate APDES permit.

11.V.3 Additional Technology-Based Limitations.

11.V.3.1 Good Housekeeping Measures. (See also Part 4.2.2)

11.V.3.1.1 Material Storage Areas. Plainly label and store all containerized materials (e.g., fuels, petroleum products, solvents, and dyes) in a protected area, away from drains. Minimize contamination of the storm water runoff from such storage areas. Implement an inventory control plan to prevent excessive purchasing of potentially hazardous substances. For storing empty chemical drums or containers, ensure that the drums and containers are clean (consider triple-rinsing) and that there is no contact of residuals with precipitation or runoff. Collect and dispose of washwater from these cleanings properly.

11.V.3.1.2 Material Handling Areas. Minimize contamination of storm water runoff from material handling operations and areas. Implement the following (or their equivalents), as practicable: use of spill and overflow protection; cover fueling areas; and cover or enclose areas where the transfer of material may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals, dyes, or wastewater.

11.V.3.1.3 Fueling Areas. Minimize contamination of storm water runoff from fueling areas. Implement the following (or their equivalents), as practicable: cover the fueling area, use of spill and overflow protection, minimize run-on of storm water to the fueling areas, use of dry cleanup methods, and treating and/or recycling storm water runoff collected from the fueling area.

11.V.3.1.4 Above-Ground Storage Tank Area. Minimize contamination of the storm water runoff from above-ground storage tank areas, including the associated piping and valves. Implement the following (or their equivalents), as practicable: regular cleanup of these areas; include measures for tanks, piping and valves explicitly in the permittees SPCC program; minimize runoff of storm water from adjacent areas; restrict access to the area; insert filters in adjacent catch basins; provide absorbent booms in unbermed fueling areas; use dry cleanup methods; and permanently sealing drains within critical areas that may discharge to a storm drain.

11.V.3.2 Employee Training. (See also Part 4.2.9) As part of the permittees employee training program, address, at a minimum, the following activities (as applicable): use of reused and recycled waters, solvents management, proper disposal of dyes, proper disposal of petroleum products and spent lubricants, spill prevention and control, fueling procedures, and general good housekeeping practices.

11.V.4 Additional SWPPP Requirements.

11.V.4.1 Potential Pollutant Sources. (See also Part 5.2.4) The permittee must document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: industry-specific significant materials and industrial activities (e.g., backwinding, beaming, bleaching, backing bonding, carbonizing, carding, cut and sew operations, desizing, drawing, dyeing locking, fulling, knitting, mercerizing, opening, packing, plying, scouring, slashing, spinning, synthetic-felt processing, textile waste processing, tufting, turning, weaving, web forming, winging, yarn spinning, and yarn texturing).

11.V.4.2 Description of Good Housekeeping Measures for Material Storage Areas. The permittee must document in the SWPPP the containment area or enclosure for materials stored outdoors in connection with Part 11.V.3.1.1 above.

11.V.5 Additional Inspection Requirements.

(See also Part 6.1) Inspect, at least monthly, the following activities and areas (at a minimum): transfer and transmission lines, spill prevention, good housekeeping practices, management of process waste products, and all structural and nonstructural management practices.

11. Subpart W – Sector W – Furniture and Fixtures.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of a permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.W.1 Covered Storm Water Discharges.

The requirements in Subpart W apply to storm water discharges associated with industrial activity from Furniture and Fixtures facilities as identified by the SIC Codes specified under Sector W in Table D-1 of Appendix D of the permit.

11.W.2 Additional SWPPP Requirements.

11.W.2.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: material storage (including tanks or other vessels used for liquid or waste storage) areas; outdoor material processing areas; areas where wastes are treated, stored, or disposed of; access roads; and rail spurs.

11. Subpart X – Sector X – Printing and Publishing.

The permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.X.1 Covered Storm Water Discharges.

The requirements in Subpart X apply to storm water discharges associated with industrial activity from Printing and Publishing facilities as identified by the SIC Codes specified under Sector X in Table D-1 of Appendix D of the permit.

11.X.2 Additional Technology-Based Effluent Limits.

11.X.2.1 Good Housekeeping Measures. (See also Part 4.2.2)

11.X.2.1.1 Material Storage Areas. Plainly label and store all containerized materials (e.g., skids, pallets, solvents, bulk inks, hazardous waste, empty drums, portable and mobile containers of plant debris, wood crates, steel racks, and fuel oil) in a protected area, away from drains. Minimize contamination of the storm water runoff from such storage areas. Implement an inventory control plan to prevent excessive purchasing of potentially hazardous substances. In order to minimize storm water exposure materials should be stored indoors or under cover.

11.X.2.1.2 Material Handling Area. Minimize contamination of storm water runoff from material handling operations and areas (e.g., blanket wash, mixing solvents, loading and unloading materials). Implement the following (or their equivalents), as practicable: use spill and overflow protection, cover fueling areas, and cover or enclose areas where the transfer of materials may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals or wastewater.

11.X.2.1.3 Fueling Areas. Minimize contamination of storm water runoff from fueling areas. Implement the following (or their equivalents), as practicable: cover the fueling area, use spill and overflow protection, minimize runoff of storm water to the fueling areas, use dry cleanup methods, and treat or recycle storm water runoff collected from the fueling area.

11.X.2.1.4 Above Ground Storage Tank Area. Minimize contamination of the storm water runoff from above-ground storage tank areas, including the associated piping and valves. Implement the following (or their equivalents), as practicable: regularly clean these areas, explicitly address tanks, piping and valves in the SPCC program, minimize storm water runoff from adjacent areas, restrict access to the area, insert filters in adjacent catch basins, provide absorbent booms in unbermed fueling areas, use dry cleanup methods, and permanently seal drains within critical areas that may discharge to a storm drain.

11.X.2.2 Employee Training. (See also Part 4.2.9) As part of the permittees employee training program, address, at a minimum, the following activities (as applicable): spent solvent management, spill prevention and control, used oil management, fueling procedures, and general good housekeeping practices.

11.X.3 Additional SWPPP Requirements.

11.X.3.1 Description of Good Housekeeping Measures for Material Storage Areas. In connection with Part 11.X.2.1.1, describe in the SWPPP the containment area or enclosure for materials stored outdoors.

11. Subpart Y – Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.Y.1 Covered Storm Water Discharges.

The requirements in Subpart Y apply to storm water discharges associated with industrial activity from Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries facilities as identified by the SIC Codes specified under Sector Y in Table D-1 of Appendix D of the permit.

11.Y.2 Additional Technology-Based Effluent Limits.

11.Y.2.1 Controls for Rubber Manufacturers. (See also Part 4.2) Minimize the discharge of zinc in a permittees storm water discharges. Parts 11.Y.2.1.1 to 11.Y.2.1.5 give possible sources of zinc to be reviewed and list some specific control measures to be considered for implementation (or their equivalents). Following are some general control measure options to consider: using chemicals purchased in pre-weighed, sealed polyethylene bags; storing in-use materials in sealable containers, ensuring an airspace between the container and the cover to minimize “puffing” losses when the container is opened, and using automatic dispensing and weighing equipment.

11.Y.2.1.1 Zinc Bags. Ensure proper handling and storage of zinc bags at the permittees facility. Following are some control measure options: employee training on the handling and storage of zinc bags, indoor storage of zinc bags, cleanup of zinc spills without washing the zinc into the storm drain, and the use of 2,500-pound sacks of zinc rather than 50- to 100-pound sacks.

11.Y.2.1.2 Dumpsters. Minimize discharges of zinc from dumpsters. Following are some control measure options: covering the dumpster, moving the dumpster indoors, or providing a lining for the dumpster.

11.Y.2.1.3 Dust Collectors and Baghouses. Minimize contributions of zinc to storm water from dust collectors and baghouses. Replace or repair, as appropriate, improperly operating dust collectors and baghouses.

11.Y.2.1.4 Grinding Operations. Minimize contamination of storm water as a result of dust generation from rubber grinding operations. One control measure option is to install a dust collection system.

11.Y.2.1.5 Zinc Stearate Coating Operations. Minimize the potential for storm water contamination from drips and spills of zinc stearate slurry that may be released to the storm drain. One control measure option is to use alternative compounds to zinc stearate.

11.Y.2.2 Controls for Plastic Products Manufacturers. Minimize the discharge of plastic resin pellets in the storm water discharges. Control measures to be considered for implementation (or their equivalents) include minimizing spills, cleaning up of spills promptly and thoroughly, sweeping thoroughly, pellet capturing, employee education, and disposal precautions.

11.Y.3 Additional SWPPP Requirements.

11.Y.3.1 Potential Pollutant Sources for Rubber Manufacturers. (See also Part 5.2.4) The permittee must document in the SWPPP the use of zinc at their facility and the possible pathways through which zinc may be discharged in storm water runoff.

11.Y.4 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

Table 11.Y.4-1: Sector – Specific Benchmarks – Sector Y

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector Y1. Rubber Products Manufacturing (SIC 3011, 3021, 3052, 3053, 3061, 3069)	Total Zinc (saltwater) ¹ Total Zinc (freshwater) ²	0.09 mg/L Hardness Dependent

Note:

1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.

2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Zinc (mg/L)
0 – < 25 mg/L	0.04
25 – < 50 mg/L	0.05
50 – < 75 mg/L	0.08
75 – < 100 mg/L	0.11
100 – < 125 mg/L	0.13
125 – < 150 mg/L	0.16
150 – < 175 mg/L	0.18
175 – < 200 mg/L	0.20
200 – < 225 mg/L	0.23
225 – < 250 mg/L	0.25
250+ mg/L	0.26

11. Subpart Z – Sector Z – Leather Tanning and Finishing.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.Z.1 Covered Storm Water Discharges.

The requirements in Subpart Z apply to storm water discharges associated with industrial activity from Leather Tanning and Finishing facilities as identified by the SIC Code specified under Sector Z in Table D-1 of Appendix D of the permit.

11.Z.2 Additional Technology-Based Effluent Limits.

11.Z.2.1 Good Housekeeping Measures. (See also Part 4.2.2)

11.Z.2.1.1 Storage Areas for Raw, Semiprocessed, or Finished Tannery By-products. Minimize contamination of storm water runoff from pallets and bales of raw, semiprocessed, or finished tannery by-products (e.g., splits, trimmings, shavings). Use indoor storage or protection with polyethylene wrapping, tarpaulins, roofed storage, etc. Place materials on an impermeable surface and enclose or put berms (or equivalent measures) around the area to prevent storm water run-on and runoff.

11.Z.2.1.2 Material Storage Areas. Label storage containers of all materials (e.g., specific chemicals, hazardous materials, spent solvents, waste materials) minimize contact of such materials with storm water.

11.Z.2.1.3 Buffing and Shaving Areas. Minimize contamination of storm water runoff with leather dust from buffing and shaving areas. Use dust collection enclosures, preventive inspection and maintenance programs, or other appropriate preventive measures.

11.Z.2.1.4 Receiving, Unloading, and Storage Areas. Minimize contamination of storm water runoff from receiving, unloading, and storage areas. If these areas are exposed, use the following (or their equivalents): covering all hides and chemical supplies, diverting drainage to the process sewer, or grade berming or curbing the area to prevent storm water runoff.

11.Z.2.1.5 Outdoor Storage of Contaminated Equipment. Minimize contact of storm water with contaminated equipment. Use the following (or their equivalents): covering equipment, diverting drainage to the process sewer, or cleaning thoroughly prior to storage.

11.Z.2.1.6 Waste Management. Minimize contamination of storm water runoff from waste storage areas. Use the following (or their equivalents): covering dumpsters, moving waste management activities indoors, covering waste piles with temporary covering material such as tarpaulins or polyethylene, or minimizing storm water runoff by enclosing the area or building berms around the area.

11.Z.3 Additional SWPPP Requirements.

11.Z.3.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: processing and storage areas of the beamhouse, tanyard, and re-tan wet finishing and dry finishing operations.

11.Z.3.2 Potential Pollutant Sources. (See also Part 5.2.4) The permittee must document in the SWPPP the following sources and activities that have potential pollutants associated with them (as appropriate): temporary or permanent storage of fresh and brine-cured hides; extraneous hide substances and hair; leather dust, scraps, trimmings, and shavings.

11. Subpart AA – Sector AA – Fabricated Metal Products.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.AA.1 Covered Storm Water Discharges.

The requirements in Subpart AA apply to storm water discharges associated with industrial activity from Fabricated Metal Products facilities as identified by the SIC Codes specified under Sector AA in Table D-1 of Appendix D of the permit.

11.AA.2 Additional Technology-Based Effluent Limits.

11.AA.2.1 Good Housekeeping Measures. (See also Part 4.2.2)

11.AA.2.1.1 Raw Steel Handling Storage. Minimize the generation of and/or recover and properly manage scrap metals, fines, and iron dust. Include measures for containing materials within storage handling areas.

11.AA.2.1.2 Paints and Painting Equipment. Minimize exposure of paint and painting equipment to storm water.

11.AA.2.2 Spill Prevention and Response Procedures. (See also Part 4.2.4) Ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas should be addressed:

11.AA.2.2.1 Metal Fabricating Areas. Maintain clean, dry, orderly conditions in these areas. Use dry clean-up techniques.

11.AA.2.2.2 Storage Areas for Raw Metal. Keep these areas free of conditions that could cause, or impede appropriate and timely response to, spills or leakage of materials. Implement the following (or their equivalents): maintaining storage areas so that there is easy access in the event of a spill, and labeling stored materials to aid in identifying spill contents.

11.AA.2.2.3 Metal Working Fluid Storage Areas. Minimize the potential for storm water contamination from storage areas for metal working fluids.

11.AA.2.2.4 Cleaners and Rinse Water. Control and clean up spills of solvents and other liquid cleaners, control sand buildup and disbursement from sand-blasting operations, and prevent exposure of recyclable wastes. Substitute environmentally benign cleaners when possible.

11.AA.2.2.5 Lubricating Oil and Hydraulic Fluid Operations. Minimize the potential for storm water contamination from lubricating oil and hydraulic fluid operations. Use appropriate monitoring methods or equipment or other devices to detect and control leaks and overflows. Install perimeter controls such as dikes, curbs, grass filter strips, or equivalent measures, as practicable.

11.AA.2.2.6 Chemical Storage Areas. Minimize storm water contamination and accidental spillage in chemical storage areas. Include a program to inspect containers and identify proper disposal methods.

11.AA.2.3 Spills and Leaks. (See also Part 5.2.4.3) In the permittees spill prevention and response procedures, required by Part 4.2.4, pay attention to the following materials (at a minimum): chromium, toluene, pickle liquor, sulfuric acid, zinc and other water priority chemicals, and hazardous chemicals and wastes.

11.AA.3 Additional SWPPP Requirements.

11.AA.3.1 Drainage Area Site Map. (See also Part 5.2.3) The permittee must document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: raw metal storage areas; finished metal storage areas; scrap disposal collection sites; equipment storage areas; retention and detention basins; temporary and permanent diversion dikes or berms; right-of-way or perimeter diversion devices; sediment traps and barriers; processing areas, including outside painting areas; wood preparation; recycling; and raw material storage.

11.AA.3.2 Potential Pollutant Sources. (See also Part 5.2.4) The permittee must document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: loading and unloading operations for paints, chemicals, and raw materials; outdoor storage activities for raw materials, paints, empty containers, corn cobs, chemicals, and scrap metals; outdoor manufacturing or processing activities such as grinding, cutting, degreasing, buffing, and brazing; onsite waste disposal practices for spent solvents, sludge, pickling baths, shavings, ingot pieces, and refuse and waste piles.

11.AA.4 Additional Inspection Requirements.

11.AA.4.1 Inspections. (See also Part 6) At a minimum, include the following areas in all inspections: raw metal storage areas, finished product storage areas, material and chemical storage areas, recycling areas, loading and unloading areas, equipment storage areas, paint areas, and vehicle fueling and maintenance areas.

11.AA.4.2 Comprehensive Site Inspections. (See also Part 6.3) As part of the permittees inspections, also inspect areas associated with the storage of raw metals, spent solvents and chemicals storage areas, outdoor paint areas, and drainage from roof. Potential pollutants include chromium, zinc, lubricating oil, solvents, aluminum, oil and grease, methyl ethyl ketone, steel, and related materials.

11.AA.5 Sector-Specific Benchmarks. (See also Part 7 of the permit.)

Table 11.AA.5-1: Sector – Specific Benchmarks – Sector AA

Subsector (Permittees may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector AA1. Fabricated Metal Products, except Coating (SIC 3411-3499; 3911-3915)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Zinc (saltwater) ¹	0.09 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent
Subsector AA2. Fabricated Metal Coating and Engraving (SIC 3479)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Zinc (saltwater) ¹	0.09 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent
	Nitrate plus Nitrite Nitrogen	0.68 mg/L

Note:

1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.
2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 7.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range	Zinc (mg/L)
0 – < 25 mg/L	0.04
25 – < 50 mg/L	0.05
50 – < 75 mg/L	0.08
75 – < 100 mg/L	0.11
100 – < 125 mg/L	0.13
125 – < 150 mg/L	0.16
150 – < 175 mg/L	0.18
175 – < 200 mg/L	0.20
200 – < 225 mg/L	0.23
225 – < 250 mg/L	0.25
250+ mg/L	0.26

11. Subpart AB – Sector AB — Transportation Equipment, Industrial or Commercial Machinery Facilities.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.AB.1 Covered Storm Water Discharges.

The requirements in Subpart AB apply to storm water discharges associated with industrial activity from Transportation Equipment, Industrial or Commercial Machinery facilities as identified by the SIC Codes specified under Sector AB in Table D-1 of Appendix D of the permit.

11.AB.2 Additional SWPPP Requirements.

11.AB.2.1 Drainage Area Site Map. (See also Part 5.2.3) Identify in the permittees SWPPP where any of the following may be exposed to precipitation or surface runoff: vents and stacks from metal processing and similar operations.

11. Subpart AC– Sector AC –Electronic and Electrical Equipment and Components, Photographic and Optical Goods.

A Permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.AC.1 Covered Storm Water Discharges.

The requirements in Subpart AC apply to storm water discharges associated with industrial activity from facilities that manufacture Electronic and Electrical Equipment and Components, Photographic and Optical goods as identified by the SIC Codes specified in Table D-1 of Appendix D of the permit.

11.AC.2 Additional Requirements.

No additional sector-specific requirements apply.

11. Subpart AD – Sector AD – Discharges Designated by the Director as Requiring Permits.

A permittee must comply with Part 11 sector-specific requirements associated with their primary industrial activity and any co-located industrial activities, as defined in Appendix C. The sector-specific requirements apply to those areas of the permittees facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

11.AD.1 Covered Discharges.

Sector AD is used to provide permit coverage for facilities designated by the Department.

11.AD.1.1 Eligibility for Permit Coverage. Because this sector is primarily intended for use by discharges designated by the Department as needing a permit (which is an atypical circumstance), the permittee must obtain the Department's written permission to use this permit prior to submitting an NOI. If a permittee is authorized to use this permit, they will still be required to ensure that their discharges meet the basic eligibility provisions of this permit at Part 1.2.

11.AD.3 Sector-Specific Benchmarks and Effluent Limits. (See also Part 7 of the permit.)

The Department will establish any additional monitoring and reporting requirements for the permittees facility prior to authorizing the permittee to be covered by this permit. Additional monitoring requirements would be based on the nature of activities at the facility and the storm water discharges.

APPENDIX A

STANDARD CONDITIONS

APDES PERMIT

NONDOMESTIC DISCHARGES

September 2011

Attachment A

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Appendix A of the permit contains standard regulatory language that must be included in all APDES permits. These requirements are based on the regulations and cannot be challenged in the context of an individual APDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements. Appendix A, Standard Conditions is an integral and enforceable part of the permit. Failure to comply with a Standard Condition in this Appendix constitutes a violation of the permit and is subject to enforcement.

1.0 Standard Conditions Applicable to All Permits

1.1 Contact Information and Addresses

1.1.1 Permitting Program

Documents, reports, and plans required under the permit and Appendix A are to be sent to the following address:

State of Alaska
 Department of Environmental Conservation
 Division of Water
 Wastewater Discharge Authorization Program
 555 Cordova Street
 Anchorage, Alaska 99501
 Telephone (907) 269-6285
 Fax (907) 269-3487
 Email: DEC.WQPermit@alaska.gov

1.1.2 Compliance and Enforcement Program

Documents and reports required under the permit and Appendix A relating to compliance are to be sent to the following address:

State of Alaska
 Department of Environmental Conservation
 Division of Water
 Compliance and Enforcement Program
 555 Cordova Street
 Anchorage, Alaska 99501
 Telephone Nationwide (877) 569-4114
 Anchorage Area / International (907) 269-4114
 Fax (907) 269-4604
 Email: dec-wqreporting@alaska.gov

1.2 Duty to Comply

A permittee shall comply with all conditions of the permittee's APDES permit. Any permit noncompliance constitutes a violation of 33 U.S.C 1251-1387 (Clean Water Act) and state law and is grounds for enforcement action including termination, revocation and reissuance, or modification of a permit, or denial of a permit renewal application. A permittee shall comply with effluent standards or prohibitions established under 33 U.S.C. 1317(a) for toxic pollutants within the time provided in the regulations that establish those effluent standards or prohibitions even if the permit has not yet been modified to incorporate the requirement.

1.3 Duty to Reapply

If a permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. In accordance with 18 AAC 83.105(b), a permittee with a currently effective permit shall reapply by submitting a new application at least 180 days before the existing permit expires, unless the Department has granted the permittee permission to submit an application on a later date. However, the Department will not grant permission for an application to be submitted after the expiration date of the existing permit.

1.4 Need to Halt or Reduce Activity Not a Defense

In an enforcement action, a permittee may not assert as a defense that compliance with the conditions of the permit would have made it necessary for the permittee to halt or reduce the permitted activity.

1.5 Duty to Mitigate

A permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

1.6 Proper Operation and Maintenance

1.6.1 A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances that the permittee installs or uses to achieve compliance with the conditions of the permit. The permittee's duty to operate and maintain properly includes using adequate laboratory controls and appropriate quality assurance procedures. However, a permittee is not required to operate back-up or auxiliary facilities or similar systems that a permittee installs unless operation of those facilities is necessary to achieve compliance with the conditions of the permit.

1.6.2 Operation and maintenance records shall be retained and made available at the site.

1.7 Permit Actions

A permit may be modified, revoked and reissued, or terminated for cause as provided in 18 AAC 83.130. If a permittee files a request to modify, revoke and reissue, or terminate a permit, or gives notice of planned changes or anticipated noncompliance, the filing or notice does not stay any permit condition.

1.8 Property Rights

A permit does not convey any property rights or exclusive privilege.

1.9 Duty to Provide Information

A permittee shall, within a reasonable time, provide to the Department any information that the Department requests to determine whether a permittee is in compliance with the permit, or whether cause exists to modify, revoke and reissue, or terminate the permit. A permittee shall also provide to the Department, upon request, copies of any records the permittee is required to keep under the permit.

1.10 Inspection and Entry

A permittee shall allow the Department, or an authorized representative, including a contractor acting as a representative of the Department, at reasonable times and on presentation of credentials establishing authority and any other documents required by law, to:

- 1.10.1 Enter the premises where a permittee's regulated facility or activity is located or conducted, or where permit conditions require records to be kept;
- 1.10.2 Have access to and copy any records that permit conditions require the permittee to keep;
- 1.10.3 Inspect any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under a permit; and
- 1.10.4 Sample or monitor any substances or parameters at any location for the purpose of assuring permit compliance or as otherwise authorized by 33 U.S.C. 1251-1387 (Clean Water Act).

1.11 Monitoring and Records

A permittee must comply with the following monitoring and recordkeeping conditions:

- 1.11.1 Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.
- 1.11.2 The permittee shall retain records in Alaska of all monitoring information for at least three years, or longer at the Department's request at any time, from the date of the sample, measurement, report, or application. Monitoring records required to be kept include:
 - 1.11.2.1 All calibration and maintenance records,
 - 1.11.2.2 All original strip chart recordings or other forms of data approved by the Department for continuous monitoring instrumentation,
 - 1.11.2.3 All reports required by a permit,
 - 1.11.2.4 Records of all data used to complete the application for a permit,
 - 1.11.2.5 Field logbooks or visual monitoring logbooks,
 - 1.11.2.6 Quality assurance chain of custody forms,
 - 1.11.2.7 Copies of discharge monitoring reports, and
 - 1.11.2.8 A copy of this APDES permit.
- 1.11.3 Records of monitoring information must include:
 - 1.11.3.1 The date, exact place, and time of any sampling or measurement;
 - 1.11.3.2 The name(s) of any individual(s) who performed the sampling or measurement(s);
 - 1.11.3.3 The date(s) and time any analysis was performed;
 - 1.11.3.4 The name(s) of any individual(s) who performed any analysis;
 - 1.11.3.5 Any analytical technique or method used; and
 - 1.11.3.6 The results of the analysis.

1.11.4 Monitoring Procedures

Analyses of pollutants must be conducted using test procedures approved under 40 CFR Part 136, adopted by reference at 18 AAC 83.010, for pollutants with approved test procedures, and using test procedures specified in the permit for pollutants without approved methods.

1.12 Signature Requirement and Penalties

- 1.12.1 Any application, report, or information submitted to the Department in compliance with a permit requirement must be signed and certified in accordance with 18 AAC 83.385. Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under a permit, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be subject to penalties under 33 U.S.C. 1319(c)(4), AS 12.55.035(c)(1)(B), (c)(2) and (c)(3), and AS 46.03.790(g).
- 1.12.2 In accordance with 18 AAC 83.385, an APDES permit application must be signed as follows:
 - 1.12.2.1 For a corporation, a responsible corporate officer shall sign the application; in this subsection, a responsible corporate officer means:
 - 1.12.2.1.1 A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or
 - 1.12.2.1.2 The manager of one of more manufacturing, production, or operating facilities, if
 - 1.12.2.1.2.1 The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations;
 - 1.12.2.1.2.2 The manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and
 - 1.12.2.1.2.3 Authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - 1.12.2.2 For a partnership or sole proprietorship, by the general partner or the proprietor, respectively, shall sign the application.
 - 1.12.2.3 For a municipality, state, federal, or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of an agency means:
 - 1.12.2.3.1 The chief executive officer of the agency; or
 - 1.12.2.3.2 A senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.
- 1.12.3 Any report required by an APDES permit, and a submittal with any other information requested by the Department, must be signed by a person described in Appendix A, Part 1.12.2, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - 1.12.3.1 The authorization is made in writing by a person described in Appendix A, Part 1.12.2;

- 1.12.3.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, including the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility; or an individual or position having overall responsibility for environmental matters for the company; and
- 1.12.3.3 The written authorization is submitted to the Department to the Permitting Program address in Appendix A, Part 1.1.1.
- 1.12.4 If an authorization under Appendix A, Part 1.12.3 is no longer effective because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Appendix A, Part 1.12.3 must be submitted to the Department before or together with any report, information, or application to be signed by an authorized representative.
- 1.12.5 Any person signing a document under Appendix A, Part 1.12.2 or Part 1.12.3 shall certify as follows:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

1.13 Proprietary or Confidential Information

- 1.13.1 A permit applicant or permittee may assert a claim of confidentiality for proprietary or confidential business information by stamping the words "confidential business information" on each page of a submission containing proprietary or confidential business information. The Department will treat the stamped submissions as confidential if the information satisfies the test in 40 CFR §2.208, adopted by reference at 18 AAC 83.010, and is not otherwise required to be made public by state law.
- 1.13.2 A claim of confidentiality under Appendix A, Part 1.13.1 may not be asserted for the name and address of any permit applicant or permittee, a permit application, a permit, effluent data, sewage sludge data, and information required by APDES or NPDES application forms provided by the Department, whether submitted on the forms themselves or in any attachments used to supply information required by the forms.
- 1.13.3 A permittee's claim of confidentiality authorized under Appendix A, Part 1.13.1 is not waived if the Department provides the proprietary or confidential business information to the EPA or to other agencies participating in the permitting process. The Department will supply any information obtained or used in the administration of the state APDES program to the EPA upon request under 40 CFR §123.41, as revised as of July 1, 2005. When providing information submitted to the Department with a claim of confidentiality to the EPA, the Department will notify the EPA of the confidentiality claim. If the Department provides the EPA information that is not claimed to be confidential, the EPA may make the information available to the public without further notice.

1.14 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any action or relieve a permittee

from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under state laws addressing oil and hazardous substances.

1.15 Cultural and Paleontological Resources

If cultural or paleontological resources are discovered because of this disposal activity, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (<http://www.dnr.state.ak.us/parks/oha/>), is to be notified immediately at (907) 269-8721.

1.16 Fee

A permittee must pay the appropriate permit fee described in 18 AAC 72.

1.17 Other Legal Obligations

This permit does not relieve the permittee from the duty to obtain any other necessary permits from the Department or from other local, state, or federal agencies and to comply with the requirements contained in any such permits. All activities conducted and all plan approvals implemented by the permittee pursuant to the terms of this permit shall comply with all applicable local, state, and federal laws and regulations.

2.0 Special Reporting Obligations

2.1 Planned Changes

- 2.1.1 The permittee shall give notice to the Department as soon as possible of any planned physical alteration or addition to the permitted facility if:
 - 2.1.1.1 The alteration or addition may make the facility a “new source” under one or more of the criteria in 18 AAC 83.990(44); or
 - 2.1.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged if those pollutants are not subject to effluent limitations in the permit or to notification requirements under 18 AAC 83.610.
- 2.1.2 If the proposed changes are subject to plan review, then the plans must be submitted at least 30 days before implementation of changes (see 18 AAC 15.020 and 18 AAC 72 for plan review requirements). Written approval is not required for an emergency repair or routine maintenance.
- 2.1.3 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.2 Anticipated Noncompliance

- 2.2.1 A permittee shall give seven days’ notice to the Department before commencing any planned change in the permitted facility or activity that may result in noncompliance with permit requirements.
- 2.2.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.3 Transfers

- 2.3.1 A permittee may not transfer a permit for a facility or activity to any person except after notice to the Department in accordance with 18 AAC 83.150. The Department may modify or revoke and reissue the permit to change the name of the permittee and incorporate such other requirements under 33 U.S.C. 1251-1387 (Clean Water Act) or state law.
- 2.3.2 Written notice must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.4 Compliance Schedules

- 2.4.1 A permittee must submit progress or compliance reports on interim and final requirements in any compliance schedule of a permit no later than 14 days following the scheduled date of each requirement.
- 2.4.2 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

2.5 Corrective Information

- 2.5.1 If a permittee becomes aware that it failed to submit a relevant fact in a permit application or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit the relevant fact or the correct information.
- 2.5.2 Information must be sent to the Permitting Program address in Appendix A, Part 1.1.1.

2.6 Bypass of Treatment Facilities

2.6.1 Prohibition of Bypass

Bypass is prohibited. The Department may take enforcement action against a permittee for any bypass, unless:

- 2.6.1.1 The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- 2.6.1.2 There were no feasible alternatives to the bypass, including use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. However, this condition is not satisfied if the permittee, in the exercise of reasonable engineering judgment, should have installed adequate back-up equipment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
- 2.6.1.3 The permittee provides notice to the Department of a bypass event in the manner, as appropriate, under Appendix A, Part 2.6.2.

2.6.2 Notice of bypass

- 2.6.2.1 For an anticipated bypass, the permittee submits notice at least 10 days before the date of the bypass. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the conditions of Appendix A, Parts 2.6.1.1 and 2.6.1.2.
- 2.6.2.2 For an unanticipated bypass, the permittee submits 24-hour notice, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting.
- 2.6.2.3 Written notice must be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

- 2.6.3 Notwithstanding Appendix A, Part 2.6.1, a permittee may allow a bypass that:

- 2.6.3.1 Does not cause an effluent limitation to be exceeded, and
- 2.6.3.2 Is for essential maintenance to assure efficient operation.

2.7 Upset Conditions

- 2.7.1 In any enforcement action for noncompliance with technology-based permit effluent limitations, a permittee may claim upset as an affirmative defense. A permittee seeking to establish the occurrence of an upset has the burden of proof to show that the requirements of Appendix A, Part 2.7.2 are met.
- 2.7.2 To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:
 - 2.7.2.1 An upset occurred and the permittee can identify the cause or causes of the upset;
 - 2.7.2.2 The permitted facility was at the time being properly operated;
 - 2.7.2.3 The permittee submitted 24-hour notice of the upset, as required in 18 AAC 83.410(f) and Appendix A, Part 3.4, Twenty-four Hour Reporting; and
 - 2.7.2.4 The permittee complied with any mitigation measures required under 18 AAC 83.405(e) and Appendix A, Part 1.5, Duty to Mitigate.
- 2.7.3 Any determination made in administrative review of a claim that noncompliance was caused by upset, before an action for noncompliance is commenced, is not final administrative action subject to judicial review.

2.8 Existing Manufacturing, Commercial, Mining, and Silvicultural Discharges

- 2.8.1 In addition to the reporting requirements under 18 AAC 83.410, an existing manufacturing, commercial, mining, and silvicultural discharger shall notify the Department as soon as that discharger knows or has reason to believe that any activity has occurred or will occur that would result in:
 - 2.8.1.1 The discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - 2.8.1.1.1 One hundred micrograms per liter (100 µg/L);
 - 2.8.1.1.2 Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile, 500 micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol, and one milligram per liter (1 mg/L) for antimony;
 - 2.8.1.1.3 Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or
 - 2.8.1.1.4 The level established by the Department in accordance with 18 AAC 83.445.
 - 2.8.1.2 Any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - 2.8.1.2.1 Five hundred micrograms per liter (500 µg/L);
 - 2.8.1.2.2 One milligram per liter (1 mg/L) for antimony;

- 2.8.1.2.3 Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 18 AAC 83.310(c)-(g); or
- 2.8.1.2.4 The level established by the Department in accordance with 18 AAC 83.445.

3.0 Monitoring, Recording, and Reporting Requirements

3.1 Representative Sampling

A permittee must collect effluent samples from the effluent stream after the last treatment unit before discharge into the receiving waters. Samples and measurements must be representative of the volume and nature of the monitored activity or discharge.

3.2 Reporting of Monitoring Results

The permittee shall summarize monitoring results on the annual report form or approved equivalent. The permittee shall submit its annual report at the interval specified in the permit. The permittee shall sign and certify all annual reports and other reports in accordance with the requirements of Appendix A, Part 1.12, Signatory Requirement and Penalties. The permittee shall submit the legible originals of these documents to the ADEC Compliance and Enforcement Program at the address in Appendix A, Part 1.1.2.

3.3 Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than the permit requires using test procedures approved in 40 CFR Part 136, adopted by reference at 18 AAC 83.010, or as specified in this permit, the results of that additional monitoring must be included in the calculation and reporting of the data submitted in the DMR or annual report required by Appendix A, Part 3.2. All limitations that require averaging of measurements must be calculated using an arithmetic means unless the Department specifies another method in the permit. Upon request by the Department, the permittee must submit the results of any other sampling and monitoring regardless of the test method used.

3.4 Twenty-four Hour Reporting

A permittee shall report any noncompliance event that may endanger health or the environment as follows:

- 3.4.1 A report must be made:
 - 3.4.1.1 Orally within 24 hours after the permittee becomes aware of the circumstances, and
 - 3.4.1.2 In writing within five days after the permittee becomes aware of the circumstances.
- 3.4.2 A report must include the following information:
 - 3.4.2.1 A description of the noncompliance and its causes, including the estimated volume or weight and specific details of the noncompliance;
 - 3.4.2.2 The period of noncompliance, including exact dates and times;
 - 3.4.2.3 If the noncompliance has not been corrected, a statement regarding the anticipated time the noncompliance is expected to continue; and
 - 3.4.2.4 Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- 3.4.3 An event that must be reported within 24 hours includes:
- 3.4.3.1 An unanticipated bypass that exceeds any effluent limitation in the permit (see Appendix A, Part 2.6, Bypass of Treatment Facilities).
 - 3.4.3.2 An upset that exceeds any effluent limitation in the permit (see Appendix A, Part 2.7, Upset Conditions).
 - 3.4.3.3 A violation of a maximum daily discharge limitation for any of the pollutants listed in the permit as requiring 24-hour reporting.
- 3.4.4 The Department may waive the written report on a case-by-case basis for reports under Appendix A, Part 3.4 if the oral report has been received within 24 hours of the permittee becoming aware of the noncompliance event.
- 3.4.5 The permittee may satisfy the written reporting submission requirements of Appendix A, Part 3.4 by submitting the written report via e-mail, if the following conditions are met:
- 3.4.5.1 The Noncompliance Notification Form or equivalent form is used to report the noncompliance;
 - 3.4.5.2 The written report includes all the information required under Appendix A, Part 3.4.2;
 - 3.4.5.3 The written report is properly certified and signed in accordance with Appendix A, Parts 1.12.3 and 1.12.5.;
 - 3.4.5.4 The written report is scanned as a PDF (portable document format) document and transmitted to the Department as an attachment to the e-mail; and
 - 3.4.5.5 The permittee retains in the facility file the original signed and certified written report and a printed copy of the conveying email.
- 3.4.6 The e-mail and PDF written report will satisfy the written report submission requirements of this permit provided the e-mail is received by the Department within five days after the time the permittee becomes aware of the noncompliance event and the e-mail and written report satisfy the criteria of Part 3.4.5. The e-mail address to report noncompliance is:
dec-wqreporting@alaska.gov

3.5 Other Noncompliance Reporting

A permittee shall report all instances of noncompliance not required to be reported under Appendix A, Parts 2.4 (Compliance Schedules), 3.3 (Additional Monitoring by Permittee), and 3.4 (Twenty-four Hour Reporting) at the time the permittee submits monitoring reports under Appendix A, Part 3.2. (Reporting of Monitoring Results). A report of noncompliance under this part must contain the information listed in Appendix A, Part 3.4.2 and be sent to the Compliance and Enforcement Program address in Appendix A, Part 1.1.2.

4.0 Penalties for Violations of Permit Conditions

Alaska laws allow the State to pursue both civil and criminal actions concurrently. The following is a summary of Alaska law. Permittees should read the applicable statutes for further substantive and procedural details.

4.1 Civil Action

Under AS 46.03.760(e), a person who violates or causes or permits to be violated a regulation, a lawful

order of the Department, or a permit, approval, or acceptance, or term or condition of a permit, approval or acceptance issued under the program authorized by AS 46.03.020 (12) is liable, in a civil action, to the State for a sum to be assessed by the court of not less than \$500 nor more than \$100,000 for the initial violation, nor more than \$10,000 for each day after that on which the violation continues, and that shall reflect, when applicable:

- 4.1.1 Reasonable compensation in the nature of liquated damages for any adverse environmental effects caused by the violation, that shall be determined by the court according to the toxicity, degradability, and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;
- 4.1.2 Reasonable costs incurred by the State in detection, investigation, and attempted correction of the violation;
- 4.1.3 The economic savings realized by the person in not complying with the requirements for which a violation is charged; and
- 4.1.4 The need for an enhanced civil penalty to deter future noncompliance.

4.2 Injunctive Relief

- 4.2.1 Under AS 46.03.820, the Department can order an activity presenting an imminent or present danger to public health or that would be likely to result in irreversible damage to the environment be discontinued. Upon receipt of such an order, the activity must be immediately discontinued.
- 4.2.2 Under AS 46.03.765, the Department can bring an action in Alaska Superior Court seeking to enjoin ongoing or threatened violations for Department-issued permits and Department statutes and regulations.

4.3 Criminal Action

Under AS 46.03.790(h), a person is guilty of a Class A misdemeanor if the person negligently:

- 4.3.1 Violates a regulation adopted by the Department under AS 46.03.020(12);
- 4.3.2 Violates a permit issued under the program authorized by AS 46.03.020(12);
- 4.3.3 Fails to provide information or provides false information required by a regulation adopted under AS 46.03.020(12);
- 4.3.4 Makes a false statement, representation, or certification in an application, notice, record, report, permit, or other document filed, maintained, or used for purposes of compliance with a permit issued under or a regulation adopted under AS 46.03.020(12); or
- 4.3.5 Renders inaccurate a monitoring device or method required to be maintained by a permit issued or under a regulation adopted under AS 46.03.020(12).

4.4 Other Fines

Upon conviction of a violation of a regulation adopted under AS 46.03.020(12), a defendant who is not an organization may be sentenced to pay a fine of not more than \$10,000 for each separate violation (AS 46.03.790(g)). A defendant that is an organization may be sentenced to pay a fine not exceeding the greater of: (1) \$200,00; (2) three times the pecuniary gain realized by the defendant as a result of the offense; or (3) three times the pecuniary damage or loss caused by the defendant to another, or the property of another, as a result of the offense (AS 12.55.035(c)(B), (c)(2), and (c)(3)).

APPENDIX B

ABBREVIATIONS AND ACRONYMS

Appendix B – Abbreviations and Acronyms

BOD₅ – Biochemical Oxygen Demand (5-day test)

BMP – Best Management Practice

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

CGP – Construction General Permit

COD – Chemical Oxygen Demand

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)

CWT – Centralized Waste Treatment

DMR – Discharge Monitoring Report

EPA – U. S. Environmental Protection Agency

ESA – Endangered Species Act

FWS – U. S. Fish and Wildlife Service

LA – Load Allocations

MDMR – MSGP Discharge Monitoring Report

MGD – Million Gallons per Day

MOS – Margin of Safety

MS4 – Municipal Separate Storm Sewer System

MSDS – Material Safety Data Sheet

MSGP – Multi-Sector General Permit

NAICS – North American Industry Classification System

NEPA – National Environmental Policy Act

NHPA – National Historic Preservation Act

NMFS – U. S. National Marine Fisheries Service

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

NRC – National Response Center

NRHP – National Register of Historic Places

NSPS – New Source Performance Standard

NTU – Nephelometric Turbidity Unit

OMB – U. S. Office of Management and Budget

ORW – Outstanding Resource Water

OSM – U. S. Office of Surface Mining

POTW – Publicly Owned Treatment Works

RCRA – Resource Conservation and Recovery Act

RQ – Reportable Quantity

SARA – Superfund Amendments and Reauthorization Act

SHPO – State Historic Preservation Officer

SIC – Standard Industrial Classification

SMCRA – Surface Mining Control and Reclamation Act

SPCC – Spill Prevention, Control, and Countermeasures

SWPPP – Stormwater Pollution Prevention Plan

THPO – Tribal Historic Preservation Officer

TMDL – Total Maximum Daily Load

TSDf – Treatment, Storage, or Disposal Facility

TSS – Total Suspended Solids

USGS – United States Geological Survey

WLA – Wasteload Allocation

WQS – Water Quality Standard

APPENDIX C DEFINITIONS

Appendix C – Definitions (for the purposes of this permit).

Action Area – all areas to be affected directly or indirectly by the storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities, and not merely the immediate area involved in these discharges and activities.

Arid Climate – areas where annual rainfall averages from 0 to 10 inches.

Best Management Practices (BMPs) – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2.

Co-Located Industrial Activities – Any industrial activities, excluding your primary industrial activity(ies), located on-site that are defined by the storm water regulations at 122.26(b)(14)(i)-(ix) and (xi). An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the storm water regulations or identified by the SIC code list in Appendix D.

Control Measure – refers to any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

Director – a Director of the Division of Water within the Department of Environmental Conservation.

Discharge – when used without qualification, means the "discharge of a pollutant." See 40 CFR 122.2.

Discharge of a Pollutant – any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

Discharge-Related Activities – activities that cause, contribute to, or result in storm water and allowable non-storm water point source discharges, and measures such as the siting, construction and operation of BMPs to control, reduce, or prevent pollution in the discharges.

Drought-Stricken Area – a period of below average water content in streams, reservoirs, ground-water aquifers, lakes and soils.

EPA Approved or Established Total Maximum Daily Loads (TMDLs) – “EPA Approved TMDLs” are those that are developed by a State and approved by EPA. “EPA Established TMDLs” are those that are developed by EPA.

Existing Discharger – an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.

Facility or Activity – any NPDES “point source” (including land or appurtenances thereto) that is subject to regulation under the NPDES program. See 40 CFR 122.2.

Fall Freeze-up –For the purposes of this permit, means for planning purposes in the development of the SWPPP and initial planning of the control measure maintenance the date in the fall that air temperatures will be predominately below freezing. It is the date in the fall that has an 80% probability that a minimum temperature below a threshold of 32.5 degrees Fahrenheit will occur on or after the given date. This date can be found by looking up the “Fall ‘Freeze’ Probabilities” for the weather station closest to the facility on the website www.wrcc.dri.edu/summary/Climsmak.html. NOTE: This estimation of “Fall Freeze-up” is for planning purposes only. During construction and operation the permittee will need to maintain control measures based on actual conditions.

Federal Facility – any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the federal government.

Final Stabilization - For the purposes of this permit, means that:

1. All soil disturbing activities at the site have been completed and either of the two following criteria shall be met:
 - a. a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or
 - b. equivalent non vegetative permanent stabilization measures have been employed (such as the use of riprap, gabions, porous backfill (ADOT&PF Specification 703-2.10), railroad ballast or subballast, ditch lining (ADOT&PF Specification 610-2.01 with <3% smaller than #200 sieve), geotextiles, or fill material with low erodibility as determined by an engineer familiar with the site and documented in the SWPPP).
2. When background native vegetation will cover less than 100 percent of the ground (e.g., arid areas, beaches), the 70 percent coverage criteria is adjusted as follows: if the native vegetation covers 50 percent of the ground, then 70 percent of 50 percent ($0.70 \times 0.50 = 0.35$) would require 35 percent total cover for final stabilization. On a beach with no natural vegetation, no stabilization is required.

3. In arid and semi-arid areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
 - a. Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the permittee;
 - b. The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.

Impaired Water (or “Water Quality Impaired Water” or “Water Quality Limited Segment”) – A water is impaired for purposes of this permit if it has been identified by a State or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called “water quality limited segments” under 40 CFR 30.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.

Indian Country – (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; (b) all dependent Indian communities within the borders of the United States, whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe. (18 U.S.C. 1151)

Industrial Activity – the 10 categories of industrial activities included in the definition of “storm water discharges associated with industrial activity” as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

Industrial Storm Water – storm water runoff from industrial activity.

Measurable Storm Event - a storm event that results in an actual discharge from the facility that follows the preceding measurable storm event by at least 72 hours (3 days). No specific storm magnitude (i.e., 0.1 inches or greater) is specified, only an event which results in a discharge. For snowmelt, an event which some point in time produces a measurable discharge from the facility.

Minimize – To reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.

Municipal Separate Storm Sewer – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- a. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage,

industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

- b. Designed or used for collecting or conveying storm water;
- c. Which is not a combined sewer; and
- d. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. See 40 CFR 122.26(b)(4) and (b)(7).

New Discharger – a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

New Source – any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced:

- after promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or
- after proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.

New Source Performance Standards (NSPS) – technology-based standards for facilities that qualify as new sources under 40 CFR 122.2 and 40 CFR 122.29.

No exposure – all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).

Operator – any entity with a storm water discharge associated with industrial activity that meets either of the following two criteria:

- a. The entity has operational control over industrial activities, including the ability to modify those activities;
- b. The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit); or
- c. The entity is either the owner or leasee of a parcel of land which is being used as a Non-Traditional Non-Metallic Mineral Mining facility.

Permittee – Is a person who is authorized to discharge pollutants to waters of the United States in accordance with the conditions and requirements of this permit.

Person – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. See 40 CFR 122.2.

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff. See 40 CFR 122.2.

Pollutant – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water. See 40 CFR 122.2.

Pollutant of Concern – A pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a state's 303(d) list.

Practicable – For the purposes of this permit, means capable of being done after taking into consideration costs, existing technology, standards of construction practice, impacts to water quality, site conditions, and logistics in light of the overall project purpose.

Primary Airport – are publicly owned airports that receive scheduled passenger service and have more than 10,000 passengers boarding each year.

Primary Industrial Activity – includes any activities performed on-site which are (1) identified by the facility's primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). [For co-located activities covered by multiple SIC codes, it is recommended that the primary industrial determination be based on the value of receipts or revenues or, if such information is not available for a particular facility, the number of employees or production rate for each process may be compared. The operation that generates the most revenue or employs the most personnel is the operation in which the facility is primarily engaged. In situations where the vast majority of on-site activity falls within one SIC code, that activity may be the primary industrial activity.] Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 mgd or more.

Qualified Personnel – Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at your facility, and who can also evaluate the effectiveness of control measures.

Reportable Quantity Release – a release of a hazardous substance at or above the established legal threshold that requires emergency notification. Refer to 40 CFR Parts 110, 117, and 302 for complete definitions and reportable quantities for which notification is required.

Runoff Coefficient – the fraction of total rainfall that will appear at the conveyance as runoff. See 40 CFR 122.26(b)(11).

Saline Water – salinity equal or exceed 0.5 parts per thousand (by mass).

Semi-Arid Climate – areas where annual rainfall averages from 10 to 20 inches.

Significant Materials – includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges. See 40 CFR 122.26(b)(12).

Special Aquatic Sites – sites identified in 40 CFR 230 Subpart E. These are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region.

Spring Thaw –For the purposes of this permit, means for planning purposes in the development of the SWPPP and initial planning of the control measure maintenance the date in the spring that air temperatures will be predominately above freezing. It is the date in the spring that has a 20% probability that a minimum temperature below a threshold of 32.5 degrees Fahrenheit will occur on or after the given date. This date can be found by looking up the “Spring ‘Freeze’ Probabilities” for the weather station closest to the facility on the website www.wrcc.dri.edu/summary/Climsmak.html NOTE: This estimation of “Spring Thaw” is for planning purposes only. During construction and operation the permittee will need to maintain control measures based on actual conditions.

Storm Water – storm water runoff, snow melt runoff, and surface runoff and drainage. See 40 CFR 122.26(b)(13).

Storm Water Discharges Associated with Construction Activity – a discharge of pollutants in storm water runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial storm water directly related to the construction process (e.g., concrete or asphalt batch plants) are located. See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15).

Storm Water Discharges Associated with Industrial Activity – the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges

from facilities or activities excluded from the NPDES program under Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities include those that are federally, State, or municipally owned or operated that meet the description of the facilities listed in 40 CFR 122.26(b)(14). The term also includes those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). See 40 CFR 122.26(b)(14).

Temporary Stabilization – measures taken to protect soils from erosion by rainfall, snow melt, runoff, or wind, with surface roughening or a surface cover, including, but not limited to, establishment of ground vegetation, application of mulch, surface tackifiers, rolled erosion control products, gravel or paving.

Total Maximum Daily Loads (TMDLs) – A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. (See Section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

Uncontaminated – Free from the presence of pollutants attributable to industrial activity.

Water Quality Impaired – See ‘Impaired Water’.

Water Quality Standards – For the purposes of this permit, means the Alaska Water Quality Standards (18 AAC 70) as approved by U.S. EPA. As defined in 40 CFR § 131.3 water quality standards are provisions of State or Federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act.

Winter Shutdown – The cessation of soil disturbing or soil stabilizing construction activity for the winter. Typically this period is from October/November to April/May and is approximately from fall freeze-up to spring thaw.

“You” and “Your” – as used in this permit are intended to refer to the permittee, the operator, or the discharger as the context indicates and that party’s facility or responsibilities. The use of “you” and “your” refers to a particular facility and not to all facilities operated by a particular entity. For example, “you must submit” means the permittee must submit something for that particular facility. Likewise, “all your discharges” would refer only to discharges at that one facility.

APPENDIX D

ACTIVITIES COVERED

Appendix D – Facilities and Activities Covered

Your permit eligibility is limited to discharges from facilities in the “sectors” of industrial activity summarized in Table D-1. These sector descriptions are based on Standard Industrial Classification (SIC) Codes and Industrial Activity Codes. References to “sectors” in this permit (e.g., sector-specific monitoring requirements) refer to these groupings.

Table D-1. Sectors of Industrial Activity Covered by This Permit

Subsector (May be subject to more than one sector/subsector)	SIC Code or Activity Code¹	Activity Represented
SECTOR A: TIMBER PRODUCTS		
A1	2421	General Sawmills and Planing Mills
A2	2491	Wood Preserving
A3	2411	Log Storage and Handling
A4	2426	Hardwood Dimension and Flooring Mills
	2429	Special Product Sawmills, Not Elsewhere Classified
	2431-2439 (except 2434)	Millwork, Veneer, Plywood, and Structural Wood (see Sector W)
	2448	Wood Pallets and Skids
	2449	Wood Containers, Not Elsewhere Classified
	2451, 2452	Wood Buildings and Mobile Homes
	2493	Reconstituted Wood Products
	2499	Wood Products, Not Elsewhere Classified
A5	2441	Nailed and Lock Corner Wood Boxes and Shook
SECTOR B: PAPER AND ALLIED PRODUCTS		
B1	2631	Paperboard Mills
B2	2611	Pulp Mills
	2621	Paper Mills
	2652-2657	Paperboard Containers and Boxes
	2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes
SECTOR C: CHEMICALS AND ALLIED PRODUCTS		
C1	2873-2879	Agricultural Chemicals
C2	2812-2819	Industrial Inorganic Chemicals
C3	2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations
C4	2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass
C5	2833-2836	Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; and Biological Products, Except Diagnostic Substances
	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products
	2861-2869	Industrial Organic Chemicals
	2891-2899	Miscellaneous Chemical Products
C5	3952 (limited to list of inks and paints)	Inks and Paints, Including China Painting Enamels, India Ink, Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints and Artist's Watercolors
	2911	Petroleum Refining

Table D-1. Sectors of Industrial Activity Covered by This Permit

Subsector (May be subject to more than one sector/subsector)	SIC Code or Activity Code¹	Activity Represented
SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS		
D1	2951, 2952	Asphalt Paving and Roofing Materials
D2	2992, 2999	Miscellaneous Products of Petroleum and Coal
SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS		
E1	3251-3259	Structural Clay Products
	3261-3269	Pottery and Related Products
E2	3271-3275	Concrete, Gypsum, and Plaster Products
E3	3211	Flat Glass
	3221, 3229	Glass and Glassware, Pressed or Blown
	3231	Glass Products Made of Purchased Glass
	3241	Hydraulic Cement
	3281	Cut Stone and Stone Products
	3291-3299	Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products
SECTOR F: PRIMARY METALS		
F1	3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
F2	3321-3325	Iron and Steel Foundries
F3	3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals
F4	3363-3369	Nonferrous Foundries (Castings)
F5	3331-3339	Primary Smelting and Refining of Nonferrous Metals
	3341	Secondary Smelting and Refining of Nonferrous Metals
	3398, 3399	Miscellaneous Primary Metal Products
SECTOR G: METAL MINING (ORE MINING AND DRESSING)		
G1	1021	Copper Ore and Mining Dressing Facilities
G2	1011	Iron Ores
	1021	Copper Ores
	1031	Lead and Zinc Ores
	1041, 1044	Gold and Silver Ores
	1061	Ferroalloy Ores, Except Vanadium
	1081	Metal Mining Services
	1094, 1099	Miscellaneous Metal Ores
SECTOR H: COAL MINES AND COAL MINING-RELATED FACILITIES		
H1	1221-1241	Coal Mines and Coal Mining-Related Facilities
SECTOR I: OIL AND GAS EXTRACTION AND REFINING		
I1	1311	Crude Petroleum and Natural Gas
	1321	Natural Gas Liquids
	1381-1389	Oil and Gas Field Services
SECTOR J: MINERAL MINING AND DRESSING		
J1	1442	Construction Sand and Gravel
	1446	Industrial Sand
J2	1411	Dimension Stone
	1422-1429	Crushed and Broken Stone, Including Rip Rap
	1481	Nonmetallic Minerals Services, Except Fuels
	1499	Miscellaneous Nonmetallic Minerals, Except Fuels
J3	1455, 1459	Clay, Ceramic, and Refractory Materials
	1474-1479	Chemical and Fertilizer Mineral Mining

Table D-1. Sectors of Industrial Activity Covered by This Permit

Subsector (May be subject to more than one sector/subsector)	SIC Code or Activity Code¹	Activity Represented
SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES		
K1	HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operating under interim status or a permit under subtitle C of RCRA
SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS		
L1	LF	All Landfill, Land Application Sites and Open Dumps
L2	LF	All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60
SECTOR M: AUTOMOBILE SALVAGE YARDS		
M1	5015	Automobile Salvage Yards
SECTOR N: SCRAP RECYCLING FACILITIES		
N1	5093	Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling
N2	5093	Source-separated Recycling Facility
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES		
O1	SE	Steam Electric Generating Facilities, including coal handling sites
SECTOR P: LAND TRANSPORTATION AND WAREHOUSING		
P1	4011, 4013	Railroad Transportation
	4111-4173	Local and Highway Passenger Transportation
	4212-4231	Motor Freight Transportation and Warehousing
	4311	United States Postal Service
	5171	Petroleum Bulk Stations and Terminals
SECTOR Q: WATER TRANSPORTATION		
Q1	4412-4499	Water Transportation Facilities
SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS		
R1	3731, 3732	Ship and Boat Building or Repairing Yards
SECTOR S: AIR TRANSPORTATION FACILITIES		
S1	4512-4581	Air Transportation Facilities
SECTOR T: TREATMENT WORKS		
T1	TW	Treatment Works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA
SECTOR U: FOOD AND KINDRED PRODUCTS		
U1	2041-2048	Grain Mill Products
U2	2074-2079	Fats and Oils Products
U3	2011-2015	Meat Products
	2021-2026	Dairy Products

Table D-1. Sectors of Industrial Activity Covered by This Permit

Subsector (May be subject to more than one sector/subsector)	SIC Code or Activity Code¹	Activity Represented
U3	2032-2038	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties
	2051-2053	Bakery Products
	2061-2068	Sugar and Confectionery Products
	2082-2087	Beverages
	2091-2099	Miscellaneous Food Preparations and Kindred Products
	2111-2141	Tobacco Products
SECTOR V: TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING; LEATHER AND LEATHER PRODUCTS		
V1	2211-2299	Textile Mill Products
	2311-2399	Apparel and Other Finished Products Made from Fabrics and Similar Materials
	3131-3199	Leather and Leather Products (note: see Sector Z1 for Leather Tanning and Finishing)
SECTOR W: FURNITURE AND FIXTURES		
W1	2434	Wood Kitchen Cabinets
	2511-2599	Furniture and Fixtures
SECTOR X: PRINTING AND PUBLISHING		
X1	2711-2796	Printing, Publishing, and Allied Industries
SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES		
Y1	3011	Tires and Inner Tubes
	3021	Rubber and Plastics Footwear
	3052, 3053	Gaskets, Packing and Sealing Devices, and Rubber and Plastic Hoses and Belting
	3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
Y2	3081-3089	Miscellaneous Plastics Products
	3931	Musical Instruments
	3942-3949	Dolls, Toys, Games, and Sporting and Athletic Goods
	3951-3955 (except 3952 – see Sector C)	Pens, Pencils, and Other Artists' Materials
	3961, 3965	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal
	3991-3999	Miscellaneous Manufacturing Industries
SECTOR Z: LEATHER TANNING AND FINISHING		
Z1	3111	Leather Tanning and Finishing
SECTOR AA: FABRICATED METAL PRODUCTS		
AA1	3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services.
	3911-3915	Jewelry, Silverware, and Plated Ware
AA2	3479	Fabricated Metal Coating and Engraving
SECTOR AB: TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMERCIAL MACHINERY		
AB1	3511-3599 (except 3571-3579)	Industrial and Commercial Machinery, Except Computer and Office Equipment (see Sector AC)

Table D-1. Sectors of Industrial Activity Covered by This Permit

Subsector (May be subject to more than one sector/subsector)	SIC Code or Activity Code ¹	Activity Represented
AB1	3711-3799 (except 3731, 3732)	Transportation Equipment Except Ship and Boat Building and Repairing (see Sector R)
SECTOR AC: ELECTRONIC, ELECTRICAL, PHOTOGRAPHIC, AND OPTICAL GOODS		
AC1	3571-3579	Computer and Office Equipment
	3812-3873	Measuring, Analyzing, and Controlling Instruments; Photographic and Optical Goods, Watches, and Clocks
	3612-3699	Electronic and Electrical Equipment and Components, Except Computer Equipment
SECTOR AD: NON-CLASSIFIED FACILITIES		
AD1	Other stormwater discharges designated by the Director as needing a permit (see 40 CFR 122.26(a)(9)(i)(C) & (D)) or any facility discharging stormwater associated with industrial activity not described by any of Sectors A-AC. NOTE: Facilities may not elect to be covered under Sector AD. Only the Director may assign a facility to Sector AD.	

¹ A complete list of SIC Codes (and conversions from the newer North American Industry Classification System” (NAICS)) can be obtained from the Internet at www.census.gov/epcd/www/naics.html or in paper form from various locations in the document titled *Handbook of Standard Industrial Classifications*, Office of Management and Budget, 1987.

Appendix E

Calculating Hardness in Receiving Waters for Hardness Dependent Metals

Appendix E – Calculating Hardness in Receiving Waters for Hardness Dependent Metals

E.1 Overview

EPA adjusted the benchmarks for six hardness-dependent metals (i.e., cadmium, copper, lead, nickel, silver, and zinc) to further ensure compliance with water quality standards and provide additional protection for endangered species and their critical habitat. For any sectors required to conduct benchmark samples for a hardness-dependent metal, DEC includes ‘hardness ranges’ from which benchmark values are determined. To determine which hardness range to use, you must collect data on the hardness of your receiving water(s). Once the site-specific hardness data have been collected, the corresponding benchmark value for each metal is determined by comparing where the hardness data fall within 25 mg/L ranges, as shown in Table E.1.

Table E.1: Hardness Ranges to Be Used to Determine Benchmark Values for Cadmium, Copper, Lead, Nickel, Silver, and Zinc.

All Units mg/L	Benchmark Values (mg/L, total)					
	Cadmium	Copper	Lead	Nickel	Silver	Zinc
0-25 mg/L	0.0005	0.0038	0.014	0.15	0.0007	0.04
25-50 mg/L	0.0008	0.0056	0.023	0.20	0.0007	0.05
50-75 mg/L	0.0013	0.0090	0.045	0.32	0.0017	0.08
75-100 mg/L	0.0018	0.0123	0.069	0.42	0.0030	0.11
100-125 mg/L	0.0023	0.0156	0.095	0.52	0.0046	0.13
125-150 mg/L	0.0029	0.0189	0.122	0.61	0.0065	0.16
150-175 mg/L	0.0034	0.0221	0.151	0.71	0.0087	0.18
175-200 mg/L	0.0039	0.0253	0.182	0.80	0.0112	0.20
200-225 mg/L	0.0045	0.0285	0.213	0.89	0.0138	0.23
225-250 mg/L	0.0050	0.0316	0.246	0.98	0.0168	0.25
250+ mg/L	0.0053	0.0332	0.262	1.02	0.0183	0.26

E.2 How to Determine Hardness for Hardness-Dependent Parameters.

You may select one of three methods to determine hardness, including; individual grab sampling, grab sampling by a group of operators which discharge to the same receiving water, or using third-party data. Regardless of the method used, you are responsible for documenting the procedures used for determining hardness values. Once the hardness value is established, you are required to include this information in your first benchmark report submitted to DEC so that the Department can make appropriate comparisons between your benchmark monitoring results and the corresponding benchmark. You must retain all report and monitoring data in accordance with Part 9.5 of the permit. The three method options for determining hardness are detailed in the following sections.

(1) Permittee Samples for Receiving Stream Hardness

This method involves collecting samples in the receiving water and submitting these to a laboratory for analysis. If you elect to sample your receiving water(s) and submit samples for analysis, hardness must be determined from the closest intermittent or perennial stream downstream of your point of discharge.

The sample can be collected during either dry or wet weather. Collection of the sample during wet weather is more representative of conditions during stormwater discharges; however, collection of in-stream samples during wet weather events may be impracticable or present safety issues.

Hardness must be sampled and analyzed using approved methods as described in 40 CFR Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants).

(2) Group Monitoring for Receiving Stream Hardness

You can be part of a group of permittees discharging to the same receiving waters and collect samples that are representative of the hardness values for all members of the group. In this scenario, hardness of the receiving water must be determined using 40 CFR Part 136 procedures and the results shared by group members. To use the same results, hardness measurements must be taken on a stream reach within a reasonable distance of the discharge points of each of the group members.

(3) Collection of Third-Party Hardness Data

You can submit receiving stream hardness data collected by a third party provided the results are collected consistent with the approved 40 CFR Part 136 methods. These data may come from a local water utility, previously conducted stream reports, TMDLs, peer reviewed literature, other government publications, or data previously collected by the permittee. Data should be less than 10 years old.

Water quality data for many of the nation's surface waters are available on-line or by contacting EPA or a state environmental agency. EPA's data system STORET, short for STORage and RETrieval, is a repository for receiving water quality, biological, and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, private citizens, and many others. Similarly, state environmental agencies and the U.S. Geological Service (USGS) also have water quality data available that, in some instances, can be accessed online. "Legacy STORET" codes for hardness include: 259 hardness, carbonate; 260 hardness, noncarbonated; and 261 calcium + magnesium, while more recent, "Modern STORET" data codes include: 00900 hardness, 00901 carbonate hardness, and 00902 noncarbonate hardness; or the discrete measurements of calcium (00915) and magnesium (00925) can be used to calculate hardness. Hardness data historically has been reported as "carbonate," "noncarbonate," or "Ca + Mg." If these are unavailable, then individual results for calcium (Ca) and magnesium (Mg) may be used to calculate hardness using the following equation:

$$\frac{mg}{L} CaO_3 = 2.497 \left(Ca \frac{mg}{L} \right) + 4.118 \left(Mg \frac{mg}{L} \right)$$

When interpreting the data for carbonate and non-carbonate hardness, note that total hardness is equivalent to the sum of carbonate and noncarbonate hardness if both forms are reported. If only carbonate hardness is reported, it is more than likely that noncarbonate hardness is absent and the total hardness is equivalent to the available carbonate hardness.

Appendix F – MSGP Forms

Notice of Intent (NOI) Form

To obtain coverage under this permit, you must submit a Notice of Intent (NOI). You must submit an NOI using either:

- (1) DEC's Electronic Notice of Intent (eNOI) system, available at <http://dec.alaska.gov/water/wnpspc/stormwater/APDESeNOI.html>, or
- (2) file a paper copy of the NOI available at: <http://dec.alaska.gov/water/wnpspc/stormwater/Forms.htm>.

Notice of Termination (NOT) Form

To terminate coverage under this permit, you must submit a Notice of Termination (NOT). You must either

- (1) terminate coverage using EPA's online eNOI system, available at <http://dec.alaska.gov/water/wnpspc/stormwater/APDESeNOI.html> or
- (2) file a paper copy of the NOT, available at: <http://dec.alaska.gov/water/wnpspc/stormwater/Forms.htm>.

Annual Report Form

Available at: <http://dec.alaska.gov/water/wnpspc/stormwater/Forms.htm>.

Corrective Action Form

Available at: <http://dec.alaska.gov/water/wnpspc/stormwater/Forms.htm>.

NOI Modification Form

Available at: <http://dec.alaska.gov/water/wnpspc/stormwater/Forms.htm>.

MSGP Industrial Discharge Monitoring Report (MDMR)

Available at: <http://dec.alaska.gov/water/wnpspc/stormwater/Forms.htm>.

No Exposure Certification Form

Available at: <http://dec.alaska.gov/water/wnpspc/stormwater/Forms.htm>.

Noncompliance Notification Form

Available at <http://dec.alaska.gov/water/wnpspc/stormwater/Forms.htm>.

Appendix D
Monitoring and Inspection Forms and Reports

SWPPP MSGP 2015 Inspection Report

General Information			
Project Name			
NOI Tracking No.		Location	
Date of Inspection		Start/End Time	
Inspector's Name(s)	Contractor:	Owner (if joint):	
Inspector's Title(s)			
Inspector's Contact Information			
Describe present phase of construction			
Type of Inspection ☐ Monthly ☐ Pre-storm event ☐ During storm event ☐ Post-storm event ☐ Other (describe): ☐ Quarterly			
Weather Information			
Has it rained since the last inspection? ☐ Yes ☐ No If yes, provide: Storm Start Date & Time: Storm Duration (hrs): Approximate Rainfall (in):			
Weather at time of this inspection?			
Is there evidence that erosion discharges have left the project site since the last inspection? ☐ Yes ☐ No			
Are there any erosion discharges leaving the project site at the time of inspection? ☐ Yes ☐ No			

Site-specific BMPs

Number the structural and non-structural BMPs identified in your SWPPP on your plan sheets and list them below (add as many BMPs as necessary). Carry a copy of this numbered site map with you during your inspections. This list will help ensure that you are inspecting all required BMPs at your site. Customize this section as needed.

	BMP Description / Location	BMP Installed and Operating Properly?	Corrective Action Needed	Date for corrective action/responsible person
1		☐ Yes ☐ No		
2		☐ Yes ☐ No		
3		☐ Yes ☐ No		
4		☐ Yes ☐ No		
5		☐ Yes ☐ No		

	BMP Description / Location	BMP Installed and Operating Properly?	Corrective Action Needed	Date for corrective action/responsible person
6		☐ Yes ☐ No		
7		☐ Yes ☐ No		
8		☐ Yes ☐ No		
9		☐ Yes ☐ No		
10		☐ Yes ☐ No		
11		☐ Yes ☐ No		
12		☐ Yes ☐ No		
13		☐ Yes ☐ No		
14		☐ Yes ☐ No		
15		☐ Yes ☐ No		
16		☐ Yes ☐ No		
17		☐ Yes ☐ No		
18		☐ Yes ☐ No		
19		☐ Yes ☐ No		
20	Are any additional BMPs needed?	☐ Yes ☐ No		

Use Continuation Sheet if necessary

Overall Site Issues

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
1A	Have stabilization measures been initiated on slopes and disturbed areas not actively being worked?	☐ Yes ☐ No	☐ Yes ☐ No		
1B	If no, will the disturbed areas be worked in 14 days?	☐ Yes ☐ No	☐ Yes ☐ No		
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	☐ Yes ☐ No	☐ Yes ☐ No		

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	☐ Yes ☐ No	☐ Yes ☐ No		
4	Are discharge points and receiving waters free of sediment deposits?	☐ Yes ☐ No	☐ Yes ☐ No		
5	Are storm drain inlets properly protected?	☐ Yes ☐ No	☐ Yes ☐ No		
6A	Is there evidence of sediment being tracked into paved surfaces?	☐ Yes ☐ No	☐ Yes ☐ No		
6B	Are the BMPs to avoid tracking being maintained?	☐ Yes ☐ No	☐ Yes ☐ No		
7	Is trash/litter from work areas collected and placed in covered dumpsters?	☐ Yes ☐ No	☐ Yes ☐ No		
8	Are equipment washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	☐ Yes ☐ No	☐ Yes ☐ No		
9A	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	☐ Yes ☐ No	☐ Yes ☐ No		
9B	If applicable, are fueling restrictions near water bodies being followed?	☐ Yes ☐ No	☐ Yes ☐ No		
10	Has Spill Response kit been used since the last inspection? If yes, has stock been maintained?	☐ Yes ☐ No	☐ Yes ☐ No		
11	Are materials that are potential storm water contaminants stored	☐ Yes ☐ No	☐ Yes ☐ No		

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
	inside or under cover?				
12	Are non-storm water discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ No	☐ Yes ☐ No		
13	Is/Are the ESCP and Site maps: Up to date? Available on site? Being implemented?	 ☐ Yes ☐ No ☐ Yes ☐ No	 ☐ Yes ☐ No		
14	Inspection performed: Monthly (30) calendar days After 0.5 in/24 hr. storm	 ☐ Yes ☐ No ☐ Yes ☐ No			
15.	Are Inspections being performed by qualified individuals?	☐ Yes ☐ No			
16.	Are inspectors qualifications appended to SWPPP?	☐ Yes ☐ No			
17.	Are written inspection forms onsite?		☐ Yes ☐ No		
18.	Materials stored in accordance with manufacturers recommendations	☐ Yes ☐ No	☐ Yes ☐ No		
19.	Waste materials collected and removed from site	☐ Yes ☐ No	☐ Yes ☐ No		
20.	Porta potties require emptying	☐ Yes ☐ No			
21	Discharge point inspected	☐ Yes ☐ No			

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
22.	Flowing water at discharge point.	☐ Yes ☐ No If yes complete 22 a - c			
22.a	Water sample collected?	☐ Yes ☐ No If No complete 22.d			
22.b	Samples analyzed for: Total settleable solids Total suspended solids Nitrate/Nitrite Visual Assessment pH Total Iron	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No			
22.c	Sample analysis results attached	☐ Yes ☐ No			
22.d	Was sediment/sheen visible in flowing water at discharge point	☐ Yes ☐ No			

Visual Assessment Sample

Collection Date/Time:

Collected by:

Signature of Collector:

Visual Assessment Date/Time:

Visually Assessed by:

Signature of Assessor:

Nature of Discharge (runoff, snowmelt, etc.):

Assessment Results

Color:

Odor:

Clarity:

Floating Solids:

Settled Solids:

Settled Solids:

Suspended Solids:

Foam:

Oil Sheen:

Other indicators of pollution:

If contamination was observed, what are probable sources of that contamination?

If sample was not taken within the first 30 minutes of discharge, why was that not possible?

Benchmark Sampling Sample

Collection Date/Time:

Collected by:

Signature of Collector:

Analysis conducted by (lab name):

Were any previously unidentified discharges found (describe below)?	☐ Yes	☐ No
Were any previously unidentified pollutants found in existing discharges (describe below)?	☐ Yes	☐ No

Previously unidentified discharges or pollutants:

Additional notes (evidence of or potential for pollutants entering drainage system or receiving waters):

Is the site in compliance with the approved SWPPP and the permit requirements?	☐ Yes	☐ No
If no, should the approved SWPPP be modified?	☐ Yes	☐ No

If no, indicate tasks necessary to bring site into compliance in the “Corrective Action Needed” columns of this report and include the dates each task will be completed in the “Date for Corrective Action/Responsible Person” columns of this report.

Contractor’s Inspector

Name:

Title:

Signature: _____

Signature:

Date: _____

Date:

Certification statement:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Contractor’s Duly Authorized Representative

Owners Duly Authorized Representative

Name:

Name:

Title:

Title:

Region:

Signature: _____
Date: _____

Signature: _____
Date: _____

MSGP Quarterly Visual Assessment Form (Complete a separate form for each outfall you assess)			
Name of Facility:		APDES Tracking No.	
Outfall Name: "Substantially Identical Outfall"? ☐ No ☐ Yes (identify substantially identical outfalls):			
Person(s)/Title(s) collecting sample:			
Person(s)/Title(s) examining sample:			
Date & Time Discharge Began:		Date & Time Sample Collected:	
Date & Time Sample Examined:			
Discharge Information:			
Identify Monitoring Period:		Check here if proposing alternative monitoring periods due to irregular storm water runoff. Identify alternative monitoring schedule and indicate which alternative period you are assessing.	
Quarter 1 (Jan 1 – March 31)		Quarter 1: From _____ To _____	
Quarter 1 (Apr 1 – June 30)		Quarter 2: From _____ To _____	
Quarter 1 (July 1 – Sept 30)		Quarter 3: From _____ To _____	
Quarter 1 (Oct 31 – Dec 31)		Quarter 4: From _____ To _____	
Substitute Sample? ☐ No ☐ Yes (identify quarter/year when sample was originally scheduled to be collected):			
Nature of Discharge: ☐ Rainfall ☐ Snowmelt			
If rainfall: Rainfall Amount (inches): _		Previous Storm Ended > 72 hours ☐ Yes ☐ No* (explain):	
		Before Start of This Storm?	
Monitoring Information			
Duration of Rainfall Event (hours):			
Outfall Name	Quality (good, poor, no runoff)	Volume	Results Description
<i>Example:</i> Outfall #1	Good	1 Liter	Clean with no sheen
Visual Assessment Parameter			
Color ☐ None ☐ Other (describe):			
Odor ☐ None ☐ Musty ☐ Sewage ☐ Sulfur ☐ Sour ☐ Petroleum/Gas _____ ☐ Solvents ☐ Other (describe):			
Clarity ☐ Clear ☐ Slightly Cloudy ☐ Cloudy ☐ Opaque ☐ Other			
Floating Solids ☐ No ☐ Yes (describe):			
Settled Solids** ☐ No ☐ Yes (describe):			
Suspended Solids ☐ No ☐ Yes (describe):			
Foam (gently shake sample) ☐ No ☐ Yes (describe):			
Oil Sheen ☐ None ☐ Flecks ☐ Globs ☐ Sheen ☐ Slick ☐ Other (describe):			
Other Obvious ☐ No ☐ Yes (describe):			
Indicators of Storm Water Pollution			
* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the			

Name of Facility:
 APDES Tracking Number:

sampling period.	
** Observe for settled solids after allowing the sample to sit for approximately one-half hour.	
Detail any concerns, additional comments, descriptions of pictures taken, and any corrective actions taken below (attach additional sheets as necessary). Insert details	
Certification I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	
Authorized Person (Print Name):	Title:
Signature:	Date:



Alaska Department of Environmental Conservation

MSGP Industrial Discharge Monitoring Report (MDMR)

Reason(s) for Submission (Check all that apply):

- ☐ Submitting monitoring data (fill in all Sections).
- ☐ Reporting no discharge for all outfalls for this monitoring period (fill in Sections I, II, III, IV, and VI).
- ☐ Reporting that your site status has changed to inactive and unstaffed (fill in Sections I, II, VI and include date of status change in comments field in Section V).
- ☐ Reporting that your site status has changed to active (fill in all sections and include date of status change in comments field in Section V).
- ☐ Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 7.2.1.4 of the MSGP (fill in Sections I, II, and VI).

Section I. Permit Information

Permit Tracking Number:

Section II. Facility Information

Facility Name:

Facility Physical Address

Street:

City:

State: Alaska

Zip:

Contact Name:

Email:

MDMR Preparer (Complete if MDMR was prepared by someone other than the person signing the certification in Section VI):

Prepared By:

Organization:

Email:

Phone:

Section III. Discharge Information

Identify Monitoring Period:

Check here if proposing alternative monitoring periods due to irregular storm water runoff. Identify alternative monitoring schedule and indicate for which alternative period you are reporting monitoring data.

Quarter 1 (January 1- March 31)

Quarter 1: From

To

Quarter 2 (April 1- June 30)

Quarter 2: From

To

Quarter 3 (July 1- September 30)

Quarter 3: From

To

Quarter 4 (October 31- December 31)

Quarter 4: From

To

Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc? ☐ Yes ☐ No (Skip to Section IV)

What is the hardness level of the receiving water?

mg/L

Section IV. Outfall Information

How many outfalls are identified in your SWPPP?

List names of outfalls required to be monitored in the table below.

Do any of your outfalls discharge substantially identical effluents? ☐ Yes ☐ No

If YES, for each monitored outfall, indicate outfall names that are substantially identical in the table below.

a. Monitored Outfall Name*	b. Substantially Identical Outfalls [List name(s) of outfall(s) that are substantially identical to outfall in a.]	c. No Discharge?

*Reference attachment if additional space is needed to complete the table.

Attachment A

Who Must Submit A Discharge Monitoring Report to DEC?

An operator or owner of a facility covered under the Multi-Sector General Permit (MSGP or permit) that are required to monitor pursuant to Parts 7.2.1, 7.2.2, 7.2.3, and 7.2.4 of the permit must submit the MSGP Discharge Monitoring Report (MDMR) consistent with the reporting requirements specified in Part 9.1 of the permit.

Completing the Form

Type or print, in the appropriate areas only. "NA" can be entered in areas that are not applicable. If you have any questions about how or when to use this form, contact the DEC Storm Water Program at (907) 269-6285 or online at <http://dec.alaska.gov/water/wnpspc/stormwater/stormwater.htm>.

Reasons for Submission

Indicate your reason(s) for submitting this MDMR by checking all boxes that apply. The reasons for submission are defined as follows:

- *Submitting monitoring data:* For each storm event sampled, submit one MDMR form with data for all outfalls sampled. Select this reason even if you only have monitoring data for some of your outfalls (i.e., some outfalls did not discharge). If you select this reason, you are required to complete all Sections of the form.
- *Reporting no discharge for all outfalls for this monitoring period:* Indicates that there were no discharges from all outfalls during this monitoring period. If you select this reason, you are only required to complete Sections I, II, III, IV, and VI.
- *Reporting that your site status has changed to inactive and unstaffed:* Indicates that your facility is currently inactive and unstaffed (See Part 7.2.1.6 of the permit for more information). If you select this reason, you are only required to complete Sections I, II, and VI and include date of status change in the comment field in Section V.
- *Reporting that your site status has changed from inactive to active:* Indicates that your facility is currently active (See Part 7.2.1.6 of the permit for more information). If you select this reason, you are required to complete all Sections of the form and include date of status change in the comment field in Section V.
- *Reporting that no further reductions are achievable for all outfalls and for all effluent monitoring pollutants via Part 7.2.1.4 and Parts 4 of the permit:* Indicates that your facility has determined that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limitations or are necessary to meet the water-quality-based effluent limitations in Parts 4 of the permit (See Part 7.2.1.4 of the permit for more information). If you select this reason, you are required to complete Sections I, II and VI. However, if you can make this finding for some outfalls and pollutants, but not for others, you cannot select this reason; you will instead be able to identify which outfalls and which pollutants you can make this finding for in Section V.

Section I. Permit Tracking Number

Enter the APDES tracking number assigned by DEC to the facility. If you do not know the tracking number, you can find the tracking number assigned to your facility on DEC's Water Permit Search dec.alaska.gov/water/WaterPermitSearch/Search.aspx.

Section II. Facility Information

- Enter the facility's official or legal name. Unless the name of your facility has changed, please use the same name provided on your NOI. You can use ADEC's Water Permit Search, www.dec.alaska.gov/water/WaterPermitSearch/Search.aspx to view your NOI.
- Enter the street address, including city, state, and zip code of the actual physical location of the facility. Do not use a P.O. Box.
- Identify the name, telephone number, and email address of the person who will serve as a contact for DEC on issues related to monitoring at your facility. This person should be able to answer questions related to storm water discharges and monitoring or have immediate access to individuals with that knowledge. This person does not have to be the facility operator but should have intimate knowledge of monitoring activities at the facility.
- If the form was prepared by someone other than the person who is signing the certification statement in Section VI (for example, if the MDMR was prepared by a member of the facility's storm water pollution prevention team or a consultant for the certifier's signature), include the name, organization, telephone number, and email address of the MDMR preparer.

Section III. Discharge Information

- Indicate the appropriate monitoring period (Quarter 1, 2, 3, or 4) covered by the MDMR. "Alternative" monitoring periods can apply to facilities located in arid and semi-arid climates or in areas subject to snow or prolonged freezing. To use alternative monitoring periods, you must provide a revised monitoring schedule here in the first monitoring report submitted and indicate for which alternative monitoring period you are reporting monitoring data. If using alternative monitoring periods, identify the first day of the monitoring period through the last day of the monitoring period for each of the four periods. The dates should be displayed as month (Mo) / day (Day). See Part 7.2.1.2 of the permit for more information.
- If you are submitting benchmark monitoring data, identify if your facility is required to collect benchmark samples for one or more hardness-dependent metals (i.e., cadmium, copper, lead, nickel, silver, and zinc). If you select "yes" to this question you must also complete the table in Section III., and if you select "no" to this question, you may skip to Section IV.
- If you selected "yes" for the previous question, then you are required to submit to DEC with your first benchmark report a hardness level established consistent with the procedures in Appendix E of the permit, which is representative of your receiving water. If your outfalls discharge to more than one receiving water, as reported in your NOI form, you should report hardness for the receiving water with the lowest hardness values. Hardness values must be reported in milligrams per liter (mg/L).

Section IV. Outfall Information

- Enter the total number of outfalls identified in your SWPPP. Outfalls are locations where storm water exits the facility, including pipes, ditches, swales, and other structures used to remove storm water from the facility.
- Indicate if your facility has two or more outfalls that you believe discharge substantially identical effluents (i.e., storm water), based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to storm water, and runoff coefficients of their drainage areas. See Parts 5.2.6.2 and 6.2.3 of the permit for more information on substantially identical outfalls.
- If you selected "yes" for the previous question, then you must list the outfall name(s) in Column b that you expect to be substantially identical to the corresponding outfall in Column a.
 - Monitored Outfall Name:* List name(s) of outfall(s) you are required to monitor.
 - Substantially Identical Outfalls:* List name(s) of outfall(s) substantially identical to "Monitored Outfall" in Column a. (if applicable)].
 - No Discharge:* Check box if you are reporting "No Discharge" for the monitored outfall for the reporting period identified in Section III.

Example:

a. Monitored Outfall Name	b. Substantially Identical Outfall	c. No Discharge
Outfall A	Outfall B; Outfall C	☐
Outfall D		☒

Reference attachments if additional space is needed to complete the table in Section IV.

Section V. Monitoring Information

- Enter the APDES tracking number assigned to the facility reported in Section I.
- For the reported monitoring event, indicate whether the discharge was from a rainfall or snowmelt event. If you select "rainfall", then indicate:
 - the duration (in hours) of the rainfall event;
 - rainfall total (in inches) for that rainfall event; and
 - time (in days) since the previous measurable storm event.
- If the discharge occurs during a period of both rainfall and snowmelt, check both the rainfall and snowmelt boxes and report the appropriate rainfall information in items a-c. To report multiple monitoring events in the same reporting period, copy Page 2 of this Form and enter each monitoring event separately with data for all outfalls sampled.

- For each pollutant monitored at an outfall, you must complete one row in the Table as follows:
 - *Outfall Name*: Provide the outfall name for which you monitored (e.g., Outfall 1, Outfall 2, Outfall 3).
 - *Monitoring Type*: Provide the type of monitoring using the specified codes below:
 - QBM – Quarterly benchmark monitoring;
 - ELG – Annual effluent limitations guidelines monitoring;
 - S – State specific monitoring;
 - I – Impaired waters monitoring; or
 - O – Other monitoring as required by DEC.
 - *Parameter(s)*: Enter each “Parameter” (or “pollutant”) monitored. For QBM and ELG monitoring, use the same parameter name as in Part 11 of the permit.
 - *Quality or Concentration*: Enter sample measurement value for each parameter analyzed and required to be reported. Enter “ND” (i.e., not detected) for any sample results below the method detection limit or “BQL” (i.e., below quantitation limit) for sample results above the detection limit but below the quantitation limit.
 - *Units*: Enter the units for sample measurement values (e.g., “mg/L” for milligrams per liter) for each parameter analyzed and required to be reported. For monitoring results reported as ND or BQL, this space will be left blank and the units will be reported under *Results Description*.
 - *Results Description*: This section must be completed for any monitoring results reported as ND or BQL in the “Quality or Concentration” column. For ND, report the laboratory detection level and units in this column. For BQL, report the laboratory quantitation limit and units in this column.
 - *Collection Date*: Identify the sampling date for each parameter monitoring result reported on this form.
 - *Exceedance due to natural background pollutant levels*: Check box if following the first 4 quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than 4 quarters of data) you have determined that the exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background for that outfall and any substantially identical outfalls. See Part 7.2.1.5 of the permit for more information. Attach supporting rationale for your determination to the submitted MDMR and reference attachment in comments portion of Section V.
 - *No further pollutant reductions achievable*: Check box if after collection of 4 quarterly samples (or sooner if the exceedance is triggered by less than 4 quarters of data), the average of the 4 monitoring values for any parameter exceeds the benchmark and you have made the determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limitations or are necessary to meet the water-quality-based effluent limitations in Parts 4 of the permit (See Part 7.2.1.4 of the permit for more information) for that outfall and any substantially identical outfalls. Attach supporting rationale for your determination to the submitted MDMR and reference attachment in comments portion of Section V.
- Where violations of the permit requirements are reported, include a brief explanation to describe the cause and corrective actions taken and reference each violation by date. Also, this section should include any additional comments such as are required when changing site status from inactive and unstaffed to active or vice versa. Attach additional pages if you need more space.

Attach additional copies of Section V as necessary to address all outfalls and parameters.

Section VI. Certification

Enter *Printed Name and Title of Principal Executive Officer or Authorized Agent* with *Signature of Principal Executive Officer or Authorized Agent*, and the *Date* this form was signed and the email address of the “*Principal Executive Officer or Authorized Agent*.” If you submit multiple pages of Section V monitoring data, each page must be appropriately signed and certified as described below.

The MDMRs must be signed as follows:

- (1) For a corporation, a responsible corporate officer shall sign the MDMR, a responsible corporate officer means:

(A) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

(B) the manager of one or more manufacturing, production, or operating facilities, if

(i) the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations;

(ii) the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and

(iii) authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- (2) For a partnership or sole proprietorship, the general partner or the proprietor, respectively; or

- (3) for a municipality, state, or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of an agency means

(A) the chief executive officer of the agency; or

(B) a senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

Include the name, title, and email address of the person signing the form and the date of signing. An unsigned or undated MDMR will not be considered valid.

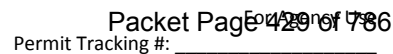
Where to File the MDMR Form

Monitoring data collected pursuant to Part 7.2 of the permit must be reported on the paper MDMR form and sent to the following address:

If you file by mail, please submit the original form with a signature in ink. DEC will not accept a photocopied signature. Remember to retain a copy for your records.

MSMRs sent by mail:

Alaska Dept. of Environmental Conservation
 Wastewater Discharge Authorization Program
 Office of Compliance
 555 Cordova Street
 Anchorage, AK 99501
 Phone: (907) 269-6285



Section I. General Information

Facility Name					APDES Permit Tracking Number						
Facility Physical Address											
Street				City				State		Zip Code	
								Alaska			
Contact Person			Title			Phone		Email			
Lead Inspector's Name			Additional Inspector's Name			Additional Inspector's Name			Inspection Date		

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to storm water? ☐ Yes ☐ No

If NO, describe why not:

Note: Complete Section III of this form for each industrial activity area inspected and included in your SWPPP or as newly defined, in Section II parts 2 and 3 below, where pollutants may be exposed to storm water.

2. Did this inspection identify any storm water or non-storm water outfalls not previously identified in your SWPPP? ☐ Yes ☐ No

If YES, for each location, describe the sources of those storm water and non-storm water discharges and any associated control measures in place:

3. Did this inspection identify any sources of storm water or non-storm water discharges not previously identified in your SWPPP? If YES, describe these sources of storm water or non-storm water pollutants expected to be present in these discharges, and any control measures in place:	☐ Yes ☐ No
4. Did you review storm water monitoring data as part of this inspection to identify potential pollutant hotspots? If YES, summarize the findings of that review and describe any additional inspection activities resulting from this review:	☐ Yes ☐ No ☐ NA, no monitoring performed
5. Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around outfalls, including flow dissipation measure to prevent scouring:	
6. Have you taken or do you plan to take corrective actions, as specified in Part 8 of the permit, since your last annual report submission (or since you received authorization to discharge under this permit if this is your first annual report), including any corrective actions identified as a result of this annual comprehensive site inspection? If YES, how many conditions requiring review for corrective action as specified in Parts 8.1 and 8.2 of the MSGP were addressed by these corrective actions?	☐ Yes ☐ No
Note: Complete the attached Corrective Action Form (Section IV) for each condition identified, including any conditions identified as a result of this comprehensive storm water inspection.	

Section III. Industrial Activity Area Specific Findings

Complete one block for each industrial activity area where pollutants may be exposed to storm water. Copy this page for additional industrial activity areas.

In reviewing each area, you should consider:

- Industrial materials, residue, or trash that may have or could come into contact with storm water;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials from areas of no exposure to exposed areas; and
- Tracking or blowing of raw, final, or waste material from areas of no exposure to exposed areas.

Industrial Activity Area:

1. Brief Description:

2. Are any control measures in need of maintenance or repair?

☐

Yes

☐

No

3. Have any control measures failed and require replacement?

☐

Yes

☐

No

4. Are any additional/revised control measures necessary in this area?

☐

Yes

☐

No

If YES, to any of these three questions, provide a description of the problem: *(Any necessary corrective actions should be described on the attached Corrective Action Form.)*

Industrial Activity Area:

1. Brief Description:

2. Are any control measures in need of maintenance or repair?

☐

Yes

☐

No

3. Have any control measures failed and require replacement?

☐

Yes

☐

No

4. Are any additional/revised control measures necessary in this area?

☐

Yes

☐

No

If YES, to any of these three questions, provide a description of the problem: *(Any necessary corrective actions should be described on the attached Corrective Action Form.)*

Industrial Activity Area: 1. Brief Description:			
2. Are any control measures in need of maintenance or repair?	☐	Yes	☐ No
3. Have any control measures failed and require replacement?	☐	Yes	☐ No
4. Are any additional/revised control measures necessary in this area?	☐	Yes	☐ No
If YES, to any of these three questions, provide a description of the problem: <i>(Any necessary corrective actions should be described on the attached Corrective Action Form.)</i>			

Industrial Activity Area: 1. Brief Description:			
2. Are any control measures in need of maintenance or repair?	☐	Yes	☐ No
3. Have any control measures failed and require replacement?	☐	Yes	☐ No
4. Are any additional/revised control measures necessary in this area?	☐	Yes	☐ No
If YES, to any of these three questions, provide a description of the problem: <i>(Any necessary corrective actions should be described on the attached Corrective Action Form.)</i>			

Section IV. Corrective Actions

Complete this page for each specific condition requiring a corrective action or a review determining that no corrective action is needed. Copy this page for additional corrective actions or reviews.

Include both corrective actions that have been initiated or completed since the last annual report, and future corrective actions needed to address problems identified in the comprehensive storm water inspection. Include an update on any outstanding corrective actions that had not been completed at the time of your previous annual report.

1. Corrective Action # _____ of _____ for this reporting period.

2. Is this corrective action:

☐

An update on a corrective action from a previous annual report; or

☐

A new corrective action?

3. Identify the condition(s) triggering the need for this review:

☐

Unauthorized release of discharge

☐

Numeric effluent limitation exceedance

☐

Control measures inadequate to meet applicable water quality standards

☐

Control measures inadequate to meet non-numeric effluent limitations

☐

Control measures not properly operated or maintained

☐

Change in facility operations necessitated change in control measures

☐

Average benchmark value exceedance

☐

Other (describe):

4. Briefly describe the nature of the problem identified:

5. Date problem identified:

6. How problem was identified:

☐

Comprehensive site inspection

☐

Quarterly visual assessment

☐

Routine facility inspection

☐

Notification by EPA or DEC

☐

Other (describe):

7. Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analysis to be conducted, etc.) or if no modification is needed, basis for that determination.

8. Did/will this corrective action require modification of your SWPPP?

☐

Yes

☐

No

9. Date corrective action initiated:

10. Date corrective action completed:

Or expected to be completed:

11. If corrective action not yet completed, provide the status of the corrective action as the time of the comprehensive site inspections and describe any remaining steps (including timeframes associated with each step) necessary to complete the corrective action:

Section V. Annual Report Certification

Compliance Certification

Do you certify that your annual inspection has met the requirements of Part 6.3 of the permit, and that, based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit?

☐

Yes

☐

No

If NO, summarize why you are not in compliance with the permit:

Annual Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those person directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

 Name of Authorized Representative

 Title

 Email

 Signature

 Date Signed

Section IV. Discharge Information

Does your facility discharge into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☐ No

If yes, name of the MS4 Operator:

Receiving Water and Wetlands Information: (if additional space is needed for this question, fill out Attachment 1.)

a. What is the name(s) of your receiving water(s) that receive storm water directly and/or through a MS4? If your receiving water is impaired, then identify the name of the impaired segment, if applicable, in parenthesis following the receiving water name.	b. Are any of your discharges directly into any segment of an "impaired" water?		c. If you answered yes to question b, then answer the following three questions:					
			i. What pollutant(s) are causing the impairment?		ii. Are the pollutant(s) causing the impairment present in your discharge?		iii. Has the TMDL been completed for the pollutant(s) causing the impairment?	
	Yes	No			Yes	No	Yes	No
	☐	☐			☐	☐	☐	☐
	☐	☐			☐	☐	☐	☐
	☐	☐			☐	☐	☐	☐
	☐	☐			☐	☐	☐	☐
	☐	☐			☐	☐	☐	☐

Federal Effluent Limitation Guidelines and Sector-Specific Requirements

a. Are you requesting permit coverage for any storm water discharges subject to effluent limitation guidelines? ☐ Yes ☐ No

b. If yes, which effluent limitation guidelines apply to your storm water discharge?

40 CFR Part/Subpart	Eligible Discharges	Affected MSGP Sector	Check if applicable
Part 411, Subpart C	Runoff from material storage piles at cement manufacturing facilities.	E	☐
Part 418, Subpart A	Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished products, by-products, or waste products (SIC 2874).	C	☐
Part 423	Coal pile runoff at steam electric generating facilities.	O	☐
Part 429, Subpart I	Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas.	A	☐
Part 436, Subpart B, C, or D	Mine dewatering discharges at crushed stone mines, construction sand and gravel mines, or industrial sand mines.	J	☐
Part 443, Subpart A	Runoff from asphalt emulsion facilities.	D	☐
Part 445, Subparts A & B	Runoff from hazardous waste and non-hazardous waste landfills.	K, L	☐
Part 449, Subpart A	Runoff from Air Transportation	S	☐

If you are a Sector S (Air Transportation) facility, do you anticipate using more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis? ☐ Yes ☐ No

Identify the 4-digit Standard Industrial Classification (SIC) code or 2-letter Activity Code that best represents the products produced or services rendered for which your facility is primarily engaged, as defined in MSGP: Primary SIC Code: _____ or Primary Activity Code: _____

Identify the applicable sector(s) and subsector(s) of industrial activity, including co-located industrial activity, for which you are requesting permit coverage:

Sector	Subsector

Sector	Subsector

Sector	Subsector

Is your site presently inactive or unstaffed? ☐ Yes ☐ No

a. If Yes, is your site expected to be inactive and unstaffed for the entire permit term? ☐ Yes ☐ No

b. If No to "a", then indicate the length of time that you expect your facility to be inactive and unstaffed.

Section V. Storm Water Pollution Prevention Plan (SWPPP) Contact Information

SWPPP Contact Name:

Phone:

Email:

URL of SWPPP (if applicable):

Appendix E
Environmental Documentation



Species Reports

Environmental Conservation Online System

(<http://www.fws.gov>)

How many listed species currently occur in and are listed in Alaska?

Notes:

- This report shows the species listed in this state that also occur in this state.
- This list does not include experimental populations and similarity of appearance listings.
- This list includes non-nesting sea turtles and whales in State/Territory coastal waters.
- This list includes species or populations under the sole jurisdiction of the National Marine Fisheries Service.
- Click on the highlighted scientific names below to view a Species Profile for each listing.

Species listed in this state and that occur in this state -- 15 listings

Animals -- 14

Status (javascript:launch ('/tess_public/html/db-status.html'))	Species/Listing Name
E	Albatross, short-tailed (Phoebastria (=Diomedea) albatrus (/speciesProfile/profile/speciesProfile.action?scode=B00Y))
T	Bear, polar (Ursus maritimus (/speciesProfile/profile/speciesProfile.action?scode=A0IJ))
E	Curlew, Eskimo (Numenius borealis (/speciesProfile/profile/speciesProfile.action?scode=B01A))
T	Eider, spectacled (Somateria fischeri (/speciesProfile/profile/speciesProfile.action?scode=B08Z))
T	Eider, Steller's AK breeding pop. (Polysticta stelleri (/speciesProfile/profile/speciesProfile.action?scode=B090))
T	Otter, Northern Sea southwest Alaska DPS (Enhydra lutris kenyoni (/speciesProfile/profile/speciesProfile.action?scode=A0HK))
E	Sea turtle, leatherback (Dermochelys coriacea (/speciesProfile/profile/speciesProfile.action?scode=C00F))
T	Sea-lion, Steller eastern pop. (Eumetopias jubatus (/speciesProfile/profile/speciesProfile.action?scode=A0FS))
E	Sea-lion, Steller western pop. (Eumetopias jubatus (/speciesProfile/profile/speciesProfile.action?scode=A0FS))
E	Whale, blue (Balaenoptera musculus (/speciesProfile/profile/speciesProfile.action?scode=A02M))

Attachment A

E	Whale, finback (Balaenoptera physalus (/speciesProfile/profile/speciesProfile.action?scode=A02O))
E	Whale, humpback (Megaptera novaeangliae (/speciesProfile/profile/speciesProfile.action?scode=A02O))
E	Whale, sperm (Physeter catodon (=macrocephalus) (/speciesProfile/profile/speciesProfile.action?scode=A02T))

Plants -- 1

Status (javascript:launch ('/tess_public/html/db-status.html'))	Species/Listing Name
E	Fern, Aleutian shield (Polystichum aleuticum (/speciesProfile/profile/speciesProfile.action?scode=S00V))

Last updated: December 13, 2010[ECOS Home \(/ecos/indexPublic.do\)](#) | [Contact Us \(/ecos/helpdesk.do?version=TESS_PUBLIC-1_0_106\)](#)



Station ID: 50-4100
Location name: Juneau, Alaska, US*
Latitude: 58.3500°, Longitude: -134.5833°
Elevation:
Elevation (station metadata): 12 ft*
* source: Google Maps



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Douglas Kane, Sarah Dietz, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic,
Ishani Roy, Svetlana Stuefer, Amy Tidwell, Carl Trypaluk, Dale Unruh, Michael Yekta, Erica Betts,
Geoffrey Bonnin, Sarah Heim, Lillian Hiner, Elizabeth Lilly, Jayashree Narayanan, Fenglin Yan,
Tan Zhao

NOAA, National Weather Service, Silver Spring, Maryland
and
University of Alaska Fairbanks, Water and Environmental Research Center

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.113 (0.089-0.146)	0.132 (0.103-0.172)	0.162 (0.124-0.215)	0.187 (0.142-0.252)	0.221 (0.164-0.304)	0.246 (0.180-0.344)	0.273 (0.196-0.387)	0.308 (0.218-0.444)	0.354 (0.246-0.520)	0.389 (0.266-0.580)
10-min	0.152 (0.120-0.196)	0.178 (0.139-0.232)	0.218 (0.167-0.290)	0.251 (0.190-0.339)	0.296 (0.220-0.407)	0.331 (0.242-0.463)	0.366 (0.263-0.519)	0.413 (0.293-0.595)	0.475 (0.330-0.698)	0.522 (0.357-0.778)
15-min	0.178 (0.141-0.230)	0.208 (0.163-0.271)	0.255 (0.196-0.339)	0.293 (0.222-0.395)	0.347 (0.257-0.478)	0.387 (0.283-0.541)	0.428 (0.308-0.607)	0.483 (0.342-0.696)	0.556 (0.386-0.817)	0.611 (0.418-0.911)
30-min	0.236 (0.187-0.304)	0.276 (0.216-0.360)	0.338 (0.260-0.449)	0.389 (0.294-0.525)	0.460 (0.341-0.633)	0.514 (0.375-0.718)	0.569 (0.409-0.807)	0.642 (0.455-0.925)	0.737 (0.512-1.08)	0.810 (0.555-1.21)
60-min	0.323 (0.256-0.417)	0.378 (0.296-0.493)	0.463 (0.356-0.615)	0.533 (0.403-0.719)	0.630 (0.467-0.867)	0.704 (0.514-0.984)	0.779 (0.560-1.10)	0.879 (0.623-1.27)	1.01 (0.702-1.48)	1.11 (0.760-1.66)
2-hr	0.465 (0.368-0.600)	0.544 (0.426-0.710)	0.667 (0.512-0.886)	0.768 (0.581-1.04)	0.907 (0.673-1.25)	1.01 (0.741-1.42)	1.12 (0.806-1.59)	1.26 (0.896-1.82)	1.45 (1.01-2.14)	1.60 (1.09-2.38)
3-hr	0.605 (0.479-0.780)	0.708 (0.554-0.923)	0.868 (0.667-1.15)	1.00 (0.757-1.35)	1.18 (0.876-1.63)	1.32 (0.964-1.84)	1.46 (1.05-2.07)	1.64 (1.17-2.37)	1.89 (1.31-2.78)	2.08 (1.42-3.10)
6-hr	0.956 (0.757-1.23)	1.12 (0.876-1.46)	1.37 (1.05-1.82)	1.58 (1.19-2.13)	1.86 (1.38-2.56)	2.08 (1.52-2.91)	2.30 (1.66-3.27)	2.60 (1.84-3.74)	2.99 (2.08-4.39)	3.28 (2.25-4.89)
12-hr	1.43 (1.13-1.84)	1.67 (1.31-2.18)	2.03 (1.56-2.70)	2.33 (1.77-3.15)	2.76 (2.05-3.80)	3.10 (2.26-4.33)	3.45 (2.48-4.90)	3.90 (2.76-5.62)	4.49 (3.12-6.60)	4.94 (3.38-7.36)
24-hr	2.05 (1.88-2.26)	2.40 (2.17-2.68)	2.90 (2.57-3.31)	3.31 (2.88-3.85)	3.91 (3.33-4.65)	4.41 (3.68-5.33)	4.93 (4.05-6.07)	5.57 (4.49-6.97)	6.40 (5.05-8.19)	7.03 (5.46-9.15)
2-day	2.77 (2.54-3.05)	3.21 (2.90-3.58)	3.83 (3.40-4.37)	4.34 (3.78-5.04)	5.07 (4.31-6.02)	5.66 (4.73-6.85)	6.29 (5.17-7.74)	7.01 (5.66-8.78)	7.97 (6.29-10.2)	8.69 (6.75-11.3)
3-day	3.27 (3.00-3.60)	3.77 (3.41-4.21)	4.47 (3.96-5.10)	5.03 (4.38-5.84)	5.83 (4.96-6.92)	6.47 (5.41-7.82)	7.15 (5.87-8.79)	7.91 (6.39-9.90)	8.93 (7.04-11.4)	9.69 (7.52-12.6)
4-day	3.68 (3.37-4.05)	4.22 (3.82-4.71)	4.99 (4.42-5.69)	5.60 (4.87-6.50)	6.45 (5.49-7.67)	7.14 (5.97-8.64)	7.86 (6.46-9.67)	8.67 (7.00-10.9)	9.74 (7.68-12.5)	10.5 (8.19-13.7)
7-day	4.71 (4.32-5.19)	5.38 (4.87-6.00)	6.31 (5.59-7.20)	7.06 (6.15-8.19)	8.11 (6.90-9.63)	8.95 (7.48-10.8)	9.83 (8.08-12.1)	10.8 (8.74-13.6)	12.1 (9.58-15.5)	13.1 (10.2-17.1)
10-day	5.54 (5.08-6.11)	6.32 (5.71-7.05)	7.39 (6.55-8.43)	8.25 (7.18-9.58)	9.46 (8.04-11.2)	10.4 (8.71-12.6)	11.4 (9.39-14.1)	12.6 (10.1-15.7)	14.1 (11.1-18.0)	15.2 (11.8-19.8)
20-day	8.26 (7.58-9.10)	9.40 (8.51-10.5)	10.9 (9.70-12.5)	12.2 (10.6-14.1)	13.8 (11.7-16.4)	15.1 (12.6-18.2)	16.4 (13.5-20.2)	17.8 (14.4-22.3)	19.7 (15.5-25.2)	21.1 (16.4-27.5)
30-day	10.8 (9.94-11.9)	12.3 (11.2-13.8)	14.3 (12.7-16.4)	15.9 (13.8-18.4)	17.9 (15.2-21.3)	19.5 (16.3-23.6)	21.1 (17.3-25.9)	22.7 (18.3-28.4)	24.9 (19.6-31.9)	26.5 (20.6-34.6)
45-day	14.3 (13.1-15.8)	16.4 (14.8-18.3)	19.0 (16.8-21.7)	20.9 (18.2-24.3)	23.4 (19.9-27.8)	25.3 (21.1-30.6)	27.1 (22.3-33.4)	28.9 (23.4-36.2)	31.4 (24.7-40.1)	33.2 (25.7-43.2)
60-day	17.1 (15.7-18.9)	19.7 (17.8-22.0)	22.9 (20.3-26.1)	25.1 (21.8-29.1)	27.8 (23.7-33.1)	29.8 (24.9-36.0)	31.6 (26.0-38.9)	33.2 (26.8-41.6)	35.3 (27.9-45.3)	37.0 (28.7-48.1)

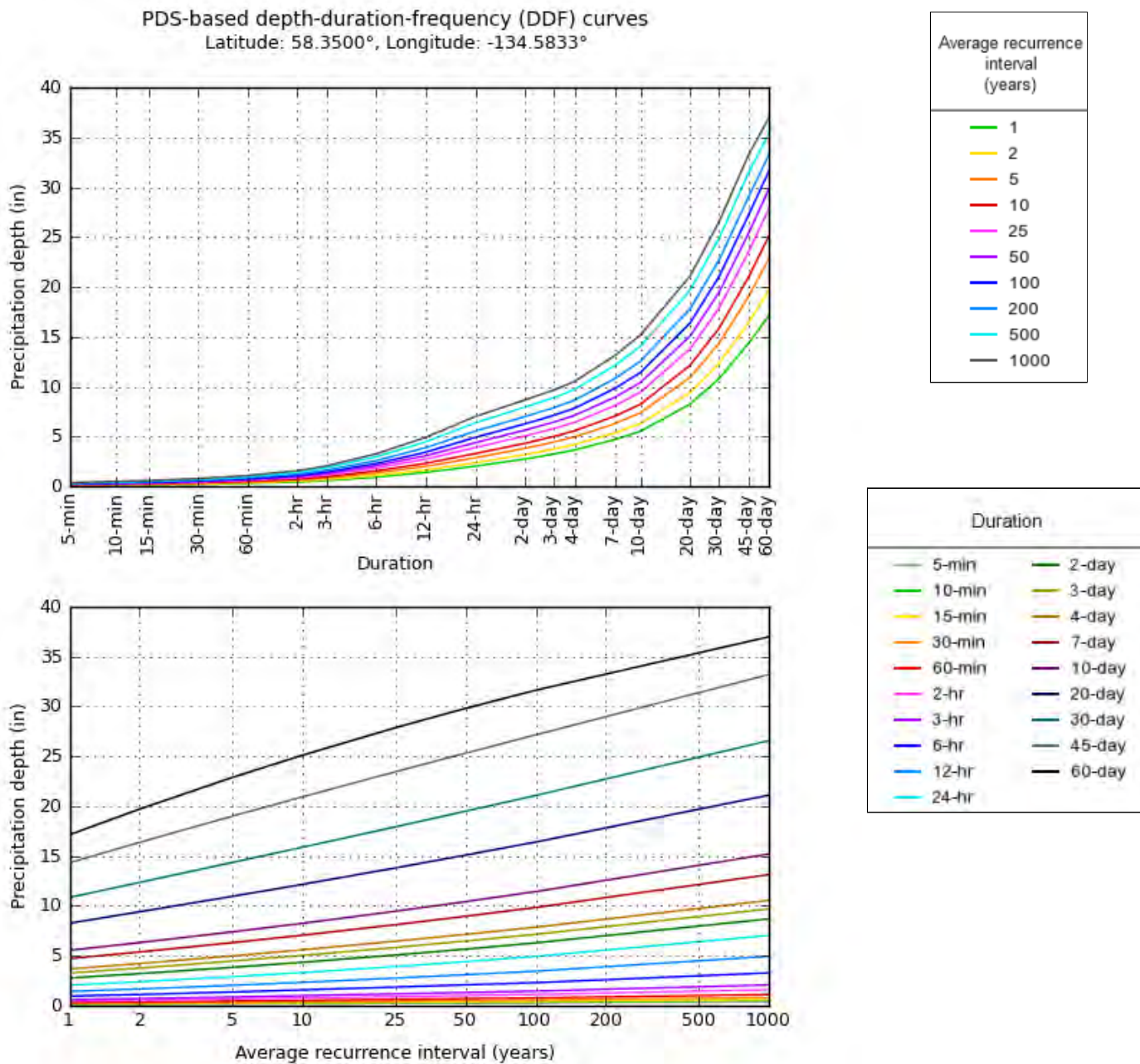
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a

given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

PF graphical



[Back to Top](#)

Maps & aerials

Small scale terrain





1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

[Disclaimer](#)

Spring 'Freeze' Probabilities (Jan 1 - Jul 31)

JUNEAU INTL AP, at (504100)

<u>Temp F</u>	<u>Earliest</u>	<u>90%</u>	<u>80%</u>	<u>70%</u>	<u>60%</u>	<u>50%</u>	<u>40%</u>	<u>30%</u>	<u>20%</u>	<u>10%</u>	<u>Latest</u>
36.5	04/29	05/11	05/16	05/18	05/22	05/27	05/31	06/06	06/09	06/20	07/08
32.5	04/18	04/24	05/02	05/06	05/10	05/12	05/15	05/18	05/19	05/27	06/13
28.5	02/10	04/08	04/13	04/16	04/20	04/23	04/25	04/29	05/03	05/07	05/19
24.5	02/09	03/15	03/21	03/25	03/30	04/03	04/05	04/10	04/13	04/19	04/30
20.5	01/02	02/27	03/09	03/15	03/18	03/21	03/24	03/27	04/05	04/12	04/29

[Graphic Output](#)

Fall 'Freeze' Probabilities (Jul. 31 - Dec. 31)

JUNEAU INTL AP, at (504100)

<u>Temp F</u>	<u>Earliest</u>	<u>10%</u>	<u>20%</u>	<u>30%</u>	<u>40%</u>	<u>50%</u>	<u>60%</u>	<u>70%</u>	<u>80%</u>	<u>90%</u>	<u>Latest</u>
36.5	08/16	08/28	09/02	09/06	09/09	09/12	09/18	09/22	09/28	09/30	10/15
32.5	08/24	09/09	09/14	09/21	09/26	09/29	10/01	10/04	10/13	10/22	11/07
28.5	09/11	09/27	10/01	10/03	10/08	10/11	10/17	10/26	10/30	11/05	11/26
24.5	09/24	10/10	10/19	10/26	10/29	11/04	11/06	11/09	11/15	11/28	12/16
20.5	10/10	10/26	10/30	11/06	11/09	11/12	11/17	11/21	11/30	12/10	12/31

[Graphic Output](#)

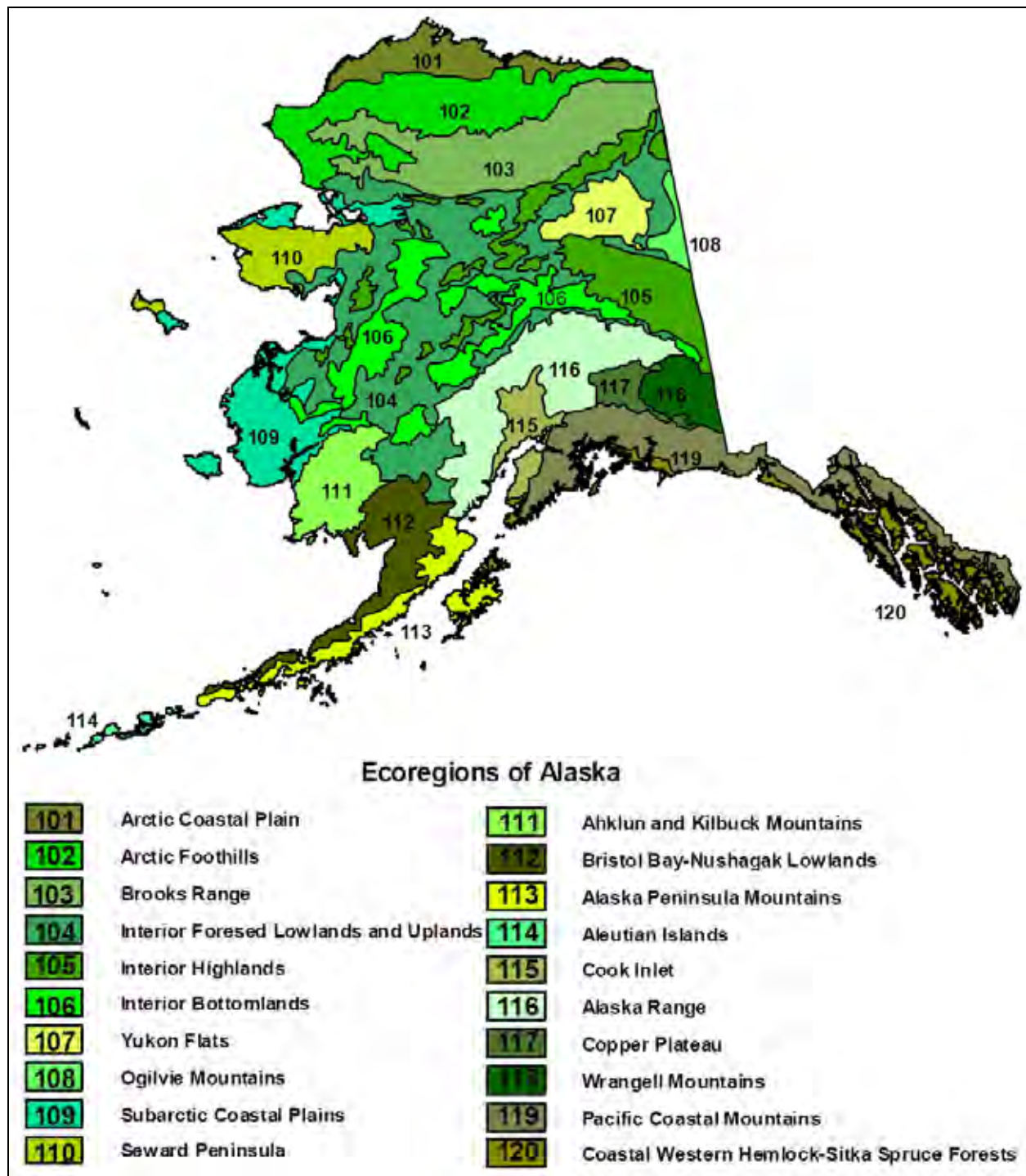


Figure 21. Ecoregions of Alaska, from Markon (2001).

Table 5. Median beginning and ending dates of the growing season for ecoregions in Alaska, derived from Markon (2001).

Ecoregion ¹	Beginning of Growing Season ('Minday')		End of Growing Season ('Lastday')	
	Julian Date	Calendar Date ²	Julian Date	Calendar Date ²
101 Arctic Coastal Plain	171	Jun 20	261	Sep 18
102 Arctic Foothills	158	Jun 7	264	Sep 21
103 Brooks Range	150	May 30	267	Sep 24
104 Interior Forested Lowlands and Uplands	123	May 3	276	Oct 3
105 Interior Highlands	124	May 4	275	Oct 2
106 Interior Bottomlands	122	May 2	277	Oct 4
107 Yukon Flats	110	Apr 20	276	Oct 3
108 Ogilvie Mountains	110	Apr 20	276	Oct 3
109 Subarctic Coastal Plains	143	May 23	276	Oct 3
110 Seward Peninsula	153	Jun 2	274	Oct 1
111 Ahklun and Kilbuck Mountains	136	May 16	275	Oct 2
112 Bristol Bay – Nushagak Lowlands	115	Apr 25	277	Oct 4
113 Alaska Peninsula Mountains	135	May 15	274	Oct 1
114 Aleutian Islands	.. ³	.. ³	.. ³	.. ³
115 Cook Inlet	128	May 8	278	Oct 5
116 Alaska Range	144	May 24	276	Oct 3
117 Copper Plateau	122	May 2	276	Oct 3
118 Wrangell Mountains	131	May 11	272	Sep 29
119 Pacific Coastal Mountains ⁴	149	May 29	270	Sep 27
120 Coastal Western Hemlock – Sitka Spruce Forests ⁴	119	Apr 29	271	Sep 28

¹ See Figure 21.

² Calendar dates shown are for non-leap years. For a leap year, subtract one day (e.g., for Ecoregion 101, the growing season would begin on June 19 in a leap year).

³ There were no data available for Ecoregion 114 – Aleutian Islands. Growing season dates for Ecoregion 112 may be substituted when onsite data are lacking.

⁴ Ecoregions 119 and 120 are intermingled in Southeast Alaska. Generally, 1,600 ft (500 m) in elevation separates the two ecoregions. Use growing season dates for Ecoregion 119 above 1,600 ft elevation and dates for Ecoregion 120 below 1,600 ft elevation. Annual variability may occur as the snow recedes from lower elevations at different rates.

Attachment F
Personnel Training Records

SWPPP Training Log

Storm Water Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Storm Water Training Topic: *(check as appropriate)*

- ☐ **Erosion Control BMPs** ☐ **Emergency Procedures**
☐ **Sediment Control BMPs** ☐ **Good Housekeeping BMPs**
☐ **Non-Storm Water BMPs**

Specific Training Objective: _____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attachment G
Spill Documentation

Attachment H
SWPPP Record of Review

SWPPP Record of Review

Review by: _____ Date: _____

Notes: _____

Signature: _____

Review by: _____ Date: _____

Notes: _____

Signature: _____

Review by: _____ Date: _____

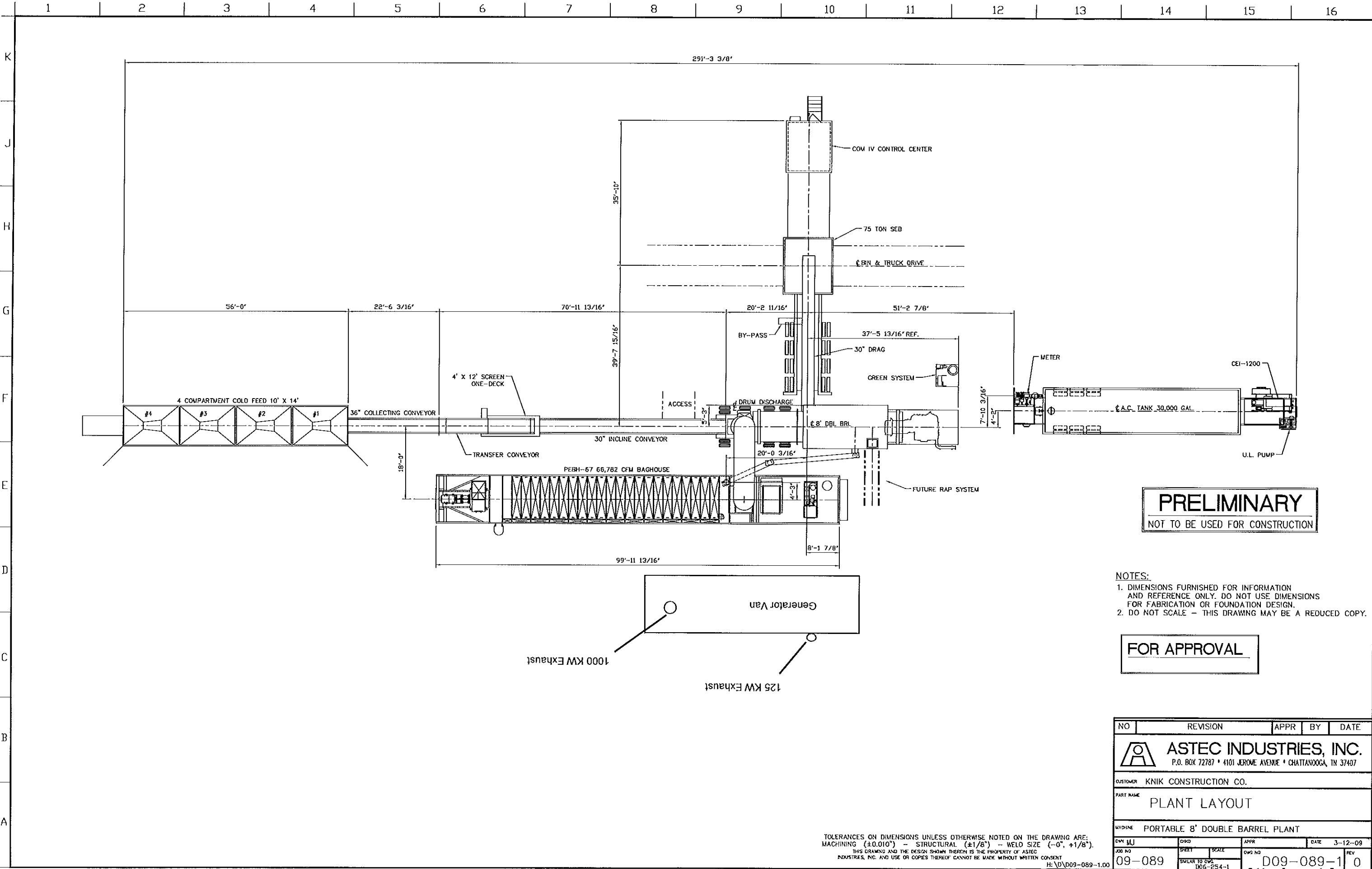
Notes: _____

Signature: _____

Review by: _____ Date: _____

Notes: _____

Signature: _____



PRELIMINARY
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- NOTES:
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 - 2. DO NOT SCALE - THIS DRAWING MAY BE A REDUCED COPY.

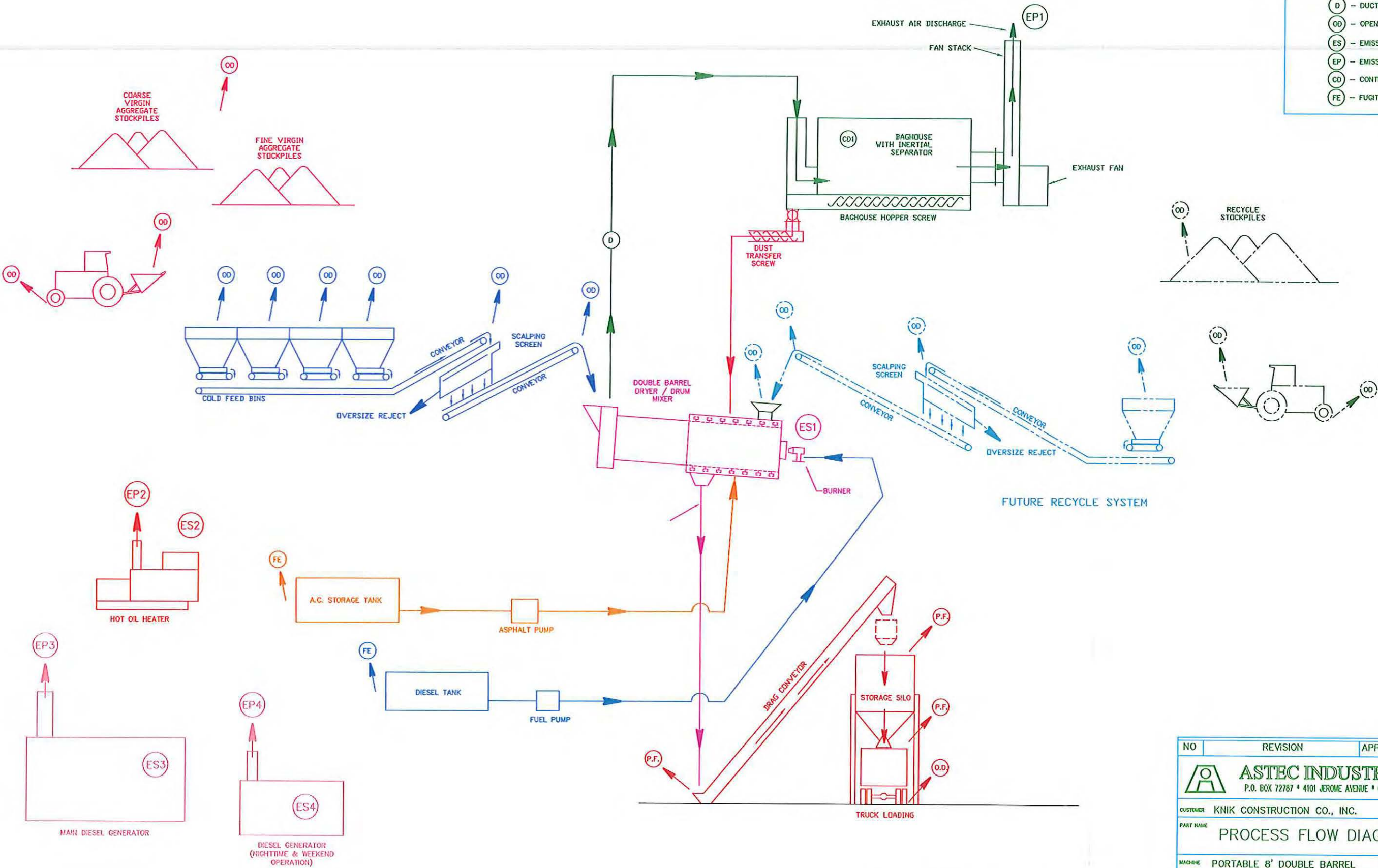
FOR APPROVAL

NO	REVISION	APPR	BY	DATE
ASTEC INDUSTRIES, INC. P.O. BOX 72787 • 4101 JEROME AVENUE • CHATTANOOGA, TN 37407				
CUSTOMER KNIK CONSTRUCTION CO.				
PART NAME PLANT LAYOUT				
W/DRINE PORTABLE 8' DOUBLE BARREL PLANT				
DWG NO	DWG	APPR	DATE	3-12-09
JOB NO	SHEET	SCALE	DWG NO	REV
09-089			D09-089-1	0

TOLERANCES ON DIMENSIONS UNLESS OTHERWISE NOTED ON THE DRAWING ARE:
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H:\D\09-089-1.00

LEGEND
EMISSION POINTS

- (D) - DUCTED EMISSIONS
- (OD) - OPEN DUST EMISSIONS
- (ES) - EMISSION SOURCE
- (EP) - EMISSION POINT
- (CD) - CONTROL DEVICE
- (FE) - FUGITIVE EMISSIONS



NO	REVISION	APPR	BY	DATE
ASTEC INDUSTRIES, INC. P.O. BOX 72787 • 4101 JEROME AVENUE • CHATTANOOGA, TN 37407				
CUSTOMER: KNIK CONSTRUCTION CO., INC.				
PART NAME: PROCESS FLOW DIAGRAM				
MACHINE: PORTABLE 8' DOUBLE BARREL				
DATE: 3/16/09	DESIGN: 09-089	SCALE: 1" = 10'	APPR: [Signature]	DATE: 3/16/09
JOB NO: 09-089	SHEET: 0	CWG NO: 0	DATE: 3/16/09	DATE: 3/16/09
THIS DRAWING AND THE DESIGN SHOWN THEREIN IS THE PROPERTY OF ASTEC INDUSTRIES, INC. AND USE OR COPIES THEREOF CANNOT BE MADE WITHOUT WRITTEN CONSENT				



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF AIR QUALITY
Air Permits Program

410 Willoughby Avenue, Suite 303
PO Box 111800
Juneau, Alaska 99811-1800
Main: 907-465-5100
Toll Free: 866-241-2805
Fax: 907-465-5129
www.dec.alaska.gov

CERTIFIED MAIL: 7014 0510 0001 9932 8712
Return Receipt Requested

April 7, 2015

Parry Rekers, Vice President
Knik Construction Co., Inc.
PO Box 3757
Seattle, WA 98124

Subject: Approval to Operate Knik Astec Mobile Asphalt Plant V under Minor General Permit 3 (MG3), Permit number AQ1439MG301 Revision 2.

Dear Mr. Rekers:

The Knik Construction Co., Inc. (Knik) asphalt plant listed above requires an air quality control minor permit under 18 AAC 50.502(b)(1). On March 23, 2015 the Alaska Department of Environmental Conservation (Department) received an MG3 application for this plant. The Department determined that Knik's application was complete. This letter is Knik's approval to operate under Permit AQ1439MG301 Revision 2; Knik may operate upon receipt of this letter. The responsibilities imposed by this permit may not be transferred to another owner or operator without the written consent of the Department. The transfer of ownership form is available at: <http://dec.alaska.gov/air/ap/docs/toof.pdf>

Potential to Emit (PTE) was calculated by Knik listed in the table below. The application stated that the diesel engine is a nonroad engine so the PTE for the engine is not included in the total PTE.

Pollutant	Asphalt Plant	Diesel Engine(s)	Total PTE
NO _x	30.1	N/A	30.1
CO	71.2	N/A	71.2
SO ₂	6.0	N/A	6.0
PM-10	12.6	N/A	12.6
VOC	16.1	N/A	16.1

If the engine remains in the same location for more than 12 consecutive months, then it is not a nonroad engine by definition in 40 CFR 89.2, and will be included in total potential and assessable emissions for the stationary source.

This permit remains in effect indefinitely, unless a) Knik asks us to rescind this letter; b) the Department takes an action under AS 46.14.280 to terminate, modify, reopen, or revoke and reissue this permit; or, c) Knik informs us that they permanently shut down this asphalt plant. If Knik wants to make changes that increase emissions to 100 tons per year (tpy) or more, then you can submit an application requesting approval to operate under a new General Permit 3 (GP3) before making these changes. Likewise, if Knik wants to make changes that do not conform to another exclusion in Section 1 of MG3, then you need a minor source-specific permit before starting construction or operations.

The MG3 application indicates an initial location for this plant is yet to be determined. Please note the Permittee obligations to protect air quality per Condition 18 and to submit relocation notifications per Condition 22 if the plant location changes.

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195-18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 15 days of the permit decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived. If a hearing is granted, it will be limited to the issues related to this permit decision. It is emphasized that, even if a request for an adjudicatory hearing has been granted, all permit terms and conditions remain in full force and effect. More information on how to appeal a Department decision is available at <http://www.dec.state.ak.us/commish/ReviewGuidance.htm>.

Please note that Alaska's air quality statutes, regulations, and permit application information can be obtained from the department's web page at the following address:
<http://www.dec.state.ak.us/air/ap/mainair.htm>.

If you have any questions, please contact Linda Atley at (907)465-5122 or by email at linda.atley@alaska.gov.

Sincerely,



Jim Baumgartner
Compliance Section Manager

Enclosure: AQ1439MG301 Revision 2 Final Permit
MG3 Revision 2 TAR

cc: Jeremy Ptak, ADEC/APP, Anchorage
P. Moses Coss, ADEC/APP, Fairbanks
Maya Johnson, ADEC/APP, Anchorage

Jim Plosay, ADEC/APP, Juneau
Linda Atley, ADEC/APP, Juneau

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL MINOR GENERAL PERMIT**

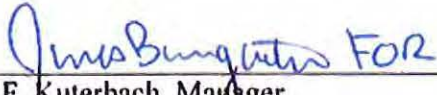
MINOR GENERAL PERMIT 3 FOR HOT-MIX ASPHALT PLANTS

PERMIT NO. AQ1439MG301 Revision 2

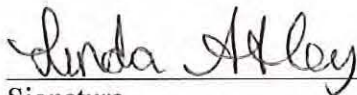
Final: April 1, 2015

This minor general permit is to be used for the construction, operation, or relocation of the asphalt plant described within, which has a rated capacity of at least five tons per hour of product, as described in 18 AAC 50.502(b)(1), and that is also classified as, or is part of, a minor stationary source, but is not a Title-V stationary source. This minor general permit satisfies the Permittee's obligation to obtain a permit under AS 46.14.120(g). Technical support for permit conditions and an explanation of revisions from the 2009 Minor General Permit 3 can be found in the Technical Analysis Report. This permit authorizes the Permittee to operate any emission unit identified in Table A. This permit is not valid at another source required to have an operating permit. The operator must comply with the applicable requirements at the location where the emission units operate.

This minor general permit does not expire and is valid until the Department terminates, modifies, reopens, or revokes and reissues the permit. The letter of authorization is in effect until withdrawn, modified, revoked and reissued, or if the source no longer qualifies for this permit.


John F. Kuterbach, Manager
Air Permits Program

Application determined complete by:


Signature

APRIL 6, 2015
Authorization Date

LINDA ATLEY
Printed Name

MG3 – Asphalt Plant Minor General Permit – Final Revision 2

Table A Facility Information

Permittee:	Knik Construction Co., Inc	Plant Name:	ASTEC Mobile Asphalt Plant V
Emissions Unit	Make	Model/Description	Rating/ Capacity
Asphalt Plant:	ASTEC	PDB-8436/Serial # 15-056-278835-1-1	300 tph
Diesel Engines:	Caterpillar	3508B / Serial # 83Z09959	125 kW
Baghouse:	ASTEC	PEBH-52/Serial # 15-056-278835-2-1	
Control Equipment: ☒ Baghouse ☐ Wet Scrubber			

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Required Forms

Relocation Notification Form.....	Form 1
Excess Emissions and Permit Deviation Report Form.....	Form 2
Emission Fee Estimate Report Form.....	Form 3

Sample Forms*

Facility Operating Report Form.....	Form 4
Visible emissions (Method 9) Observations Form.....	Form 5
Smoke/No Smoke Log.....	Form 6
Complaint Log.....	Form 7
Non-road Engine Location Log.....	Form 8
Equipment Changes Report Form.....	Form 9
Asphalt Plant Daily Production Log.....	Form 10

* Online submission of reports may require use of standardized Sample Forms.

MG3 – Asphalt Plant Minor General Permit – Final Revision 2

MG3 OPERATING PERMIT CONDITIONS**Table B Emissions Limits**

Emission type	Limit
Opacity (Visible Emissions)	20% for asphalt plant and diesel generators with stack diameters 18 inches or greater 15% for diesel generators with stack diameters smaller than 18 inches
Particulate Matter	0.05 gr/dscf (for plants constructed on or before June 11, 1973) 0.04 gr/dscf (for plants constructed after June 11, 1973)
Sulfur Compounds	500 ppm

LOCATION RESTRICTIONS

1. Ambient Air Quality Protection. Give adequate consideration to siting issues when operating or changing locations of an asphalt plant (see *Note* in Technical Analysis Report).

1.1. Do not operate the Asphalt Plant or a diesel engine within 330 feet of the nearest occupied structure off the work site.

1.2. Do not operate for more than two construction seasons at the same site located:

- a. within 800 feet of the nearest residence or other occupied structure off worksite; or
- b. within 1,100 feet of the nearest residence or other occupied structure off worksite if the residence or structure is located on terrain that is more than 50 feet above any ground level of the Asphalt Plant aggregate drier or drum mixer.

1.3. Non-road engine location restrictions: A portable engine does not qualify as a non-road engine if it remains in place for 12 consecutive months or is located at a seasonal source and operates during the full annual operating period of the seasonal source.

1.4. *SO₂ Special Protection Area.* If operating in one of the Sulfur Dioxide Special Protection Areas described in 18 AAC 50.025(c) (Unalaska or St. Paul Island areas) you cannot operate diesel engines for electrical power generation unless burning only ULSD; the asphalt plant must use ULSD.

1.5. *Additional Restrictions for Bells Flats (Kodiak).* In any equipment operating at an asphalt plant in the Bells Flats area of Kodiak that burns liquid fuel, you must burn ULSD.

2. Relocation Reporting Requirements. Provide notice to the Department at least 10 days before installing or relocating the Asphalt Plant by using the Relocation Notification form (Form 1). If the location is within one mile of the nearest occupied off-site structure, you must attach a fugitive dust control plan as part of the relocation notice; see Condition 16.

MONITORING, RECORDKEEPING, AND REPORTING

3. General Recordkeeping. Keep copies of all monitoring, recordkeeping, reporting, and all other documents required in this permit for at least five years.

4. General Reporting.

4.1. *Submittals.* Unless otherwise directed by the Department, submit original reports, compliance certifications, or other required documents, by mail, to:

Alaska Department of Environmental Conservation
Air Permits Program
Attn: Compliance Technician
610 University Avenue
Fairbanks, AK 99709-3643

4.2. You may substitute mailed originals by submitting through Department approved electronic reporting methods, if electronic signing methods are available.

MG3 – Asphalt Plant Minor General Permit – Final Revision 2

4.3. Certification: Certify any permit application, report, affirmations, or compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: *"Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete."* Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. See 18 AAC 50.990(93) for the definition of "Responsible Official."

4.4. Operating Reports. Submit operating reports as directed by either Condition 4.1 or 4.2, by the dates listed in Table C. The semi-annual Facility Operating Report (FOR) must include all information required by other conditions of this permit. If the facility does not operate during the winter season, you may submit a report early with your summer FOR.

Table C Operating Report Schedule

Report Type	Reporting Period	Due Date
FOR	April 1 – October 31	November 30
FOR	November 1 – March 31	April 30

4.5. Information Requests. Furnish to the Department, within a reasonable time, any information that the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, furnish to the Department copies of records required to be kept by the permit. The Department may require you to furnish copies of those records directly to the federal administrator.

5. Visible Emissions.

5.1. Asphalt Plant. Visible emissions limits are listed in Table B.

Monitor:	- Use EPA Method 9 to determine the opacity of emissions from the asphalt plant. All observations must be at least 18 consecutive minutes. - Identify fugitive emission points capable of producing fugitive emissions. Determine which point has the greatest continuous opacity and use this point for monitoring fugitive emissions. - Observe visible emissions with Method 9 at the baghouse stack or wet scrubber stack AND at the fugitive emission point identified above: - During regular operation loads (not on idle or reduced loads); - Within two days of startup at the beginning of the season or after relocation; - At least once every 30 operating days; and - Within two days of startup following a shutdown of more than 5 days.
Record:	- Keep all observation sheets and summaries for at least five years. - Calculate and record the greatest 6-consecutive-minute averages observed.
Report:	- Submit a list of emission points identified and which point was monitored. This list may be in the form of a simple list, picture with points circled and labeled, or a flow diagram with labeled emissions points. Submit copies of all Method 9 observations in the FOR. - Submit copies of all Method 9 training certificates for all observers in the reporting period. - Report any failure to monitor as a permit deviation according to Condition 9. - If six-minute average opacity is observed as greater than 20%, report as excess emissions under Condition 9 and refer to Condition 15 for Good Air Pollution Control Practices; take corrective actions as appropriate. - Report any excess emissions (If six-minute average opacity is observed as greater than 20%) according to Condition 9.

MG3 – Asphalt Plant Minor General Permit – Final Revision 2

5.2. *Diesel Engines*. Visible emissions limits are listed in Table B.

Monitor:	• Use the Smoke/No Smoke Plan or EPA Method 9 to observe emissions from the exhaust stack or port of each diesel engine. • <u>Smoke/No Smoke Plan</u>: Observe each stack for the presence or absence of smoke, excluding water vapor. ○ Initial Frequency: Conduct Smoke/No Smoke observations once every operating day. ○ After monitoring for 30 consecutive operating days, conduct Smoke/No Smoke observations at least once every 30 operating days. ○ If smoke is observed, follow the corrective actions in Condition 5.3. • <u>Method 9</u>: All observations must be at least 18 consecutive minutes. ○ First observation: within two days of the beginning of the operating season or after relocating the plant, or within three days after changing from the Smoke/No Smoke Plan. ○ After the first observation, conduct observations at least once every 30 operating days.
Record:	• Keep all observation sheets, logs, summaries, and Method 9 training certificates for at least five years. • Record date, time, production rate, observer name, and smoke observation in Smoke/No Smoke log.
Report:	• Report which method you used during the reporting period. • Include copies of all Method 9 observations and/or a complete Smoke/No Smoke log for the reporting period in the FOR. • Report if/when you change visible emissions observation methods. • Report any smoke observed under the Smoke/No Smoke Plan and a summary of any corrective actions taken. • If six-minute average opacity is observed as greater than 20%, refer to corrective actions in 5.3.e-5.3.f. • Report any failure to monitor in accordance with Condition 9.

5.3. *Corrective Actions for Smoke Observed in Condition 5.2*. If smoke is observed while conducting Smoke/No Smoke observations:

- a. Do an initial Method 9 observation. If six-minute average opacity is observed as greater than 20%, see corrective actions in Condition 5.3.e or 5.3.f. Continue using Method 9 to monitor visible emissions, following specifications in Condition 5.2. In order to return to Smoke/No Smoke Plan, follow Conditions 5.3.b through 5.3.d.
- b. Initiate actions to eliminate smoke from the engine within 24 hours of the observations;
- c. Keep a written record of the starting date, completion date, and a description of the actions taken to reduce smoke; and
- d. If seven consecutive observations are made of 0% opacity, you may return to the Smoke/No Smoke Plan beginning with initial frequency (Condition 5.2).
- e. If Method 9 observations result in 6-minute average opacity greater than 20%, either:
 - i. Conduct a Particulate Matter source test within 60 days, following the requirements of Condition 19; or
 - ii. Make repairs so that emissions no longer exceed 20% opacity averaged over 6 minutes.
- f. For diesel engines with stack diameter of less than 18 inches, conduct a Particulate Matter source test if Method 9 observations result in 6-minute average opacity greater than 15%.

MG3 – Asphalt Plant Minor General Permit – Final Revision 2

6. Particulate Matter Emissions from Asphalt Plant. Do not operate the asphalt plant at a production level greater than the maximum throughput measured during the most recent PM source test that showed compliance, except as provided under Condition 19.2. Particulate matter emissions limits are listed in **Table B**.

6.1. Required Testing and Frequency of Testing. Conduct source tests in accordance with Condition 19 and the following:

- a. If a PM source test has not been approved by the Department for your facility within the last five years, conduct a PM source test within the first 30 operating days after receiving your letter of authorization.
- b. If the source has conducted a PM source test approved by the Department in the last five years, conduct a source test no later than five years after that test or the first operation thereafter.
- c. Conduct a PM source test every five years.
 - i. If results of any PM source test exceed 0.045 gr/dscf for plants constructed on or before June 11, 1973 or 0.036 gr/dscf for plants constructed after June 11, 1973, you must conduct another source test within one year of the date of the most recent PM source test.
 - ii. If the plant does not operate in a calendar year, then the calendar year that the plant did not operate does not count toward the time required to conduct another PM source test in Condition 6.1.c.i.
 - iii. If the plant does not operate in a calendar year, the next source test due date is delayed by one calendar year.

Monitor:	Conduct at least one 18-consecutive-minute set of EPA Method 9 readings during each one hour run of the PM source test.
Record:	- Record the following during each PM source test: - Average asphalt production rate in tons per hour; - Method 9 readings; - Baghouse exit temperature and pressure drop (if applicable); - Wet scrubber pressure drop and water flow rate (if applicable).
Report:	Include records of all visible emissions monitoring, production, and pressure drop or flow rate with the source test report as required under Condition 19.8.

6.2. Asphalt Plant.

Record:	- Keep a daily log of the following: - Daily total asphalt production; - Peak hourly rate of production per day; - Startup and shutdown times with the date for each operating day; - Total hours operated per day; and - Total number of operating hours operated since the last source test. - If you have a baghouse, include the following in your daily log: - Pressure drop across baghouse at beginning and end of each production day; and - Outlet temperature of baghouse at the beginning and end of each production day. - If you have a wet scrubber, include the following in your daily log: - Pressure drop across the scrubber at beginning and end of each production day; - Inlet and outlet temperatures of the scrubber at beginning and end of each production day; and - Daily water flow rate of the scrubber.
Report:	- Include the daily production log for the reporting period in each FOR. - Include a summary of baghouse or scrubber inspections including the information listed in Conditions 15.1.f and 15.2.c.

MG3 – Asphalt Plant Minor General Permit – Final Revision 2

7. Sulfur Compound Emissions. Applies to fuel for all engines, including non-road engines. Emissions limits are listed in **Table B**.

Record:	• Keep fuel delivery receipts that specify fuel grade and amount. • If diesel delivery receipts do not show that the diesel is Ultra Low Sulfur Diesel (ULSD) or Low Sulfur Diesel (LSD) test delivered fuel for sulfur content, or get a certification statement or analysis from the supplier that shows fuel sulfur percent by weight. • For liquid fuel from a North Slope topping plant, obtain results of a monthly fuel analysis from the topping plant.
Report:	• If only ULSD or LSD was used for the entire reporting period, submit a statement from the fuel supplier stating only ULSD or LSD was supplied with your semi-annual operating report. • If anything other than ULSD or LSD was used (e.g. used oil fuels), submit a list of fuel deliveries with fuel grades, a certificate from the supplier verifying the sulfur content, or a fuel analysis showing sulfur content. • If natural gas was used during the reporting period, submit a statement certified by the Responsible Official for this time period. • If highline power was used during the reporting period, submit a statement certified by the Responsible Official for this time period. • Include a copy of the fuel analysis from a North Slope topping plant, if applicable. • Report the fuel type, including its sulfur content, used for the asphalt burner.

8. Pollution Control Equipment Breakdowns.

Record:	• Keep records of pollution control equipment breakdowns and corrective actions.
Report:	• Notify the Department within two days of a pollution control equipment breakdown as a Permit Deviation in accordance with Condition 9. • Include a summary of each breakdown in the FOR.

9. Excess Emissions and Permit Deviations.

Record:	• Keep records of excess emissions, permit deviations, and corrective actions.
Report:	• Report excess emissions that present a potential threat to human health or safety or that the owner, operator, or Permittee believes to be unavoidable as soon as possible. • Report unavoidable emergencies, malfunctions, or non-routine repairs that cause excess emissions within two working days after the event started or was discovered. • Report all other excess emissions or permit deviations, including failure to monitor, within 30 days of the end of the month in which the incident occurs. • Report using the online form at http://www.dec.state.ak.us/air/ap/site.htm or the Excess Emissions and Permit Deviation Form listed as Form 2. • Include a summary of excess emissions and permit deviations in each FOR

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10. Air Pollution Prohibited.

Record:	- Record the date, time, and nature of all emissions complaints received. - Record the name of the person(s) that complained, if known. - Record a summary of any investigations including reasons you do or do not believe the emissions have caused a violation. - Record any corrective actions taken or planned for complaints
Report:	- Include in FOR for each reporting period: - Number of complaints received. - Number of times you or the Department found corrective action necessary. - Number of times action was taken on a complaint within 24 hours. - Status of corrective actions found necessary that were not taken within 24 hours.

11. Non-road Engines. Defined in 18 AAC 50.990(63) and 40 C.F.R. 89.2.

Record:	Keep a log of the following items for each non-road engine for at least five years: - Date and location of the engine each time it is relocated. - Make, model, serial number, and rated capacity of the engine.
Report:	Include the non-road engine location log in each FOR.

GENERAL CONDITIONS

12. Change of Ownership. If the ownership of the Asphalt Plant is changed, both the new and previous owners must complete a transfer of ownership form and receive authorization to operate from the Department before the plant is operated by the new owner. The Transfer of Ownership form is available from ADEC Air Permits Program staff or on the Department's website. The website address at the time of issuance of this permit is: <http://dec.alaska.gov/air/ap/operatingperapp.html>.

13. Administrative Fees. You are required pay to the Department all assessed permit administrations fees. Administration fee rates are set out in 18 AAC 50.400-405.

14. Assessable Emissions & Emission Fees. You are required to pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities great than 10 tons per year. No later than March 31 of each year, you may submit an estimate of the stationary source's assessable emissions to the Department, using the Emission Reporting and Emission Fee Estimate form. Otherwise, emission fees for the next fiscal year will be based on the potential to emit. See Appendix A for calculation of assessable emissions and Form 3 for the Emission Fee Estimate report form.

15. Good Air Pollution Control Practice. For all emission units authorized by this permit, you should perform regular maintenance considering the manufacturer's or the operator's maintenance procedures, keep records of any maintenance that would have a significant effect on emissions, and keep a copy of either the manufacturer's or the operator's maintenance procedures on site.

15.1. If you operate an asphalt plant using a baghouse:

- a. Operate the baghouse per the manufacturer's recommended operating procedures;
- b. At the end of each run, operate the baghouse fans until the baghouse has been purged of exhaust gases per the manufacturer's recommendations;
- c. Ensure the pressure drop across the baghouse and outlet temperature remain within the manufacturer's recommendations or specifications;
- d. Perform inspections of equipment and complete necessary maintenance prior to startup in a new location, after shutdown of more than five days, and every 30 days of operation at the same location;
- e. Replace worn or damaged bags within 72 hours of discovery;
- f. Keep a record of the baghouse inspections showing the following:

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- i. Date of inspection and name of inspector;
- ii. Number of worn or damaged bags detected;
- iii. Number of bags replaced and date replaced;
- iv. Number of worn or damaged seals/gaskets detected; and
- v. Number of seal/gaskets replaced and the date replaced.

15.2. If you operate an asphalt plant using a wet scrubber:

- a. Inspect every component of the scrubber before beginning operation each season and repair or replace any component that shows signs of deterioration;
- b. Maintain pressure drop across the scrubber, water flow rate, inlet and outlet temperatures within limits recommended by the manufacturer;
- c. Keep a record of scrubber inspections showing the following:
 - i. Date of inspection and name of inspector;
 - ii. Number of components detected that are worn or damaged;
 - iii. Number of components replaced and date replaced.

16. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent the release of airborne PM and fugitive dust from aggregate piles, conveyors and elevators, loading locations, the rotary drum, screens, baghouse ash discharge, vehicle traffic within the stationary source boundaries and other sources of fugitive dust into the ambient air.

16.1. Follow the Fugitive Dust Control Plan (Appendix B) that you included with your minor general permit application or a revised version if submitted to or requested by the Department. A revised or site-specific Fugitive Dust Control Plan must be submitted with each relocation notice if the new location is within one mile of the nearest occupied structure (see Condition 2).

16.2. Reasonable precautions to prevent fugitive dust may include the following:

- a. installation and use of hoods;
- b. fans and dust collectors to enclose and vent dusty materials;
- c. other covers and enclosures;
- d. cleanup of loose material on work surfaces;
- e. minimizing drop distances on the conveyor systems and lowering loader buckets to be in contact with the surface of the soil or ground before dumping;
- f. application of water or dust suppressants;
- g. stopping activity in windy conditions.; and
- h. measures to prevent carryout or tracking of dust or mud by trucks.

17. Equipment Changes. Submit changes in asphalt drums, dryers, baghouses or scrubbers, or diesel engine equipment, if capacity differs from original permitted equipment, to the Department within 30 days.

18. Terms to Make the Permit Enforceable.

18.1. Compliance with permit terms and conditions is considered to be in compliance with those requirements that are

- a. Included and specifically identified in the permit; or
- b. Determined in writing in the permit to be inapplicable.

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18.2. Comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50.345, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

- a. An enforcement action; or
- b. Permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.

18.3. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

18.4. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.

18.5. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or notification of planned changes or anticipated noncompliance does not stay any permit condition.

18.6. The permit does not convey any property rights of any sort, nor any exclusive privilege.

18.7. Allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to

- a. Enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
- b. Have access to and copy any records required by the permit;
- c. Inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

18.8. Sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

SOURCE TESTING REQUIREMENTS

19. Source Testing Requirements.

19.1. **General Requirements.** In addition to any source testing explicitly required by the permit, conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

19.2. **Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, conduct source testing

- a. At a point or points that characterize the actual discharge into the ambient air; and
- b. At the maximum rated burning or operating capacity of the emission unit or another rate determined by the Department to characterize the actual discharge into the ambient air.

19.3. **Reference Test Methods.** Refer to the Technical Analysis Report for approved reference test methods and details.

19.4. **Excess Air Requirements.** Standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emission unit type, corrected to standard conditions (dry gas at 68°F and absolute pressure of 760 mm of mercury).

19.5. **Test Exemption.** You are not required to comply with Conditions 19.6-19.8 when the exhaust is observed for visible emissions by Method 9 Plan or Smoke/No Smoke Plan (Conditions 5.2 and 5.3, for diesel engines only). This does not apply to fugitive emission sources.

19.6. **Test Plans.** Before conducting any source tests, submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the emission unit will operate during the test and how you will document that operation.

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Submit a complete plan within 60 days after receiving a request under Condition 5.3.e.i or 19.1 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

You may request an extension to a source test deadline established by the Department. You may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

19.7. *Test Notification.* At least 10 days before conducting a source test, give the Department written notice of the date and the time the source test will begin.

19.8. *Test Reports.* Within 60 days after completing a source test, submit a copy of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. Certify the results in the manner set out in Condition 4.3. If requested in writing by the Department, provide preliminary results in a shorter period of time specified by the Department.

Appendix A: Assessable Emissions Calculation (MG3)

Assessable Emissions differ from a source's Potential to Emit (PTE). PTE is used in calculating a source's permit applicability and classification, i.e. minor or major source. While PTE does not include fugitive particulate emissions, assessable emissions do. A source can be classified as a minor source, yet have emission fees based on a criteria pollutant in excess of 100 tons. Likewise, a major source can have a PTE in excess of 100tpy of a criteria pollutant, yet pay emission fees for that pollutant at a rate far lower. Assessable Emissions use the same calculations as PTE, only operating hours are not based on a maximum potential of 3650 hours (assumed) but instead are based on actual operation for a calendar year. For examples and steps on completing this form to assist in submission of Assessable Emissions, please see the information below.

Equation:

$E = (EF \times (\text{asphalt produced or hours of operation in a given year} \times RC)) / \text{lbs per ton}$

Abbreviations:	
tpy	tons per year
tph	tons per hour
EF	emission factor (AP-42)
RC	rated capacity
lbs	pounds
E	emissions
ULSD	Ultra low sulfur diesel

Report using Form 3 Emission Estimates MG3 total emissions for each pollutant in a calendar year. Each emission unit listed in Table A will need a separate calculation using equations provided, where rated capacity is the horsepower for diesel engines.

Emission factors are pollutant/emission unit specific. Fuel assumes use of Ultra Low Sulfur Diesel (ULSD); please, contact the Department for assistance if you used alternative fuels. Please, see the worksheet on the next page for emission factors and further assistance.

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Asphalt Plants	CO	NO _x	SO ₂	VOC	PM-10 ¹	PM-10 ²
Batch Mix Asphalt Plant	0.4	0.12	0.088	0.0082	0.027	0.14
Drum Mix Asphalt Plant	0.13	0.055	0.011	0.032	0.023	0.04

Asphalt plant emission factors are given in lbs of pollutant per ton of asphalt produced.

¹: PM-10 EF for use with a baghouse

²: PM-10 EF for use with a wet-scrubber

Diesel Engines	CO	NO _x	SO ₂ ³	VOC	PM-10	
Greater than 600hp	0.0055	0.024	1.2x10 ⁻⁵	0.000705	0.0007	
Less than 600hp	0.00668	0.031	1.2x10 ⁻⁵	.0000247	0.0022	

Diesel engine emission factors are given in lbs of pollutant per horsepower-hour.

³: SO₂ EF for use with ULSD

Asphalt Plant Worksheet: $E = (EF \times \text{tons of asphalt produced}) / 2000$

CO	NO _x	SO ₂	VOC	PM-10

Diesel Engine Worksheet: $E = (EF \times \text{hours of operation} \times RC) / 2000$

CO	NO _x	SO ₂	VOC	PM-10

Total Emissions: add all rows above for listed emission units.

CO	NO _x	SO ₂	VOC	PM-10

Assessable Emissions: for any pollutant total greater than 10 (tons), round to nearest whole number, for any pollutant less than 10 tons, round down to 0. Enter these values on Form 3 and submit as required under Condition 14.

CO	NO _x	SO ₂	VOC	PM-10

Appendix B: Fugitive Dust Control Plan Guidelines

The Fugitive Dust Control Plan (Plan) has the purpose to control the fugitive dust emissions from asphalt plant and crusher related activities. The Plan is required for all Minor General Permit holders in order to ensure that reasonable precautions to prevent fugitive dust are taken (MG3 Condition 16, MG9 Condition 15).

A sample plan is on the following page in Appendix B. This plan may be filled out and used for any Minor General Permitted source. You are not required to use the sample form, but similar information contained in the sample form should be included in your plan. If you already have a plan developed or you wish to develop your own plan, the following items should be addressed:

- Points capable of producing fugitive emissions;
- Control of fugitive dust sources, such as:
 - Water application;
 - Dust suppressants;
 - Wind barriers;
 - Hoods, covers, or enclosures;
 - Cleanup of loose materials;
 - Minimizing drop distances and lowering loader buckets before dumping;
 - Fans;
 - Dust collectors;
- Methods to prevent trackout or carryout, such as:
 - Grizzlies or grates;
 - Gravel pads;
 - Paved surfaces;
 - Wheel washers;
 - Truck washing.

Appendix B: Fugitive Dust Control Plan

Please note, it is the responsibility of the Permittee to ensure that no part of their fugitive dust control plan violates any local, state, or federal law.

Section 1 – General Information

1-A Facility Information	
Company Name:	
Plant Name:	
Permit No.:	
1-B Contacts	
Report the names, address, and phone numbers of persons and owners or operators responsible for the implementation of the Dust Control Plan and responsible for the dust generating operation and dust control applications.	
<i>Responsible Official</i> (authorized under 18 AAC 50.990(93))	
Name:	
Phone Number:	
<i>On-site Manager/Operator or Point of Contact</i> (if different from above)	
Name:	
Phone Number:	
1-C Recordkeeping and Reporting	
Keep copy of Fugitive Dust Control Plan on-site at all times.	
Keep records of deviations from dust plan, reasons for the deviation, and corrective actions taken for at least five years.	

Section 2 – Fugitive Emission Points

2-A Fugitive Emission Points	
Identify the relative locations of actual and potential sources of fugitive dust emissions.	
☐	Bulk material handling and storage areas.
☐	Paved and unpaved access roads, haul roads, traffic areas, and equipment storage yards.
☐	Exit points where carryout and trackout onto paved public roads may occur.
☐	Water supply locations if water application will be used for controlling visible dust emissions.
☐	Rock crushing operations.
☐	☐ Screening ☐ Conveyors ☐ Fines Screening
☐	Asphalt plant operations
☐	☐ Screening ☐ Conveyors ☐ Baghouse Catch ☐ Drum Mixer Discharge
☐	Hot mix storage silo receiving point
2-B Comments – Fugitive Emission Points	

Section 3 – Control of Fugitive Dust Sources**3-A Control of Fugitive Dust Sources**

Check any boxes that apply. Checked boxes represent methods that will be used *as needed*.

Active Operations

- ☐ Water will be applied to dry areas during leveling, grading, trenching, and earthmoving activities.
☐ Wind barriers will be constructed and maintained, and water or dust suppressants will be applied to the disturbed surface areas.

Inactive Operations, including after work hours, weekends, and holidays

- ☐ Not applicable for this project (Please explain why in Section 3-C).
☐ Water or dust suppressants will be applied on disturbed surface areas to form a visible crust, and vehicle access will be restricted to maintain the visible crust.

Sites Inactive for Seven or More Days

- ☐ Not applicable for this project (Please explain why in Section 3-C).
☐ Vehicle access will be restricted and water/dust suppressants will be applied at all un-vegetated areas.
☐ Vegetation will be established on all previously disturbed areas.
☐ Gravel will be applied and maintained at all previously disturbed areas.
☐ Previously disturbed areas will be paved.

Unpaved Access and Haul Roads, Traffic and Equipment Storage Areas

- ☐ Not applicable for this project (Please explain why in Section 3-C).
☐ Apply water or dust suppressants to unpaved haul and access roads.
☐ Post speed limit signs of not more than 15 mph at each entrance, and again every 500 ft.
☐ Water or dust suppressants will be applied to vehicle traffic and equipment storage areas.

Wind Events

- ☐ Water application equipment will apply water to control fugitive dust during wind events, unless unsafe to do so. Outdoor construction activities that disturb the soil will cease whenever visible dust emissions cannot be effectively controlled.

3-B Bulk Materials

Check any boxes that apply. Checked boxes represent methods that will be used *as needed*.

Outdoor Handling of Bulk Materials

- ☐ Water or dust suppressants will be applied when handling bulk materials.
☐ Wind barriers with less than 50 percent porosity will be installed and maintained, and water or dust suppressants will be applied.

Outdoor Storage of Bulk Materials

- ☐ Water or dust suppressants will be applied to storage piles.
☐ Storage piles will be covered with tarps, plastic, or other suitable material and anchored in such a manner that prevents the cover from being removed by wind actions.
☐ Wind barriers with less than 50 percent porosity will be installed and maintained around the storage piles and water or dust suppressants will be applied.
☐ A three-sided structure (< 50% porosity) will be used that is at least as high as the storage piles.

On-Site Transporting of Bulk Materials

- ☐ Vehicle speed will be limited on the work site.
☐ All haul trucks will be loaded such that the freeboard is not less than six inches when transported across any paved public access road.
☐ A sufficient amount of water will be applied to the top of the load to limit visible dust emissions.
☐ Haul trucks will be covered with a tarp or other suitable cover.

Section 3 – Control of Fugitive Dust Sources (cont.)

3-B Bulk Materials - continued <i>Off-Site Transporting of Bulk Materials</i> ☐ No bulk materials will be transported to or from the project site. ☐ Materials for transport will be wetted as needed. ☐ Covers will be used, as needed. Some or all of the following will be used as necessary: • The interior of emptied truck cargo compartments will be cleaned or covered before leaving the site. • Spillage or loss of bulk materials from holes or other openings in the cargo compartment's floor, sides, and tailgates will be prevented. • Haul trucks will be covered with a tarp or other suitable cover or will be loaded such that the freeboard is not less than six inches when transported on any paved public access road to or from the project site.
<i>Outdoor Transport using a Chute or Conveyor</i> ☐ No chutes or conveyors will be used. ☐ Chute or conveyor will be fully enclosed. ☐ Water spray equipment will be used to sufficiently wet the materials. ☐ Transported materials will be washed or screened to remove fines (PM-10 or smaller).
3-C Comments – Control of Fugitive Dust Sources

Section 4 – Dust Control Methods

4-A Water Application Complete this section if water application will be used as a control method for limiting visible dust emissions and stabilizing surface areas. Check and answer everything that applies. Checked boxes represent methods that will be used <i>as needed</i> .
<i>Water Application Equipment:</i> ☐ Sprinklers: Describe the activities that will utilize sprinklers: _____ ☐ Water Truck, ☐ Water Trailer, ☐ Water Wagon, ☐ Other: _____ Describe the activities that will utilize this equipment: _____ Water application equipment is available to operate after normal working hours, on weekends, and holiday. After-hours contact: _____ Phone number: _____
<i>Water Supply (as needed):</i> ☐ Fire hydrants. Obtain necessary approval to use specific hydrants. ☐ Storage tanks Number and capacity: _____ ☐ Wells Number and flow rate: _____ ☐ Canal, River, Pond, Lake, etc. Describe: _____ Approval granted by the owner or public agency to use their water source for this project. Owner or Agency: _____ Contact: _____ Phone number: _____ ☐ Other: _____

Section 4 – Dust Control Methods (cont.)

4-B Dust Suppressant Products

Suppressant materials include, but are not limited to: hygroscopic suppressants (road salts), adhesives, petroleum emulsions, polymer emulsions, and bituminous material (road oils).

Copy this section if more than one dust suppressant product will be used.

☐ Not applicable. Only water application will be the control method used.

☐ Applicable.

Product Name: _____

Application Equipment: _____

Number of Application Equipment Available: _____

Attach each of the following information that fully describes this product. Use the checklist below to make sure all information is submitted with this plan.

☐ Product Specifications (MSDS, Product Safety Data Sheet, etc.).

☐ Manufacturer's Usage Instructions (method, frequency, and intensity of application).

☐ Environmental impacts and approvals or certifications related to the appropriate and safe use for ground application.

4-C Other Dust Control Methods

Check the other types of dust control methods that will be implemented at the construction site.

☐ Physical barriers for restricting unauthorized vehicle access:

☐ Fences ☐ Gates ☐ Posts ☐ Berms ☐ Concrete Barriers

☐ Other: _____

☐ Wind barriers – Describe: _____

☐ Posted speed limit signs meet state and Federal Department of Transportation standards.

☐ Posted at 15 miles per hour, ☐ Posted at _____ miles per hour (less than 15 mph)

☐ Re-establish vegetation for temporarily stabilizing previously disturbed surfaces.

Explain: _____

☐ Apply and maintain gravel:

☐ On haul roads ☐ On access roads ☐ At equipment storage yards

☐ At vehicle traffic areas ☐ For temporarily stabilizing previously disturbed areas.

Explain: _____

☐ Apply pavement – Explain: _____

☐ Other: _____

4-D Comments – Dust Control Methods

Section 5 – Carryout and Trackout

5-A Treatments for Preventing Trackout Trackout is any material that adheres to vehicle tires and is deposited onto a paved public road or the paved shoulder of a paved public road. Check one or a combination that will apply. ☐ <i>Grizzly</i>: Rails, pipes, or grates used to dislodge debris off of vehicles before exiting the site. Extends from the intersection with the paved public road surface for the full width of the unpaved exit surface for the distance of at least 25 feet. Describe: _____ ☐ <i>Gravel Pad</i>: A layer of washed gravel at least one inch or larger in diameter, three inches deep, and extends from the intersection with the public paved road surface for the full width of the unpaved exit surface for a distance of at least 50 feet. Describe: _____ ☐ <i>Paved Surface</i>: Extends from the intersection with the paved public road surface for the full width of the unpaved access road for at least 100 feet to allow mud and dirt to drop off of vehicles before exiting the site. Describe: _____ Mud and dirt deposits accumulating on paved interior roads will be removed with sufficient frequency, but not less frequently than once per workday. Clean-up Frequency: _____ ☐ <i>Wheel Washer</i>: Uses water to dislodge debris from tires and vehicle undercarriage. Describe: _____ ☐ <i>Other</i>: _____
5-B Treatments for Preventing Carryout Carryout occurs when materials from emptied or loaded haul trucks, vehicles, or trailers falls onto a paved public road or paved shoulder of a paved public road. Check all methods that apply. ☐ No haul trucks will be routinely entering or leaving the project site. <i>Emptied Haul Trucks</i>: ☐ Interior cargo compartments will be cleaned before leaving the project site. ☐ Cargo compartment will be covered with a tarp or suitable cover before leaving the project site. <i>Loaded Haul Trucks</i>: Spillage or loss of materials from holes or other opening in the cargo compartment will be prevented when material is transported onto any paved public access road. ☐ Haul trucks will be loaded such that the freeboard is not less than six inches with water applied to the top of the load before leaving the project site. ☐ Cargo compartment and load will be covered with a tarp or suitable cover before leaving the project site. ☐ Other: _____
5-C Cleaning up Carryout and Trackout Clean up Method: Check the method(s) below that will be used for cleaning carryout and trackout. ☐ Manually sweeping and picking up. ☐ Mechanical sweeping with a rotary brush or broom accompanied or preceded by water. Describe the types of equipment that will be used: _____ ☐ Operating a PM10-efficient street sweeper. Make and Model: _____ ☐ Flushing with water – allowed if: • No curbs or gutters are present. • Using water will not result as a source of trackout and carryout. • Using water will not result in adverse impacts on storm water drainage systems. • Using water will not violate any National Pollutant Discharge Elimination System permit program or Alaska Department of Environmental Conservation, Division of Water Permit.
5-D Comments - Carryout and Trackout

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Form 1: Relocation Notification (Application Addendum)

Submit to the Department at least *10 days before* moving the plant to any new location.

Facility Information:

Permittee Name: _____ Permit No.: AQ _____

Facility Name: _____

Contact Person: _____ Telephone: _____

Make & Model of the Equipment/Stationary Source to be relocated: _____

Attach a complete list of equipment to be operated at the new location.

Estimated Operating Dates:

Estimated start-up date: _____

Estimated shut-down date: _____

Location Information:

New Plant Location (street address, milepost number, etc. – Include site maps):

Latitude _____ Longitude _____ OR

UTM Coordinates: Zone _____ Northing _____ Easting _____ Datum _____

Distance from Plant boundary to nearest inhabited structure: _____ ft

Nearest inhabited structure(s) are on (check one): _____ flat terrain _____ elevated terrain

If this distance is within 2,000 ft (for rock crushers) or 1 mile (for asphalt plants), include with this addendum a dust control plan that is specific to this location and is adequate to prevent violations of Air Pollution Prohibited (MG3 Condition 10, MG9 Condition 9).

If the plant is to be located in a city or borough with zoning restrictions, please attach the location or siting approval documents from that city or borough to this form (optional).

Comments: _____

Certification:

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

Send completed report to: Compliance Technician, ADEC Air Permits Program, 610 University Avenue, Fairbanks, AK 99709-3643.

ADEC Notification Form

Excess Emissions and Permit Deviation Reporting
State of Alaska Department of Environmental Conservation
Division of Air Quality

Stationary Source (Facility) Name _____

Air Quality Permit Number _____

Company Name _____

When did you discover the Excess Emissions/Permit Deviation?

Date: / / Time: :

When did the event/deviation?

Begin: Date: / / Time: : (please use 24hr clock)

End: Date: / / Time: : (please use 24hr clock)

What was the duration of the event/deviation: : (hrs:min) or days
(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

Reason for notification: (please check only 1 box and go to the corresponding section)

☐ Excess Emissions Complete Section 1 and Certify

☐ Deviation from Permit Conditions Complete Section 2 and Certify

☐ Deviation from COBC, CO, or Settlement Agreement Complete Section 2 and Certify

Section 1. Excess Emissions

(a) Was the exceedance ☐ Intermittent or ☐ Continuous

(b) Cause of Event (Check one that applies):

☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)

☐ Control Equipment Failure ☐ Scheduled Maintenance/Equipment Adjustments

☐ Bad fuel/coal/gas ☐ Upset Condition ☐ Other

(c) Description

Describe briefly what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emission Units Involved:

Identify the emission units involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

<u>Unit ID</u>	<u>Emission Unit Name</u>	<u>Permit Condition Exceeded/Limit/Potential Exceedance</u>

(e) Type of Incident (please check only one):

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Form 3: Emission Reporting and Emission Fee Estimate

Submit the following information no later than March 31 of each year to:

ADEC Air Permits Program
 610 University Avenue
 Fairbanks, AK 99709-3643

Or

FAX to (907) 451-2187

Or

Email to: DEC.AQ.Airreports@alaska.gov*(If emailed, the report must be signed and certified in accordance with 18 AAC 50.345(j).)*

Or

Submit emissions online at the following website: <https://myalaska.state.ak.us/deca/air/airtoolsweb/>

Permittee Name: _____

Stationary Source Name: _____

Permit Number: _____ Date: _____

Emission Fee Estimate for: _____ (State fiscal year)

Table 1. Total Emissions & Assessable Emission Fee Estimate

Pollutant	Asphalt Plant	Diesel Generator	Assessable Emissions
NO _x			
CO			
SO ₂			
PM-10			
VOC			

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Signature_____
Printed Name_____
Title

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Form 4: Minor General Permit (MG3) – Facility Operating Report Form

Facility Information

Permittee Name: _____ Permit No.: AQ _____

Facility Name: _____

Reporting Period: ☐ 11/1/____ to 3/31/____ ☐ 4/1/____ to 10/31/____

Did this plant operate during this reporting period?

☐ Yes (please complete form) ☐ No (complete the “Certification” section only)

Certification (Condition 4.3)

☐ Certification Statement Signed by a Responsible Official (at end of form)

Visible Emissions - Asphalt Plant (Condition 5.1)

Emissions Points observed: _____ (First point – baghouse or scrubber)
 _____ (Second point – please describe)

Method 9 Observations Summary:

Number of Observations	
Highest 6-consecutive-minute Average	
Number of Observations >20%	

☐ All Method 9 Observation forms attached

☐ Excess Emissions/Permit Deviation Forms attached for failure to monitor or for observations of six-minute average opacity observed as greater than 20%

Visible Emissions – Diesel Engines (Condition 5.2)

Method used: ☐ Smoke/No Smoke Plan ☐ Method 9 ☐ Both

Smoke/No Smoke Plan Summary:

Number of Observations	
Number of Days Smoke Observed	

☐ Complete Smoke/No Smoke Log attached

☐ Summary of Smoke/No Smoke corrective actions attached

Method 9 Observations Summary:

Number of Observations	
Highest 6-consecutive-minute Average	
Number of Observations >20%	

☐ All Method 9 Observation forms attached

☐ Excess Emissions/Permit Deviation Forms attached for failure to monitor or for observations of six-minute average opacity observed as greater than 20%

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Particulate Matter (PM) Emissions (Condition 6)

Date of most recent PM source test: _____

Control Equipment Used: ☐ Baghouse ☐ Scrubber

☐ Summary of baghouse inspections attached, if applicable (Conditions 6.2 & 15.1(f)).

☐ Summary of scrubber inspections attached, if applicable (Conditions 6.2 & 15.2(c)).

Sulfur Compound Emissions (Condition 7)

Was ULSD or LSD the ONLY fuel used for the entire reporting period?

☐ Yes, statement certified by Responsible Official attached.

☐ No, list of diesel deliveries and fuel analysis or certification from supplier showing fuel sulfur content attached.

☐ Highline power used. Statement certified by Responsible Official attached.

☐ Natural gas used. Statement certified by Responsible Official attached.

☐ North Slope topping plant fuel used. If checked, attach a copy of fuel analysis.

Asphalt Plant fuel type used: _____

Pollution Control Equipment Breakdowns (Condition 8)

Were there any control equipment breakdowns during this reporting period? ☐ Yes ☐ No

If Yes, ☐ Summary of breakdowns attached

Did any control equipment breakdowns during this reporting period require an Excess Emission or Permit Deviation report to be submitted to DEC? ☐ Yes ☐ No

Excess Emissions and Permit Deviations (EE/PD) (Condition 9)

Were there any EE/PDs during this reporting period? ☐ Yes ☐ No

If Yes, ☐ Summary of EE/PD reports sent to DEC during operating period attached

Please Note: Any EE/PD forms not previously sent to DEC should also be attached and included in the summary.

Complaint Summary (Condition 10)

Did you receive any public complaints about emissions during this reporting period? ☐ Yes ☐ No

If Yes, ☐ Complaint summary attached.

Nonroad Engines (Condition 11)

Are there engines classified as nonroad engines at this facility?

☐ Yes, Nonroad Engine Location Log attached. ☐ No.

Equipment Changes (Condition 17)

Was new equipment added or existing equipment removed? ☐ Yes, attach Form 10. ☐ No.

Source Testing (Condition 19)

PM source test conducted during this reporting period? ☐ Yes, on date: _____ ☐ No.

Certification (Condition 4.3)

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

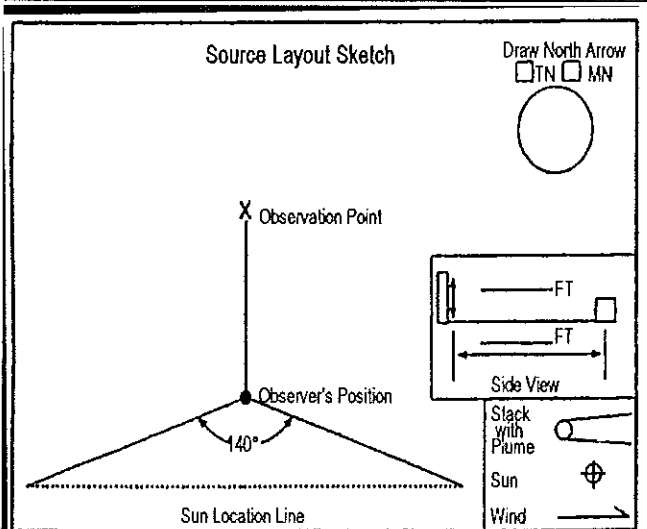
Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

Send completed report to: Compliance Technician, ADEC Air Permits Program, 610 University Avenue, Fairbanks, AK 99709-3643.

EPA METHOD 9 (40 CFR 60 - Appendix A) VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME	
LOCATION	
LOCATION	
CITY	STATE ZIP
PROCESS EQUIPMENT	OPERATING MODE
CONTROL EQUIPMENT	OPERATING MODE
DESCRIBE EMISSION POINT	
HEIGHT OF EMISSION POINT	
HEIGHT OF EMISSION POINT RELATIVE TO OBSERVER	
DISTANCE TO EMISSION POINT	
DIRECTION TO EMISSION PT. (DEGREES 0-360))	
START END	START END
VERTICAL ANGLE TO OBSERVATION POINT	
DIRECTION TO OBSERVATION POINT (DEGREES (0-360))	
START END	START END
DISTANCE & DIRECTION TO OBSERVATION POINT FROM EMISSION POINT	
START END	
DESCRIBE EMISSIONS	
START END	WATER DROPLET PLUME
EMISSION COLOR	ATTACHED ☐ DETACHED ☐ NONE ☐
DESCRIBE PLUME BACKGROUND	
START END	SKY CONDITIONS
BACKGROUND COLOR	START END
WIND SPEED	WIND DIRECTION
START END	START END
AMBIENT TEMP	WET BULB TEMP RH percent
START END	



ADDITIONAL INFORMATION

OBSERVATION DATE	START TIME	END TIME
------------------	------------	----------

SEC MIN	0	15	30	45	COMMENTS
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

OBSERVER'S NAME (PRINT)	
OBSERVER'S SIGNATURE	DATE
ORGANIZATION	
CERTIFIED BY	DATE

Form 6: Smoke/No Smoke Log – Diesel Engines Reporting Period: 11/1/____ to 3/31/____ 4/1/____ to 10/31/____

Permittee Name: _____ Permit No.: AQ _____

Permit No.: AQ-

Facility Name: _____

[illegible]

Form 7: Complaint Summary Form

Reporting Period: ☐ 11/1/___ to 3/31/___ ☐ 4/1/___ to 10/31/___

Permittee Name: _____ Permit No.: AQ _____

Facility Name: _____

Number of Complaints Received:	
Number of Times Corrective Actions were Found Necessary:	
Number of Times Corrective Action was Taken Within 24 hours:	

Status of corrective actions deemed necessary that were not taken within 24 hours:

Comments:

Form 8: Nonroad Engine Location Log

Permittee Name: _____ Permit No.: AQ _____

Facility Name: _____

Company Equipment ID No.: _____

Engine Manufacturer: _____ Engine Model: _____

Engine Serial No.: _____ Engine Date of Manufacture: _____

Location	Initial Date at Location	Date Moved off Location

Form 9: Equipment Changes Form

Permittee Name: _____ Permit No.: AQ_____

Permit No.: AQ-

Facility Name: _____

List in the table below the equipment that was installed or removed during the reporting period. Rated capacity must be included. Only list diesel engines, pollution control equipment, and asphalt drum or dryer. Screens, conveyors, and aggregate bins do not need to be listed.

[illegible]

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Form 10: Asphalt Plant Production Log – For Plants Using Baghouses

Reporting Period: 11/1/___ to 3/31/___ 4/1/___ to 10/31/___

Permittee Name: _____ Permit No.: AQ _____

Facility Name: _____

[illegible]

Alaska Department of Environmental Conservation
Air Permits Program

TECHNICAL ANALYSIS REPORT

for

Air Quality Control

Minor General Permit 3

for

Asphalt Plants

Prepared by: Jim Plosay, Jason Olds, and Amy Hemenway

Date Issued: December 10, 2013 Final

Revision 1: April 1, 2014

Revision 2 Prepared by Linda Atley

Supervisor Jim Plosay

Revision 2: April 1, 2015

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INTRODUCTION

This permit is intended for asphalt plants that are required to have a permit because they are classified as needing a minor permit under 18 AAC 50.502(b)(1), i.e. they have a rated capacity of at least five tons per hour of hot-mix asphalt product.

Asphalt plants often include rock crushers to break down the oversize material to be fed into the process, or to recycle asphalt pavement. An applicant must apply for Minor General Permit 9 (MG9) for rock crushers to operate the rock crusher.

The Alaska Department of Environmental Conservation (Department) has restructured the conditions and appearance of this permit, the Minor General Permit 3, Version 3 (MG3 Rev. 1), from the previous Minor General Permit 3 (MG3) in order to improve user accessibility and compliance. Conditions in the MG3 Rev. 1 that have been modified from the MG3 are listed in Table 1.

Changes made to Section 1: Qualifying Criteria in the 2009 MG3 include moving the exclusions section to the Technical Analysis Report (TAR) and moving the Change of Ownership section to Condition 12 of the MG3 Rev. 1. All other information from Section 1 is included on the cover page of the MG3 Rev. 1 permit.

The Excluded Facilities section in the 2009 MG3 TAR was modified in the MG3 Rev. 1. References to federal regulations were removed because minor permits are not required to include New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAP). Equipment subject to federal regulations are still required to comply with any applicable rules.

Activities co-located with a major source of air pollution are not covered by this minor general permit because the underlying analysis to protect ambient air quality did not include impacts from nearby emitting activities not covered by this permit.

The Department removed the Alaska Coastal Management Plan (ACMP) provisions from Condition 23 of the 2009 MG3 because the ACMP is no longer in effect.

The MG3 permit does not authorize rock crushers to be located with the asphalt plant. The Permittee would need a separate minor permit or minor general permit for the rock crushing activities.

The Department included a public comment period from 2 June – 2 July 2008 for the 2009 MG3 permit, as required by 18 AAC 50.542(d). The Department received one comment for this permit from Charles Wilkes, Wilder Construction Company. The Department's response to this comment is in the Response to Comments document.

The Department included a public comment period from 03 April – 03 May 2013 for this revision of the MG3 as required by 18 AAC 50.542(d). The comment period was extended to 24 May 2013 after requests were received by the Department from Permittees. The Department received 17

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comments from Colaska, Inc., three comments from Brad Quade at Anchorage Sand & Gravel Co., Inc., 14 comments from Shawn Crouse at Granite Construction Company, and 11 comments from other parties. The Department's response to this/these comment is available in the Response to Comments document.

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Table 1 Condition changes from MG3 to MG3 Rev. 1

MG3 Permit Condition No.	Description	MG3 Rev. 1 Permit Condition No.	Description of Change
1-4	Visible Emissions Standard Requirements for Asphalt Plants	5.1	Defined emission points to be monitored. Modified monitoring schedule.
5-7	Visible Emissions Standard Requirements for Diesel Engines	5.2-5.3	Modified monitoring schedule.
8-12	Particulate Matter (PM) Standard Requirements	6	Included reporting requirement from original Condition 27.
13-17	Sulfur Compound Emissions Standard Requirements	7	Reporting content changed. Nonroad engine recordkeeping and reporting required.
18-20	Ambient Air Quality Protection	1	Modified restrictions for SO ₂ protection areas.
21	Pollution Control Equipment Breakdown Reporting	8	No change.
22	Relocation and Reporting of Site Selection	2	No change.
23	Alaska Coastal Management Program (ACMP)	Removed	Removed from permit.
24	Administrative Fees	13	No change.
25-26	Assessable Emissions	14	No change.
27	Good Air Pollution Control Practice	15	Moved reporting requirement to Condition 7.
28	Reasonable Precautions to Prevent Fugitive Dust	16	Addition of sample fugitive dust control plan in Appendix B.
29-30	Air Pollution Prohibited	10	No change.
31-39	Source Testing and Monitoring Requirements	20	Reference methods not in permit; moved to TAR.
40	Recordkeeping Requirements	3	No change.
41	Information Requests	4.3	No change.
42	Submittals	4	No change.
43	Certification	4.1	No change.
44	Excess Emissions and Permit Deviation Reports	9	No change.
45	Operating Reports	4.2	Reporting periods changed to April 1-October 31, and November 1-March 31. Report due dates changed to November 30 and April 30.
46	Nonroad Engines	11	Reporting requirement added. Must submit nonroad engine location log with FORs.
47-53	Terms to Make Permit Enforceable	18-19	No change.
None	Transfer of Ownership	12	Moved from Introduction of 2009 MG3 to a permit condition.
None	Equipment Changes	17	New condition.

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Table 2: Condition changes from MG3 Rev.1 to MG3 Rev. 2

Condition Number	Change to Condition
Permit	
Condition 5.1 - Monitor	Monitor - Bullet 3 Part 3: Changed VE Method 9 observations to “at least once every 30 operating days”. See Comment 6 in Response to Comments.
	Monitor - Bullet 4: Relocated to the reporting requirement of this condition becoming Bullet 5 for Condition 5.1 Reporting.
Condition 5.1 - Report	Report - Bullet 1: Wording changed describing to match the Response to Comments. See Comment 19 in Response to Comments.
	Reporting - Bullet 5: Relocated from Monitor requirement of Condition 5.1. Reworded condition to clarify that the “six-minute average opacity observed” must be greater than 20% not the individual readings.
Condition 5.2 - Monitor	Monitor - Bullet 2 Smoke/No Smoke Part 2: Changed Smoke/No Smoke observations to “at least once every 30 operating days”. See Comment 7 in Response to Comments.
Condition 5.2 - Monitor	Monitor - Bullet 3 Method 9 Part 2: Changed VE Method 9 observations to “At least once every 30 operating days”. See Comment 7 in Response to Comments.
	Monitor - Bullet 3 Method 9 Part 3: Relocated to the reporting requirement of this condition becoming Bullet 5 for Condition 5.2 Reporting.
Condition 5.2 - Report	Reporting - Bullet 5: Relocated from Monitor requirement of Condition 5.2. Reworded condition to clarify that the “six-minute average opacity observed” must be greater than 20% not the individual readings.
Condition 5.3.a – Corrective Actions for Smoke/No Smoke	Reworded to clarify that the “six-minute average opacity observed must be greater than 20%” not the individual readings
Condition 17 – Equipment Changes	Changed equipment descriptions as described in the response to Comment 44 in RTC document.
All Forms	Added or changed all form headings to include Permittee Name:_____, Permit No.: AQ_____ and Facility Name_____, for consistency.
Form 4 : Facility Operating Report re: Conditions 5.1 and 5.2	Reworded to clarify that the “six-minute average opacity observed” must be greater than 20% not the individual readings.

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Form 4 : Facility Operating Report re: Condition 7	The Department agreed with the commenter that ULSD or LSD could be used and still meet the sulfur requirements. Added “or LSD” to ULSD fuel as per response to Comment 11.
Form 4 : Facility Operating Report re: Conditions 8 - 9	Reorganized and reworded reporting of Conditions 8 and 9.
Technical Analysis Report	
TAR Introduction	Added Table 2 to show changes between MG3 Revision 1 and MG3 Revision 2
Condition 5 Factual Basis	Corrected monitoring requirements
Condition 7 Factual Basis	The Department agreed with the commenter that ULSD or LSD could be used and still meet the sulfur requirements. Added “or LSD” to ULSD fuel as per response to Comment 11.
Response To Comments	
Comment 12	The Department agreed with the commenter that ULSD or LSD could be used and still meet the sulfur requirements. Added “or LSD” to ULSD fuel as per response to Comment 11.
Comment 19	Grammar correction to emission points.
Comment 32	Typographical error correction--Added space between “and-objectively”
Comment 36	Added “If six-minute average opacity” is observed for clarity
Additional Changes made by ADEC – Draft TAR	The Department agreed with the commenter that ULSD or LSD could be used and still meet the sulfur requirements. Added “or LSD” to ULSD fuel as per response to Comment 11.

EXCLUDED FACILITIES

A stationary source is excluded from using this general minor permit if the following applies.

1. The stationary source is subject to a fuel consumption limit or other stationary source-specific requirement established in a construction permit, or air quality control permit under 18 AAC 50.400 (effective prior to 1/18/97).

This does not include a limit established because a source test was conducted at less than full rated capacity. This exclusion is not applicable if the owner or operator obtains an owner requested limit (ORL) under 18 AAC 50.225, or another general or source-specific permit that covers these requirements.

2. The stationary source is subject to any standard in 18 AAC 50.055(a)-(f) other than standards for fuel burning equipment in (a)(1), (a)(4), (b)(1), (b)(5), and (c).
3. The stationary source contains a gas turbine.

Gas turbines were not modeled or included in the assumptions for asphalt plant dispersion modeling. Therefore, the Department cannot provide a factual basis for assessable emissions or the protection of ambient air quality.

4. The stationary source contains open burning or an incinerator.

Open burning and the operation of incinerators have substantive particulate matter (PM) emissions and ambient impacts, which were not included in the modeling analysis for simplicity.

5. The stationary source emits more than 100 tons per year (tpy) of a regulated air pollutant or is collocated at a TV Major source, i.e. is subject to Title V permitting requirements.

If there is a Title V Major Permit (commonly General Permit 3) for the activities listed above, the stationary source may operate under both permits.

TECHNICAL ANALYSIS FOR THE PERMIT CONDITIONS

Condition 1 – Ambient Air Quality Protection

Legal Basis: This condition applies to all asphalt plants unless a stricter condition exists in this permit, State Statutes, or Federal Guidelines. 18 AAC 50.010 establishes the ambient air quality standards in the State of Alaska. The Permittee is required to comply with these requirements.

Condition 1.4 only applies to asphalt plants located in the SO₂ Special Protection Areas (Unalaska and Saint Paul Island areas) established in 18 AAC 50.025(c).

In Condition 1.5, 18 AAC 50.010 establishes the ambient air quality standards in the State of Alaska. This condition only applies to Asphalt Plants that operate at the Bells Flats area of Kodiak Island.

Factual Basis: The Department incorporated the same setback distance requirements detailed in the 2009 MG3. The Department established these distances based on a generic air quality modeling analysis (see Attachment 1).

The Department established the setback distances in Condition 1.1 in order to protect the three hour SO₂ ambient air quality standard.

The setback distances are based on the best information available to the Department as noted in the 2003 GP3. They do not guarantee that an operation cannot violate the ambient air quality standards or increments, or create a public air quality nuisance. Therefore, the Department previously included a note that all complaints attributed to an operation are subject to investigation. The following note lists some of the possible outcomes of an investigation.

Note: The setback distances in Condition 1 are minimum requirements. You should give adequate consideration to local siting issues which may exist within a given area. Poor siting can lead to public complaints regarding dust impacts and/or impacts from other air pollutants. The Department does investigate these types of public complaints. These investigations could result in:

- 1. Formal enforcement with punitive damages;*
- 2. A formal request under 18 AAC 50.201 that the Permittee demonstrate, by air quality dispersion modeling or other means, that the air quality impacts are not violating State air quality standards or increments; or creating a public nuisance (under 18 AAC 50.110);*
- 3. The requirement to reduce emissions or implement another control strategy to reduce the ambient impact of those emissions as necessary to ensure that the concentration of air pollutants does not exceed the State air quality standards or increments; or the concerns listed in 18 AAC 50.110;*
- 4. A requirement to install and operate air quality monitoring equipment; or*
- 5. The requirement to obtain a site specific permit with which would contain requirements tailored to that exact operation.*

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In Condition 1.4, the Department previously established the SO₂ Special Protection Areas due to past demonstrations that the ambient SO₂ air quality standards and increments are threatened. While developing the 2003 GP3, the Department conducted a modeling analysis to determine whether additional restrictions were needed to protect the standards and increments in these special protection areas. The analysis showed that the Asphalt Plant would need to operate with fuel-sulfur content not greater than 0.075 percent sulfur by weight and that the plant would need to operate on highline power rather than from its own diesel generator. It also showed that if diesel engines are used for another purpose other than electrical power generation then they could not burn fuel with sulfur content greater than 0.075 percent, by weight. The Department incorporated these restrictions into the 2009 MG3, and is now updating terms in the MG3 Rev. 1 to allow for more flexibility and simplicity. Rev. 1 removed exclusions on operation provided the Permittee certify that only Ultra Low Sulfur Diesel (ULSD) is used in all engines and in the asphalt plant. If a Permittee would like less stringent restrictions when operating in an SO₂ Special Protection Area, they would need to obtain a source-specific permit. The application for a source-specific permit would need to include a case-specific ambient air quality modeling demonstration.

Condition 1.5 represents additional restrictions for the protection of ambient air quality. In response to complaints received from the Bells Flat area of Kodiak in circa-2003, the Department conducted a modeling analysis under 18 AAC 50.201 of Asphalt Plant operations in this area. The analysis showed that Asphalt Plant emissions should not violate the State's air quality standards/increments as long as the sulfur content of the liquid fuel did not exceed 0.4 percent (by weight) and the plant operated no more than 13 hours per day. The Department incorporated these limits in the 2009 MG3, and is now updating terms in the MG3 Rev. 1 to allow for more flexibility and simplicity. Rev. 1 allows operation of liquid-fired equipment provided that the Permittee certify that only ULSD is used in all engines and in the asphalt plant. MR&R requirements are established under this condition.

Condition 2 - Relocation and Reporting Site Selection

Legal Basis: This relocation condition applies to all Asphalts Plants because Alaska Statute (AS) 46.14.210 authorizes the Department to issue a general minor permit that is valid for multiple locations within the state of Alaska. The permit also contains siting requirements that limit the asphalt plant from operating within specified distances to occupied structures, and has monitoring requirements based upon startups at new locations.

This site selection condition applies to all asphalts plants because 18 AAC 50.110 prohibits pollution that is injurious to human health or welfare, animal or plant life or property, or which would unreasonably interfere with the enjoyment of life or property. This condition applies unless a stricter condition exists in this permit, State Statutes, or Federal Guidelines.

Factual Basis: Based on the Department's 2003 modeling, new locations must comply with the setback distances in Condition 1 and provide notification to the Department within 10 days of startup at the new location. See ATTACHMENT 1 for a description of modeling performed.

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Condition 3 - General Recordkeeping

Legal Basis: The Permittee is required to keep records to demonstrate compliance with the terms and conditions of the permit and applicable regulations.

Factual Basis: The condition restates the regulatory requirements for recordkeeping and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide an evidence of compliance with this requirement.

Condition 4 – General Reporting

Legal Basis: Condition 4.1 requires the Permittee to comply with the standardized reporting requirements in 18 AAC 50.326(j) for all Department submittals. Condition 4.3 requires the Permittee to comply with the certification requirement in 18 AAC 50.205 and applies to all Permittees. Condition 4.4, adopted by the Department as Standard Permit Condition VII in 18 AAC 50.346(b)(6), ensures compliance with the applicable requirement in and applies to all permits. Condition 4.5 requires the Permittee to submit requested information to the Department and is a standard condition in 18 AAC 50.345(i).

Factual Basis: Condition 4.1 lists the appropriate submission address for reports and written notices. One original report, with certification in accordance with Condition 4.3, must be submitted by mail to the Department unless an approved electronic method has been implemented by the Department. Under Condition 4.2, the approved electronic method must include an electronic signature to replace the requirement of mailing a paper copy of the report. The Permittee may submit a paper copy and an electronic copy if the electronic version is compatible with Department software (e.g., Adobe PDF). Receipt of the submittal at the correct Department office provides sufficient monitoring for this condition. This condition supplements the standard reporting and notification requirements for the permit.

Condition 4.3 requires the Permittee to certify all reports submitted to the Department. This condition supplements the reporting requirements of this permit.

Condition 4.4 restates the requirements for reports listed in the regulations. This condition also supplements the specific reporting requirements included elsewhere in the permit. The reports themselves provide monitoring for compliance with this condition. The reporting period dates have been modified in the MG3 Rev. 1 to reflect the most common operating season length for rock crushers in Alaska. The former semi-annual operating period of April 1 through September 30 was extended to April 1 through October 31, with its report due a month later on November 30. The former semi-annual operating period of October 1 through March 31 was shortened to November 1 through March 31, with its operating report due a month later on April 30.

Condition 4.5 requires the Permittee to submit information requested by the Department. This condition allows the Department to request any records that the Permittee is required to keep by other permit conditions to be used for compliance determination or cause to modify, revoke and reissue, or terminate the permit. Monitoring consists of receipt of the requested information.

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Condition 5: Visible Emissions Requirements

Legal Basis: For a minor permit classified under 18 AAC 50.502(b), in accordance with 18 AAC 50.544(b), the Department will include terms and conditions as necessary to ensure the proposed stationary source will meet the requirements of AS 46.14 and 18 AAC 50. This includes terms and conditions for

- Installation, use, and maintenance of monitoring equipment;
- Sampling emissions according to the methods prescribed by the Department, and at locations, intervals and by procedure specified by the Department;
- Providing source test reports, monitoring data, emissions data, and information from analyses of any test samples;
- Keeping records; and
- Making periodic reports on process operations and emissions.

An asphalt plant¹ constructed or modified after June 11, 1973 may not reduce visibility through the exhaust effluent by 20 percent or greater averaged over any six consecutive minutes as specified in 18 AAC 50.055(a)(4). All other industrial processes and fuel burning equipment at this source may not reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes, as specified in 18 AAC 50.055(a)(1). Asphalt plants are industrial processes while the asphalt drum/dryer and diesel engines are fuel-burning equipment. Therefore the same standard applies to the diesel engines used for power generation for an asphalt plant and to asphalt plants built on or before June 11, 1973.

Condition 5 requires the Permittee to comply with the visible emission standard for asphalt plants and diesel engines, including fugitive emissions from asphalt plants. Condition 5.1 and 5.2 address the visible emissions (VE) monitoring, recordkeeping, and reporting (MR&R) for asphalt plants and (liquid-fired) diesel engines, respectively.

Factual Basis: The VE monitoring, recordkeeping, and reporting (MR&R) requirements for the Asphalt Plant are different from those for diesel engines because asphalt plants may produce VE without smoke, which is typically associated with incomplete combustion. In the case of asphalt plants, VE may also result from loose particulate from the aggregate fed into the mixing drum.

Thus, the MR&R requirements for diesel engines includes the EPA Method 9 and the Smoke/No Smoke plans which are standard permit conditions required under 18 AAC 50.346(c). MR&R requirements for the asphalt plant deviate from those under 18 AAC 50.346(c) by excluding the possibility to monitor visible emissions using the Smoke/No Smoke plan because particulate matter emissions from the aggregate are not considered "smoke."

¹ In this permit, "asphalt plant" means all asphalt plant equipment (including the aggregate dryer and drum mixer), except the diesel engine and vehicles.

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The VE standard applies to stationary diesel engines and does not apply to non-road engines. A non-road engine has the meaning given in 40 C.F.R. 89.2. An engine will not be considered a non-road engine if it remains, or will remain, at a location for more than 12 consecutive months, i.e. an engine used at a specific location for 12 months or longer ceased to be a non-road engine at the time it was placed. Although the VE standard does not apply to non-road engines, the engines must still be monitored as specified under Condition 5.2 to determine compliance if the engine remains in the same location for more than 12 months, or in case there are public complaints issued about the stationary source.

Condition 5 was adopted from Standard Permit Condition IX -Visible Emissions and Particulate Matter Monitoring Plan for Liquid-Fired Sources. The conditions were modified to reflect the mobility of asphalt plants and the seasonal nature of their operations. The condition requires VE readings after startup from periods of shut down and after relocating the plant.

Condition 5.1 was modified from the 2009 MG3 to monitor the baghouse or scrubber stack and to choose one emission point to monitor that is capable of producing fugitive emissions. Instead of monitoring every possible fugitive emission point, because there may be many, the Permittee should identify all possible fugitive emission points and select the one that appears to have the greatest continuous fugitive emissions, based on initial observation. Example fugitive emissions points are at aggregate handling areas, conveyor drop points, baghouse catch, drum mixer discharge, and hot mix storage silo receiving points. The Permittee should observe each point and determine which point continuously creates the most fugitive dust. This emission point should be monitored in accordance with Condition 5.1.

Condition 5.2 MR&R condition for diesel engines is a standard condition adopted into regulation pursuant to AS 46.14.010(e).

Reoccurring monitoring for the diesel engine was preserved from the original MG3 permit after receiving comments during the public notice period. The required VE observations are to be taken within two days of start up at a new location, at least once per 30 operating days at the same location and within 24 hours of startup following a shutdown period of more than 5 days.

The Smoke/No Smoke requirement in Condition 5.2 was preserved from the original MG3 Permit. This requires the Permittee to begin Method 9 observations, or take corrective action, to eliminate smoke when observed. Corrective actions remain unchanged from the 2009 MG3 and are listed under Condition 5.3.

Condition 6.1 – Particulate Matter Emissions – Source Testing

Legal Basis: Under 18 AAC 50.055(b)(5), an asphalt plant constructed or modified after June 11, 1973 may not emit PM in excess of 0.04 grains per dry standard cubic foot of exhaust gas (gr/dscf). Under 18 AAC 50.055(b)(1), all other industrial processes and fuel burning equipment at the asphalt plant may not emit PM in excess of 0.05 gr/dscf. Asphalt plants are both industrial processes and fuel-burning equipment while diesel engines are fuel-burning equipment. Therefore the same standard applies to the diesel engines used for power generation for an asphalt plant and to asphalt plants built on or before June 11, 1973.

Asphalt plants are industrial processes while the asphalt drum/dryers are fuel-burning equipment. Table B of the permit establishes the applicable PM standard for asphalt plants, depending on the date it was constructed, reconstructed, or modified.

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Factual Basis: Condition 6.1 covers the source testing requirements to demonstrate compliance with the applicable PM standard for the asphalt drum/dryer.

The Department removed the condition that permitted the one-year PM source test requirement is delayed one year for each calendar year that the plant operated for less than 30 days. The Department replaced this with language consistent with the GP3 for simplicity. This change was made to the MG3 and GP3 to close a loophole allowing plants to operate in Alaska on a limited basis while avoiding testing indefinitely; the Department always had the authority to request a test regardless.

Condition 6.1 also covers the monitoring, recordkeeping, and reporting required during source tests to demonstrate compliance with the applicable PM standard for the asphalt drum/dryer.

Condition 6.2 - Particulate Matter Emissions – Asphalt Plant

Legal Basis: Under 18 AAC 50.544(b), for a minor permit classified under 18 AAC 50.502(b), the Department will include terms and conditions as necessary to ensure the proposed stationary source will meet the requirements of AS 46.14 and 18 AAC 50. This includes terms and conditions for

- installation, use and maintenance of monitoring equipment;
- sampling emissions according to the methods prescribed by the Department, and at locations, intervals and by procedure specified by the Department;
- providing source test reports, monitoring data, emissions data, and information from analyses of any test samples;
- keeping records; and
- making periodic reports on process operations and emissions.

Under 18 AAC 50.990(12), an "Asphalt Plant" means a stationary source that manufactures asphalt concrete by heating and drying aggregate and mixing asphalt cements; "Asphalt Plant" includes any combination of dryers, systems for screening, handling, storing, and weighing dried aggregate, systems for loading, transferring, and storing mineral filler, systems for mixing, transferring, and storing asphalt concrete, and emission control systems within the stationary source.

Under 18 AAC 50.055(b)(5), an asphalt plant constructed or modified after June 11, 1973 may not emit PM in excess of 0.04 grains per dry standard cubic foot of exhaust gas (gr/dscf). Under 18 AAC 50.055(b)(1), all other industrial processes and fuel burning equipment at the asphalt plant may not emit PM in excess of 0.05 gr/dscf. Asphalt plants are both industrial processes and fuel-burning equipment while diesel engines are fuel-burning equipment. Therefore the same standard applies to the diesel engines used for power generation for an asphalt plant and to asphalt plants built on or before June 11, 1973.

Asphalt plants are industrial processes while the asphalt drum/dryers are fuel-burning equipment. Table B of the permit establishes the applicable PM standard for asphalt plants, depending on the date it was constructed, reconstructed, or modified. This permit does not include MR&R to demonstrate compliance with this particulate matter standard for fugitive emissions since Reference Method 5 of 40 C.F.R. 60, which is used to determine compliance with this standard, is not applicable to fugitive emissions.

Diesel engines are fuel burning equipment. Condition 6 requires the Permittee to comply with the applicable PM standard(s) for diesel engines, including fugitive emissions from asphalt plants.

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Condition 6 establishes MR&R requirements to demonstrate compliance with the PM standard for (liquid-fired) diesel engines.

Factual Basis: The particulate matter standard applies to stationary diesel engines and does not apply to nonroad engines. A nonroad engine has the meaning given in 40 C.F.R. 89.2. An engine will not be considered a nonroad engine if it remains at or will remain at a location for more than 12 consecutive months. An engine used at a single specific location for 12 months or longer ceased to be a nonroad engine when it was placed in that location.

The requirement to report the diesel engine exhaust stack diameter to the Department within 180 days of the letter of authorization was removed because this information should be provided in the MG3 Rev. 1 application.

Recordkeeping and reporting requirements are combined from Conditions 8.4 and 27 of the 2009 MG3. The Permittee is required to keep a daily log of asphalt production parameters listed, as well as the parameters listed for baghouses and scrubbers. These are to be reported in each FOR.

The MR&R conditions are Standard Operating Permit Condition IX under 18 AAC 50.346(c), *Liquid-Fired Fuel Burning Equipment*, adopted into regulation pursuant to AS 46.14.010(e).

Condition 7 - Sulfur Compound Emissions Standard Requirements

Legal Basis: Under 18 AAC 50.544(b), for a minor permit classified under 18 AAC 50.502(b), the Department will include terms and conditions as necessary to ensure the proposed stationary source will meet the requirements of AS 46.14 and 18 AAC 50. This includes terms and conditions for

- installation, use and maintenance of monitoring equipment;
- sampling emissions according to the methods prescribed by the Department, and at locations, intervals and by procedure specified by the Department;
- providing source test reports, monitoring data, emissions data, and information from analyses of any test samples;
- keeping records; and
- making periodic reports on process operations and emissions.

Under 18 AAC 50.055(c) industrial processes and fuel burning equipment may not emit sulfur-compound emissions exceeding 500 parts per million (ppm) averaged over a period of three hours. Asphalt plants are industrial processes while the asphalt drum/dryer and diesel engines are fuel-burning equipment. Condition 7 requires the Permittee to comply with this standard for the asphalt drum/dryer and diesel engines. This does not apply to the other, nonfuel-burning parts of asphalt plants since they don't produce sulfur-compound emissions. Condition 7 establishes MR&R requirements to demonstrate compliance with this standard for (liquid and gas-fired) diesel engines.

Factual Basis: The sulfur-compound emissions standard applies to stationary diesel engines and fuel used in asphalt burners. Although sulfur compound emissions standards do not apply to nonroad engines, all nonroad engines must be monitored to ensure the protection of ambient air quality standards (18 AAC 50.010(2), 18 AAC 50.110).

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MR&R requirements were modified from the 2009 MG3 to simplify and reduce the amount of information to be reported by the Permittee and reviewed by the Department. Instead of attaching all fuel receipts with each FOR, the Permittee is to keep these records for at least five years and only report the fuel grade used during the reporting period. If only ULSD or LSD was used for the entire reporting period, the Permittee should submit a statement certified by the Responsible Official stating that only ULSD or LSD fuel was purchased. If a fuel type other than ULSD or LSD was used, the Permittee is to submit a list of fuel grades, including sulfur content for each fuel grade used.

The Permittee is also to report the fuel type and sulfur content of fuel used in the asphalt burner. Records of non-distillate fuel or used oil for asphalt burners are to be kept on-site for at least five years.

For liquid-fired fuel burning equipment the MR&R conditions are Standard Operating Permit Conditions XI and XII under 18 AAC 50.346(c), adopted into regulation pursuant to AS 46.14.010(e).

Gas-Fired Fuel Burning Equipment: If a source permitted under an MG3 Rev. 1 uses pipeline quality natural gas, no monitoring terms are needed and reporting should consist of submitting a statement certified by the Responsible Official stating that only natural gas was used.

Highline Power: If a source permitted under an MG3 Rev. 1 uses highline power, no monitoring terms are needed and reporting should consist of submitting a statement certified by the Responsible Official stating that only highline power was used.

Condition 8 - Pollution Control Equipment Breakdown Reporting

Legal Basis: This condition is intended to ensure all EUs operating at the stationary source are in compliance with 18 AAC 50.544(b)(2). These requirements are carried over from Condition 21 of the 2009 MG3.

Factual Basis: The Department included these reporting requirements to better ensure compliance with the permit conditions. Permittees can more effectively meet their compliance obligations by ensuring that all EUs are well maintained and that any pollution control equipment, if used, functions properly. These requirements are an extension of the Good Air Pollution Control Practices of Condition 15.

Condition 9 - Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the applicable requirement in 18 AAC 50.235(a)(2) and 18 AAC 50.240(c). The Department adopted this condition from Standard Permit Condition III under 18 AAC 50.346(b)(2) pursuant to AS 46.14.010(e). The Department copied Form 2, *ADEC Notification Form* Standard Permit Condition IV under 18 AAC 50.346(b)(3).

Factual Basis: This condition satisfies two state regulations related to excess emissions – the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

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The Department adopted this condition as Standard Permit Condition III under 18 AAC 50.346(c) pursuant to AS 46.14.010(e). The Department has determined that the standard condition adequately meets the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate the unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions as modified meets the requirements of 40 C.F.R. 71.6(a)(3).

Conditions 10 - Air Pollution Prohibited

Legal Basis: This condition ensures compliance with the applicable requirements in 18 AAC 50.110. The requirements prohibit the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. Air Pollution Prohibited requirements apply to the stationary source because rock crushers produce emissions and because activities at or associated with the stationary source may result in complaints from the public. The Department adopted these requirements as Standard Permit Condition II under 18 AAC 50.346(a) pursuant to AS 46.14.010(e).

Factual Basis: Unforeseen emission impacts can cause violations of the requirements under 18 AAC 50.110. These violations can go undetected in the absence of public complaints. Public complaints are an indication that a violation of 18 AAC 50.110 has occurred. The Permittee is required to investigate and report any complaints and must keep records that detail the date, time, and nature of all complaints received. The Permittee must maintain a record of the investigation and any corrective actions undertaken and submit copies of these records upon request of the Department. Therefore, the Permittee must monitor and respond to complaints to ensure compliance with 18 AAC 50.110

Condition 11 – Non-road Engine Requirements

Legal Basis: Non-road engines are not subject to the standards approved under the State Implementation Plan for the air pollution control for stationary sources. 18 AAC 50.100 states that the PTE from non-road engines does not count towards the classification of a newly constructed or modified stationary source in accordance with AS 46.14.130.

Factual Basis: This condition requires the Permittee to keep records detailing the location and specifications of non-road engine EUs at any location where they operate. The date and location log requested in this condition should be submitted with each Facility Operating Report (FOR). This differs from the 2009 MG3 in that the non-road engine log was to be made available to the Department upon request, and was not required to be submitted with each FOR. The change in the MG3 Rev. 1 condition is to simplify information requests for compliance evaluations. In addition, the Department needs to know if an engine no longer qualifies as a non-road engine so that the proper monitoring, recordkeeping, and reporting for stationary engines are met.

A non-road engine has the meaning given in 40 C.F.R. 89.2, presented as follows, and is adopted by reference in 18 AAC 50. This condition and other conditions in this permit regarding non-road engines only apply to portable non-road engines, not self-propelled non-road engines.

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Except as discussed in paragraph (2) of this definition, a nonroad engine is any internal combustion engine:

- *In or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers); or*
- *In or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers); or*
- *That, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.*

An internal combustion engine is not a nonroad engine if:

- *The engine is used to propel a motor vehicle or a vehicle used solely for competition, or is subject to standards promulgated under section 202 of the Act; or*
- *The engine is regulated by a federal New Source Performance Standard promulgated under section 111 of the Act; or*
- *The engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. This paragraph does not apply to an engine after the engine is removed from the location.*

This condition provides supplemental information for non-road engines monitored under Conditions 5.2 and 7 and is intended to help ensure the protection of ambient air quality in accordance with 18 AAC 50.010(2) and 18 AAC 50.

Condition 12 – Change of Ownership

Legal Basis: This condition requires new and previous owners of the permitted rock crusher plant to submit the transfer of ownership form and pay the administrative amendment fees in accordance with 18 AAC 50.400(f)(1)-(3) and 40 C.F.R. 71.7(d), adopted by reference in 18 AAC 50.040.

Factual Basis: If owner or operator of a stationary source transfers ownership of the stationary source, both new and previous owners must complete the transfer of ownership form. Once the form is received by the Department, the new owner will receive authorization to operate the stationary source.

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Condition 13 - Administration Fees Applicability

Legal Basis: This condition requires the Permittee, owner, or operator to pay administration fees as set out in regulation. Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action.

Factual Basis: The owner or operator of a stationary source who is required to apply for a permit under AS 46.14.130 shall pay to the Department all assessed permit administration fees. The regulations in 18 AAC 50.400-405 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Condition 14 - Emission Fees

Legal Basis: The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions. This is Standard Permit Condition I under 18 AAC 50.346(b)(1), adopted into regulation pursuant to AS 46.14.010(e).

Factual Basis: These standard conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The default assessable emissions are emissions of each air pollutant authorized by the permit (AS 46.14.250(h)(1)(A)). Air pollutant means any regulated air pollutant and any hazardous air pollutant. Therefore, assessable emissions under AS 46.14.250(h)(1)(A) means the potential to emit any air pollutant identified in the permit, including those not specifically limited by the permit.

The conditions also describe how the Permittee may calculate actual annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air pollutant. Therefore, fees based on actual emissions must also be paid on any pollutant emitted whether or not the permit contains any limitation of that pollutant.

This standard condition specifies that, unless otherwise approved by the Department, calculations of assessable emission based on actual emissions use the most recent previous calendar year's emissions. Since each current year's assessable emission are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match. The Permittee will normally pay for actual emissions -just with a one-year time lag.

Projected actual emissions may differ from the previous year's actual emissions if there is a change at the stationary source, such as changes in equipment or an emission rate from existing equipment.

The emission factors in the Asphalt Plant Emission Calculation Guide are taken from US EPA publication AP-42 *Compilation of Air Pollutant Emission Factors. Volume I: Stationary Point and Area Sources. Fifth Edition* as adopted by reference in 18 AAC 50.035. The Permittee may use other emission factors as outlined in Asphalt Plant Emission Calculation Guide and Standard Permit Condition I provided those emission factors have been approved by the Department.

If the Permittee does not choose to annually calculate assessable emissions, emissions fees will be based on "potential to emit" (PTE).

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The PTE set forth in the condition is based on liquid fuel with a sulfur content of 0.5 percent by weight or fuel gas with a sulfur content of 60 ppm H₂S by volume. If the actual sulfur content of the fuel is greater than these assumptions, the assessable emissions calculations provided by the Permittee should reflect the actual sulfur content. The change in these values may result in SO₂ emissions that could trigger PSD.

The address to submit Emission Fee Estimates was changed from the Standard Permit Condition. This address was changed to reflect the processing center for Emission Fee Estimates.

Condition 15 - Good Air Pollution Control Practices

Legal Basis: This condition ensures compliance with the applicable requirements under 18 AAC 50.346(b)(5) *Standard Operating Permit Condition VI - Good Air Pollution Control Practices* and applies to all emission units, except those subject to federal emission standards. This condition replaces Condition 27 in the prior MG3. Also, under 18 AAC 50.544(b)(2), for a minor permit classified under 18 AAC 502(b), the Department will include a condition requiring the owner to

- perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- keep records of any maintenance that would have a significant effect on emissions (the records may be kept in an electronic format); and
- keep a copy of either the manufacturer's or the operator's maintenance procedures.

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices for all emission units. The permit contains the provision exactly as required by regulation. This is the same as 18 AAC 50.346(b)(5) and requires that all permits issued by the State of Alaska contain the provisions of Standard Operating Permit Condition VI - Good Air Pollution Control Practices unless more specific requirements adequately meet the requirements. In this case the Department has included in the permit more specific requirements as stated below for Condition 15.1 and 15.2.

Condition 15.1 - Facilities with a Baghouse

Legal Basis: This condition expands the requirements under 18 AAC 50.346(b)(5) *Standard Operating Permit Condition VI - Good Air Pollution Control Practices* to provide a condition that more adequately meets the requirements under 18 AAC 50.346(b)(5) when the control device is a baghouse. This condition is the same monitoring as Condition 27.2 of the prior MG3 permit, with some of the recordkeeping and reporting moved to Condition 6.2.

Factual Basis: The permit requires the Permittee to demonstrate compliance with the visible emissions and particulate matter standards in 18 AAC 50.055. Some Asphalt Plants may choose to control PM emission using a baghouse. This condition states the minimum frequencies for baghouse inspections, requires that the Permittee monitor the pressure drop across the baghouse, and baghouse outlet temperature, and maintain these parameters within limits recommended by the manufacturer.

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After a run is completed, the baghouse temperature will drop through the range where acid gasses will condense. Corrosion will be minimized if the temperature passes through this range as quickly as possible. Therefore this requirement is to maintain fan operation per the manufacturer's recommendation until the baghouse has been purged. Reducing corrosion will lengthen the life of the baghouse and maintain the integrity of the fabric filter clamps and fasteners.

Ongoing monitoring of the parameters mentioned in this condition such as the pressure drop across the baghouse enables the operators to determine how the baghouse is functioning. For example, a baghouse differential pressure (DP) higher than the manufacturer's maximum recommended values may indicate that the cleaning system is not functioning adequately or a blocked hopper. DP significantly below the manufacturer's specifications could indicate holes in the bags.

MR&R requirements were moved to Condition 6.2 for simplicity and to keep all MR&R requirements for the asphalt plant and control equipment in the same condition.

Condition 15.2 -Facilities with a Wet Scrubber

Legal Basis: This condition expands the requirements under 18 AAC 50.346(b)(5) *Standard Operating Permit Condition VI - Good Air Pollution Control Practices* to provide a condition that more adequately meets the requirements under 18 AAC 50.346(b)(5) when the control device used is a wet scrubber. This condition is the same monitoring as Condition 27.3 of the prior MG3 permit with some of the recordkeeping and reporting moved to Condition 6.2.

Factual Basis: The permit requires the Permittee to demonstrate compliance with the visible emissions and particulate matter standards in 18 AAC 50.055. Some Asphalt Plants may choose to control PM emission using a wet scrubber. This condition states the inspection requirements at the beginning of the operating season if the particulate matter control device is a scrubber.

The Permittee must maintain and operate the scrubber in accordance with the manufacturer's recommendations to include pressure drop, inlet and outlet water temperatures, water flow rate, and water pressure. These conditions are intended to support compliance with opacity and particulate standards by encouraging proper scrubber maintenance and operation. Scrubber efficiency is related to proper operation.

MR&R requirements were moved to Condition 6.2 for simplicity and to keep all MR&R requirements for the asphalt plant and control equipment in the same condition.

Condition 16 - Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition expands the requirements under 18 AAC 50.346(c) *Standard Operating Permit Condition X -Reasonable Precautions to Prevent Fugitive Dust* to provide a Condition that more adequately meets these requirements given the significant sources of fugitive dust that may be generated by the Stationary Source. This condition applies to all Asphalt Plants.

Factual Basis: The condition requires the Permittee to comply with 18 AAC 50.045(d), and take reasonable action to prevent particulate matter (PM) from being emitted into the ambient air. 18 AAC 50.045(d) requires an operator to take reasonable precautions to prevent fugitive dust when handling bulk materials. This condition lists examples of reasonable precautions.

This condition requires the Permittee to use reasonable precautions when handling, storing or transporting bulk materials or engineering in an industrial activity in accordance with the applicable

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requirement in 18 AAC 50.045(d). Bulk material handling requirements apply to the Permittee because the Permittee will engage in bulk material handling, transporting, or storing; or will engage in industrial activity at the stationary source.

If the Asphalt Plant is to be located within one mile of a business, residence or other occupied structure, the Permittee under this minor general permit must implement the plan under Condition 16 or get the Department's approval to implement a different plan. The plan must be specific to any location named in the application and must be attached to the relocation notice required in Condition 2.

The "one mile" distance requirement came from a circa-2003 dispersion modeling analysis conducted in support of the 2003 General Permit (GP3) for Asphalt Plants. Modeling predicted that during dry conditions, if precautions are not taken to control emissions from fugitive sources, the 24-hour PM-10 ambient air quality standard could be violated up to a mile away.

A sample fugitive dust control plan is provided as Appendix B with the MG3 Rev. 1. This sample plan may be used as is or modified to fit the needs of the Permittee.

Dust Control Plans:

- If a location listed in an application or in an application addendum (see Form 1) is within 2,000 feet of the nearest occupied off-site structure, the applicant or Permittee must attach a fugitive dust control plan as part of that application or addendum. The Permittee must also submit a fugitive dust control plan, or revision to the plan if requested by the Department. The operator must comply with a dust control plan approved by the Department.
- The plan must be specific to any location named in a permit application or application addendum, and must specify the measures that will be taken and under what circumstances the Permittee will use them. If necessary, the plan will identify the frequency with which the measures will be applied. A plan does not fulfill this requirement if it simply mentions the measures that can be taken to control fugitive dust for a particular emission unit.

Condition 17 - Equipment Changes

Legal Basis: This condition applies under 18 AAC 50.200 which allows the Department to request information from the Permittee to determine compliance. This condition also applies under 18 AAC 50.546 to revise a minor permit, either at the request of the permittee or on the Department's own initiative. The request for updated equipment information also applies under AS 46.14 and 18 AAC 50 to determine permit applicability; modification is covered by definition under 18 AAC 50.990(59), provisions not requiring an application are covered under 18 AAC 50.508(6).

Factual Basis: The condition requires the Permittee to notify the Department when equipment listed under the MG3 Rev. 1 permit is changed. This information will be used to aid in compliance determination and permit applicability. If the new equipment has a different PTE, the Department may request a new MG3 Rev. 1 application to reflect the changes in potential emissions or a Title V permit if PTE is greater than 100 tpy for any one regulated pollutant.

Condition 18 – Terms to Make the Permit Enforceable

Legal Basis: These are standard conditions required under 18 AAC 50.345(a)-(c)(2) and (d)-(h) for all minor permits.

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Factual Basis: These are standard conditions for compliance required for all minor permits.

Condition 19.1 – General Source Test Requirements

Legal Basis: Applies because this is a standard condition to be included in all permits in accordance with 18 AAC 50.345(k).

Factual Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.220(a) and applies because this is a standard condition to be included in all operating permits under 18 AAC 50.345(k). Monitoring consists of conducting the requested source test.

Condition 19.2, 19.3, & 19.4 - Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: This condition applies because the Permittee is required to conduct source tests, and also ensures compliance with 18 AAC 50.220(b) - (c).

Factual Basis: This condition supplements the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with conditions 19.2-19.4 consists of the test reports required by Condition 19.8.

Reference Test Methods: You should use the following as reference test methods when conducting source testing for compliance with this permit:

- Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9.
- Source testing for emissions of total particulate matter, sulfur compounds, and nitrogen compounds gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R 60, Appendix A.
- Source testing for emissions of any pollutant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

Condition 19.5 - Test Exemption

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.345(a) and applies when the source exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Condition 19.6, 19.7, & 19.8 - Test Plans, Notifications, and Reports

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.345(l)-(o) and applies because the Permittee is required to conduct source test by this permit.

Factual Basis: Standard conditions 18 AAC 50.345(l)-(o) are incorporated through this condition. These standard conditions supplement specific monitoring requirements stated elsewhere in this permit. The source test itself monitors compliance with this condition.

ATTACHMENT 1: ASPHALT PLANT DISPERSION MODELING SUMMARY

Alaska Department of Environmental Conservation Dispersion Modeling Summary for Asphalt Plants

Prepared by Bill Walker April 23, 2003

This summary is to support the renewal of general air quality operating permits for Asphalt Plants. The Department specifically requests comment on the assumptions used to characterize these facilities, and on how we should use the information produced by the modeling analysis.

Background

On May 1, 1998 the Department issued permits for transportable or stationary Asphalt Plants. The first round permits were issued under the authority of AS 46.14.215 which requires a demonstration that operations do not cause violations of ambient air quality standards or applicable increments. In support of that permit, the Department did air quality dispersion modeling using SCREEN3².

During the life of that permit, the Department has received a substantial number of complaints about emissions from some of the Asphalt Plants using the General Permit. The complaints involve the potential for adverse impacts on human health and welfare⁶. The complaints were about dust and odors, and specifically questioned whether the Department has evaluated the effects of neighbors being on elevated terrain, and the operation of more than one industrial facility at the same location.

The modeling for the 1998 permits did not look at either elevated terrain or multiple industrial operations at one location. At that time, the Department also did not have a way to estimate emissions from any sources other than the stack emissions from aggregate dryers, drum mixers, or diesel engines used to provide electrical power. Therefore, several important sources of particulate matter were not part of the analysis.

The Department is issuing the renewal permits under the authority of AS 46.14.210, but not AS 46.14.215. However, because of public health concerns that arose during the life of the original permits, I have done additional dispersion modeling as provided by 18 AAC 50.201. This modeling serves as the basis for proposed permit conditions.

Model and Methods Used

For this modeling analysis I used ISCST3. This allowed sources to be distributed over a three dimensional space. [SCREEN3 does not.] The modeling is intended to represent Asphalt Plants operating anywhere in the state. To make the modeling as representative as possible, I used emission rates and stack parameters from 28 Asphalt Plant source test reports. I estimated stack

² SCREEN3 AND ISCSD are EPA computer models for predicting concentrations of pollutants in the air to which the public has access. They use data on weather and on the emission sources to make the calculations.

⁶It is important to note that most plants operating under the general permits did so without public complaints to the Department.

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heights from photographs or visible emission inspection [Method 9] reports. Source test reports show operation at rates both above and below the standard of 0.04 gr/dscf. Emission rates for all stacks modeled were based on operation at that standard.

Fugitive particulate matter emissions were modeled as volume sources as this best approximates how they are released.

Meteorological Data

The meteorological data set was a screening data set similar to the one used in SCREEN3. It was applied to ISCST3 by Pat Hanrahan of the State of Oregon Department of Environmental Quality. The model predicted one hour ambient concentrations. To get 24 hour concentrations, I multiplied the results by 0.4, and for three hour concentrations multiplied by 0.9. This is consistent with EPA guidelines.

Background Concentrations

The background concentrations selected must be applied statewide. It would be far too unwieldy to develop separate conditions for each area of the state based on different background concentrations. I used the highest concentrations measured at Healy. The location of the Healy monitoring site intended to gather background concentrations, not to measure impacts from the Healy power plants. The background concentrations were:

SO₂ 24 hour – 26 µg/m³;
SO₂ three hour – 44 µg/m³;
PM-10 24 hour – 31 µg/m³.

Receptors

Receptors were placed using a polar grid from a few meters from the center of the operation to a maximum of 2000 meters. Receptors were modeled assuming flat terrain, and terrain heights of 10, 15, and 20 meters.

Downwash

Asphalt Plants have several structures that can cause downwash under some circumstances. The modeling used two structures common to any plant. The dryer or drum mixer was represented as a building 30 feet long and 12 feet high. Drum mix plants have a storage silo. Batch plants have a pug mill, and may also have a storage silo. To represent a silo or pug mill, I used a cylindrical structure 40 feet high and 14 feet in diameter.

Earlier modeling done before the public workshops held in January, 2003 relied on only one downwash structure -the drum mixer or dryer. A photograph the Department received of one Asphalt Plant in operation shows apparent downwash from larger structures. Based on that information adding the silo was more realistic and produced changes in the modeling results.

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PM-10

A recent EPA publication³ provided estimates of fugitive emissions for:

- Dust from vehicle traffic, including dump trucks and loaders;
- Receiving new aggregate;
- RAP crushing;
- Screening;
- Load out; and
- For drum mix plants, silo filling.

I combined all modeled sources in three scenarios -high and low moisture for fugitive emissions, and assuming fugitive emissions from mobile sources was controlled well enough that emissions are negligible. Asphalt plant stack emissions were modeled at the NSPS emission limit of 0.04 gr/dscf for each scenario.

The estimated emissions from vehicle traffic, RAP crushing, and screening depend on whether there are emission controls, such as water sprays, and for vehicle traffic, whether the ground is wet or dry and dusty and the soil silt content. Emissions from these sources also depend on the production rates and other source specific factors. I used the emission factors and assumptions in the following table.

³ Hot Mix Asphalt Plant Emission Assessment Report, EPA-454/R-00-019, December 2000.

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Table 1 Fugitive Particulate Matter Emission Factors and Assumptions			
Emission Source	PM-10 Emission Factor	Source of Emission Factor	Assumptions
All Sources			12 hours of operation per day 150 tons of HMA per hour
Loaders	$E = 2.6 (s/12)^{0.8} \times (W/3)^{0.4} \times 1/(M/0.2)^{0.3}$ where <i>s</i> is ground silt content <i>W</i> is vehicle weight <i>M</i> is soil moisture <i>E</i> is pounds of PM-10 /vehicle mile traveled	AP-42 Table 13.2.2	Caterpillar 928g Loader 12 ¾ tons 3 yard bucket capacity 20 feet from aggregate pile to inlet hopper Soil Moisture - Uncontrolled operation 0.7% - Controlled operation 20% 10% road silt ⁴
Trucks	Same as Loaders	Same as Loaders	10 ½ tons empty 12 ton capacity 200 meters from gravel source to dryer 50 meters to property boundary Soil Moisture - For uncontrolled operation – 0.7% - No emissions when wet 10% road silt ⁴
Screening	Controlled – 0.00084 Uncontrolled – 0.015 lb/ton	AP-42 11.19.2	
RAP Crushing	Controlled – 0.00059 Uncontrolled – 0.0024	AP-42 11.19.2	Factor for tertiary crushing

Results

The model predicted ambient air quality standards violations for each terrain height. For each model run I found the distance from the center of the operation to the nearest receptor with predicted compliance with the ambient standards. For conclusions based on particulate matter emissions, I subtracted 50 meters, which was the distance from the center to the outer edge of the volume sources representing fugitive emissions.

The distances to compliance were much greater for the model runs with fugitive emission sources uncontrolled. Distances were 1400 -1600 meters – about one mile.

[Modeling filenames: dwas00su, dwas30su]

⁴ Hot Mix Asphalt Plant Emission Assessment Report, EPA-454/R-00-019, December 2000, page 15.

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For controlled fugitive sources, the model predicts ambient standards violations only at smaller distances from the operation (see Table 2 below). With the same assumptions, the model also predicts violations of PSD increments at distances closer than 800 feet for flat terrain, and 1100 feet for terrain that is elevated 15 meters above the ground level of the stationary equipment.

[Modeling filenames: dwas00mc, dwas20mc]

Table 2 PM-10	
	Distance to Compliance with ambient standard – All asphalt plants modeled comply at rated capacity [distance in meters, measured between an offsite inhabited structure and a stationary source or material piles or borrow source that is being actively worked.]
Worst Case All sources – Fugitives uncontrolled, dry conditions 0 meters terrain height	1550 meters
Best Case Fugitive emissions negligible except for RAP crushing and load out emissions 0 meter terrain ht. 10 meter 15 meter 20 meter	26 49 64 84

SO₂

All sulfur emissions are assumed for this modeling to originate from sulfur in the fuel. I used the actual fuel combustion rate during the source test from which I obtained the stack parameters, and assumed the sulfur content of the fuel was 0.5% sulfur (the ASTM specification for number 2 diesel or fuel oil.) I assumed the simultaneous use of a stationary 500 hp diesel engine.

SO₂ standards were predicted to violate the three hour ambient standard close to the facility. The greatest distance for any plant modeled (flat terrain) to a location where compliance with the standard was always predicted was 100 meters, or 110 yards from the combustion sources. [Combustion sources were modeled as point sources emitted at a single location.] Modeling for most other plants predicted distances to compliance between 50 and 100 yards.

[Modeling filename: soadas00]

Multiple Industrial Facilities at One Location

I modeled the combined impacts of an asphalt plant and a crusher located 100 meters apart. I modeled all crusher sources using AP-42 emission factors for controlled sources, and an asphalt plant assuming that all fugitive emission sources except RAP crushing and load out emissions were controlled well enough to be negligible. Impacts did not exceed those when the same sources were modeled separately. Therefore no permit conditions are included in the proposed permit to address emissions from combined sources.

Conclusions and Recommendations

Because the modeling that was performed relies on estimates of what is a "typical" facility, the conditions in the permit based on this modeling of the results are not as rigorous as would be done for modeling which more accurately represents an individual facility. A General Permit is necessary because of the nature of asphalt production operations in Alaska. Asphalt Plants may have to frequently relocate to be near enough to road or runway paving jobs. By the time a contract is awarded and a location identified, there is typically not enough time to obtain a facility specific permit and still be able to satisfy the contract.

Based on results for SO₂ the permit prohibits locating fuel burning equipment at an asphalt plant within 110 yards of a residence.

The worst case modeling for uncontrolled particulate matter sources predicts violations of the 24 hour ambient PM-10 standard up to a mile away. The permit Condition to address this possibility relies on a fugitive dust control plan. It would not be possible to write conditions that adequately restrict emissions from all sources without being overly stringent in many cases.

Based on results for PSD increments, the permit allows up to two years of operation at a location that is closer than 800 feet to a residence or other occupied structure, or 1100 feet if the structure is on terrain higher than 10 meters above the ground level of the stationary equipment. Construction activities that are in one location for less than two years are considered temporary, and not subject to PSD increments.

Uncertainties

Each of the assumptions described contributes uncertainty to the results of this analysis. Since there is no one set of assumptions that will fit all operations, the intent was to describe a reasonable worst case-assumptions that would not unreasonably prevent the operation under this permit of asphalt plants that have been operating under the previous permit without problems or complaints.

Since the General Permits can be used anywhere in the state, there is no one set of meteorological data that would be appropriate for all operations. This is why I chose a "screening" data set that presents a wide variety of conditions to find the reasonable worst case one hour concentration. The predictions would be appropriate to the extent that these screening conditions fit any actual location for an extended number of hours, the wind direction is toward nearby structures such as businesses or residences, and operation occurs during these conditions for about 12 hours per day. These uncertainties must be considered when applying the modeling results to any applicability criteria or permit conditions for the General Permit.

Odor

The odor from asphalt plants is a common source of concern to nearby residents, especially those with special health problems. However, odor cannot be modeled, so it could not be included in this analysis.



THE STATE
of **ALASKA**

GOVERNOR SEAN PARNELL

Department of Environmental
Conservation

DIVISION OF AIR QUALITY
AIR PERMITS PROGRAM

410 Willoughby Avenue, Suite 303
PO Box 111800
Juneau, Alaska 99811-1800
Main: 907.465.5100
Toll free: 866.241.2805
Fax: 907.465.5129
<http://www.dec.state.ak.us>

CERTIFIED MAIL: 7013 2250 0002 0277 3757
Return Receipt Request

March 15, 2014

Parry Rekers, Vice President
Knik Construction
PO Box 3757
Seattle, WA 98124

Subject: **Permit Rescission and Reissuance:** Rescission of approval to operate under Minor General Permit 3 (MG3) AQ1217MG301 and Approval to Operate under Minor General Permit 3.1 (MG3.1) AQ1217MG301.1.

Dear Mr. Rekers,

The Alaska Department of Environmental Conservation (the Department) has improved the MG3 minor general permit for asphalt plants and the MG9 minor general permit for rock crushers to make the permits clearer, more user-friendly and relatable.

The new MG3.1 and MG9.1 permits become effective on April 1, 2014 and replace the current MG 3 and MG9 respectively. After April 1, 2014

1. All construction and operation authorized by the previous MG3/MG9 permit will now be authorized by the reissued MG3.1/MG9.1 permits.
2. All records collected under the previous permit must be kept for five years from date of collection.
3. For all required annual or periodic reporting, a final report must be submitted covering the period through the last day of operation of the MG3/MG9 permit.
4. All other compliance obligations imposed by the previous permit are now superseded by the new MG permits.

This letter is your approval to operate under Permit No. AQ1217MG301.1 for Knik Construction's Astec Mobile Asphalt Plant III beginning April 1, 2014. This letter also serves as notice that on April 1, 2014 Permit No. AQ1217MG301 is rescinded.

The responsibilities imposed by this permit may not be transferred to another owner or operator without the written consent of the Department. The transfer of ownership form is available at:

<http://www.dec.state.ak.us/air/ap/permit.htm>.

If you have any questions about this action or the new permits, please contact the Compliance Technician in Juneau at 907-465-5117, Anchorage at 907-269-6955 or Fairbanks at 907-451-2132.

Attachment A

An individual who has a private, substantive, legally protected interest under state law that may be adversely affected by the permit action, the owner and operator, or, if a public comment process is required or solicited, a person who participated in the public comment process may request an adjudicatory hearing in accordance with 18 AAC 15.195 - 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director at 410 Willoughby Avenue, Suite 303, PO Box 111800, Juneau, Alaska 99811-1800, within 15 days of the permit decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, PO Box 111800, Juneau, Alaska 99811-1800, within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived. More information on how to appeal a Department decision is available at <http://www.dec.state.ak.us/commish/ReviewGuidance.htm>.

Sincerely,


John F. Kuterbach, Manager
Air Permits Program

Attachment: Air Quality Minor General Permit No. AQ1217MG301.1

cc: Zeena Siddeek, ADEC/APP/Juneau
Jim Baumgartner, ADEC/APP, Juneau
P. Moses Coss, ADEC/APP, Fairbanks
Tammy Walker, ADEC/APP, Anchorage
Amy Lange, Inspector ADEC/APP
Claire Fishwick, ADEC Commissioner's Office

Patrick Dunn, ADEC/APP/Anchorage
Jim Plosay, ADEC/APP/Juneau
Jeremy Ptak, ADEC/APP, Anchorage
Laurie Kral, EPA 10

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL MINOR GENERAL PERMIT**

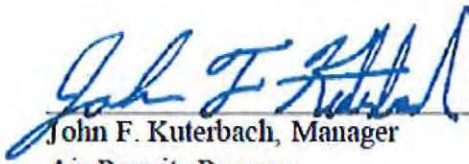
MINOR GENERAL PERMIT 3 FOR HOT-MIX ASPHALT PLANTS

PERMIT NO. AQ1217MG301.1

Final: April 1, 2014

This minor general permit is to be used for the construction, operation, or relocation of the asphalt plant described within, which has a rated capacity of at least five tons per hour of product, as described in 18 AAC 50.502(b)(1), and that is also classified as, or is part of, a minor stationary source, but is not a Title-V stationary source. This minor general permit satisfies the Permittee's obligation to obtain a permit under AS 46.14.120(g). Technical support for permit conditions and an explanation of revisions from the 2009 Minor General Permit 3 can be found in the Technical Analysis Report. This permit authorizes the Permittee to operate any emission unit identified in Table A Facility Information. This permit is not valid at another source required to have an operating permit. The operator must comply with the applicable requirements at the location where the emission units operate.

This minor general permit does not expire and is valid until the Department terminates, modifies, reopens, or revokes and reissues the permit. The letter of authorization is in effect until withdrawn, modified, revoked and reissued, or if the source no longer qualifies for this permit.



John F. Kuterbach, Manager
Air Permits Program

Application determined complete by:

Signature

Authorization Date

Printed Name

MG3 – Asphalt Plant Minor General Permit – Final Revision 1

Table A Facility Information

Permittee:	Knik Construction	Plant Name:	Knik Astec Mobile Asphalt Plant III
Emissions Unit	Make	Model/Description	Rating/ Capacity
Asphalt Plant:	ASTEC III	Model 400 Six Pack Hot Mix	350 tph
Diesel Engines:	Caterpillar	C32 / Serial # SYC00714	1122 kW
	Volvo	TAD 722 GE / Serial # 09-089-3000	196.8 kW
Control Equipment: ☒ Baghouse ☐ Wet Scrubber			

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Asphalt Plant Daily Production Log.....	Form 10

* Online submission of reports may require use of standardized Sample Forms.

MG3 OPERATING PERMIT CONDITIONS**Table B Emissions Limits**

Emission type	Limit
Opacity (Visible Emissions)	20% for asphalt plant and diesel generators with stack diameters 18 inches or greater 15% for diesel generators with stack diameters smaller than 18 inches
Particulate Matter	0.05 gr/dscf (for plants constructed on or before June 11, 1973) 0.04 gr/dscf (for plants constructed after June 11, 1973)
Sulfur Compounds	500 ppm

LOCATION RESTRICTIONS

1. Ambient Air Quality Protection. Give adequate consideration to siting issues when operating or changing locations of an asphalt plant (see *Note* in Technical Analysis Report).

1.1. Do not operate the Asphalt Plant or a diesel engine within 330 feet of the nearest occupied structure off the work site.

1.2. Do not operate for more than two construction seasons at the same site located:

- a. within 800 feet of the nearest residence or other occupied structure off worksite; or
- b. within 1,100 feet of the nearest residence or other occupied structure off worksite if the residence or structure is located on terrain that is more than 50 feet above any ground level of the Asphalt Plant aggregate drier or drum mixer.

1.3. Non-road engine location restrictions: A portable engine does not qualify as a non-road engine if it remains in place for 12 consecutive months or is located at a seasonal source and operates during the full annual operating period of the seasonal source.

1.4. *SO₂ Special Protection Area.* If operating in one of the Sulfur Dioxide Special Protection Areas described in 18 AAC 50.025(c) (Unalaska or St. Paul Island areas) you cannot operate diesel engines for electrical power generation unless burning only ULSD; the asphalt plant must use ULSD.

1.5. *Additional Restrictions for Bells Flats (Kodiak).* In any equipment operating at an asphalt plant in the Bells Flats area of Kodiak that burns liquid fuel, you must burn ULSD.

2. Relocation Reporting Requirements. Provide notice to the Department at least 10 days before installing or relocating the Asphalt Plant by using the Relocation Notification form (Form 1). If the location is within one mile of the nearest occupied off-site structure, you must attach a fugitive dust control plan as part of the relocation notice; see Condition 16.

MONITORING, RECORDKEEPING, AND REPORTING

3. General Recordkeeping. Keep copies of all monitoring, recordkeeping, reporting, and all other documents required in this permit for at least five years.

4. General Reporting.

4.1. **Submittals.** Unless otherwise directed by the Department, submit original reports, compliance certifications, or other required documents, by mail, to:

Alaska Department of Environmental Conservation
Air Permits Program
Attn: Compliance Technician
610 University Avenue
Fairbanks, AK 99709-3643

4.2. You may substitute mailed originals by submitting through Department approved electronic reporting methods, if electronic signing methods are available.

4.3. Certification: Certify any permit application, report, affirmations, or compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: *"Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete."* Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. See 18 AAC 50.990(93) for the definition of "Responsible Official."

4.4. Operating Reports. Submit operating reports as directed by either Condition 4.1 or 4.2, by the dates listed in Table C. The semi-annual Facility Operating Report (FOR) must include all information required by other conditions of this permit. If the facility does not operate during the winter season, you may submit a report early with your summer FOR.

Table C Operating Report Schedule

Report Type	Reporting Period	Due Date
FOR	April 1 – October 31	November 30
FOR	November 1 – March 31	April 30

4.5. Information Requests. Furnish to the Department, within a reasonable time, any information that the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, furnish to the Department copies of records required to be kept by the permit. The Department may require you to furnish copies of those records directly to the federal administrator.

5. Visible Emissions.

5.1. Asphalt Plant. Visible emissions limits are listed in Table B.

Monitor:	• Use EPA Method 9 to determine the opacity of emissions from the asphalt plant. All observations must be at least 18 consecutive minutes. • Identify fugitive emission points capable of producing fugitive emissions. Determine which point has the greatest continuous opacity and use this point for monitoring fugitive emissions. • Observe visible emissions with Method 9 at the baghouse stack or wet scrubber stack AND at the fugitive emission point identified above: ○ During regular operation loads (not on idle or reduced loads); ○ Within two days of startup at the beginning of the season or after relocation; ○ At least once every 14 operating days; and ○ Within two days of startup following a shutdown of more than 5 days. • If six-minute average opacity is observed as greater than 20%, report as excess emissions under Condition 9 and refer to Condition 15 for Good Air Pollution Control Practices; take corrective actions as appropriate.
Record:	• Keep all observation sheets and summaries for at least five years. • Calculate and record the greatest 6-consecutive-minute averages observed.
Report:	• Submit a list of emission points identified and which point was monitored. This list may be in the form of a simple list, picture with points circled and labeled, or a flow diagram with labeled emissions points. • Submit copies of all Method 9 observations in the FOR. • Submit copies of all Method 9 training certificates for all observers in the reporting period. • Report any failure to monitor as a permit deviation according to Condition 9. • Report any excess emissions (greater than 20% opacity) according to Condition 9.

5.2. *Diesel Engines*. Visible emissions limits are listed in Table B.

Monitor:	• Use the Smoke/No Smoke Plan or EPA Method 9 to observe emissions from the exhaust stack or port of each diesel engine. • <u>Smoke/No Smoke Plan</u>: Observe each stack for the presence or absence of smoke, excluding water vapor. ○ Initial Frequency: Conduct Smoke/No Smoke observations once every operating day. ○ After monitoring for 30 consecutive operating days, conduct Smoke/No Smoke observations at least once every 14 operating days. ○ If smoke is observed, follow the corrective actions in Condition 5.3. • <u>Method 9</u>: All observations must be at least 18 consecutive minutes. ○ First observation: within two days of the beginning of the operating season or after relocating the plant, or within three days after changing from the Smoke/No Smoke Plan. ○ After the first observation, conduct observations at least once every 14 operating days. ○ If opacity of greater than 20% is observed, refer to corrective actions in 5.3(e)-(f).
Record:	• Keep all observation sheets, logs, summaries, and Method 9 training certificates for at least five years. • Record date, time, production rate, observer name, and smoke observation in Smoke/No Smoke log.
Report:	• Report which method you used during the reporting period. • Include copies of all Method 9 observations and/or a complete Smoke/No Smoke log for the reporting period in the FOR. • Report if/when you change visible emissions observation methods. • Report any smoke observed under the Smoke/No Smoke Plan and a summary of any corrective actions taken. • Report any failure to monitor in accordance with Condition 9.

5.3. *Corrective Actions for Smoke Observed in Condition 5.2*. If smoke is observed while conducting Smoke/No Smoke observations:

- a. Do an initial Method 9 observation. If opacity is greater than 20%, see corrective actions in Condition 5.3.e or 5.3.f. Continue using Method 9 to monitor visible emissions, following specifications in Condition 5.2. In order to return to Smoke/No Smoke Plan, follow Conditions 5.3.b through 5.3.d.
- b. Initiate actions to eliminate smoke from the engine within 24 hours of the observations;
- c. Keep a written record of the starting date, completion date, and a description of the actions taken to reduce smoke; and
- d. If seven consecutive observations are made of 0% opacity, you may return to the Smoke/No Smoke Plan beginning with initial frequency (Condition 5.2).
- e. If Method 9 observations result in 6-minute average opacity greater than 20%, either:
 - i. Conduct a Particulate Matter source test within 60 days, following the requirements of Condition 19; or
 - ii. Make repairs so that emissions no longer exceed 20% opacity averaged over 6 minutes.
- f. For diesel engines with stack diameter of less than 18 inches, conduct a Particulate Matter source test if Method 9 observations result in 6-minute average opacity greater than 15%.

6. Particulate Matter Emissions from Asphalt Plant. Do not operate the asphalt plant at a production level greater than the maximum throughput measured during the most recent PM source test that showed compliance, except as provided under Condition 19.2. Particulate matter emissions limits are listed in **Table B**.

6.1. Required Testing and Frequency of Testing. Conduct source tests in accordance with Condition 19 and the following:

- a. If a PM source test has not been approved by the Department for your facility within the last five years, conduct a PM source test within the first 30 operating days after receiving your letter of authorization.
- b. If the source has conducted a PM source test approved by the Department in the last five years, conduct a source test no later than five years after that test or the first operation thereafter.
- c. Conduct a PM source test every five years.
 - i. If results of any PM source test exceed 0.045 gr/dscf for plants constructed on or before June 11, 1973 or 0.036 gr/dscf for plants constructed after June 11, 1973, you must conduct another source test within one year of the date of the most recent PM source test.
 - ii. If the plant does not operate in a calendar year, then the calendar year that the plant did not operate does not count toward the time required to conduct another PM source test in Condition 6.1.c.i.
 - iii. If the plant does not operate in a calendar year, the next source test due date is delayed by one calendar year.

Monitor:	Conduct at least one 18-consecutive-minute set of EPA Method 9 readings during each one hour run of the PM source test.
Record:	- Record the following during each PM source test: - Average asphalt production rate in tons per hour; - Method 9 readings; - Baghouse exit temperature and pressure drop (if applicable); - Wet scrubber pressure drop and water flow rate (if applicable).
Report:	Include records of all visible emissions monitoring, production, and pressure drop or flow rate with the source test report as required under Condition 19.8.

6.2. Asphalt Plant.

Record:	- Keep a daily log of the following: - Daily total asphalt production; - Peak hourly rate of production per day; - Startup and shutdown times with the date for each operating day; - Total hours operated per day; and - Total number of operating hours operated since the last source test. - If you have a baghouse, include the following in your daily log: - Pressure drop across baghouse at beginning and end of each production day; and - Outlet temperature of baghouse at the beginning and end of each production day. - If you have a wet scrubber, include the following in your daily log: - Pressure drop across the scrubber at beginning and end of each production day; - Inlet and outlet temperatures of the scrubber at beginning and end of each production day; and - Daily water flow rate of the scrubber.
Report:	- Include the daily production log for the reporting period in each FOR. - Include a summary of baghouse or scrubber inspections including the information listed in Conditions 15.1.f and 15.2.e.

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7. Sulfur Compound Emissions. Applies to fuel for all engines, including non-road engines. Emissions limits are listed in Table B.

Record:	• Keep fuel delivery receipts that specify fuel grade and amount. • If diesel delivery receipts do not show that the diesel is Ultra Low Sulfur Diesel (ULSD) or Low Sulfur Diesel (LSD) test delivered fuel for sulfur content, or get a certification statement or analysis from the supplier that shows fuel sulfur percent by weight. • For liquid fuel from a North Slope topping plant, obtain results of a monthly fuel analysis from the topping plant.
Report:	• If only ULSD or LSD was used for the entire reporting period, submit a statement from the fuel supplier stating only ULSD or LSD was supplied with your semi-annual operating report. • If anything other than ULSD or LSD was used (e.g. used oil fuels), submit a list of fuel deliveries with fuel grades, a certificate from the supplier verifying the sulfur content, or a fuel analysis showing sulfur content. • If natural gas was used during the reporting period, submit a statement certified by the Responsible Official for this time period. • If highline power was used during the reporting period, submit a statement certified by the Responsible Official for this time period. • Include a copy of the fuel analysis from a North Slope topping plant, if applicable. • Report the fuel type, including its sulfur content, used for the asphalt burner.

8. Pollution Control Equipment Breakdowns.

Record:	• Keep records of pollution control equipment breakdowns and corrective actions.
Report:	• Notify the Department within two days of a pollution control equipment breakdown as a Permit Deviation in accordance with Condition 9. • Include a summary of each breakdown in the FOR.

9. Excess Emissions and Permit Deviations.

Record:	• Keep records of excess emissions, permit deviations, and corrective actions.
Report:	• Report excess emissions that present a potential threat to human health or safety or that the owner, operator, or Permittee believes to be unavoidable as soon as possible. • Report unavoidable emergencies, malfunctions, or non-routine repairs that cause excess emissions within two working days after the event started or was discovered. • Report all other excess emissions or permit deviations, including failure to monitor, within 30 days of the end of the month in which the incident occurs. • Report using the online form at http://www.dec.state.ak.us/air/ap/site.htm or the Excess Emissions and Permit Deviation Form listed as Form 2. • Include a summary of excess emissions and permit deviations in each FOR

10. Air Pollution Prohibited.

Record:	- Record the date, time, and nature of all emissions complaints received. - Record the name of the person(s) that complained, if known. - Record a summary of any investigations including reasons you do or do not believe the emissions have caused a violation. - Record any corrective actions taken or planned for complaints
Report:	- Include in FOR for each reporting period: - Number of complaints received. - Number of times you or the Department found corrective action necessary. - Number of times action was taken on a complaint within 24 hours. - Status of corrective actions found necessary that were not taken within 24 hours.

11. Non-road Engines. Defined in 18 AAC 50.990(63) and 40 C.F.R. 89.2.

Record:	Keep a log of the following items for each non-road engine for at least five years: - Date and location of the engine each time it is relocated. - Make, model, serial number, and rated capacity of the engine.
Report:	Include the non-road engine location log in each FOR.

GENERAL CONDITIONS

12. Change of Ownership. If the ownership of the Asphalt Plant is changed, both the new and previous owners must complete a transfer of ownership form and receive authorization to operate from the Department before the plant is operated by the new owner. The Transfer of Ownership form is available from ADEC Air Permits Program staff or on the Department's website. The website address at the time of issuance of this permit is: <http://dec.alaska.gov/air/ap/operatingperapp.html>.

13. Administrative Fees. You are required pay to the Department all assessed permit administrations fees. Administration fee rates are set out in 18 AAC 50.400-405.

14. Assessable Emissions & Emission Fees. You are required to pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities great than 10 tons per year. No later than March 31 of each year, you may submit an estimate of the stationary source's assessable emissions to the Department, using the Emission Reporting and Emission Fee Estimate form. Otherwise, emission fees for the next fiscal year will be based on the potential to emit. See Appendix A for calculation of assessable emissions and Form 3 for the Emission Fee Estimate report form.

15. Good Air Pollution Control Practice. For all emission units authorized by this permit, you should perform regular maintenance considering the manufacturer's or the operator's maintenance procedures, keep records of any maintenance that would have a significant effect on emissions, and keep a copy of either the manufacturer's or the operator's maintenance procedures on site.

- 15.1. If you operate an asphalt plant using a baghouse:
- Operate the baghouse per the manufacturer's recommended operating procedures;
 - At the end of each run, operate the baghouse fans until the baghouse has been purged of exhaust gases per the manufacturer's recommendations;
 - Ensure the pressure drop across the baghouse and outlet temperature remain within the manufacturer's recommendations or specifications;
 - Perform inspections of equipment and complete necessary maintenance prior to startup in a new location, after shutdown of more than five days, and every 30 days of operation at the same location;
 - Replace worn or damaged bags within 72 hours of discovery;

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f. Keep a record of the baghouse inspections showing the following:

- i. Date of inspection and name of inspector;
- ii. Number of worn or damaged bags detected;
- iii. Number of bags replaced and date replaced;
- iv. Number of worn or damaged seals/gaskets detected; and
- v. Number of seal/gaskets replaced and the date replaced.

15.2. If you operate an asphalt plant using a wet scrubber:

- a. Inspect every component of the scrubber before beginning operation each season and repair or replace any component that shows signs of deterioration;
- b. Maintain pressure drop across the scrubber, water flow rate, inlet and outlet temperatures within limits recommended by the manufacturer;
- c. Keep a record of scrubber inspections showing the following:
 - i. Date of inspection and name of inspector;
 - ii. Number of components detected that are worn or damaged;
 - iii. Number of components replaced and date replaced.

16. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent the release of airborne PM and fugitive dust from aggregate piles, conveyors and elevators, loading locations, the rotary drum, screens, baghouse ash discharge, vehicle traffic within the stationary source boundaries and other sources of fugitive dust into the ambient air.

16.1. Follow the Fugitive Dust Control Plan (Appendix B) that you included with your minor general permit application or a revised version if submitted to or requested by the Department. A revised or site-specific Fugitive Dust Control Plan must be submitted with each relocation notice if the new location is within one mile of the nearest occupied structure (see Condition 2).

16.2. Reasonable precautions to prevent fugitive dust may include the following:

- a. installation and use of hoods;
- b. fans and dust collectors to enclose and vent dusty materials;
- c. other covers and enclosures;
- d. cleanup of loose material on work surfaces;
- e. minimizing drop distances on the conveyor systems and lowering loader buckets to be in contact with the surface of the soil or ground before dumping;
- f. application of water or dust suppressants;
- g. stopping activity in windy conditions.; and
- h. measures to prevent carryout or tracking of dust or mud by trucks.

17. Equipment Changes. Submit changes in asphalt drum or batch mixer, dryer, control equipment, tertiary crushing, or diesel engine equipment, if capacity differs from original permitted equipment, to the Department within 30 days.

18. Terms to Make the Permit Enforceable.

18.1. Compliance with permit terms and conditions is considered to be in compliance with those requirements that are

- a. Included and specifically identified in the permit; or
- b. Determined in writing in the permit to be inapplicable.

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18.2. Comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50.345, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

- a. An enforcement action; or
- b. Permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.

18.3. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

18.4. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.

18.5. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or notification of planned changes or anticipated noncompliance does not stay any permit condition.

18.6. The permit does not convey any property rights of any sort, nor any exclusive privilege.

18.7. Allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to

- a. Enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
- b. Have access to and copy any records required by the permit;
- c. Inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

18.8. Sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

SOURCE TESTING REQUIREMENTS

19. Source Testing Requirements.

19.1. **General Requirements.** In addition to any source testing explicitly required by the permit, conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

19.2. **Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, conduct source testing

- a. At a point or points that characterize the actual discharge into the ambient air; and
- b. At the maximum rated burning or operating capacity of the emission unit or another rate determined by the Department to characterize the actual discharge into the ambient air.

19.3. **Reference Test Methods.** Refer to the Technical Analysis Report for approved reference test methods and details.

19.4. **Excess Air Requirements.** Standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emission unit type, corrected to standard conditions (dry gas at 68°F and absolute pressure of 760 mm of mercury).

19.5. **Test Exemption.** You are not required to comply with Conditions 19.6-19.8 when the exhaust is observed for visible emissions by Method 9 Plan or Smoke/No Smoke Plan (Conditions 5.2 and 5.3, for diesel engines only). This does not apply to fugitive emission sources.

19.6. **Test Plans.** Before conducting any source tests, submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the emission unit will operate during the test and how you will document that operation.

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Submit a complete plan within 60 days after receiving a request under Condition 5.3.e.i or 19.1 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

You may request an extension to a source test deadline established by the Department. You may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

19.7. Test Notification. At least 10 days before conducting a source test, give the Department written notice of the date and the time the source test will begin.

19.8. Test Reports. Within 60 days after completing a source test, submit a copy of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. Certify the results in the manner set out in Condition 4.3. If requested in writing by the Department, provide preliminary results in a shorter period of time specified by the Department.

Appendix A: Assessable Emissions Calculation (MG3)

Assessable Emissions differ from a source's Potential to Emit (PTE). PTE is used in calculating a source's permit applicability and classification, i.e. minor or major source. While PTE does not include fugitive particulate emissions, assessable emissions do. A source can be classified as a minor source, yet have emission fees based on a criteria pollutant in excess of 100 tons. Likewise, a major source can have a PTE in excess of 100tpy of a criteria pollutant, yet pay emission fees for that pollutant at a rate far lower. Assessable Emissions use the same calculations as PTE, only operating hours are not based on a maximum potential of 3650 hours (assumed) but instead are based on actual operation for a calendar year. For examples and steps on completing this form to assist in submission of Assessable Emissions, please see the information below.

Equation:

$E = (EF \times (\text{asphalt produced or hours of operation in a given year} \times RC)) / \text{lbs per ton}$

Abbreviations:	
tpy	tons per year
tph	tons per hour
EF	emission factor (AP-42)
RC	rated capacity
lbs	pounds
E	emissions
ULSD	Ultra low sulfur diesel

Report using Form 3 Emission Estimates MG3 total emissions for each pollutant in a calendar year. Each emission unit listed in Table A will need a separate calculation using equations provided, where rated capacity is the horsepower for diesel engines.

Emission factors are pollutant/emission unit specific. Fuel assumes use of Ultra Low Sulfur Diesel (ULSD); please, contact the Department for assistance if you used alternative fuels. Please, see the worksheet on the next page for emission factors and further assistance.

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Asphalt Plants	CO	NO _x	SO ₂	VOC	PM-10 ¹	PM-10 ²
Batch Mix Asphalt Plant	0.4	0.12	0.088	0.0082	0.027	0.14
Drum Mix Asphalt Plant	0.13	0.055	0.011	0.032	0.023	0.04

Asphalt plant emission factors are given in lbs of pollutant per ton of asphalt produced.

¹: PM-10 EF for use with a baghouse

²: PM-10 EF for use with a wet-scrubber

Diesel Engines	CO	NO _x	SO ₂ ³	VOC	PM-10	
Greater than 600hp	0.0055	0.024	1.2×10^{-5}	0.000705	0.0007	
Less than 600hp	0.00668	0.031	1.2×10^{-5}	.0000247	0.0022	

Diesel engine emission factors are given in lbs of pollutant per horsepower-hour.

³: SO₂ EF for use with ULSD

Asphalt Plant Worksheet: $E = (EF \times \text{tons of asphalt produced}) / 2000$

CO	NO _x	SO ₂	VOC	PM-10

Diesel Engine Worksheet: $E = (EF \times \text{hours of operation} \times RC) / 2000$

CO	NO _x	SO ₂	VOC	PM-10

Total Emissions: add all rows above for listed emission units.

CO	NO _x	SO ₂	VOC	PM-10

Assessable Emissions: for any pollutant total greater than 10 (tons), round to nearest whole number, for any pollutant less than 10 tons, round down to 0. Enter these values on Form 3 and submit as required under Condition 14.

CO	NO _x	SO ₂	VOC	PM-10

Appendix B: Fugitive Dust Control Plan Guidelines

The Fugitive Dust Control Plan (Plan) has the purpose to control the fugitive dust emissions from asphalt plant and crusher related activities. The Plan is required for all Minor General Permit holders in order to ensure that reasonable precautions to prevent fugitive dust are taken (MG3 Condition 16, MG9 Condition 15).

A sample plan is on the following page in Appendix B. This plan may be filled out and used for any Minor General Permitted source. You are not required to use the sample form, but similar information contained in the sample form should be included in your plan. If you already have a plan developed or you wish to develop your own plan, the following items should be addressed:

- Points capable of producing fugitive emissions;
- Control of fugitive dust sources, such as:
 - Water application;
 - Dust suppressants;
 - Wind barriers;
 - Hoods, covers, or enclosures;
 - Cleanup of loose materials;
 - Minimizing drop distances and lowering loader buckets before dumping;
 - Fans;
 - Dust collectors;
- Methods to prevent trackout or carryout, such as:
 - Grizzlies or grates;
 - Gravel pads;
 - Paved surfaces;
 - Wheel washers;
 - Truck washing.

Appendix B: Fugitive Dust Control Plan

Please note, it is the responsibility of the Permittee to ensure that no part of their fugitive dust control plan violates any local, state, or federal law.

Section 1 - General Information

1-A Facility Information	
Company Name:	
Plant Name:	
Permit No.:	
1-B Contacts	
Report the names, address, and phone numbers of persons and owners or operators responsible for the implementation of the Dust Control Plan and responsible for the dust generating operation and dust control applications.	
<i>Responsible Official</i> (authorized under 18 AAC 50.990(93))	
Name:	
Phone Number:	
<i>On-site Manager/Operator or Point of Contact</i> (if different from above)	
Name:	
Phone Number:	
1-C Recordkeeping and Reporting	
Keep copy of Fugitive Dust Control Plan on-site at all times.	
Keep records of deviations from dust plan, reasons for the deviation, and corrective actions taken for at least five years.	

Section 2 - Fugitive Emission Points

2-A Fugitive Emission Points
Identify the relative locations of actual and potential sources of fugitive dust emissions.
☐ Bulk material handling and storage areas. ☐ Paved and unpaved access roads, haul roads, traffic areas, and equipment storage yards. ☐ Exit points where carryout and trackout onto paved public roads may occur. ☐ Water supply locations if water application will be used for controlling visible dust emissions. ☐ Rock crushing operations. ☐ Screening ☐ Conveyors ☐ Fines Screening ☐ Asphalt plant operations ☐ Screening ☐ Conveyors ☐ Baghouse Catch ☐ Drum Mixer Discharge ☐ Hot mix storage silo receiving point
2-B Comments - Fugitive Emission Points

Section 3 – Control of Fugitive Dust Sources

3-A Control of Fugitive Dust Sources

Check any boxes that apply. Checked boxes represent methods that will be used *as needed*.

Active Operations

- ☐ Water will be applied to dry areas during leveling, grading, trenching, and earthmoving activities.
- ☐ Wind barriers will be constructed and maintained, and water or dust suppressants will be applied to the disturbed surface areas.

Inactive Operations, including after work hours, weekends, and holidays

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☐ Water or dust suppressants will be applied on disturbed surface areas to form a visible crust, and vehicle access will be restricted to maintain the visible crust.

Sites Inactive for Seven or More Days

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☐ Vehicle access will be restricted and water/dust suppressants will be applied at all un-vegetated areas.
- ☐ Vegetation will be established on all previously disturbed areas.
- ☐ Gravel will be applied and maintained at all previously disturbed areas.
- ☐ Previously disturbed areas will be paved.

Unpaved Access and Haul Roads, Traffic and Equipment Storage Areas

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☐ Apply water or dust suppressants to unpaved haul and access roads.
- ☐ Post speed limit signs of not more than 15 mph at each entrance, and again every 500 ft.
- ☐ Water or dust suppressants will be applied to vehicle traffic and equipment storage areas.

Wind Events

- ☐ Water application equipment will apply water to control fugitive dust during wind events, unless unsafe to do so. Outdoor construction activities that disturb the soil will cease whenever visible dust emissions cannot be effectively controlled.

3-B Bulk Materials

Check any boxes that apply. Checked boxes represent methods that will be used *as needed*.

Outdoor Handling of Bulk Materials

- ☐ Water or dust suppressants will be applied when handling bulk materials.
- ☐ Wind barriers with less than 50 percent porosity will be installed and maintained, and water or dust suppressants will be applied.

Outdoor Storage of Bulk Materials

- ☐ Water or dust suppressants will be applied to storage piles.
- ☐ Storage piles will be covered with tarps, plastic, or other suitable material and anchored in such a manner that prevents the cover from being removed by wind actions.
- ☐ Wind barriers with less than 50 percent porosity will be installed and maintained around the storage piles and water or dust suppressants will be applied.
- ☐ A three-sided structure (< 50% porosity) will be used that is at least as high as the storage piles.

On-Site Transporting of Bulk Materials

- ☐ Vehicle speed will be limited on the work site.
- ☐ All haul trucks will be loaded such that the freeboard is not less than six inches when transported across any paved public access road.
- ☐ A sufficient amount of water will be applied to the top of the load to limit visible dust emissions.
- ☐ Haul trucks will be covered with a tarp or other suitable cover.

Section 3 – Control of Fugitive Dust Sources (cont.)

3-B Bulk Materials - continued

Off-Site Transporting of Bulk Materials

- ☐ No bulk materials will be transported to or from the project site.
- ☐ Materials for transport will be wetted as needed.
- ☐ Covers will be used, as needed. Some or all of the following will be used as necessary:
- The interior of emptied truck cargo compartments will be cleaned or covered before leaving the site.
 - Spillage or loss of bulk materials from holes or other openings in the cargo compartment's floor, sides, and tailgates will be prevented.
 - Haul trucks will be covered with a tarp or other suitable cover or will be loaded such that the freeboard is not less than six inches when transported on any paved public access road to or from the project site.

Outdoor Transport using a Chute or Conveyor

- ☐ No chutes or conveyors will be used.
- ☐ Chute or conveyor will be fully enclosed.
- ☐ Water spray equipment will be used to sufficiently wet the materials.
- ☐ Transported materials will be washed or screened to remove fines (PM-10 or smaller).

3-C Comments – Control of Fugitive Dust Sources

Section 4 – Dust Control Methods

4-A Water Application

Complete this section if water application will be used as a control method for limiting visible dust emissions and stabilizing surface areas. Check and answer everything that applies. Checked boxes represent methods that will be used *as needed*.

Water Application Equipment:

- ☐ Sprinklers:
Describe the activities that will utilize sprinklers: _____
- ☐ Water Truck, ☐ Water Trailer, ☐ Water Wagon, ☐ Other: _____
Describe the activities that will utilize this equipment: _____

Water application equipment is available to operate after normal working hours, on weekends, and holiday.
After-hours contact: _____ Phone number: _____

Water Supply (as needed):

- ☐ Fire hydrants. Obtain necessary approval to use specific hydrants.
- ☐ Storage tanks Number and capacity: _____
- ☐ Wells Number and flow rate: _____
- ☐ Canal, River, Pond, Lake, etc. Describe: _____
- Approval granted by the owner or public agency to use their water source for this project.
Owner or Agency: _____
Contact: _____ Phone number: _____
- ☐ Other: _____

Section 4 – Dust Control Methods (cont.)

4-B Dust Suppressant Products

Suppressant materials include, but are not limited to: hygroscopic suppressants (road salts), adhesives, petroleum emulsions, polymer emulsions, and bituminous material (road oils).

Copy this section if more than one dust suppressant product will be used.

☐ Not applicable. Only water application will be the control method used.

☐ Applicable.

Product Name: _____

Application Equipment: _____

Number of Application Equipment Available: _____

Attach each of the following information that fully describes this product. Use the checklist below to make sure all information is submitted with this plan.

☐ Product Specifications (MSDS, Product Safety Data Sheet, etc.).

☐ Manufacturer's Usage Instructions (method, frequency, and intensity of application).

☐ Environmental impacts and approvals or certifications related to the appropriate and safe use for ground application.

4-C Other Dust Control Methods

Check the other types of dust control methods that will be implemented at the construction site.

☐ Physical barriers for restricting unauthorized vehicle access:

☐ Fences ☐ Gates ☐ Posts ☐ Berms ☐ Concrete Barriers

☐ Other: _____

☐ Wind barriers – Describe: _____

☐ Posted speed limit signs meet state and Federal Department of Transportation standards.

☐ Posted at 15 miles per hour, ☐ Posted at _____ miles per hour (less than 15 mph)

☐ Re-establish vegetation for temporarily stabilizing previously disturbed surfaces.

Explain: _____

☐ Apply and maintain gravel:

☐ On haul roads ☐ On access roads ☐ At equipment storage yards

☐ At vehicle traffic areas ☐ For temporarily stabilizing previously disturbed areas.

Explain: _____

☐ Apply pavement – Explain: _____

☐ Other: _____

4-D Comments – Dust Control Methods

Section 5 – Carryout and Trackout

5-A Treatments for Preventing Trackout
Trackout is any material that adheres to vehicle tires and is deposited onto a paved public road or the paved shoulder of a paved public road. Check one or a combination that will apply.
☐ <i>Grizzly</i> : Rails, pipes, or grates used to dislodge debris off of vehicles before exiting the site. Extends from the intersection with the paved public road surface for the full width of the unpaved exit surface for the distance of at least 25 feet. Describe: _____
☐ <i>Gravel Pad</i> : A layer of washed gravel at least one inch or larger in diameter, three inches deep, and extends from the intersection with the public paved road surface for the full width of the unpaved exit surface for a distance of at least 50 feet. Describe: _____
☐ <i>Paved Surface</i> : Extends from the intersection with the paved public road surface for the full width of the unpaved access road for at least 100 feet to allow mud and dirt to drop off of vehicles before exiting the site. Describe: _____
Mud and dirt deposits accumulating on paved interior roads will be removed with sufficient frequency, but not less frequently than once per workday.
Clean-up Frequency: _____
☐ <i>Wheel Washer</i> : Uses water to dislodge debris from tires and vehicle undercarriage. Describe: _____
☐ <i>Other</i> : _____
5-B Treatments for Preventing Carryout
Carryout occurs when materials from emptied or loaded haul trucks, vehicles, or trailers falls onto a paved public road or paved shoulder of a paved public road. Check all methods that apply.
☐ No haul trucks will be routinely entering or leaving the project site.
<i>Emptied Haul Trucks</i> : ☐ Interior cargo compartments will be cleaned before leaving the project site. ☐ Cargo compartment will be covered with a tarp or suitable cover before leaving the project site.
<i>Loaded Haul Trucks</i> : Spillage or loss of materials from holes or other opening in the cargo compartment will be prevented when material is transported onto any paved public access road. ☐ Haul trucks will be loaded such that the freeboard is not less than six inches with water applied to the top of the load before leaving the project site. ☐ Cargo compartment and load will be covered with a tarp or suitable cover before leaving the project site. ☐ Other: _____
5-C Cleaning up Carryout and Trackout
Clean up Method: Check the method(s) below that will be used for cleaning carryout and trackout.
☐ Manually sweeping and picking up. ☐ Mechanical sweeping with a rotary brush or broom accompanied or preceded by water. Describe the types of equipment that will be used: _____
☐ Operating a PM10-efficient street sweeper. Make and Model: _____
☐ Flushing with water – allowed if: • No curbs or gutters are present. • Using water will not result as a source of trackout and carryout. • Using water will not result in adverse impacts on storm water drainage systems. • Using water will not violate any National Pollutant Discharge Elimination System permit program or Alaska Department of Environmental Conservation, Division of Water Permit.
5-D Comments - Carryout and Trackout

Form 1: Relocation Notification (Application Addendum)

Submit to the Department at least *10 days before* moving the plant to any new location.

Facility Information:

Permittee Name: _____ Permit No.: AQ _____
 Plant Name: _____
 Contact Person: _____ Telephone: _____
 Make & Model of the Equipment/Stationary Source to be relocated: _____

Attach a complete list of equipment to be operated at the new location.

Estimated Operating Dates:

Estimated start-up date: _____
 Estimated shut-down date: _____

Location Information:

New Plant Location (street address, milepost number, etc. – Include site maps):

Latitude _____ Longitude _____ OR
 UTM Coordinates: Zone _____ Northing _____ Easting _____ Datum _____

Distance from Plant boundary to nearest inhabited structure: _____ ft

Nearest inhabited structure(s) are on (check one): _____ flat terrain _____ elevated terrain

If this distance is within 2,000 ft (for rock crushers) or 1 mile (for asphalt plants), include with this addendum a dust control plan that is specific to this location and is adequate to prevent violations of Air Pollution Prohibited (MG3 Condition 10, MG9 Condition 9).

If the plant is to be located in a city or borough with zoning restrictions, please attach the location or siting approval documents from that city or borough to this form (optional).

Comments: _____

Certification:

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

Send completed report to: Compliance Technician, ADEC Air Permits Program, 610 University Avenue, Fairbanks, AK 99709-3643.

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Form 2 EEPD - separate, to be included in .pdf. This page is to be replaced.

Form 3: Emission Reporting and Emission Fee Estimate

Submit the following information no later than March 31 of each year to:

ADEC Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643

Or

FAX to (907) 451-2187

Or

Email to: DEC.AQ.Airreports@alaska.gov

(If emailed, the report must be signed and certified in accordance with 18 AAC 50.345(j).)

Or

Submit emissions online at the following website: <https://myalaska.state.ak.us/deca/air/airtoolsweb/>

Stationary Source Name: _____

Permit Number: _____ Date: _____

Emission Fee Estimate for: _____ (State fiscal year)

Table 1. Total Emissions & Assessable Emission Fee Estimate

Pollutant	Asphalt Plant	Diesel Generator	Assessable Emissions
NO _x			
CO			
SO ₂			
PM-10			
VOC			

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Signature

Printed Name

Title

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Form 4: Minor General Permit (MG3) – Facility Operating Report Form

Facility Information

Stationary Source: _____ Permit No.: AQ _____

Facility Name: _____

Reporting Period: ☐ 11/1/____ to 3/31/____ ☐ 4/1/____ to 10/31/____

Did this plant operate during this reporting period?

☐ Yes (please complete form) ☐ No (complete the "Certification" section only)

Certification (Condition 4.3)

☐ Certification Statement Signed by a Responsible Official (at end of form)

Visible Emissions - Asphalt Plant (Condition 5.1)

Emissions Points observed: _____ (First point – baghouse or scrubber)
 _____ (Second point – please describe)

Method 9 Observations Summary:

Number of Observations	
Highest 6-consecutive-minute Average	
Number of Observations >20%	

☐ All Method 9 Observation forms attached

☐ Excess Emissions/Permit Deviation Forms attached for failure to monitor or for observations of opacity >20%.

Visible Emissions – Diesel Engines (Condition 5.2)

Method used: ☐ Smoke/No Smoke Plan ☐ Method 9 ☐ Both

Smoke/No Smoke Plan Summary:

Number of Observations	
Number of Days Smoke Observed	

☐ Complete Smoke/No Smoke Log attached

☐ Summary of Smoke/No Smoke corrective actions attached

Method 9 Observations Summary:

Number of Observations	
Highest 6-consecutive-minute Average	
Number of Observations >20%	

☐ All Method 9 Observation forms attached

☐ Excess Emissions/Permit Deviation Forms attached for failure to monitor or for observations of opacity >20%.

Particulate Matter (PM) Emissions (Condition 6)

Date of most recent PM source test: _____

☐ Daily asphalt production log attached.Control Equipment Used: ☐ Baghouse ☐ Scrubber☐ Summary of baghouse inspections attached, if applicable (Conditions 6.2 & 15.1(f)).☐ Summary of scrubber inspections attached, if applicable (Conditions 6.2 & 15.2(c)).**Sulfur Compound Emissions (Condition 7)**

Was ULSD the ONLY fuel used for the entire reporting period?

☐ Yes, statement certified by Responsible Official attached.☐ No, list of diesel deliveries and fuel analysis or certification from supplier showing fuel sulfur content attached.☐ Highline power used. Statement certified by Responsible Official attached.☐ Natural gas used. Statement certified by Responsible Official attached.☐ North Slope topping plant fuel used. If checked, attach a copy of fuel analysis.

Asphalt Plant fuel type used: _____

Pollution Control Equipment Breakdowns (Condition 8)Where there any control equipment breakdowns during this reporting period? ☐ Yes ☐ NoIf Yes, ☐ Permit Deviation forms attached ☐ Summary of breakdowns attached**Excess Emissions and Permit Deviations (EE/PD) (Condition 9)**Where there any EE/PDs during this reporting period? ☐ Yes ☐ NoIf Yes, ☐ EE/PD forms attached**Complaint Summary (Condition 10)**Did you receive any public complaints about emissions during this reporting period? ☐ Yes ☐ NoIf Yes, ☐ Complaint summary attached.**Nonroad Engines (Condition 11)**

Are there engines classified as nonroad engines at this facility?

☐ Yes, Nonroad Engine Location Log attached.☐ No.**Equipment Changes (Condition 17)**Was new equipment added or existing equipment removed? ☐ Yes, attach Form 10. ☐ No.**Source Testing (Condition 19)**PM source test conducted during this reporting period? ☐ Yes, on date: _____ ☐ No.**Certification (Condition 4.3)***Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.*

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

Send completed report to: Compliance Technician, ADEC Air Permits Program, 610 University Avenue, Fairbanks, AK 99709-3643.

MG3 – Asphalt Plant Minor General Permit – Final Revision 1

Form 5 Method 9 - separate, to be included in .pdf. This page is to be replaced.

[illegible]

Form 7: Complaint Summary Form

Reporting Period: ☐ 11/1/___ to 3/31/___ ☐ 4/1/___ to 10/31/___

Number of Complaints Received:	
Number of Times Corrective Actions were Found Necessary:	
Number of Times Corrective Action was Taken Within 24 hours:	

Status of corrective actions deemed necessary that were not taken within 24 hours:

Comments:

Form 8: Nonroad Engine Location Log

Company Name: _____

Air Quality Permit Number: _____ Company Equipment ID No.: _____

Engine Manufacturer: _____ Engine Model: _____

Engine Serial No.: _____ Engine Date of Manufacture: _____

Location	Initial Date at Location	Date Moved off Location

Form 9: Equipment Changes Form

Company Name: _____ Permit Number: _____

List in the table below the equipment that was installed or removed during the reporting period. Rated capacity must be included. Only list diesel engines, pollution control equipment, and asphalt drum or dryer. Screens, conveyors, and aggregate bins do not need to be listed.

Equipment ID/Name	Equipment Description	Rated Capacity	Date Installed	Date Removed	Comments

Reporting Period: 11/1/ to 3/31/ 4/1/ to 10/31/

Attachment A

Form 10: Asphalt Plant Daily Production Log – For Plants Using Wet Scrubbers

Reporting Period: ☐ 11/1/ to 3/31/ ☐ 4/1/ to 10/31/[illegible]



THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

DIVISION OF AIR QUALITY
AIR PERMITS PROGRAM

410 Willoughby Avenue, Suite 303
PO Box 111800
Juneau, Alaska 99811-1800
Main: 907.465.5100
Toll free: 866.241.2805
Fax: 907.465.5129
<http://www.dec.state.ak.us>

CERTIFIED MAIL: 7013 2250 0002 0277 3757
Return Receipt Request

March 15, 2014

Parry Rekers, Vice President
Knik Construction
PO Box 3757
Seattle, WA 98124

Subject: **Permit Rescission and Reissuance:** Rescission of approval to operate under Minor General Permit 3 (MG3) AQ1322MG301 and Approval to Operate under Minor General Permit 3.1 (MG3.1) AQ1322MG301.1.

Dear Mr. Rekers,

The Alaska Department of Environmental Conservation (the Department) has improved the MG3 minor general permit for asphalt plants and the MG9 minor general permit for rock crushers to make the permits clearer, more user-friendly and relatable.

The new MG3.1 and MG9.1 permits become effective on April 1, 2014 and replace the current MG 3 and MG9 respectively. After April 1, 2014

1. All construction and operation authorized by the previous MG3/MG9 permit will now be authorized by the reissued MG3.1/MG9.1 permits.
2. All records collected under the previous permit must be kept for five years from date of collection.
3. For all required annual or periodic reporting, a final report must be submitted covering the period through the last day of operation of the MG3/MG9 permit.
4. All other compliance obligations imposed by the previous permit are now superseded by the new MG permits.

This letter is your approval to operate under Permit No. AQ1322MG301.1 for Knik Construction's Knik Astec Mobile Plant II beginning April 1, 2014. This letter also serves as notice that on April 1, 2014 Permit No. AQ1322MG301 is rescinded.

The responsibilities imposed by this permit may not be transferred to another owner or operator without the written consent of the Department. The transfer of ownership form is available at:
<http://www.dec.state.ak.us/air/ap/permit.htm>.

If you have any questions about this action or the new permits, please contact the Compliance Technician in Juneau at 907-465-5117, Anchorage at 907-269-6955 or Fairbanks at 907-451-2132.

An individual who has a private, substantive, legally protected interest under state law that may be adversely affected by the permit action, the owner and operator, or, if a public comment process is required or solicited, a person who participated in the public comment process may request an adjudicatory hearing in accordance with 18 AAC 15.195 - 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director at 410 Willoughby Avenue, Suite 303, PO Box 111800, Juneau, Alaska 99811-1800, within 15 days of the permit decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, PO Box 111800, Juneau, Alaska 99811-1800, within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived. More information on how to appeal a Department decision is available at <http://www.dec.state.ak.us/commish/ReviewGuidance.htm>.

Sincerely,


John F. Kuterbach, Manager
Air Permits Program

Attachment: Air Quality Minor General Permit No. AQ1322MG301.1

cc: Zeena Siddeck, ADEC/APP/Juneau
Jim Baumgartner, ADEC/APP, Juneau
P. Moses Coss, ADEC/APP, Fairbanks
Tammy Walker, ADEC/APP, Anchorage
Denise Wiltse, Inspector ADEC/APP
Claire Fishwick, ADEC Commissioner's Office

Patrick Dunn, ADEC/APP/Anchorage
Jim Plosay, ADEC/APP/Juneau
Jeremy Ptak, ADEC/APP, Anchorage
Laurie Kral, EPA 10

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL MINOR GENERAL PERMIT**

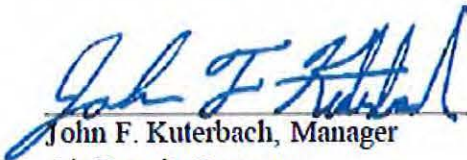
MINOR GENERAL PERMIT 3 FOR HOT-MIX ASPHALT PLANTS

PERMIT NO. AQ1322MG301.1

Final: April 1, 2014

This minor general permit is to be used for the construction, operation, or relocation of the asphalt plant described within, which has a rated capacity of at least five tons per hour of product, as described in 18 AAC 50.502(b)(1), and that is also classified as, or is part of, a minor stationary source, but is not a Title-V stationary source. This minor general permit satisfies the Permittee's obligation to obtain a permit under AS 46.14.120(g). Technical support for permit conditions and an explanation of revisions from the 2009 Minor General Permit 3 can be found in the Technical Analysis Report. This permit authorizes the Permittee to operate any emission unit identified in Table A Facility Information. This permit is not valid at another source required to have an operating permit. The operator must comply with the applicable requirements at the location where the emission units operate.

This minor general permit does not expire and is valid until the Department terminates, modifies, reopens, or revokes and reissues the permit. The letter of authorization is in effect until withdrawn, modified, revoked and reissued, or if the source no longer qualifies for this permit.


John F. Kuterbach, Manager
Air Permits Program

Application determined complete by:

Signature

Authorization Date

Printed Name

MG3 – Asphalt Plant Minor General Permit – Final Revision 1

Table A Facility Information

Permittee:	Knik Construction	Plant Name:	Knik Astec Mobile Plant II
Emissions Unit	Make	Model/Description	Rating/ Capacity
Asphalt Plant:	ASTEC II	PDB-9367 / Serial # 06542200	400 tph
Diesel Engines:	Caterpillar	SR4B	1000 kW
	Caterpillar	D-150-8	125 kW
Control Equipment: ☒ Baghouse ☐ Wet Scrubber			

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Required Forms

Relocation Notification Form.....	Form 1
Excess Emissions and Permit Deviation Report Form.....	Form 2
Emission Fee Estimate Report Form.....	Form 3

Sample Forms*

Facility Operating Report Form.....	Form 4
Visible emissions (Method 9) Observations Form.....	Form 5
Smoke/No Smoke Log.....	Form 6
Complaint Log.....	Form 7
Non-road Engine Location Log.....	Form 8
Equipment Changes Report Form.....	Form 9
Asphalt Plant Daily Production Log.....	Form 10

* Online submission of reports may require use of standardized Sample Forms.

MG3 OPERATING PERMIT CONDITIONS**Table B Emissions Limits**

Emission type	Limit
Opacity (Visible Emissions)	20% for asphalt plant and diesel generators with stack diameters 18 inches or greater 15% for diesel generators with stack diameters smaller than 18 inches
Particulate Matter	0.05 gr/dscf (for plants constructed on or before June 11, 1973) 0.04 gr/dscf (for plants constructed after June 11, 1973)
Sulfur Compounds	500 ppm

LOCATION RESTRICTIONS

1. Ambient Air Quality Protection. Give adequate consideration to siting issues when operating or changing locations of an asphalt plant (see *Note* in Technical Analysis Report).

1.1. Do not operate the Asphalt Plant or a diesel engine within 330 feet of the nearest occupied structure off the work site.

1.2. Do not operate for more than two construction seasons at the same site located:
a. within 800 feet of the nearest residence or other occupied structure off worksite; or
b. within 1,100 feet of the nearest residence or other occupied structure off worksite if the residence or structure is located on terrain that is more than 50 feet above any ground level of the Asphalt Plant aggregate drier or drum mixer.

1.3. Non-road engine location restrictions: A portable engine does not qualify as a non-road engine if it remains in place for 12 consecutive months or is located at a seasonal source and operates during the full annual operating period of the seasonal source.

1.4. *SO₂ Special Protection Area.* If operating in one of the Sulfur Dioxide Special Protection Areas described in 18 AAC 50.025(c) (Unalaska or St. Paul Island areas) you cannot operate diesel engines for electrical power generation unless burning only ULSD; the asphalt plant must use ULSD.

1.5. *Additional Restrictions for Bells Flats (Kodiak).* In any equipment operating at an asphalt plant in the Bells Flats area of Kodiak that burns liquid fuel, you must burn ULSD.

2. Relocation Reporting Requirements. Provide notice to the Department at least 10 days before installing or relocating the Asphalt Plant by using the Relocation Notification form (Form 1). If the location is within one mile of the nearest occupied off-site structure, you must attach a fugitive dust control plan as part of the relocation notice; see Condition 16.

MONITORING, RECORDKEEPING, AND REPORTING

3. General Recordkeeping. Keep copies of all monitoring, recordkeeping, reporting, and all other documents required in this permit for at least five years.

4. General Reporting.

4.1. *Submittals.* Unless otherwise directed by the Department, submit original reports, compliance certifications, or other required documents, by mail, to:

Alaska Department of Environmental Conservation
Air Permits Program
Attn: Compliance Technician
610 University Avenue
Fairbanks, AK 99709-3643

4.2. You may substitute mailed originals by submitting through Department approved electronic reporting methods, if electronic signing methods are available.

4.3. Certification: Certify any permit application, report, affirmations, or compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: *"Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete."* Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. See 18 AAC 50.990(93) for the definition of "Responsible Official."

4.4. Operating Reports. Submit operating reports as directed by either Condition 4.1 or 4.2, by the dates listed in Table C. The semi-annual Facility Operating Report (FOR) must include all information required by other conditions of this permit. If the facility does not operate during the winter season, you may submit a report early with your summer FOR.

Table C Operating Report Schedule

Report Type	Reporting Period	Due Date
FOR	April 1 – October 31	November 30
FOR	November 1 – March 31	April 30

4.5. Information Requests. Furnish to the Department, within a reasonable time, any information that the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, furnish to the Department copies of records required to be kept by the permit. The Department may require you to furnish copies of those records directly to the federal administrator.

5. Visible Emissions.

5.1. Asphalt Plant. Visible emissions limits are listed in Table B.

Monitor:	• Use EPA Method 9 to determine the opacity of emissions from the asphalt plant. All observations must be at least 18 consecutive minutes. • Identify fugitive emission points capable of producing fugitive emissions. Determine which point has the greatest continuous opacity and use this point for monitoring fugitive emissions. • Observe visible emissions with Method 9 at the baghouse stack or wet scrubber stack AND at the fugitive emission point identified above: ○ During regular operation loads (not on idle or reduced loads); ○ Within two days of startup at the beginning of the season or after relocation; ○ At least once every 14 operating days; and ○ Within two days of startup following a shutdown of more than 5 days. • If six-minute average opacity is observed as greater than 20%, report as excess emissions under Condition 9 and refer to Condition 15 for Good Air Pollution Control Practices; take corrective actions as appropriate.
Record:	• Keep all observation sheets and summaries for at least five years. • Calculate and record the greatest 6-consecutive-minute averages observed.
Report:	• Submit a list of emission points identified and which point was monitored. This list may be in the form of a simple list, picture with points circled and labeled, or a flow diagram with labeled emissions points. • Submit copies of all Method 9 observations in the FOR. • Submit copies of all Method 9 training certificates for all observers in the reporting period. • Report any failure to monitor as a permit deviation according to Condition 9. • Report any excess emissions (greater than 20% opacity) according to Condition 9.

5.2. Diesel Engines. Visible emissions limits are listed in Table B.

Monitor:	• Use the Smoke/No Smoke Plan or EPA Method 9 to observe emissions from the exhaust stack or port of each diesel engine. • <u>Smoke/No Smoke Plan</u>: Observe each stack for the presence or absence of smoke, excluding water vapor. ○ Initial Frequency: Conduct Smoke/No Smoke observations once every operating day. ○ After monitoring for 30 consecutive operating days, conduct Smoke/No Smoke observations at least once every 14 operating days. ○ If smoke is observed, follow the corrective actions in Condition 5.3. • <u>Method 9</u>: All observations must be at least 18 consecutive minutes. ○ First observation: within two days of the beginning of the operating season or after relocating the plant, or within three days after changing from the Smoke/No Smoke Plan. ○ After the first observation, conduct observations at least once every 14 operating days. ○ If opacity of greater than 20% is observed, refer to corrective actions in 5.3(e)-(f).
Record:	• Keep all observation sheets, logs, summaries, and Method 9 training certificates for at least five years. • Record date, time, production rate, observer name, and smoke observation in Smoke/No Smoke log.
Report:	• Report which method you used during the reporting period. • Include copies of all Method 9 observations and/or a complete Smoke/No Smoke log for the reporting period in the FOR. • Report if/when you change visible emissions observation methods. • Report any smoke observed under the Smoke/No Smoke Plan and a summary of any corrective actions taken. • Report any failure to monitor in accordance with Condition 9.

5.3. Corrective Actions for Smoke Observed in Condition 5.2. If smoke is observed while conducting Smoke/No Smoke observations:

- a. Do an initial Method 9 observation. If opacity is greater than 20%, see corrective actions in Condition 5.3.e or 5.3.f. Continue using Method 9 to monitor visible emissions, following specifications in Condition 5.2. In order to return to Smoke/No Smoke Plan, follow Conditions 5.3.b through 5.3.d.
- b. Initiate actions to eliminate smoke from the engine within 24 hours of the observations;
- c. Keep a written record of the starting date, completion date, and a description of the actions taken to reduce smoke; and
- d. If seven consecutive observations are made of 0% opacity, you may return to the Smoke/No Smoke Plan beginning with initial frequency (Condition 5.2).
- e. If Method 9 observations result in 6-minute average opacity greater than 20%, either:
 - i. Conduct a Particulate Matter source test within 60 days, following the requirements of Condition 19; or
 - ii. Make repairs so that emissions no longer exceed 20% opacity averaged over 6 minutes.
- f. For diesel engines with stack diameter of less than 18 inches, conduct a Particulate Matter source test if Method 9 observations result in 6-minute average opacity greater than 15%.

6. Particulate Matter Emissions from Asphalt Plant. Do not operate the asphalt plant at a production level greater than the maximum throughput measured during the most recent PM source test that showed compliance, except as provided under Condition 19.2. Particulate matter emissions limits are listed in **Table B**.

6.1. Required Testing and Frequency of Testing. Conduct source tests in accordance with Condition 19 and the following:

- a. If a PM source test has not been approved by the Department for your facility within the last five years, conduct a PM source test within the first 30 operating days after receiving your letter of authorization.
- b. If the source has conducted a PM source test approved by the Department in the last five years, conduct a source test no later than five years after that test or the first operation thereafter.
- c. Conduct a PM source test every five years.
 - i. If results of any PM source test exceed 0.045 gr/dscf for plants constructed on or before June 11, 1973 or 0.036 gr/dscf for plants constructed after June 11, 1973, you must conduct another source test within one year of the date of the most recent PM source test.
 - ii. If the plant does not operate in a calendar year, then the calendar year that the plant did not operate does not count toward the time required to conduct another PM source test in Condition 6.1.c.i.
 - iii. If the plant does not operate in a calendar year, the next source test due date is delayed by one calendar year.

Monitor:	Conduct at least one 18-consecutive-minute set of EPA Method 9 readings during each one hour run of the PM source test.
Record:	- Record the following during each PM source test: - Average asphalt production rate in tons per hour; - Method 9 readings; - Baghouse exit temperature and pressure drop (if applicable); - Wet scrubber pressure drop and water flow rate (if applicable).
Report:	Include records of all visible emissions monitoring, production, and pressure drop or flow rate with the source test report as required under Condition 19.8.

6.2. Asphalt Plant.

Record:	- Keep a daily log of the following: - Daily total asphalt production; - Peak hourly rate of production per day; - Startup and shutdown times with the date for each operating day; - Total hours operated per day; and - Total number of operating hours operated since the last source test. - If you have a baghouse, include the following in your daily log: - Pressure drop across baghouse at beginning and end of each production day; and - Outlet temperature of baghouse at the beginning and end of each production day. - If you have a wet scrubber, include the following in your daily log: - Pressure drop across the scrubber at beginning and end of each production day; - Inlet and outlet temperatures of the scrubber at beginning and end of each production day; and - Daily water flow rate of the scrubber.
Report:	- Include the daily production log for the reporting period in each FOR. - Include a summary of baghouse or scrubber inspections including the information listed in Conditions 15.1.f and 15.2.c.

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7. Sulfur Compound Emissions. Applies to fuel for all engines, including non-road engines. Emissions limits are listed in **Table B**.

Record:	• Keep fuel delivery receipts that specify fuel grade and amount. • If diesel delivery receipts do not show that the diesel is Ultra Low Sulfur Diesel (ULSD) or Low Sulfur Diesel (LSD) test delivered fuel for sulfur content, or get a certification statement or analysis from the supplier that shows fuel sulfur percent by weight. • For liquid fuel from a North Slope topping plant, obtain results of a monthly fuel analysis from the topping plant.
Report:	• If only ULSD or LSD was used for the entire reporting period, submit a statement from the fuel supplier stating only ULSD or LSD was supplied with your semi-annual operating report. • If anything other than ULSD or LSD was used (e.g. used oil fuels), submit a list of fuel deliveries with fuel grades, a certificate from the supplier verifying the sulfur content, or a fuel analysis showing sulfur content. • If natural gas was used during the reporting period, submit a statement certified by the Responsible Official for this time period. • If highline power was used during the reporting period, submit a statement certified by the Responsible Official for this time period. • Include a copy of the fuel analysis from a North Slope topping plant, if applicable. • Report the fuel type, including its sulfur content, used for the asphalt burner.

8. Pollution Control Equipment Breakdowns.

Record:	• Keep records of pollution control equipment breakdowns and corrective actions.
Report:	• Notify the Department within two days of a pollution control equipment breakdown as a Permit Deviation in accordance with Condition 9. • Include a summary of each breakdown in the FOR.

9. Excess Emissions and Permit Deviations.

Record:	• Keep records of excess emissions, permit deviations, and corrective actions.
Report:	• Report excess emissions that present a potential threat to human health or safety or that the owner, operator, or Permittee believes to be unavoidable as soon as possible. • Report unavoidable emergencies, malfunctions, or non-routine repairs that cause excess emissions within two working days after the event started or was discovered. • Report all other excess emissions or permit deviations, including failure to monitor, within 30 days of the end of the month in which the incident occurs. • Report using the online form at http://www.dec.state.ak.us/air/ap/site.htm or the Excess Emissions and Permit Deviation Form listed as Form 2. • Include a summary of excess emissions and permit deviations in each FOR

10. Air Pollution Prohibited.

Record:	- Record the date, time, and nature of all emissions complaints received. - Record the name of the person(s) that complained, if known. - Record a summary of any investigations including reasons you do or do not believe the emissions have caused a violation. - Record any corrective actions taken or planned for complaints
Report:	- Include in FOR for each reporting period: - Number of complaints received. - Number of times you or the Department found corrective action necessary. - Number of times action was taken on a complaint within 24 hours. - Status of corrective actions found necessary that were not taken within 24 hours.

11. Non-road Engines. Defined in 18 AAC 50.990(63) and 40 C.F.R. 89.2.

Record:	Keep a log of the following items for each non-road engine for at least five years: - Date and location of the engine each time it is relocated. - Make, model, serial number, and rated capacity of the engine.
Report:	Include the non-road engine location log in each FOR.

GENERAL CONDITIONS

12. Change of Ownership. If the ownership of the Asphalt Plant is changed, both the new and previous owners must complete a transfer of ownership form and receive authorization to operate from the Department before the plant is operated by the new owner. The Transfer of Ownership form is available from ADEC Air Permits Program staff or on the Department's website. The website address at the time of issuance of this permit is: <http://dec.alaska.gov/air/ap/operatingperapp.html>.

13. Administrative Fees. You are required pay to the Department all assessed permit administrations fees. Administration fee rates are set out in 18 AAC 50.400-405.

14. Assessable Emissions & Emission Fees. You are required to pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities great than 10 tons per year. No later than March 31 of each year, you may submit an estimate of the stationary source's assessable emissions to the Department, using the Emission Reporting and Emission Fee Estimate form. Otherwise, emission fees for the next fiscal year will be based on the potential to emit. See Appendix A for calculation of assessable emissions and Form 3 for the Emission Fee Estimate report form.

15. Good Air Pollution Control Practice. For all emission units authorized by this permit, you should perform regular maintenance considering the manufacturer's or the operator's maintenance procedures, keep records of any maintenance that would have a significant effect on emissions, and keep a copy of either the manufacturer's or the operator's maintenance procedures on site.

- 15.1. If you operate an asphalt plant using a baghouse:
 - a. Operate the baghouse per the manufacturer's recommended operating procedures;
 - b. At the end of each run, operate the baghouse fans until the baghouse has been purged of exhaust gases per the manufacturer's recommendations;
 - c. Ensure the pressure drop across the baghouse and outlet temperature remain within the manufacturer's recommendations or specifications;
 - d. Perform inspections of equipment and complete necessary maintenance prior to startup in a new location, after shutdown of more than five days, and every 30 days of operation at the same location;
 - e. Replace worn or damaged bags within 72 hours of discovery;

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f. Keep a record of the baghouse inspections showing the following:

- i. Date of inspection and name of inspector;
- ii. Number of worn or damaged bags detected;
- iii. Number of bags replaced and date replaced;
- iv. Number of worn or damaged seals/gaskets detected; and
- v. Number of seal/gaskets replaced and the date replaced.

15.2. If you operate an asphalt plant using a wet scrubber:

- a. Inspect every component of the scrubber before beginning operation each season and repair or replace any component that shows signs of deterioration;
- b. Maintain pressure drop across the scrubber, water flow rate, inlet and outlet temperatures within limits recommended by the manufacturer;
- c. Keep a record of scrubber inspections showing the following:
 - i. Date of inspection and name of inspector;
 - ii. Number of components detected that are worn or damaged;
 - iii. Number of components replaced and date replaced.

16. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent the release of airborne PM and fugitive dust from aggregate piles, conveyors and elevators, loading locations, the rotary drum, screens, baghouse ash discharge, vehicle traffic within the stationary source boundaries and other sources of fugitive dust into the ambient air.

16.1. Follow the Fugitive Dust Control Plan (Appendix B) that you included with your minor general permit application or a revised version if submitted to or requested by the Department. A revised or site-specific Fugitive Dust Control Plan must be submitted with each relocation notice if the new location is within one mile of the nearest occupied structure (see Condition 2).

16.2. Reasonable precautions to prevent fugitive dust may include the following:

- a. installation and use of hoods;
- b. fans and dust collectors to enclose and vent dusty materials;
- c. other covers and enclosures;
- d. cleanup of loose material on work surfaces;
- e. minimizing drop distances on the conveyor systems and lowering loader buckets to be in contact with the surface of the soil or ground before dumping;
- f. application of water or dust suppressants;
- g. stopping activity in windy conditions; and
- h. measures to prevent carryout or tracking of dust or mud by trucks.

17. Equipment Changes. Submit changes in asphalt drum or batch mixer, dryer, control equipment, tertiary crushing, or diesel engine equipment, if capacity differs from original permitted equipment, to the Department within 30 days.

18. Terms to Make the Permit Enforceable.

18.1. Compliance with permit terms and conditions is considered to be in compliance with those requirements that are

- a. Included and specifically identified in the permit; or
- b. Determined in writing in the permit to be inapplicable.

18.2. Comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50.345, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

- a. An enforcement action; or
- b. Permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.

18.3. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

18.4. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.

18.5. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or notification of planned changes or anticipated noncompliance does not stay any permit condition.

18.6. The permit does not convey any property rights of any sort, nor any exclusive privilege.

18.7. Allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to

- a. Enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
- b. Have access to and copy any records required by the permit;
- c. Inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

18.8. Sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

SOURCE TESTING REQUIREMENTS

19. Source Testing Requirements.

19.1. **General Requirements.** In addition to any source testing explicitly required by the permit, conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

19.2. **Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, conduct source testing

- a. At a point or points that characterize the actual discharge into the ambient air; and
- b. At the maximum rated burning or operating capacity of the emission unit or another rate determined by the Department to characterize the actual discharge into the ambient air.

19.3. **Reference Test Methods.** Refer to the Technical Analysis Report for approved reference test methods and details.

19.4. **Excess Air Requirements.** Standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emission unit type, corrected to standard conditions (dry gas at 68°F and absolute pressure of 760 mm of mercury).

19.5. **Test Exemption.** You are not required to comply with Conditions 19.6-19.8 when the exhaust is observed for visible emissions by Method 9 Plan or Smoke/No Smoke Plan (Conditions 5.2 and 5.3, for diesel engines only). This does not apply to fugitive emission sources.

19.6. **Test Plans.** Before conducting any source tests, submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the emission unit will operate during the test and how you will document that operation.

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Submit a complete plan within 60 days after receiving a request under Condition 5.3.e.i or 19.1 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

You may request an extension to a source test deadline established by the Department. You may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

19.7. Test Notification. At least 10 days before conducting a source test, give the Department written notice of the date and the time the source test will begin.

19.8. Test Reports. Within 60 days after completing a source test, submit a copy of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. Certify the results in the manner set out in Condition 4.3. If requested in writing by the Department, provide preliminary results in a shorter period of time specified by the Department.

Appendix A: Assessable Emissions Calculation (MG3)

Assessable Emissions differ from a source's Potential to Emit (PTE). PTE is used in calculating a source's permit applicability and classification, i.e. minor or major source. While PTE does not include fugitive particulate emissions, assessable emissions do. A source can be classified as a minor source, yet have emission fees based on a criteria pollutant in excess of 100 tons. Likewise, a major source can have a PTE in excess of 100tpy of a criteria pollutant, yet pay emission fees for that pollutant at a rate far lower. Assessable Emissions use the same calculations as PTE, only operating hours are not based on a maximum potential of 3650 hours (assumed) but instead are based on actual operation for a calendar year. For examples and steps on completing this form to assist in submission of Assessable Emissions, please see the information below.

Equation:

$E = (EF \times (\text{asphalt produced or hours of operation in a given year} \times RC)) / \text{lbs per ton}$

Abbreviations:	
tpy	tons per year
tph	tons per hour
EF	emission factor (AP-42)
RC	rated capacity
lbs	pounds
E	emissions
ULSD	Ultra low sulfur diesel

Report using Form 3 Emission Estimates MG3 total emissions for each pollutant in a calendar year. Each emission unit listed in Table A will need a separate calculation using equations provided, where rated capacity is the horsepower for diesel engines.

Emission factors are pollutant/emission unit specific. Fuel assumes use of Ultra Low Sulfur Diesel (ULSD); please, contact the Department for assistance if you used alternative fuels. Please, see the worksheet on the next page for emission factors and further assistance.

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Asphalt Plants	CO	NO _x	SO ₂	VOC	PM-10 ¹	PM-10 ²
Batch Mix Asphalt Plant	0.4	0.12	0.088	0.0082	0.027	0.14
Drum Mix Asphalt Plant	0.13	0.055	0.011	0.032	0.023	0.04

Asphalt plant emission factors are given in lbs of pollutant per ton of asphalt produced.

¹: PM-10 EF for use with a baghouse

²: PM-10 EF for use with a wet-scrubber

Diesel Engines	CO	NO _x	SO ₂ ³	VOC	PM-10	
Greater than 600hp	0.0055	0.024	1.2x10 ⁻⁵	0.000705	0.0007	
Less than 600hp	0.00668	0.031	1.2x10 ⁻⁵	.0000247	0.0022	

Diesel engine emission factors are given in lbs of pollutant per horsepower-hour.

³: SO₂ EF for use with ULSD

Asphalt Plant Worksheet: $E = (EF \times \text{tons of asphalt produced}) / 2000$

CO	NO _x	SO ₂	VOC	PM-10

Diesel Engine Worksheet: $E = (EF \times \text{hours of operation} \times RC) / 2000$

CO	NO _x	SO ₂	VOC	PM-10

Total Emissions: add all rows above for listed emission units.

CO	NO _x	SO ₂	VOC	PM-10

Assessable Emissions: for any pollutant total greater than 10 (tons), round to nearest whole number, for any pollutant less than 10 tons, round down to 0. Enter these values on Form 3 and submit as required under Condition 14.

CO	NO _x	SO ₂	VOC	PM-10

Appendix B: Fugitive Dust Control Plan Guidelines

The Fugitive Dust Control Plan (Plan) has the purpose to control the fugitive dust emissions from asphalt plant and crusher related activities. The Plan is required for all Minor General Permit holders in order to ensure that reasonable precautions to prevent fugitive dust are taken (MG3 Condition 16, MG9 Condition 15).

A sample plan is on the following page in Appendix B. This plan may be filled out and used for any Minor General Permitted source. You are not required to use the sample form, but similar information contained in the sample form should be included in your plan. If you already have a plan developed or you wish to develop your own plan, the following items should be addressed:

- Points capable of producing fugitive emissions;
- Control of fugitive dust sources, such as:
 - Water application;
 - Dust suppressants;
 - Wind barriers;
 - Hoods, covers, or enclosures;
 - Cleanup of loose materials;
 - Minimizing drop distances and lowering loader buckets before dumping;
 - Fans;
 - Dust collectors;
- Methods to prevent trackout or carryout, such as:
 - Grizzlies or grates;
 - Gravel pads;
 - Paved surfaces;
 - Wheel washers;
 - Truck washing.

Appendix B: Fugitive Dust Control Plan

Please note, it is the responsibility of the Permittee to ensure that no part of their fugitive dust control plan violates any local, state, or federal law.

Section 1 – General Information

1-A Facility Information	
Company Name:	
Plant Name:	
Permit No.:	
1-B Contacts	
Report the names, address, and phone numbers of persons and owners or operators responsible for the implementation of the Dust Control Plan and responsible for the dust generating operation and dust control applications.	
<i>Responsible Official</i> (authorized under 18 AAC 50.990(93))	
Name:	
Phone Number:	
<i>On-site Manager/Operator or Point of Contact</i> (if different from above)	
Name:	
Phone Number:	
1-C Recordkeeping and Reporting	
Keep copy of Fugitive Dust Control Plan on-site at all times.	
Keep records of deviations from dust plan, reasons for the deviation, and corrective actions taken for at least five years.	

Section 2 – Fugitive Emission Points

2-A Fugitive Emission Points
Identify the relative locations of actual and potential sources of fugitive dust emissions.
☐ Bulk material handling and storage areas. ☐ Paved and unpaved access roads, haul roads, traffic areas, and equipment storage yards. ☐ Exit points where carryout and trackout onto paved public roads may occur. ☐ Water supply locations if water application will be used for controlling visible dust emissions. ☐ Rock crushing operations. ☐ Screening ☐ Conveyors ☐ Fines Screening ☐ Asphalt plant operations ☐ Screening ☐ Conveyors ☐ Baghouse Catch ☐ Drum Mixer Discharge ☐ Hot mix storage silo receiving point
2-B Comments – Fugitive Emission Points

Section 3 – Control of Fugitive Dust Sources**3-A Control of Fugitive Dust Sources**Check any boxes that apply. Checked boxes represent methods that will be used *as needed*.*Active Operations*

- ☐ Water will be applied to dry areas during leveling, grading, trenching, and earthmoving activities.
- ☐ Wind barriers will be constructed and maintained, and water or dust suppressants will be applied to the disturbed surface areas.

Inactive Operations, including after work hours, weekends, and holidays

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☐ Water or dust suppressants will be applied on disturbed surface areas to form a visible crust, and vehicle access will be restricted to maintain the visible crust.

Sites Inactive for Seven or More Days

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☐ Vehicle access will be restricted and water/dust suppressants will be applied at all un-vegetated areas.
- ☐ Vegetation will be established on all previously disturbed areas.
- ☐ Gravel will be applied and maintained at all previously disturbed areas.
- ☐ Previously disturbed areas will be paved.

Unpaved Access and Haul Roads, Traffic and Equipment Storage Areas

- ☐ Not applicable for this project (Please explain why in Section 3-C).
- ☐ Apply water or dust suppressants to unpaved haul and access roads.
- ☐ Post speed limit signs of not more than 15 mph at each entrance, and again every 500 ft.
- ☐ Water or dust suppressants will be applied to vehicle traffic and equipment storage areas.

Wind Events

- ☐ Water application equipment will apply water to control fugitive dust during wind events, unless unsafe to do so. Outdoor construction activities that disturb the soil will cease whenever visible dust emissions cannot be effectively controlled.

3-B Bulk MaterialsCheck any boxes that apply. Checked boxes represent methods that will be used *as needed*.*Outdoor Handling of Bulk Materials*

- ☐ Water or dust suppressants will be applied when handling bulk materials.
- ☐ Wind barriers with less than 50 percent porosity will be installed and maintained, and water or dust suppressants will be applied.

Outdoor Storage of Bulk Materials

- ☐ Water or dust suppressants will be applied to storage piles.
- ☐ Storage piles will be covered with tarps, plastic, or other suitable material and anchored in such a manner that prevents the cover from being removed by wind actions.
- ☐ Wind barriers with less than 50 percent porosity will be installed and maintained around the storage piles and water or dust suppressants will be applied.
- ☐ A three-sided structure (< 50% porosity) will be used that is at least as high as the storage piles.

On-Site Transporting of Bulk Materials

- ☐ Vehicle speed will be limited on the work site.
- ☐ All haul trucks will be loaded such that the freeboard is not less than six inches when transported across any paved public access road.
- ☐ A sufficient amount of water will be applied to the top of the load to limit visible dust emissions.
- ☐ Haul trucks will be covered with a tarp or other suitable cover.

Section 3 – Control of Fugitive Dust Sources (cont.)

3-B Bulk Materials - continued

Off-Site Transporting of Bulk Materials

- ☐ No bulk materials will be transported to or from the project site.
- ☐ Materials for transport will be wetted as needed.
- ☐ Covers will be used, as needed. Some or all of the following will be used as necessary:
- The interior of emptied truck cargo compartments will be cleaned or covered before leaving the site.
 - Spillage or loss of bulk materials from holes or other openings in the cargo compartment's floor, sides, and tailgates will be prevented.
 - Haul trucks will be covered with a tarp or other suitable cover or will be loaded such that the freeboard is not less than six inches when transported on any paved public access road to or from the project site.

Outdoor Transport using a Chute or Conveyor

- ☐ No chutes or conveyors will be used.
- ☐ Chute or conveyor will be fully enclosed.
- ☐ Water spray equipment will be used to sufficiently wet the materials.
- ☐ Transported materials will be washed or screened to remove fines (PM-10 or smaller).

3-C Comments – Control of Fugitive Dust Sources

Section 4 – Dust Control Methods

4-A Water Application

Complete this section if water application will be used as a control method for limiting visible dust emissions and stabilizing surface areas. Check and answer everything that applies. Checked boxes represent methods that will be used *as needed*.

Water Application Equipment:

- ☐ Sprinklers:
Describe the activities that will utilize sprinklers: _____
- ☐ Water Truck, ☐ Water Trailer, ☐ Water Wagon, ☐ Other: _____
Describe the activities that will utilize this equipment: _____

Water application equipment is available to operate after normal working hours, on weekends, and holiday.
After-hours contact: _____ Phone number: _____

Water Supply (as needed):

- ☐ Fire hydrants. Obtain necessary approval to use specific hydrants.
- ☐ Storage tanks Number and capacity: _____
- ☐ Wells Number and flow rate: _____
- ☐ Canal, River, Pond, Lake, etc. Describe: _____
- Approval granted by the owner or public agency to use their water source for this project.
Owner or Agency: _____
Contact: _____ Phone number: _____
- ☐ Other: _____

Section 4 – Dust Control Methods (cont.)

4-B Dust Suppressant Products

Suppressant materials include, but are not limited to: hygroscopic suppressants (road salts), adhesives, petroleum emulsions, polymer emulsions, and bituminous material (road oils).

Copy this section if more than one dust suppressant product will be used.

☐ Not applicable. Only water application will be the control method used.

☐ Applicable.

Product Name: _____

Application Equipment: _____

Number of Application Equipment Available: _____

Attach each of the following information that fully describes this product. Use the checklist below to make sure all information is submitted with this plan.

☐ Product Specifications (MSDS, Product Safety Data Sheet, etc.).

☐ Manufacturer's Usage Instructions (method, frequency, and intensity of application).

☐ Environmental impacts and approvals or certifications related to the appropriate and safe use for ground application.

4-C Other Dust Control Methods

Check the other types of dust control methods that will be implemented at the construction site.

☐ Physical barriers for restricting unauthorized vehicle access:

☐ Fences ☐ Gates ☐ Posts ☐ Berms ☐ Concrete Barriers

☐ Other: _____

☐ Wind barriers – Describe: _____

☐ Posted speed limit signs meet state and Federal Department of Transportation standards.

☐ Posted at 15 miles per hour, ☐ Posted at _____ miles per hour (less than 15 mph) ...

☐ Re-establish vegetation for temporarily stabilizing previously disturbed surfaces.

Explain: _____

☐ Apply and maintain gravel:

☐ On haul roads ☐ On access roads ☐ At equipment storage yards

☐ At vehicle traffic areas ☐ For temporarily stabilizing previously disturbed areas.

Explain: _____

☐ Apply pavement – Explain: _____

☐ Other: _____

4-D Comments – Dust Control Methods

Section 5 – Carryout and Trackout

5-A Treatments for Preventing Trackout

Trackout is any material that adheres to vehicle tires and is deposited onto a paved public road or the paved shoulder of a paved public road. Check one or a combination that will apply.

☐ *Grizzly*: Rails, pipes, or grates used to dislodge debris off of vehicles before exiting the site. Extends from the intersection with the paved public road surface for the full width of the unpaved exit surface for the distance of at least 25 feet.

Describe: _____

☐ *Gravel Pad*: A layer of washed gravel at least one inch or larger in diameter, three inches deep, and extends from the intersection with the public paved road surface for the full width of the unpaved exit surface for a distance of at least 50 feet.

Describe: _____

☐ *Paved Surface*: Extends from the intersection with the paved public road surface for the full width of the unpaved access road for at least 100 feet to allow mud and dirt to drop off of vehicles before exiting the site.

Describe: _____

Mud and dirt deposits accumulating on paved interior roads will be removed with sufficient frequency, but not less frequently than once per workday.

Clean-up Frequency: _____

☐ *Wheel Washer*: Uses water to dislodge debris from tires and vehicle undercarriage.

Describe: _____

☐ *Other*: _____

5-B Treatments for Preventing Carryout

Carryout occurs when materials from emptied or loaded haul trucks, vehicles, or trailers falls onto a paved public road or paved shoulder of a paved public road. Check all methods that apply.

☐ No haul trucks will be routinely entering or leaving the project site.

Emptied Haul Trucks:

☐ Interior cargo compartments will be cleaned before leaving the project site.

☐ Cargo compartment will be covered with a tarp or suitable cover before leaving the project site.

Loaded Haul Trucks: Spillage or loss of materials from holes or other opening in the cargo compartment will be prevented when material is transported onto any paved public access road.

☐ Haul trucks will be loaded such that the freeboard is not less than six inches with water applied to the top of the load before leaving the project site.

☐ Cargo compartment and load will be covered with a tarp or suitable cover before leaving the project site.

☐ Other: _____

5-C Cleaning up Carryout and Trackout

Clean up Method: Check the method(s) below that will be used for cleaning carryout and trackout.

☐ Manually sweeping and picking up.

☐ Mechanical sweeping with a rotary brush or broom accompanied or preceded by water.

Describe the types of equipment that will be used: _____

☐ Operating a PM10-efficient street sweeper.

Make and Model: _____

☐ Flushing with water – allowed if:

- No curbs or gutters are present.
- Using water will not result as a source of trackout and carryout.
- Using water will not result in adverse impacts on storm water drainage systems.
- Using water will not violate any National Pollutant Discharge Elimination System permit program or Alaska Department of Environmental Conservation, Division of Water Permit.

5-D Comments - Carryout and Trackout

Form 1: Relocation Notification (Application Addendum)

Submit to the Department at least *10 days before* moving the plant to any new location.

Facility Information:

Permittee Name: _____ Permit No.: AQ _____

Plant Name: _____

Contact Person: _____ Telephone: _____

Make & Model of the Equipment/Stationary Source to be relocated: _____

Attach a complete list of equipment to be operated at the new location.

Estimated Operating Dates:

Estimated start-up date: _____

Estimated shut-down date: _____

Location Information:

New Plant Location (street address, milepost number, etc. -- Include site maps):

Latitude _____ Longitude _____ OR

UTM Coordinates: Zone _____ Northing _____ Easting _____ Datum _____

Distance from Plant boundary to nearest inhabited structure: _____ ft

Nearest inhabited structure(s) are on (check one): _____ flat terrain _____ elevated terrain

If this distance is within 2,000 ft (for rock crushers) or 1 mile (for asphalt plants), include with this addendum a dust control plan that is specific to this location and is adequate to prevent violations of Air Pollution Prohibited (MG3 Condition 10, MG9 Condition 9).

If the plant is to be located in a city or borough with zoning restrictions, please attach the location or siting approval documents from that city or borough to this form (optional).

Comments: _____

Certification:

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

Send completed report to: Compliance Technician, ADEC Air Permits Program, 610 University Avenue, Fairbanks, AK 99709-3643.

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Form 2 EEPD - separate, to be included in .pdf. This page is to be replaced.

Form 3: Emission Reporting and Emission Fee Estimate

Submit the following information no later than March 31 of each year to:

ADEC Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643

Or

FAX to (907) 451-2187

Or

Email to: DEC.AQ.Airreports@alaska.gov
(If emailed, the report must be signed and certified in accordance with 18 AAC 50.345(j).)

Or

Submit emissions online at the following website: <https://myalaska.state.ak.us/deca/air/airtoolsweb/>

Stationary Source Name: _____

Permit Number: _____ Date: _____

Emission Fee Estimate for: _____ (State fiscal year)

Table 1. Total Emissions & Assessable Emission Fee Estimate

Pollutant	Asphalt Plant	Diesel Generator	Assessable Emissions
NO _x			
CO			
SO ₂			
PM-10			
VOC			

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Signature

Printed Name

Title

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Form 4: Minor General Permit (MG3) – Facility Operating Report Form

Facility Information

Stationary Source: _____ Permit No.: AQ _____

Facility Name: _____

Reporting Period: ☐ 11/1/_____ to 3/31/_____ ☐ 4/1/_____ to 10/31/_____

Did this plant operate during this reporting period?

☐ Yes (please complete form) ☐ No (complete the "Certification" section only)

Certification (Condition 4.3)

☐ Certification Statement Signed by a Responsible Official (at end of form)

Visible Emissions - Asphalt Plant (Condition 5.1)

Emissions Points observed: _____ (First point – baghouse or scrubber)
 _____ (Second point – please describe)

Method 9 Observations Summary:

Number of Observations	
Highest 6-consecutive-minute Average	
Number of Observations >20%	

☐ All Method 9 Observation forms attached

☐ Excess Emissions/Permit Deviation Forms attached for failure to monitor or for observations of opacity >20%.

Visible Emissions – Diesel Engines (Condition 5.2)

Method used: ☐ Smoke/No Smoke Plan ☐ Method 9 ☐ Both

Smoke/No Smoke Plan Summary:

Number of Observations	
Number of Days Smoke Observed	

☐ Complete Smoke/No Smoke Log attached

☐ Summary of Smoke/No Smoke corrective actions attached

Method 9 Observations Summary:

Number of Observations	
Highest 6-consecutive-minute Average	
Number of Observations >20%	

☐ All Method 9 Observation forms attached

☐ Excess Emissions/Permit Deviation Forms attached for failure to monitor or for observations of opacity >20%.

Particulate Matter (PM) Emissions (Condition 6)

Date of most recent PM source test: _____

☐ Daily asphalt production log attached.

Control Equipment Used: ☐ Baghouse ☐ Scrubber

☐ Summary of baghouse inspections attached, if applicable (Conditions 6.2 & 15.1(f)).

☐ Summary of scrubber inspections attached, if applicable (Conditions 6.2 & 15.2(c)).

Sulfur Compound Emissions (Condition 7)

Was ULSD the ONLY fuel used for the entire reporting period?

☐ Yes, statement certified by Responsible Official attached.

☐ No, list of diesel deliveries and fuel analysis or certification from supplier showing fuel sulfur content attached.

☐ Highline power used. Statement certified by Responsible Official attached.

☐ Natural gas used. Statement certified by Responsible Official attached.

☐ North Slope topping plant fuel used. If checked, attach a copy of fuel analysis.

Asphalt Plant fuel type used: _____

Pollution Control Equipment Breakdowns (Condition 8)

Where there any control equipment breakdowns during this reporting period? ☐ Yes ☐ No

If Yes, ☐ Permit Deviation forms attached ☐ Summary of breakdowns attached

Excess Emissions and Permit Deviations (EE/PD) (Condition 9)

Where there any EE/PDs during this reporting period? ☐ Yes ☐ No

If Yes, ☐ EE/PD forms attached

Complaint Summary (Condition 10)

Did you receive any public complaints about emissions during this reporting period? ☐ Yes ☐ No

If Yes, ☐ Complaint summary attached.

Nonroad Engines (Condition 11)

Are there engines classified as nonroad engines at this facility?

☐ Yes, Nonroad Engine Location Log attached. ☐ No.

Equipment Changes (Condition 17)

Was new equipment added or existing equipment removed? ☐ Yes, attach Form 10. ☐ No.

Source Testing (Condition 19)

PM source test conducted during this reporting period? ☐ Yes, on date: _____ ☐ No.

Certification (Condition 4.3)

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

Send completed report to: Compliance Technician, ADEC Air Permits Program, 610 University Avenue, Fairbanks, AK 99709-3643.

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Form 5 Method 9 - separate, to be included in .pdf. This page is to be replaced.

[illegible]

Form 7: Complaint Summary Form

Reporting Period: ☐ 11/1/___ to 3/31/___ ☐ 4/1/___ to 10/31/___

Number of Complaints Received:	
Number of Times Corrective Actions were Found Necessary:	
Number of Times Corrective Action was Taken Within 24 hours:	

Status of corrective actions deemed necessary that were not taken within 24 hours:

Comments:

Form 8: Nonroad Engine Location Log

Company Name: _____

Air Quality Permit Number: _____ Company Equipment ID No.: _____

Engine Manufacturer: _____ Engine Model: _____

Engine Serial No.: _____ Engine Date of Manufacture: _____

Location	Initial Date at Location	Date Moved off Location

Form 9: Equipment Changes Form

Company Name: _____ Permit Number: _____

List in the table below the equipment that was installed or removed during the reporting period. Rated capacity must be included. Only list diesel engines, pollution control equipment, and asphalt drum or dryer. Screens, conveyors, and aggregate bins do not need to be listed.

Equipment ID/Name	Equipment Description	Rated Capacity	Date Installed	Date Removed	Comments

Form 10: Asphalt Plant Daily Production Log – For Plants Using Baghouses

Reporting Period: 11/1/ to 3/31/ 4/1/ to 10/31/[illegible]

Reporting Period: ☐ 11/1/ to 3/31/ ☐ 4/1/ to 10/31/[illegible]

42.20.095 Disturbing the peace.

(a)

General.

(1)

It is unlawful for any person willfully to make or continue to make, or cause to be made or continued, any loud, unnecessary, or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. The standards which shall be considered in determining whether a violation of the provisions of this section exists shall include the following:

(A)

The volume of noise;

(B)

The intensity of the noise;

(C)

Whether the nature of the noise is usual or unusual;

(D)

Whether the origin of the noise is natural or unnatural;

(E)

The volume and intensity of the background noise, if any;

(F)

The proximity of the noise to residential sleeping facilities;

(G)

The nature and zoning of the area within which the noise emanates;

(H)

The density of the inhabitation of the area within which the noise emanates;

(I)

The time of the day or night the noise occurs;

(J)

The duration of the noise;

(K)

Whether the noise is recurrent, intermittent or constant;

(L)

Whether the noise is produced by a commercial or noncommercial activity;

(M)

Whether the noise contains pure tones.

(2)

Liability. In a prosecution under this section, it shall be a rebuttable presumption that the owner, tenant, or person in charge of real property from which noise emanates in violation of this section has caused or allowed to be caused the noise which violates this section.

(b)

Construction of buildings and projects. It is unlawful to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or similar heavy construction equipment, before 7:00 a.m. or after 10:00 p.m., Monday through Friday, or before 9:00 a.m. or after 10:00 p.m., Saturday and Sunday, unless a permit shall first be obtained from the City and Borough building official. Such permit shall be issued by the building official only upon a determination that such operation during hours not otherwise permitted under this section is necessary and will not result in unreasonable disturbance to surrounding residents.

(c)

Noise emanating from vehicles.

(1)

Policy. It is unlawful for any person to play, continue to play, or allow to be played, any sound system from, within, or on any motor vehicle so that any sound, music, or vibration emanating therefrom can be heard at a distance of more than 30 feet between the hours of 10:00 p.m. and 9:00 a.m., unless the vehicle is a sound truck operating pursuant to a permit issued under [section 72.10.150](#)

(2)

Liability. In a prosecution under this section, it shall be rebuttable presumption that the registered owner of a vehicle from which emanates noise in violation of this section has played or allowed to be played the sound system causing the noise.

(d)

[Reserved.]

(e)

Defenses. It is an affirmative defense to a charge under subsection (a) of this section that the noise is a normal result of a kennel authorized in an industrial zone under [title 49](#) of this Code.

(f)

Disturbing the peace is an infraction.

(Serial No. 78-36, § 3, 1978; Serial No. 85-56, § 45, 1985; Serial No. 2000-44am, § 2, 1-22-2001; Serial No. 2006-18(b), § 3, 6-5-2006)

State law reference— *Disorderly conduct, AS 11.61.110.*

04 CBJAC 050.020 Performance standards.

- (a) The noise emanating from premises used for industrial activities shall be muffled so as to not become objectionable due to rhythm, intensity, pitch, or timbre, and where a use adjoins a residential district, the volume measured at the boundary line shall not exceed 55 dba's between the hours of 11:30 p.m. and 6:00 a.m., and 70 dba's at other hours.
- (b) Industrial and exterior lighting shall not be used in a manner that produces glare on public highways or neighboring property.
- (c) Arc welding, acetylene torch cutting or similar processes shall be performed so as not to be seen from outside of the property.
- (d) Provisions shall be made for necessary shielding or other preventive measures against interference caused by mechanical, electrical, electronic and nuclear equipment.
- (e) The emission of obnoxious odors or toxic or corrosive fumes or gases shall not be permitted. Dust or vapor created by an industrial operation shall not be exhausted directly into the atmosphere.
- (f) The storage of liquid or solid waste which attracts vermin or otherwise creates a health hazard is prohibited. No waste products shall be visible from eye level from any property line.
- (g) All open storage, excluding outside merchandising, shall conform to the front yard setback requirement of the zoning district in which it is located and shall be enclosed by a sight obscuring fence or planting at least six feet high.



Development Permit Application – February 2016
City and Borough of Juneau
Knik Construction Additional Information

Project Description: Knik would like to operate an asphalt plant on the property that is owned by our sister company, Alaska Marine Lines. The site would be used for the setup and operation of a portable asphalt plant which would include stockpiling of aggregates as needed for the operations. The asphalt plant operations would be on a project by project basis, i.e. projects for the City and/or State procured on a contract basis. We do not plan on setting up for commercial sales other than during times when we are operating the plant in support of any of the above type projects in the Juneau area. Knik has been operating asphalt plants in Alaska for over 30 years; we understand all of the environmental and regulatory requirements that are apart of these operations and how to comply with these requirements.

We currently have permits (copies attached) for 3 different Astec asphalt plants with the State of Alaska:

- Astec II – AQ1322MG301.1 – Rated 400 TPH
- Astec III – AQ1217MG301.1 – Rated 400 TPH
- Astec V – AQ1439MG301.2 – Rated 300 TPH

The attached copies of the permits show the type of equipment for each plant.

Utilities Proposed: Knik asphalt plants are powered by generators. Typically configuration is one main generator (1000 kw) and one standby generator (125kw). Shore power may be available and will be pursued if feasible. Water needed for dust control will be from a metered city water hydrant. We have spoken to Mark Millay with CBJ Engineering to discuss best approaches. Our water needs will be temporary on an as needed basis, so using meters will be required.

Lighting Plan: Lights will be non-glare, facing down at approximately a 45° angle from 38 feet above ground mounted to the silo. Portable light towers (non-glare) will be available to be used as needed in addition to the silo mounted lights. See attached site map for locations

Site Plan: See attached Site Plan. Parking typically will be for up to 10 employees. Sanicans will be brought in for restrooms. Trucks used for hauling of asphalt will be parked in an equipment staging area when not in use. Knik will set up the asphalt plant taking into consideration all set-backs in the Industrial zoning district, making sure to have the minimum of 10 feet in the front and rear of the area. Actual acreage of plant location is appx .84 acres.



Knik Construction's MG3 asphalt plant permits specify that we can't operate within 330 feet of the nearest residential or occupied structure. We can't operate for more than two construction seasons at the same site located within 800 feet of the nearest residence or other occupied structure. Our plant will be farther than 330 feet of the nearest residential or occupied structure but is less than the 800 feet required after two constructions seasons. Knik's Astec asphalt plants are mobile plants and we routinely move them from job site to job site state wide. We don't anticipate that our plant would be in the same location in Juneau for more than two years. Per the attached email from ADEC, once Knik completes a project and moves their plant to another project outside of Juneau, and then needs to return to work on a project not related to the original project, we would fall under the 330 foot guideline once again for the next two year period. It is not Knik's intention to have a plant operating in Juneau on a continuous basis.

Site Security: Alaska Marine Lines is an MTSA regulated facility, with an approved facility security plan. The area that Knik Construction will be operating is in a fenced area that has one main entry control point, which is gated. The gate is open during normal business hours and when barge operations take place after hours. TWIC cards are required for all workers in this area.

Hours of Operation to include hours, days and months of operation – With the successful bid for Knik Construction, we would operate typically from March until September, depending on the amount of asphalt that is needed for the project. While in full production, potential operating days/hours would be Monday thru Friday from 7:00 a.m. until 10:00 p.m.; Saturday and Sunday from 9:00 a.m. until 10:00 p.m.

Noise Concerns: Anticipated noise from the project will be mainly from backup alarms from operating trucks, truck traffic, and asphalt plant operation. Knik will observe CBJ Noise Ordinance found in section **42.20.095** and will not operate outside of the approved times of Monday through Friday, 7:00 a.m. – 10 p.m. and Saturday and Sunday, 9:00 a.m. – 10:00 p.m. If noise becomes an issue in the area or across the Channel, Knik will have the ability to construct a noise barrier by stacking shipping containers. The noise barrier would typically be 3 containers high (24 feet) and would be placed to best block noise from carrying across the channel.

Truck Traffic – Truck Traffic will vary depending on the project Knik is working on, the size of trucks being used and the location of the project. Typically a job will require material to be supplied at between 100 tons per hour (TPH) and 500 TPH. Using those rates and assuming the use of belly dump trailers hauling a legal load of 25 tons; this would result in a low of four truck loads per hour to a high of twenty truck loads per hour. Since Knik's operations will be on an on-demand basis and subject to weather, there will be gaps where no trucking will take place.



Truck drivers will be trained and knowledgeable in laws and regulations as well as local traffic patterns. As Knik procures work, Traffic Control Plans specific to the new work will be established to ensure the safety of the public and Knik employees.

Asphalt Cement – Knik ships asphalt cement in a cooled state and reheated for use. Knik has the unique ability to ship asphalt cement in specially designed shipping containers constructed with built-in heating systems. These containers make it possible to transfer asphalt cement in a way that is less harmful to the environment. Not only are the containers reusable but they transfer the hot asphalt from tank to plant without a drop hitting the ground.

Dust Control Plan and Narrative: Knik Construction Co., Inc. personnel will take all reasonable precautions to prevent particulate matter from becoming airborne. In Juneau, the primary source of dust will be from dry stockpiles and any dry road surfaces where loaders and trucks are running. Other potential areas include the Asphalt Plant operations of screening, conveyors, and baghouse. These areas will be monitored and should conditions warrant, Knik personnel will apply water to the road surfaces or other effected areas to prevent the generation of Fugitive Dust. Stockpile erosion will be addressed in the site storm water plan. Water will be from a metered city fire hydrant.

A copy of our typical fugitive dust control is attached for your review.

Stockpile details – Aggregate will be stockpiled on site; see the attached Site Plan for location of stockpiles. The aggregate will be either imported via barge direct to the AML facility or trucked in from a local Juneau material source. Front end loaders will be used to construct the stockpiles. No crushing operations will be established on site. Knik's Storm Water Pollution Prevention Plan (SWPPP) requires that erodible material be covered if not in use for an extended period. Fines would need to be covered to prevent erosion and runoff. Please see the attached SWPPP for complete details.

Grading and Drainage Plan: Area has crushed rock graded to drain to the settlement pond and infiltration point (see Figure #2 BMP Site Map located in the draft SWPPP)

Spill Containment – All measures will be taken to ensure that a spill will not occur. Should a spill occur the first action in spill response is to stop the source of the spill. Once the source of the spill has been stopped, personnel shall begin containing the spill with sorbent pads, booms, or granular sorbent, depending on the site conditions. The primary focus of containment is to keep the spill from reaching wetlands, drains, ditches, or other waterbodies and to limit the extent of contamination. Once the limits of a spill have been contained, the spill area shall be cleaned up using spill kit supplies and/or other materials. Emergency response numbers for environmental cleanup will be posted on site. Waste materials generated in the containment and cleanup of a spill shall be placed in disposal bags and stored in the overpack drum until waste can be disposed of properly at a facility approved to accept the type of waste generated.



SWPPP: We have attached a draft Storm Water Pollution Prevention Plan. Once work is secured, we are prepared to submit this to the ADEC for their review. This plan follows several guidelines we use for other Knik construction projects and facilities.

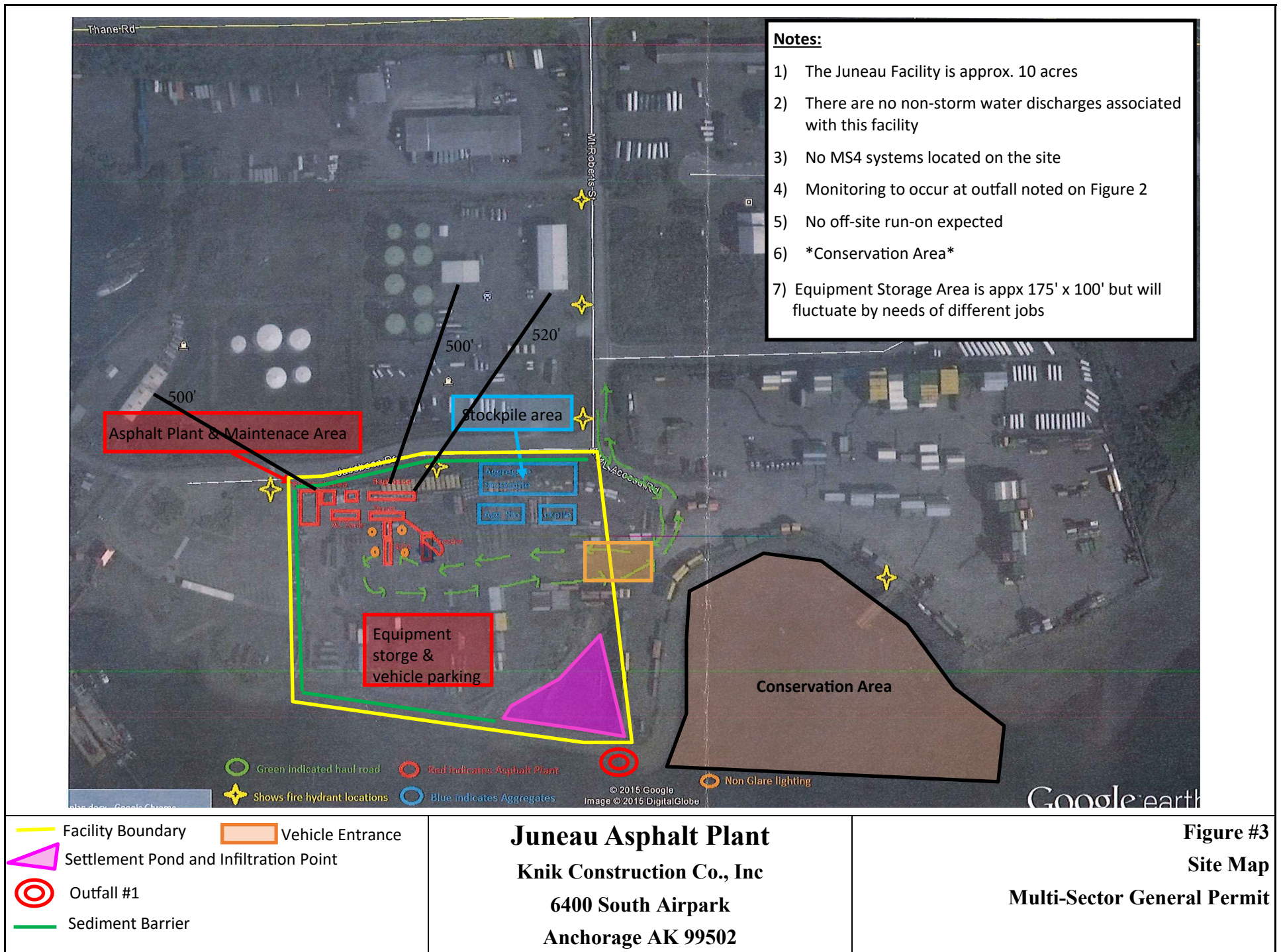


Figure #3

Site Map

Multi-Sector General Permit

Megan Daniels

From: Linda Sheehan <LINDAG@lynden.com>
Sent: Monday, March 21, 2016 7:46 AM
To: Teri Camery
Subject: FW: Asphalt Plant Site Distances

Teri, this email will hopefully explain the question you had on the clock resetting on the construction seasons.

Linda Sheehan

*Kwik Construction Co., Inc.
 Assistant Contract Administrator
 206-439-5521 direct
 206-790-9416 cell*

From: Dunn, Patrick E (DEC) [<mailto:patrick.dunn@alaska.gov>]
Sent: Wednesday, January 20, 2016 12:19 PM
To: Linda Sheehan
Cc: Siddeek, Fathima Z (DEC); Schuler, Alan E (DEC); Baumgartner, James R (DEC); Plosay, James R (DEC); Ptak, Jeremy M (DEC); Coss, Pablo M (DEC)
Subject: RE: Asphalt Plant Site Distances

Linda,

The term "occupied" would include office buildings, or any other structure with people routinely in and around it.

For the second question, the clock on two construction seasons would not reset if you are moving the asphalt plant back in order to continue working on the original construction project. However, the clock would reset if you move it back for a project unrelated to the original construction project.

Let me know if you have any further questions.

Patrick Dunn
 Alaska Department of Environmental Conservation
 Division of Air Quality
 619 E. Ship Creek Ave., Suite 249
 Anchorage, Alaska 99501
 907.269.7582

From: Linda Sheehan [<mailto:LINDAG@lynden.com>]
Sent: Tuesday, January 19, 2016 2:57 PM
To: Dunn, Patrick E (DEC) <patrick.dunn@alaska.gov>
Cc: Linda Sheehan <LINDAG@lynden.com>
Subject: Asphalt Plant Site Distances

Good afternoon Patrick, I'm not sure if you are the correct person to ask this, but perhaps you could forward if not. I have a question regarding our asphalt plant permits we currently have in place and the

Section 1. Ambient Air Quality Protection,

- 1.1 Do not operate the Asphalt Plant or a diesel engine within 330 feet of the nearest occupied structure of the work site.
- 1.2 Do not operate for more than two construction seasons at the same site located:
 - a. Within 800 feet of the nearest residence or other occupied structure off worksite; or
 - b. Within 1,100 feet of the nearest residence or other occupied structure off worksite if the residence or structure is located on terrain that is more than 50 feet above ground level of the asphalt plant aggregate drier or drum mixer.

Question 1) does "occupied structure" include any office type building, or what is the definition of occupied structure?

Question 2) If we operate for a construction season and depending what the definition of an occupied structure is, within the 800 feet, if we move our plant to another job for a season and then need to move it back to where we are within 800 feet, are we ok?

Thanks for your help.

Linda Sheehan

Kwik Construction Co., Inc.

Assistant Contract Administrator

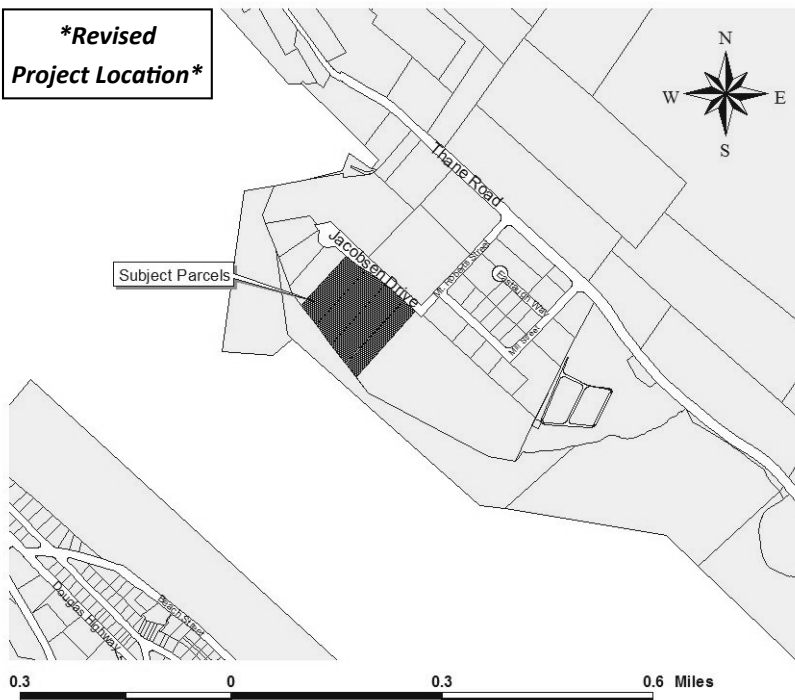
206-439-5521 direct

206-790-9416 cell



NOTICE OF PUBLIC HEARING

***Revised
Project Location***



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



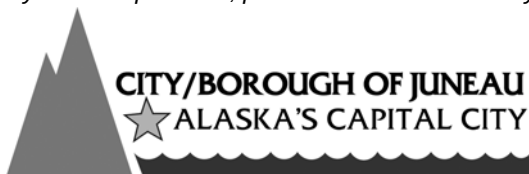
PROPOSAL: A Conditional Use Permit for an asphalt plant at the Alaska Marine Lines Yard.

File No:	USE2016 0003	Applicant:	Knik Construction Co., Inc.
To:	Adjacent Property Owners	Property PCN:	*1-C11-0-K11-001-0; *1-C11-0-K100-004-0; -005-0; -006-0
Hearing Date:	April 12, 2016	Owner:	0 Jacobsen Drive, Juneau, LLC.
Hearing Time:	7:00 PM	Size:	Total - 429,328 sq. ft. For Use - 36,590 sq. ft.
Place:	Assembly Chambers Municipal Building 155 South Seward Street Juneau, Alaska 99801	Zoned:	I - Industrial
		Site Address:	0 Jacobsen Drive
		Accessed Via:	Jacobsen Drive

PROPERTY OWNERS PLEASE NOTE:

You are invited to attend this Public Hearing and present oral testimony. The Planning Commission will also consider written testimony. You are encouraged to submit written material to the Community Development Department 14 days prior to the Public Hearing. Materials received by this deadline are included in the information packet given to the Planning Commission a week before the Public Hearing. Written material received after the deadline will be provided to the Planning Commission at the Public Hearing.

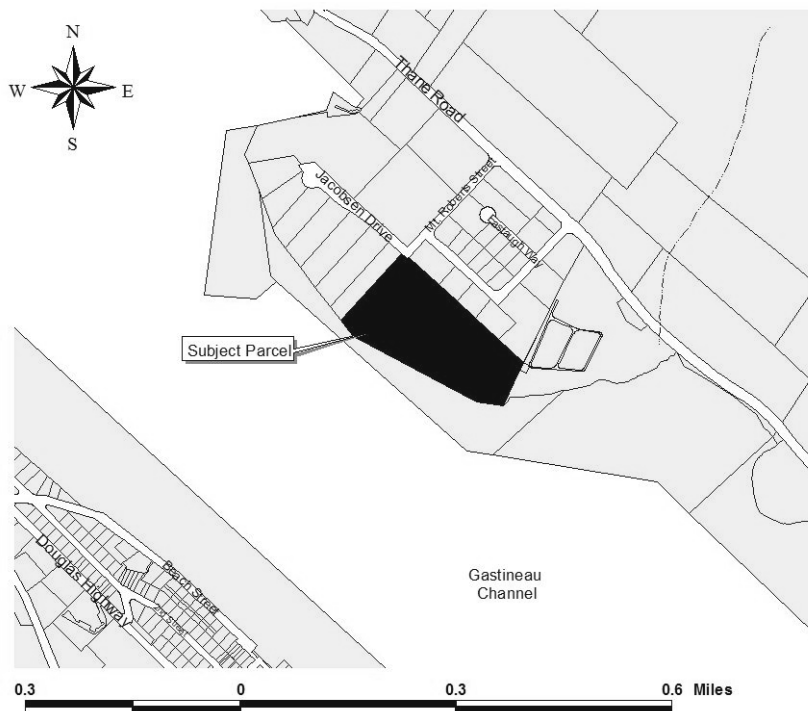
If you have questions, please contact Teri Camery at Teri.Camery@juneau.org or 586-0755.



Planning Commission Agendas, Staff Reports and Meeting Results can be viewed at <http://www.juneau.org/assembly/novus.php>



NOTICE OF PUBLIC HEARING



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



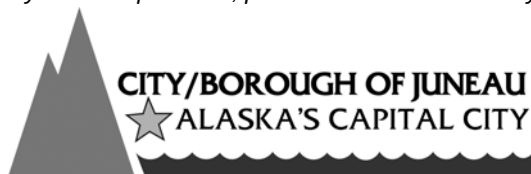
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To:	Adjacent Property Owners	Property PCN:	1-C11-0-K15-008-0
Hearing Date:	April 12, 2016	Owner:	0 Jacobsen Drive, Juneau, LLC.
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If you have questions, please contact Teri Camery at Teri.Camery@juneau.org or 586-0755.



Planning Commission Agendas, Staff Reports and Meeting Results can be viewed at
<http://www.juneau.org/assembly/novus.php>



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

PLANNING COMMISSION

NOTICE OF DECISION

Date: May 27, 2016

File No.: USE2016 0012

Seaweed Ventures
2315 Industrial Boulevard
Juneau, AK 99801

Application For: Conditional Use permit for marijuana product manufacturing facility in the Industrial zone.
Legal Description: Mason Industrial Park 2 Lot 7A1
Property Address: 2315 Industrial Boulevard
Parcel Code No.: 4-B17-0-108-007-1
Hearing Date: May 24, 2016

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated May 11, 2016 and approved the development of a marijuana product manufacturing facility at 2315 Industrial Boulevard to be conducted as described in the project description and project drawings submitted with the application and with the following conditions:

1. Parking spaces shall meet CBJ 49.40.210(b)(1); 8 spaces including 1 ADA signed space shall be marked and maintained. A parking and circulation plan shall be submitted with the building permit application.
2. The applicant shall pass all CBJ Fire Marshall inspections.
3. No offsite glare shall be produced by exterior doorway lights.
4. Security cameras shall have an unobstructed view of each doorway to the processing building and cultivation building.
5. Security cameras shall have an unobstructed view of the regular activity without sight blockage from lighting hoods, fixtures, or other equipment in the processing building and cultivation building.
6. Security cameras shall have a battery back-up system installed that operates for a minimum of 24 hours; all batteries must be replaced annually.
7. Prior to the issuance of a Certificate of Occupancy, all security devices shall be inspected to ensure they are fully operational and required signage displayed.

Attachments: May 11, 2016 memorandum from Chrissy Steadman, Community Development, to the CBJ Planning Commission regarding USE2016 0012.

Genuine Ventures, LLC
 File No.: USE2016 0012
 May 27, 2016
 Page 2 of 2

This Notice of Decision does not authorize construction activity. Prior to starting any project, it is the applicant's responsibility to obtain the required building permits.

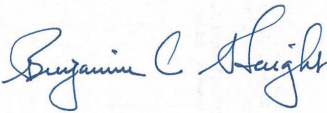
This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ §01.50.030. Appeals must be filed by 4:30 P.M. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ §01.50.030 (c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ §49.20.120).

Effective Date: The permit is effective upon approval by the Commission, May 24, 2016.

Expiration Date: The permit will expire 18 months after the effective date, or November 24, 2017 if no Building Permit has been issued and substantial construction progress has not been made in accordance with the plans for which the development permit was authorized. Application for permit extension must be submitted thirty days prior to the expiration date.

Project Planner:


 Chrissy Steadman, Planner II
 Community Development Department



Ben Haight, Chair
 Planning Commission


 Filed With City Clerk

June 3, 2016

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this development project. ADA regulations have access requirements above and beyond CBJ-adopted regulations. Owners and designers are responsible for compliance with ADA. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

DATE: May 11, 2016

TO: Planning Commission

FROM: Chrissy Steadman, Planner II *Chris Steadman*
Community Development Department

FILE NO.: USE2016 0012

PROPOSAL: Conditional Use Permit for Marijuana Product Manufacturing Facility in the Industrial Zone

GENERAL INFORMATION

Applicant: Top Hat Concentrates, LLC

Property Owner: Genuine Ventures, LLC

Property Address: 2315 Industrial Boulevard

Legal Description: Mason Industrial Park 2 LT 7A1

Parcel Code Number: 4-B17-0-108-007-1

Site Size: 15,148 square feet

Comprehensive Plan Future Land Use Designation: Heavy Industrial

Zoning: Industrial

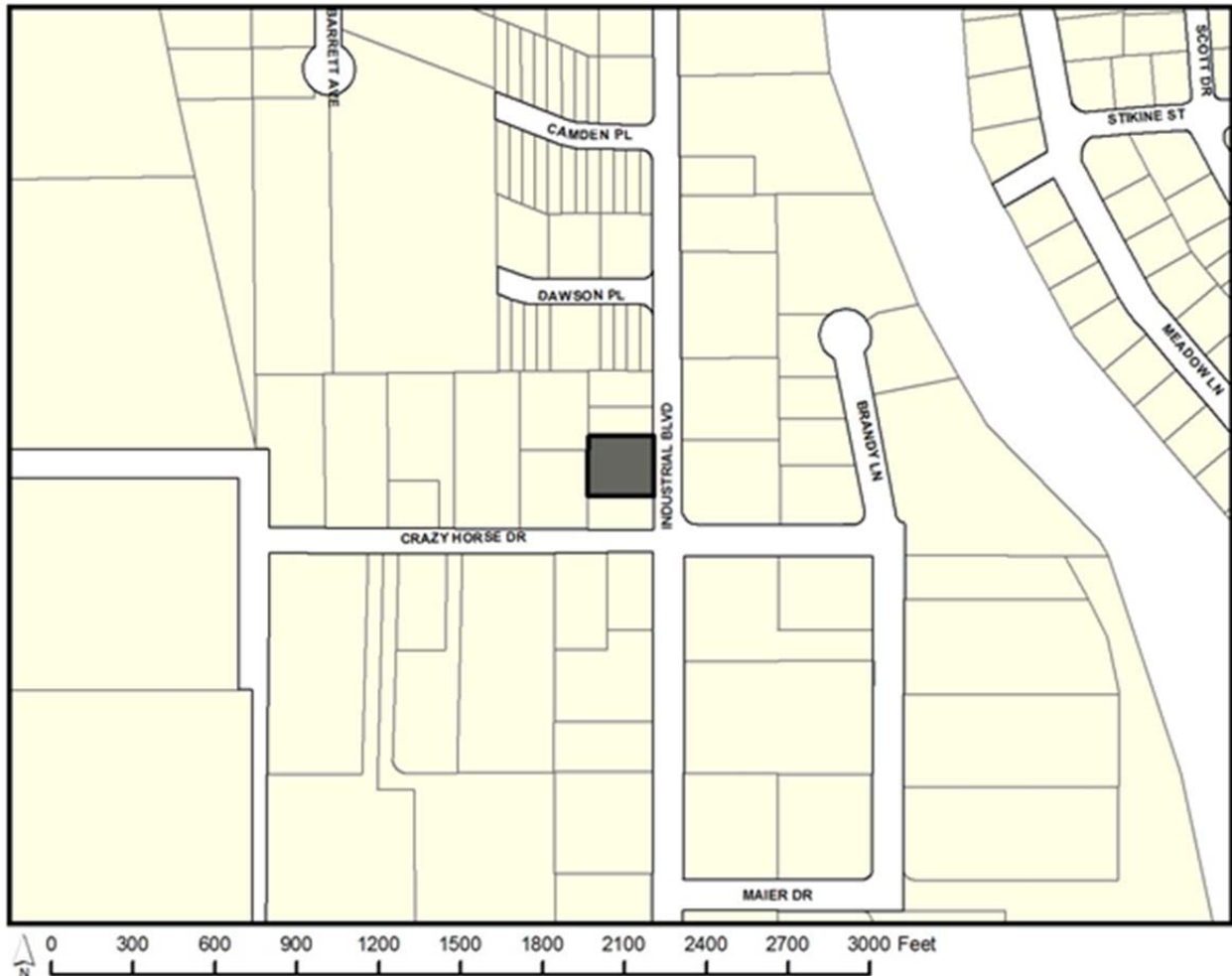
Utilities: City water and sewer

Access: Industrial Boulevard

Existing Land Use: Warehouses

Surrounding Land Use:	North	-	Industrial/Vacant
	South	-	Industrial/Auto repair
	East	-	Industrial/Industrial Blvd/Vacant
	West	-	Industrial/Lumber mill

Vicinity Map



ATTACHMENTS

- Attachment A: Conditional Use Permit
- Attachment B: Narrative
- Attachment C: As-Built Survey
- Attachment D: Floor Plan & Security Plan
- Attachment E: Photos of Warehouse
- Attachment F: Extraction Equipment
- Attachment G: Public Comment
- Attachment H: Public Notice

Planning Commission
File No.: USE2016 0012
May 11, 2016
Page 3 of 9

PROJECT DESCRIPTION

The applicant requests a Conditional Use Permit for the development of a marijuana product manufacturing facility in the Industrial Zone.

BACKGROUND

The building to be used for the proposed marijuana cultivation and product manufacturing was originally used for an auto repair business. The structure on the south side of the lot is used for seafood processing and has a caretaker apartment on the second floor. The applicant has stated that an employee of the seafood processing business is currently the caretaker and they intend to only have employees of either facility as caretakers.

The site was granted a Variance in 2001 with VAR2001 00019 to the rear yard setback of 10 feet to 4.3 feet to construct an enclosure that runs between the two buildings. According to the building records, the original two buildings were constructed in 1984.

Two types of marijuana product manufacturing licenses exist under state regulations. Similar to standard cultivation licenses and limited cultivations licenses, applicants may apply for a standard marijuana product manufacturing license, but applicants may also apply for a marijuana concentrate manufacturing facility. This proposal is for a standard marijuana product manufacturing.

Ordinance 2015-38, the Special Use Regulations for Marijuana Establishments, was passed by the Assembly on May 2, 2016 and becomes effective June 2, 2016. This permit will be subject to the regulations contained in that ordinance. The applicant has addressed the marijuana specific Conditional Use Permit application submittal requirements in their application, as demonstrated in the listed attachments to this report.

ANALYSIS

Project Site – The subject lot was platted in 1985 as part of a lot consolidation of lots 7A and 8A. The As-built survey provided in attachment C identifies the original two lots that were later consolidated. The subject lot is 120 feet wide and 126.17 feet in length, totaling 15,148 square feet. The minimum lot size in the Industrial zone is 2,000 square feet.

There are two structures on the lot. The building on the north side of the property is proposed to be used for the marijuana cultivation and product manufacturing facility. There would be no other uses in the structure. That structure is 100 feet by 40 feet. The northern corner of the building is two feet from the rear lot line and the southern rear corner of the building is 2.6 feet from the rear property line.

The second 75 feet by 35 feet structure is located on the southern portion. This northern rear corner of this structure is 4.4 feet from the rear property line and the southern rear corner is 4.5 feet from the rear property line.

Setbacks in the Industrial zone are ten feet on the front and rear yards and zero feet on the side yards. When the buildings were constructed there were no side or rear yard setbacks and there was a twenty foot front yard setback in the Industrial zone. The structures meet those setback requirements and are therefore legally nonconforming. The structure to the north will be renovated for the cultivation and product manufacturing facility. There will be no changes to the footprint of the building. None of the marijuana uses will occur in the structure on the south end of the lot.

Project Design – The existing structure will undergo a major remodel and renovation to accommodate the proposed marijuana facilities. There is a second story that is approximately 700 square feet. To the west of the second floor the warehouse opens back up to a single story. This area is proposed to be used as an indoor loading and storage area accessed by a bay door. While suppliers will be allowed in this area, there will be no access to the rest of the facility where cultivation and product manufacturing will occur. The remaining first floor area will be secure and accessed only by those with a Marijuana Handlers Permit and a company issued Radio Frequency Identification (RFID) Card. The proposed structure currently has three bay doors, two man doors, and two windows on the south facing side. There are two windows on the east facing side. All windows will be removed and walled in. The western most man door and two eastern most bay doors will also be walled in. As previously stated, the third bay door will be used to access the indoor storage and loading area (Attachment E).

The product manufacturing portion of the building is proposed to be on the secure second floor and will occupy approximately 200 square feet of the 700 square foot second story. The second story will also have an office, a mother plant room (see USE2016 0013), a drying room, and packaging area (Attachment D).

The concentrate extraction process is conducted with four pieces of equipment; a CO2 extraction system, round bottom, vacuum oven, and freezer (Attachment F). The CO2 extraction compresses the cannabinoid rich oil out of the plant matter. The remaining plant material is rendered as waste. The extracted concentrate is then placed into the round bottom, a common laboratory system for chemical reactions, to dissolve into alcohol. The remaining substance is then filtered of any remaining plant material and frozen. The final step is to put the concentrate in the vacuum oven for a process typically referred to as “purging”. The remaining alcohol is evaporated from the concentrate and the substance is ready to package.

Traffic – Traffic to and from the site will consist of employees, supply delivery, including the CO2 supplier, and marijuana product deliveries to other locations. Traffic generated by the product manufacturing use will be that of the single employee, scheduled deliveries for CO2 refills, and product delivery off-site.

Planning Commission
File No.: USE2016 0012
May 11, 2016
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CO2 canisters would likely be refilled once to twice a month. The applicant owns and operates restaurants and has stated that the same canisters are used for beverages in the restaurant and need to be filled once a month. Other supply delivery will include soil, fertilizers, state required tracking tags, packaging material, and any professional services required of any large warehouse. These types of deliveries are not expected more than once every two weeks.

Parking and Circulation – According to CBJ 49.40.210, the proposed product manufacturing and cultivation facility requires 1 parking space for the office, 2 parking spaces for the cultivation and 1 parking space for the product manufacturing. The other building requires 1 parking space for the caretaker residence and 3 parking spaces for the seafood processing.

CBJ 49.40.210(b)(3) requires that for 1 to 25 parking spaces one space must be ADA accessible. Accessible spaces are required to be 13 feet by 17 feet, including an access aisle that measures 5 feet by 17 feet.

Therefore, the site requires a total 8 parking spaces, one of which is ADA accessible. Standard parking spaces are required to be 8.5 feet by 17 feet and parallel spaces are required to be 6.5 feet by 22 feet. There is space for four standard parking spaces with adequate circulation in front of the south building. Two spaces can be provided on the east side of the north building with two additional parallel spaces provided on the south side of the north building. Therefore, the site has adequate space to provide the required parking.

According to CBJ 49.40.210(c)(1) and (2), the site requires 1 off-street loading space. The off-street loading area is required to be a minimum of 30 feet by 12 feet and 14 feet high. In discussions with staff, the applicant proposes using the space between the two buildings as a loading space. There is also the indoor storage and loading area which will be used in addition to the outdoor loading space. Staff recommends as a condition of approval, that the applicant submit with the building permit plans a parking and circulation plan.

Noise – Noise is not expected to be of concern with the development of the marijuana product manufacturing facility. Surrounding uses include a lumber yard and warehouse adjacent to the west, a printing company adjacent to the south, a vacant lot directly across Industrial Boulevard to the east, two vacant lots adjacent to the north, and auto repair shops to the east, south, southeast. All activity for the concentrate extraction process will take place inside the building. The building will not have any windows and doors will be secure at all times. The HVAC system in the cultivation facility will produce noise within the building, but it is not expected to be audible outside the building. Noise is expected to be less than other uses that may be permitted outright in the Industrial zone.

Lighting – There is an existing downward facing light on the east side of the building which is on through the night. Additional LED flood lights will be added above the entry door and on the

Planning Commission
File No.: USE2016 0012
May 11, 2016
Page 6 of 9

southeast corner of the building. The additional lights will be motion activated.

Public Health or Safety – CO₂ will be used to extract the essential oils from the plant. This method is nonflammable and contains no chemical solvents. The matter extracted from the CO₂ compressor could be consumed after that initial step. The applicant proposes to use nontoxic products for plant fertilizer and pest control. Therefore, the plant material used for extraction will be clear of any harmful contaminants.

Besides product quality control, security is a concern in the legal marijuana industry. State regulations provide for processes and standards to ensure legal marijuana does not end up in the illegal market, is sold only to those 21 and over, and that licensed marijuana establishments are secure from theft. Ordinance 2015-38 requires that Conditional Use Permit applications include a security plan indicating how the applicant will comply with the requirements imposed by State law. Those requirements include;

- Exterior lighting;
- Security alarm system on exterior doors;
- Continuous video monitoring;
and,
- Commercial grade door locks on exterior points of entry.

The applicant has included a floor plan indicating where each camera, motion sensor, door sensor, and RFID card reader will be placed as part of the surveillance system. While not required, the applicant intends to use a RFID access system to the facility, adding an additional layer of security with its personnel tracking capabilities.

Staff recommends as condition of approval, that prior to a Certificate of Occupancy, staff conduct a site visit to ensure surveillance system is fully operational and all health and safety signs are displayed.

The proposal identifies the use of filtration, ventilation, pesticides, and sanitation as methods to be used to reduce the chance of mold, mildew, fungus, or pests. As described in the project narrative found in Attachment A, the air handling system provides contaminant filtration as well as odor filtration. Filtered air will exit the building through an exhaust. Samples of marijuana and manufactured product must be tested in a state licensed facility prior to sale. Testing facilities are required to test for harmful contaminants and residual solvents from extraction processes. Therefore, any harmful chemicals or microbial will be detected prior to consumer consumption.

Habitat – No habitat regulated by Title 49 is affected by this proposal.

CBJ 49.50.300 requires five percent of the site be maintained with vegetative cover. For this site, 757 square feet of vegetative cover is required. By using aerial photography, staff

Planning Commission
 File No.: USE2016 0012
 May 11, 2016
 Page 7 of 9

estimates the vegetative cover to be approximately 995 square feet, or 6.5 percent of the site. Therefore, the minimum vegetative cover requirement is met.

Property Value or Neighborhood Harmony – Existing uses in the neighborhood include several automotive repair shops, a printing company, and a lumber mill. This Use is expected to generate less daily traffic and noise than other uses in the area.

At the time this staff report was due, staff received comments from two community members in support of the proposal (Attachment G). The two letters were not property owners in the neighborhood.

Conformity with Adopted Plans – The subject site is located in Subarea 3 of the 2013 Comprehensive Plan and has a land use designation of Heavy Industrial (HI). According to the HI land use designation definition found on page 149 of the Comprehensive Plan, large scale food production and processing, and other manufacturing processes should be allowed on these lands. The proposed marijuana cultivation facility is a similar type of use.

Staff further reviewed the 2013 Comprehensive Plan for policies that may be relevant to the proposal:

POLICY 5.1. TO DEVELOP AND SUSTAIN A DIVERSE ECONOMY, PROVIDING OPPORTUNITIES FOR EMPLOYMENT FOR ALL RESIDENTS.

POLICY 5.18. TO ENCOURAGE AND SUPPORT ENTREPRENEURSHIP AND INNOVATION IN THE ECONOMY OF JUNEAU AND SOUTHEAST ALASKA.

The proposed development would help to diversify the economy and is a new business as encouraged by these policies.

FINDINGS

CBJ §49.15.330 (e)(1), Review of Director's Determinations, states that the Planning Commission shall review the Director's report to consider:

1. Whether the application is complete;
2. Whether the proposed use is appropriate according to the Table of Permissible Uses;
and,
3. Whether the development as proposed will comply with the other requirements of this chapter.

The Commission shall adopt the Director's determination on the three items above unless it finds, by a preponderance of the evidence, that the Director's determination was in error, and states its reasoning for each finding with particularity.

Planning Commission
 File No.: USE2016 0012
 May 11, 2016
 Page 8 of 9

CBJ §49.15.330 (f), Commission Determinations, states that even if the Commission adopts the Director's determination, it may nonetheless deny or condition the permit if it concludes, based upon its own independent review of the information submitted at the public hearing, that the development will more probably than not:

1. Materially endanger the public health or safety;
2. Substantially decrease the value of or be out of harmony with property in the neighboring area;
or,
3. Not be in general conformity with the Comprehensive Plan, Thoroughfare Plan, or other officially adopted plans.

Per CBJ §49.15.330 (e) & (f), Review of Director's & Commission's Determinations, the Director makes the following findings on the proposed development:

1. Is the application for the requested conditional use permit complete?

Yes. Staff finds the application contains the information necessary to conduct full review of the proposed operations. The application submittal by the applicant, including the appropriate fees, substantially conforms to the requirements of CBJ Chapter 49.15.

2. Is the proposed use appropriate according to the Table of Permissible Uses?

Yes. The requested permit is appropriate according to the Table of Permissible Uses. The permit is listed at CBJ §49.25.300, Section 4.220 for the Industrial zoning district.

3. Will the proposed development comply with the other requirements of this chapter?

Yes. The proposed development complies with the other requirements of this chapter. Public notice of this project was provided in the May 14, 2016 and May 23, 2016 issues of the Juneau Empire's "Your Municipality" section, and a Notice of Public Hearing was mailed to all property owners within 500 feet of the subject parcel. Moreover, a Public Notice Sign was posted on the subject parcel, visible from the public Right of Way.

4. Will the proposed development materially endanger the public health or safety?

No. The applicant has proposed a surveillance and security system that exceeds the minimum state and local regulations. Further, much of the use, aside from employee and other occasional delivery traffic, is contained indoors in a secure facility where non-employees are not permitted.

5. Will the proposed development substantially decrease the value of or be out of harmony

Planning Commission
File No.: USE2016 0012
May 11, 2016
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with property in the neighboring area?

No. The use is adjacent to vacant lots and other industrial uses with similar and more intense off-site impacts such as noise and traffic. The proposed marijuana product manufacturing facility will not decrease the value of or be out of harmony with property in the neighborhood.

6. Will the proposed development be in general conformity with the land use plan, thoroughfare plan, or other officially adopted plans?

Yes. The development of private businesses in Juneau is supported by the Comprehensive Plan. Further the HI land use designation supports manufacturing uses.

Per CBJ §49.70.900 (b)(3), General Provisions, the Director makes the following Juneau Coastal Management Program consistency determination:

7. Will the proposed development comply with the Juneau Coastal Management Program?

N/A

RECOMMENDATION

It is recommended that the Planning Commission adopt the Director's analysis and findings and grant the requested Conditional Use permit. The permit would allow the development of a marijuana product manufacturing facility in the Industrial zone.

The approval is subject to the following conditions:

1. Parking spaces shall meet CBJ 49.40.210(b)(1); 8 spaces including 1 ADA signed space shall be marked and maintained. A parking and circulation plan shall be submitted with the building permit application.
2. The applicant shall pass all CBJ Fire Marshall inspections.
3. No offsite glare shall be produced by exterior doorway lights.
4. Security cameras shall have an unobstructed view of each doorway to the processing building and cultivation building.
5. Security cameras shall have an unobstructed view of the regular activity without sight blockage from lighting hoods, fixtures, or other equipment in the processing building and cultivation building.
6. Security cameras shall have a battery back-up system installed that operates for a minimum of 24 hours; all batteries must be replaced annually.
7. Prior to the issuance of a Certificate of Occupancy, all security devices shall be inspected to ensure they are fully operational and required signage displayed.

DEVELOPMENT PERMIT APPLICATION

Project Number USE 16-12	CITY and BOROUGH of JUNEAU	Date Received: 3/30/16
Project Name (City Staff to Assign Name)		

INFORMATION PROJECT / APPLICANT	Project Description Marijuana Product Manufacturing Facility		
	PROPERTY LOCATION		
	Street Address 2315 Industrial Blvd	City/Zip Juneau, AK 99801	
	Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot) Mason Industrial Park, Block 2 Lt 7A1		
	Assessor's Parcel Number(s) 4-B17-0-108-007-1		
	LANDOWNER/ LESSEE		
	Property Owner's Name Seaweed Ventures, LLC / Tracy LaBarge	Contact Person: Tracy LaBarge	Work Phone: 907-723-2004
	Mailing Address 2315 Industrial Blvd, Juneau, AK	Home Phone:	Fax Number:
	E-mail Address tracy@kingcrabshack.com	Other Contact Phone Number(s):	
	LANDOWNER/ LESSEE CONSENT ***Required for Planning Permits, not needed on Building/ Engineering Permits***		
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows: A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission. B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.			
X <u>Tracy LaBarge</u> Landowner/Lessee Signature		<u>3/30/16</u> Date	
X _____ Landowner/Lessee Signature		_____ Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.			
APPLICANT If the same as OWNER, write "SAME" and sign and date at X below			
Applicant's Name John S. Namethy (Top Hat Concentrates) LLC	Contact Person: SAME	Work Phone:	
Mailing Address 406 S. Franklin St, Juneau, 99801	Home Phone: 313-318-5322	Fax Number:	
E-mail Address john@thealaska.com	Other Contact Phone Number(s):		
X <u>John S. Namethy</u> Applicant's Signature		<u>3/30/16</u> Date of Application	

-----OFFICE USE ONLY BELOW THIS LINE-----

STAFF APPROVALS	☒	Permit Type Building/Grading Permit	***SIGN	Date Received	Application Number(s)	
		City/State Project Review and City Land Action				
		Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)				
		Mining Case (Small, Large, Rural, Extraction, Exploration)				
		Sign Approval (If more than one, fill in all applicable permit #'s)				
		Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)				
	✓	Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)	✓	3/30/16	USE 20160012	
		Variance Case (De Minimis and all other Variance case types)				
		Wetlands Permits				
		Zone Change Application				
		Other (Describe)				
	***Public Notice Sign Form filled out and in the file.					
	Comments:					Permit Intake Initials JKL

TO BE C
LETED BY THE APPLICANT

Page 1 of 2

THC Alaska, LLC

2315 Industrial BLVD • Juneau, AK 99801 • Phone: 313.318.5322

Mail: john@thcalaska.com

CBJ Conditional Use Permit Application for Top Hat Concentrates, LLC: Narrative and Site Plan, 3/28/2016

RECEIVED

MAR 30 2016

PERMIT CENTER/CDD

CONTENTS

-Business Structure & Operations

-Extraction Overview

-Site Construction / Development

-Safety & Security

-Equipment / HVAC Specs

-Site Plan & Drawings

-Attachments

BUSINESS & OPERATIONS

Top Hat Concentrates, LLC is comprised of three individuals, John S Nemeth, Benjamin Wilcox, and Tracy LaBarge, licensed by the State of Alaska and managed by JBT Development, LLC. The company seeks a Conditional Use Permit for a marijuana product manufacturing facility (table of permissible uses code 4.220). CEO John S Nemeth will oversee the company and VP Benjamin Wilcox will manage cultivation. Top Hat Concentrates, LLC strives to be the best cannabis extraction company in North America with the highest regard for quality production and the environment. The extracts produced under our own label will be Co2 extracted, free of chemical pesticides, and will always be Vegan/Organic. This company and its' equipment will be in secured access room inside the cannabis cultivation facility, Top Hat, LLC. Top Hat Concentrates, LLC will extract for Top Hat Cannabis, LLC as well as other properly licensed facilities within the CBJ.

EXTRACTION PROCESS

When you hear the word "extraction" or "processing" of cannabis what that is referring to in the case of Top Hat Concentrates, LLC is removing the cannabinoids (THC, CBD, CBG...) from the plant material. This process is extremely safe and requires a special closed loop botanical extractor and Co2 (the same substance used to carbonate your favorite soft drink). The extractor uses the compressed gas to remove the cannabinoids from the plant material. This is the same process used by other companies to make essential oils, perfumes, and other extracts. We chose the more expensive Co2 method to keep our cannabis, and others who use our extraction company, as healthy as possible. Co2 for the process is brought to the facility by a beverage gas supply company in the form of 60lb refillable tanks that attach to the side of the extractor.

After the product is extracted it goes through what's known as a winterization process. Simply stated this the process that stabilizes the product and separates any remaining plant material. Co2 extracted product is placed in a round bottom (same as you'd find in any lab) and dissolved into alcohol. This substance is then frozen in a laboratory freezer, filtered, and then placed in a laboratory vacuum oven to remove any remaining alcohol from the extraction. What you're left with is a clean THC/CBD product free of plant material that is ready to be used as is, placed in vaporizer cartridges, edibles, or capsules.

Alcohol is the only flammable and potentially dangerous substance in the entire facility (aside from a few house hold cleaners). Being that there are no open or any flames in the facility. Alcohol is just as safe to have around as it is in doctor's offices, hospitals, and art studios.

USE OF SITE

The extraction room will utilize approx. 200sqft in total of an existing structure located on lot 8A of the parcel 4-B17-0-108-007-1 in the Mason Industrial Park #2 (GPS coordinates 58.3664 (lat), -134.605 (long), zoned industrial) at 2315 Industrial Blvd, Juneau, AK 99801. The structure will be permitted and constructed to reflect the plans attached here following all State and CBJ guidelines for such facilities. Growing areas use approx. 1824 of the available 3000 square feet. The processing facility is located in a secure area behind a secured RFID access only door. During the expected operating hours of 8am - 12am the extraction facility will have 1, maybe 2 people working in the room at a time. ALL employees will be documented in accordance to State and Federal Law and possess marijuana handling certifications on their person at all times. There will also be photocopies of all employees' cards in the office.

Electrical usage for the extraction room has been factored into the electrical plan/upgrade for Top Hat, LLC. The entire building will be 480amp 3 phase and the extraction room will use 125 of those amps.

Parking for up to 8 vehicles will be provided on the south and east side of the structure.

SAFETY & SECURITY

The safety and security of our people and surrounding neighbors is top priority. The attached security plan shows the location of 2.3mm 1.3mp security cameras, secured door/access points, door sensors, motion sensors, and location of stored equipment/data backup. There will be no windows and only 2 secured access doors for ingress and egress. Cameras will have coverage of 100% of the entire facility leaving no opportunity for blind spots. The storage of data back up and all security processing equipment will "owner only" accessible with an access log located inside the cabinet to record when and who accessed. There is backup power provided for the security system for 4 hours. The exterior of the building will be lit with motion sensor lighting to highly illuminate the access door and allow for clear visibility on cameras at any time of the day/night. The safes will be fire proof up to 2 hours in accordance to State regulations. Security system will be monitored locally to ensure prompt service in the event it is needed. System also includes a "panic" feature.

As part of the safety plan all MSDS sheets for products used in the facility will be easily accessible to every employee. Clear evacuation plans and emergency numbers will be posted as well.

Transportation of product will begin as it is logged "out for transfer" within the State tracking system to licensed dispensary operations. The vehicle will be in a secured garage area in a building attached to the processing/cultivation facility. Product will be loaded into the vehicles' secured and lockable vessel and immediately transported to the purchasing dispensary. From there it is signed off on, recounted and logged into their tracking system. Transport of large quantities of cannabis products will be kept to a minimum frequency of around 2-3 random times per week to limit any risk.

ODOR, WASTE & NOISE

The air handling system provided by Surna, LLC includes filtration for intake and exhaust air via hepa filters. This is to prevent contaminants from entering the facility as well as remove odor from flowering plants in the air exiting the building. Currently, the lot next door that is closest to where exit air will be coming out, is vacant. In the future if that land is developed the exit air is not harmful and will possess no noticeable smell.

There will be little to no water run off associated with the cultivation or processing facility. Water will be used as a part of strict cleaning procedures to hose dirt off cultivation room floors. This water will run into floor drains (according to an attached permit issued on the property in 2008 all of the buildings previous waste systems connected to a municipal sewer system and previous drain field and holding tank have been properly decommissioned). As stated above there will be no materials harmful to humans or the environment entering the ground or city municipal system.

Plant waste discarded from the botanical extractor will be the only waste generated by the extraction company. This will be logged and combined with non-hemp waste at the 50/50 State mandated ratio, locked in secured trash bins where it will await removal by waste management company.

The only noticeable noise heard on the outside of the facility by all operations will be that of the air conditioning compressors or dry cooler when in use. Neighboring condensers for existing equipment on the property are louder than this system.

HVAC SYSTEM

Surna, LLC out of Denver, CO are experts in the indoor horticultural industry. They will be drafting the engineering plan and SOW for HVAC with a State of Alaska certified stamp. The system is made up of a series of air handlers that move air in the various cultivation rooms. The air handlers are noted on the floor plan for the facility. They also include electric heat elements should the facility ever need to be heated.

Cooling will come from a "dry cooler" a majority of the time. Utilizing the cool ambient temperatures in Juneau as it's cooling source this makes for a very efficient, energy saving system. The system is ductless and connected by pipes vs. traditional ducting. All condensation water will be collected by dehumidification equipment and then re-used for watering plants.

Aiding in pest/microbial prevention the system is equipped with an Airoclean Microbial Environmental Control Kit. Similar to what's used in hospitals.

SUMMARY

Top Hat Cannabis, Top Hat Concentrates, and Kannavi will operate together as vertically integrated Alaskan cannabis companies operated by JBT Development, LLC. The primary goal is to produce the world's best and safest cannabis products, but education, medical research, and philanthropy are key drivers of success for the group. Through our educational programs at Kannavi, continued partnerships in medicine & lab research, and commitment to give back to numerous groups in the local community; current generations and businesses of other industry in the future to come will look up to our practices and business model.

We look forward to driving a successful future for Juneau and the cannabis industry!

*Top Hat, LLC; Top Hat Concentrates, LLC; Kannavi, LLC; and JBT Dev., LLC are all registered and trademarked entities by THC Alaska, LLC. Use of names or any proprietary information other than for the purpose of this application within this document is unlawful.

John S Nemeth

Owner/President

313.318.5322

john@thcalaska.com

Benjamin Wilcox

Owner/Vice President

907.419.0065

thcalaska@yahoo.com

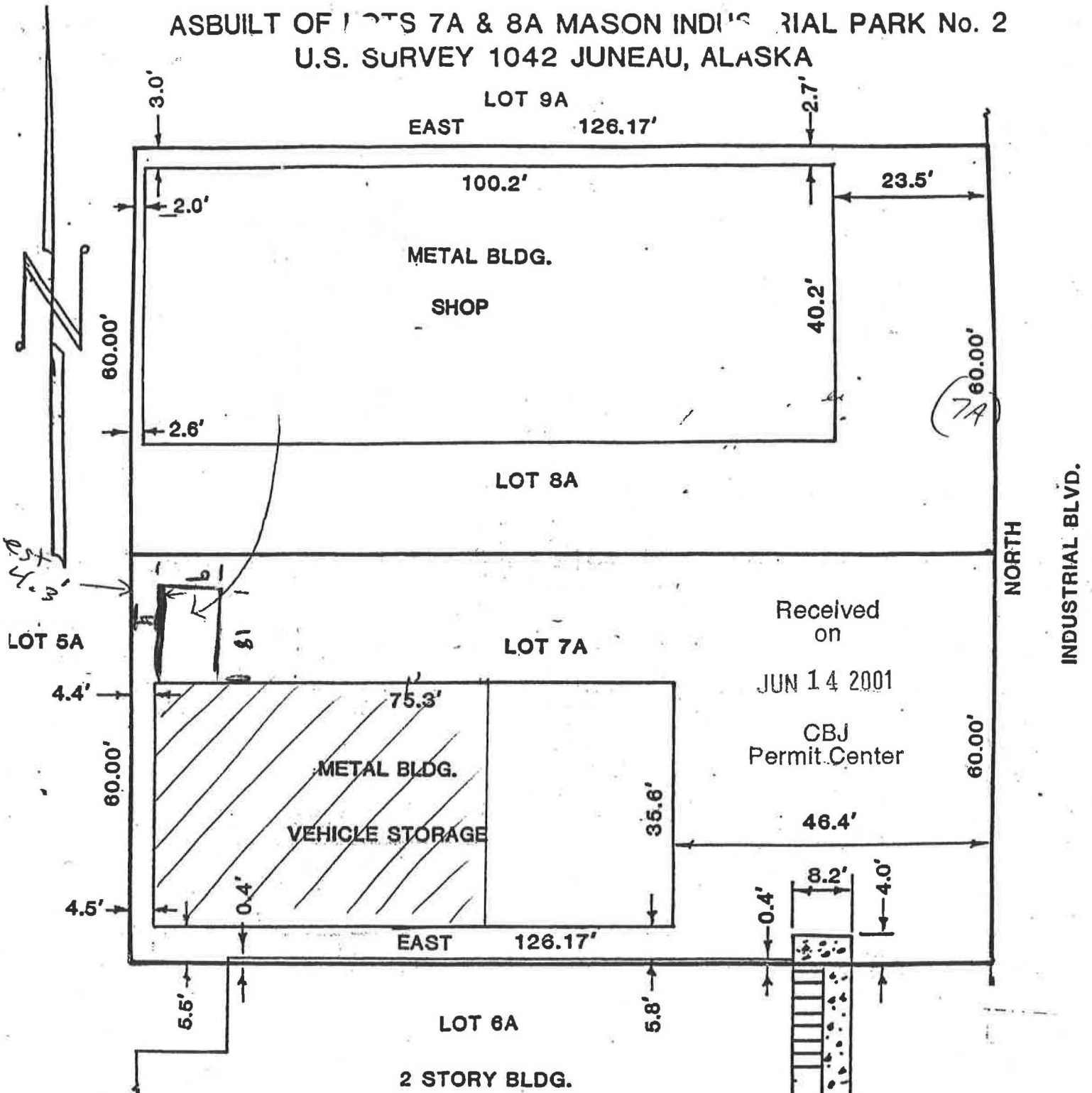
Tracy LaBarge

Owner/ Secretary Treasurer

907.723.2004

tracy@kingcrabshack.com

ASBUILT OF LOTS 7A & 8A MASON INDUSTRIAL PARK No. 2
U.S. SURVEY 1042 JUNEAU, ALASKA



4-B17-0-108-007
008

CERTIFICATE OF REGISTERED LAND SURVEYOR

I hereby certify I am a registered professional land surveyor and that this plat represents the survey made by me or under my direct supervision and that all dimensions, encroachments, easements and other details are correct to the best of my knowledge.

Date: Jan 28, 1985

Attachment C



SCALE 1" = 20'
Received on

JUN 29 2001
VAR2001-00019
Attachment A

KEOPPLE SURVEYS
P.O. BOX 2758
JUNEAU, ALASKA 99803



THC ALASKA
GROW FACILITY
JUNEAU, AK 99801
313-318-5322

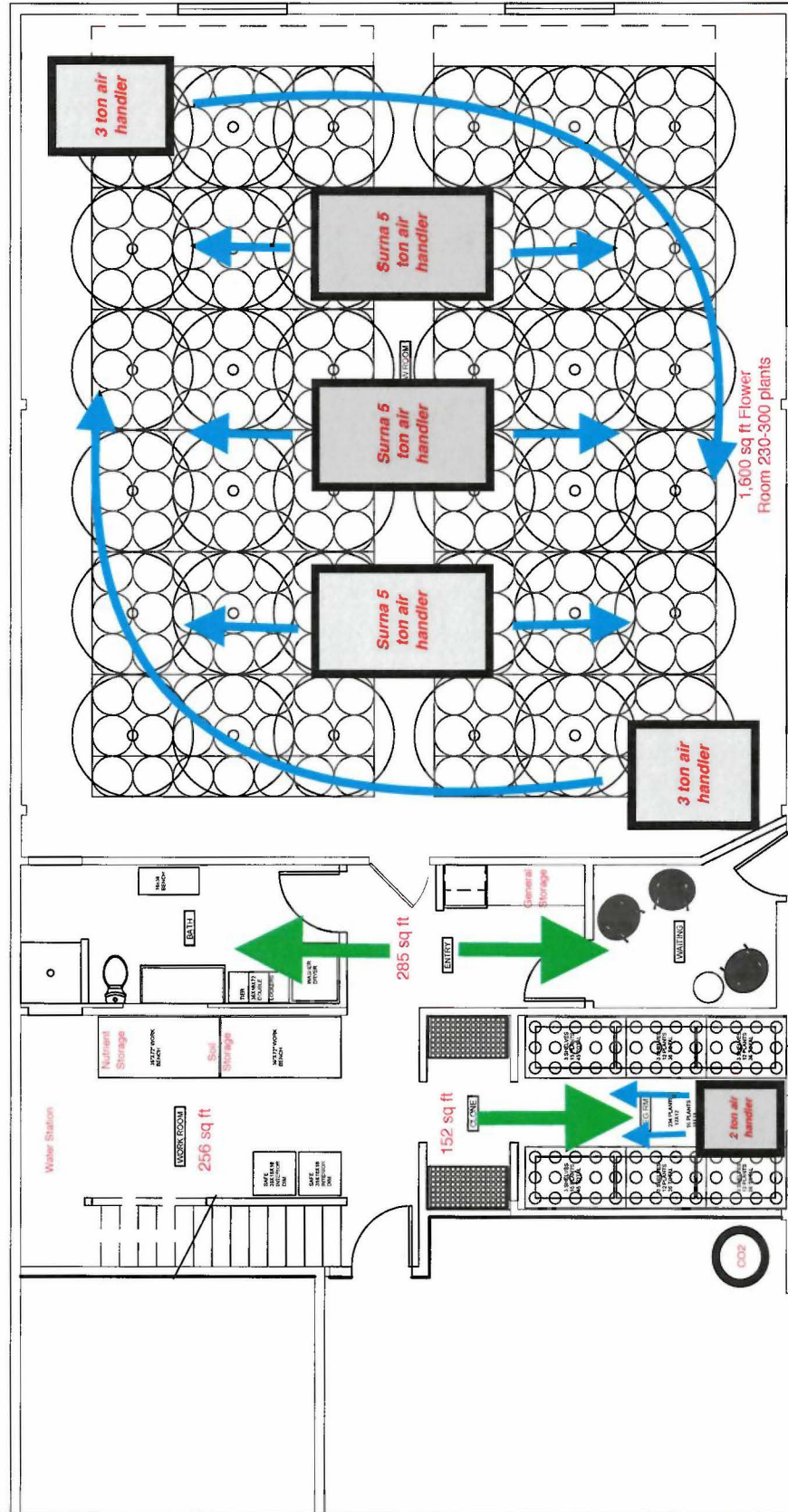
job#
drawn by:
checked by:
date: 9/10/
scale: 3/16

FIRST FLOOR
PLAN

SHEET

A1

OF X SHEET



TOTAL 1st FLOOR SQ FT 2,293

BAUER/CLIFT
INTERIO

119a 2nd street
Juneau, AK 99801
[p] 907.789.9120
[f] 907.789.9121
info@bauerclifton.com
www.bauerclifton.com

THC ALASKA
GROW FACILITY
JUNEAU, AK 99801
313-318-5322

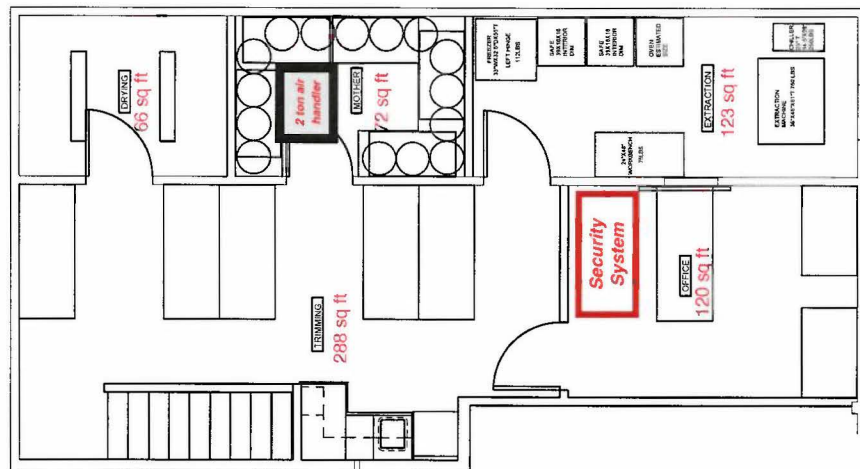
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drawn by:
checked by:
date: 9/10/
scale: 3/16

SECOND FLOOR
PLAN

SHEET

A2

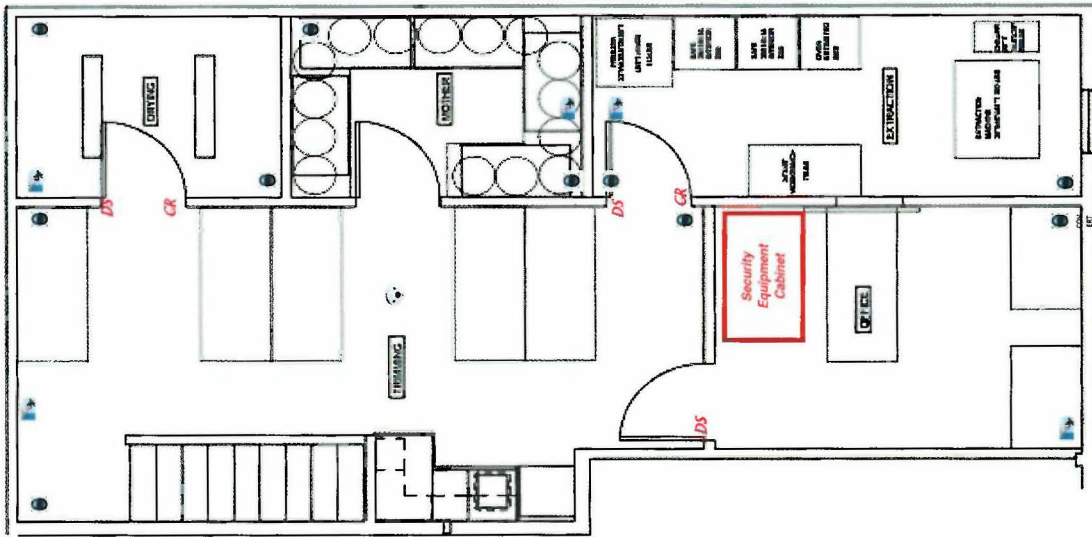
OF X SHEET



TOTAL 2nd FLOOR SQ FT 669



1 CBJ CUP PERMIT APPLICATION FOR TOP HAT, LLC



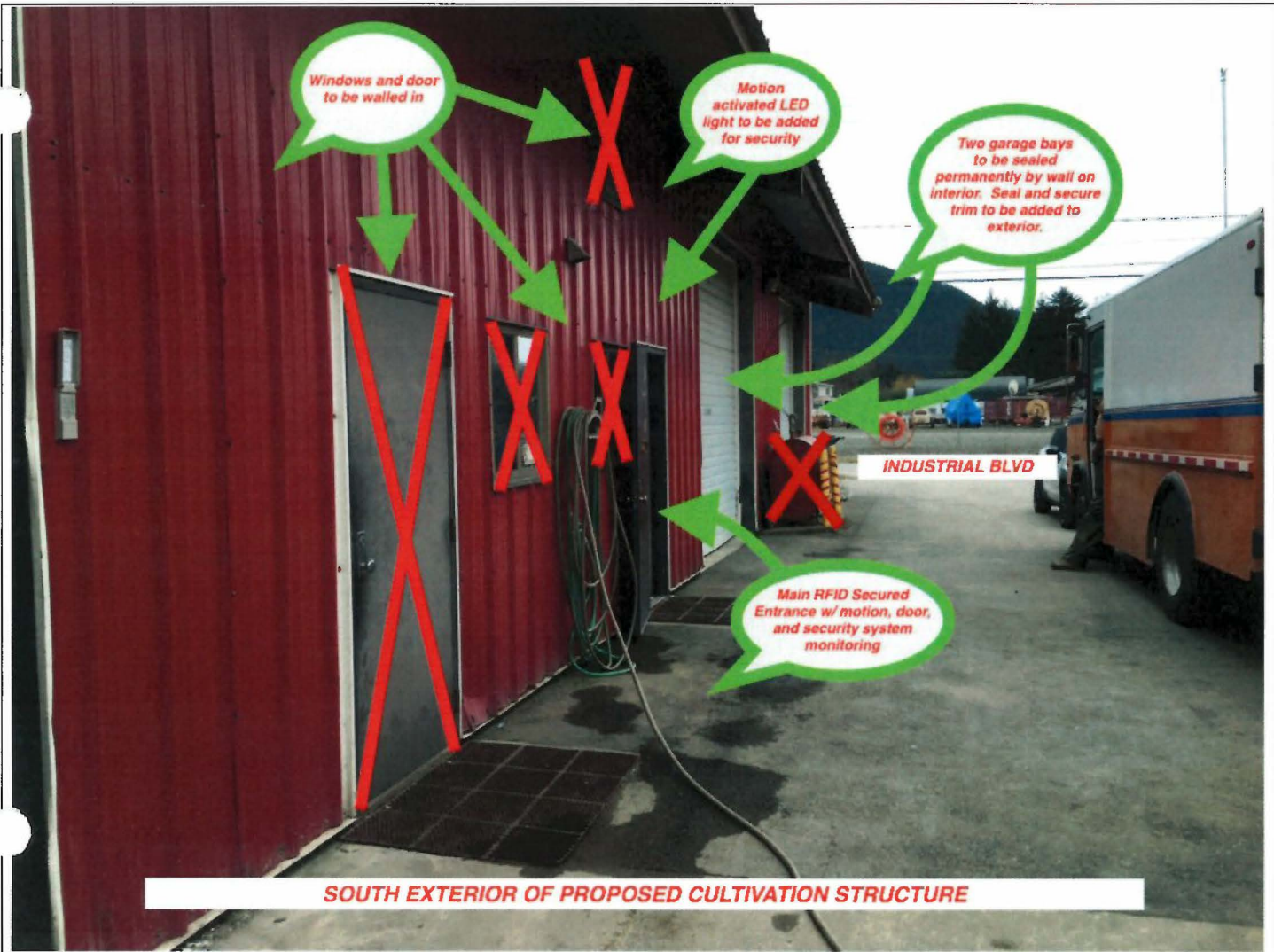
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CR Card Reader

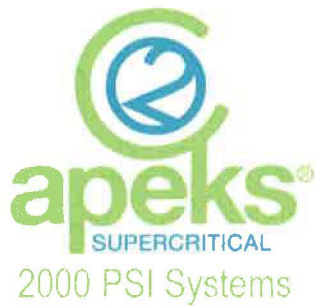
Motion

360 Camera

 Surveillance Camera







Fully Automated Control System

- Touch Screen -Web Enabled
- No additional hardware or CPU needed

Diaphragm Pumping System

- Single Phase 220v
- No Air Compressor Needed

Quick Opening Hinged
Screw Closure
Faster setup between runs

Built in leveling feet
with weight indication

Compact recirculating
water chiller/heater
Single unit multipurpose use

Cold Separation Valveless Expansion

- Prevents heat breakdown -Minimize down time
- Better terpene preservation

2000-5Lx5LD Complete Subcritical/Supercritical CO2
Extraction System



HELIX® FREEZERS

We provide small (5 cu ft) or large (10 cu ft) –20°C freezers, and a –80°C ultra-low-temperature freezer option.

Small Biomedical Freezer			›
Large Biomedical Freezer			▼
Attribute	Specifcation (Imperial)	Specifcation (Metric)	
External Dimension	71H × 24W × 27D in	180.4H × 61W × 66D cm	
Internal Dimension	49H × 19.5W × 15D in	124.5H × 49.5W × 38D cm	
External Space	71H × 24W × 15D in Place 3" from back wall and 21" from front wall	180.4H × 61W × 66D cm Place 76mm from back wall and 534mm from front wall	
Volume	8.3 ft³ (Usable)	91 L	
Weight	200 lbs	91 kg	
Electrical Input	120VAC, 60Hz, 1.00A 240VAC, 50Hz, 0.50A		
Electrical Output	120VAC, 60Hz, 10A (10A only if connected device has its own power protection) 240VAC, 50Hz, 5A (5A only if connected device has its own power protection)		
Power Consumption	180W max		
Battery	12VDC, 1.3A, Sealed lead acid, qty 2		
Security Device	Electromagnetic Lock		
Access Control	EM4102/EM4200 Proximity Reader		
Environmental Protection	IPXO		
Sound Level	37dB		


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MADE IN THE USA

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Equipment

[Home](#) [Equipment](#) [Coldfinger™ Units](#)


Double click on above image to view full picture



MORE VIEWS



Coldfinger™ Professional Round Bottom

[Email this Extraction System to a Friend](#)

[Be the first to review this product](#)

Product Description

The Professional Round Bottom unit performs the same functions as the standard Professional unit with the added benefit of being able to pull a deep vacuum. The use of vacuum enables the user to distill at much lower temperatures and do extractions much faster. The unit comes complete with an integrated cold trap to capture solvent vapors and return the solvent to the main flask. It also comes with a high quality vacuum pump which pulls a vacuum of 20 microns and a CFM of 4, and a heating mantle with controls.

The use of vacuum enables distillation at low temperatures and creates faster extraction. Integrated cold trap captures solvent vapors and recirculates to the main flask.

12L capacity - 1.5L of herb

22L capacity - 2.25L of herb

50L capacity - 5.6L of herb

Please choose size below.



SVAC4 SHEL LAB Vacuum Oven, 4.5 Cu.Ft. (127 L)

Request Info

SHEL LAB vacuum ovens provide exceptional capabilities for fast and gentle drying of heat sensitive materials. They prevent residue accumulation on products and also allow safe drying of materials at lower temperatures than typically required when using convection ovens. All SHEL LAB vacuum ovens are built with a stainless steel chamber for exceptional durability. Our double plenum design meets CE safety requirements resulting in a cool outer surface. Our unique cross-flow ventilation forces inert gas to fill the entire chamber. To achieve required vacuum levels, users can choose from a 3/8 inch orifice or a KF25 fitting to withstand heavy use and minimize draw-down time. *Maximum permitted end vacuum is 10 mTorr. Leak rate is 10 mTorr per hour.*

The doors on these units have positive latch handles with spring-loaded glass to facilitate a good vacuum seal without hinge binds that shorten the gasket life. The tempered glass window allows for safe, continuous monitoring of samples.

The SHEL LAB Vacuum Ovens are equipped with silicone gaskets. While these gaskets resist a wide variety of temperatures and pressures, they can breakdown in the presence of solvents and acids. For solvent applications, we recommend using Buna gaskets. For acidic applications, we recommend using Fluorosilicone or Viton® gaskets.

For more information about the gaskets we offer, see our [Vacuum Oven Gasket Guide](#).

Please note that this vacuum oven does not include a pump or related accessories. Contact your SHEL LAB distributor for assistance with choosing the ideal pump and accessories for any application.

The SHEL LAB family of vacuum ovens are outstanding in any application. Features include:

- Watlow Controller Capable of 40 Step Ramp And Soak Profiles, Or 4 Files With 10 Steps Per File**
- Cross Ventilation Air Flow Design**
- Achieve Impressive Vacuum Levels**
- Sizes Range from 0.6 – 9 Cu.Ft.**
- Built-in Overtemperature Protection**
- 24 Month Limited Warranty**

Emily A. Kane, ND LAc

Naturopathic Doctor

Alaska License № 22

Licensed Acupuncturist

Alaska License № 18

May 5 2016

Dear Members of the CBJ Assembly and Planning Commission,

I am writing in support of the ongoing development of a wide variety of hemp and cannabis products in Juneau and state-wide. In particular I'm deeply interested in the therapeutic benefits of CBD, the non hallucinogenic phytocannabinoid, cannabidiol. I have seen positive responses to relatively low doses of CBD for insomnia, anxiety, mild to moderate depression, obsessive compulsive disorders, including eating disorders, which are notoriously difficult to treat, and pain. There is a large body of published research validating the medical uses of marijuana, particularly in the areas of managing pediatric epilepsy, and mitigating cancer pain and cancer growth.

As you are aware we are experiencing an epidemic of opioid abuse, leading to more overdose deaths than fatal car accidents in the US in the past months. CBD has no potential for addiction. It is a very exciting medicine and despite the US being nearly 70 years behind in scientific research because of years of unfortunate vilification of this beautiful and useful plant -- these barriers are lifting all over the country. Alaska, and Juneau, is poised to be a leader in moving forward with all things hemp. I applaud the work of the Assembly in carrying out the will of CBJ voters, which will not only bring jobs and revenue diversification to Juneau, but help stem the tragedies engendered by abuse of heroin, meth and alcohol.

The commercial leaders in the cannabis arena in Juneau are stellar citizens, mostly well known to you. Tracy LaBarge is arguably the most popular and steady restaurant owner in Juneau and has provided not only great dining options for the Borough for decades, but employs many people including younger folk during the summer months. John Nemeth, who has a background in restaurant development and urban planning, has been part of our community for only a few years but brings a great deal of business acumen to the Downtown Business Association Infrastructure Committee and plays an active role in DIG. He looks forward to being a generous contributor to the CBJ school district, and working with physicians to improve understanding of the therapeutic potential of cannabis. The third major partner is Ben Wilcox, a 20+ year Juneau resident who is passionate, as am I, about reducing the dependency on addictive substances we are witnessing in Juneau.

I recently heard JPD office Chris Sell say on the radio that to solve the heroin problem in Juneau we can't just focus on supply. We need to look at the demand side. Why are folks in such pain that they are willing to wreck their lives with quickly addictive substances? Cannabis is also known as "ditch weed." It grows easily, all over the world. It is an incredible gift from nature that can produce rope, clothing, fiber, animal feed, and gentle effective medicine. Moving forward with the cannabis industry is win-win-win. Please feel free to contact me if you are interested in scientific studies attesting to the healing powers of cannabis, particularly CBD, in an astonishing array of human ailments.

Sincerely,



Dr Emily A Kane

418 Harris Street, Suite 329 Juneau, AK 99801

Phone: 907-586-3655 FAX: 907-586-4326 email: DrEmilyKane@gmail.com

Attachment G

May 9, 2016

Dear Ladies and Gentlemen of the Juneau Assembly,

As a downtown retail store owner for nearly twenty years, I fully support the business plans and ideas of THC Alaska. John Nemeth, Tracy LaBarge and Benjamin Wilcox not only each have proven track records in creative concepts, but are also community members who care about the economic and social wellness of Juneau. This thoughtful, bright, focused team will spearhead a respectable, responsible cannabis business that I know I can feel comfortable with as a downtown neighbor and Juneau can be proud of as a top-notch operation.

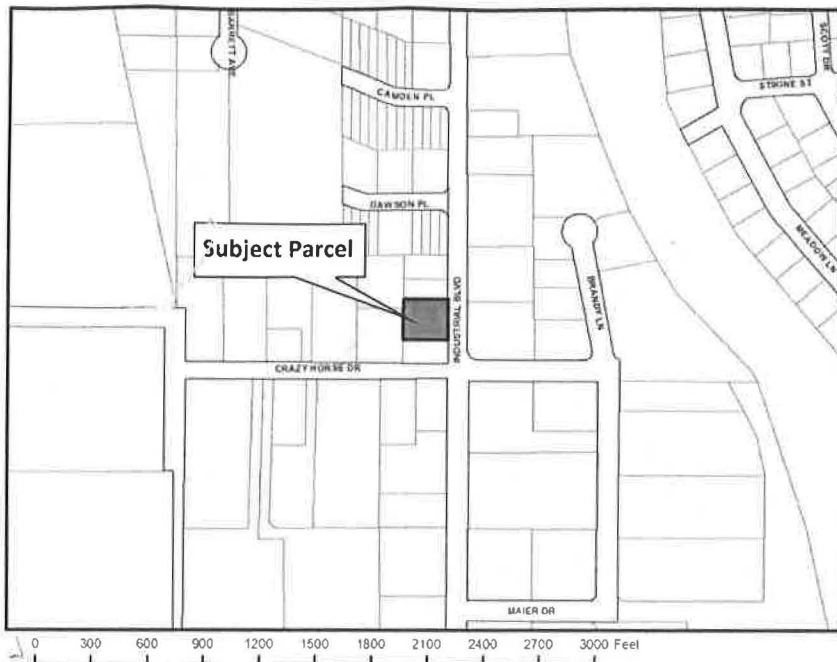
Sincerely,

A handwritten signature in black ink, appearing to read "Tanja Cadigan". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Tanja Cadigan
Caribou Crossings

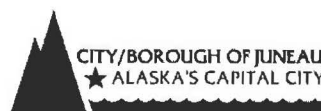


NOTICE OF PUBLIC HEARING



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



PROPOSALS: USE2016 0012: Conditional Use permit for marijuana product manufacturing facility in the Industrial zone.
USE2016 0013: Conditional Use permit for marijuana cultivation in the Industrial zone.

File No:	USE2016 0012 and USE2016 0013	Applicant:	Top Hat Concentrates, LLC.
To:	Adjacent Property Owners	Property PCN:	4-B17-0-108-007-1
Hearing Date:	May 24, 2016	Owner:	Seaweed Ventures, LLC
Hearing Time:	7:00 PM	Size:	15,148 Square Feet
Place:	Assembly Chambers Municipal Building 155 South Seward Street Juneau, Alaska 99801	Zoned:	I - Industrial
		Site Address:	2315 Industrial Boulevard
		Accessed Via:	Industrial Boulevard

PROPERTY OWNERS PLEASE NOTE:

You are invited to attend this Public Hearing and present oral testimony. The Planning Commission will also consider written testimony. You are encouraged to submit written material to the Community Development Department 14 days prior to the Public Hearing. Materials received by this deadline are included in the information packet given to the Planning Commission a week before the Public Hearing. Written material received after the deadline will be provided to the Planning Commission at the Public Hearing.

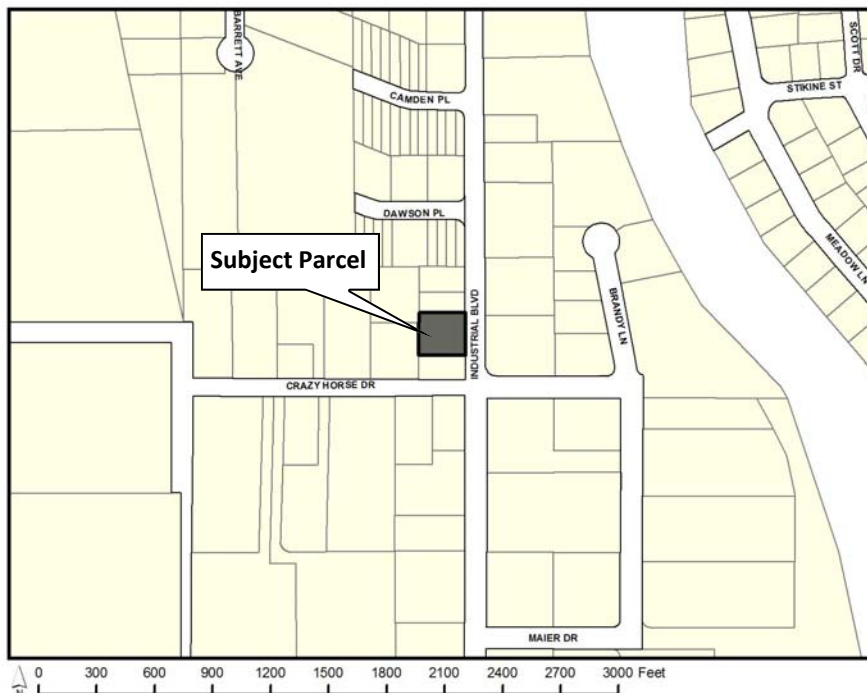
If you have questions, please contact Christine Steadman at Christine.Steadman@juneau.org or 586-0761.



Planning Commission Agendas, Staff Reports and Meeting Results can be viewed at <http://www.juneau.org/assembly/novus.php>

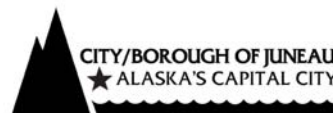


NOTICE OF PUBLIC HEARING



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



PROPOSALS: USE2016 0012: Conditional Use permit for marijuana product manufacturing facility in the Industrial zone.
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Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

DATE: May 11, 2016

TO: Planning Commission

FROM: Laura A. Boyce, AICP, Planner *Laura A Boyce*
Community Development Department

FILE NO.: AME2016 0005

PROPOSAL: Rezone of USS 2136 Lot 2 from D-1 (T) D-3 to D-5 and
D-1 (T) D-10 to D-10.

GENERAL INFORMATION:

Applicant: Intrepid, LLC.

Property Owner: Golden Cove, LLC
Malcolm and Elaine Menzies

Property Address: 19005 Glacier Highway

Legal Description: USS 2136 Lot 2

Parcel Code No.: 4-B17-0-113-002-0

Site Size: 22.81 Acres

Current Zoning: D-1(T)D-3
D-1(T)D-10

**Comprehensive Plan
Land Use Designation:** Medium Density Residential (MDR)
Urban Low Density Residential (ULDR)

Utilities: City water and sewer

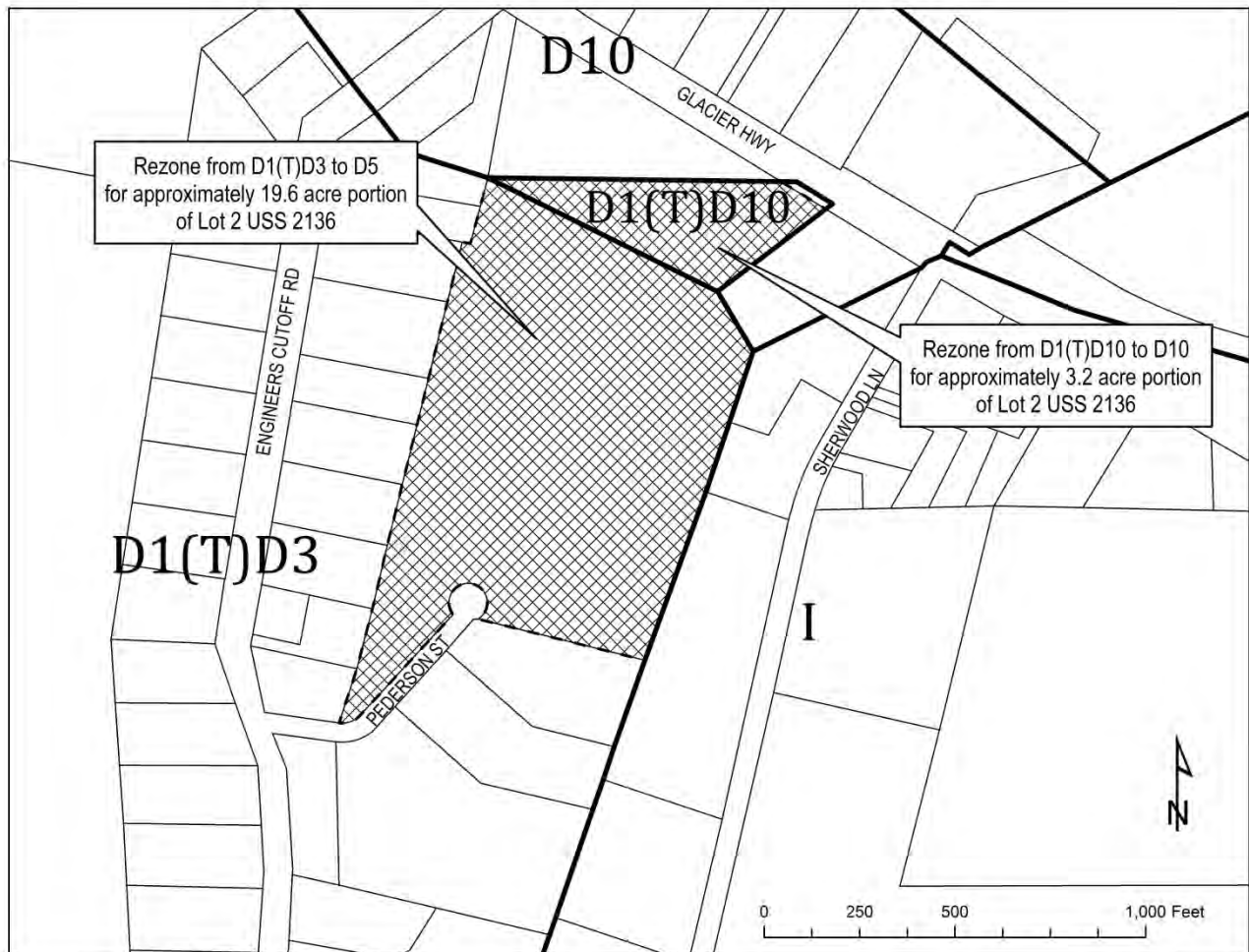
Access: Pederson Street – an unmaintained right-of-way
Glacier Highway – an arterial

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Existing Land Use: Vacant

Surrounding Land Use: North- Glacier Highway, Kensington Mines Bus & Ride Facility, Tour Shelter, Medical Office, Single-family uses (D10)
South- Vacant, Single-family and Duplex residential (D-1(T)D-3)
East - Commercial Office, Vacant, Fire Training Facility (I)
West - Single-family residential (D-1(T)D-3)

Vicinity Map



Attachments

- Attachment A: Rezone Application
- Attachment B: Reviewers Comments
- Attachment C: Neighborhood Meeting Materials and Sign In Sheet
- Attachment D: Public Comment

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BACKGROUND

In 2012, rezone application AME2016 0008 resulted in forty-nine abutting and nearby properties transitioning from the D-1 zone district (Single-family, one dwelling unit per acre) to D-10 (Multifamily, 10 dwelling units per acre) when city sewer service was extended along Glacier Highway. The subject property was not included in that rezone application because of the split zoning on the property. It was determined that it would be best to consider that property on its own.

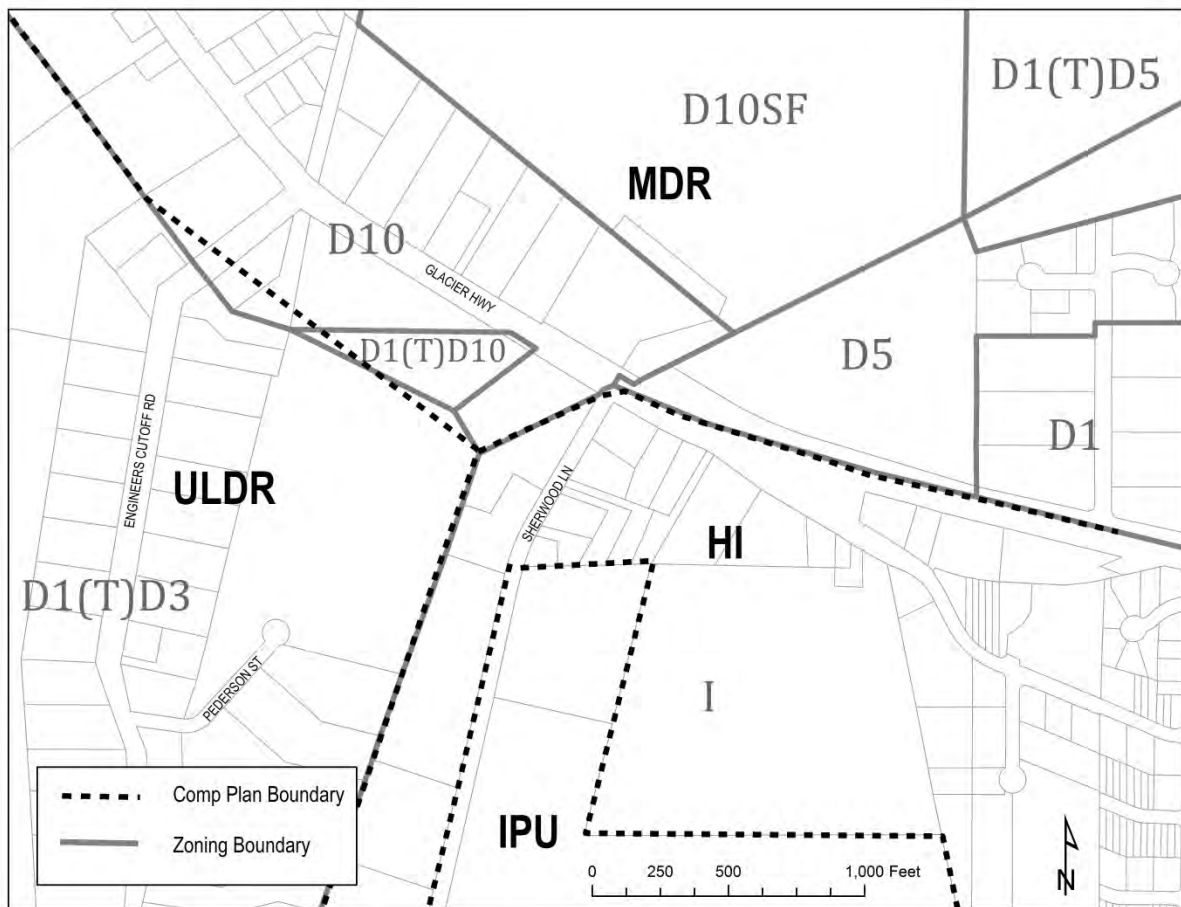
The applicant submitted an application requesting that the entire property be rezoned from D-1(T)D-3 and D-1(T)D-10 to D-10. However, since the application was submitted, the applicant amended the request so that the area currently zoned D-1(T)D-3 would be rezoned to D-5 instead of D-10. (See Attachment A).

Discussion

Two sections of the Land Use Code provide guidance regarding rezone requests. CBJ 49.70 Article VII, Transition Zones and CBJ 49.75 Article I, Rezoning. The City and Borough of Juneau Code states in CBJ 49.10.170(d) that the Commission shall make recommendations to the Assembly on all proposed amendments to this title, zonings and re-zonings, indicating compliance with the provisions of this title and the Comprehensive Plan. Regarding transition zone changes, the Planning Commission approves those. Because of the dual zones on the subject property, there will be two decisions needed by the Planning Commission regarding this request and are covered in the Recommendations section of this report.

The subject property includes two zone designations, as well as two Comprehensive Plan Future Land Use designations. Approximately 3.2 acres of the northern portion of the property adjacent to Glacier Highway is zoned D-1(T)D-10 with a Comprehensive Plan Future Land Use Designation of MDR (Medium Density Residential). The southern approximately 19.6 acres of the property is zoned D-1(T)D-3 with a Comprehensive Plan Land Use designation of ULDR (Urban/Low Density Residential). It should be noted that the zone district line and the Comprehensive Plan land use designation do not match exactly, as illustrated below. This is somewhat common throughout the CBJ.

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The Land Use Code describes the zone districts as follows:

49.25.210 Residential districts.

The following districts are established to provide a healthy, safe and pleasant environment for residential living protected from incompatible and disruptive activities:

The D-1, residential district, is intended to accommodate primarily single-family and duplex residential development in areas outside the urban service boundary at a density of one dwelling unit per acre. Certain D-1 zoned lands, however, may exist within the urban service boundary in transition areas if public sewer or water are absent but planned for. The D-1 classification will be changed to a higher density upon provision of services.

The D-3, residential district, is intended to accommodate primarily single-family and duplex residential development at a density of three dwelling units per acre. D-3 zoned lands are primarily located outside the urban service area boundary where public utilities

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are not provided. The density reflects the existing pattern of development of properties in the district. There is a limited amount of D-3 zoned lands located within the urban service boundary. These are lands for which a lower density is deemed appropriate or, in the case of transition zones, where the zoning will be changed to a higher density when sewer and water will be provided.

D-5, residential district, is intended to accommodate primarily single-family and duplex residential development at a density of five dwelling units per acre. D-5 zoned lands are located in the urban service boundary and are served or can be served by public water and sewer.

The D-10 and D-15, residential districts, are intended to accommodate primarily multifamily residential development at ten and 15 units per acre respectively. These are relatively low-density multi-family districts.

The 2013 Comprehensive Plan describes the Future Land Use descriptions on page 147 as follows:

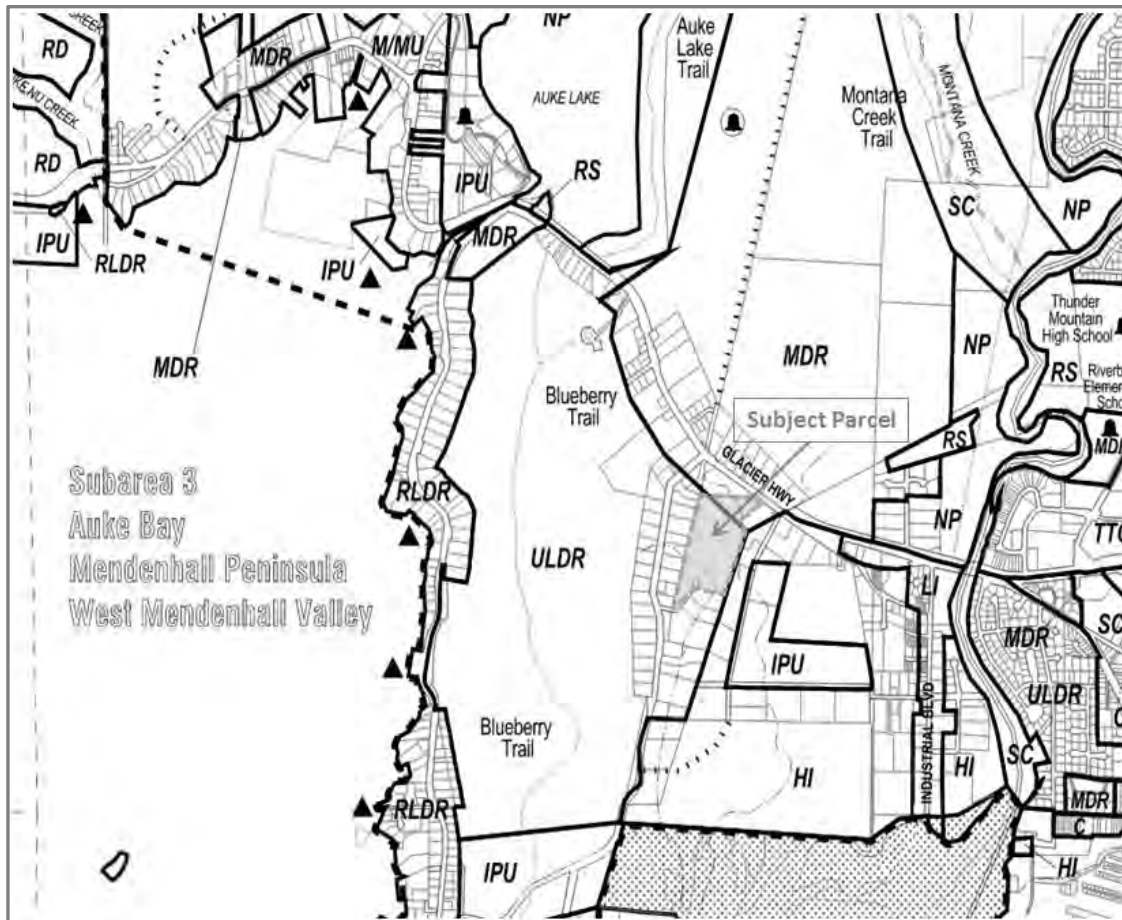
Urban/Low Density Residential (ULDR).

These lands are characterized by urban or suburban residential lands with detached single-family units, duplex, cottage, or bungalow housing, zero-lot line dwelling units and manufactured homes on permanent foundations at densities of one to six units per acre. Any commercial development should be of a scale consistent with a single-family residential neighborhood, as regulated in the Table of Permissible Uses (CBJ 49.25.300).

Medium Density Residential (MDR).

These lands are characterized by urban residential lands for multifamily dwelling units at densities ranging from 5 to 20 units per acre. Any commercial development should be of a scale consistent with a residential neighborhood, as regulated in the Table of Permissible Uses (CBJ 49.25.300).

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According to the 1985 Comprehensive Plan land use maps, the subject property was designated both RDR(T)MDR (Rural Dispersed Residential transition to Medium Density Residential) and RDR(T)ULDR (Rural Dispersed Residential transition to Urban Low Density Residential). These designations were continued through the 2008 Comprehensive Plan. Sewer service was extended along Glacier Highway just prior to the 2013 Comprehensive Plan Update so the properties within these transition designations were transitioned to MDR and ULDR, including the subject property.

Public Services

City sewer and water are available to serve the site from Glacier Highway. Sewer and water lines are also available along Sherwood Lane and water is available from Engineer's Cutoff. The property abuts Glacier Highway and Pederson Street. Pederson Street is an unmaintained right-of-way and is a gravel road. The property abuts Glacier Highway, a CBJ-designated arterial roadway. The Alaska Department of Transportation and Public Facilities (ADOT&PF) reviewed the requested rezone and stated that access would not be allowed directly from the site to Glacier Highway (see Attachment B). Development on the subject property would have to access Pederson Street or obtain alternate access. No publicly-maintained street is currently accessible to the property. Pederson Street would have to be improved to current CBJ

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standards and accepted for maintenance. The applicant has indicated that they plan to obtain access to Sherwood Lane through a neighboring property. Sherwood Lane provides access to industrial-zoned properties. The Comprehensive Plan Land Use Map indicates a future extension of Sherwood Lane to connect to Engineer's Cutoff Road.

Based upon CBJ Streets and General Engineering's assessment, Pederson Street is not currently constructed to a sufficient standard to be utilized as the primary access for the densities applied for. Therefore, Pederson Street will need to be upgraded to current CBJ Standards (See Attachment B). Additionally, some improvements might be needed on Engineer's Cutoff Road, a designated collector roadway. As noted, Pederson Street is a platted right-of-way, but has not been constructed to CBJ street standards, nor accepted for maintenance. It is a gravel driveway in a right-of-way and owners along the street provide its maintenance.

ANALYSIS

ZONE CHANGE INITIATION

Two sections of Title 49, the Land Use Code, provide direction and procedure regarding rezone requests, including transition zones. As stated in CBJ 49.75.110 *Initiation*, a rezoning may be initiated by the Director, the commission, or the assembly at any time during the year. A developer or property owner may initiate a request for rezoning in January or July only. Adequate public notice shall be provided by the director to inform the public that a rezoning has been initiated.

1. Was the proposed zone change initiated by the property owner during the appropriate time frame? Or was the zone change initiated by the commission or director?

YES. The application for the subject zone change was initiated by the applicant during the appropriate time frame.

2. Has the director provided adequate public notice through newspaper advertising, property owner mailings and requiring a public notice sign posted on-site for two weeks prior to the Planning Commission hearing on the rezone request.

YES. The public was notified through newspaper advertising published on May 13, 2016 and May 23, 2016, mailings to owners of all properties within 500 feet of the subject property, and a public notice sign posted on-site two weeks prior to the Planning Commission hearing on the rezone request. Additionally, a neighborhood meeting was held at the Valley Public Library on March 3rd, 2016, beginning at 6:00 p.m.

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RESTRICTIONS AND PROCEDURES

CBJ 49.70 Article VII addresses transition zones. CBJ 49.70.700 states that a transition zone is an overlay zone district for certain lands that are set aside for higher density development after public water and sewer have been provided. It further states that the increase in density will take place at the time public services are provided. As stated previously, public water and public sewer are located along Glacier Highway to serve the site.

CBJ 49.75.120 *Restrictions on rezonings*, provides direction regarding rezone requests. Rezoning requests covering less than two acres are not to be considered unless the rezoning constitutes an expansion of an existing zone. Requests which are substantially the same as a rezoning request rejected within the previous twelve months are also not to be considered. A rezoning shall only be approved upon a finding that the proposed zoning district and the uses allowed therein are in substantial conformance with the land use maps of the comprehensive plan.

The CBJ Land Use Code provides minimum restrictions for zone change requests. This proposal conforms to these restrictions as follows:

1. The request is more than two acres.
2. No similar request has been made in the past year.
3. The transition zone as shown on the zoning maps substantially conforms to the maps of the 2013 Comprehensive Plan.

LAND USE AND DENSITY

The subject property is currently undeveloped. Land uses to the west and south are generally single-family zoned properties (D-1(T)(D-3) located on one-acre lots. Industrial zoned properties are located to the east and include such uses as commercial offices and contractor storage. The Fire Training Facility is also located east of the property, on the east side of Sherwood Lane. The recently transitioned properties to D-10 to the north include a medical office and the Kensington Mine Park and Ride facility.

Without a rezone, the property could be developed with two single-family homes at its current D-1 designation. With a subdivision and installation of any required improvements, up to 26 single-family lots could be developed. If the property is transitioned to the D-3 and D-10 zone districts as shown on the CBJ zoning maps, the property could be developed with a maximum density of approximately 90 dwelling units. If the property is rezoned to a combination of D-10 and D-5, as requested by the applicant, approximately 130 dwelling units could be developed. The applicant originally requested that the entire site be rezoned to D-10 which would have resulted in a maximum density of 228 dwelling units if approved. However, the amended request could yield up to 130 dwelling units.

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The table below illustrates the maximum densities that could occur for the different zoned portions of the site at different zone districts. The columns are not to be added since different combinations of zone districts may result on the property.

Potential density scenarios	D-1	D-3	D-5	D-10
If the northern 3.2 acres currently zoned D-1(T)D-10 were rezoned to any of the following:	3 du	10 du	16 du	32 du
If the southern 19.6 acres currently zoned D-1(T)D-3 were rezoned to any of the following:	20 du	59 du	98 du	196 du

The Comprehensive Plan land use designations allow for a range of densities. The southern portion of the site is designated ULDR which allows up to 6 dwelling units per acre. The northern portion of the site is designed Medium Density Residential and allows from 5 to 20 units per acre. If the property were developed to the maximum densities allowed by the Comprehensive Plan Future Land Use designations, approximately 182 dwelling units could be developed (MDR = maximum of 20 units per acre @ 3.2 acres = 64 dwelling units, ULDR is a maximum of 6 units per acre @ 19.6 acres = 118 dwelling units).

As noted above, the applicant's request is for D-5 and D-10 which would result in approximately 130 dwelling units. The existing transition zones allotted for the property could result in 90 dwelling units, a difference of 40 dwelling units. The current zoning on the property could result in 26 dwelling units with subdivision and required improvements constructed. It is important to note that these are maximum potential densities. Topography and other site constraints mean that it is unlikely that the highest densities will be achieved.

ACCESS AND TRAFFIC

As mentioned above, the property abuts Glacier Highway and Pederson Street. Pederson Street is an unmaintained right-of-way and is currently a gravel road. The property abuts Glacier Highway, a CBJ-designated major arterial roadway. The Alaska Department of Transportation and Public Facilities (DOT&PF) classifies Glacier Highway as an Urban Principal Arterial. DOT&PF reviewed the requested rezone and stated that access would not be allowed directly from the site to Glacier Highway. Any development on the subject property would have to access Pederson Street or obtain alternate access. No publicly-maintained street is currently accessible to the property. Pederson Street would have to be improved to current CBJ standards and accepted for maintenance. The applicant has indicated that they plan to obtain access to Sherwood Lane through a neighboring property. Sherwood Lane provides access to industrial-zoned properties. The Comprehensive Plan Land Use Map shows a future road connection from Sherwood Lane to Engineer's Cutoff Road, but there are no plans at this time to develop the connection. The applicant proposes to gain access through a neighboring property to Sherwood

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Lane; however, since development concept plans aren't binding at the rezone stage, there is no guarantee that access will be to Sherwood Lane.

CBJ General Engineering and Streets Divisions both reviewed and commented on the proposal. (See Attachment B). Both noted that Pederson Street is an unmaintained street and is used as a driveway in the right-of-way and would have to be brought up to current CBJ standards. Both also noted that improvements might be needed to Engineers Cutoff Road. General Engineering commented that a second access would be required to serve the site. If a second access is obtained through an adjacent property to Sherwood Lane, it might require upgrades to Sherwood Lane as well.

EXISTING SITE CONDITIONS

The 22.81 acre site is currently undeveloped and is forested. There are anadromous streams located on the property that would be subject to the required 50 foot no development buffer on either side of the streams. The Alaska Department of Fish and Game Division of Habitat recently resurveyed the property for the stream catalog. Adjustments were made to the stream locations and are shown in Attachment B. Casa Del Sol Creek/Pederson Creek is located on the property and includes a main channel and tributaries. Fish and Game does not object to the rezone request as long as any future development adhere to the 50' no development buffers along the stream.

According to the recent mapping for the Juneau Wetlands Management Plan update, there are portions of forested peatland and uplift meadow on the site. The currently adopted wetland maps show a small amount of high value wetlands on the property. An Army Corps of Engineers (ACOE) review and permit will be required for any proposed development on site. ACOE did not provide comments about this rezone request.

The Alaska Department of Environmental Conservation, Division of Water, Non-Point Source Section (DEC), commented on the rezone request. DEC is concerned about stormwater control on the property and its impact to the creek and its water quality. Pederson Creek is also located on the property which has been listed on the Clean Water Act 303(d) of impaired water bodies since 1990. Failing septic systems within the watershed, of which the subject property is located, were identified as the likely pollutant source. Even with the recent sewer installation, according to DEC, pollutant levels still exceed water quality standards. Any proposed development would be reviewed for stormwater and drainage impacts.

PUBLIC COMMENT

At the March 3rd, 2015, neighborhood meeting, approximately twenty people attended, including staff and the applicant. Staff provided an overview of the rezone process and the applicant discussed the proposal. There were many questions and concerns regarding traffic, access, and compatibility with the adjacent low-density development along Engineer's Cutoff

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Road. The Neighborhood Meeting Materials, including the meeting sign in sheet, are located in Attachment C.

Staff has received correspondence regarding the proposed rezone request. Those letters of concern are located in Attachment D.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

Comprehensive Plan Contents

The 2013 Comprehensive Plan (the Plan) provides guidance to residents and local officials as to the location, intensity and timing of future public and private development, as well as conservation measures.

This property is located within the urban service area boundary (USAB). The Plan discusses compact infill development within the USAB. A development would build *“to the maximum density allowed by the zoning district within which the property lies, provided that road and intersections serving the new development have adequate capacity and levels of service to accommodate the proposed intensity of development. Building lands should be developed as medium- to high-density affordable housing or mixed residential and commercial developments wherever is possible and practicable. This is particularly true for lands located within walking distance (approximately one-quarter mile) of public transit service.”* p. 15.

The property is located within Subarea 3 which includes Auke Bay, Mendenhall Peninsula, and West Mendenhall Valley. The “community forms” identified for the subject property are Rural (Mendenhall Peninsula) and Urban (portions transitioning from rural to urban and the upper portion is part of the Pederson Hill urban area). These areas are described as follows:

Rural: Rural areas can be found in the forested areas west of the Mendenhall River and in Thane, North Douglas and the out the road areas of Tee Harbor, Lena Cove, and Indian Cove. Residential densities are low at 1 to 3 units per acre. Many of these areas are served by public water but not public sewer service. If and when public sewer service is provided to rural areas, higher residential densities should be permitted in order to make the most efficient use of this sewer resource. Vacant parcels within rural neighborhoods that are provided municipal sewer service should be developed at suburban densities, although with site design and massing that reflects the rural character of the neighborhood.

Urban: Urban areas are represented by downtown Juneau and Douglas, West Juneau, medium-density areas of Lemon Creek and Switzer Village, the mixed use area around and between the Mendenhall Mall and Nugget Mall, and the village area around Auke

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Bay Harbor and the University. In these urban areas, residential, commercial, mixed use and and/or public facilities share land and utilities in a compact area. Urban areas are characterized by low- to mid-rise residential and commercial structures, often with the uses mixed within the same structure or with commercial uses lining the edges of residential neighborhoods. Typical mass and scale of these urban neighborhoods are 2 to 3-story structures separated by parking lots, roads, sidewalks and landscaping or small yards. Medium to high residential densities of 10 to nearly 400 residential units per acre can be found in the downtown Juneau area; densities of 14 units per acre can be found in the West Juneau Area; densities of seven units per acre can be found in the Lemon Creek and Switzer Creek areas and in the Auke Bay area.

The following Guidelines and Considerations for Subarea 3 are applicable to the subject property:

9. *Encourage in-fill, small house development in the West Mendenhall Valley. However, in doing so in the West Valley, continue to protect wetlands, avoid flood hazards and provide buffer vegetation and open space/natural areas for privacy and to maintain the rural character of the West Valley community. Encourage clustering of the small cottage and bungalow houses on larger parcels to maximize the land left in a natural state to assure privacy and provide a visual and sound buffer from existing adjacent lower density residential development. New in-fill development should: (1) Preserve as much of existing wooded areas as is practical; (2) design new building forms to mimic adjacent rural development in scale and massing while increasing density; (3) place parking out of view of the street; and (4) incorporate other appropriate building siting, orientation and design techniques to maintain the rural character of the West Valley. In new subdivisions on large parcels, encourage mixed density developments, such as duplex, accessory dwellings and multi-family units interspersed in suitable locations within the development.*
14. *The sewer system is expanded to include the industrial area in the southerly part of the West Valley and to the Pederson Hill area. It should also be extended to other areas around the University to accommodate higher density, affordable student and faculty housing. Areas served by newly extended public sewer should be upzoned to accommodate higher density development. Extend municipal water and sewer service to all properties within the Urban Service Area boundary.*
15. *Pederson Hill Creek (aka Casa Del Sol Creek) is listed as an impaired water body by the Alaska Department of Environmental Conservation (DEC) and, therefore, careful review of future development proposals that could affect the volume, velocity, cleanliness, and overall water quality of this creek and its watershed and tributaries is warranted.*

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The Comprehensive Plan offers general guidance for residential development and rezonings. The Plan provides discussion on issues, policies, implementing actions, standard operation procedures, and development guidelines to support policies and issues. Overall, when adequate services are in place, the Plan supports increased densities within the Urban Service Area, while balancing natural resources and potential land use conflicts.

The relevant and pertinent policies to this request are included below:

From Chapter 3 – Community Form:

POLICY 3.1 TO BALANCE AVAILABILITY OF SUFFICIENT LAND WITHIN THE DESIGNATED URBAN SERVICE AREA BOUNDARY THAT IS SUITABLY LOCATED AND PROVIDED WITH THE APPROPRIATE PUBLIC SERVICES AND FACILITIES TO MEET THE COMMUNITIE'S FUTURE GROWTH NEEDS AND THE PROTECTION OF NATURAL RESOURCES, FISH AND WILDLIFE HABITAT AND SCENIC CORRIDORS.

Development Guideline 3.1 – DG2

When considering rezoning applications of land located within the Urban Service Area from ... a low-density residential district to a higher-density residential district, ... promote the development of new medium- (10 to 20 dwelling units per gross acre) to high-density (30 to 60 or more units per gross acre) residential developments that include dwelling units affordable to low-income households as a condition of the rezoning. The affordable units should be dispersed throughout the development, constructed at the same time as market-rate units, and priced or rented to households with incomes no greater than 80 percent of the city and Borough of Juneau's Median Family Income (MFI) level by household size, as established annually by the U.S. Department of Housing and Urban Development (HUD).

Implementing Action 3.1 – IA1

Revise the Land Use Code to allow, in zoning Transitional (T) zones, the higher density zoning designation to be allowed upon petition by the property owner and approval by the Community Development Department (CDD) Director, rather than by a rezoning action, provided that, as a condition of approval, the property owner ensures the provision of adequate municipal water and sewer service and provides adequate roadway capacity to serve the increased population.

From Chapter 4 - Housing:

POLICY 4.2 TO FACILITATE THE PROVISION OF AN ADEQUATE SUPPLY OF VARIOUS HOUSING TYPES AND SIZES TO ACCOMMODATE THE PRESENT AND FUTURE HOUSING NEEDS FOR ALL ECONOMIC GROUPS.

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Standard Operating Procedure – 4.2 – SOP 1

Designate on the Comprehensive Plan Land Use Maps adequate sites and supporting infrastructure within the Urban Service Area Boundary to accommodate a diversity of housing types, size, price and types of neighborhood scale and character to satisfy the desires of all residents.

POLICY 4.3 TO DESIGNATE ON LAND USE MAPS AN ADEQUATE SUPPLY OF BUILDABLE LAND WITHIN THE URBAN SERVICE AREA, AND PARTICULARLY ALONG TRANSIT CORRIDORS, FOR RESIDENTIAL USE AT DENSITIES THAT CAN PRODUCE HOUSING AFFORDABLE TO ALL ECONOMIC GROUPS.

Standard Operating Procedure – 4.3 – SOP 1

Monitor, and when necessary, designate an adequate amount of vacant land for residential development on the Comprehensive Plan Land Use Maps. Densities within the USAB and New Growth Areas should foster compact development at medium- to high-densities. As a target goal for compact development, a minimum density of ten dwelling units per acre for residentially-zoned lands within the USAB would make prudent and efficient use of these limited land resources. A density of 30 dwelling units per acre, or greater, along major transit corridors is recommended to produce affordable housing and to make efficient use of transit services therein.

Implementing Action – 4.3 – IA1

Amend the Title 49 Land Use Code to allow rezoning requests to medium-to-high density districts within the Urban Service Area to be requested by a property owner at any time of the year.

Implementing Action – 4.3 – IA3

Designate suitable land within one-quarter mile distance from public transit routes from Auke Bay to downtown Juneau as a Transit Oriented Corridor (TOC) overlay zoning district within which medium-to-high-density housing in wholly residential or mixed use developments and with lesser parking requirements would be allowed.

From Chapter – Natural Resources and Hazards:

POLICY 7.7 TO PROTECT, MAINTAIN AND IMPROVE SURFACE WATER, GROUNDWATER AND MARINE WATER QUALITY IN ITS JURISDICTION SO THAT ALL WATERS ARE IN COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY STANDARDS AND CONTINUE TO ALLOW AQUATIC LIFE TO THRIVE.

Development Guideline – 7.7 – DG1

Ensure that stream corridors, surface waters, and associated riparian buffer areas receive greater attention in the local permitting process through adherence to the most

recent version of the CBJ Manual of Stormwater Best Management Practices (BMPs) and adoption of additional requirements or criteria that protect these areas and waters if needed. One of those BMPs is the appropriate removal and storage of snow in residential subdivisions and commercial developments. Snow should be stored away from streams, preferably in upland areas where good vegetation will trap excess sediment before entering stormwater systems or waterways. This is particularly important where large surface areas are plowed, such as on airport property or parking lots near anadromous fish streams.

From Chapter 10 – Land Use:

POLICY 10.3 TO FACILITATE RESIDENTIAL DEVELOPMENTS OF VARIOUS TYPES AND DENSITIES THAT ARE APPROPRIATELY LOCATED IN RELATION TO SITE CONDITIONS, SURROUNDING LAND USES, AND CAPACITY OF PUBLIC FACILITIES AND TRANSPORTATION SYSTEMS.

Standard Operating Procedure 10.3 – SOP 1

Designate various categories of residential density on the Comprehensive Plan Land Use Maps and the Land Use Code maps based on evaluation of the following criteria:

- A. Physical site conditions including slope, areas of natural hazard, wetlands, watershed value, and/or high value natural resources;*
- B. Access and capacity of adjacent streets and intersections. Arterial streets should have limited, and controlled, access from local or collector streets;*
- C. Availability of public facilities and services, especially municipal water and sewer systems and, for low- to medium-income affordable housing or high-density residential development, proximity to public transit;*
- D. Compatibility of various zoning districts and land use designations with the scale and massing of surrounding neighborhoods with regard to building height and orientation, but not necessarily with regard to similar density, as the CBJ seeks to make the most efficient use of residentially-buildable lands;*
- E. Potential of specific sites to accommodate the proposed density including size and shape of property and adequacy of internal circulation, parking, screening and privacy; and/or,*
- F. Distance from incompatible land uses that may generate offensive or nuisance off-site impacts to new residential development, including noise, dust, fumes, malodors and/or heavy truck traffic.*

POLICY 10.4 TO MINIMIZE CONFLICTS BETWEEN RESIDENTIAL AREAS AND NEARBY RECREATIONAL, COMMERCIAL, OR INDUSTRIAL USES THAT WOULD GENERATE ADVERSE IMPACTS TO EXISTING RESIDENTIAL AREAS THROUGH APPROPRIATE LAND USE LOCATIONAL DECISIONS AND REGULATORY MEASURES.

Development Guideline 10.4 – DG 1

New development, particularly in-fill development on vacant land within established neighborhoods, should be designed in such a way as to promote compatibility in scale and massing as the adjacent or nearby built environment and should ensure privacy, light and air to adjacent homes. Density alone should not be considered as a criterion for determining neighborhood harmony within the Urban Service Area provided that:

- A. Light, air and privacy is assured to adjacent residential occupants;*
 - B. Parking for the subject property is screened or hidden from view from public streets and from adjacent residential neighbors; and,*
 - C. Project-serving roads and intersections are improved to a Level of Service D or better.*
- When these criteria are met, higher density development is encouraged.*

Development Guideline 10.4 – DG2

When a developer extends public or private utilities and infrastructure, such as sewer service, roads or electrical lines, to a particular parcel or development, care should be taken to ensure that adjacent lands and infrastructure that would be affected by the new development are adequately improved by the developer to accommodate the proposed project's traffic as well as new traffic or use anticipated by the growth-inducing impacts of such services or infrastructure extensions. For example, when water or sewer main or road is extended to a property, it should be sized to serve development at a similar scale and density on adjoining properties.

Implementing Action – 10.4 –IA1

Seek to reduce or eliminate conflicts between medium or high density residential uses in established low density residential neighborhoods by encouraging design of higher density housing to be compatible in scale, massing and orientation with the adjacent, lower-density housing and to hide or screen the parking behind or within the structure(s).

Implementing Action - 10.4 – IA2

Maintain and consider enhancing Title 49 Lane Use Code requirements for buffering and screening between residential and commercial/industrial uses and careful review of site development plans. Great care should be taken to incorporate design features, materials and good neighbor operating practices into the non-residential development permit in order to mitigate potential adverse noise, dust, odor and glare impacts to adjacent residential neighbors. Such operating practices should be incorporated as conditions of any permit for a non-residential land use located within 200 feet of a residential use or neighborhood.

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POLICY 10.5. THAT RESIDENTIAL DEVELOPMENT PROPOSALS, OTHER THAN SINGLE-FAMILY RESIDENCES, MUST BE LOCATED WITHIN THE URBAN SERVICE AREA BOUNDARY OR WITHIN A DESIGNATED NEW GROWTH AREA. APPROVAL OF NEW RESIDENTIAL DEVELOPMENT PERMITS DEPENDS ON THE PROVISION OR AVAILABILITY OF NECESSARY PUBLIC AMENITIES AND FACILITIES, SUCH AS ACCESS, SEWER, AND WATER.

Standard Operating Procedures

10.5 - SOP2 Maintain the provisions in the Land Use Code that require developers to provide for access, facilities, and services prior to final plat approval.

10.5 - SOP3 Amend the Land Use Code to allow appropriate urban densities in areas served by community sewer and water systems, being cognizant of the desire to maintain the rural, suburban or urban character of the existing surrounding neighborhoods.

Discussion

The developer originally requested that the entirety of this split-zoned parcel be rezoned to D-10 instead of the identified transitions to D-3 and D-10. The majority of the 22-acre parcel is located within the Urban Low Density Residential Comprehensive Plan Land Use designation that allows a maximum of up to six (6) dwelling units per acre. The D-10 multi-family zone district allows a density of 10 dwelling units per acre and is not consistent with the Comprehensive Plan Land Use maps. Thus, the applicant requested that the ULDR portion of the site be considered for the D-5 residential zone district that allows a maximum of 5 dwelling units per acre which is consistent with the Comprehensive Plan designation of ULDR that allows up to 6 units per acre. The applicant requests that the northern 3.2 acre portion of the site that is located within the Medium Density Residential (MDR) Comprehensive Plan Land Use designation transition to the D-10 zone district, as identified on the Zoning maps.

The Plan advises aiming to promote the highest and best use of property, as follows:

In considering re-zoning requests, the Planning Commission and the Assembly should aim to promote the highest and best use of the land under consideration and all new zoning or re-zoning designations are required to be substantially consistent with the Comprehensive Plan and associated land use maps. In some cases, the highest and best use may be increased density or more intensive use of the land; in other cases, the highest and best use may be preservation in an undisturbed state for purposes of habitat preservation, flood control, or providing a buffer between development and areas subject to natural hazards. (Page 147)

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 File No.: AME2016 0005
 May 11, 2016
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The following zone districts are compatible with the Comprehensive Plan Land Use designations and can be considered for this property:

Zone Districts consistent with Comprehensive Plan Land Use Map designations	<u>ULDR</u> Urban/Low Density Residential (densities of 1 to 6 dwelling units per acre)	<u>MDR</u> Medium Density Residential (densities of 5 to 20 units per acre)
D-1 – Single-family, 1 DU/ACRE	√	
D-3 – Single-family, 3 DUs/ACRE	√	
D-5 – Single-family, 5 DUs/ACRE	√	√
D-10 SF – Single-family, 10 DUs/ACRE		√
D-10 – Multifamily, 10 DUs/ACRE		√
D-15 – Multifamily, 15 DUs/ACRE		√
D-18 – Multifamily, 18 DUs/ACRE		√

Any combination of these zone districts would be in substantial conformance with the Comprehensive Plan Land Use designations identified for this property. The Comprehensive Plan vision, policies and its implementing actions, standard operating procedures, and development guidelines support increased residential densities when appropriate infrastructure is in place to serve the development. Additionally, the Plan supports clustered development in order to preserve natural resources and habitat, while also taking into account key features of the site, as well as to provide development in an affordable manner. By clustering development, any potential incompatibilities between land uses, such as lower density residential uses or nearby industrial uses can be better mitigated for. Greater buffers between different zone districts and uses can be realized while also making infrastructure more affordable. However, only the Planned Unit Development and Cottage Housing uses allow for clustered development in single-family zone districts. Clustered development is allowed in multifamily zone districts. At this time, the CBJ does not have a cluster subdivision mechanism in Code. In order to obtain clustered development which results in preserving onsite natural resources while also lowering infrastructure costs, developers may seek rezones to multifamily zone districts because PUDs and Cottage Housing development are seen as too cumbersome and regulatory.

Glacier Highway is a major transit route and, as noted above, the Comprehensive Plan supports increased densities along transit corridors, although the Land Use Code has not yet been amended to implement some of these development policies. The 2013 update to the Comprehensive Plan has a twenty-year planning horizon. It's envisioned that what is identified within the Comprehensive Plan should be realized within that twenty-year term. While the Plan clearly supports increased densities for this area, the road infrastructure is not currently in place to support the increase. Because of this, staff recommends that this property be rezoned

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as follows along with a condition that the property can transition to the higher zone district when adequate road infrastructure is in place to support proposed densities:

For the southern 19.6 acres: From: D-1(T)D-3	TO: D-3(T)D-5
For the northern 3.2 acres: From: D-1(T)D-10	TO: D-10

ZONE CHANGE OPTIONS AND ALTERNATIVES

As noted above, a number of zone districts can be considered for the subject property. The applicant requests that the northern portion of the property transition to D-10, while also requesting a zone change on the southern portion to D-5 instead of the designated transition to D-3. As stated in CBJ 49.75.130(a), the Commission may approve, approve with modifications or deny a rezone request. The Commission may recommend approval to the Assembly for different zone districts than what is requested by the applicant or recommended by staff. Additionally, the Commission can determine the boundary of the area to be rezoned. This means that if the Commission wishes to do so, the zone district boundary line may be moved from its current location, as long as it is found to be in substantial conformance with the Comprehensive Plan.

SUMMARY

Consistent with the recent nearby transition rezones to higher densities, since sewer and water can now serve the site, consistent with the recent nearby transition zone upgrades to higher densities, staff recommends that the property be rezoned to the higher densities. However, a rezone to a transition zone of D-3(T)D-5 for the southern 19.6 acres of property would ensure that access to the subject site is addressed, including safety concerns with additional traffic on adjacent residential streets. While sewer and water are both available to serve the site, adequate road infrastructure is not currently in place to serve increased densities. Because of this, staff recommends that the zone districts on the site be transitioned to D-3 and D-10 as shown on the Zoning Maps, but that the property can transition to D-5 for the southern portion when it can be shown that road improvements can serve the higher densities.

Due to the split zoning on the property, there are two different recommendations and actions needed by the Planning Commission. The Planning Commission is authorized to approve transition requests. If the Planning Commission approves the transition from D-1(T)D-10 to D-10 for the northern 3.2 acres of the subject site, the zone change becomes effective immediately.

For the southern 19.6 acre portion of the property for which the applicant has requested a zone district change other than the transition zone for the property, the Planning Commission will make a recommendation to the Assembly for its consideration.

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FINDINGS

After review of the application materials, the CBJ Land Use Code and the CBJ Comprehensive Plan, the Director makes the following findings:

1. The request meets the submittal requirements and the rezoning initiation, zone change restrictions, and procedural requirements of the CBJ Land Use Code.
2. This proposal substantially conforms to the Land Use Maps of the Comprehensive Plan.
3. Transition zoning of D-3(T)D-5 on the lower 19.6 acres would ensure that access to the subject site is addressed, including safety concerns with additional traffic on adjacent residential streets. While sewer and water are both available to serve the site, adequate road infrastructure is not currently in place to serve increased densities.

STAFF RECOMMENDATION

Because of the two zone districts on the site, there are two actions needed by the Planning Commission and thus, two different recommendations by staff, included below.

Northern 3.2 acres of the Subject Parcel:

Staff recommends that the Planning Commission adopt the Director's analysis and findings and approve a zone change from D-1(T)D-10 to D-10 for the 3.2 acres of the northern portion of USS 20136 Lot 2.

Southern 19.6 acres of the Subject Parcel:

Staff recommends that the Planning Commission concur with the Director's analysis and findings and recommend approval to the Assembly for a rezone of the 19.6 acres of the southern portion of USS 2136 Lot 2 from D-1(T)D-3 to D-3(T)D-5 subject to the following condition:

1. Prior to a transitional zone change to D-5, Single-family Residential, Pederson Street shall be improved to the standards required for streets as required by CBJ 49.35 Public Improvements, unless access meeting appropriate safety requirements equivalent or superior to that which would be provided by Pederson Street, as determined by the directors of the Community Development and Engineering and Public Works Departments, and the Planning Commission, has been provided from an alternative location.

DEVELOPMENT PERMIT APPLICATION

Project Number	CITY and BOROUGH of JUNEAU		Date Received:	1/22/16
Project Name (City Staff to Assign Name)				
INFORMATION	Project Description Remove the subject parcel			
	PROPERTY LOCATION			
	Street Address	City/Zip		
	On Glacier Highway near Sherwood Lane intersection		Juneau 99801	
	Legal Description(s) of Parcel(s) (Subdivision, Survey, Block, Tract, Lot)			
	Lot 2, USS 2136			
	Assessor's Parcel Number(s)			
	4B1701130020			
	LANDOWNER/ LESSEE			
	Property Owner's Name	Contact Person:		Work Phone:
Golden Cove, LLC and Mal & Elaine Menzies	Mal Menzies		789-9025	
Mailing Address	Home Phone:		Fax Number:	
19005 Glacier Hwy, Juneau, AK 99801	789-9025			
E-mail Address	Other Contact Phone Number(s):			
mmenzies@gei.net				
LANDOWNER/ LESSEE CONSENT ****Required for Planning Permits, not needed on Building/ Engineering Permits****				
I am (we are) the owner(s) or lessee(s) of the property subject to this application and I (we) consent as follows:				
A. This application for a land use or activity review for development on my (our) property is made with my complete understanding and permission.				
B. I (we) grant permission for officials and employees of the City and Borough of Juneau to inspect my property as needed for purposes of this application.				
X	Landowner/Lessee Signature		12/13/15 Date	
X	Landowner/Lessee Signature		12/15/15 Date	
NOTICE: The City and Borough of Juneau staff may need access to the subject property during regular business hours and will attempt to contact the landowner in addition to the formal consent given above. Further, members of the Planning Commission may visit the property before the scheduled public hearing date.				
APPLICANT If the same as OWNER, write "SAME" and sign and date at X below				
Applicant's Name	Contact Person:		Work Phone:	
Intrepid, LLC	Murray Walsh		723-8444	
Mailing Address	Home Phone:		Fax Number:	
9811 Main Tree Street, Anchorage, AK 99507	586-1106			
E-mail Address	Other Contact Phone Number(s):			
murray@acsalaska.net				
X	Applicant's Signature		1-22-2016 Date of Application	

OFFICE USE ONLY BELOW THIS LINE					
STAFF APPROVALS	☒	Permit Type	***SIGN	Date Received	Application Number(s)
		Building/Grading Permit			
		City/State			
		Project Review and City Land Action			
		Inquiry Case (Fee In Lieu, Letter of ZC, Use Not Listed)			
		Mining Case (Small, Large, Rural, Extraction, Exploration)			
		Sign Approval (If more than one, fill in all applicable permit #'s)			
		Subdivision (Minor, Major, PUD, St. Vacation, St. Name Change)			
		Use Approval (Allowable, Conditional, Cottage Housing, Mobile Home Parks, Accessory Apartment)			
		Variance Case (De Minimis and all other Variance case types)			
	Wetlands Permits				
☒	Zone Change Application		1/22/16	AME 16-005	
	Other (Describe)				
Comments:					
***Public Notice Sign Form filled out and in the file.				Permit Intake Initials	
				JM	

NOTE: DEVELOPMENT PERMIT APPLICATION FORMS MUST ACCOMPANY ALL OTHER COMMUNITY DEVELOPMENT DEPARTMENT APPLICATIONS

1- FORMS 2010 Applications Revised November 2009

ATTACHMENT A

ZONE CHANGE APPLICATION

Packet Page 650 of 786

Project Number	Project Name (15 characters)	Case Number AME 16-005	Date Received 1/22/16
----------------	------------------------------	----------------------------------	---------------------------------

LEGAL DESCRIPTION(S) AND LIMITS OF PROPERTY TO BE REZONED:

Lot 2, USS 2136, comprising 22 acres

IS THIS AN EXPANSION OF AN EXISTING ZONE?

☒ Yes ☐ No

Total Land Area of Proposed Change 22 acres Comp Plan Designation MDR & ULDR

Current Zone(s) D-1(T) D-3&D-10 Comp Plan Map Map F

New Zone Requested D-10

TYPE OF ZONE CHANGE REQUESTED:

☒ Regular ☒ Transition

HAS THIS OR A SIMILAR ZONE CHANGE BEEN REQUESTED IN THE PREVIOUS 12 MONTHS?

☐ Yes ☒ No

UTILITIES AVAILABLE: **WATER:** ☒ Public ☐ On Site **SEWER:** ☒ Public ☐ On Site

PURPOSE OF THE REQUESTED ZONE CHANGE:

Townhouses in condominium development

IS THERE A PROPOSED USE OF THE LAND?

☒ Yes ☐ No

PROPOSED BUFFERS TO ADJACENT ZONES?

☒ Yes ☐ No

DESCRIBE (INCLUDING TYPE AND DENSITY OF PROPOSED DEVELOPMENT):

Townhouses in a mix of sizes in a condominium development. 220 units

DESCRIBE ANY POTENTIAL IMPACTS TO PUBLIC INFRASTRUCTURE:

STREETS: See narrative. The increase in traffic will have little impact on the existing streets

WATER: No impact. Existing service is large enough to handle the new demand.

SEWER: No impact. Existing service in Sherwood Lane is capable of handling the new demand.

For more information regarding the permitting process and the submittals required for a complete application, please see the reverse side.

If you need any assistance filling out this form, please contact the Permit Center at 586-0770.

ZONE CHANGE FEES

	Fees	Check No.	Receipt	Date
Application Fees	\$ <u>600</u>			
Admin. of Guarantee	\$ _____			
Adjustment	\$ _____			
Pub. Not. Sign Fee	\$ <u>50</u>			
Pub. Not. Sign Deposit	\$ <u>100</u>			
Total Fee	\$ <u>750</u>	<u>08366D</u>	<u>0837536</u>	<u>1/22/16</u>

NOTE: MUST BE ACCOMPANIED BY DEVELOPMENT PERMIT APPLICATION FORM

Narrative to Support Re-Zone of Lot 2, USS 2136

The subject parcel is presently zoned in two different classifications. The northerly portion, about four acres, is zoned D-1(T)D-10. The remainder is zoned D-1(T)D-3. The applicant is requesting D-10 zoning for the entire parcel so that it can be developed with up to 150 or so townhomes in several clusters for efficient use of land. The goal of the developers is to develop affordable, well designed townhomes. There are a number of reasons for this request shown below. In general, it appears that the split zoning was based on the expectation of sewer service arriving in the area. There is indeed now sewer service on Veterans Memorial Highway (VMH) and in Sherwood Lane. The area nearest to VMH all along and over Peterson Hill was transition zoned to D-10 in bands of land on both sides of the highway. The width of these bands seems based on the rear property lines of most of the parcels involved but not the subject parcel. It is not clear why the subject parcel was split into two classifications but what is known now is that the entire parcel can be served with gravity-operated sewer and should thus be eligible for up-zoning in its entirety.

Sewer Service to the Parcel

One reason the parcel might have been bi-classified could have been the belief that most of it could *not* easily be served with sewer. In fact, the property is ideal for gravity-powered sewer because it is shaped like an amphitheater where the slopes all drain to the place where Pederson Creek crosses the east property line of the parcel. There are several options from there to route the sewer over to Sherwood Lane. The key point to make is that the property drains in a way that will make sewer quite feasible for a large number of dwelling units.

Wetland Status of the Parcel

The CBJ began an update of its wetlands study in 2015. As part of that effort, the wetlands contractor determined that large portions of the parcel are in fact wetlands that are subject to the jurisdiction of the US Army Corps of Engineers. A copy of the contractor's map is included with this submission. That map shows that nearly half of the parcel is jurisdictional wetland. Most of the wet area is called "Forested Peatland" in the CBJ data. It is possible to obtain a fill permit from the Corps for forested wetlands but this is growing ever more difficult and expensive as discussed below. The lower SE corner is called "Uplift Meadow" and would be even more difficult to obtain permission to fill.

A key concern with wetland permitting in the current era is the increased attention on mitigation in the Corps' evaluation process. In general, the Corps has a three-layered evaluation method:

1. *Avoid* filling wetlands on your property if you can still meet your development goals by filling on adjacent uplands if they are available.
2. *Minimize* filling of wetlands on your property if you can still meet your development goals by filling primarily on adjacent uplands if they are available.
3. *Mitigate* the loss of those wetlands that you do fill by one or more methods that in recent years means paying money to organizations like SealTrust to purchase other wetlands and put them into preservation status. In some recent cases, the price of mitigation has been more than the value of the raw wetlands prior to development.

The practical result, especially in the case of the subject parcel, is that the Corps, and the federal regulatory community, will observe that there is a significant amount of non-wetland property on the parcel and will encourage that development occur on those uplands and not on the wetlands. This has the effect of rendering about half of the parcel as unusable. Therefore, the applicant needs as much flexibility as possible in using the uplands. Rezoning the entire parcel to D-10 provides that flexibility.

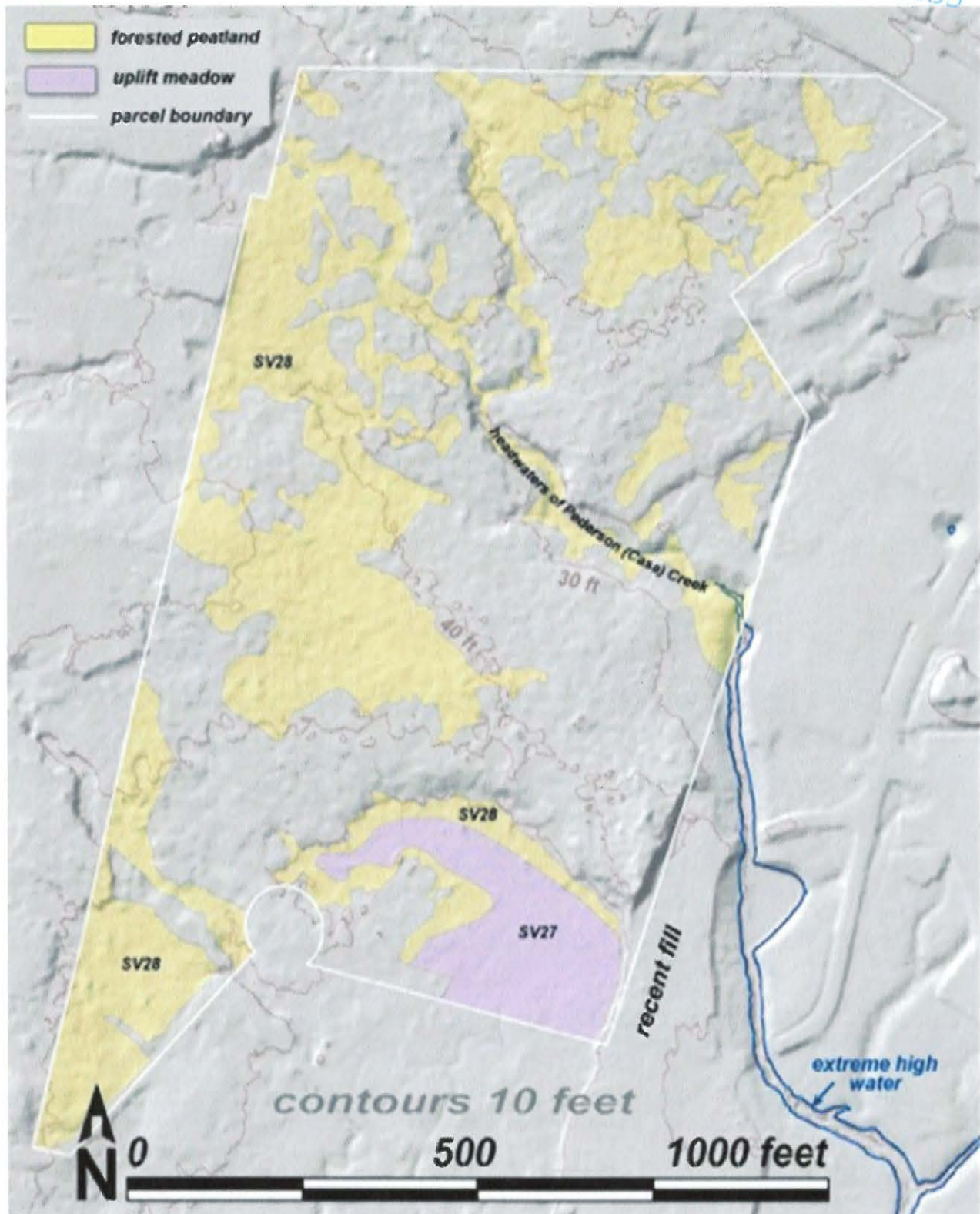
Commitment to Affordable Housing

The typical approach, from the city perspective, to evaluation of a rezone application, is to note that the owner could pursue any number of development options after the rezone has been approved. In this instance, however, the applicant is Intrepid, LLC whose business is the development of high quality affordable housing. The company has a track record in Juneau with the creation of the high-quality Vista Drive apartment complex that added 40 units to the market in the last year. All of these units have rented out. Another 35 are anticipated next year. The company has also built similar developments in the Anchorage area. The plan for the subject parcel is to build a community of townhouses, about 50 or so per year, on the upland portions of the subject parcel. These will be organized in a condominium arrangement and most of them will meet the common definitions of affordability. The target customers are people who are working but not in high income employment.

The applicant is prepared to commit to this development approach as part of the rezone. This means that the applicant is prepared to commit to not pursuing other development options that would ordinarily become available after the rezone. The project is in direct alignment with the current Assembly's continued declaration that more housing units need to be developed in Juneau as stated in their 2016 goals.

RECEIVED
JAN 27 2016
PERMIT DIVISION

RECEIVED
JAN 22 2016
PERMIT CENTER/CDD





Public Notice Sign Lease Agreement

Community Development Department

Case # _____ Sign # _____ Hearing Date: _____

Assessor's Parcel # _____ Check # _____ Receipt # _____

Applicant: INTREPID, LLC (please print) Phone #: 723-8444

Application Received by: _____ Date: _____
(CDD staff initials/name)

I, MURRAY WALSH, in cooperation with the Community Development Department (CDD), have leased a Public Notice Sign and agree to the terms listed below:

CHARGE: \$50 Preparation Fee
\$100 Refundable Deposit

RETURN TIME: The sign **MUST** be returned to the Community Development Department **by 4:30 p.m. on the Monday** following the scheduled hearing date. If the sign is returned later than the Monday after the Planning Commission meeting, but within two weeks of the meeting, \$50.00 may be refunded.

PENALTIES: The sign **MUST** be returned to the Permit Center Staff in the same condition it was taken: clean, undamaged, and with no attachments. **If a sign is not returned on time, or has been damaged, the \$100 deposit fee will be forfeited.**

POSTING REQUIREMENTS:

- The sign must be posted by the applicant/developer on the site at least 14 days prior to the hearing date.
- The sign must be clearly visible and readable from a public Right-of-Way.

[Signature]
(Applicant Signature)

1-22-16
(Date)

Sign Received by: _____ Date: _____ Staff Initials: _____

Sign Returned by: _____ Date: _____ Staff Initials: _____

REFUND INFORMATION:	Receipt Number: _____
Amount Refunded: _____	Method: _____ Date: _____ Staff Initials: _____
Refund Received by: _____ /mailed to: _____	

Laura Boyce

From: Murray Walsh <murray@acsalaska.net>
Sent: Wednesday, April 20, 2016 2:14 PM
To: Laura Boyce
Subject: Amendment to the Intrepid Rezone App

Hi Laura,

As promised, we request that the Intrepid Rezone Application be amended to show that we are seeking D-10 zoning for that portion of the parcel that is shown on the zoning map to transition to D-10 and that we are seeking D-5 zoning for that portion of the property that is shown as transitioning to D-3. We still want to develop the entire parcel in townhouse clusters and we will use the PUD mechanism in the code to do so.

We also ask that the Planning Commission hearing, tentatively planned for May 10 be moved to May 24 and that the public notice sign be available for pick up on May 6.

Please acknowledge receipt of this message and please call if you have questions or concerns.

Thanks

Murray Walsh
723-8444



Virus-free. www.avast.com

Laura Boyce

From: Timothy, Jackie L (DFG) <jackie.timothy@alaska.gov>
Sent: Tuesday, March 22, 2016 8:07 AM
To: Laura Boyce
Cc: 'mmenzies@gci.net'; 'murray@acsalaska.net'; Zutz, Johnny D (DFG); Ott, Alvin G (DFG)
Subject: RE: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10
Attachments: CasaDelSol Land Menzies 3-21-16 TR JZ.PDF

Hi Laura –

As promised, I have attached updated information regarding Casa del Sol Creek on the Menzies property. A few things –

- ADF&G does not object to the rezone so long as the CBJ uses the stream courses identified in the attached trip report and available in ArcGIS at your request,
- We have submitted nominations to the Anadromous Waters Catalog folks up in Anchorage to update the catalog and can provide you copies at your request, and
- Since the CBJ will require a 50' setback on both sides of the anadromous stream, the applicant might want to consider putting the property within the setback into a conservation easement as mitigation for wetland impacts required by the US Army Corps of Engineers.

Thanks. . . Jackie

Jackie Timothy
 Southeast Regional Supervisor

Alaska Department of Fish and Game
 Division of Habitat
 802 West 3rd Street, Douglas, AK 99824
 P.O. Box 110024, Juneau, AK 99811
 (907) 465-4275
 (907) 465-4759 (fax)
jackie.timothy@alaska.gov

From: Laura Boyce [<mailto:Laura.Boyce@juneau.org>]
Sent: Monday, March 14, 2016 12:14 PM
To: Ron King; Ed Foster; Dan Jager; Charlie Ford; Kirk Duncan; Samantha Stoughtenger; Bryce Johnson; Ed Mercer; Greg Chaney; Dan Bleidorn; Tabor, Brock N (DEC); Pikul, Gretchen M (DEC); Timothy, Jackie L (DFG); randal.p.vigil@usace.army.mil; neil_stichert@fws.gov; john_hudson@fws.gov; steve_brockman@fws.gov; sshoemaker@fs.fed.us; chood@fs.fed.us; 'Darrell.Wetherall@aelp.com'; 'Eric Eriksen (eric.eriksen@aelp.com)' (eric.eriksen@aelp.com); Heidemann, Marie E (DOT)
Subject: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10

Good afternoon,

The owner of approximately 22 acres along Glacier Highway has submitted an application to rezone the split-zoned property from D-1(T)D-3 (approximately 19 acres) and D-1(T)D10 (approximately 3 acres) to D-10 (see attached map*). The property is currently zoned D-1 which is a single-family zone district that allows a maximum of 1 dwelling unit per 36,000 square feet. If the property were developed at maximum density today with current zoning, up to 26 single-family lots could be developed. If the property were to transition to D-3 and D-10 as its zoned, the property could have a

maximum of 87 dwelling units. If the property is rezoned to D-10, a multifamily district, the maximum density could be 220 dwelling units.

The property is generally located between Sherwood Lane and Engineers Cutoff Road. The property abuts both Pederson Street and Glacier Highway. There are streams and wetlands located on the property.

Please review the proposed application materials and the attached map and provide comments and any concerns regarding your subject matter expertise. Things to consider include: are there adequate services currently in place to support the proposed maximum density (220 dwelling units)? Will any resources be impacted by rezoning the property to this zone district and density? What would need to be in place to serve the development? These are the types of issues we evaluate as we consider rezoning requests.

If you need additional information, please call me at 586-0753 or email me at laura.boyce@juneau.org. Please provide comments to me no later than **Friday, March 25th**.

Thank you,

Laura

** The map incorrectly labels Glacier Highway as Egan Drive. Please disregard that.*

Laura A. Boyce, AICP
Senior Planner

City and Borough of Juneau
907.586.0753

laura.boyce@juneau.org

MEMORANDUM

State of Alaska

Department of Fish and Game
Division of Habitat

TO: Jackie Timothy
Southeast Regional Supervisor

DATE: March 21, 2016

FILE NO: 58.3719, -134.6218

SUBJECT: Casa Del Sol Land
D10 Rezone - Menzies

FROM: Johnny Zutz 
Habitat Biologist

PHONE NO: (907) 465-6474

The City and Borough of Juneau (CBJ) forwarded an application from Murray Walsh (dba Intrepid, LLC) to rezone Lot 2 USS 2136. The lot is about 22 acres and is located behind the Division of Motor Vehicles, between Sherwood Lane and Engineers Cutoff Road. I obtained permission from the land owner, Mal Menzies, to survey the streams on this lot. Habitat Biologist Greg Albrecht and I visited the area on March 16, 2016 (Figures 1-3).

Land Use Proposal

The split-zoned property has two parcels; a larger 19 acre parcel currently zoned D-1(T)D-3 and a smaller 3 acre parcel zoned D-1(T)D10. D-1 is a single-family zone district that allows a maximum of 1 dwelling unit per 36,000 square feet. The maximum density today with current zoning would be 26 single-family lots. If the property were to transition to D-3 and D-10, as it is zoned, the property could have a maximum of 87 dwelling units. If the property is rezoned to D-10, a multifamily district, the maximum density could be 220 units. The application suggests a goal of about 150 units.

Casa Del Sol surveys

The current ADF&G Anadromous Waters Catalog map shows Casa Del Sol bisecting the smaller parcel, but this information is incorrect. I surveyed the main channel of Casa Del Sol up to Engineers Cutoff Road on June 5, 2015.¹ Greg Albrecht and I returned on March 16, 2016 to complete mapping of the main channel and tributaries west of Sherwood Lane (see attached nominations). In addition to making route corrections, we captured coho salmon in an uncataloged tributary that runs through the center of the larger 19 acre parcel. Figure 3 shows updated routes for fish streams that run through the property.

Using an electrofisher, we captured one pink fry and one age-0 juvenile coho in the main channel of Casa Del Sol. We dug several small pits but did not observe eggs or alevins in the gravel. We observed fine sediment accumulating over embedded gravels in this reach of the stream. We also observed spawning substrate above Engineers Cutoff Road on the West Fork of Casa Del Sol, outside of the project area, that appears to be more productive habitat.

¹ Casa Del Sol Trip Report 6-5-15 JZ

Recommendations

We do not object to the property rezone if the CJB updates their maps with the accurate Casa del Sol stream course and development is planned accordingly. We will provide the ArcGIS stream layer upon request. Work below the ordinary high water mark of Casa del Sol and its tributaries will require fish habitat permits from the Alaska Department of Fish and Game.

Attachments:

111-50-10490 Tributary Addition-2016

111-50-10490-2013 WF-CDS Correction_2016

111-50-10490 CDS Correction_2016

Email cc:

Al Ott, ADF&G Habitat, Fairbanks

Staff, ADF&G Habitat, Juneau

Dan Teske, ADF&G-SF, Juneau

Teri Camery, CBJ, Juneau

Linda Speerstra, USACE, Sitka

Cindy Hartmann Moore, NMFS, Juneau

Steve Brockmann, USFWS, Juneau

Mal Menzies, Applicant, Juneau

Murray Walsh, Agent dba Intrepid LLC, Anchorage



Figure 1.—Uncataloged Tributary.



Figure 2.—Casa Del Sol above tributary.

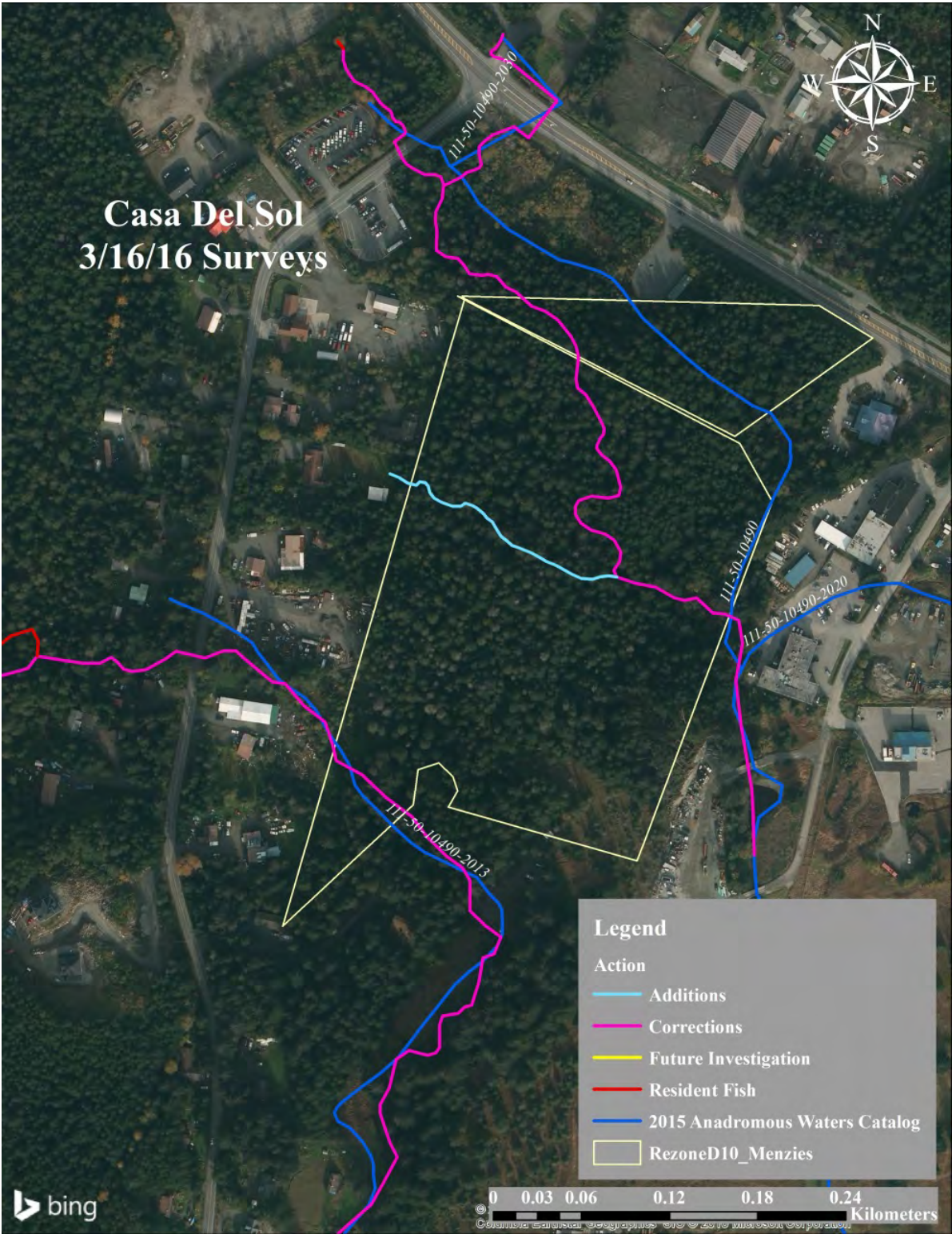


Figure 3.—Updated stream information and approximate parcel boundaries.

Laura Boyce

From: Heidemann, Marie E (DOT) <marie.heidemann@alaska.gov>
Sent: Thursday, March 24, 2016 10:44 AM
To: Laura Boyce
Cc: Epstein, David B (DOT); Haynes, Emily R (DOT); Buck, Joseph T (DOT); Stevens, Mike A (DOT)
Subject: RE: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10

Laura,

ADOT&PF Southcoast Region has no objection to the rezone, though it should be noted that no access will be allowed directly onto Glacier Highway.

Additionally, while the rezone does not trigger any formal actions with ADOT&PF, submission of a development plan will be required before development can occur. A development plan will likely trigger several actions including, but not limited, to those listed below:

- A Traffic Impact Analysis (TIA) will likely be required and would need to consider mitigation on Engineers Cutoff Road and the Glacier Highway Intersection.
- A drainage plan will need to be submitted
- New driveway permits will be required for access to Engineers Cutoff

Thanks for the opportunity to comment.

Marie Heidemann
 Transportation Planner
 Southcoast Region, ADOT&PF
 465-1775

From: Laura Boyce [<mailto:Laura.Boyce@juneau.org>]
Sent: Monday, March 14, 2016 12:14 PM
To: Ron King; Ed Foster; Dan Jager; Charlie Ford; Kirk Duncan; Samantha Stoughtenger; Bryce Johnson; Ed Mercer; Greg Chaney; Dan Bleidorn; Tabor, Brock N (DEC); Pikul, Gretchen M (DEC); Timothy, Jackie L (DFG); randal.p.vigil@usace.army.mil; neil_stichert@fws.gov; john_hudson@fws.gov; steve_brockman@fws.gov; sshoemaker@fs.fed.us; chood@fs.fed.us; 'Darrell.Wetherall@aelp.com'; 'Eric Eriksen (eric.eriksen@aelp.com)' (eric.eriksen@aelp.com); Heidemann, Marie E (DOT)
Subject: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10

Good afternoon,

The owner of approximately 22 acres along Glacier Highway has submitted an application to rezone the split-zoned property from D-1(T)D-3 (approximately 19 acres) and D-1(T)D10 (approximately 3 acres) to D-10 (see attached map*). The property is currently zoned D-1 which is a single-family zone district that allows a maximum of 1 dwelling unit per 36,000 square feet. If the property were developed at maximum density today with current zoning, up to 26 single-

Laura Boyce

From: Darrell Wetherall <Darrell.Wetherall@aelp.com>
Sent: Monday, March 14, 2016 3:42 PM
To: Laura Boyce
Subject: RE: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10

Our main feeder line runs along Glacier Highway and would allow for a primary line extension from Glacier, either single phase or 3 phase, overhead or underground as CBJ requires.

There is 3 phase overhead line along Sherwood Lane. The last pole is at the back corner of the DMV building. To build on Ron's comments, if there was a Sherwood access, we could install a line extension across Lot 2 or Lot 3 to get to the subject parcel from this pole (with an easement or dedicated ROW). We might have to go overhead to get across the creek (or go underground in a bridge?).

There is also a single phase overhead tap that runs down Pederson Street off of the Engineer's Cutoff tap (also single phase) and parallels most of the southern property lines. 3 phase would not be available without significant rework of the entire Engineer's cutoff tap. Most of the line on Pederson St. uses tree wire due to the heavily forested area and much of the Engineer's cutoff tap runs through the trees.

From: Ron King [mailto:Ron.King@juneau.org]
Sent: Monday, March 14, 2016 1:16 PM
To: Laura Boyce <Laura.Boyce@juneau.org>; Ed Foster <Ed.Foster@juneau.org>; Dan Jager <Dan.Jager@juneau.org>; Charlie Ford <Charlie.Ford@juneau.org>; Kirk Duncan <Kirk.Duncan@juneau.org>; Samantha Stoughtenger <Samantha.Stoughtenger@juneau.org>; Bryce Johnson <BAJohnson@juneaupolice.com>; Ed Mercer <EDMercer@juneaupolice.com>; Greg Chaney <Greg.Chaney@juneau.org>; Dan Bleidorn <Dan.Bleidorn@juneau.org>; 'brock.tabor@alaska.gov' <brock.tabor@alaska.gov>; gretchen.pikul@alaska.gov; jackie.timothy@alaska.gov; randal.p.vigil@usace.army.mil; neil_stichert@fws.gov; john_hudson@fws.gov; steve_brockman@fws.gov; sshoemaker@fs.fed.us; choood@fs.fed.us; Darrell Wetherall <Darrell.Wetherall@aelp.com>; Eric Eriksen <Eric.Eriksen@aelp.com>; Heidemann, Marie E (DOT) <marie.heidemann@alaska.gov>
Subject: RE: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10

A second access should be required to Sherwood Lane. Would not be in favor of a second street access to Glacier Hwy but that is ADOT's call.

Porter Lane required to be constructed to standards. Engineer's Cut-off may require additional improvements as well.

Ron King PLS

General Engineering
 907-586-0881

From: Laura Boyce
Sent: Monday, March 14, 2016 12:14 PM
To: Ron King; Ed Foster; Dan Jager; Charlie Ford; Kirk Duncan; Samantha Stoughtenger; Bryce Johnson; Ed Mercer; Greg Chaney; Dan Bleidorn; 'brock.tabor@alaska.gov'; gretchen.pikul@alaska.gov; jackie.timothy@alaska.gov; randal.p.vigil@usace.army.mil; neil_stichert@fws.gov; john_hudson@fws.gov; steve_brockman@fws.gov; sshoemaker@fs.fed.us; choood@fs.fed.us; 'Darrell.Wetherall@aelp.com'; 'Eric Eriksen (eric.eriksen@aelp.com)' (eric.eriksen@aelp.com); Heidemann, Marie E (DOT)

Laura Boyce

From: Pikul, Gretchen M (DEC) <gretchen.pikul@alaska.gov>
Sent: Wednesday, March 16, 2016 1:13 PM
To: Laura Boyce
Subject: RE: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10
Attachments: Pederson Hill Creek watershed.jpg; PedersonHillCreek_2013sample_locations.PNG

Good afternoon Laura,

Thank you for the review opportunity. This area contains segments of Pederson Hill Creek, which has been on the Clean Water Act 303(d) list of impaired waters since 1990 for non-attainment of the fecal coliform bacteria water quality standards (WQS). Failing septic systems within the watershed were identified as the probable pollutant source. However, after three years of sampling data following the city sewer installation, fecal coliform bacteria are still present at levels exceeding WQS.

DEC is concerned about appropriate stormwater control and the addition of Low Impact Development and Green Infrastructure components to lessen negative impacts from the future development on the creek. Since this project is likely to be presented at the Juneau Wetlands Review Board, DEC will follow up and participate in the associated board meeting.

Please see the impaired waters map at <http://dec.alaska.gov/water/wqsar/map.html>, and water quality reports at <http://dec.alaska.gov/water/wqsar/reports.html>. The 2014 data report is not included within the DEC Water Quality Reports Inventory. Please contact me if you are interested in this data.



Gretchen Pikul
 Environmental Program Specialist
 Alaska Dept. of Environmental Conservation
 Division of Water, Non-Point Source Section
<http://www.dec.alaska.gov/water/wqsar/index.htm>

Office 907.465.5023
 410 Willoughby Avenue | Juneau, AK 99811
gretchen.pikul@alaska.gov

From: Laura Boyce [<mailto:Laura.Boyce@juneau.org>]
Sent: Monday, March 14, 2016 12:14 PM
To: Ron King <Ron.King@juneau.org>; Ed Foster <Ed.Foster@juneau.org>; Dan Jager <Dan.Jager@juneau.org>; Charlie Ford <Charlie.Ford@juneau.org>; Kirk Duncan <Kirk.Duncan@juneau.org>; Samantha Stoughtenger <Samantha.Stoughtenger@juneau.org>; Bryce Johnson <BAJohnson@juneaupolice.com>; Ed Mercer <EDMercer@juneaupolice.com>; Greg Chaney <Greg.Chaney@juneau.org>; Dan Bleidorn <Dan.Bleidorn@juneau.org>; Tabor, Brock N (DEC) <brock.tabor@alaska.gov>; Pikul, Gretchen M (DEC) <gretchen.pikul@alaska.gov>; Timothy, Jackie L (DFG) <jackie.timothy@alaska.gov>; randal.p.vigil@usace.army.mil; neil_stichert@fws.gov; john_hudson@fws.gov; steve_brockman@fws.gov; sshoemaker@fs.fed.us; chood@fs.fed.us; 'Darrell.Wetherall@aelp.com' <Darrell.Wetherall@aelp.com>; 'Eric Eriksen (eric.eriksen@aelp.com)' (eric.eriksen@aelp.com) <eric.eriksen@aelp.com>; Heidemann, Marie E (DOT) <marie.heidemann@alaska.gov>
Subject: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10





Figure 1: Sample sites for the Pederson Hill Creek water quality monitoring project.

Laura Boyce

From: Ron King
Sent: Friday, March 25, 2016 12:18 PM
To: Laura Boyce
Subject: RE: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10

Do you need something formal? I cleaned up my previous response and corrected the street name ☺...

Currently a new street has been platted to align directly across from Sherwood Lane. Construction is expected within the next two years. If the proposed property is rezoned GE recommends a second access to Sherwood Lane. However, at this time there is no platted access to the property from Sherwood Lane therefore requiring the developer to purchase lands from an adjoining owner.

Traffic-wise a second access at the point which the property borders Glacier Highway would insert another street intersection between Engineers Cutoff and Sherwood Lane. Add to the traffic mix, two driveways, Family Practice and the Botanical Tour Site on each side of the new street connection; NOT an optimal situation for a 50 MPH roadway. It most likely would require additional constructed width of Glacier Hwy for the continuance of a turn lane. ADOT will have to approve the intersection permit and dictate the final alignment if a new street is allowed.

Construction of interior roadways will require the extension of Pederson Street to a second access. Currently Pederson ROW is used as a driveway within an unimproved right of way. The existing Pederson Driveway will have to be reconstructed to existing CBJ road standards as a requirement of additional development. Engineer's Cut-off may also require additional improvements at the intersection of Pederson Street.

CBJ Water Utilities provides an existing 8" DIP water main in Pederson ROW that may extended by the developer to supply water for the rezoned property. CBJ will require a loop system with a connection to an existing CBJ main through the approved second access.

A 6" PVC sewer service with cleanout was installed to the property line along Glacier Hwy. The existing service may have to be upgraded to accommodate potential additional wastewater discharge. This is the only service currently available for the property.

Finally it may be prudent during the development of the property and construction of Pederson Street to extend sewer to the existing lots within Jensina Park Subdivision for future development by others.

Ron King PLS

General Engineering
907-586-0881

From: Laura Boyce
Sent: Friday, March 25, 2016 9:26 AM
To: Ron King; Ed Foster; Dan Jager; Charlie Ford; Kirk Duncan; Samantha Stoughtenger; Bryce Johnson; Ed Mercer; Greg Chaney; Dan Bleidorn; 'brock.tabor@alaska.gov'; gretchen.pikul@alaska.gov; jackie.timothy@alaska.gov; randal.p.vigil@usace.army.mil; neil_stichert@fws.gov; john_hudson@fws.gov; steve_brockman@fws.gov;

Laura Boyce

From: Ed Foster
Sent: Tuesday, March 15, 2016 5:13 PM
To: Laura Boyce; Ron King; Dan Jager; Charlie Ford; Kirk Duncan; Samantha Stoughtenger; Bryce Johnson; Ed Mercer; Greg Chaney; Dan Bleidorn; 'brock.tabor@alaska.gov'; gretchen.pikul@alaska.gov; jackie.timothy@alaska.gov; randal.p.vigil@usace.army.mil; neil_stichert@fws.gov; john_hudson@fws.gov; steve_brockman@fws.gov; sshoemaker@fs.fed.us; choood@fs.fed.us; 'Darrell.Wetherall@aelp.com'; 'Eric Eriksen (eric.eriksen@aelp.com)' (eric.eriksen@aelp.com); Heidemann, Marie E (DOT)
Cc: Chad 'Kit' Watts
Subject: RE: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10

Laura,

From the streets concerns, Pederson Rd is an unimproved/unmaintained CBJ ROW. At the very minimum this would require Pederson Rd be upgraded to CBJ standards. The larger impact would be to ADOT ROW; Engineer's Cutoff and Egan. Adding the traffic of 220 units to Pederson Rd and Engineer's Cutoff may not be acceptable to ADOT, but that's their call. The visibility on Pederson Rd when approaching Engineer's Cutoff isn't very good anyway. This may require a through road to Egan to reduce the traffic impact to Pederson Rd., but again that's ADOT call.

At a bare minimum CBJ should require Pederson Rd to be upgraded to current design standards.

Ed

From: Laura Boyce
Sent: Monday, March 14, 2016 12:14 PM
To: Ron King; Ed Foster; Dan Jager; Charlie Ford; Kirk Duncan; Samantha Stoughtenger; Bryce Johnson; Ed Mercer; Greg Chaney; Dan Bleidorn; 'brock.tabor@alaska.gov'; gretchen.pikul@alaska.gov; jackie.timothy@alaska.gov; randal.p.vigil@usace.army.mil; neil_stichert@fws.gov; john_hudson@fws.gov; steve_brockman@fws.gov; sshoemaker@fs.fed.us; choood@fs.fed.us; 'Darrell.Wetherall@aelp.com'; 'Eric Eriksen (eric.eriksen@aelp.com)' (eric.eriksen@aelp.com); Heidemann, Marie E (DOT)
Subject: Proposed Rezone of approximately 22 acres along Glacier Highway (between Sherwood Lane and Engineers Cutoff) from D-1(T) D-3 and D-10 TO D-10

Good afternoon,

The owner of approximately 22 acres along Glacier Highway has submitted an application to rezone the split-zoned property from D-1(T)D-3 (approximately 19 acres) and D-1(T)D10 (approximately 3 acres) to D-10 (see attached map*). The property is currently zoned D-1 which is a single-family zone district that allows a maximum of 1 dwelling unit per 36,000 square feet. If the property were developed at maximum density today with current zoning, up to 26 single-family lots could be developed. If the property were to transition to D-3 and D-10 as its zoned, the property could have a maximum of 87 dwelling units. If the property is rezoned to D-10, a multifamily district, the maximum density could be 220 dwelling units.

The property is generally located between Sherwood Lane and Engineers Cutoff Road. The property abuts both Pederson Street and Glacier Highway. There are streams and wetlands located on the property.

Please review the proposed application materials and the attached map and provide comments and any concerns regarding your subject matter expertise. Things to consider include: are there adequate services currently in place to support the proposed maximum density (220 dwelling units)? Will any resources be impacted by rezoning the property

Laura Boyce

From: Mark Mow
Sent: Tuesday, March 15, 2016 11:12 AM
To: Laura Boyce
Cc: Bill Cameron
Subject: FW: Scanned image from im4511 Sen Sec / Rezone on Glacier Highway.
Attachments: im4511_20160315_120906.pdf

Hi Laura, attached are the maps of that area. There is only two 6" mainlines that serve that side of the highway. If any rezoning could be considered the project would have to tie into below #MH-2 directly into the 18" mainline to handle the increased flow. Thanks Mark...

-----Original Message-----

From: mwwtp@juneau.org [<mailto:mwwtp@juneau.org>]
Sent: Tuesday, March 15, 2016 1:09 PM
To: Mark Mow
Subject: Scanned image from im4511 Sen Sec

DEVICE NAME: MWWTP-Collections
DEVICE MODEL: im4511
LOCATION:

FILE FORMAT: PDF NONE
RESOLUTION: 300dpi x 300dpi

Attached file is scanned image in PDF format.
This file can be read by Adobe Acrobat Reader.
The reader can be downloaded from the following URL:

<http://www.adobe.com/>

Laura Boyce

From: Mark Mow
Sent: Tuesday, March 15, 2016 11:29 AM
To: Laura Boyce
Cc: Bill Cameron
Subject: FW: Scanned image from im4511 Sen Sec / Sherwood Lane.
Attachments: im4511_20160315_122847.pdf

The mainline on Sherwood lane is 8" PVC and starts to gravity from #MH-2 out to the highway. The other end is 2" HDPE Pressure that goes under a culvert which provides service to CCFR and DMV. Thanks...

-----Original Message-----

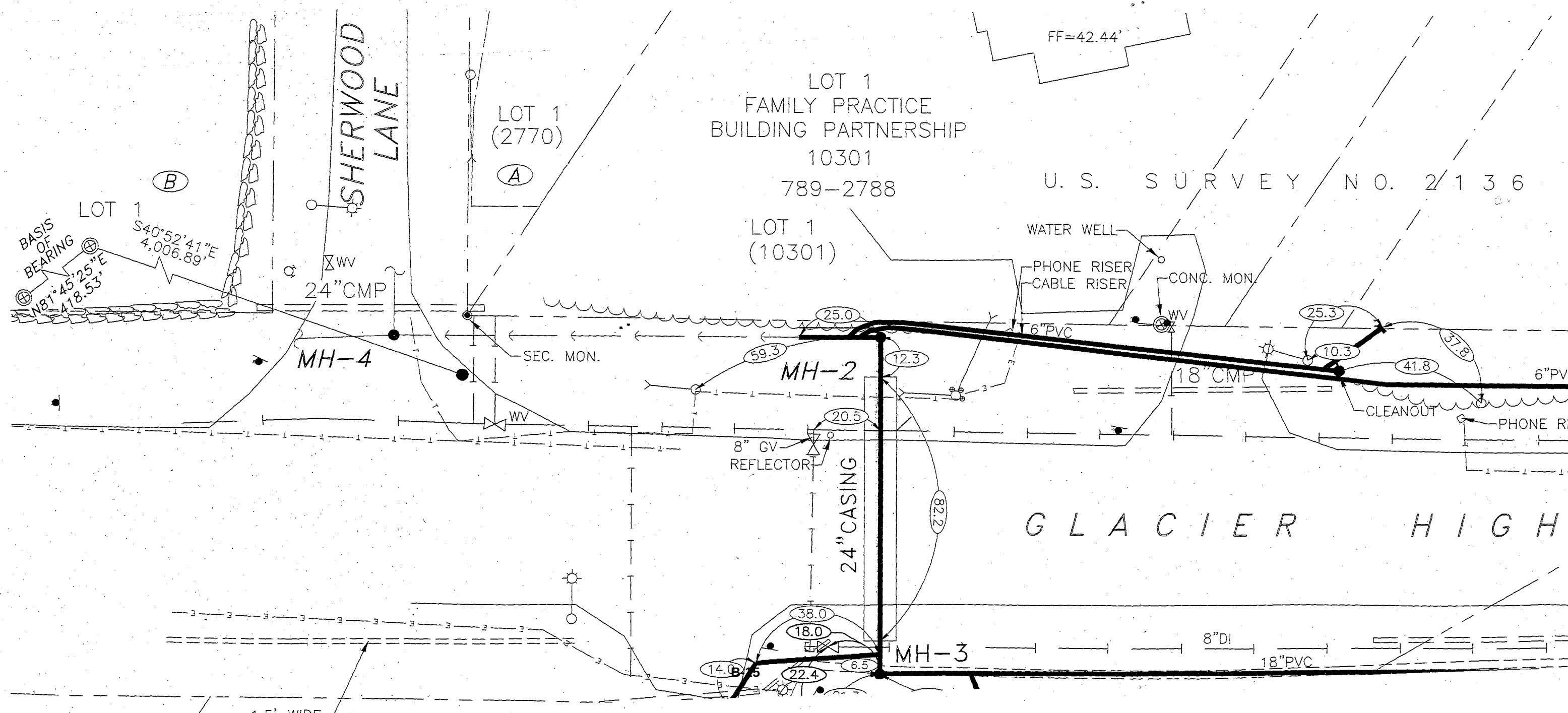
From: mwwtp@juneau.org [<mailto:mwwtp@juneau.org>]
Sent: Tuesday, March 15, 2016 1:29 PM
To: Mark Mow
Subject: Scanned image from im4511 Sen Sec

DEVICE NAME: MWWTP-Collections
DEVICE MODEL: im4511
LOCATION:

FILE FORMAT: PDF NONE
RESOLUTION: 300dpi x 300dpi

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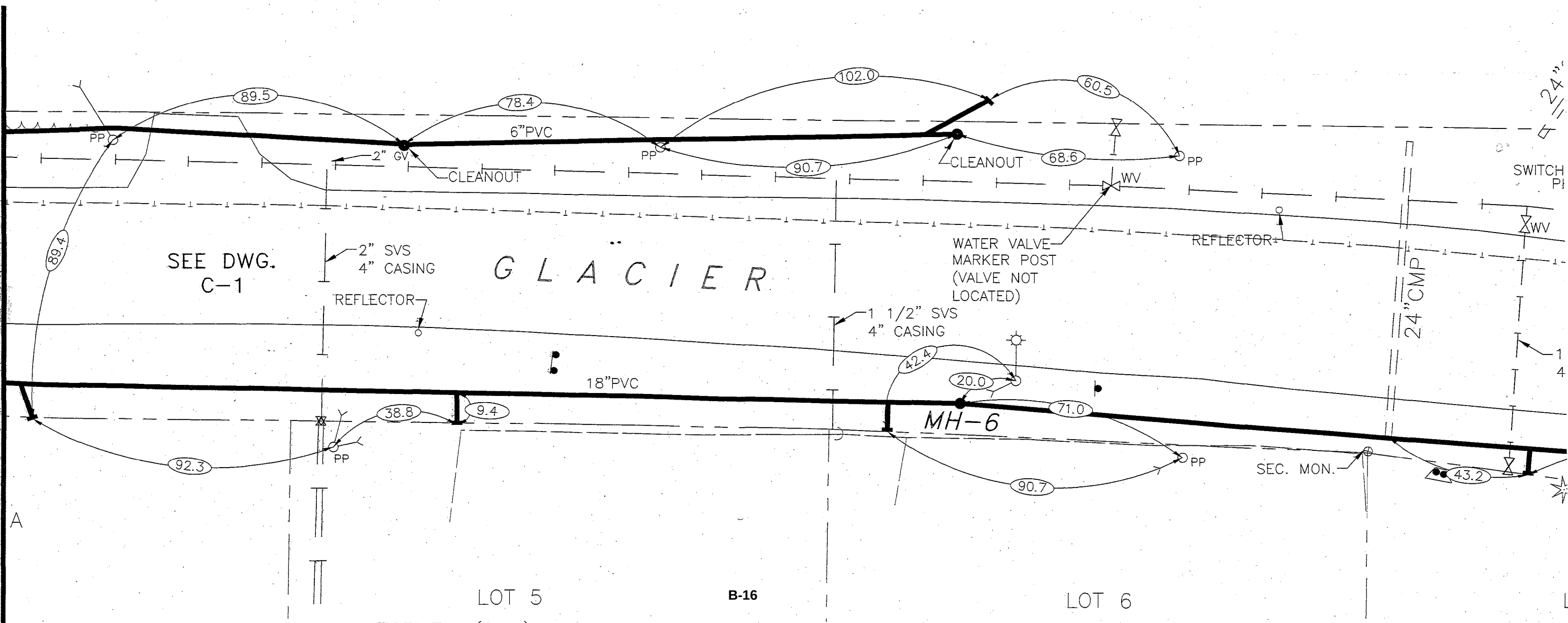
<http://www.adobe.com/>



U. S. S U R V E Y N O. 2 5 7 0
J E F F & J A N E S V I N I C K I
10455 & 10457
789-4681

PLOT: April 13, 2012 at: 2:15pm jkemp

MATCH LINE STA. 18+75

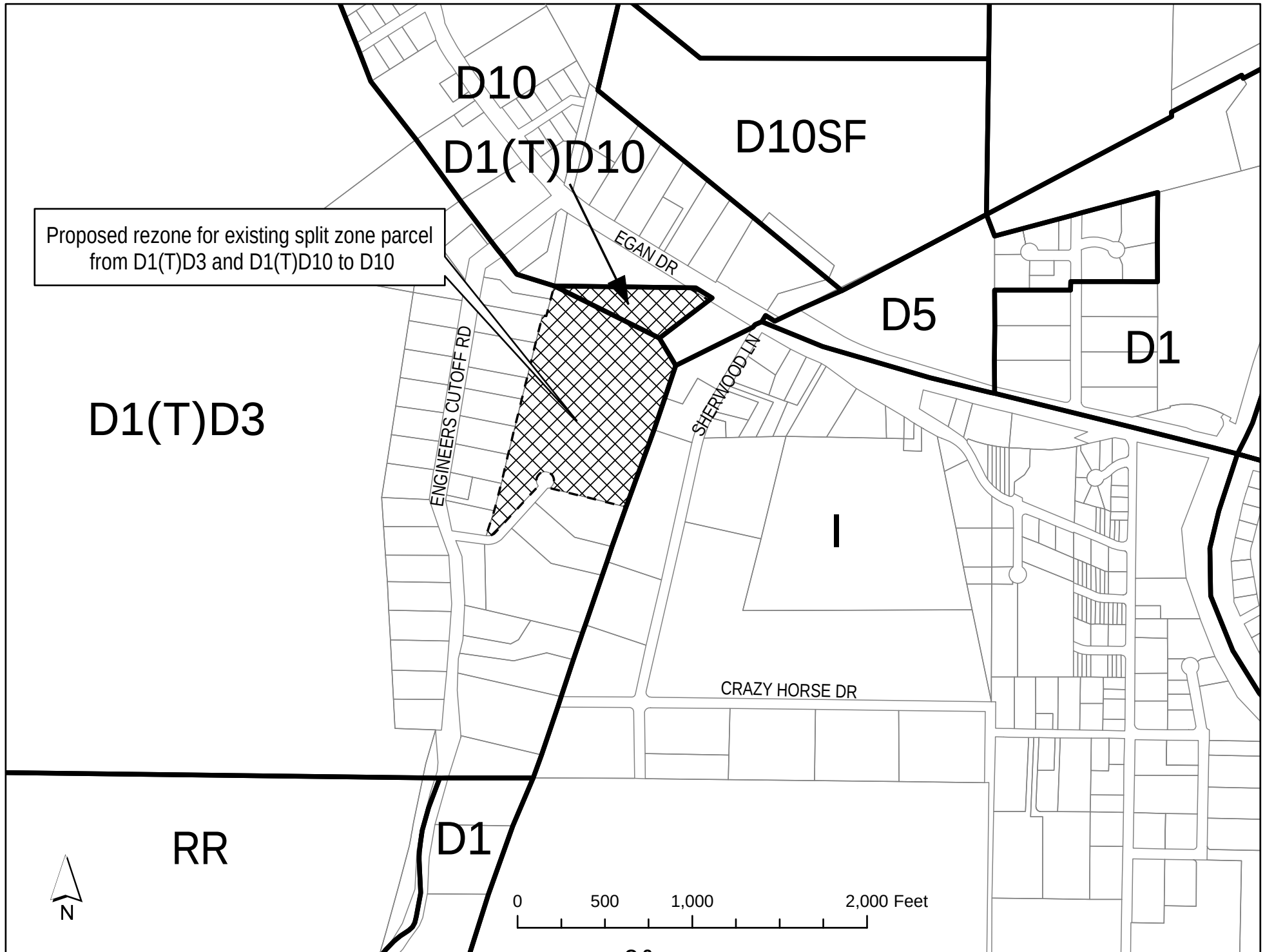


AGENDA

Neighborhood Meeting For Proposed Rezone of 22 Acres FROM: D-1(T)D-3 and D-1(T)D-10 TO: D-10

March 3rd, 2016
Valley Library
6:00pm

- Welcome – Introductions
- Why we are here? – Application and Rezone Process
- Proposed Project –
 - Applicant
- What happens next? –
 - Review and Staff Report – Please send comments to:
Laura A. Boyce, Senior Planner or laura.boyce@juneau.org
155 S. Seward St.
Community Development Department
Juneau, AK 99801
Ph: (907)586-0753
- Questions, Comments, and Concerns -



Chapter 49.75 REZONINGS, SPECIAL STANDARDS, REGULATIONS AND TEXT AMENDMENTS

ARTICLE I. - REZONINGS

ARTICLE II. - SPECIAL STANDARDS

ARTICLE III. - RESERVED

ARTICLE IV. - TEXT AMENDMENTS

ARTICLE I. REZONINGS[49.75.110 Initiation.](#)[49.75.120 Restrictions on rezonings.](#)[49.75.130 Procedure.](#)**49.75.110 Initiation.**

A rezoning may be initiated by the director, the commission, or the assembly at any time during the year. A developer or property owner may initiate a request for rezoning in January or July only. Adequate public notice shall be provided by the director to inform the public that a rezoning has been initiated.

(Serial No. 87-49, § 2, 1987)

49.75.120 Restrictions on rezonings.

Rezoning requests covering less than two acres shall not be considered unless the rezoning constitutes an expansion of an existing zone. Rezoning requests which are substantially the same as a rezoning request rejected within the previous 12 months shall not be considered. A rezoning shall only be approved upon a finding that the proposed zoning district and the uses allowed therein are in substantial conformance with the land use maps of the comprehensive plan.

(Serial No. 87-49, § 2, 1987; [Serial No. 2012-31\(b\), § 2, 8-27-2012](#))

49.75.130 Procedure.

A rezoning shall follow the procedure for a major development permit except for the following:

- (a) The commission shall make a recommendation to the assembly to approve, approve with modifications, or deny a rezoning request. The commission shall prepare written findings in support of its recommendation. The commission's notice of recommendation shall be posted on the department's website within ten days of the public hearing on the proposed rezone. If the commission recommends approval of the rezoning request or approval with modifications, the director shall forward the commission's written recommendation to the assembly with an ordinance to amend the official zoning map in accordance with the recommendation. If the commission recommends denial, the amendment shall be deemed disapproved unless the applicant files a notice of protest in accordance with CBJ 49.75.130(b).

(b) Protests.

- (1) An applicant may protest the commission's recommendation to deny the rezoning by filing a written statement with the municipal clerk within 20 days of the commission's written notice of recommendation for denial, requesting that an ordinance amending the zoning map as set out in the application be submitted for action by the assembly. The director shall, within 30 days of the filing of the protest with the municipal clerk, prepare a draft ordinance to be appended to the notice of recommendation for consideration by the assembly.
 - (2) Any person may protest the commission's recommendation to approve a rezoning request or approve a rezoning request with modification by filing a written protest with the municipal clerk within 20 days of the commission's written notice of recommendation.
 - (3) In the case of a timely filed protest and after introduction of the proposed ordinance at a regularly scheduled assembly meeting, the assembly shall hold a public hearing on the proposed rezoning. At the close of the hearing, the assembly shall approve the zoning map amendment as recommended by the commission, approve the zoning map amendment with modifications, or deny the zoning map amendment.
- (c) All rezonings shall be adopted by ordinance, and any conditions thereon shall be contained in the ordinance. Upon adoption of any such ordinance, the director shall cause the official zoning map to be amended in accordance with the adopted ordinance.

(Serial No. 87-49, § 2, 1987; [Serial No. 2012-11, § 2, 4-2-2012](#); Serial No. [2014-14\(c\)am](#), § 2, 4-6-2015, eff. 5-7-2015; [Serial No. 2015-03\(c\)\(am\), § 57, 8-31-2015](#))

ARTICLE II. ZONING DISTRICTS[49.25.200 RR, rural reserve district.](#)[49.25.210 Residential districts.](#)[49.25.220 Mixed use districts.](#)[49.25.230 Commercial districts.](#)[49.25.240 I, industrial district.](#)[49.25.250 Waterfront districts.](#)**49.25.200 RR, rural reserve district.**

The RR, rural reserve zoning district, is intended for lands primarily in public ownership managed for the conservation and development of natural resources and for future community growth. In addition, recreation cabins, lodges and small seasonal recreational facilities may be allowed.

(Serial No. 87-49, § 2, 1987)

49.25.210 Residential districts.

The following districts are established to provide a healthy, safe and pleasant environment for residential living protected from incompatible and disruptive activities:

- (a) The D-1, residential district, is intended to accommodate primarily single-family and duplex residential development in areas outside the urban service boundary at a density of one dwelling unit per acre. Certain D-1 zoned lands, however, may exist within the urban service boundary in transition areas if public sewer or water are absent but planned for. The D-1 classification will be changed to a higher density upon provision of services.
- (b) The D-3, residential district, is intended to accommodate primarily single-family and duplex residential development at a density of three dwelling units per acre. D-3 zoned lands are primarily located outside the urban service boundary where public utilities are not provided. The density reflects the existing pattern of development of properties in the district. There is a limited amount of D-3 zoned lands located within the urban service boundary. These are lands for which a lower density is deemed appropriate or, in the case of transition zones, where the zoning will be changed to a higher density when sewer and water are provided.
- (c) The D-5, residential district, is intended to accommodate primarily single-family and duplex residential development at a density of five dwelling units per acre. D-5 zoned lands are located in the urban service boundary and are served or can be served by public water and sewer.
- (d) The D-10 SF, residential district, is intended to accommodate primarily single-family residential development at a density of ten dwelling units per acre. This is the highest-density single-family residential district.
- (e) The D-10 and D-15, residential districts, are intended to accommodate primarily multifamily residential development at ten and 15 units per acre respectively. These are relatively low-density multifamily districts.
- (f) The D-18, residential district, is intended to accommodate primarily multifamily development at a density of 18 dwelling units per acre. This is a high density multifamily zoning district intended to accommodate midrise-type development.

(Serial No. 87-49, § 2, 1987; Serial No. 2007-39, § 7, 6-25-2007)

49.25.220 Mixed use districts.

The mixed use and mixed use 2 districts are established to accommodate a mix of appropriate commercial and residential uses.

- (a) The MU, mixed use district, reflects the existing downtown development pattern and is intended to maintain the stability of the downtown area. Multifamily residential uses are allowed and encouraged.
- (b) The MU2, mixed use 2 district, is intended to place a greater emphasis on residential development than is the case in the MU district. A range of residential development types is allowed. Multifamily residential uses are allowed at a density of up to 80 units per acre.

(Serial No. 87-49, § 2, 1987; Serial No. 98-09, § 3, 1998; [Serial No. 2012-24, § 2, 5-14-2012, eff. 6-14-2012](#))

Administrative Code of Regulations cross reference—Mix use development, Part IV, § 04 CBJAC 035.010.

49.25.230 Commercial districts.

The following districts are established to accommodate commercial activities:

- (a) The LC, light commercial district, is intended to accommodate commercial development that is less intensive than that permitted in the general commercial district. Light commercial districts are primarily located adjacent to existing residential areas. Although many of the uses allowed in this district are also allowed in the GC, general commercial district, they are listed as conditional uses in this district and therefore require commission review to determine compatibility with surrounding land uses. A lower level of intensity of development is also achieved by stringent height and setback restrictions. Residential development is allowed in mixed- and single-use developments in the light commercial district.
- (b) The GC, general commercial district, is intended to accommodate most commercial uses. Commercial activities are permitted outright in the zone except for those few uses that are listed as conditional uses to ensure compatibility. Residential development is allowed in mixed- and single-use developments in the general commercial district.

(Serial No. 87-49, § 2, 1987; [Serial No. 2012-24, § 2, 5-14-2012, eff. 6-14-2012](#))

Cross reference— Business regulations, CBJ Code tit. 20.

49.25.240 I, industrial district.

The I, industrial district, is intended to accommodate industrial activity which includes manufacturing, processing, repairing and assembling goods. Because of noise, odors, waste and other impacts inherent in industrial activity, performance standards are applied.

(Serial No. 87-49, § 2, 1987; [Serial No. 2012-24, § 2, 5-14-2012, eff. 6-14-2012](#))

Cross reference— Business regulations, CBJ Code tit. 20.

49.25.250 Waterfront districts.

The following districts are established to accommodate those uses that are dependent or directly related to the water, a waterfront location, or both. These districts regulate development of the waterfront to take advantage of the unique attributes and limitations of its lands:

- (a) The WC, waterfront commercial district, is intended to provide both land and water space for uses which are directly related to or dependent upon a marine environment. Such activities include private boating, commercial freight and passenger traffic, commercial fishing, floatplane operations, and retail services directly linked to a maritime clientele. Other uses may be permitted if water-dependent or water-oriented. Residential development is allowed in mixed- and single-use developments in the waterfront commercial district.
- (b) The WI, waterfront industrial district, is intended for industrial and port uses which need or substantially benefit from a shoreline location. In addition, many of the uses that are allowed in the WC, waterfront commercial district, are also allowed in the WI, waterfront industrial district. Residential uses are limited to caretaker residences in the waterfront industrial district.

(Serial No. 87-49, § 2, 1987; Serial No. 90-52, § 2, 1990; [Serial No. 2012-24, § 2, 5-14-2012, eff. 6-14-2012](#))

Cross reference— Water and harbors, CBJ Code tit. 85.

Notice of Neighborhood Meeting for Rezone Request: AME2016 0005 **Valley Public Library, Large Meeting Room** **Thursday, March 3rd, 6:00 pm**

Dear Resident,

The CBJ Community Development Department received a Zone Change Application (AME2016 0005) to rezone approximately 24 acres, located along Glacier Highway and Pederson Street,

FROM: D1(T)D3 (*Residential Single-family, 1 dwelling unit per acre (Transition) Residential Single-family, 3 dwelling units per acre*) and D1(T)D10 (*Residential Single-family, 1 dwelling unit per acre (Transition) Residential Single-family, 10 dwelling units per acre*)

TO: D10 (*Residential Single-family, 10 dwelling units per acre*)

The CBJ Community Development Department is hosting a neighborhood meeting to explain the details of the request and the CBJ rezoning process. This meeting will be held on Thursday, March 3rd, beginning at 6 p.m. in the Valley Public Library, Large Meeting Room.

The purpose of the meeting is to provide information, respond to questions, and to get a sense of concerns that the neighborhood might have, so that issues may be addressed in advance of the formal public hearing with the CBJ Planning Commission.

If you have questions or would like more information, please contact Laura Boyce, AICP, Community Development Planner, at 586-0753 or by email at

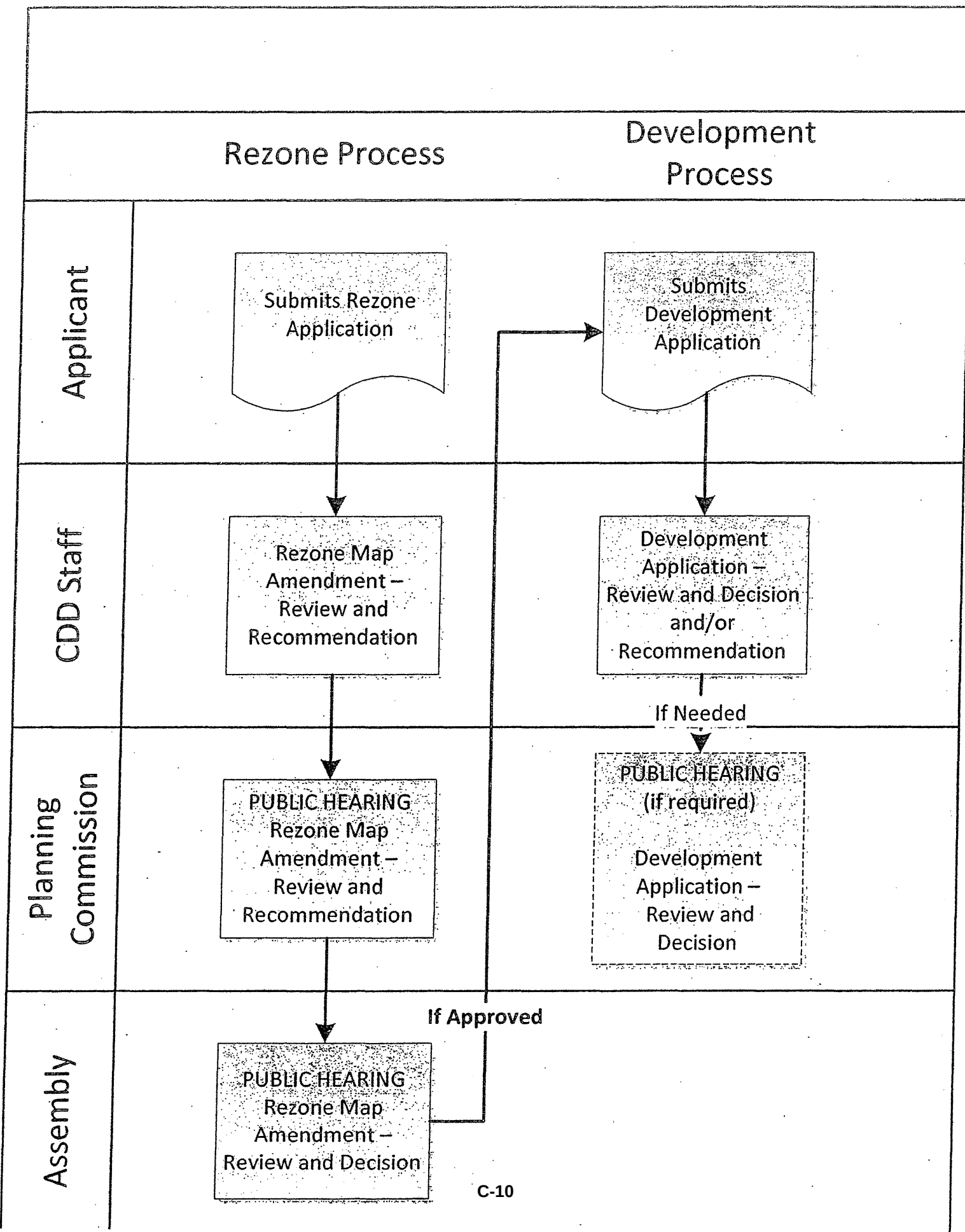
laura.boyce@juneau.org

Date notice was printed: February 24, 2016

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

Valley Library, Library **March 3rd, 2016** **6:00 p.m.**

NAME	ADDRESS	PHONE NUMBER	EMAIL
Wesley Menden	19005 Glacier	789.9025	menden@pci.net
Thyllis Speden	2741 Englund Rd	789 2625	phyllis2@yahoo.com
Mike & Connie Chitty	2771 Ems. Cutoff	789 0690	bellandconnie@gmail.com
Beatrice Franklin	19009 Glacier Hwy - 198d	789-2511	beatrice, Franklin Over
ERIC OLSEN	10301 Glacier Hwy office	723-9666	3900 Glacier ^{Home} covek@qma
JEFF SWINICKI	10392 MIDW. Loop RD.	957-7468 789 1	
Steve Messing	5195 Thurston St / ^{on Behalf of 1200 Englund Rd} _{2780 Englund Rd}	723-8168	smessing@ci.net
Kevin T. Messing	4423 Echabul Ln / ^{on Behalf of 1200 Englund Rd} _{2780 Englund Rd}	723-0525	kevinmessing@hotmail.com
Robb Eggerly	10460 Glacier Hwy 34353 99803	209-5574	pepperly@ci.net
Esther K Eggerly	10440 Klever Hwy	789-5659	kay.madsen@ci.net
DAVID RITTER	2647 SNAWSE CUTOFF	789-2778	dritter@ci.net
Wayne Edger	2617 Ems cutoff	2090222	
Debra Edger	" "	209	ledger@hotmail
Tom Sidney	10400 Glacier Hwy	789-7253	sunny@alaska.net
Donna Sidon	9333 NORTH HAVEN ST	790-2231	Debra@ci.net



Laura Boyce

From: Beatrice S Franklin <bsfranklin@uas.alaska.edu>
Sent: Monday, March 07, 2016 11:44 AM
To: Laura Boyce
Cc: Eric & Vicki (eovbak@gmail.com)
Subject: a couple of questions re the rezoning of the 22 acres by Sherwood Lane

Laura—Thank you for the clear presentation of last Thursday evening. I am one of the owners of the Family Practice Clinic who was at the meeting along with co-owners, Dr. Eric Olsen and his wife Vickie. Mal Menzies is my neighbor. We have a good relationship.

Mal had mentioned to me before the meeting that he had asked for a rezoning of the property some time back , and, if I understood correctly, had only gotten a partial rezoning. When I asked him why only a partial, he told me he didn't know. I think you mentioned at the meeting that you hadn't yet done that research. Murray said he didn't know either but suspected the sewer issue was the reason the whole property hadn't been rezoned. Could you point me to where I might see in the public record when the rezoning was asked for and what the justification was for the decision made by the Planning Commission to only rezone the 3 acres.

My second question relates to the name of the developer. At the meeting it was given as "Intrepid". When I tried to research this company, I only found construction companies by this name in Texas and Virginia I believe. Eric visited their development in Douglas before the meeting and, if I understand correctly, did not see "Intrepid" on the signage.

As I've been a library staffer for many years my inclination is to research. I appreciate any clarifications you can give.

Again thank you for seeking and being responsive to public input . I will look forward to the further steps in this process. Eric and I were reassured by the projected access on Sherwood rather than access further up the highway which could impact Family Practice's roadway and parking. We of course also liked hearing about buffers. I know that there are no guarantees here but will hope that further engineering reports will support that access and the design of the complex as outlined. Beatrice

Beatrice Franklin
11120 Glacier Hwy.
Juneau, AK 99801
796-6470

Laura Boyce

From: Eric & Vicki <eovbak@gmail.com>
Sent: Tuesday, May 10, 2016 10:57 AM
To: Laura Boyce
Subject: Notice public hearing rezone uss2136

I write as an owner of the Family Practice Building after receiving the Notice very recently. Notice says comments may be made up to two weeks prior. Two weeks was yesterday so I am sending this by email. Ms Boyce is not in the office this morning. arrow points to the larger of two marked parcels.

The Notice seems vague as to just what is USS 2136 Lot2. The arrow on the drawing points to the larger parcel but the zoning descriptions seem to be for both shaded parcels.

Intrepid's spokesman at the March 3 meeting said that the D10 would not be used to its full extent of ten units on each acre. I see no guarantee of that. We will be looking for reassurance.

The Notice states "Accessed via: Glacier Highway & Pederson Street".
Is this just an old standard description or does it represent a change in the developer's plan? Accessing the entire property across Miller land from Sherwood Lane is a much better solution in many ways.

FP owners and the doctors working there will be strongly opposed to access to USS 2136 from Glacier Highway via that corner of the 2136 that fronts on the Highway. Traffic safety is already a problem there. The Sherwood intersection reconstruction will make that clearly the better access point.

The FP owners and the doctors expect the developers will provide a buffer along the line between the northwest side of the FP property, as was presented at the March 3 meeting.

A small point but possibly confusing in the future is the discrepancy between the property lines for the FP building parcel as drawn on the notice versus the formal description of the property as filed at the assessor's office. The drawing shows a parcel with a trapezoidal shape and the filed plot is a parallelogram.

Thank you.

Eric Olsen
for the Family Practice Building partnership.

Laura Boyce

From: Laura Boyce
Sent: Thursday, March 03, 2016 4:12 PM
To: Murray Walsh (murray@acsalaska.net)
Subject: FW: Proposed rezone between Engineer's Cut Off and Sherwood Lane

Murray,

I just received this email from Mr. Hanna. Thank you for contacting him.

See you this evening,

Laura

From: Tom Hanna [<mailto:southeastmanagement@gci.net>]
Sent: Thursday, March 03, 2016 4:08 PM
To: Laura Boyce
Subject: RE: Proposed rezone between Engineer's Cut Off and Sherwood Lane

Dear Laura -

Thank you for sending me the proposed rezoning application of the 22 acre parcel between Engineer's Cutoff and Sherwood Lane, which I was able to review just before Murry Walsh was kind enough to call.

Because I live further down Engineers Cutoff on Mendenhall Peninsula Road, I am understandably concerned about traffic that may be routed onto or may affect Engineers Cutoff. However, Murry assured me that Pederson Lane will not be used for access (my biggest concern), nor will the homes along Pederson Lane be part of the development. I understandably am glad to hear that.

Mr. Walsh also indicated that access for the development is expected to be through Sherwood Lane, and they are in preliminary discussions with Miller Construction to make that happen. This would be the most logical access to this parcel that I can think of, and certainly will be much safer than a direct outlet onto Glacier Highway.

The other concern we discussed was regarding the rather swampy wetlands where the small stream is located. It appears from Mr. Walsh's comments that the development will be satisfactorily designed to avoid much of that area, which I certainly would recommend.

I greatly appreciated the information you provided and the further details provided by Murry Walsh. The development appears to be a good use of the land as conceptually proposed, and I have no objections to the proposed rezone.

Since I now have my concerns addressed and have the rezoning application, there is no need for my attending the neighborhood meeting this evening. However, I am interested in being kept informed as further planning details become available on this development.

Thanks - Tom Hanna

From: Laura Boyce [<mailto:Laura.Boyce@juneau.org>]
Sent: Thursday, March 03, 2016 2:26 PM
To: southeastmanagement@gci.net
Subject: Proposed rezone between Engineer's Cut Off and Sherwood Lane

Good afternoon,

Attached please find the rezone application and narrative provided by the applicant. The property is approximately 22 acres and is currently zoned D-1(T)D-3 and D-1(T)D-10. The applicant requests rezoning this split-zoned parcel to D-10.

The meeting will be held tonight at 6 p.m. at the Valley Library.

If you have any questions about this, please contact me by email or phone.

Thank you,

Laura

Laura A. Boyce, AICP
Senior Planner

City and Borough of Juneau
907.586.0753

laura.boyce@juneau.org

Laura Boyce

From: Shelly and Bob Saviers <saviers@gci.net>
Sent: Friday, April 29, 2016 12:26 PM
To: Laura Boyce
Subject: comments on rezone uss 2136

I have concern and that is I do not want the engineers cutoff road to be the primary or secondary access to the re zoned area due to the current traffic. it is too much traffic now for a number 3 road especially when the cutoff is open too fast and not maintained well. That there is no sewer and that hookup is now impossibly expensive. That my assessment has gone up and this re zoned area does not reflect the monies desired by cbj for the area I am in and assessed at..

3/30/16

City & Borough of Juneau
Community Development Dept.
155 South Seward St.
Juneau, Alaska 99801



Attn: Laura Boyce:

RE: zoning change
D-1 to D-10

I have a few concerns regarding changing the zoning on the 24 acres accross from Swampy Acres on Glacier Highway & Pederson Street.

The flow of traffic on Glacier Highway is so heavy in this area that it takes up to 10 minutes to be able to get out onto the road whten turning left to go down the hill and it takes nerves of steel to turn left into our driveway from the right lane, as there is no turning lane. This problem of making left turns to cross traffic is not just us but everyone who accesses Glacier Highway on Peterson Hill and from Engineers Cutoff.

Most cars are going up the hill at 50MPH or down the hill at 50MPH & it is fairly dangerous to turn into Family Practice or Sherwood Lane.

This hill is icy in the winter and cars slide off into the ditch regularly.

Increasing the traffic in this area by allowing up to 150 to 400 more families all trying to go to work at the same time is foreseeably going to be even a bigger problem. Routing all the traffic through Sherwood Lane sounds good but there will be a bottle neck and the potential for serious vehicle accidents unless you install the proper turn lanes. This is a State Highway and they need to be made aware of the potential hazards of pulling out onto Glacier Highway. The three churches located on this stretch of road also have increased traffic on Sundays as well. Please do a traffic study before allowing any further development or zoning changes.

I did attend the meeting on March 3, 2016 at the Valley Public Library. Many of my friends and neighbors also attended and I do not think we left the meeting with any answers from the CBJ or the developer. Most people who live on this side of Mendenhall River do so because they do not want to live in a subdivision. This area is more rural and most lots are large. This project does not really fit this neighborhood. Please reconsider your proposal. Thank you for listening.

Sincerely,

Esther K. Epperly, 10440 Glacier Highway

Bobbi J. Epperly, 10460 Glacier Highway

Box 34358

Juneau, Alaska 99803

Ph#209-5574 or 789-5659

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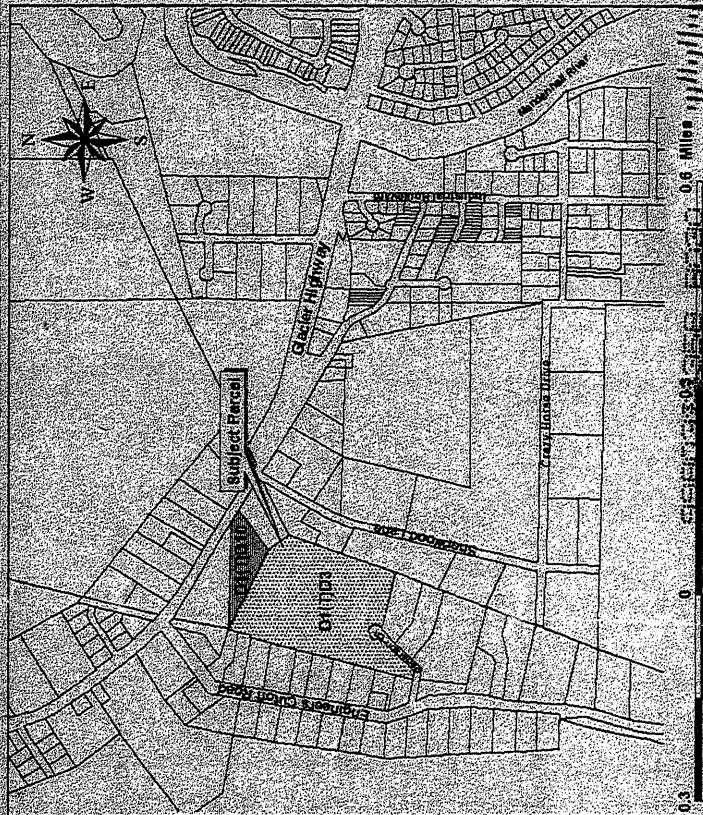
E OF HOOD MEETING



City & Borough of Juneau
 Community Development Department
 155 S Seward Street • Juneau, Alaska 99801

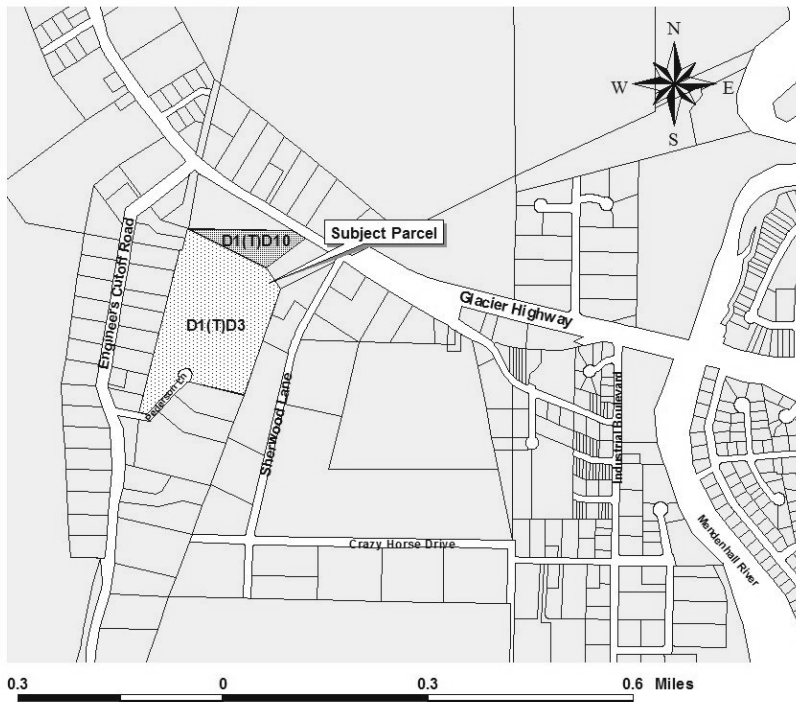
SHIP TO: 4B2201020070
 JAMES J PIETAN &
 BOBBI J EPPERLY
 PO BOX 034358
 JUNEAU, AK 99803

CITY/BOROUGH OF JUNEAU
 ★ ALASKA'S CAPITAL CITY





NOTICE OF PUBLIC HEARING



City & Borough of Juneau
Community Development Department
155 S Seward Street • Juneau, Alaska 99801

SHIP TO:



PROPOSAL: Rezone of USS 2136 Lot 2 from D-1 (T) D-3 to D-5 and D-1 (T) D-10 to D-10.

The Planning Commission has the discretion to consider and recommend alternative rezoning designations other than that being proposed by the applicant or recommended by staff.

File No:	AME2016 0005	Applicant:	Intrepid, LLC.
To:	Adjacent Property Owners	Property PCN:	4-B17-0-113-002-0
Hearing Date:	May 24, 2016	Owner:	Golden Cove, LLC.
Hearing Time:	7:00 PM	Size:	22 Acres
Place:	Assembly Chambers	Zoned:	D-1(T)D-3 and D-1(T)D-10
	Municipal Building	Site Address:	Glacier Highway between Sherwood Lane and Engineer's Cutoff Road
	155 South Seward Street	Accessed Via:	Glacier Highway & Pederson Street
	Juneau, Alaska 99801		

PROPERTY OWNERS PLEASE NOTE:

You are invited to attend this Public Hearing and present oral testimony. The Planning Commission will also consider written testimony. You are encouraged to submit written material to the Community Development Department 14 days prior to the Public Hearing. Materials received by this deadline are included in the information packet given to the Planning Commission a week before the Public Hearing. Written material received after the deadline will be provided to the Planning Commission at the Public Hearing.

If you have questions, please contact Laura Boyce at Laura.Boyce@juneau.org or at 586-0753.



Planning Commission Agendas, Staff Reports and Meeting Results can be viewed at <http://www.juneau.org/assembly/novus.php>



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

PLANNING COMMISSION NOTICE OF DECISION

Date: June 2, 2016
File No.: AME2016 0005

Murray Walsh
Intrepid, LLC
9831 Main Tree Street
Anchorage, AK 99507

Application For: Zoning Upgrade from D1(T)D10 to D10 for the northern 3.2 acres of USS 2136 Lot 2

Legal Description: The portion of Lot 2 USS 2136 north of the line commencing at the west corner of Lot 1 USS 2136; thence N 60° 46' 15" W 646.26 feet to the northwest corner of Lot 2 USS 2136

Property Address: Glacier Highway between Sherwood Lane and Engineers Cutoff Road

Hearing Date: May 24, 2016

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated May 11, 2016, and approved staff's recommendation for the immediate zone change requested. This zone change allows the current D-1(T)D-10 zoning to be up-zoned to D-10.

Attachments: May 11, 2016 memorandum from Laura A. Boyce, AICP, Planner, Community Development, to the CBJ Planning Commission regarding AME2016 0005.

This Notice of Decision constitutes a final decision of the CBJ Planning Commission. Appeals must be brought to the CBJ Assembly in accordance with CBJ 01.50.030. Appeals must be filed by 4:30 p.m. on the day twenty days from the date the decision is filed with the City Clerk, pursuant to CBJ 01.50.030(c). Any action by the applicant in reliance on the decision of the Planning Commission shall be at the risk that the decision may be reversed on appeal (CBJ 49.20.120).

City and Borough Assembly

File No.: AME2016 0005

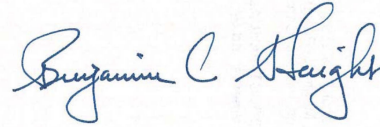
June 2, 2016

Page 2 of 2

Project Planner:



Laura A. Boyce, AICP, Planner
Community Development Department



Ben Haight, Chair
Planning Commission



June 3, 2016

Filed With City Clerk

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this recommended text amendment. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



Community Development

City & Borough of Juneau • Community Development
155 S. Seward Street • Juneau, AK 99801
(907) 586-0715 Phone • (907) 586-4529 Fax

PLANNING COMMISSION NOTICE OF RECOMMENDATION

Date: June 2, 2016

File No.: AME2016 0005

City and Borough of Juneau
City and Borough Assembly
155 South Seward Street
Juneau, AK 99801

Application For: Planning Commission Recommendation to the City and Borough Assembly regarding Rezone of the southern 19.06 acres of USS 2136 Lot 2 from D1(T)D3 to D3(T)D5

Legal Description: The portion of Lot 2 USS 2136 south of the line commencing at the west corner of Lot 1 USS 2136; thence N 60° 46' 15" W 646.26 feet to the northwest corner of Lot 2 USS 2136

Property Address: Glacier Highway between Sherwood Lane and Engineers Cutoff Road

Hearing Date: May 24, 2016

The Planning Commission, at its regular public meeting, adopted the analysis and findings listed in the attached memorandum dated May 11, 2016, and recommended that the City and Borough Assembly adopt staff's recommendation to rezone the southern 19.06 acres from D1(T)D3 to D3(T)D5 with the following condition:

1. Prior to a transitional zone change to D-5, Single-family Residential, Pederson Street shall be improved to the standards required for streets as required by CBJ 49.35 Public Improvements, unless access meeting appropriate safety requirements equivalent or superior to that which would be provided by Pederson Street, as determined by the directors of the Community Development and Engineering and Public Works Departments, and the Planning Commission, has been provided from an alternative location.

Attachments: May 11, 2016 memorandum from Laura A. Boyce, AICP, Planner, Community Development, to the CBJ Planning Commission regarding AME2016 0005.

This Notice of Recommendation constitutes a recommendation of the CBJ Planning Commission to the City and Borough Assembly. Decisions to recommend an action are not appealable, even if the recommendation is procedurally required as a prerequisite to some other decision, according to the provisions of CBJ 01.50.020 (b).

City and Borough Assembly

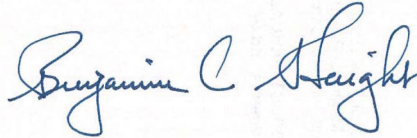
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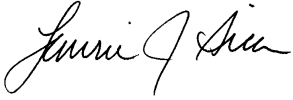
June 2, 2016

Page 2 of 2

Project Planner: _____


Laura A. Boyce, AICP, Planner
Community Development Department


Ben Haight, Chair
Planning Commission



Filed With City Clerk

June 3, 2016

Date

cc: Plan Review

NOTE: The Americans with Disabilities Act (ADA) is a federal civil rights law that may affect this recommended text amendment. ADA regulations have access requirements above and beyond CBJ - adopted regulations. Contact an ADA - trained architect or other ADA trained personnel with questions about the ADA: Department of Justice (202) 272-5434, or fax (202) 272-5447, NW Disability Business Technical Center (800) 949-4232, or fax (360) 438-3208.



Community Development

City & Borough of Juneau • Community Development
 155 S. Seward Street • Juneau, AK 99801
 (907) 586-0715 Phone • (907) 586-4529 Fax

DATE: May 5, 2016

TO: Planning Commission

FROM: Teri Camery, Senior Planner 
 Community Development Department

SUBJECT: AME20150014
 2016 Juneau Wetlands Management Plan
 Final Consultant Presentations, No Action Required

Introduction

CDD has received the final contract draft of the 2016 Juneau Wetlands Management Plan (JWMP) from Bosworth Botanical Consulting (BBC). The first draft of the plan was presented to the Planning Commission, Lands Committee, Wetlands Review Board, and other entities for comment in September and October 2015. The current draft incorporates these comments and major revisions requested by staff.

The draft includes Volume I, 58 pages, and Volume II, 450 pages. We have included only an excerpt of Volume II at this time to provide an example of the layout of the maps and scores. Consultant presentations on the draft are the final requirements of the BBC contract, and are also the final requirements of the federal grant that has funded the project. The grant expires on June 1, 2016.

At the presentations, the consultant will provide an overview of the plan and the most significant changes from the previous draft. The plan is offered to the Commission as an information item, though general comments are welcome. CDD staff will continue to revise the document internally after the contract expires, and will return to the Commission in approximately six weeks with a detailed review and request for plan approval. We are aware that Commissioner and Assembly member names need editing in the Acknowledgement Sections and that other revisions are necessary.

Volume One includes, in part, the following:

- An Executive Summary

- An explanation of the purpose of the study
- An explanation of the research methods used for the study
- An explanation of the project area
- A detailed explanation of implementation options and how the wetland assessments may be used in their current form
- Policies and implementation actions for future development of the plan
- An appendix with extensive background information

Volume Two includes:

- An introduction with an explanation on how to interpret the maps
- Wetland maps, LiDAR, and wetland assessment scores for 360 wetland units
- A parcel code number chart

Major revisions to the document from the September/October 2015 version include, in part:

- An Executive Summary (Volume One, page 4)
- A new section on anadromous fish habitat scores (Volume One, Section 3.3)
- A new Implementation Chapter with:
 - An explanation of how to interpret the wetland scores.
 - A new section on wetland policies and implementing actions, which include the intention to develop wetland categories.
 - A detailed explanation of different options for developing wetland categories.
 - Goals and objectives. (Volume One, Section 4).
- Supplemental research moved to the Appendix
- A new section on how to interpret the maps (Volume Two, Chapter One)
- Substantial revisions to the clarity of the maps

Background

The initial stage of CDD efforts on the 2016 Plan began in 2009. In 2009, the Planning Commission and Assembly re-evaluated CBJ's former goal of developing a wetland mitigation bank to lower wetland mitigation costs within the borough. The Commission and Assembly concluded that an update to the existing Juneau Wetlands Management Plan was a better option. This is because an update to the plan could provide advance planning information to identify low-value wetlands and upland areas suitable for development, as well as higher value wetlands that could be suitable for wetland mitigation.

Following this determination, CDD staff sought grant funds to support the update. In 2012, CBJ was awarded a \$1.6 million dollar grant for the CBJ Habitat Mapping and Analysis Project. The wetland plan is the largest element of the 3.5 year project, which is funded through the federal Coastal Impact Assistance Program (CIAP). In addition to the

wetland plan, the project included acquisition of new LiDAR and imagery (completed in 2013), peer-reviewed revision of the WESPAK-SE wetland methodology for adaptation to Southeast Alaska conditions (completed in 2013), and development of new stream maps (completed in 2015).

The CBJ Lands Division has already been actively using the assessment information for subdivision planning. For example, the Renninger Major Subdivision used the wetland assessment information to determine areas most suitable for development and for wetland mitigation. CBJ Lands has also used the information in the plan for development of the Pederson Hill subdivision. This information has already saved the CBJ Lands Division tens of thousands of dollars. Similarly, the private property assessments in the Plan potentially save individual property owners thousands of dollars by providing assessment information in advance and identifying non-wetland (upland) areas in which to focus development. This information also shortens permitting time when wetland permits are required.

The goal of the 2016 JWMP is to develop a long-range planning document that will assist public land managers and interested private landholders with practical management of their properties. The update identifies wetland areas within designated priority areas and applies the WESPAK-SE wetland assessment method to these areas to produce assessment scores, maps, and supplementary documentation. Priority areas are based on large vacant public and private parcels in areas within the CBJ that are likely to be developed within 20 years.

At a most basic level, the plan provides information to public and private land owners so they may determine if additional wetland review and delineation is needed when a specific project is proposed. If wetlands have been identified on a property, the plan provides wetland assessment using a consistent, standard, scientific method, so land owners have advance information on high-scoring wetlands (which may be suitable for mitigation) and low-scoring wetlands (which may be suitable for development).

Original Juneau Wetlands Management Plan. The CBJ has a long history of local involvement in wetland management. In the 1980s the CBJ conducted wetlands studies in the developing area of the Borough, and commissioned wetland evaluation based on the Adamus Wetlands Evaluation Technique (WET method). This resulted in adoption of the 1992 Juneau Wetlands Management Plan, which classified wetlands into five categories (A, B, C, D, and EP, Enhancement Potential) with supporting regulations and extensive appendices and documentation. The Plan identified approximately 160 wetland units and provided maps, descriptions, and functional analysis corresponding to each unit. The assessment method applied only to freshwater wetlands; therefore large areas of estuarine wetlands were not evaluated. In the original JWMP, wetlands comprised 54 percent of the study area.

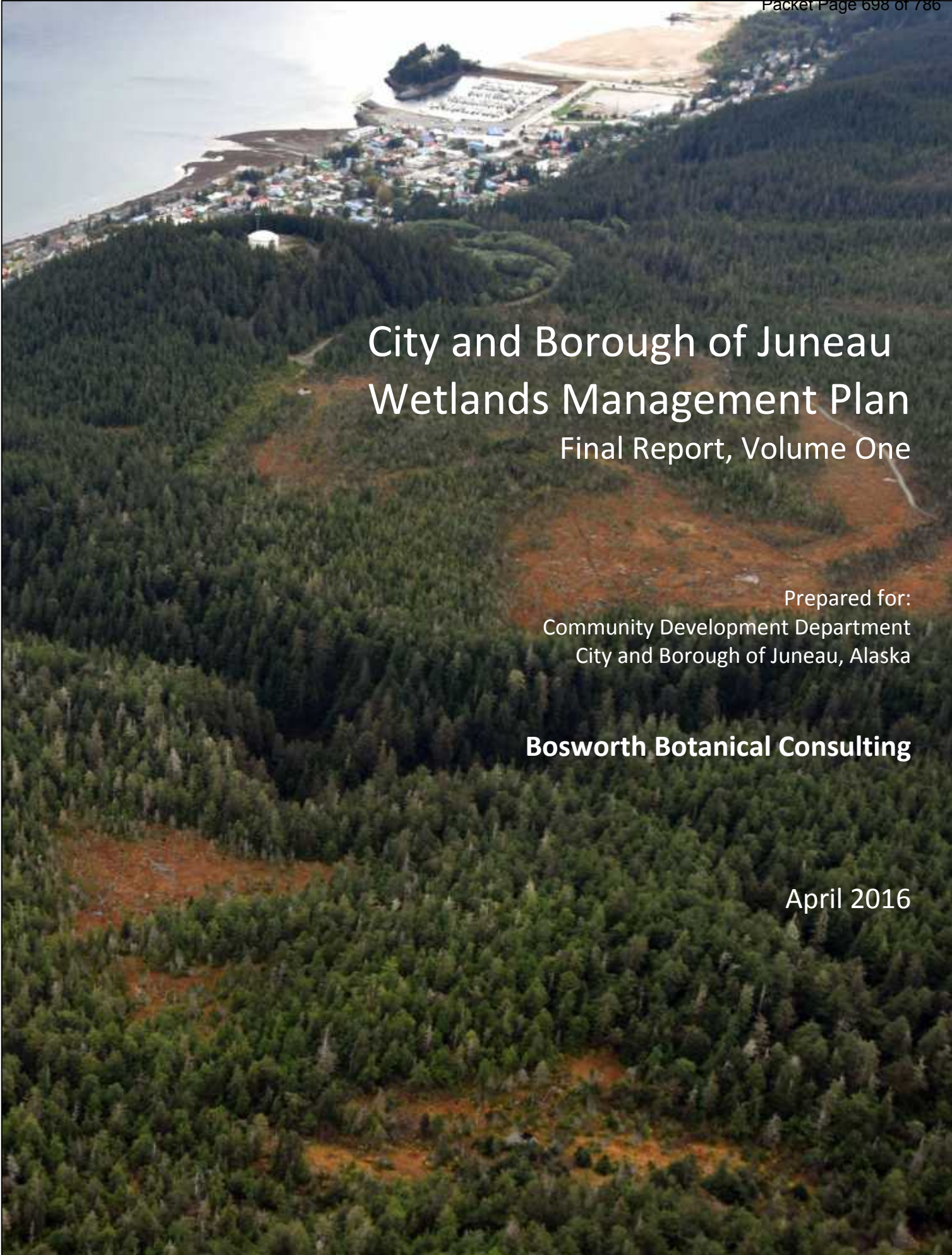
The JWMP has been updated several times since 1992. (The most recent is dated

February, 2008.) However, these revisions changed the text and formatting only, to address the requirements of the former Alaska Coastal Management Program. The wetland units, functional assessments, and policies from the 1992 Plan remain unchanged. Though the Plan was nationally recognized when it was first completed, it is now outdated and in some cases inaccurate. The currently approved version of the JWMP (2008) is largely based on analysis of aerial imagery from the late 80s.

The 2016 JWMP Update provides wetland assessments for both freshwater and estuarine wetlands. While the old Plan was based primarily on imagery with minimal “ground-truthing,” the new plan has utilized the new 2013 LiDAR and aerial imagery as well as extensive on-site analysis of each wetland area.

Attachment A: JWMP Volume 1

Attachment B: JWMP Volume 2, pages 1-30

An aerial photograph showing a coastal town with colorful houses and buildings nestled between a dark forest and a body of water. A large, light-colored area, possibly a parking lot or a cleared field, is visible near the water's edge. The foreground is dominated by a dense, dark green forest with some patches of reddish-brown ground visible.

City and Borough of Juneau Wetlands Management Plan

Final Report, Volume One

Prepared for:
Community Development Department
City and Borough of Juneau, Alaska

Bosworth Botanical Consulting

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A detailed review of individual consultant responsibilities in plan development is provided in Section 6.0, Contributions.

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Executive Summary

Following a long history of wetland management dating back to the 1980's, the City and Borough of Juneau, Alaska (CBJ) has produced this up-to-date 2016 Juneau Wetland Management Plan (2016 JWMP). Volumes One and Two provide rigorous wetlands mapping for undeveloped parcels covering more than 5,000 acres within CBJ. The study areas, called Priority Areas (PA's), were selected for their potential for future development based on low elevation and proximity to existing infrastructure. The wetland mapping, covering 72 PA's, is sufficiently accurate for site specific wetland resource information, strategic development and watershed planning. It can be used by landowners, agencies, wetland mitigation providers and the public for decision-making necessary for growth and development in CBJ. While the mapping is not an official wetland delineation typically required for proposed development, the accuracy is relatively high for a wetland inventory of a large area. During the 2014 and 2015 field seasons, 94 distinct wetlands were mapped, encompassing 13 tidal and 332 non-tidal wetland assessment areas (AA). AA's are wetland types assessed within the larger mapped wetlands and are therefore more numerous.

The second major component of the 2016 JWMP is wetland functions and values assessments for all of the 345 AA's. Up to 22 wetland functions and 18 wetland values were scored using the Wetland Ecosystem Services Protocol for Alaska—Southeast (WESPAK-SE), a peer-reviewed methodology developed by Dr. Paul Adamus in concert with CBJ and the Southeast Alaska Land Trust (SEALTrust). The scores compare the relative wetland functions (what wetlands do) and the relative wetland values (how they are useful or valued by society) among the entire population of assessed AA's. In concert with the wetlands mapping, the function and value scores allow decision-making at a more refined level, informing which wetlands are higher functioning and should be avoided, which wetlands are lower functioning and could be impacted with appropriate mitigation, and which wetlands are impaired and ideal for restoration. The 2016 JWMP does not provide wetland categories, however this would be a logical next step requiring community input to evaluate which wetland functions and values are most important within CBJ. This plan describes detailed approaches and examples of how to obtain categories from the WESPAK-SE scores.

The 2016 JWMP will be implemented with the site specific resource information it provides for the benefit of strategic planning and public education. It serves as a critical foundation for future data collection, developing wetland categories, and wetland management strategies that CBJ may pursue. As it incorporates a watershed approach, the plan aligns with the 2008 Federal Compensatory Mitigation for Losses of Aquatic Resources Rule (2008 Federal Rule). The plan also benefits wetland mitigation providers, such as mitigation bankers and in-lieu fee providers, by informing where suitable high value mitigation opportunities are located, which is mandated by the 2008 Federal Rule. The plan provides a comprehensive set of policies and implementing actions, including the potential for CBJ to collaborate with the Army Corps to help streamline wetland permitting and improve permit predictability. This would involve CBJ obtaining a Army Corps General Permit for expedited permitting for some or all wetlands within a defined area of the borough.

The 2016 JWMP Volume 1 contains a history of past plans implemented by CBJ, the evolution of WESPAK-SE as a wetland function/value methodology, the methods for wetlands mapping and functional assessment, results and information for interpreting the maps and scoring data, quality assurance testing, specific discussion on the anadromous fish function scoring and why it is important, opportunities and examples for developing wetland categories, discussion of how the plan can be used now and for future potential advancements or refinements, and general policies and implementing actions. Volume 2 contains the maps and function and value scoring data for the mapped wetlands and assessment units.

1.0 INTRODUCTION

This Juneau Wetland Management Plan (2016 JWMP), Volume One, provides results of wetlands mapping and wetland functional assessments within large and currently undeveloped parcels in the Juneau area. The study area included Priority Areas (PA) within CBJ. PAs were selected by the Community Development Department (CDD) for their suitability for potential areas of future development based on low elevation and proximity to existing infrastructure. The majority of the study area consists of CBJ-owned property. A few privately-owned properties are also within the study area. Field work was conducted during the spring and fall of 2014 and the summer of 2015.

Wetlands mapping in the study area was an on-the-ground survey effort, however not a detailed jurisdictional wetlands delineation. In nearly all areas, mapping involved physically walking wetland boundaries with hand-held Global Positioning System (GPS) units affording a high level of wetland mapping accuracy for CBJ planning purposes. Rapid functional assessments were conducted for each wetland Assessment Area (AA), in the field and from the office, utilizing the Wetland Ecosystem Services Protocol for Alaska – Southeast (WESPAK-SE). WESPAK-SE assesses 22 functions and 18 values provided by wetlands.

The purpose, scope, background, methods and results of this wetland mapping and assessment effort are included in Volume One. Additionally, uses of the 2016 JWMP as a site-specific resource, strategic development plan, watershed planning aid and education tool are explained in detail. Opportunities to further advance the plan for wetland categorization, and obtaining a Army Corps General Permit that would allow CBJ to manage some or all wetlands within a defined area are also discussed. Compliance with the 2008 Federal Rule on Compensatory Mitigation and the 2016 JWMP adherence to a watershed-approach are outlined in depth. Also included are policies and implementing action items that the 2016 JWMP aligns with, and that will potentially direct future efforts of the CDD. Rapid assessment scores and maps for each AA are found in the accompanying Volume Two.

1.1 Study Purpose

The wetland mapping and assessment project was developed to provide accurate information about the location and characteristics (functions and values) of wetlands on large and undeveloped parcels in the Juneau area. The information is intended to make land use decisions more objective, science-based, and efficient. Objective decision-making will result from knowing the comparative extent of wetlands and their functions and values. The science-based methods give the project credibility with agencies, stakeholders and the public. Efficiencies are obtained in reducing permit timelines and developing sound wetland mitigation approaches.

1.2 Scope

Primary tasks of this project include:

- Preliminary mapping of wetlands and AAs to plan and guide field efforts;
- Documentation of wetland boundaries using GPS coordinates;
- Post-field processing of GPS data: differential correction, archiving and exporting to shapefile;
- Mapping of wetland boundaries in Geographic Information System (GIS) using GPS results;
- Field and office-based assessment of wetland functions and values;
- Calculation of raw and re-scaled (normalized) wetland assessment scores;

The study area, encompassing about 1% of CBJ, was conducted within PAs shown on maps throughout this document and in Volume 2. The boundaries included areas CDD staff anticipate to be the main focus of development during the next 20 years, thus the majority of selected PA's are lower elevation landscapes with low or moderate slopes and have close proximity to existing or planned infrastructure. The scope also looks forward to future wetland management in the PA's by discussing how the functions and values scoring can be utilized to rank relative importance for avoiding and

minimizing impacts to higher functioning wetlands during development, as well as where mitigation is most appropriate.

1.3 History

The CBJ has a long history of local involvement in wetland management. In the 1980's the CBJ established a study area and commissioned an evaluation of wetland functions based on the Adamus Wetlands Evaluation Technique (WET Method). In 1985, the CBJ formed a Wetlands Interagency Advisory Committee, which recommended a study to analyze and prioritize public and private wetlands within the CBJ for development and conservation; the study utilized was Adamus Resource Assessment 1987a, b, c. In 1992, the CDD used the results of this study to formulate the first JWMP. The JWMP was adopted by CBJ's governing board (herein referred to as the Assembly) in November 1992 and reissued with minor revisions in 1997 and 2008. The Assembly also appointed a Wetlands Review Board (WRB) composed of seven members from the public at large and two Planning Commissioners.

Prior to November 1992, wetland management in Juneau was primarily under the jurisdiction of the U.S Army Corps of Engineers (Army Corps). In 1992, in order to establish a stronger local role in wetland management, CBJ adopted the JWMP. Regulatory provisions of the JWMP were adopted into the CBJ Land Use Code by the newly formed WRB. This allowed for wetlands protection, public education and wetlands restoration and creation as the primary mitigating actions for wetland impacts. Following adoption of the JWMP into Land Use Code, regulatory provisions of the JWMP have had the full effect of federal law administered at the local level. The JWMP was recognized by the Army Corps and used at the federal level for decisions regarding local wetland fill permits and other management strategies for public wetland resources.

Under earlier versions of the JWMP, Juneau's wetlands were divided into four main categories: A, B, C, and D. Categories A and B were considered higher quality wetlands; C and D were considered lower quality wetlands. A fifth category, Enhancement Potential (EP) refers to wetlands with potential for enhancement projects. In 1994 the Army Corps signed a cooperative agreement with CBJ allowing the WRB to assume responsibility for all C and D wetlands, providing the WRB with local oversight and authority to grant a General Permit for wetland fill. CBJ continued to regulate Category A and B wetlands through building permits and land use permits. The Army Corps also retained permitting authority for the higher quality A and B wetlands, as well as any wetlands not otherwise classified under the JWMP or identified on existing wetland inventory maps. Any impacts proposed for A or B wetlands required an Individual or Nationwide permit to be issued by the Army Corps, granted within the standard federal regulatory procedure. CBJ also continued to regulate Category A and B wetlands, but only through building permits and land use permits.

The Army Corps continued to reissue local authority for General Permits in C, D, and EP wetlands from 1993 until 2011. In 2011, the Army Corps did not renew the General Permit because the vast majority of C and D wetlands (as identified on existing JWMP wetland maps) had been filled. CBJ pursued development of a mitigation bank from 1997-2008. In 2008, CDD and the Planning Commission concluded the effort was not feasible.

Following a \$1.6 million grant award secured through the Federal Coastal Impact Assistance Program in 2012, CBJ scheduled updates to the JWMP to begin in 2013. Aerial imagery and LiDAR was acquired for the PA's in 2013. Draft stream maps were developed from LiDAR in 2015. Other significant grant requirements include methodology site testing, repeatability testing, scientific peer review workshops, a three-day training workshop, and an implementation guide. The assessment methodology was reviewed and approved by an inter-agency technical advisory group comprised of state and federal resource agency representatives: the Habitat Mapping Working Group (HMWG). Field mapping was conducted in 2014 and 2015, and a new 2016 JWMP, this document consisting of Volumes 1 and 2, was completed in 2016.

The 2016 JWMP, along with providing site-specific wetland resource information and strategic planning support and education, addresses new strategies for local wetlands management. This includes developing wetland categories for more rapid characterization and meeting requirements of the Army Corps' 2008 Federal Compensatory Mitigation for Losses of Aquatic Resources Rule, 33CFR Part 332 (2008 Federal Rule) for managing development impacts and mitigation in Juneau's wetland areas.

The 2008 Federal Rule established standards and criteria for the use of all types of compensatory mitigation, including on-site and off-site permittee responsible mitigation, mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts to waters of the U.S. The 2008 Federal Rule outlines a general preference for the methods of mitigation. Another requirement is that a watershed approach must be used to establish compensatory mitigation requirements in Army Corps permits. In general, mitigation should be located in the same watershed as the impact site and where it is most likely to effectively replace lost functions and services while taking into account such watershed scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources, trends in land use, ecological benefits, and compatibility with adjacent land uses. Where watershed boundaries do not exist, such as marine areas, an appropriate spatial scale should be used rather than watershed boundaries.

The issuance of the 2008 Federal Rule and its requirement for a watershed approach has made the earlier 1992, 1997 and 2008 JWMP's obsolete, as these versions identified and managed wetlands but not in a watershed context. The 2008 JWMP update came out too late to meet the watershed approach standard in the 2008 Federal Rule. In addition, the expiration of the Army Corps' General Permit in 2011 and the need for broader and informed planning by CBJ has also supported the need for the 2016 JWMP.

Results of Volume 1 and 2 will be used by CBJ to target additional areas outside of those areas covered by the original JWMP, updating it to include more rigorous mapping and assessment methods. The study uses the WESPAK-SE assessment method developed under a federal grant to the Southeast Alaska Land Trust (SEAL Trust). In 2009 SEALTrust contracted an independent consulting firm, CH2MHill, to review 17 wetland rapid assessment methods potentially applicable to Southeast Alaska. The study found the Oregon Rapid Wetland Assessment Protocol (ORWAP) to be the most applicable to the region. ORWAP is a regionalized modification of Dr. Adamus' Wetland Ecological Services Protocol U.S. (WESPUS). WESPUS incorporates elements of other widely used rapid assessment methodologies, specifically the Hydrogeomorphic Approach and the Millennium Ecosystem Assessment. WESPUS is a refinement of the first wetland assessment method used throughout the U.S., Wetland Evaluation Technique (WET), developed by Dr. Adamus in 1983. WET was the methodology used in the original JWMP in 1992. The 2009 study recommended that ORWAP be calibrated to Southeast Alaska conditions. In 2011 SEALTrust began working with Dr. Adamus to modify ORWAP to Southeast Alaska, which included extensive field testing and peer review, which resulted in WESPAK-SE, later refined through a federal grant to CBJ (Adamus 2012, Adamus 2013). The WRB and the HMWG, have formally approved the WESPAK-SE method for the project.

A more in-depth list of policies and implementing actions for the 2016 JWMP are included in Section 4.5 however, general goals of the 2016 JWMP and future efforts of CBJ, which rely on the wetlands mapping and assessments presented in Volumes One and Two, include the following:

- Promote consistency in wetland policies and regulations.
- Rank or categorize wetlands to identify high and low functioning wetlands.
- Maximize use of other sources of wetland mapping and functional assessment.
- Ensure the long-term scientific integrity of the JWMP.
- Promote long-range development strategies with the Army Corps and other partners to avoid, minimize and mitigate wetland impacts.

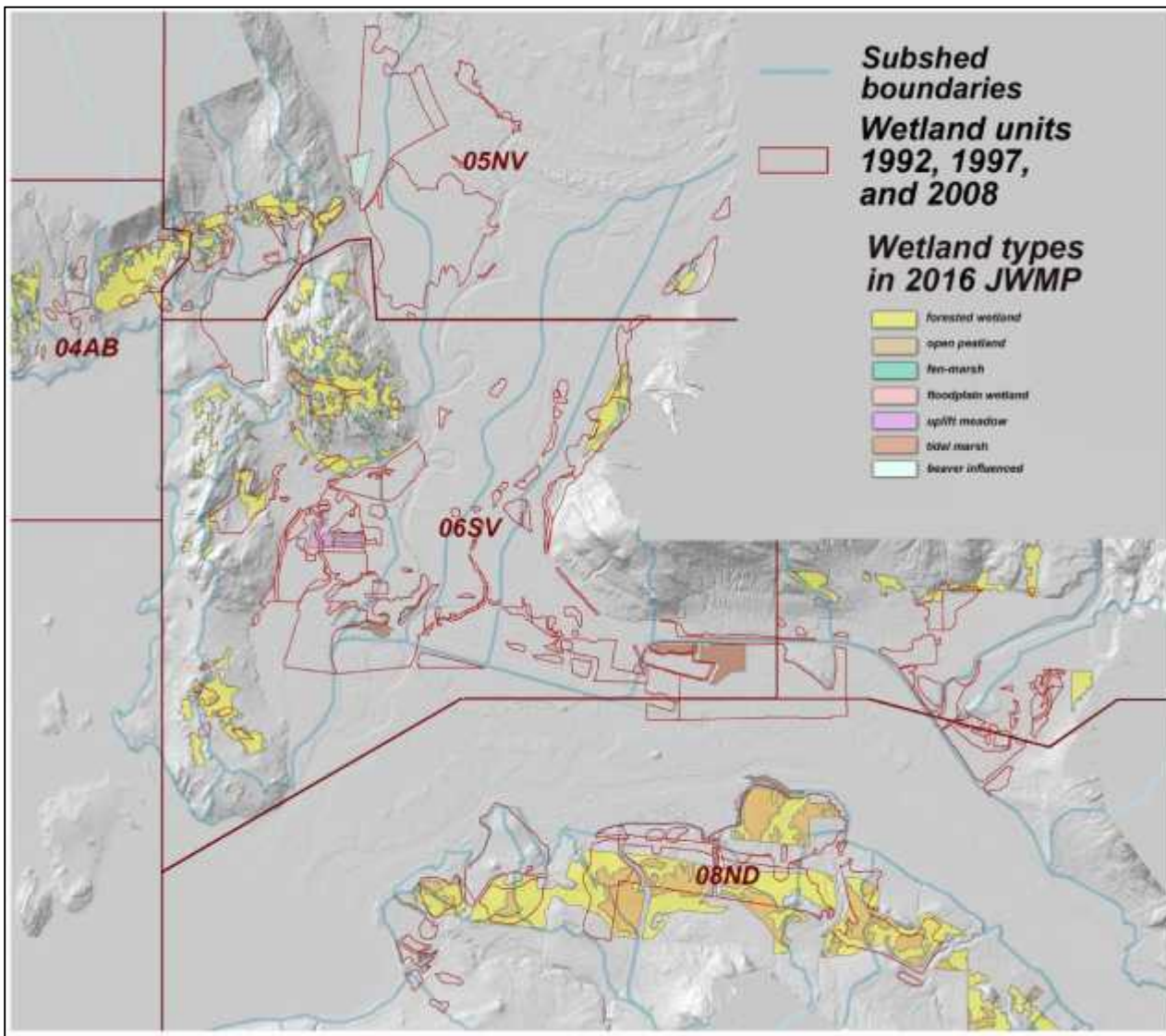
- Promote a variety of mitigation options for development in appropriate areas.
- Promote restoration opportunities in degraded wetland areas.
- Minimize adverse impacts to high functioning wetlands.
- Increase wetland permit predictability and streamline the permitting process.
- Provide informed decisions regarding protection and development of wetlands.
- Incorporate a diversified, watershed-based approach to protect and manage wetlands and minimize cumulative effects.
- Protect wetlands in or near anadromous water bodies, or adjacent to public water sources.
- Promote wetland education.

1.3.1 Comparison of 1992, 1997, and 2008 JWMP to 2016 JWMP

Table 1 provides a summary of major differences between the 1992, 1997, & 2008 JWMP and the 2016 JWMP, represented by Volumes 1 and 2.

Table 1: Comparison: 1992, 1997, and 2008 JWMP vs. 2016 JWMP

CATEGORIES	1992, 1997, & 2008 JWMP	2016 JWMP
Areas Covered	15-square mile area in the Juneau area; 141 wetlands mapped and assessed. No estuarine or tidal wetlands assessed.	Approximately 20-square miles of study area, including 94 distinct wetlands within 72 assessed PAs. Areas mapped and assessed are included in 10 map pages. Includes 15 estuarine or tidal wetlands.
Wetland Categories	Four categories from higher value (A or B) to lower value (C or D) and a fifth category for wetlands with EP.	No categories developed in Volumes 1 & 2, however framework provided to form categories based on function and value scores of wetlands
Wetland Mapping Methods	Based on 1986 Army Corps' mapping by aerial photo, with updates on case-by-case delineations or permit actions from 1986 to 1997.	On-the-ground GPS mapping of wetland boundaries on accessible properties, aerial photo mapping of wetlands on inaccessible properties, during the spring, summer and fall of 2014-2015.
Functional Assessment Methodology	Adamus WET technique with 14 separate functions for freshwater wetlands.	WESPAK-SE assessing 22 function and 18 values provided by seven wetland types.
Watershed Approach	Not specifically as all wetlands were mapped and assessed independent of the watersheds in which they were located.	Yes-certain functions, for example, relationship of any AA wetland to other wetlands, contains important elements of a watershed approach.

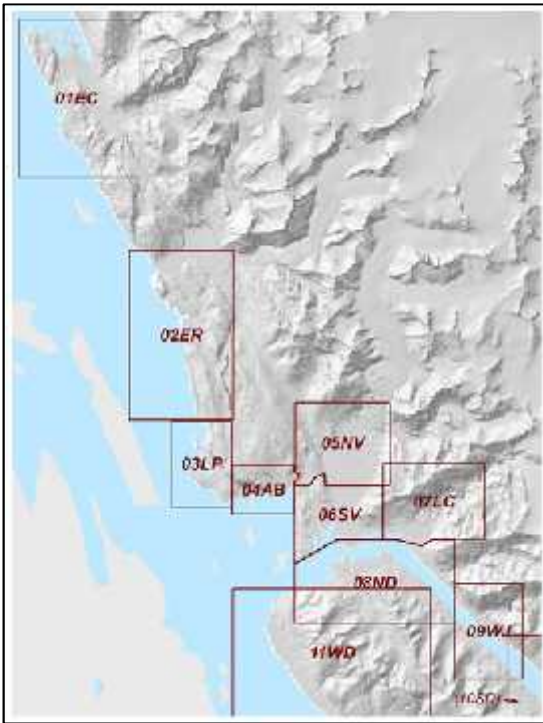


1.4 Project Area

The project area consists of 72 PAs; each assigned one of four levels of priority for mapping and assessment. The majority of the PAs are lower elevation landscapes with low or moderate slope; however some steep and/or higher elevation sites are also included. The tracts span from Cowee Creek at the northern end of Glacier Highway to southern Douglas Island. Vast and varied lowland wetlands on both sides of the Douglas highway are included, as well as large tracts along Fish Creek, at Eagle Crest, and on west Douglas Island.

For the purposes of this report, the areas mapped and assessed within 10 map pages. North to south, these pages are:

- | | | | |
|-----------------|--------|------------------|--------|
| 1. Echo Cove | (01EC) | 6. South Valley | (06SV) |
| 2. Eagle River | (02ER) | 7. Lemon Creek | (07LC) |
| 3. Lena Point | (03LP) | 8. North Douglas | (08ND) |
| 4. Auke Bay | (04AB) | 9. West Juneau | (09WJ) |
| 5. North Valley | (05NV) | 10. West Douglas | (11WD) |



Areas within CBJ's map page 10, South Douglas Island, were assigned lower priority for field efforts so were not included in the field surveys. Instead, they were mapped and assessed using a different, off-site method, described below in Section 2.3.4, Off-Site Assessments.

1.5 Wetland Functions and Values

The Federal Clean Water Act (CWA), under Section 404, requires regulatory agencies to consider a wetland's function and value when reaching decisions about permit approval and mitigation needs. Functions are what wetlands do naturally, such as store water, purify polluted runoff, and provide habitat. Dozens of functions could be described for any given wetland, but some are of unknown or limited importance to society and/or ecological resources, and others are difficult to assess. Therefore, most wetland assessments focus on a limited set of generally recognized functions and other attributes that are most relevant in a given region. Those considered having the greatest potential relevance to Southeast Alaska, and which therefore were assessed in this study and could be used to prioritize Juneau wetlands, are defined in Table 2 below. As contrasted with Functions, wetland Values describe the context of a wetland in a broader physical,

biological, and social landscape, as well as addressing the extent to which one wetland function may contribute to others. Assessments of functions and values together help regulators evaluate whether altering a wetland may have a negative effect on people and/or ecosystems.

Table 2: The definition and values of the wetland functions assessed in this study

Function or Other Attribute	Definition	Values
Water Storage & Delay	Storing runoff or delaying the downslope movement of surface water for long or short periods.	Flood control, maintain ecological systems.
Stream Flow Support	Contributing water to streams, especially during the driest part of a growing season.	Support fish and other aquatic life.
Water Cooling	Maintaining or reducing temperature of downslope waters.	Support coldwater fish and other aquatic life.
Water Warming	Increasing the temperature of downslope waters and extending length of the aquatic growing season.	Maintain late-season ice-free conditions.
Sediment Retention & Stabilization	Intercepting and filtering suspended inorganic sediments thus allowing their deposition, as well as reducing energy of waves and currents, resisting excessive erosion, and stabilizing underlying sediments or soil.	Maintain quality of receiving waters. Protect shoreline structures from erosion.
Phosphorus Retention	Retaining phosphorus for long periods (>1 growing season)	Maintain quality of receiving waters.
Nitrate Removal & Retention	Retaining particulate nitrate and converting soluble nitrate and ammonium to nitrogen gas while generating little or no nitrous oxide (a potent greenhouse gas).	Maintain quality of receiving waters.
Carbon Sequestration	Retaining both incoming particulate and dissolved carbon, and converting carbon dioxide gas to organic matter (particulate or dissolved), and then retaining that organic matter on a net annual basis for long periods while emitting little or no methane (a potent greenhouse gas).	Reduce risk of global climate warming.
Organic Nutrient Export	Producing and subsequently exporting organic nutrients (mainly carbon), either particulate or dissolved.	Support food chains in receiving waters. Facilitate

Function or Other Attribute	Definition	Values
		transfer of iron to marine waters.
Anadromous Fish Habitat	Supporting rearing or spawning habitat of fish species that migrate from marine waters into freshwater streams to spawn, e.g., coho and sockeye salmon.	Support commercial, subsistence, sport, and ecological values. Infuse uplands with marine nutrients.
Resident Fish Habitat	Supporting an abundance and diversity of native fish (both resident and visiting species) that are not anadromous, e.g., Dolly Varden and cutthroat trout.	Support commercial, subsistence, sport, and ecological values.
Invertebrate Habitat	Supporting or contributing to an abundance or diversity of invertebrate animals which spend all or part of their life cycle underwater or in moist soil. Includes dragonflies, midges, clams, snails, water beetles, shrimp, aquatic worms, and others.	Support salmon and other aquatic life. Maintain regional biodiversity.
Amphibian Habitat	Supporting or contributing to an abundance or diversity of native frogs, toads, and salamanders.	Maintain regional biodiversity.
Waterbird Feeding Habitat	Supporting or contributing to an abundance or diversity of waterbirds that migrate or winter but do not breed in the region.	Support subsistence, sport, and ecological values. Maintain regional biodiversity.
Waterbird Nesting Habitat	Supporting or contributing to an abundance or diversity of waterbirds that nest in the region.	Maintain regional biodiversity.
Songbird, Raptor, & Mammal Habitat	Supporting or contributing to an abundance or diversity of native songbird, raptor, and mammal species and functional groups, especially those that are most dependent on wetlands or water.	Maintain regional biodiversity.
Pollinator Habitat	Supporting pollinating insects, such as bees, wasps, flies, butterflies, moths, and beetles.	Maintain forest productivity and food chains.
Native Plant Habitat	Supporting or contributing to a diversity of native, hydrophytic, vascular plant species, communities, and/or functional groups.	Maintain regional biodiversity and food chains.
Public Use & Recognition	Prior designation of the wetland, by a natural resource or environmental protection agency, as some type of special protected area. Also, the potential and actual use of a wetland for low-intensity outdoor recreation, education, or research.	Commercial and social benefits of recreation. Protection of prior public investments.
Wetland Ecological Condition*	The integrity or health of a wetland, as defined operationally by its vegetation composition and richness of native species. More broadly, the similarity of a wetland's structure, composition, and function with that of reference wetlands of the same type and landscape setting, operating within the bounds of natural or historical disturbance regimes.	
Wetland Sensitivity*	A wetland's lack of intrinsic resistance and resilience to human and natural stressors (higher score = more sensitive).	
Stress Potential*	The degree to which a wetland has recently been altered by or is exposed to risk from factors capable of reducing one or more of its functions and which are primarily human-related.	

* These are other attributes of wetlands and are not considered to be either functions or values

2.0 METHODS

2.1 Mapping Wetland Boundaries

When an applicant applies for a permit to fill a wetland, by law, a determination must be made regarding the exact location of the boundary between what is wetland and what is non-wetland. For this study, wetlands were mapped only with an on-the-ground survey effort, NOT delineated as typically required for applicants. To be Army Corps-verified a wetland boundary delineation needs significantly more detail, including on-the-ground staking or flagging, wetland and upland determination plots and detailed data sheets, and a report prepared describing the effort. That level of detail was not within the scope of this effort. That said, the mapping followed the method required for wetland determinations for what is, and what is not, wetland, titled the Routine Determination Method according to the *Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987): Alaska Region (Version 2.0) (Army Corps 2010). For regulatory purposes under the CWA, Section 404, the Environmental Protection Agency (EPA) defines wetlands as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (EPA 2014). These three criteria were applied to map wetlands in the PAs described in this document.

Before wetlands were assessed, ArcGIS software, digital orthophotography, Light Detection and Ranging (LiDAR), and high resolution aerial imagery were used to predict potential wetland locations. Geo-referenced PAs and predicted wetland boundaries were uploaded to GPS units for real-time navigation on-the-ground. Predicted wetland locations provided a starting point for field analysis and were at times very close to reality on the ground. In most situations wetlands were found to be larger in the field than predicted using imagery. Wetlands were also found in locations that were not predicted by imagery or existing maps. Tidal extreme and mean high water lines were used for identifying wetland boundaries per the Army Corps’ CWA lateral jurisdiction: 33 CFR 328.3e. Wetland data collected in the field was downloaded, archived, and post-processed daily. Post-processed GPS files were exported to Environmental Systems Research Institute (ESRI) ArcGIS shapefiles in the NAD 2011 State Plane projection and used to draw averaged wetland units presented in this report.



2.2 Mapping Wetland Assessment Areas

The CDD requested entire wetlands be divided into multiple wetland AAs if they were larger than one acre in size and met other specific criteria described below. This was requested for logistical reasons as some Juneau wetlands extend for many miles, which can potentially reduce the accuracy and utility of scores that might be assigned to the entire wetland.

Dividing an entire wetland into separate AAs is a subjective process, as boundary locations can dramatically influence the resulting scores. The CDD specified that guidelines in the WESPAK-SE

manual be used as the basis for splitting AAs, and that no individual AA smaller than one acre be mapped or separated from its contiguous wetland (Adamus 2012). The project, in an effort to honor those guidelines and provide additional detail essential to enhance consistency, stated that AAs would be distinguished as follows:

- a. Different wetland type using definitions in Form F of WESPAK-SE.

- b. Different wetland system, class, or subclass as mapped by the National Wetlands Inventory using the Cowardin classification.
- c. Road crossing or other persistently non-vegetated area.
- d. Pre-existing data that shows clear differences in one or more functions within a possible wetland (e.g., anadromous fish in one intersecting stream but not another).
- e. Convex topography or watershed boundary (e.g., portion of the precipitation hitting the wetland would flow in one direction and the rest would flow in the opposite direction due to a topographic mound within the wetland).

It was never intended that all the above rules be applied in all cases; rather, used as a guide. If *all* of the above criteria had been applied to the wetlands in the study area, the number of resulting AAs would likely have exceeded 1,000 and visiting and assessing a number that large would be cost prohibitive to the project. As a more realistic target, the CDD had suggested that 400 AAs within the study area be visited and assessed. Based only on interpretation of aerial imagery (LiDAR and orthophotos provided by the CDD) in the early phases of the project it was estimated the number of AAs in the study area would come closest to matching the target number if they were delimited only by criteria (a) and (e). Those criteria also best reflect the WESPAK-SE manual's statement that "*boundaries of the AA should be based mainly on hydrologic connectivity.*"

As relates to criterion (a), the following seven wetland types were used to delimit separate AAs:

- a. Tidal Wetland (*td*)
- b. Forested Peatland (*fw*)
- c. Open Peatland (*op*)
- d. Fen/Marsh (*fm*)
- e. Uplift Meadow (*um*)
- f. Floodplain Wetland (*fl*)
- g. Beaver-influenced Wetland (*bi*)

Definitions are found in Table 10 (Appendix) and illustrated in the WESPAK-SE *Short Guide* and manual, with one exception: Beaver-influenced wetland. While similar to Fen/Marsh and Floodplain Wetland, it differs in several important ways functionally, and meets the objective of representing a dramatically different hydrologic regime.

Subshed mapping Watersheds can be delimited at many spatial scales. For this study, models of stream networks were adjusted to an appropriate level of detail and used to delimit the watersheds, which were termed "subsheds." That is, wherever a wetland of a particular type was intersected by a significant watershed divide, the portions of the wetland draining to each stream were delimited as separate AAs despite being contiguous with each other and of the same wetland type. However, where application of this watershed criterion would have resulted in an AA smaller than one acre, no splitting was done.

Subshed mapping was done as-needed over the course of the 2014 field season. Near the end of the season, a similar, but borough-wide, streams model, received from CBJ, allowed fine-tuning of subshed boundaries. Some wetland units were merged (subsumed) and others split along basin divides. For more information on this process and criteria, see report entitled *subshedmapping.pdf* (Bosworth, Carstensen & Pohl, 2014b).

2.3 Assessing Wetland Functions and Values

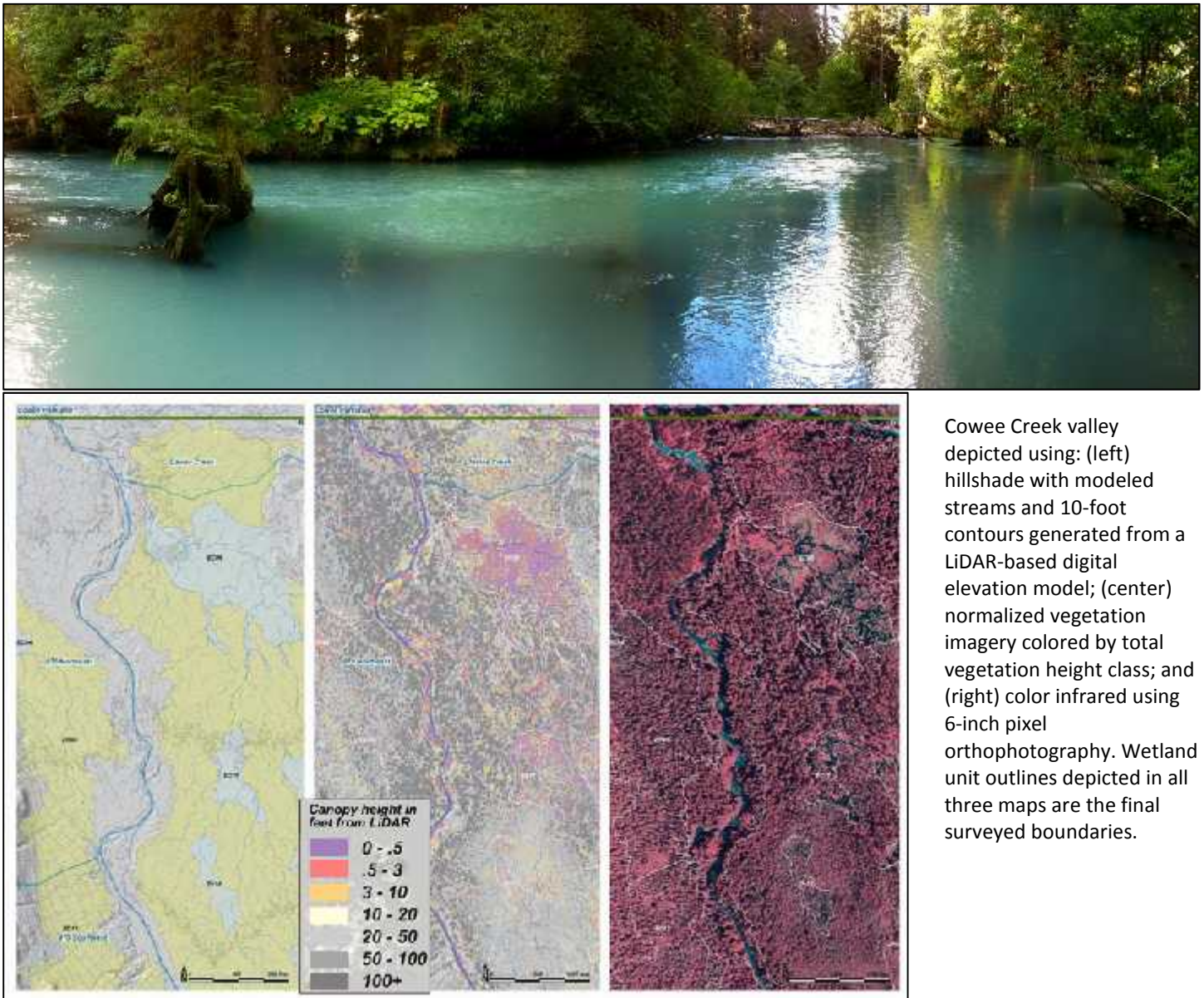
WESPAK-SE is a standardized tool for assessing a wetland's functions and values as well as other attributes. It consists of data forms and a spreadsheet that computes a score for each function, value, or other attribute on a scale of 0 (lowest) to 10 (highest). Although many standardized tools are available for assessing wetland functions, the CDD selected WESPAK-SE because it is specifically customized for Southeast Alaska wetlands and has previously been tested

and reviewed in Juneau and throughout the region. Additionally, consultants and agency personnel have been trained in its use.

WESPAK-SE does not measure wetland functions and values directly. Rather, it uses rapidly observable indicators to build a case for the relative level of a given function that may exist in a specific wetland AA (relative meaning relative to other wetlands in the study area). Indicators are used in lieu of direct measurement which would be extremely expensive and require years of data.

WESPAK-SE has both a field component and an office component. Completing both is essential in order for the tool to generate scores for each function and value. The implementation of these components is described below. Other features of WESPAK-SE, including its strengths and limitations, detailed accounts of its models, and descriptions of how it computes scores, are presented in the WESPAK-SE manual (Adamus 2012).

Photo 1: Cowee Creek



Cowee Creek valley depicted using: (left) hillshade with modeled streams and 10-foot contours generated from a LiDAR-based digital elevation model; (center) normalized vegetation imagery colored by total vegetation height class; and (right) color infrared using 6-inch pixel orthophotography. Wetland unit outlines depicted in all three maps are the final surveyed boundaries.

2.3.1 Field Component

The orthophotos and derivatives of LiDAR products provided by CDD helped field crews navigate to the AAs, locate features within each AA to assess, find inflow and outflow channels, and estimate gradients. Field data was collected by up to five team members, often in two teams. The field portion of the WESPAK-SE assessment typically required less than two hours to complete during a single visit, while mapping wetland-upland boundaries with GPS required from one to several days depending on size, remoteness, and character of the wetland area. Typically, one team member conducted a set of assessments and took photos, while the other crew member(s) located and documented the wetland boundary using GPS. Team membership and roles varied throughout the field season, which ran from May 8, 2014 to mid-October 2014. A few remaining assessments were completed in June 2015.

The orthophotos and LiDAR provided by CDD were helpful in ensuring accurate estimation of several indicators of wetland functions. These images and data layers were reviewed before completing each AA's WESPAK-SE data forms. In particular, they measured wetland and stream gradient; located small streams, beaver dams, and topographic indicators of groundwater discharge, and measured tree heights and percentages of conifer vs. deciduous vegetation and tree vs. shrub cover.

2.3.2 Office Component

The WESPAK-SE office forms require a WESPAK-SE user to access and obtain many types of data from an internet portal assembled specifically for WESPAK-SE by Southeast Alaska GIS Library (<http://seakgis.alaska.edu/flex/wetlands/>). However, when large numbers of wetlands need to be assessed, efficiencies can be gained by using desktop GIS software to query the same or similar spatial data layers— as was done for this study. A set of improved and additional GIS layers tailored to the needs of this project were developed, along with a guide to its use (Bosworth, Carstensen & Pohl, 2014c).

2.3.3 Normalizing the Scores

Although each of the models WESPAK-SE uses to assign scores has a theoretical minimum score of 0 and a maximum score of 10, in practice when WESPAK-SE is applied to a large number of wetlands the actual range for any given function, value, or other attribute is usually narrower. Depending on the function or value, the resulting range of raw scores found among all sites may be broad (e.g. 1 to 9) or narrow (e.g. 3 to 8). After all field data had been collected and raw scores calculated, they were converted mathematically to a common zero to 10 scale for ease of interpretation and rough comparison. This is termed normalizing. The normalizing of scores for a given wetland AA was done by comparing its raw scores with the range of scores determined for all of the assessed AAs. A formula was then applied using the range of raw scores for each wetland function and each wetland value among the 332 non-tidal AAs and then separately for the 13 tidal AAs. Again, note that raw scores were normalized to those from the population of local wetlands visited by this study, not to a range of raw scores from all Juneau wetlands or to wetlands throughout Southeast Alaska.

After scores were computed and normalized, a descriptor (Lower, Moderate, Higher) was placed next to each function and value score. For a given function or value, natural breaks in the statistical distribution of scores among all assessed sites in the PA were used to determine whether to characterize a score as Lower, Moderate, or Higher. Natural breaks were identified using a popular statistical procedure called Jenks Optimization (Jenks 1967). Using iterative calculations with gradual adjustments in group membership, the method minimizes variance within groups while maximizing the variance between groups.

2.3.4 Off-site Assessments Methodology

A number of the parcels chosen by the CDD for potential mapping and assessment in this project could not be assessed on-site because CDD did not receive written landowner permission to visit the property. The CDD asked the study team to map and assess 12 of these private parcels, which would have to be assessed off-site, meaning no on-the-ground mapping was done. Additionally, one other CBJ parcel located on South Douglas Island, with difficult access, was also done as an off-site assessment. The off-site assessments are useful to landowners and CDD planning to get a better sense of the overall extent and configuration of wetlands, for example within the same watershed, beyond the borders of the PA's where wetland systems may extend over broader areas. For example, a future road alignment plan may need to take in consideration off-site wetlands that are located outside the PA's, but would have to be avoided due to large size or high function and value.

As with the pre-field mapping of onsite areas, the CBJ's 2013 high-resolution aerial imagery and LiDAR- derived digital elevation models and it's associated products were used in estimating the wetland boundaries for off-site areas. For open peatlands, fen/marshes, uplift meadows and tidal wetlands this method worked well, but because of their closed tree and shrub canopies, mapping forested wetlands was more challenging.

Off-site wetlands were further divided, when necessary, into assessment areas (AA's) using the same two basic criteria as the on-site wetlands - wetland type and sub-shed. Completing the office form component of the assessment was no different than for the on-site assessments but, there were some questions on the field form that were more difficult off-site. However, by referring to the combination of: "normalized vegetation," high-resolution stream maps, hillshade, contours and color infrared orthophotography, most of the field form questions could be answered, albeit with less confidence than when sites were visited in the field.

The raw scores of wetlands assessed off site were normalized, not by comparison with all assessed Juneau wetlands, but rather by comparison with the other wetlands assessed off site. The numbering convention for off-site AA's uses the same map page conventions as on-site AA's but "of" is appended—e.g. SD01of'.

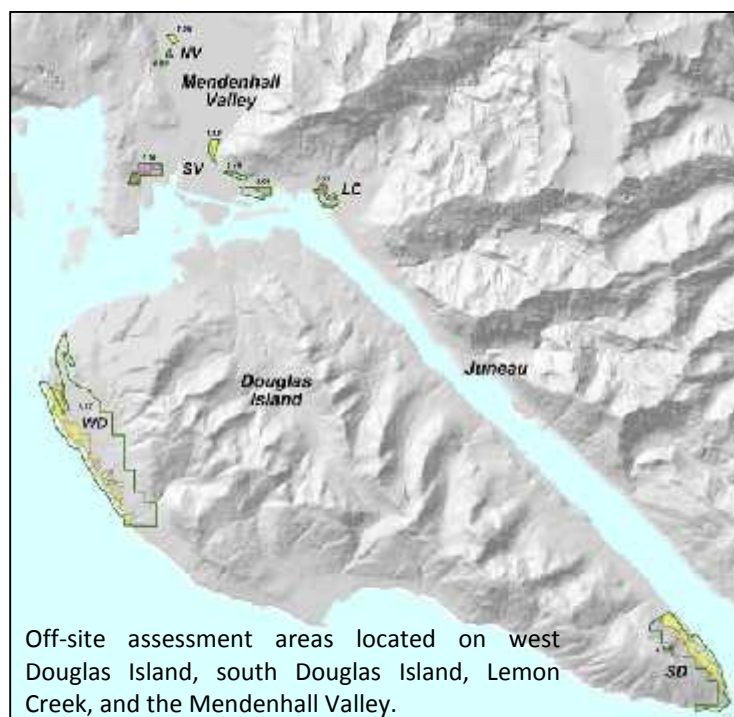


Table 3: Off-site units and acreages by wetland type

Wetland Type	Total AAs	% AAs	Total Acres	% Acres
<i>td</i>	7	15%	112	13%
<i>fw</i>	23	48%	657	74%
<i>op</i>	10	21%	28	3%
<i>fm</i>	1	2%	5	1%
<i>um</i>	5	10%	74	8%
<i>fl</i>	0	0%	0	0%
<i>bi</i>	2	4%	11	1%
Totals	48	100%	887	100%

2.3.5 Quality Assurance

Several procedures were undertaken throughout the duration of the project to ensure the quality (consistency and accuracy) of the collected WESPAK-SE data. These include but are not limited to ones described below.

Data Entry

As WESPAK-SE field assessments were completed, data was double-entered into the standard spreadsheet. An Excel script automatically flagged entries that were in conflict. The hard-copy data form was then referred to in order to resolve any discord. Data entry proved highly accurate so double entry was discontinued mid-season.

Repeatability of Results

The repeatability of WESPAK-SE scores among independent users visiting the same wetlands had been tested previously in 2013 with generally good results (mean error of + or - 0.86 on a scale of 0 to 10). Repeatability testing was conducted again at the start of the 2014 field season and the results demonstrated a higher overall level of consistency.

All office-based portions of the wetland assessments were completed using ESRI ArcMap desktop GIS software along with locally tailored and enhanced data layers specific to the project area. To check accuracy of the office form portion of the wetland assessment protocol, office assessments were completed independently by another person for four separate AAs using similar data layers via the University Alaska Southeast online WESPAK-SE wetlands portal and Google Earth. No inconsistencies were found.

Clarifications and Interpretations Provided for WESPAK-SE: Field Questions

To help maintain consistency among assessments, field form interpretations and clarifications prepared by the WESPAK-SE author were used and are noted below.

Non-tidal Wetlands

Definitions of wetland types that comprise the choices for the first question of the non-tidal field form were clarified and refined as follows:

- Forested Peatland was clarified to include *muck* (either mineral or organic muck) as well as peat soil.
- Uplift Meadow was refined as *usually less than 30% tree canopy cover*.
- Open Peatland was clarified as having *less than 5% cover of trees* (in addition to already specifying less than 30% cover of woody plants over 3 feet tall).
- Definition of Fen/marsh was clarified similarly.
- Fen/marsh was described with additional examples of regionally common emergent plant species (*marsh marigold*) and settings (*often beaver-created or adjoining larger water bodies*).

Several clarifications were also made to other WESPAK-SE non-tidal field form questions to ensure consistent and intended interpretation:

- For question F9, loose muck was included as part of water depth. In question F12, the flat shoreline extent is expressed as percent of shoreline length.
- In question F21, the color of water is more specifically described as tea-stained.
- Inflow, in question F25, was clarified to mean surface water that at least once annually, flows from a stream or ditch longer than 300 feet (before it reaches the AA) or in a pipe or hardened conduit, directly or as overbank floodwater.
- The flow complexity choice in question F28 is to be selected for most of the flowing water or the choice producing the greatest friction, rather than the first applicable description.
- For question 31, part b concerning flow into a soil pit was disregarded.

- Question F43, Moss Extent, refers to the percent of the vegetated ground cover comprised of peat- forming moss (excluding moss on trees or rocks).
- Upland inclusions, F46, can be mounds of any type of upland soil. Invasive species (F54) can be woody or herbaceous.
- Shorebird feeding habitat, question F48, is further defined as non-acidic water shallower than 4 inches.
- In question F54, the slope from disturbed lands is to be considered uphill of the unit, or adjoining it if there are none.
- For F55 (Weed Source), the upland edge can be in any direction, not just uphill.
- For question 63, non-consumptive uses, walking refers to walking access for an average person. Interpretive centers, trails with signs or brochures, or regular guided tours apply only if within .25 mile of the AA and if they interpret the natural features of the AA or associated lands.
- All hunting is to be included (question F68) with waterfowl hunting; known berry picking areas are to be included with harvesting of native plants.

Tidal Wetlands

The definition of Tidal Wetland includes tidal freshwater as well as saline areas. “Dominated by emergent herbaceous or woody plants” was interpreted simply as “*dominated by vascular plant cover (excluding submerged aquatics).*” The criterion “level of surface water fluctuates every ~6 hours” was interpreted to mean *only when surface water is present*, which may be as little as once annually. “*Driftwood*” (Tidal Form question 12) refers to largely horizontal logs on the ground near the high water line. “*Large woody debris*” refers to wood such as root masses, large trunks and branches carried into the unit by currents or fallen from adjacent uplands.



Photo 2: Tidal wetland on north Douglas Island.

2.3.6 Limitations

Known limitations of the WESPAK-SE tool used to score this study's wetlands are described in the WESPAK-SE manual and will not be repeated here. In addition, the following is a partial list of other significant limitations:

- In nearly all instances, and as a result of time and budget constraints, wetland AAs were visited only once during the two-year field component of this project. This has the potential to affect the location of some mapped wetland boundaries but especially, the scores resulting from use of WESPAK-SE. To address this, the study teams used observable indicators and previously-acquired knowledge of the project area's climate and geology to interpret conditions that were not directly observable on the day of the visit.
- Although federal wetland delineation criteria served as a guide for mapping wetland boundaries in the field, test plot data routinely required for formal wetland delineation were not collected or recorded. Doing so over such a large area was not possible within the time frame and funding constraints of the grant that supported this project. For this reason, wetland boundaries and locations presented in this report are to be considered approximate; they provide an inventory of wetland resources rather than a delineation of wetland boundaries. Data presented in this report normally cannot be considered "final" for use in applications for wetland alteration permits. Primarily, it is intended to be used for land use planning

- Considerable variation in vegetation, water regime, and ultimately function may occur *within* a wetland. For example, a Forested Peatland could be split by form (shrub or tree) and/or foliage (deciduous or conifer), and Tidal Wetland could be split into low marsh (inundated daily) versus high marsh. In this example, splitting Forested Peatland into finer components could provide more-refined information useful for assessing biodiversity at broader scales. It could also indicate which areas within a wetland AA contribute more or less to its function score. However, using a wetland classification any finer than the current seven-class one, even if such existed, was beyond the time and budget constraints of this project. It is likely that much of the variation within the project wetlands that is important for predicting their functions was captured by the 126 questions in the WESPAK- SE tool.
- The office form component of the WESPAK-SE score calculator requires the use of spatial data obtained from resource agencies. The resource agencies typically make no claims as to the completeness, accuracy, precision, or recentness of the spatial data they provide. Nonetheless, excluding the data entirely from these wetland assessments would result in much poorer estimates of wetland function. The data obtained from other agencies have varying levels of influence on the scores and ratings of the wetlands described in this report. The degree of influence depends on which function is being assessed.
- Although it is not possible to state with certainty the length of time the scores of any wetland AA will remain valid, a best estimate suggests approximately 10-30 years. A more exact estimate would depend on forecasting the likelihood of short and long-term changes in climate, uplift from glacial rebound, new debris flows or roads, beaver activity, natural succession of vegetation, development-related land cover changes in nearby areas, and a host of other factors. A particular wetland's capacity to resist functional change in response to these factors cannot be predicted, nor can the functions which would be most sensitive to these factors be identified beforehand. Major changes in any of these factors that are apparent in a wetland or within a few miles of that wetland, especially along connected streams, could suggest a need to reassess the wetland using the same version of WESPAK-SE used in this study.
- The indicators and models featured in WESPAK-SE are intended to represent wetland science as it currently exists. As with all science, continued research in this region and elsewhere could yield new discoveries that might suggest a need to change some of the indicator variables and assumptions currently embedded in WESPAK-SE. It is recommended that new spatial data sets and new information about wetland science be reviewed at least once every 10 years and their impact on WESPAK-SE models, scores, and ratings be evaluated. However, any future changes made to the indicator variables WESPAK-SE uses, the wording of its questions, or the weights and combination rules of its models, will require that all the wetland AAs covered by this study be reassessed and re-categorized. That would be true regardless of which methodology had been used in this study.
- WESPAK-SE was used to assess 94 wetland units for the 2016 JWMP. Function and value scores are limited to the attributes of wetlands within the priority area boundaries defined by the 2016 JWMP. Therefore, function and value scores will change when wetlands outside the priority area are added to the study, or if wetland units are found to be located within the priority area boundaries but inadvertently overlooked during 2014 fieldwork for the 2016 JWMP.

3.0 INVENTORY OVERVIEW

3.1 Acreages, Wetland Distributions

During the 2014 and 2015 field seasons, 94 distinct wetland units were mapped within 72 PAs, dividing these into 345 units and covering 5,204 acres. Within these, the functions of 13 tidal and 332 non-tidal wetland AAs were assessed. The PAs surveyed were as follows: 13 of 21 in Priority I Area; 23 of 27 in Priority II Area, and 24 of 27 in Priority III Area. Two AAs surveyed on request from private owners were located outside of any PA.

PAs not covered in the wetland surveys included 15 priority I, II, & III private parcels (eight priority I; four priority II; three priority III); the private-land portions of three priority I areas, including a large area on the west side of Douglas Island; and the three priority IV areas.

Wetlands mapped totaled 5,584 acres, or 44% of the 12,717 acres of PAs surveyed. The most extensive wetlands occurred on level, poorly drained marine terraces, notably the raised benches of North Douglas (87%), West Juneau (67%) and West Douglas. To give a more realistic percentage for West Douglas, the estimated acres from off-site assessments on private lands seaward of CBJ property were added. Because this side of the island was more wave exposed at time of deposition (~9000 to 12,000 years ago), sediments are coarser, and wetlands fewer, with much less open peatland.

Underlying these patterns in wetland distribution are the geographic constraints governing PAs the CBJ wanted investigated. Steep slopes pose challenges to construction and are also avoided due to liabilities such as post-logging erosion and impacts to streams downslope. This drives PA selection toward low-lying landforms whose drainage characteristics depend on sediment size, which in turn stems from glaciomarine history. Most of the flat but well-drained alluvial, deltaic or coarse-till surfaces in the CBJ were developed by the 1970s. Remaining flat or gently rolling terrain is generally blanketed by marine fines, raised above sea level millennia ago. These sediments are referred to locally as “blue clay,” and while they typically contain more silt than clay-sized particles, they generally support open or forested wetlands.

Least wetland cover (28%) was found on PAs within the Lemon Creek (LC) Map Page. Considerable portions of these units occupy fairly well-drained toeslope (colluvial) positions. Forested Peatlands comprise the large majority (76% by acreage) of wetlands within the study PAs. Many of the forested wetlands had small, well-dispersed hemlocks with large gaps between tree crowns, resulting in brushy understories over an herbaceous layer dominated by skunk cabbage. Wetlands with skunk cabbage were also present, however, in larger closed-canopy hemlock forest, often on moderate slopes, and in large-tree riparian spruce forest.

Second most common (15%) are open peatlands (*op*), typically with very deep, saturated sphagnum or sedge/sphagnum peat. These ranged from recently uplifted tidelands (*e.g.* Amalga) to ancient peatlands. They varied from nearly flat sphagnum-dominated bogs to sloping spike rush-dominated, pond-studded fens with orchids.

The remaining five wetland types are relatively rare, collectively constituting only 8% of the total by acreage, and 24% by number of mapped units. Such low percentages do not mean these wetland types are ecologically insignificant. Beaver wetlands (*bi*) support rich fish and wildlife traffic. Uplift meadows (*um*) are Juneau’s most globally unique habitats on the most heavily developed landform. Tidal wetlands (*td*) are uncommon within the surveys because few assigned PAs overlapped tidelands.

If the AA boundaries based upon differing wetland type or subshed (*i.e.* hydrologic divide) were dissolved, the total number of discrete wetlands assessed drops from 345 to 94.

The models utilized to generate the WESPAK-SE scores are explained in detail in the WESPAK-SE Manual.

3.2 Wetland Categories for Plan Implementation

Establishing wetland categories is potentially useful in implementing the JWMP. However, at this time, CBJ will not establish specific wetland categories that indicate high value (A and B) or low value (C and D). This option may be considered at a later date before or after the JWMP is finalized. The reason CBJ has chosen not to establish categories at this stage is categorization requires a public discussion, among agencies, stakeholders and the public, of the relative value of different wetland functions (for example, whether salmon habitat or flood control/water storage has more value to society). The wetland mapping and WESPAK-SE assessments presented in the previous chapters provide a body of science-based information on the functions wetlands provide in the CBJ; a key tool necessary for the categorization process to be successful. The process of reaching wetland categories is a collaborative process with CBJ staff, policy makers, and stakeholders to agree upon a prioritization of wetland functional values.



Photo 3: Fen-marsh near Amalga Harbor

3.2.1 Options for Summarizing a Wetland's Relative Importance

In order for the CBJ to make consistent decisions regarding wetlands, a procedure is needed that specifies how to use WESPAK-SE scores to evaluate and compare wetlands. A single score or rating derived from the 40 functions and values assessed by WESPAK-SE for an individual AA affords decision makers a consistent tool to manage wetlands within the CBJ. The challenge is how best to combine into a single score or rating the 40 scores that WESPAK-SE generates for an individual wetland. WESPAK-SE provides science and statistics for wetland analysis; these must be paired with policies or preferences of agencies and elected officials to provide meaningful rules.

To date, CBJ has not adopted a detailed procedure for summarizing a wetland's relative importance from the assessment scores provided by WESPAK-SE. Creating a wetland rating system will involve using the 22 functions and 18 values that WESPAK-SE produces for each wetland and combining those numbers into an overall wetland score in a manner that does not distort the information. Input from resource agencies, stakeholders, and the public will be required for this task.

To begin a discussion for combining scores for multiple functions and values into one overall score per wetland, three questions must be addressed:

- 1) Should the overall wetland score reflect functions, values, or both functions and values? What weight should be given to values as opposed to functions?
- 2) How should scores for different functions and their values be combined to yield an overall wetland score?
- 3) For converting a wetland's overall score to a rating, should that score first be placed into one of three groups (e.g., Lower, Moderate, Higher) or four (e.g., A, B, C, D), or an alternative grouping?

Question #1

Consider the function and value scores, and function ratings, for "Anadromous Fish Habitat" calculated from eight wetlands in the JWMP:

Table 4: Function, Value, and Rating Scores for "Anadromous Fish Habitat" for eight of the AAs

Site ID	Function score (normalized)	Function rating	Value score (normalized)	Value rating
ER08	8.44	Higher	8.17	Higher
ER71	10.00	Higher	6.67	Moderate
WD15	9.09	Higher	1.75	Lower
ER07	7.26	Moderate	8.67	Higher
ER02	4.28	Moderate	6.67	Moderate
EC49	6.19	Moderate	0.50	Lower
ER66	1.55	Lower	6.67	Moderate
AB01	0.00	Lower	0.00	Lower

Function, in this instance, refers to the likely capacity of each wetland to support anadromous fish based on access and the presence of surface water. If anadromous fish cannot access a wetland or if the wetland never has surface water then the function score is 0. That does not mean they are unimportant to anadromous fish. At least some of those AAs help support fish habitat downstream by maintaining water temperature and the flow of nutrients and invertebrate foods to downstream fish habitat that is accessible. Those functions are scored and rated separately at this stage of the calculations and so are not shown in this table. Function scores for wetlands accessible to anadromous fish depend mainly on the estimated duration of their stream connection, their hydrologic regime, habitat structure, productivity, absence of man-made features likely to harm fish, and the condition of adjoining riparian habitat. The specific indicators (e.g., large wood in channel) that define these broader attributes (such as habitat structure), and the manner in which they were estimated visually and combined, are described in the WESPAK-SE manual and spreadsheet calculator.

Value of Anadromous Fish Habitat in any wetland is automatically assigned a 0 if the Function score is 0 due to no fish access. For all other wetlands, the Value of the wetland's Anadromous Fish Habitat is considered more important if the wetland:

- is predicted to provide good habitat for two other functions (the AA's scores for Waterbird Feeding Habitat and Songbird-Raptor-Mammal Habitat are averaged), or,
- is visited more frequently or there is evidence of fishing, or,
- is located within one of the higher-scoring watersheds for anadromous fish habitat in all of Southeast Alaska as denoted in the "Conservation Assessment and Resource Synthesis for Southeast Alaska," sponsored by Audubon Alaska and The Nature Conservancy (Schoen and Dovechin 2007).

The maximum of these three is what determines the Value score. Thus, a wetland with fish access can still receive a high Value score if it lacks one of them. However, if the AA cannot be accessed by anadromous species, its Value score is set at 0 (because its Function score will be 0), regardless of whether it is located in one of the higher-scoring watersheds.

In Table 3, note the two AAs (ER07 and ER66), whose Value score is higher than their Function score. A wetland would be considered to be of higher value if it provides only mediocre habitat is because Function and Value use different criteria, and partly because there is no consensus as to how much a Value score should be increased if a Function score is relatively large. Similarly, in the opposite situation (site WD15, whose Value score is lower despite the site scoring high for Function), there is no consensus as to how much (if at all) the Function score should be lowered because its Value score is low.

One option for wetland rating would be to always use the Function score and/or rating to represent a site's Anadromous Fish Habitat unless the site's Value score or rating for Anadromous Fish Habitat is greater. In those rare cases (3 percent of the study wetlands) the average of the two scores could be used to represent Anadromous Fish Habitat. Alternatively, the function score could be increased by some uniformly-applied percentage any time the value score is greater than the function score.

A second option is to ignore the value score entirely and use only the function score to represent a site's Anadromous Fish Habitat. In those cases, there is a risk that fish-accessible wetlands whose watersheds provide some of the best overall habitat for anadromous fish in Southeast Alaska could potentially score lower than fish-accessible wetlands in watersheds that are unremarkable overall for anadromous fish habitat. For this reason, the second option is not recommended. Indicators and criteria used to determine the value score of the other wetland functions considered by WESPAK-SE are described in the WESPAK-SE manual.

Table 5: AAs Having Different Combinations of Function and Value Ratings for “Anadromous Fish Habitat”

Function Rating	Value Rating	# of AA's having that combination	%
Higher	Higher	6	2%
Higher	Moderate	25	8%
Higher	Lower	2	1%
Moderate	Higher	8	2%
Moderate	Moderate	26	8%
Moderate	Lower	6	2%
Lower	Higher	0	0%
Lower	Moderate	2	1%
Lower	Lower	256	77%



Photo 4: Fish Creek on west Douglas Island

Question #2

With regard to this question, several options for calculations are shown at the bottom of Table 5.

Table 6: Normalized function scores and ratings for four study area wetlands, with results of six options for calculating an overall score for each wetland

Site:		ER71		ER02		ER09		ER08	
Group	Function	Score	Rating	Score	Rating	Score	Rating	Score	Rating
1	Anadromous Fish Habitat	10.00	H	4.28	M	0.00	L	8.44	H
	Resident Fish Habitat	8.60	H	7.09	M	6.61	M	7.48	H
2	Carbon Sequestration	2.65	L	6.87	H	7.09	H	2.83	L
	Nitrate Removal	4.84	H	2.12	M	1.84	L	3.11	M
	Phosphorus Retention	3.78	M	3.83	M	4.20	H	3.55	M
	Sediment Retention & Stabilization	3.81	M	2.59	M	6.22	H	4.88	H
3	Invertebrate Habitat	6.22	H	2.75	L	1.88	L	2.23	L
	Organic Nutrient Export	7.32	M	5.35	L	4.51	L	6.57	M
	Stream Flow Support	2.57	L	0.42	L	0.50	L	4.29	M
	Water Cooling	4.85	M	4.28	M	4.60	M	7.51	H
	Water Warming	4.12	M	2.94	M	0.00	L	1.26	L
4	Water Storage	3.98	M	5.96	H	2.56	L	5.90	H
5	Amphibian Habitat	1.55	L	4.04	M	4.36	M	2.90	M
	Waterbird Feeding Habitat	8.07	H	6.33	H	6.71	H	0.00	L
	Waterbird Nesting Habitat	5.61	M	3.86	M	0.00	L	3.98	M
6	Songbird, Raptor, & Mammal Habitat	4.76	M	7.30	H	5.19	M	7.53	H
	Native Plant Habitat	4.85	M	4.55	M	3.23	M	5.86	H
	Pollinator Habitat	2.31	L	4.97	M	1.77	L	3.09	L
	Option 2a. Average of All	4.99		4.42		3.40		4.52	
	Option 2b. Maximum of All	10.00		7.30		7.09		8.44	
	Option 2c. (Average + Max)/2 of All	7.50		5.86		5.25		6.48	
	Option 2d. Group Averages, then Average Groups	5.19		4.83		3.35		4.94	
	Option 2e. Group Averages, then Max of Groups	9.30		5.96		4.84		7.96	
	Option 2f. Group Max's, then Average Groups	6.51		6.48		5.46		6.37	

- In the table's Options 2d-f, the functions are placed into thematic groups before doing the final calculations. If the CDD wishes to form such groups that are intermediate in the calculations of each site's overall score, the membership of the groups may be changed or stay the same as shown here. The grouping in this table, while recommended, is mainly for illustration.
- The CDD may choose to use weighted averages rather than plain averages, with weights for the more important wetland functions decided by the CDD after public input.
- In any of the summarizing calculations, the CDD may choose to include the scores of either or both of two other attributes calculated by WESPAK-SE but which are not truly wetland functions and thus were not shown in the table. Those are: Public Use & Recognition, and Wetland Sensitivity.
- Once a particular option is chosen, the overall scores of all assessed sites must be normalized (adjusted mathematically to ensure they fully span a 0-to-10 scale) and then converted to ratings by using the

recommended statistical procedure (described in section 2.3.3) to identify natural breaks in the distribution of overall scores among those sites.

- The CDD may choose to weight an AA's overall score by the size (area) of either the AA or of the AA plus its adjoining AAs, if any. The CDD may also choose to weight an AA's overall score by the AA's proximity to public roads, with the assumption that AAs closest to roads are most attractive for development, all other factors being equal. In calculations associated with either option, the CDD must decide whether to weight an AA's overall score based on WESPAK-SE equally with either or both of these factors.
- Any score combination procedure which involves use of averages, maximums, or percentiles will introduce some statistical distortion because the score distributions of different functions differ. Some functions skew high overall, others low; this is due both to differences among functions in the overall capacity of local wetlands to perform those functions and to the structures of the function models. While efforts have been made to reduce this distortion, some is inevitable.

For the sites in Table 7 the calculation option (2a-2f) had no measurable effect on the ranking of the sites. The ranking results unintentionally parallel the ranking of the sites based on just their Anadromous Fish Habitat function score. It is unknown whether the results are generally applicable to this study's data.

The same normalized score sometimes results in different ratings for different functions. For example, for site ER08 a score of 2.90 for Amphibian Habitat results in a rating of Moderate, yet a score of 3.09 for Pollinator Habitat gets a rating of Low. Although that may seem counterintuitive, it occurs because each function's scores have a statistical distribution that differs from those of the other functions. This is explained further in section 2.3.3. Tables 6 and 7 show the break-points used in this study to convert the normalized scores to ratings for each function.



Photo 5: Beaver-influenced wetland on west Douglas Island.

Table 7: Thresholds of normalized scores used to determine rating of each function or value in each **non-tidal** AA

Function:	Thresholds for Function Rating		Thresholds for Value Rating	
	Low IF:	High IF:	Low IF:	High IF:
Anadromous Fish Habitat	≤ 2.76	≥ 7.37	≤ 2.00	≥ 7.33
Resident Fish Habitat	= 0	≥ 7.23	≤ 2.31	≥ 5.66
Carbon Sequestration	≤ 3.88	≥ 6.02	N.A.	N.A.
Nitrate Removal	≤ 1.86	≥ 3.17	≤ 3.03	≥ 5.35
Phosphorus Retention	≤ 2.56	≥ 3.85	≤ 2.15	≥ 5.67
Sediment Retention & Stabilization	≤ 2.28	≥ 4.1	≤ 1.93	≥ 6.27
Invertebrate Habitat	≤ 3.17	≥ 5.22	≤ 2.85	≥ 6.36
Organic Nutrient Export	≤ 5.93	≥ 7.67	N.A.	N.A.
Stream Flow Support	≤ 3.2	≥ 5.8	= 0	≥ 4.58
Water Cooling	≤ 2.04	≥ 5.3	≤ 2.04	≥ 3.95
Water Warming	≤ 1.43	≥ 4.75	≤ 2.63	≥ 5.61
Water Storage	≤ 2.75	≥ 5.03	≤ 3.06	≥ 7.08
Amphibian Habitat	≤ 2.72	≥ 5.16	≤ 3.75	≥ 6.31
Waterbird Feeding Habitat	= 0	≥ 5.94	= 0	≥ 5.33
Waterbird Nesting Habitat	= 0	≥ 5.66	= 0	≥ 9.70
Songbird, Raptor, & Mammal Habitat	≤ 2.62	≥ 6.93	≤ 2.50	≥ 6.73
Native Plant Habitat	≤ 3.10	≥ 5.25	≤ 1.88	≥ 5.29
Pollinator Habitat	≤ 4.11	≥ 6.72	= 0	≥ 4.47
Public Use & Recognition	N.A.	N.A.	≤ 2.38	≥ 4.41
Wetland Sensitivity	N.A.	N.A.	≤ 4.44	≥ 6.77
Wetland Risk	N.A.	N.A.	≤ 3.88	≥ 6.40
Wetland Stressors	N.A.	N.A.	≤ 4.84	≥ 7.63
Wetland Ecological Condition	N.A.	N.A.	≤ 3.23	≥ 5.70

Table 8: Thresholds of normalized scores used to determine rating of each Function or Value in each **tidal** AA

Function:	Thresholds for Function Rating		Thresholds for Value Rating	
	Low IF:	High IF:	Low IF:	High IF:
Anadromous Fish Habitat	= 0	≥ 4.34	= 0	≥ 7.62
Carbon Sequestration	≤ 1.30	≥ 3.49	N.A.	N.A.
Organic Nutrient Export	≤ 2.49	≥ 5.71	N.A.	N.A.
Sediment Retention	≤ 1.49	≥ 4.26	≤ 1.80	≥ 4.79
Waterbird Feeding Habitat	≤ 2.08	≥ 6.40	≤ 3.33	≥ 6.67
Songbird, Raptor, & Mammal Habitat	≤ 2.43	≥ 5.89	= 0	= 10
Native Plant Habitat	≤ 1.39	≥ 3.60	= 0	= 10
Public Use & Recognition	N.A.	N.A.	= 0	≥ 7.61

Question #3

The CBJ's 1992, 1997, and 2008 JWMP assigned wetlands to four categories. Going forward with four or more categories would provide more flexibility in wetland planning decisions and complies with past practices in Juneau, although the criteria used to define the boundaries of the categories using the current data would differ from those used previously. Alternatively, the use of three categories may be more statistically defensible (e.g., broader confidence intervals), given the potential for some human error in applying WESPAK-SE.

3.2.2 The Watershed Context for Wetland Function Scores

This study assigned scores to individual AAs. However, the relationship of any one AA to others, as well as to anadromous streams, was partially factored into each AA's score. Thus, this study contained key elements of a watershed approach. The connectivity or contiguity (even ephemeral) of any AA to an anadromous stream is indicated by its Anadromous Fish Habitat function score--all those with a score of 0 cannot be accessed by anadromous fish. If a wetland unit has a channel outlet but no fish access, and the waters flowing through that outlet connect to tidewater or anadromous fish habitat further downslope, this was noted during the field work. The WESPAK-SE models are constructed such that it potentially increases the scores of that wetland unit for several functions: Stream Flow Support, Water Cooling, Organic Nutrient Export, Aquatic Invertebrates, and Native Plant Habitat. It does so because, despite the absence of anadromous fish in the AA itself, the AA potentially buffers environmental extremes and thus supports the temperature, hydrologic, and water quality regimes of anadromous fish habitat below blockages. Such blockages prohibit fish upstream movement into the AA but generally do not halt the seaward flow of surface water out of the AA.

Analysis of function ratings generated by the WESPAK-SE models support the importance of non-anadromous wetlands for a host of other functions. Of the sites rated Lower for Anadromous Fish Habitat, more than half were rated Moderate or Higher for the following functions by the WESPAK-SE models:

- Songbird, Raptor, & Mammal Habitat
- Water Cooling
- Carbon Sequestration
- Organic Nutrient Export
- Water Warming
- Pollinator Habitat
- Water Storage
- Native Plant Habitat
- Phosphorus Retention

Another aspect of connectivity concerns the contiguity of any single wetland AA to others. The identification numbers of all such contiguous AAs can be identified from the maps in JWMP Volume Two, which also shows the watershed ("subshed") boundaries in the project area. The WESPAK-SE models used to rate the wetlands are structured such that AAs which are adjoined by growing numbers of other AAs are more likely to have higher scores for all the habitat functions, provided they meet other requirements of most species associated with that function: Aquatic Invertebrate Habitat, Amphibian Habitat, Waterbird Feeding Habitat, Waterbird Nesting Habitat, Songbird-Raptor-Mammal Habitat, Native Plant Habitat, Pollinator Habitat.

Although beyond the scope of resources available in this current contract, an analysis could be undertaken in the future that would identify, from the current data set, which wetland functions are rarest in each subshed (watershed) or in the study area overall. Then, the value scores of any wetlands that do perform those rare functions in that subshed could be increased in proportion to the rarity of those functions in that subshed or study area or by some predetermined percentage. However, it must be recognized that watershed boundaries are not relevant to several wetland functions (e.g. Pollinator Habitat, Waterbird Habitat) and values (Public Use & Recognition) because the use of a wetland by pollinators, waterbirds, and people is virtually unaffected by a watershed boundary.

Another analysis that could strengthen a watershed approach would apply to AAs that are not accessible to anadromous fish but would involve using each AA's flow-path distance to anadromous fish habitat (stream, floodplain, or estuarine) as a weighting factor for Anadromous Fish Habitat function or value score. Preferably, the flow-path distance would be measured only after the study area's hydrologic connections are determined and

mapped more thoroughly, and surveys are completed that document fish presence (especially coho) in smaller channels and floodplains of the study area.

Additionally, another examination that could strengthen a watershed approach, but was also beyond the scope of resources available, would involve using as a weighting factor the historical losses of wetlands or specific wetland types in the study area or its watersheds. However, comprehensive data on such losses do not exist. Looking forward, careful record-keeping of the extent of wetland alterations permitted, by watershed and function scores/ratings, could help address concerns about cumulative impacts of function losses associated with the permit programs.

3.3 Anadromous Fish Habitat and WESPAK-SE

WESPAK-SE examines twenty potential functions and values that southeast Alaska wetlands provide to humans and the natural environment, and anadromous fish habitat is one of these. When interpreting WESPAK-SE, it is important to remember that function scores and value scores convey different sets of information about a wetland's ability to provide anadromous fish habitat. A wetland functions as anadromous fish habitat if it supports rearing or spawning of fish species that migrate from marine waters into freshwater streams. By supporting anadromous fish habitat a wetland provides human or societal value through contributions to successful commercial, subsistence, or recreational fisheries, cultural traditions, and other forms of regional identity and livelihood.

Function Scores and Ratings for Anadromous Fish Habitat in Non-tidal Wetlands

Wetlands are scored 0 if not accessible to anadromous fish or if no surface water is ever present. In all other wetlands, Anadromous Fish Habitat can only be rated Moderate or High -- never Low. The score and associated rating increases with increasing certainty of fish access to the wetland and persistence of the wetland's outflow. The scores for these two factors are averaged and then multiplied by the average of wetland Productivity, Structure, Hydrologic Regime, Landscape Condition, and a lack of human-related Stressors. However, these last 3 factors are moot if access is lacking and are less important if outflow persistence is less. In these calculations:

- Productivity is assumed to be greater where the wetland contains or is adjoined by alder, is at low elevation, near marine waters, is a floodplain wetland or fen/marsh, and there is evidence of significant groundwater input. These indicators are considered equally predictive and so are averaged.
- Structure beneficial to anadromous fish is represented by the average of beaver presence (considered a positive indicator) and a group average for increased shade and cover of aquatic plants, large woody debris, presence of both ponded and flowing water, and more favorable wetland type (Floodplain wetland > Fen/marsh > Uplift meadow > Forested peatland > Open peatland).
- Hydrologic Regime is considered optimal when all or nearly all of the wetland has surface water at least seasonally and water depths are moderate. The remaining one-third of the score for this factor is based on the average of interspersed patches of vegetation and open water, wetland adjacency to a lake, wetland intersected by channels that meander and intersect flooded trees, and a moderate proportion of habitat remains persistently or seasonally inundated.
- Landscape condition is assumed to be better when land cover in the contributing area and area closest to the wetland is mostly natural.
- Stressors are represented by absence of known or suspected contaminants, absence of turbid glacial meltwater input, lack of other sediment inputs in excessive concentrations, and lack of altered flows. These indicators are considered equally predictive and so are averaged.

When determining anadromous fish access and presence, BBC relied on field observations as well as documentation from Alaska Department of Fish and Game (ADFG) and Alaska Department of Natural Resources (ADNR). During fieldwork in 2014, many wetland units with fish access also had recent fish carcasses or remnants of carcasses from

previous seasons near a stream channel. In wetland units where anadromous fish use was probable but there was no direct evidence in the form of carcasses or fish nests, BBC relied on existing documentation in the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes (Catalog) and the Atlas to the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes (Atlas). Alaska Statute 41.14.870(a) requires the ADNR specify the various rivers, lakes, and streams, or parts of them, that are important for spawning, rearing, or migration of anadromous fishes. According to Alaska Administrative Code (AAC) 195.010, the Catalog and Atlas are used to make this specification. The Catalog is a numerically-ordered list of the water bodies with documented use by anadromous fish for these purposes. The Atlas shows cartographically the location, name and number of these specified water bodies, the anadromous fish species using these water bodies, and the fish life history phases for which the water bodies are used (to the extent known) (ADFG 2007).



Photo 6: Cowee Creek side channel.

Value Scores and Ratings for Anadromous Fish Habitat in Non-tidal Wetlands

If no BBC observations or ADFG maps indicated the existence of anadromous fish in a wetland (including channels exiting a wetland) then the value score -- as is the case with the function score -- is set to 0 and the rating for this function is never greater than Low. However, for other wetland functions that indirectly support anadromous fish rearing or spawning, such as water cooling and stream flow support, the inaccessible wetland can nonetheless receive a function rating of High, Moderate, or Low depending on its characteristics.

If BBC observations or ADFG maps did indicate the existence of anadromous fish in a wetland, then the value score and rating (as contrasted with the function score and rating) depend on whether it is in a conservation priority watershed for anadromous fish (from Schoen & Dovichin 2007), or has a high function score for Feeding Waterbirds or Songbirds & Mammals, or the group average of the following was high: observed evidence of fishing, frequent human visitation, near a population center, near a road. The Value score for Anadromous Fish Habitat can therefore never be affected more than 25% by any of these last four indicators. In many cases the last four indicators were rendered entirely moot and ignored in the score calculations because the average of the scores for the other two habitat functions was higher, or the wetland was in a conservation priority watershed, and either of these became the positive driver of the Anadromous Fish Habitat value score.

Function Scores and Ratings for Anadromous Fish Habitat in Tidal Wetlands

If there is even minimal fish Access to the tidal wetland, as there almost always is, the model considers the likely extent and duration of that access, potentially predictive Landscape-scale factors, and secondarily the wetland's potential Productivity and general Habitat Structure. The latter two together are given the same weight as each of the former.

In the above calculations:

- Access is assumed to be greater in wetlands having extensive areas that fish can reach even at monthly low tide, and those with extensive internal channel networks and natural outlets. These indicators are considered equally predictive and so are averaged. However, if there is no fish access, this factor is set to zero.
- Productivity is assumed to be greater in tidal wetlands with wide vegetation zones, groundwater seeps, large adjoining trees (especially deciduous), having or being near tributaries, and with no existing data that indicate presence of toxic pollution levels in or near the wetland. These indicators are considered equally predictive and so are averaged.
- Structure is assumed to be greater in tidal wetlands that have a variety of complementary marine shoreline types within 1 mile, and either are wooded or have much large woody debris or other fish cover. These indicators are considered equally predictive and so are averaged.
- Landscape factors that favor anadromous fish include whether the wetland is located in a priority watershed for anadromous fish within its biogeographic province (subregion) in Southeast Alaska (from Schoen & Dovichin 2007). This accounts for half the Landscape score. Considered equally influential, and thus accounting for the other half, is the average of 5 indicators: geographic position (outer coast, inner coast, mainland), location along a major river or in a bay/lagoon, proximity to eelgrass, the average of the distance to the nearest other tidal wetland and extent of tidal wetlands generally in the associated watershed, and the average of the proximity to connected freshwater ponds/wetlands (positive), and percent of the upland buffer that is natural land cover (positive).

Value Scores and Ratings for Anadromous Fish Habitat in Tidal Wetlands

If the wetland is in a priority watershed for priority watershed for anadromous fish within its biogeographic province (subregion) in Southeast Alaska (from Schoen & Dovichin 2007), or is in a watershed with good bear habitat (Schoen & Dovichin 2007), or is distant from other tidal wetlands, then the tidal wetland's value score for Anadromous Fish Habitat is higher.

Resident (Non-Anadromous) Fish Habitat and WESPAK-SE

Function and value scores are also assigned to wetlands to reflect their support for non-anadromous resident fish. These include Dolly Varden char and cutthroat trout as well as non-sport fish such as sculpin, stickleback, and lamprey. However, despite their importance to many non-anadromous fish species, tidal wetlands are not scored because no suitable rapid indicators of their capacity to predict habitat suitability for non-anadromous species could be found.

There are fewer resources documenting the locations of resident fish in either tidal or non-tidal waters. BBC relied primarily on direct field observations to determine whether or not resident fish were present or potentially present.

Function Scores and Ratings for Resident Fish Habitat

A wetland automatically scores a 0 for Resident Fish Habitat function if there is no fish access and it is not known to contain resident fish, or if it never contains surface water. For all other wetlands, the score increases with increased wetland Productivity, Hydrologic Regime, and habitat Structure, and decreased Stressors and risk of winterkill from Anoxia (lack of oxygen in the water). These 5 factors are considered equally predictive of resident fish habitat suitability and so are averaged.

In the above calculations:

- Productivity is assumed to be greater where the wetland contains both an inlet and outlet, contains or is adjoined by extensive alder, has evidence of significant groundwater input, is not on granitic bedrock, has not been recently deglaciated, and (in order of decreasing productivity) is a Floodplain wetland > Fen/marsh > Uplift meadow > Forested peatland > Open peatland. These indicators are considered equally predictive so their scores are averaged.
- Structure beneficial to resident fish is represented by the average of a score for beaver presence (considered a positive indicator) and a group average that again includes wetland type (see ranking above) as well as increased shade, extensive aquatic plants, and other aquatic cover.
- Hydrologic Regime is assumed most favorable for resident fish when surface water is present at least seasonally, both ponded and flowing water are present, interspersed patches of vegetation and open water is good, there are complex internal channel networks that intersect woody vegetation, and a variety of water depths is present in fairly equal proportions. These indicators are considered equally predictive and so their scores are averaged.
- Stressors are represented by the average of: lack of known toxicity of contaminants, lack of artificially altered flow timing, and lack of turbid glacier-water inputs. These are considered equally predictive.
- Anoxia Risk is assumed to increase with two factors that are averaged. The first is represented by the average of increasing water depth and outflow persistence. The second is the average of decreasing elevation (relative position in watershed), warmer temperature, proximity to tidal waters, and lakeside (as opposed to small isolated pond) location. These are considered equally predictive of resident fish winterkill and so are averaged.

Value Scores and Ratings for Resident Fish Habitat

This value score and rating for Resident Fish Habitat is greater degree if the wetland's feeding waterbird score is high or if the average of 4 indicators is large: evidence of fishing, minimal distance to a population center, minimal distance to a road, and greater accessibility of the wetland to people.

4.0 Implementation

4.1 Site-specific Resource, Planning and Education Tool--Current Uses of the 2016 JWMP

The 2016 JWMP can be utilized in its current form for the following uses:

Wetland determinations and background information for wetland delineations. Wetland determinations (are there wetlands on a property?) are important for deciding what properties can be developed with or without wetland permitting. The mapped wetlands in Priority Areas (PA's) of the 2016 JWMP can be utilized immediately to inform landowners if they have wetlands and a very good approximation of where they are located. Even the off-site assessments where no on-the-ground mapping was done, have a relatively good approximation of wetland presence and location. If there are wetlands mapped by the 2016 JWMP, a landowner has more certainty about where they are located and how extensively arranged they might be on the parcel or site. While the 2016 JWMP mapped wetlands are not officially delineated wetlands, the maps provide highly useable background information for conducting a subsequent site specific official wetland delineation, one that can be verified by the Army Corps during the permitting process. The availability of the 2016 JWMP wetland mapping saves landowners and land managers the cost of doing their own feasibility studies for wetlands.

Strategic site planning, short term and long range. Landowners and land managers can use the wetland mapping in the 2016 JWMP to identify the best areas of non-wetland for near term site development. These are areas most likely along existing road corridors and other existing human-built areas that will not require extensive infrastructure development. Long range development planning, for example neighborhood developments or mixed used developments, can target interconnected non-wetland and larger non-wetland areas for various phases of their long range development plans. For example, one or more areas of gently sloping non-wetland polygons could be connected

together with a planned road extension. Recognizing that some impacts to wetlands would occur from street or utility crossings, wetland impacts are still minimized by concentrating the actual developments within the non-wetland polygons. Use of the 2016 JWMP wetland maps for strategic development planning avoids and minimizes wetland impacts for all types of planned development, including but not limited to industrial, commercial, residential, institutional, transportation and recreational projects. Cost savings for development planners, short term and long term, are significant as feasibility studies for wetlands over large tracts of land are typically expensive.

“Least impact” analyzes of potential development impacts between two or more wetlands. If wetland impacts are unavoidable within an area contemplated for development, the 2016 JWMP wetland function and value assessment scores using WESPAK-SE provide a comparison of wetland function and values between wetlands that can benefit decision-making to achieve the least impactful development option. In most cases, the lower scoring functions and values that are compared between two or more wetlands will indicate which wetland should be impacted to avoid and minimize overall wetland impacts. Where function and value scores are compared but are inconclusive, because different functions and values score higher among compared wetlands, an extra step will be necessary which will involve the professional judgement of wetland regulators and wetland consultants to determine which wetland has the most overall lower function and value. However, simply having the function and value scores to compare among wetlands is a significant resource to those contemplating or planning future development, and a cost savings to those who would otherwise have to prepare their own feasibility studies of wetlands and their function and values.

Watershed planning for mitigation sequencing of wetlands and aquatic resources. Where the 2016 JWMP has mapped wetlands within watersheds, particularly those with anadromous fish habitat resources, the mapping and WESPAK-SE function and value scores can be reviewed for watershed management planning. Mitigation sequencing is the process, in order of preference, for avoiding, minimizing, and mitigating unavoidable impacts. Critical wetlands, for example those providing fish habitat or abutting streams with anadromous and resident fish, can be identified for emphasis on avoidance and protection. If these wetlands are high functioning, but are currently undisturbed, they can be targeted for preservation, possibly in concert with a mitigation bank or in-lieu fee program. Also, wetlands that have impaired functions and values due to past and present impacts can be targeted for mitigation through re-establishment, restoration, rehabilitation and enhancement. There are areas likely within the watershed that would be suited for some types of development, which the mapping and WESPAK-SE scoring of wetlands can inform. Wetland impacts can be minimized if development is focused on lower functioning wetlands in a watershed. Whereas the greatest challenge in watershed planning is in having a comprehensive resource assessment, including mapping and characterization of wetlands and aquatic resources, the 2016 JWMP provides just that necessary resource for the PA’s. Here again, the information provided is a cost savings for those undertaking the task of developing watershed management plans.

Wetland education. The 2016 JWMP provides abundant wetland maps, wetland characterization data, and wetland function and values assessments that are a resource for the public to better understand wetland resources within CBJ. An informed public, ranging from landowners, elected officials, agencies, mitigation providers, nature enthusiasts, college students and students of all ages, is best able to comprehend and discuss the issues relating to wetland management when there is equal access to science-based credible data which the JWMP provides. The public discussion of how CBJ grows in a responsible fashion will not have to focus on the questions of “are wetlands involved and how important are they?”, rather it will focus on the questions “what functions do we value highest, and what tradeoffs must we accommodate to allow growth to occur while minimizing impacts?”

Database for future studies and wetland management implementation. The comprehensive maps and data within the 2016 JWMP are a foundation upon which future studies involving wetlands and aquatic resources within CBJ are added as the science evolves. The remainder of this section describes several logical next steps if the wetland

mapping and functional scores are further developed into wetland categories, or used to obtain an Army Corps General Permit for wetland management within some areas, or to certain wetlands, within CBJ.

4.2 Implementation Discussion

Proposed wetland policies and implementing actions are outlined in Section 4.5. To achieve these policies and actions, beyond those already achieved by the site-specific resource information and education it provides, this section discusses potential next steps for implementation of the 2016 JWMP. This includes development of wetland categories, converting general policies into enforceable policies, and contemplates the acquisition of an Army Corps General Permit to allow CBJ control of wetland management some or all wetlands in a defined area. Also identified is where these possible steps align with the proposed wetland policies and implementing actions in Section 4.5. This implementation chapter examines the successes and issues with wetland management in the past and discusses the role of the 2016 JWMP as a planning and educational tool. Furthermore, regional examples of wetland management in Alaska are cited and included in the appendix. In the earlier plan iterations, 1992, 1997, and 2008 JWMP, CBJ's management strategy has involved the use of a General Permit from the Army Corps. The General Permit expired in 2011, therefore discussion is provided for obtaining a new General Permit.

Building on the 2016 JWMP role as a site specific resource, useful for strategic planning and as an educational tool, the plan can be advanced and extended with wetland categories and wetland management policies. Since the expiration of CBJ's General Permit in 2011, wetland permitting has been managed by the Army Corps for all wetlands in the borough. CBJ comments on wetland fill permit applications through the Army Corps public process, and has existing authority under building and land use permits, but does not administer any wetland fill permits. Regardless of how the plan is further advanced, the long-term scientific integrity of the JWMP is maintained by the in-depth wetland mapping and data collection of wetland functions and values. As a site specific resource, useful for strategic planning and education, the 2016 JWMP is aligned with many of the proposed wetland policies and implementing actions of Section 4.6.



Photo 7: Auke Bay Marina.

The detailed and extensive wetland mapping and WESPAK-SE assessments offer a science-based product that provides the 2016 JWMP as an educational tool with guiding principles for wetland management. This tool is compliant with the 2008 Federal Rule as it takes into account regional differences in wetland resources and functions and, as much as possible, uses a watershed approach to wetland management. An example of this type of implementation can be found in Matanuska-Susitna (Mat-su) Borough's (MSB) Wetlands Management Plan (MSBWMP, HDR, 2012). A summary of the Mat-su approach is included in the Appendix.

CBJ has many advantages due to the size of the borough and their accessibility and agreement to use WESPAK-SE. The recent mapping produced in this update should not limit CBJ's ability to acquire updated wetland and habitat mapping in the future. This is an implementing action, in that it maximizes use of watershed-based wetland mapping and wetland functional assessment sources available within CBJ. The 2016 JWMP allows for informed decision-making for the development of wetland categories, wetland conservation and mitigation approaches. The Army Corps has expressed its support of the WESPAK-SE tool and CBJ has seen potential for its use in growth management planning. Additionally, the JWMP is a useful tool to all stakeholders as a science-based document. It plays a valuable role in planning for future development by all entities involved in wetland management. As it is consistent with the 2008 Federal Rule and the Army Corps regulatory oversight of wetlands, the 2016 JWMP is least influenced by political pressures. It serves as a tool for future planning regarding community and borough priorities and values.

General intentions for updating the 2016 JWMP are outlined in the policies and implementing actions section (4.5) at the end of this chapter. Wetland categories (such as A, B, C, D or High, Moderate, Low) are not necessary to complete the 2016 JWMP update, however creating categories would be the logical next step. If so desired, the public process of creating categories from WESPAK-SE can be accomplished through a prioritization of wetland functions and values important to the community. If wetland categories are established, and the Army Corps formerly adopts, or at minimum informally recognizes, the categories within CBJ jurisdiction, there would be a defacto CBJ-influence on Army Corps permits.

The earlier versions of the JWMP have included enforceable policies and, until 2011, the administration of wetland fill permits for lower quality wetlands. The 2016 JWMP is currently a site specific resource, useful for strategic planning and as an educational tool. This maintains CBJ as stakeholder and commenter on proposed wetland fill permits issued by the Army Corps but would not, exceed its wetland authority other than what it possesses through building and land use permits. The only remaining direct wetland authority with CBJ would be in the scenario of CBJ as an applicant or landowner for a proposed project. CBJ could self-impose whatever restrictions or wetland management policies it deemed in the best interest of the borough. Such restrictions would be administrative.

Applicants may have found clarity and consistency from the CBJ's past involvement in wetland permitting. With all authority currently under the Army Corps for permitting impacts to wetlands, many applicants may be incentivized to support more involvement by CBJ as a way to establish local control of wetland management.

For current stakeholders, considering the previous update of the JWMP occurred eight years previous, and the expiration of the general permit was nearly five years ago, the current situation of no CBJ-enforceable wetland policies has likely become familiar as the status quo. However, stakeholders will recognize a benefit of any collaboration between CBJ and the Army Corps by utilizing the foundational information in the 2016 JWMP, forging that collaboration through information sharing, communication, or a more formal Memorandum of Agreement or General Permit. Inconsistency among agencies and regulations is often the greatest frustration of applicants who navigate the wetland permitting process. Therefore, this effort by CBJ to promote consistency in wetland policies and regulations, among its own adopted CBJ documents and plans, and consistency with other agencies policies and regulations, will likely be positively received.

4.3 Developing Wetland Categories

If wetland categories are established for advanced implementation of the 2016 JWMP, the categorization options are outlined in this section. There are five most likely options for wetland categorization:

- 1) Follow SEALTrust's wetland function averaging formula when final and approved
- 2) Rank wetlands in a hierarchy of what the community determines is most appropriate

- 3) Develop a wetland categorization task force including two members of the WRB to formulate an approach
 - 4) Simplify categorization to the primary factors in previous versions of the JWMP, such as anadromous streams (highest value) and proximity to roads (lower value), to promote development adjacent to road corridors
- These options are not exclusive of each other as one or more could be combined, or others not listed developed in their place. Wetland categorization meets the proposed wetland protection policy allowing ranking of wetlands to identify high and low functioning wetlands suitable for development and protection. Wetlands categorized as having high function for anadromous and resident fish, or that are highly valued for public water sources, can receive added protection through the ranking. Conversely, lower functioning wetlands near roads and higher-density areas may be so categorized, thereby avoiding pressure on higher functioning wetland systems and watersheds. Categorized wetlands may also be more readily identified for restoration of lost or impaired functions by practitioners of mitigation banks and in-lieu fee providers. Easily identifiable wetland categories, that are understandable for applicants and the public, also provide for more informed decision making, increased permit predictability and permit processing.



Photo 8: Eagle Crest Ski Area

4.4 General Permit

CBJ's intentions for considering a new General Permit are outlined in policy 11.a at the end of this section. This would reauthorize, or establish anew, the expired Army Corps General Permit described as the wetland management process in the 2008 JWMP. In the 2008 JWMP a Plan Implementation section summarizes the approach and is provided in the Appendix. The General Permit would authorize CBJ to manage and permit some or all wetlands within a defined area of the borough.

Wetland categories would need to be established and updated with a selected categorization method. It will require agreement between the Army Corps and CBJ on what constitutes "lower" and "higher" functioning wetlands through an established categorization system.

Renewing or obtaining a new Army Corps General Permit to manage CBJ wetlands provides incentives for certainty and time efficiencies for an applicant. This method inherently directs wetland impacts toward lower functioning wetlands as it processes wetland permitting at the local level for lower functioning, and low category wetlands. Using the General Permit for wetlands management would transfer wetland delineation and determination authority to CBJ in certain cases and will be beneficial to CBJ's own development planning services. Applicants are benefitted by the locally managed regulatory process and can avoid an often extensive alternatives analysis process typically required for Army Corps individual permits. The General Permit can also target wetlands suitable for mitigation, or types of mitigation such as preservation of high functioning wetlands and restoration of wetlands with impaired functions. It

can incentivize advanced mitigation in anticipation of future impacts by supporting wetland mitigation as a commodity, tradeable as credits through approved wetland mitigation banks or in-lieu fee programs.

Some challenges of this level of wetland management center around the need to renew the General Permit every five years. The initial acquisition and the renewal process required of the Army Corps' approval which may come with uncertainty and additional expenses. Once the General Permit is approved, CBJ will need to have an established administrative and technical review for wetland impact assessment and mitigation. Additional updating of the CBJ code would also be necessary, essentially converting the goals and policies stated herein and making them enforceable.

4.5 Summary

The 2016 JWMP provides a site specific wetlands resource for landowners, a strategic planning tool for agencies and an educational tool for the public in general. It provides key information for watershed-based planning that would allow decision-makers to target wetlands, such as those providing anadromous fish habitat, to be avoided during development, perhaps through preservation as a mitigation option. The maps and WESPAK-SE function and value scores inform where wetlands are impaired and thus could be restored, or where lower functioning wetlands could be impacted and their loss be mitigated elsewhere. Possible future steps or advancements of the 2016 JWMP are discussed for consideration of CBJ staff and decision-makers. These steps include development of wetland categories, converting general policies and goals into enforceable policies or CBJ code, and possible acquisition of an Army Corps General Permit to allow CBJ-controlled permitting of impacts to some or all wetlands within a defined area of the borough. These possible steps are not exclusive and can be combined with these or other logical outgrowths of the JWMP, including but not limited to, wetland education, promoting restoration, and improving collaboration between agencies, landowners and the public.

4.6 Wetland Policies and Implementing Actions

Big-Picture Planning

1. Promote consistency in wetland policies and regulations within adopted CBJ documents.
 - a. Revise the CBJ Comprehensive Plan, Title 49, and other officially adopted documents to ensure consistency among wetland policies and regulations, and to ensure conformance with federal law.
2. Ensure the long-term scientific integrity of the JWMP and the wetland methodology that supports it.
 - a. Update the JWMP with Best Available Science and peer review among resource professionals.
 - b. Evaluate and include scientific information when determining wetland policies, plans, and regulations that support the plan.

Protection

3. Minimize adverse impacts to high functioning wetlands.
 - a. Rank and/or categorize wetlands to identify high and low functioning wetlands suitable for development and protection.
 - b. Consider establishment of a wetland categorization task force comprised of WRB representatives, resource agency representatives, CBJ staff, and other qualified members to determine a scientifically-sound ranking method.
 - c. Consider development of regulations and/or more detailed wetland policies to support wetland rankings or categorization.

4. Protect wetlands near or adjacent to anadromous lakes or streams, and near or adjacent to public water sources.
 - a. Consider development of regulations and/or specific policies that upgrade the value or ranking of wetlands near anadromous lakes or streams and provide stricter development requirements.
 - b. Provide special consideration for wetlands near Alaska Department of Environmental Conservation-classified impaired water bodies and/or unique habitat areas.
5. Promote restoration opportunities in degraded wetland areas.
 - a. Identify degraded wetland areas, or wetlands that may be suitable for enhancement, as documented through WESPAK-SE wetland assessments.
 - b. Identify funding sources and establish a restoration plan.
6. Incorporate a diversified, watershed-based approach to better protect wetlands and to manage cumulative effects.

Development/Permitting Process

7. Provide for informed decisions regarding protection and development of wetlands.
8. Increase wetland permit predictability and streamline wetland permitting processing.
9. Promote development in lower functioning wetlands, particularly along road corridors and within the Urban Service Boundary.
 - a. Identify lower functioning wetlands through a ranking process using the WESPAK-SE wetland assessments.
 - b. Prioritize lower functioning wetland areas according to proximity to roaded and higher-density areas.
10. Promote a variety of wetland mitigation options to allow for wetland development in appropriate areas.
 - a. Identify large areas of CBJ-owned high functioning wetlands or degraded wetlands eligible for preservation or restoration.
 - b. Consider development of a mitigation bank or single-user mitigation site(s) based on restoration, enhancement, preservation, or a combination.
11. Develop long-range development strategies with the Army Corps and other partners to promote development in appropriate areas while preserving high value wetlands.
 - a. Investigate options for use of General Permit for expedited wetland permitting utilizing advance wetland mitigation and planned development.
 - i. Identify large areas of vacant public-private land within a preferred development corridor for a long-term development plan.
 - b. Identify large contiguous or connected high functioning wetlands. Consider options for joint protection among property owners.
 - c. Develop a Memorandum of Agreement with the Army Corps to promote collaboration and communication.

- d. Cooperate with private and non-profit organization mitigation providers to cooperatively identify wetland mitigation areas to compensate proposed wetland development.

Outreach & Education

- 12. Maximize use of wetland mapping and wetland functional assessment sources available within CBJ.
 - a. Utilize previous versions of the JWMP as a resource inventory.
 - b. Develop partnerships with the Southeast Alaska GIS Library, NOAA Shorezone Program, Army Corps, and other entities to maximize information sharing regarding wetland resources.

- 13. Promote wetland education.
 - a. Identify wetland areas near schools.
 - b. Identify grant funding for wetland education and interpretative signage.
 - c. Educate property owners on the value of delineating and protecting wetlands.

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6.0 CONTRIBUTIONS

For the study described in this document, responsibilities were as follows:

Project Manager and Principal Field Scientist: Koren Bosworth (BBC)

Study conceptual design, training of field crews, data processing, quality assurance: Dr. Paul Adamus (ARA)

Field work -- wetland delineations: Andrew Allison (ELS), Koren Bosworth, Catherine Pohl

Field work -- WESPAK-SE assessments: Koren Bosworth, Andrew Allison, Rachel Allison (ELS), Richard Carstensen (Discovery Southeast), Catherine Pohl, Dr. Paul Adamus

Interpretation of aerial imagery, off-site assessments, office component of WESPAK-SE assessment tool: Koren Bosworth, Richard Carstensen, Catherine Pohl

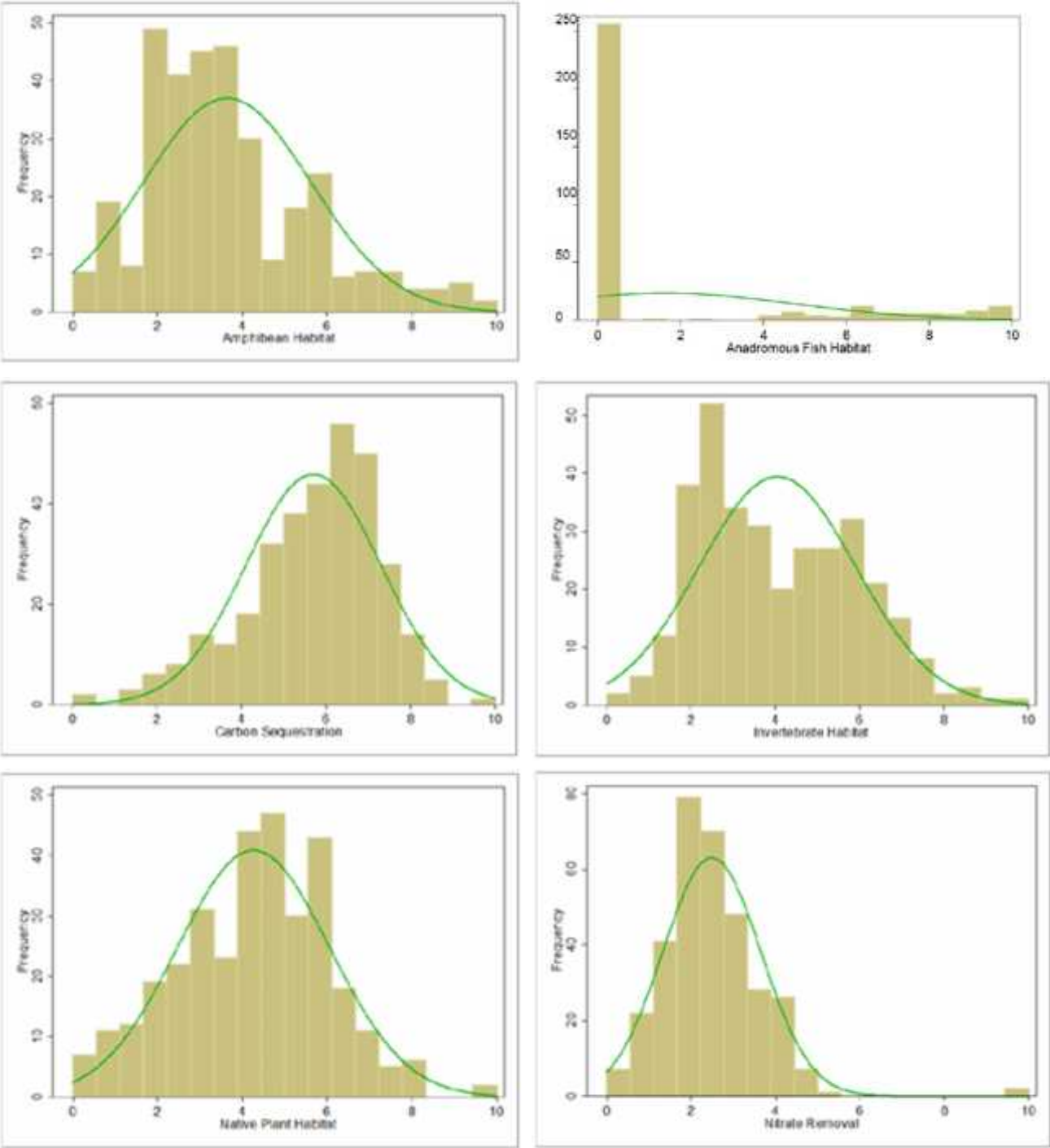
Processing of GPS and LiDAR data (including differential correction and management of sub-meter GPS, creation of modeled streams layers, raster catalogs, project-wide tidelines and hillshades): Catherine Pohl

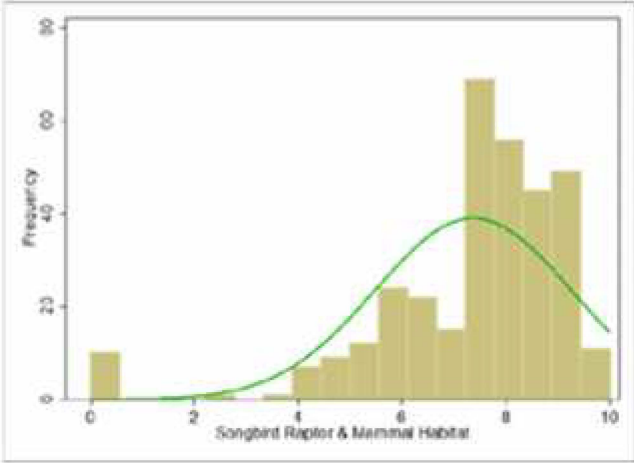
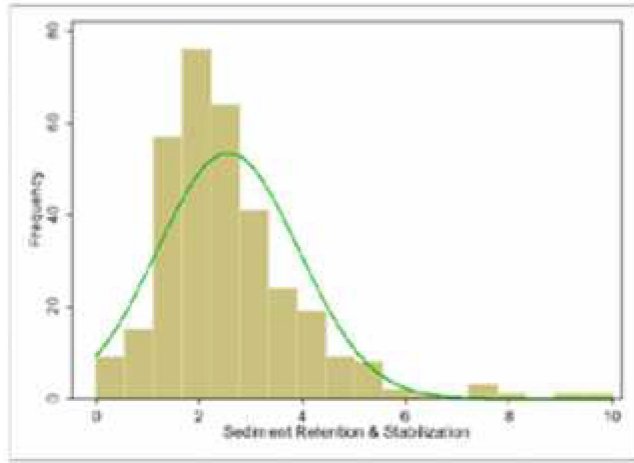
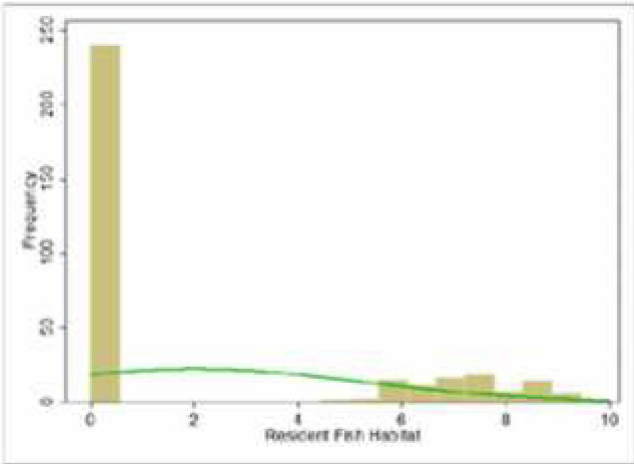
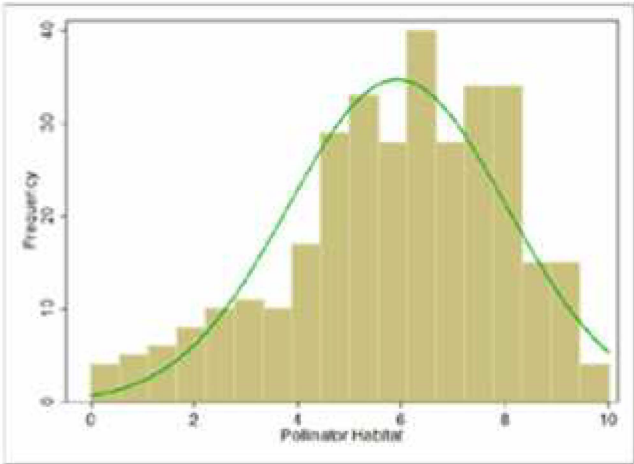
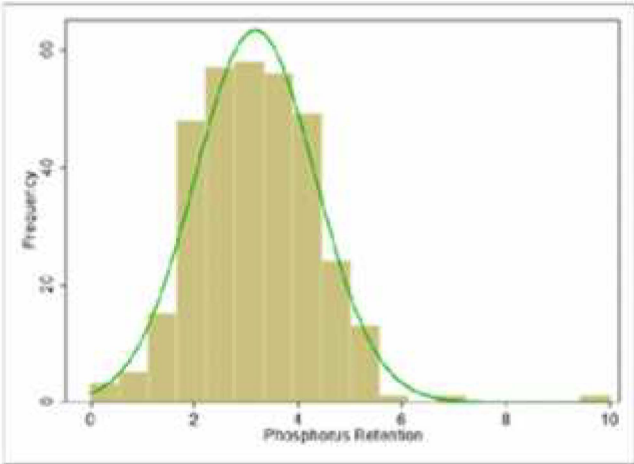
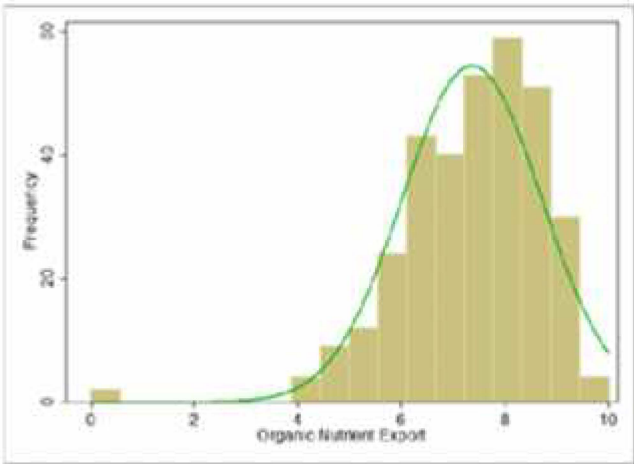
GIS map making (including wetland boundary shapefiles and custom GIS to support it): Richard Carstensen

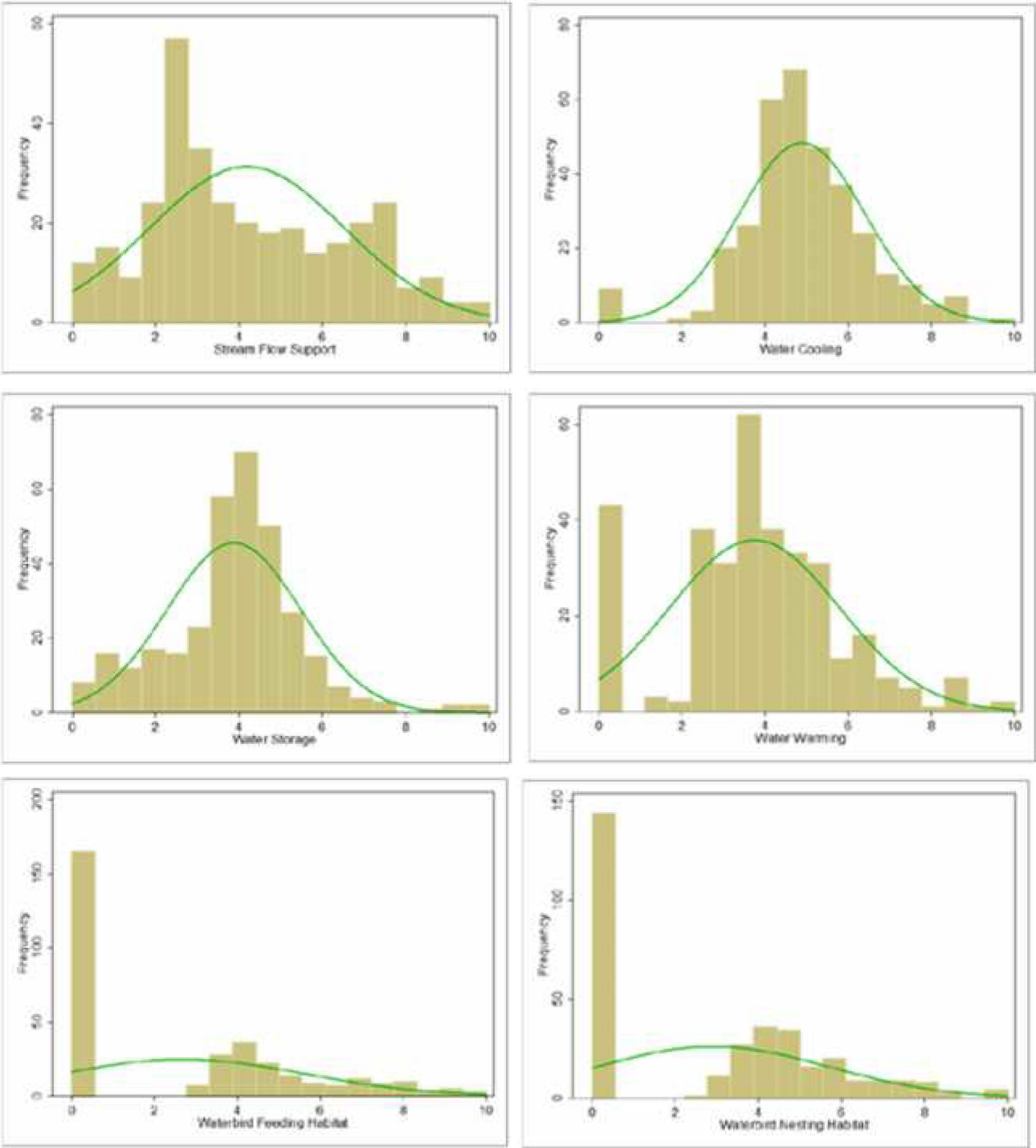
Project Final Report Writing: Dr. Paul Adamus, Rachel Allison, Andrew Allison, Francis Naglich (ELS), Morgan Steele (ELS)

7.0 APPENDIX

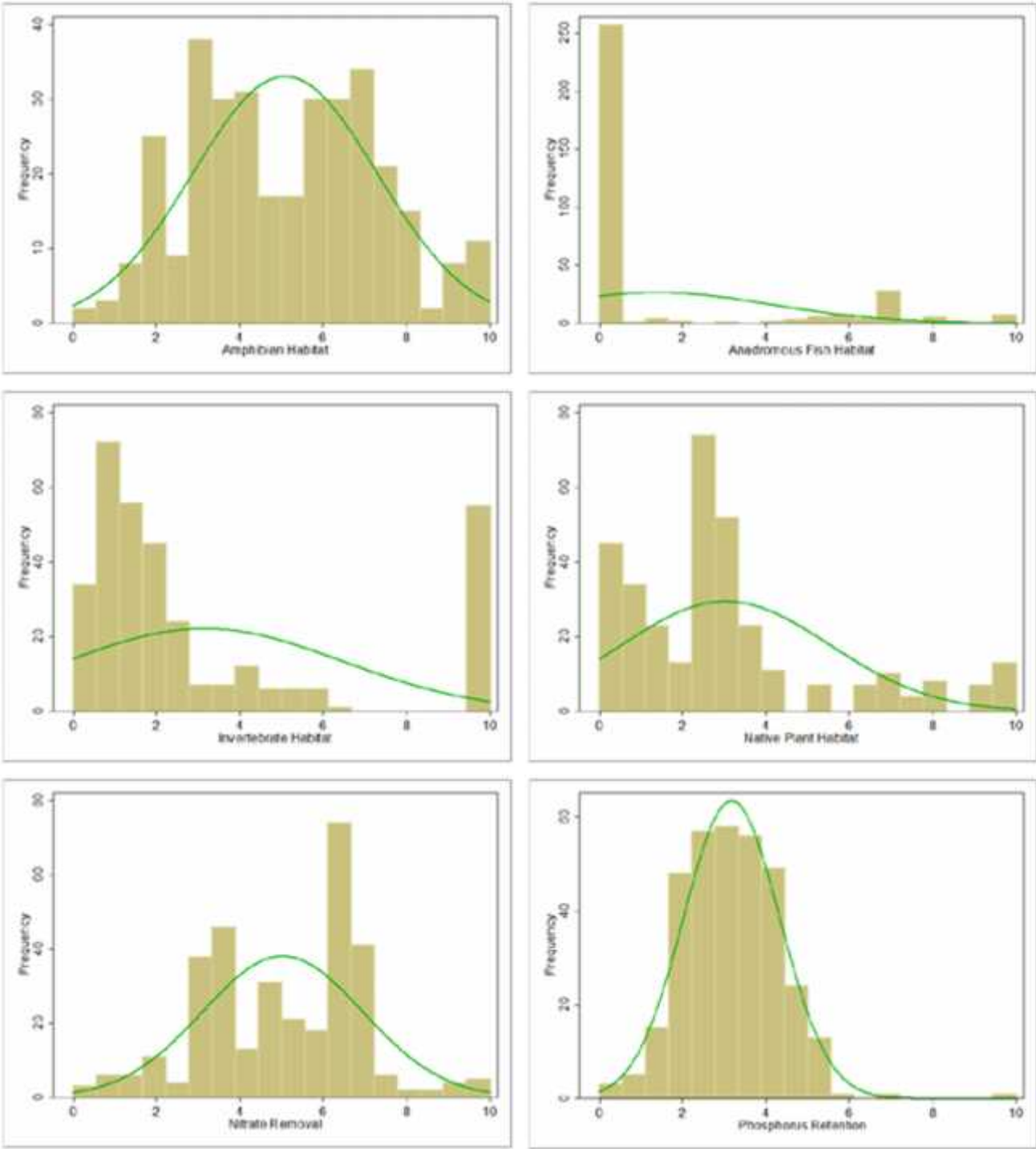
7.1 Score Distributions for FUNCTIONS for 332 Non-tidal Wetlands

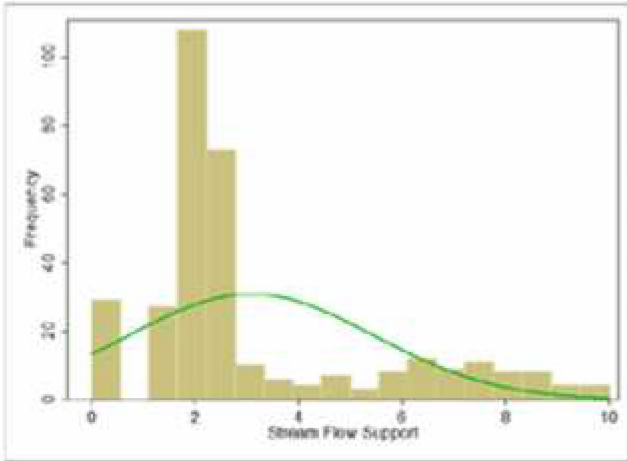
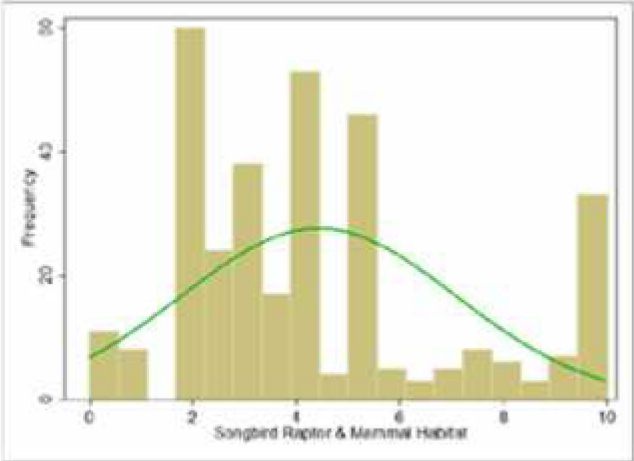
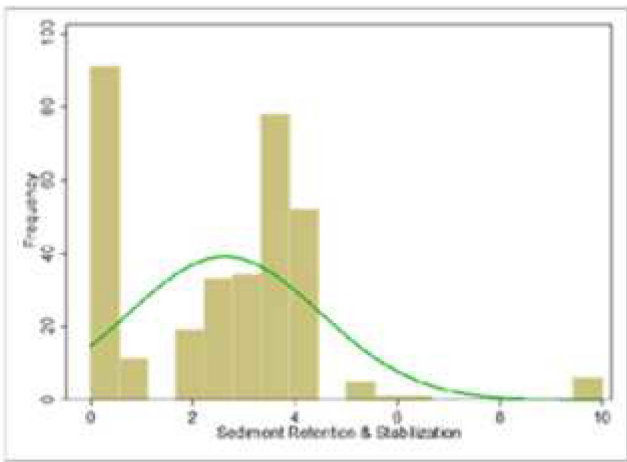
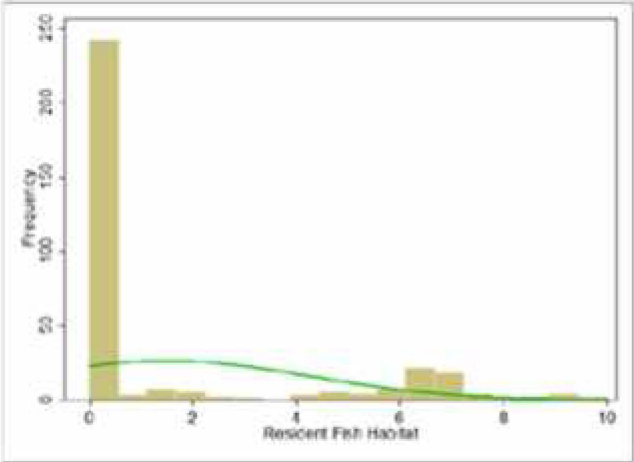
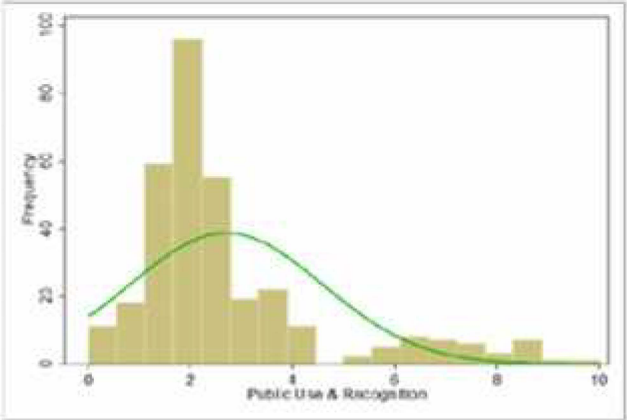
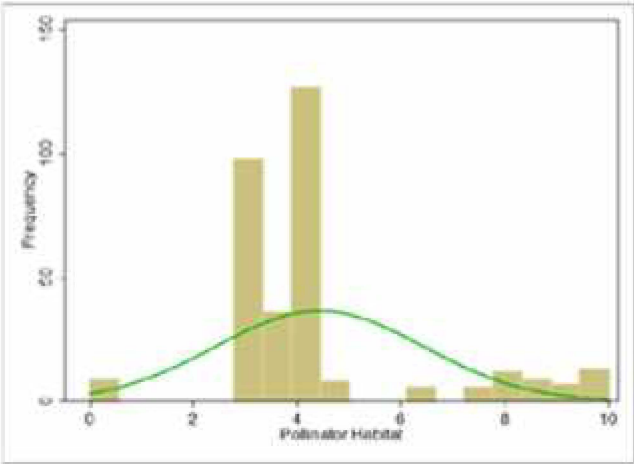


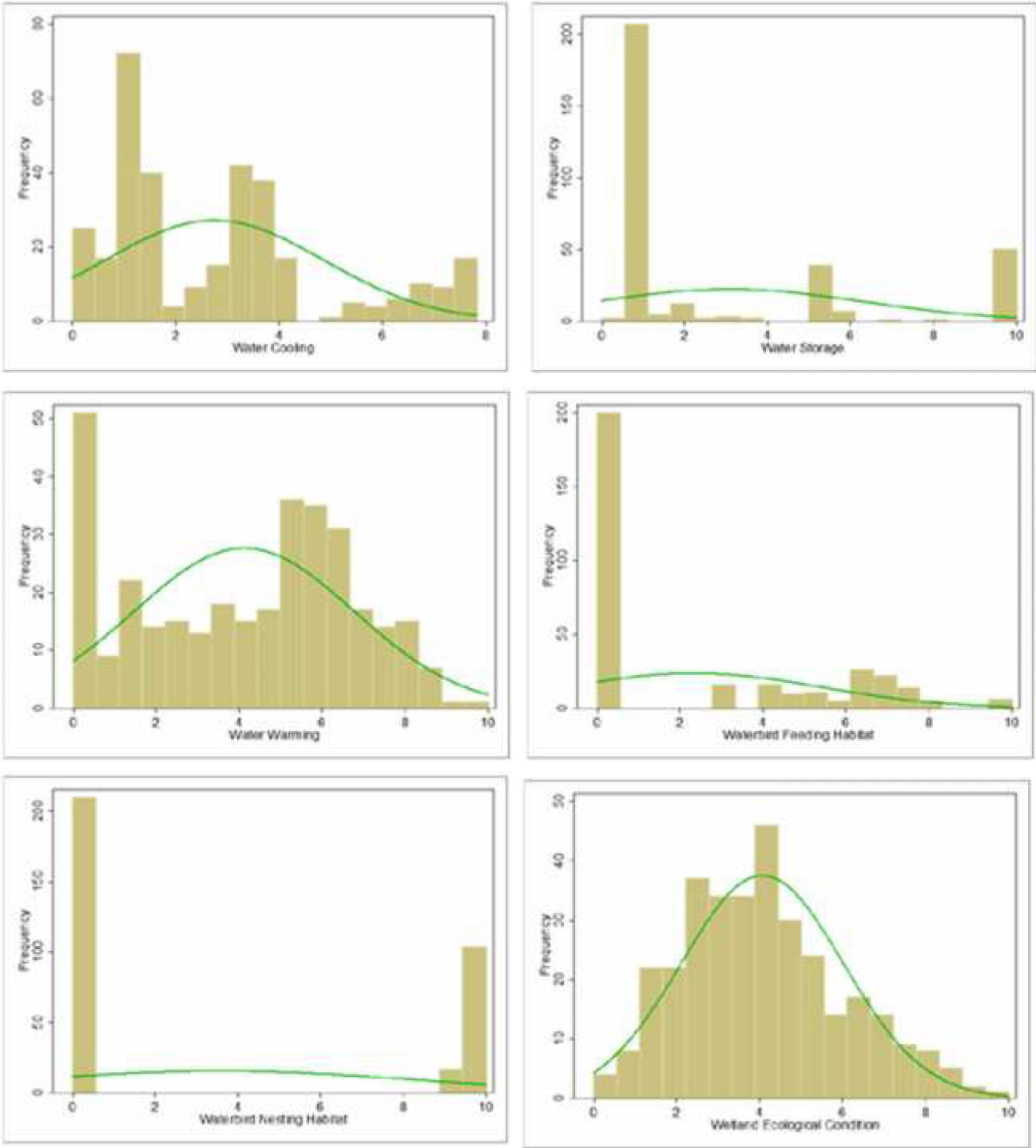


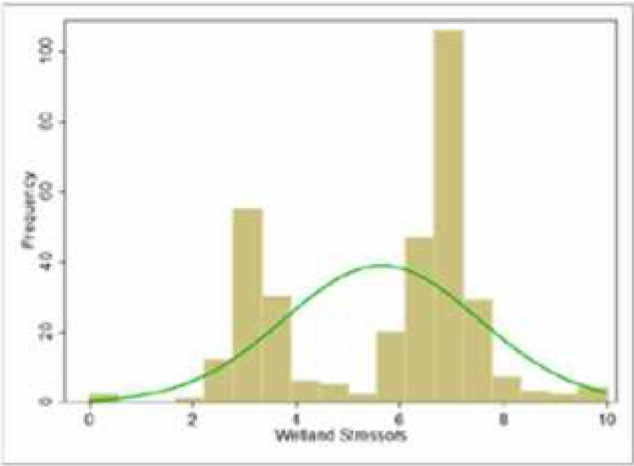
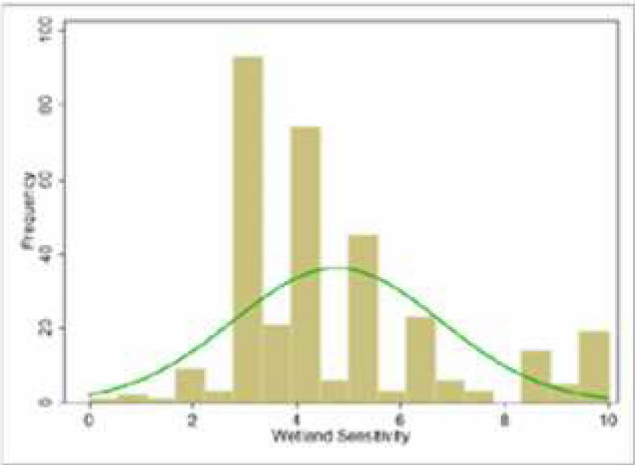
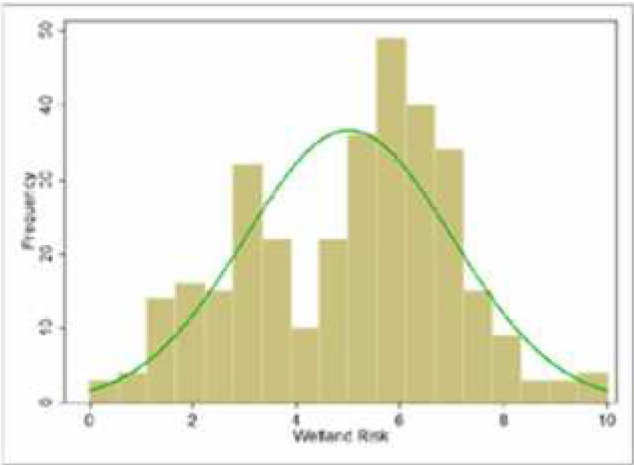


7.2 Score Distributions for VALUES1 for 332 Non-tidal Wetlands

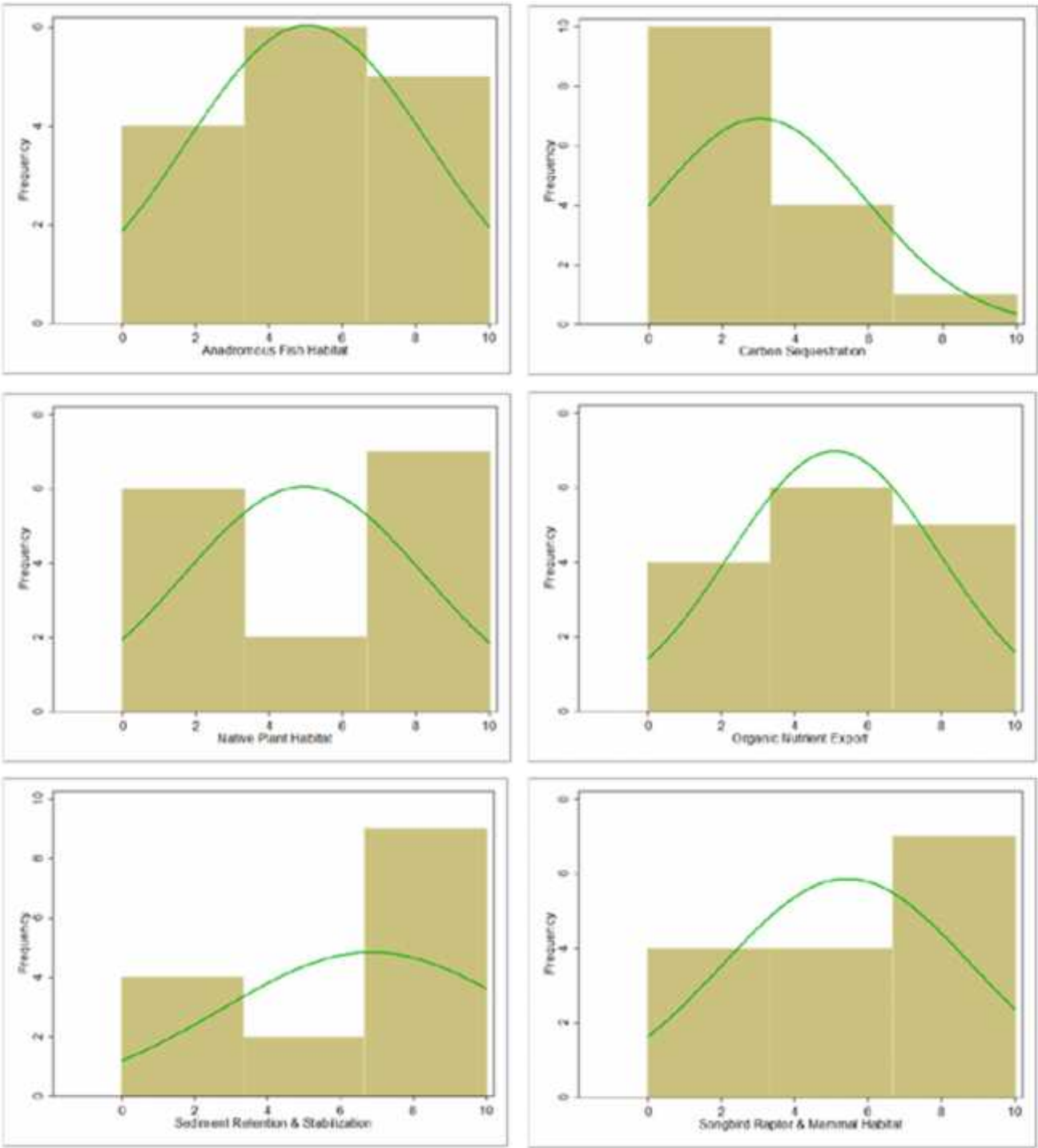


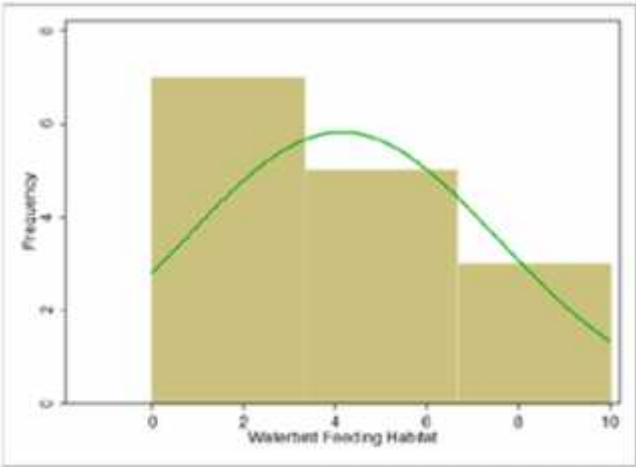




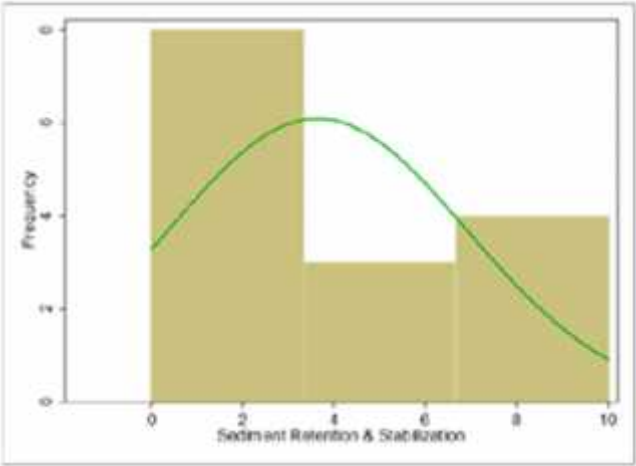
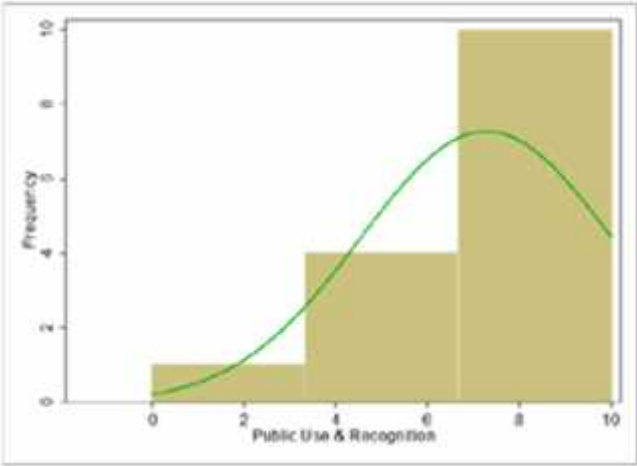
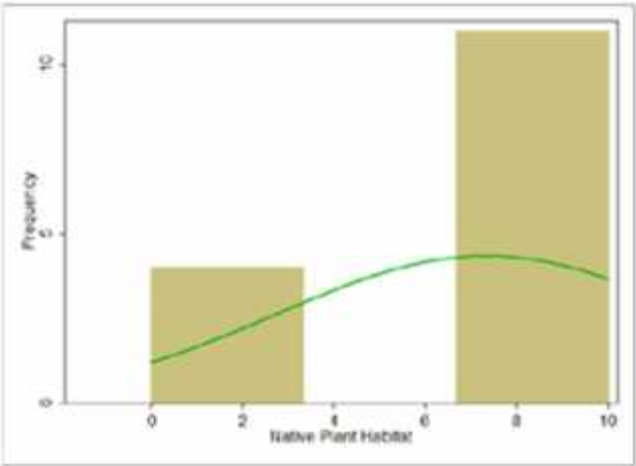
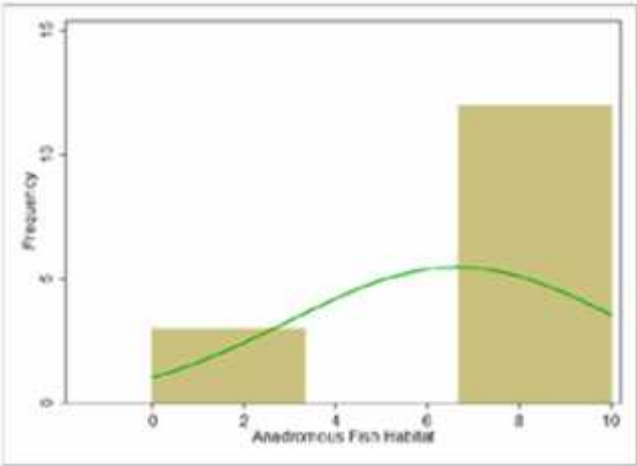


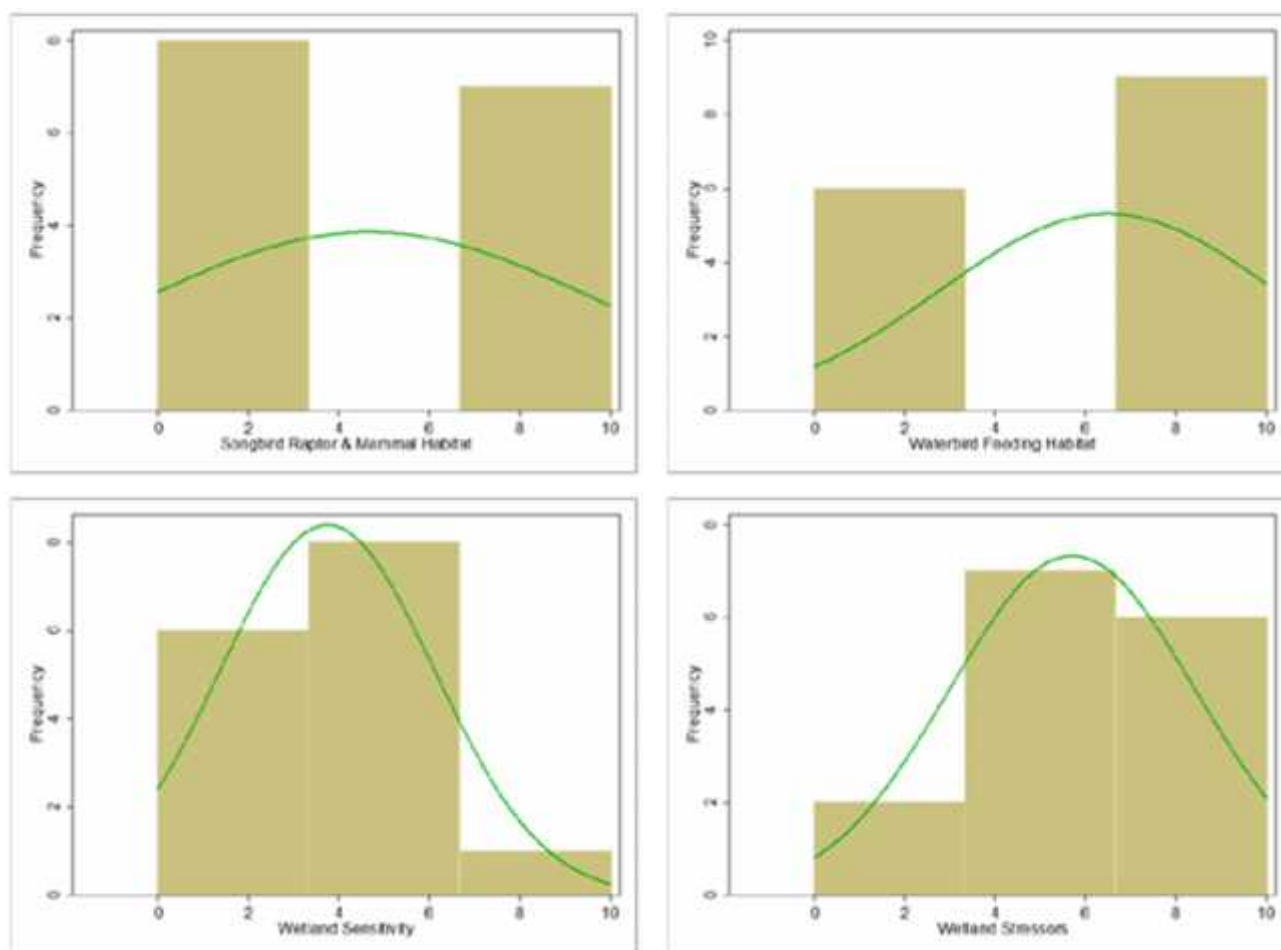
7.3 Tidal Sites Function Score Histograms





7.4 Tidal Sites Value Score Histograms





The charts showing the score distributions for each of the 22 functions and 18 values of the assessed non-tidal wetlands, using WESPAK-SE, illustrate visually the distribution of the various possible scores, 0-10, over the entire population of 332 non-tidal wetlands. The brown bars show how many of the 332 wetlands scored a particular function or value score and therefore the distribution or range across the possible spectrum of 0-10. The green line, typically a bell curve or similar shape, shows the average across the population of 332 wetlands for the function or value score. The maximum high point of the curve shows the median score for that particular function or value. When comparing scores, it is important to understand that the distribution of the 0-10 scores will vary between the individual 22 functions and 18 values. For example, a median score of 3 for the value phosphorus retention is contrasted with a median score of 5 for the value amphibian habitat. However the range for the value phosphorus detention is 0-6 whereas the range for the value amphibian habitat is 0-10. Therefore one could see that the number 3 represents a median or moderate score for the value phosphorus retention, and 5 represents the a median or moderate score for the value amphibian habitat. For this reason, number scores do not transfer from one function or value to another function or value with the same result. For example, a score of 3 for the value phosphorus retention is moderate, but a score of 3 for the value amphibian habitat would be low.

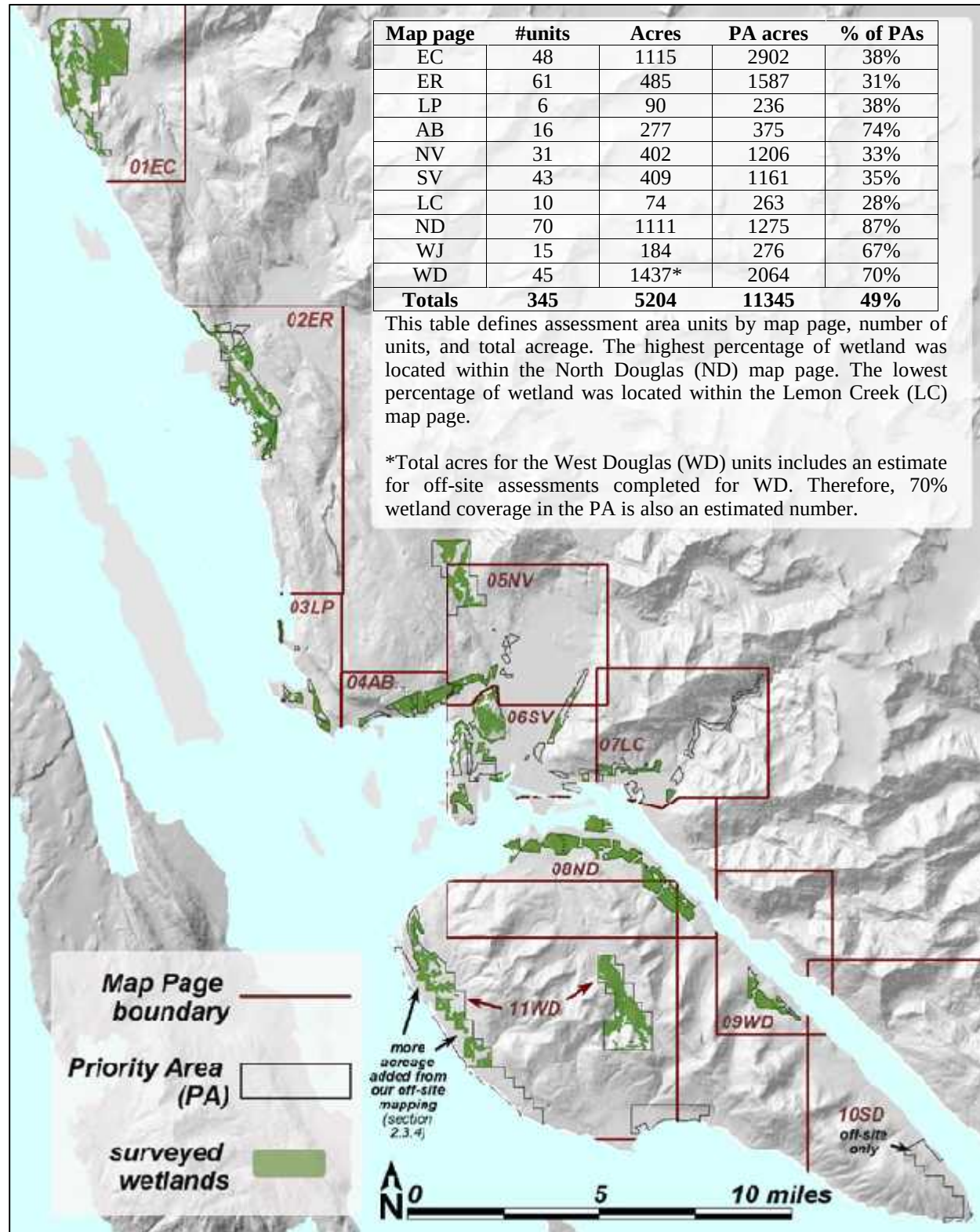
Table 9: Assessment Area Units and Wetland Acreage per Map Page

Table 10: Wetland Type Definitions

Wetland Type	WESPAK-SE Definition
Tidal Wetland (<i>td</i>)	<i>td</i> are inundated by tide at least once annually and dominated by emergent herbaceous or woody plants; surface water levels fluctuate approximately every 6 hours daily in response to tides; <i>td</i> does support beachgrass (<i>Leymus</i> or <i>Elymus mollis</i> , also called ryegrass) unless inundation occurs at the above frequency; <i>td</i> does not include areas that are entirely eelgrass or seaweeds.
Forested Peatland (<i>fw</i>)	<i>fw</i> is nearly entirely moss-covered and/or with peat or muck soils to a depth of at least 4 inches, sometimes greater if not rocky. More tall (>3 ft) woody cover than herbaceous; trees are often hemlock or cedar, often with skunk cabbage (at least in seasonal channels), and blueberries; little or no open water is present; includes shrub fringes of open peatland and fen. <i>fw</i> is not in active floodplain.
Open Peatland (<i>op</i>)	Nearly all of an <i>op</i> is moss-covered; peat depth usually greater than 16 inches except where bedrock is near surface. Tree cover is greater than 5 percent and cover of tall shrubs (more than 3 feet) is greater than 30 percent. Shore pine, Labrador tea, and crowberry often occur; often with small scattered stair-step pools (less than 25 square feet) with acidic, stained water. Some examples are flat bogs, floating bogs, and sloping muskeg.
Fen/Marsh (<i>fm</i>)	<i>fm</i> is often with extensive surface water, at least seasonally, and usually with more emergent herbaceous vegetation than tall woody plant cover (more than 3 feet in height); herbaceous vegetation often consists of sedges, deer cabbage, marsh marigold, horsetail, burreed, and pond lily; if the ground is moss-covered, the moss often is mostly obscured by sedges or other herbaceous plants. Soils often muck or peat and are seldom coarse unless the <i>fm</i> is created by excavation. <i>fm</i> is often beaver-created, or at base of steep slopes, or in depressions or adjoining larger water bodies.
Uplift Meadow (<i>um</i>)	<i>um</i> is within a few miles of tidewater or a glacier, but non-tidal, and mostly within 100 miles of Glacier Bay National Park. <i>um</i> contains little or no persistent surface water except in channels, which may be strongly down-cut. Sweetgale and/or herbaceous vegetation, such as silverweed, iris, and Lyngbye's sedge, compose the dominant vegetation species. Tree cover usually less than 30 percent and peat depth usually less than 16 inches. <i>um</i> is the result of uplift following isostatic rebound as a glacier receded within recent centuries.
Floodplain Wetland (<i>fl</i>)	At least once annually, surface water in a channel flows through or adjoins an <i>fl</i> and causes the width of surface water in the wetland (perpendicular to the channel) to more than double. The increased width is due mainly to channel inflow and not to hillslope seepage or runoff. Soils are silt or coarser; little or no organic soil, or peat, is present. Vegetation can be woody or herbaceous, often consisting of alder, willow, and devil's club.
Beaver-influenced Wetland (<i>bi</i>)	<i>bi</i> is active or recent beaver activity that has altered the water regime and vegetation. These wetlands are typically episodic, with periods of flood-induced tree mortality alternating with periods of de-watering and vegetation recovery.

7.5 ACRONYMS

AA	Assessment Area
AB	Auke Bay
ACDM	Anchorage Debit-Credit Method
ACMP	Alaska Coastal Management Program
Army Corps	Army Corps of Engineers
AWAM	Anchorage Wetlands Assessment Methodology
AWMP	Anchorage Wetland Management Plan
<i>bi</i>	Beaver-influenced Wetland
BMPs	Best Management Practices
CBJ	City and Borough of Juneau
CDD	Community Development Department
CWA	Federal Clean Water Act
EC	Echo Cove
EP	Enhancement Potential
EPA	Environmental Protection Agency
ER	Eagle River
ERSI	Environmental Systems Research Institute
<i>fm</i>	Fen/Marsh
<i>fl</i>	Floodplain Wetland
<i>fw</i>	Forested Peatland
GIS	Geographic Information System
GP	General Permits
GPS	Global Positioning System
JWMP	Juneau Wetland Management Plan
LC	Lemon Creek
LiDAR	Light Detection and Ranging
LP	Lena Point
MSB	Matanuska-Susitna Borough
MSBWMP	Matanuska-Susitna Borough Wetlands Management Plan
ND	North Douglas
NV	North Valley
<i>op</i>	Open Peatland
PA	Priority Area
SEAL Trust	Southeast Alaska Land Trust
SV	South Valley
<i>td</i>	Tidal Wetland
<i>um</i>	Uplift Meadow
WD	West Douglas
WESPAK-SE	Wetland Ecosystem Services Protocol for Alaska—Southeast
WJ	West Juneau
WRB	Wetlands Review Board

7.6 Summary of the 2008 Federal Rule and Status of Wetland Mitigation in Southeast Alaska

The 2008 Federal Rule

The purpose of the 2008 Federal Compensatory Mitigation for Losses of Aquatic Resources Rule (2008 Federal Rule) is to establish standards and criteria for the use of all types of compensatory mitigation, including on-site and off-site permittee responsible mitigation, mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts to waters of the U.S. authorized through the Corp permits under Section 404 of the CWA and Sections 9 or 10 of the Rivers and Harbors Act. The 2008 Federal Rule directs that standards and criteria shall:

- to the extent practicable, maximize available credits and opportunities for mitigation;
- provide for regional variations in wetland conditions, functions, and values, and;
- apply equivalent standards and criteria to each type of compensatory mitigation.

For all Army Corps permits, the applicant must take all appropriate and practicable steps to avoid and minimize adverse impacts to waters/wetlands of the U.S. prior to proposing and implementing mitigation. This is referred to as sequencing, where the permit process requires in sequence: 1) avoidance, 2) minimization, and 3) mitigation. Permits cannot be obtained by directly proposing mitigation for anticipated impacts. Instead, the Army Corps requires the applicant demonstrate avoidance and minimization measures have been fully considered and documented before moving to the mitigation phase of the permit process. Equal mitigation/impact ratio is required for most permits and the quality/quantity of that is weighed in the permitting process, but only after avoidance and minimization measures are considered.

The 2008 Federal Rule outlines a general preference for the methods of mitigation as 1) restoration, 2) establishment or enhancement, and in certain circumstances 3) preservation. Preservation, which does not create, restore, rehabilitate, enhance, or otherwise lift wetland function, can only be utilized when all the following criteria are met:

- the resources to be preserved provide important physical, chemical, or biological functions for the watershed and
- the resources to be preserved contribute significantly to the ecological sustainability of the watershed

Where preservation is used, the 2008 Federal Rule states that “to the extent appropriate and practicable the preservation shall be done in conjunction with aquatic resource restoration, establishment, and/or enhancement activities. When this requirement is waived by the Army Corps District Engineer, and deemed preservation only, compensation ratios shall be higher.”

Another requirement of the 2008 Federal Rule is a watershed approach must be used to establish compensatory mitigation requirements in Army Corps permits. In general, mitigation should be located in the same watershed as the impact site and where it is most likely to effectively replace lost functions and services taking into account such watershed scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources, trends in land use, ecological benefits, and compatibility with adjacent land uses. Where watershed boundaries do not exist, such as marine areas, an appropriate spatial scale should be used rather than watershed boundaries. The 2008 Federal Rule does not specify at what scale watersheds should be mapped, so without further guidance it is not possible to ensure that mitigation occurs "in the same watershed as the impact site." This CBJ study has mapped watersheds (subsheds) in the study area at a much finer scale than is commonly used to evaluate mitigation requirements. See section 4.3.2 for additional description of how this study has implemented a watershed approach.

Furthermore, the 2008 Federal Rule stated preference for the type and location of compensatory mitigation is listed as follows along with a brief characterization of each type:

- 1) Mitigation bank credits: a site or suite of sites where resources are restored, established, enhanced, and/or preserved. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor.
- 2) In-lieu fee program means a program involving the restoration, establishment, enhancement and/or preservation of resources through funds paid to a governmental or non-profit natural resource management entity. Similar to a mitigation bank, credits are sold to permittees whose obligation to provide mitigation is then transferred to the in-lieu fee sponsor.
- 3) Permittee-responsible mitigation under a watershed approach: resource restoration, establishment, enhancement and/or preservation undertaken by the permittee.
- 4) permittee-responsible mitigation through on-site and in-kind mitigation, performed by the applicant on the project site.
- 5) Permittee-responsible mitigation through off-site and/or out-of-kind mitigation, performed by the applicant on another site arranged by the applicant.

These above-stated compensatory wetland mitigation preferences, watershed approach and functional replacement requirements of the 2008 Federal Rule are aligned with the wetlands mapping and functional scoring of wetlands in Volume 1 and 2 of the 2016 JWMP. Furthermore, future development of CBJ wetlands management policies should continue this alignment with the Rule. Most importantly, since the Army Corps regulatory program must abide by the 2008 Federal Rule, future CBJ policies that align with the Rule for wetlands management will also be consistent with the Army Corps, thereby avoiding conflicting standards between two regulatory agencies. From an environmental perspective, this benefits wetlands protection and mitigation success. From a policy perspective, this consistency benefits applicants, stakeholders, resource agencies and the public.

Status of Wetland Mitigation in Southeast Alaska

Per the 2008 Federal Rule, wetland mitigation demonstrating restoration and enhancement is preferred over preservation mitigation. The availability of wetland restoration and enhancement opportunities on private land in Southeast Alaska is limited, and furthermore, such opportunities on public land are often encumbered with legal or administrative prohibitions or policies discouraging private investment. As such, preservation mitigation has been the primary source of mitigation in Southeast Alaska to date.

The resources necessary to restore or enhance wetlands in Southeast Alaska, due to such factors as limited or remote access, mobilization logistics, weather constraints, and terrain, magnify the significance, and therefore the value, of those restoration and enhancement opportunities that do exist. A bank or in-lieu fee program offering some restoration or enhancement opportunities, even if proportionally less than that provided by preservation, and considering the overall constraints to mitigation banking specific to Southeast Alaska, is given preference in the determination of credit generation ratios when a lift in functions can be achieved. There are proposed private mitigation banks in Southeast Alaska that could provide restoration and enhancement opportunities. When avoidance and minimization have been addressed and wetland impacts remain in a proposed project, the primary mitigation option for wetlands within the CBJ remains fee-in-lieu until a wetland mitigation bank with a service area reaching Juneau is approved.

The 2016 JWMP, the mapping of wetlands and their functional scoring according to WESPAK-SE, provides CBJ and private landowners, mitigation bankers and in-lieu fee providers, with important information to target areas for development, conservation through avoidance, and mitigation. The mapped extent of wetlands within the Priority Areas (PA's) will help focus development in areas where there are less wetlands, or in areas where wetland function scores are lower thereby reducing development pressure on higher functioning wetlands. Watershed impacts can also be quickly compared by reviewing the amount of wetland coverage within each watershed, and the scores for water-related and fish-related functions in WESPAK-SE, for example Water Storage & Delay, Stream Flow Support, Anadromous Fish Habitat and Resident Fish Habitat. High functioning wetlands and the watersheds in which they occur, where avoidance efforts will likely be focused, can be targeted by mitigation bank and in-lieu providers for preservation credit.

Conversely, impacted watersheds and wetlands can be similarly targeted for restoration credit. With the information in the 2016 JWMP, CBJ and private landowners can determine what the highest and best value may be for their property, either for development entitlements or as mitigation value through a mitigation bank or in-lieu fee transaction.

CBJ strives to protect higher-scoring wetlands while allowing impacts, with avoidance and mitigation, to some lower-scoring wetlands. The planning category to which a wetland will be assigned will be decided through review of its function scores and ratings, as implemented through a public process. The public process will identify those wetland functions which most require avoidance and minimization, likely through a wetland categorization process described in the next section. In addition, where impacts to a wetland are unavoidable, the WESPAK-SE information from this report will tell the landowner and the CBJ which functions need to be replaced in mitigation to achieve the Army Corps' longstanding national goal of "no net loss."

7.7 Alaska Regional Examples of Wetland Management Plans, and Description of Prior CBJ Army Corps General Permit 2012 Matanuska-Susitna (Mat-su) Borough's (MSB) Wetlands Management Plan (MSBWMP, HDR, 2012).

The purpose of the MSBWMP document is stated as :

This plan serves primarily as an educational tool and promotes coordination among all entities involved in wetland management. This plan does not propose or include any new regulations or permitting requirements. It encourages voluntary practices to conserve and protect wetland resources within the Mat-Su.

In addition to wetland and watershed mapping, the MSB Assembly passed several ordinances related to wetlands conservation and protection. Topics of these ordinances include flood control, shoreline setbacks, Best Management Practices (BMPs) for development, mitigation banking, and watershed classifications.

The overarching goals of wetlands planning in the MSBWMP involves taking a long-term management approach using three main goals; identify, assess, and protect. The MSB encompasses a much larger area than the CBJ. The goal is to identify wetlands at a planning scale of information that involves determining size, boundary and type of wetlands. Assessing wetlands for MSB involves developing unique functional assessment methodology. Lastly, implementing conservation and protection efforts includes the input of an advisory committee for avoiding, minimizing or compensating impacts on-site, participating in an in-lieu fee program, and creating wetland banks.

2014 Anchorage Wetland Management Plan (AWMP).

A regional example is the 2014 Anchorage Wetland Management Plan (AWMP). Anchorage currently has General Permits issued to the municipality for lower valued wetlands, just as Juneau used to have. Using General Permits in wetland regulation requires agreed-upon wetland categories for the Army Corps and CBJ to then designate which agency will be in charge of issuing wetland permits for each category of wetland. Since WESPAK-SE is a wetland assessment tool designed only for the Southeast Alaska region, Anchorage has created its own wetland assessment methodology, Anchorage Wetlands Assessment Methodology (AWAM) as well as a credit-debit method for mitigation, Anchorage Debit-Credit Method (ACDM). AWAM devised three categories of wetland, A, B, and C. The Army Corps issued General Permits for Anchorage to administer wetland fill permits for category C wetlands.

Additionally, the AWMP uses a watershed approach and accounts for regional characteristics in compliance with the 2008 Federal Rule. It also established procedures to determine debits and credits for impacts/mitigation regardless of whether it's a mitigation bank, in-lieu fee program or permittee-responsible mitigation. The AWMP aligns with a General Permit as it also identifies the higher functioning and lower functioning wetlands, allowing impacts to lower quality wetlands and offering more protection for the higher quality wetlands. While it discusses the 2008 Federal Rule, the AWMP does not emphasize the specifics of the Rule, especially the order of mitigation preference of banks first, in-lieu fee programs second and permittee-responsible approaches third.

It is important to note that the AWMP only acknowledges mitigation banking and in-lieu fee programs as tools for wetland preservation, when in fact the 2008 Federal Rule, as noted above, prioritizes mitigation banks and lists preservation as a last priority for mitigation type. For parts of Alaska, wetland restoration and enhancement opportunities have been difficult to find and successfully implement; preservation has instead been the focus. The preservation-only approach, does not meet the no-net-loss standard of the CWA (the foundation of the 2008 Federal Rule) because preservation does not restore or enhance wetland functions. Thus, when wetland impacts occur, no corresponding increase in function is provided to off-set the impact, only preservation of land already undeveloped. While the AWMP generally is consistent with the 2008 Federal Rule approach, the lack of restoration and enhancement opportunities has made the mitigation approach focus mostly on preservation only, which in the 2008 Federal Rule is the last approach in the order of preference .

Excerpt from expired Army Corps General Permit for the City and Borough of Juneau:

“On June 30, 1995, the Corps of Engineers issued General Permit 92-1 for wetlands that are classified as Category C, D, and EP in the Revised Juneau Wetlands Management Plan. On July 24, 2000, the Corps of Engineers issues four General Permits (2000-01, -02, -03 and -04) that replaced 92-1. On May 24, 2006, three of the General Permits (GP) were renewed: GP 2000-01, -02, -03. GP 2000-04 was not renewed due to lack of use. The General Permits authorize the discharge of fill material into wetlands, for the purpose of creating foundation pads for structures, utilities, associated roads, driveways, parking areas, and other domestic, governmental, and commercial development, as well as enhancement of certain environmental situations. These GPs authorize mechanized land clearing and other activities that could result in a re-deposition of fill material.

The Corps of Engineers has authorized the CBJ Wetlands Review Board to administer the General Permit through the permitting process outlined in this plan. The Board has the authority to issue wetland permits locally for the discharge of dredged or fill material in these lower value and enhancement wetlands (Category C, D and EP) for the purposes listed in the General Permit. The Board will issue permits in compliance with the enforceable policies of this plan and the specific and general conditions included in the General Permit.

For the Category C, D and EP wetlands, the CBJ has become a ‘one-stop’ wetlands permitting agency, greatly reducing permit processing time. No individual permit from the Corps of Engineers, consistency determination from the Alaska Department of Natural Resources, Office of Project Management and Permitting, nor individual water quality certification (“401 certification”) from the Alaska Department of Environmental Conservation, is required for development in these wetlands. However, other local, State and federal permits may be needed for the project and it is the responsibility of the applicant to obtain all required permits.

For development proposals in Category A and B wetlands, and for any wetlands that are not within the Juneau Wetlands Management Plan study area or are not classified under the plan, a permit must still be obtained from the Corps of Engineers. The enforceable policies of the wetlands plan will be applied when those permit applications are reviewed by the Corps of Engineers.”

City and Borough of Juneau Wetlands Management Plan Volume Two

SCORES & MAPS BY ASSESSMENT AREA

April 2016

For:
***Community Development
Department, City & Borough of Juneau,
Alaska***

Bosworth Botanical Consulting

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Cover: View northwest over Peterson Creek parkland to Amalga Harbor, September, 2015. Eagle River delta in left distance.

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1.0 INTRODUCTION

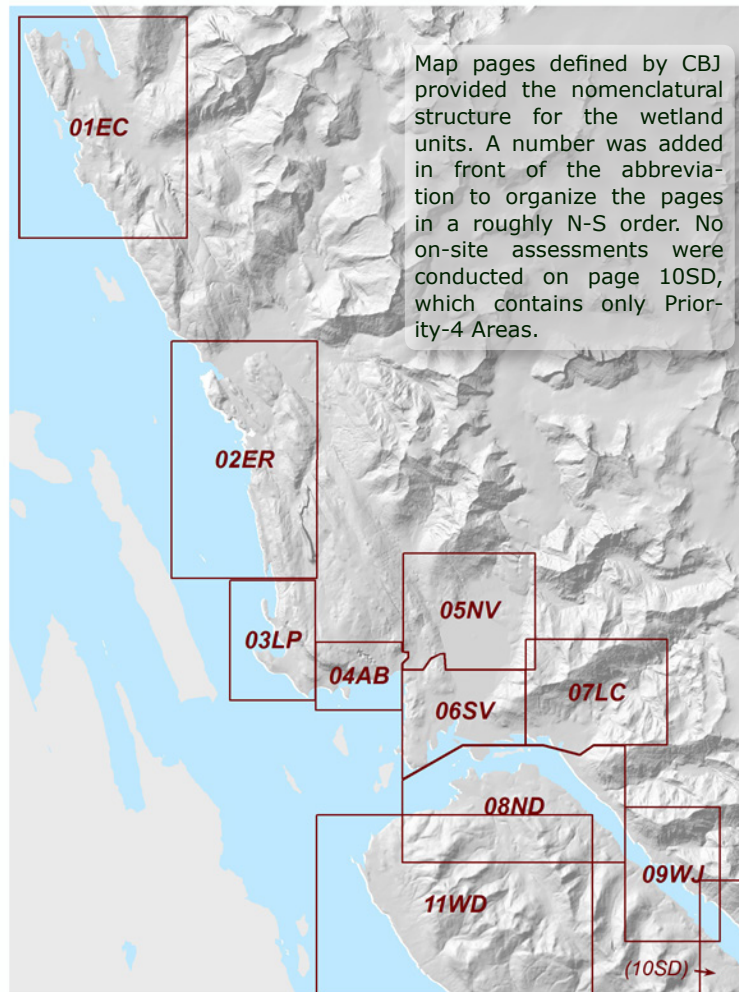
Volume One of the Juneau Wetlands Management Plan (JWMP) provides an overview of the project, including background, methods, summary tables, and an implementation plan. In Volume Two, detailed scores and maps for each Assessment Area (AA) unit are given along with a city parcel code number (PCN).

Non-tidal AAs represent the large majority of wetlands surveyed and are arranged in Section 2.0 according to map page number and letter sequencing. From north to south map pages are listed as follows:

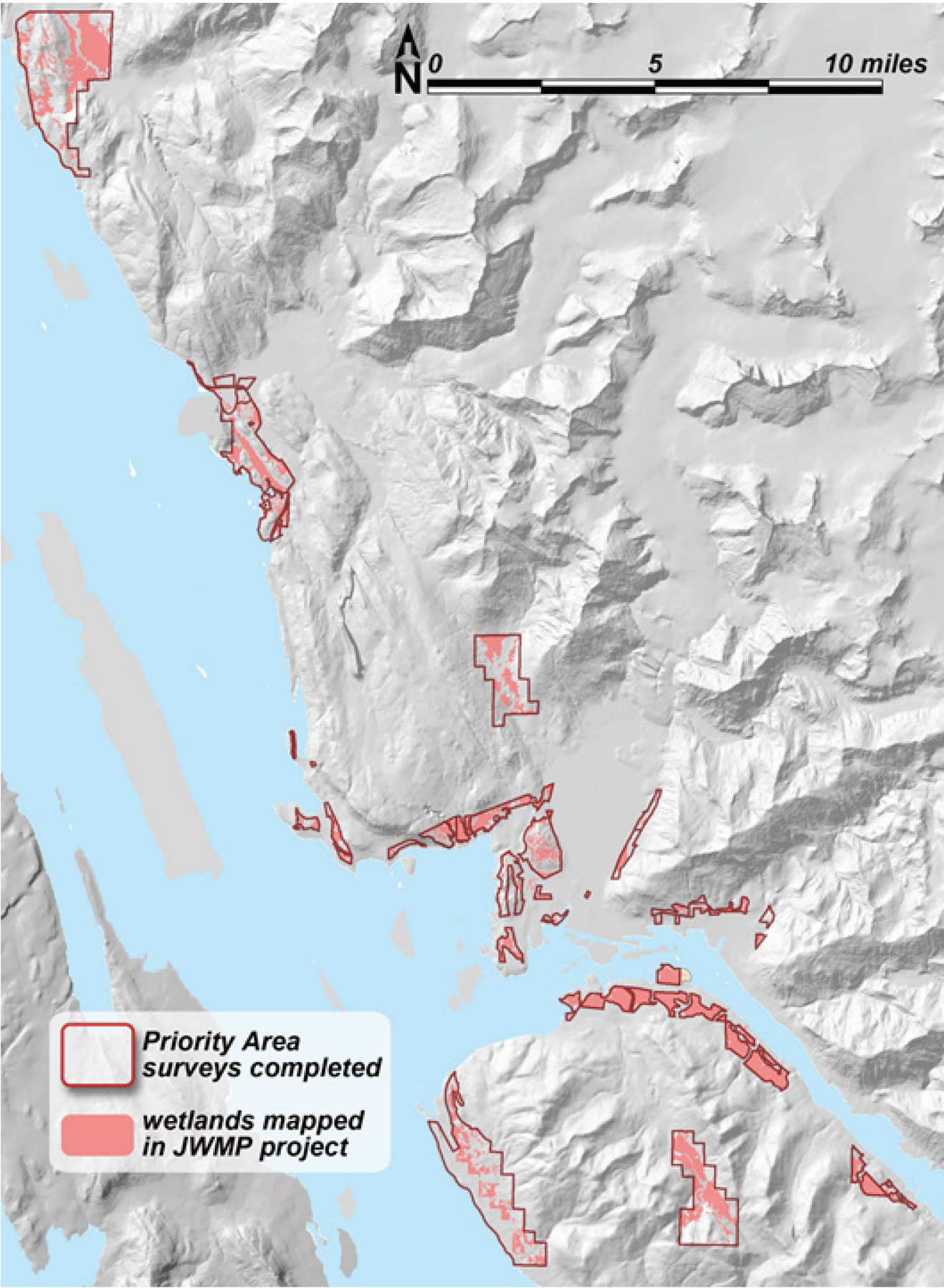
- Echo Cove (01EC)
- Eagle River (02ER)
- Lena Point (03LP)
- Auke Bay (04AB)
- North Valley (05NV)
- South Valley (06SV)
- Lemon Creek (07LC)
- North Douglas (08ND)
- West Juneau (09WJ)
- West Douglas (11WD)

Areas within South Douglas Island (10SD) were assigned lower priority for field efforts so were not included in the surveys. Off-site evaluations were conducted here, as described in Section 4.0

Tidal AAs surveyed are described in Section 3.0



Map 1: Overview of Map Pages



Map 2: Overview of PAs completed, PAs surveyed and wetlands mapped



Map 3: Off-Site Mapping Overview

1.1 MAP AND DATA INTERPRETATION

The maps, aerial photos and wetland functional assessment tables contained in Volume Two can be utilized for the following purposes. Further discussion of these uses can be found in Volume One.

- Background information for wetland determinations and delineations;
- Short term and long range strategic site planning;
- “Least impact” analysis of potential development impacts between two or more wetlands;
- Watershed planning for mitigation sequencing of wetlands and aquatic resources;
- Wetland education;
- Database for future studies and wetland management implementation.

When utilizing Volume Two, the following guidelines will be helpful in navigating information compiled in the wetlands mapping and assessment tables. The goal is to assist the reader in finding and interpreting the maps, aerial photos and other wetland data within Priority Areas (PA) in the JWMP.

1.1.1 Navigating Volume Two

Section 2.0, Scores by AA: Non-Tidal Wetlands contains the majority of AAs for non-tidal wetlands in 10 large map units arranged generally north to south and labeled (01EC) to (11WD) (for an overall map and list of these large map units, refer to the Introduction on Page 3). If the reader is interested in a certain site or parcel, first locate the site of interest using Map 1: Overview of Map Pages on Page 3. For example, if the site is near Waydelich Creek - Glacier Highway near Auke Bay, Map 1 would direct the reader to AB04 (for Auke Bay), which the table of contents shows starting on Page 133. On Page 133 is a higher resolution map of the 04AB units along with a general description starting with “CBJ’s Auke Bay (AB) map page...” From Page 133 to 150, more detailed and higher resolution maps and aerial photos allow the reader to focus on the site or area of interest. For the example site, Waydelich Creek near Glacier Highway, a higher resolution map and aerial photo would be found on Page 136.

Landmarks are useful in assisting the reader to locate specific areas or a particular site of interest on maps. The most common useful landmarks include named streams, rivers, lakes, roads and trails. Knowing where a site is located on an aerial photograph is helpful, as each higher resolution wetland map is matched with an aerial photograph of the same scale.

1.1.2 Interpreting Volume Two

Important information helpful in interpreting Volume Two includes:

- The PA numbering system relates to the AAs location within PAs, designated and ranked (1-4) by CBJ for the importance of conducting the wetland mapping and assessment, not for any purpose of ranking the wetland’s quality or function and values. PA identification numbers denote the location of surveys within the 72 tracts mapped by CBJ. To identify individual PA units, the two digits were added after the rank. For example, PA ID # 1.17 is the 17th unit of a CBJ selected study area of the highest priority for mapping and assessment.
- The white lines on the aerial photos depicting AA boundaries may be difficult to discern at certain scales. These lines are purposefully narrow to avoid covering up features on the aerial photographs. The lines are easier to discern with higher resolution printing (300 dpi) of the dots per inch (dpi) on portable document formats (PDF) or by zooming or focusing in and out on the computer screen. These maps and photos will be uploaded to a Geographic Information System (GIS) for higher resolution printing in 2016 and will be available on-line. The breadth of the study area and the need to compile all the maps within a reasonably sized document (451 pages) necessitated the printing of the maps at the scale shown.
- In addition to the six types of wetlands listed on Question F1 of Wetland Ecosystem Services Protocol for Southeast Alaska (WESPAK-SE), the last type, beaver influenced wetland, is not on that list, but was an added and permissible AA mapping unit within the GIS project.
- Parcel Code Numbers (PCN), are City-derived code numbers designating individual legal parcels within CBJ. These are the same numbers utilized by CBJ land managers, legal surveyors, tax and estate assessors, etc. Section 5.0 contains a chart of Parcel Code Numbers Starting on Page 447.
- The 13 tidal wetland AAs mapped and assessed, beginning on Page 387, are presented individually as they are more widely dispersed within CBJ and many of their functions and values are distinct from non-tidal wetland AAs. However, their numbering system follows the non-tidal areas depicted in the 10 large map pages (01EC-11WD) on Page 3.

- Section 4.0 presents AAs mapped off-site. Off-site mapping methods are discussed in Volume One. In Volume Two, these AAs are denoted with “OFF” in the number sequence for each AA and “OF” on the maps. Both “OFF” and “OF” refer to off-site.
- When comparing scores in the functions and values tables for each AA, it is important to understand that the distribution of the 0-10 scores will vary between the individual 22 functions and 18 values. For example, a median score of 3 for the value phosphorus retention is contrasted with a median score of 5 for the value amphibian habitat. However, the range for the value phosphorus detention is 0-6 whereas the range for the value amphibian habitat is 0-10. Therefore one could see the number 3 represents a median or moderate score for the value phosphorus retention and 5 represents a median or moderate score for the value amphibian habitat. For this reason, number scores do not transfer from one function or value to another function or value with the same result. For example, a score of 3 for the value phosphorus retention is moderate, but a score of 3 for the value amphibian habitat would be low.
- For a more in-depth discussion on the scoring of wetland functions and values see Volume One.

1.1.3 Assessment Area Interpretation

For each AA (a mapped and assessed wetland area) a pair of maps is provided. The left-side maps are hillshade-based, a term for describing how topography is “shaded” on Light Detection and Ranging (LiDAR)-derived mapping, allowing one to discern slopes, valleys, hills, etc. on the maps. These also contain 10-foot elevation contours and layers showing modeled streams. When scale permits enough clarity, PAs and subshed boundaries are shown.

More in-depth discussion of PAs and subsheds are provided in Volume One. On the left-side hillshade maps, AAs are color-coded by wetland type (Table 1: Wetland Type by Color). The first six types correspond to choices on question F1 of the WESPAK-SE field form. The right-side map is a matching aerial, at the same scale, of the area depicted on the left-side map. White lines on the aerial photos depict AA boundaries.

The wetland function and value scores for each AA are depicted in tables, correlating to AA numbers on the maps, numbered chronologically throughout each section. However, the tables are often not found within pages immediate to the maps. This is because the maps contain several AAs numbered in the order they were mapped and assessed by the in-field wetland survey team. In general, the lowest numbered AA on any map will have a table of that same numbered AA in proximity to the map; however, other higher numbered AAs will be found in numbered sequence on the following pages of that section. For example, AB01 and AB15, both in different AAs in the Auke Bay map section, occur on the paired unit maps on Page 135. The table for AB01 is on the preceding page to those maps while the table for AB15 is on Page 149. This was organized for the reader to find the tables with less effort by keeping the tables in numbered sequence.

Table 1: Wetland Type by Color

	<i>fw forested peatland</i>
	<i>op open peatland</i>
	<i>fm fen/marsh</i>
	<i>fl floodplain wetland</i>
	<i>um uplift meadow</i>
	<i>td tidal marsh</i>
	<i>bi beaver influenced</i>

2.0 SCORES BY AA: NON-TIDAL WETLANDS

The 332 non-tidal wetland AAs characterized in this section are presented roughly from north to south within the CBJ study area. The basis for separating the AA from other AAs is denoted by wetland type (i.e., a forested wetland unit bordering an open peatland unit), or the WESPAK-SE classification, defined in Table 2: Definitions of Wetland Types.

Normalized scores for functions and values of the AA are shown in the score tables. A score of 10 indicates the AA may have a greater capacity to perform the function than the other 331 non-tidal AAs. A score of 0 indicates it may have a lower capacity to perform the function than any of the other 331 non-tidal AAs (tied scores are allowed).

For two functions—Anadromous Fish Habitat and Resident Fish Habitat—a score of 0 means the wetland does not provide that function due to a lack of fish access and known presence. However, for other functions, a score of 0 does not mean the function is literally absent from the AA, only that the AA scored lower than any other AA surveyed. For any function or value, a change in one score may change normalized scores for all functions and values in an AA.

In each AAs score table, the functions or other attributes are listed from highest-to-lowest function score. A high number in the Value Score column indicates the function is likely to be valued more highly, either currently or in the future.

Consistent with WESPAK-SE, no value scores are assigned to Carbon Sequestration or Organic Nutrient Export. Although those functions are important, their benefits are better expressed at a global rather than local scale.

The tables show the scores for each of the 22 functions and 18 values of the assessed non-tidal wetlands, using WESPAK-SE. When comparing scores, it is important to understand that the distribution of the 0-10 scores will vary between the individual 22 functions and 18 values. For example, a median score of 3 for the value phosphorus retention is contrasted with a median score of 5 for the value amphibian habitat. However the range for the value phosphorus detention is 0-6 whereas

the range for the value amphibian habitat is 0-10. Therefore one could see that the number 3 represents a median or moderate score for the value phosphorus retention and 5 represents a median or moderate score for the value amphibian habitat. For this reason, number scores do not transfer from one function or value to another function or value with the same result. For example, a score of 3 for the value phosphorus retention is moderate, but a score of 3 for the value amphibian habitat would be low.

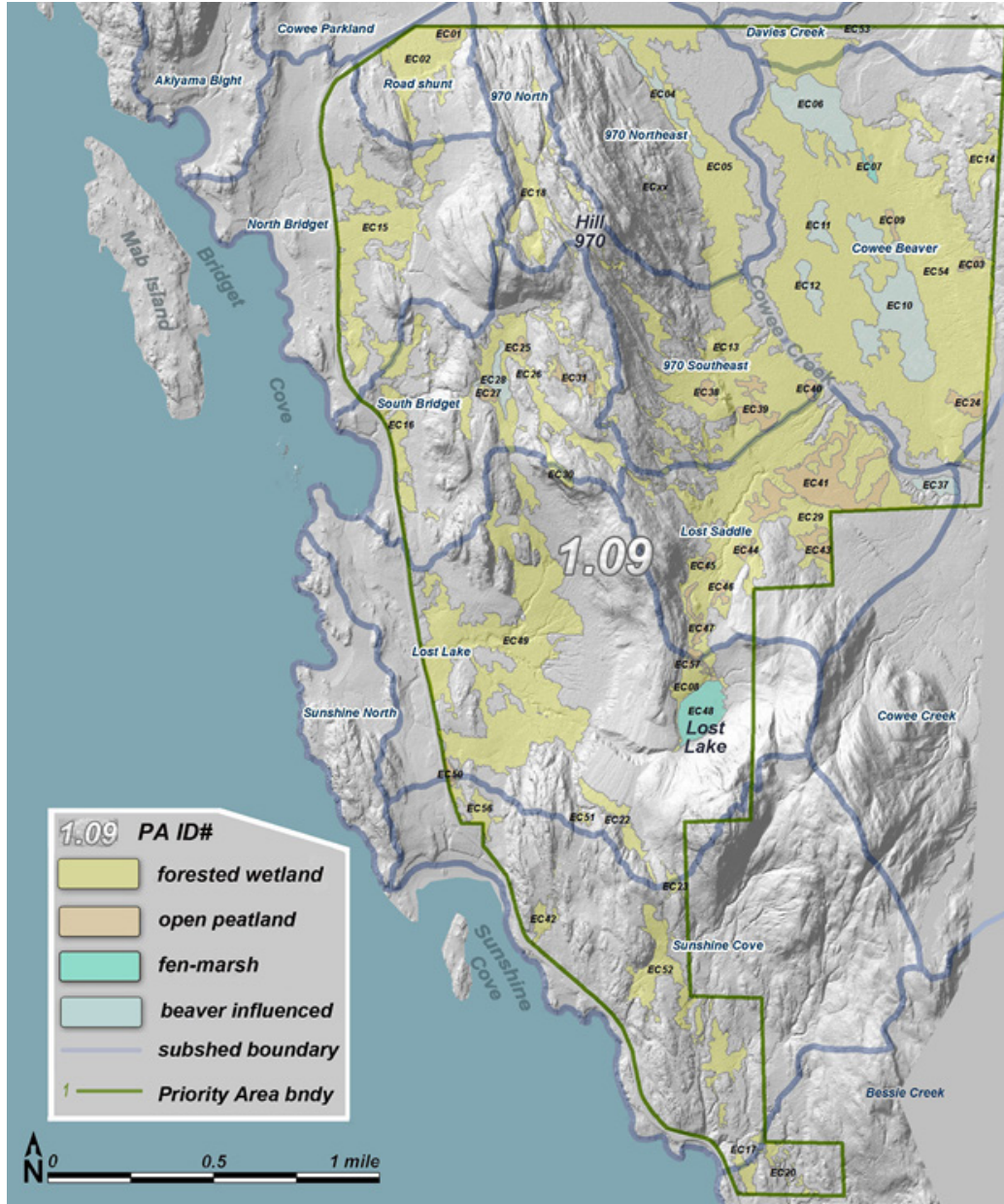
In the following list for **boundary criteria**, rationales for separating the AA unit are given. Here they are listed in order from most to least frequently applied:

- **wetland-upland boundary (w-u)** The AA borders non-wetland habitat. These borders were all mapped in the field with Global Positioning System (GPS) units capable of sub-meter resolution.
- **wetland type (type)** The AA borders another of a different wetland type. For example, a forested wetland unit bordering an open peatland unit. These borders were mapped from imagery, on computers using GIS software (ESRI ArcMap) with aerial photography and LiDAR based vegetation height and terrain elevation data layers. Contact of forested wetland with upland forest cannot be reliably mapped from air photography or any LiDAR-based resources. These borders were GPSed by a field team. In contrast, the contact of forested wetland with any of the more open types (op, fm, um, td, bi) can be accurately mapped from the high-resolution 2013 air photography. This was far more efficient than field mapping, and equally reliable.
- **priority area (pa)** The AA continues to the edge of a PA boundary (often beyond), which defines the AA boundary.
- **subshed (subsh)** The AA splits from another of like wetland type along a subshed boundary.

Table 2: Definitions of Wetland Types

Wetland Type	Definition
Forested Peatland fw	Nearly all the AA is moss-covered and/or with peat or muck soils to a depth of at least four inches, sometimes greater if not rocky. More tall (>3 ft) woody cover than herbaceous. Trees often hemlock or cedar. Often with skunk cabbage (at least in seasonal channels) and blueberries. Little or no open water. Includes shrub fringes of open peatlands and fens. Not in active floodplain.
Open Peatland op	Nearly all the AA is moss-covered. Peat depth usually >16 inches except where bedrock near surface. Tree cover is <5% and cover of tall (>3 ft) shrubs is <30%. Shore pine, Labrador tea, crowberry often occur. Often with small (<25 sq ft) scattered stair-step pools with acidic, stained water. Some examples are flat bogs, floating bogs, and sloping muskeg.
Fen/Marsh fm	Often with extensive surface water, at least seasonally. Usually with more emergent than tall (>3 ft) woody plant cover. Often sedges, deer cabbage, marsh marigold, horsetail, burreed, pond lily. If ground is moss-covered, the moss often is mostly obscured by sedges or other herbaceous plants. Soils often muck or peat, seldom coarse unless created by excavation. Often beaver-created, or at base of steep slopes, or in depressions or adjoining larger water bodies.
Floodplain Wetland fl	At least once annually, surface water in a channel that flows through or adjoins the AA causes the width of surface water in the AA (perpendicular to the channel) to more than double. The increased width is due mainly to that channel inflow, not to hillslope seepage or runoff. Soils are silt or coarser (little or no organic soil or peat). Vegetation can be woody or herbaceous: often alder, willow, devil's club.
Uplift Meadow um	Within a few miles of tidewater or a glacier, but nontidal, and mostly within 100 miles of Glacier Bay National Park. Little or no persistent surface water except in channels, which may be strongly downcut. Mostly sweetgale and/or herbaceous vegetation, e.g., silverweed, iris, Lymbye's sedge. Tree cover usually <30%. Peat depth usually <16 inches. Resulted from uplift following isostatic rebound as a glacier receded within recent centuries.
Beaver Influenced bi	Active or recent beaver activity has altered the water regime and vegetation. These wetlands are typically episodic, with periods of flood-induced tree mortality alternating with periods of de-watering and vegetation recovery.
Tidal Wetland td	Inundated by tide at least once annually and dominated by emergent herbaceous or woody plants. The level of surface water fluctuates every ~6 hours on a daily basis in response to tides. Does not include areas of beachgrass (<i>Leymus</i> or <i>Elymus mollis</i> , also called ryegrass) unless they are inundated at that frequency. Does not include areas that are entirely eelgrass or seaweeds.

Map 4: Overview of Echo Cove Map Page



01EC units

The Echo Cove (EC) map page holds the combined Cowee-Davies watersheds, draining more than 30,000 acres toward Berners Bay. This northwestern most CBJ map page contains only PA (1.09), a 2,902-acre unit on CBJ-owned land. Other landowners include Goldbelt Inc., Gospel Missionary Union Inc., and the United States Forest Service (USFS).

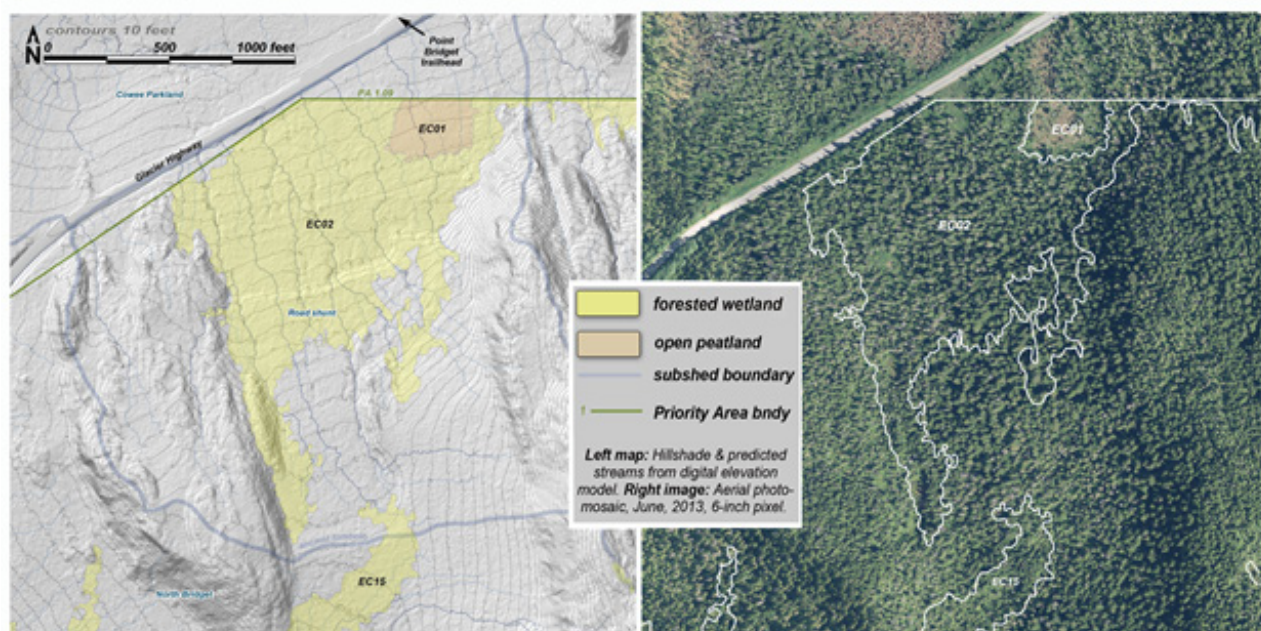
12 subsheds are shown here with blue lines. A NW-SE-running ridge, named Hill 970, splits the PA in half. Westerly subsheds feed into Cowee-Davies and easterly subsheds of Hill 970 drain directly to beaches at Bridget, Sunshine, and Bessie Coves.

48 AAs were completed on this map page totaling 1,115 wetland acres, or 38 percent of the PA. The majority of these wetlands are forested. However, beaver influenced wetlands, up to 40 acres, were located in the Cowee alluvial plain, and a mosaic of sphagnum bogs occupy benches in the Lost Saddle and Hill 970 Southeast subsheds.

EC01 • **type:** open peatland • **acres:** 1.9 • **boundary criteria:** type, pa • **pcn:** 3B4501000010 • no known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Songbird, Raptor, & Mammal Habitat	7.75	Higher	5.36	Moderate
Stream Flow Support	6.55	Higher	1.78	Moderate
Amphibian Habitat	5.34	Higher	5.90	Moderate
Carbon Sequestration	6.71	Higher	N.A.	N.A.
Water Warming	3.82	Moderate	7.80	Higher
Pollinator Habitat	6.01	Moderate	4.21	Moderate
Waterbird Nesting Habitat	4.08	Moderate	9.40	Moderate
Waterbird Feeding Habitat	4.07	Moderate	3.21	Moderate
Water Cooling	3.86	Moderate	3.68	Moderate
Native Plant Habitat	3.50	Moderate	2.52	Moderate
Water Storage	4.56	Moderate	1.11	Lower
Organic Nutrient Export	7.35	Moderate	N.A.	N.A.
Invertebrate Habitat	2.77	Lower	1.97	Lower
Phosphorus Retention	2.52	Lower	2.52	Lower
Sediment Retention & Stabilization	2.19	Lower	0.52	Lower
Nitrate Removal	0.73	Lower	1.52	Lower
Anadromous Fish Habitat	0.00	Lower	0.00	Lower
Resident Fish Habitat	0.00	Lower	0.00	Lower
Wetland Ecological Condition	N.A.	N.A.	8.15	Higher
Wetland Risk	N.A.	N.A.	7.05	Higher
Wetland Stressors	N.A.	N.A.	5.86	Moderate
Wetland Sensitivity	N.A.	N.A.	3.23	Lower
Public Use & Recognition	N.A.	N.A.	1.53	Lower

Unit maps for EC01 & 02

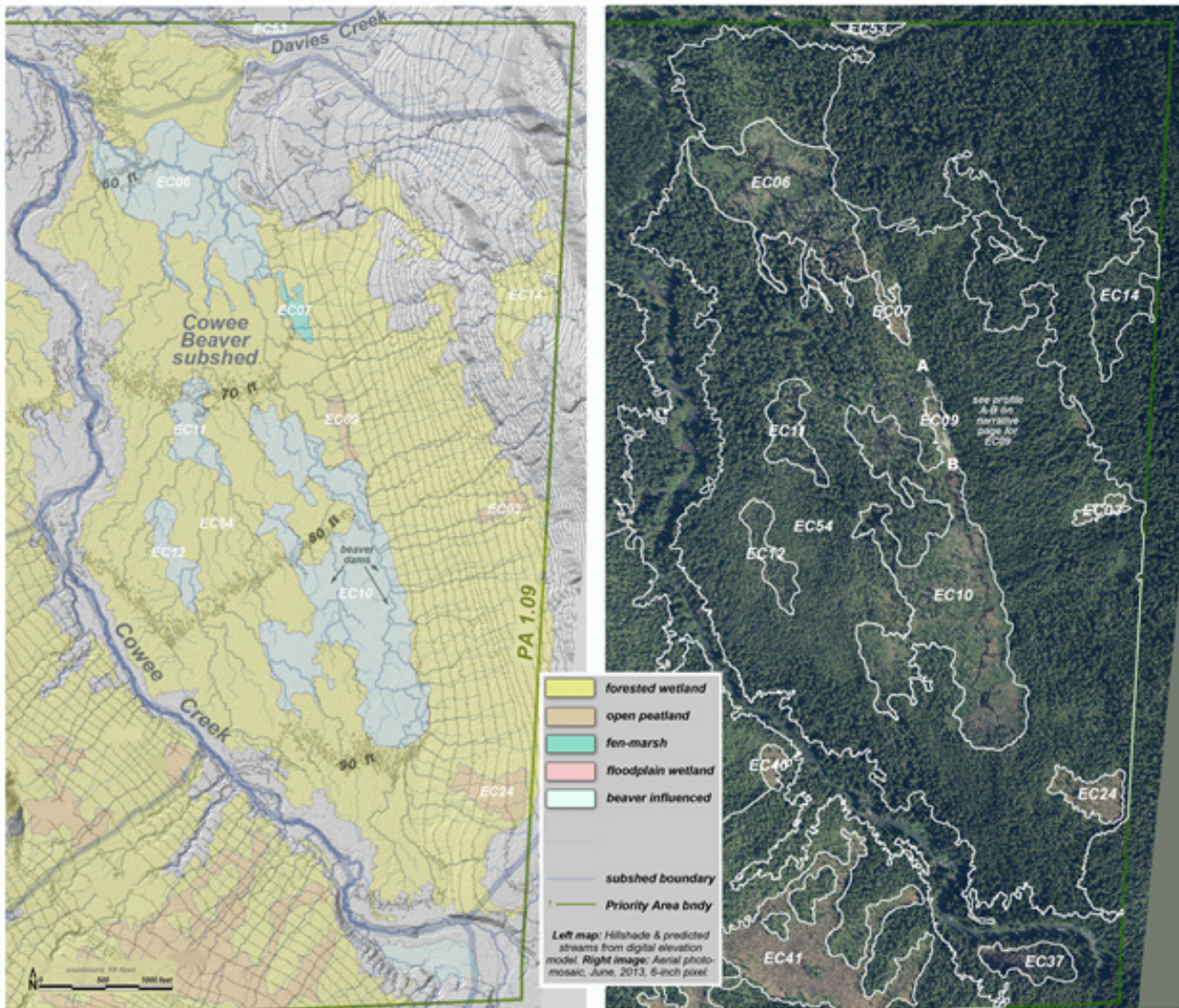


EC02 • **type:** forested peatland • **acres:** 27.0 • **boundary criteria:** w-u, type, pa •
pcn: 3B4501000010 • no known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Pollinator Habitat	8.41	Higher	4.43	Moderate
Songbird, Raptor, & Mammal Habitat	7.76	Higher	5.52	Moderate
Amphibian Habitat	5.29	Higher	5.40	Moderate
Organic Nutrient Export	8.04	Higher	N.A.	N.A.
Carbon Sequestration	6.65	Higher	N.A.	N.A.
Native Plant Habitat	4.40	Moderate	2.88	Moderate
Water Warming	4.33	Moderate	3.12	Moderate
Water Storage	4.25	Moderate	1.11	Lower
Water Cooling	3.54	Moderate	1.47	Lower
Waterbird Feeding Habitat	3.32	Moderate	0.00	Lower
Sediment Retention & Stabilization	2.41	Moderate	0.43	Lower
Stream Flow Support	3.15	Lower	1.78	Moderate
Invertebrate Habitat	2.78	Lower	1.30	Lower
Phosphorus Retention	1.96	Lower	1.96	Lower
Nitrate Removal	1.78	Lower	1.26	Lower
Anadromous Fish Habitat	0.00	Lower	0.00	Lower
Resident Fish Habitat	0.00	Lower	0.00	Lower
Waterbird Nesting Habitat	0.00	Lower	0.00	Lower
Wetland Ecological Condition	N.A.	N.A.	8.33	Higher
Wetland Risk	N.A.	N.A.	7.99	Higher
Wetland Stressors	N.A.	N.A.	6.66	Moderate
Wetland Sensitivity	N.A.	N.A.	4.35	Lower
Public Use & Recognition	N.A.	N.A.	1.31	Lower

EC03 • **type:** open peatland • **acres:** 1.1 • **boundary criteria:** type • **pcn:** 3B4501000010 • no known or probable anadromous fish

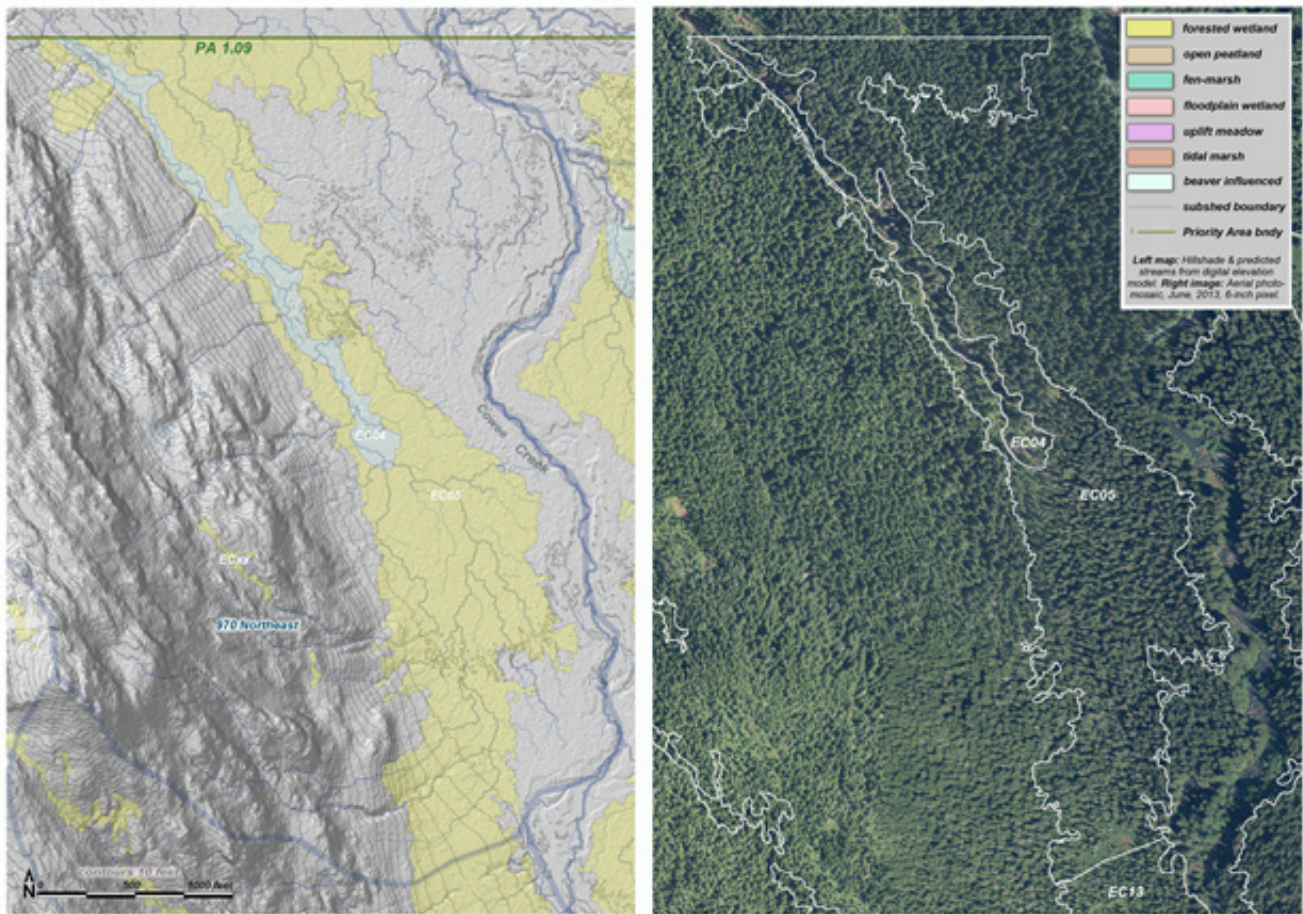
Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Songbird, Raptor, & Mammal Habitat	8.09	Higher	5.36	Moderate
Pollinator Habitat	7.84	Higher	4.21	Moderate
Native Plant Habitat	6.24	Higher	2.52	Moderate
Amphibian Habitat	5.44	Higher	6.29	Moderate
Water Warming	5.38	Higher	2.52	Lower
Organic Nutrient Export	7.74	Higher	N.A.	N.A.
Stream Flow Support	4.24	Moderate	1.83	Moderate
Water Cooling	5.30	Moderate	1.26	Lower
Waterbird Feeding Habitat	4.22	Moderate	0.00	Lower
Water Storage	2.98	Moderate	1.11	Lower
Carbon Sequestration	5.61	Moderate	N.A.	N.A.
Invertebrate Habitat	3.00	Lower	1.49	Lower
Phosphorus Retention	1.70	Lower	1.70	Lower
Nitrate Removal	1.48	Lower	2.27	Lower
Sediment Retention & Stabilization	1.48	Lower	0.45	Lower
Anadromous Fish Habitat	0.00	Lower	0.00	Lower
Resident Fish Habitat	0.00	Lower	0.00	Lower
Waterbird Nesting Habitat	0.00	Lower	0.00	Lower
Wetland Ecological Condition	N.A.	N.A.	8.83	Higher
Wetland Risk	N.A.	N.A.	4.18	Moderate
Wetland Sensitivity	N.A.	N.A.	4.35	Lower
Wetland Stressors	N.A.	N.A.	2.86	Lower
Public Use & Recognition	N.A.	N.A.	1.39	Lower



Unit maps for EC03, 06, 07, 09, 10, 11, 12, 14, 24, 53 & 54

EC04 • **type:** beaver influenced • **acres:** 7.1 • **boundary criteria:** type, pa • **pcn:** 3B4501000010 • known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Amphibian Habitat	9.41	Higher	7.14	Higher
Resident Fish Habitat	8.59	Higher	6.46	Higher
Waterbird Nesting Habitat	8.28	Higher	10.00	Higher
Stream Flow Support	7.31	Higher	7.83	Higher
Water Warming	6.01	Higher	8.70	Higher
Phosphorus Retention	5.17	Higher	5.17	Higher
Waterbird Feeding Habitat	8.21	Higher	3.00	Moderate
Invertebrate Habitat	6.17	Higher	5.57	Moderate
Nitrate Removal	4.81	Higher	4.80	Moderate
Sediment Retention & Stabilization	4.65	Higher	3.81	Moderate
Water Storage	6.32	Higher	1.04	Lower
Native Plant Habitat	5.64	Higher	0.57	Lower
Anadromous Fish Habitat	6.47	Moderate	10.00	Higher
Water Cooling	3.61	Moderate	5.60	Higher
Pollinator Habitat	6.53	Moderate	3.36	Moderate
Songbird, Raptor, & Mammal Habitat	5.85	Moderate	3.75	Moderate
Organic Nutrient Export	7.12	Moderate	N.A.	N.A.
Carbon Sequestration	3.86	Lower	N.A.	N.A.
Wetland Ecological Condition	N.A.	N.A.	5.95	Higher
Public Use & Recognition	N.A.	N.A.	5.77	Higher
Wetland Risk	N.A.	N.A.	2.96	Lower
Wetland Stressors	N.A.	N.A.	2.91	Lower
Wetland Sensitivity	N.A.	N.A.	2.20	Lower



Unit maps for EC04 & 05

EC05 • **type:** forested peatland • **acres:** 59.0 • **boundary criteria:** w-u, type, pa • **pcn:** 3B4501000010 • known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Stream Flow Support	8.03	Higher	6.78	Higher
Water Cooling	5.81	Higher	6.87	Higher
Phosphorus Retention	4.73	Higher	4.73	Higher
Nitrate Removal	3.36	Higher	5.68	Higher
Songbird, Raptor, & Mammal Habitat	8.25	Higher	3.33	Moderate
Pollinator Habitat	6.91	Higher	4.43	Moderate
Resident Fish Habitat	7.90	Higher	0.58	Lower
Amphibian Habitat	6.59	Higher	3.54	Lower
Organic Nutrient Export	7.78	Higher	N.A.	N.A.
Water Warming	3.61	Moderate	7.58	Higher
Anadromous Fish Habitat	6.75	Moderate	6.67	Moderate
Sediment Retention & Stabilization	3.19	Moderate	3.86	Moderate
Water Storage	4.74	Moderate	1.11	Lower
Waterbird Nesting Habitat	4.66	Moderate	0.00	Lower
Carbon Sequestration	5.98	Moderate	N.A.	N.A.
Native Plant Habitat	3.05	Lower	2.88	Moderate
Invertebrate Habitat	2.55	Lower	4.00	Moderate
Waterbird Feeding Habitat	0.00	Lower	0.00	Lower
Wetland Ecological Condition	N.A.	N.A.	7.32	Higher
Wetland Risk	N.A.	N.A.	3.64	Lower
Wetland Sensitivity	N.A.	N.A.	3.23	Lower
Wetland Stressors	N.A.	N.A.	2.99	Lower
Public Use & Recognition	N.A.	N.A.	1.48	Lower

EC06 • **type:** beaver influenced • **acres:** 23.4 • **boundary criteria:** w-u, type • **pcn:** 3B4501000010
 • known or probable anadromous fish

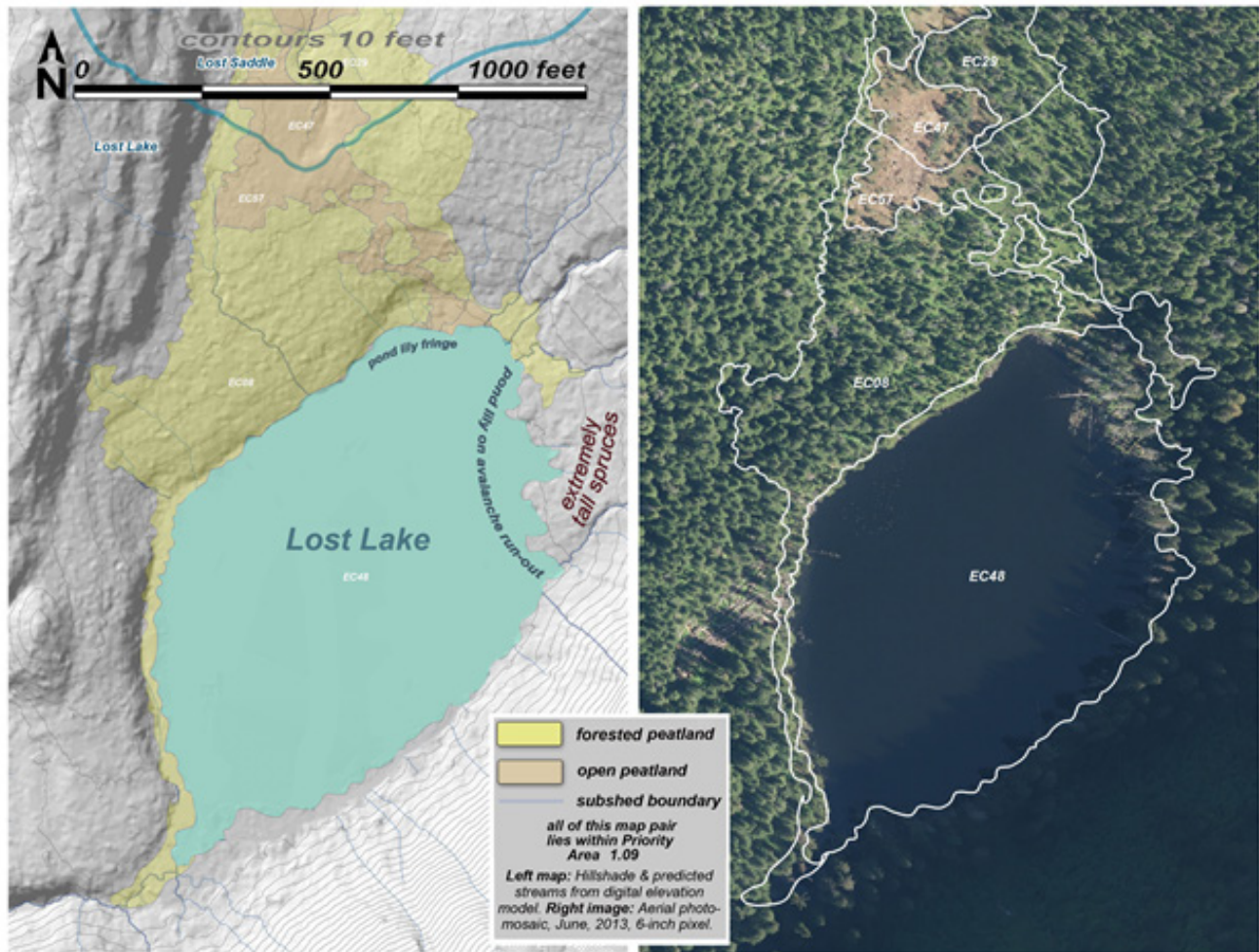
Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Anadromous Fish Habitat	9.93	Higher	10.00	Higher
Resident Fish Habitat	9.38	Higher	7.53	Higher
Invertebrate Habitat	9.33	Higher	10.00	Higher
Pollinator Habitat	8.96	Higher	8.52	Higher
Native Plant Habitat	8.20	Higher	7.90	Higher
Stream Flow Support	6.40	Higher	9.76	Higher
Amphibian Habitat	6.04	Higher	8.42	Higher
Nitrate Removal	4.37	Higher	8.84	Higher
Waterbird Nesting Habitat	10.00	Higher	9.40	Moderate
Waterbird Feeding Habitat	9.56	Higher	5.21	Moderate
Sediment Retention & Stabilization	4.85	Higher	2.35	Moderate
Water Storage	5.32	Higher	1.11	Lower
Water Warming	4.83	Higher	2.63	Lower
Organic Nutrient Export	7.94	Higher	N.A.	N.A.
Songbird, Raptor, & Mammal Habitat	6.27	Moderate	8.02	Higher
Water Cooling	4.50	Moderate	7.36	Higher
Carbon Sequestration	4.68	Moderate	N.A.	N.A.
Phosphorus Retention	2.04	Lower	2.04	Lower
Wetland Sensitivity	N.A.	N.A.	8.48	Higher
Wetland Ecological Condition	N.A.	N.A.	6.79	Higher
Public Use & Recognition	N.A.	N.A.	6.61	Higher
Wetland Risk	N.A.	N.A.	3.16	Lower
Wetland Stressors	N.A.	N.A.	2.75	Lower

EC07 • **type:** fen/marsh • **acres:** 1.5 • **boundary criteria:** type • **pcn:** 3B4501000010 • known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Pollinator Habitat	9.37	Higher	7.85	Higher
Stream Flow Support	8.99	Higher	7.34	Higher
Songbird, Raptor, & Mammal Habitat	8.73	Higher	7.52	Higher
Native Plant Habitat	8.24	Higher	6.95	Higher
Amphibian Habitat	5.54	Higher	7.93	Higher
Resident Fish Habitat	8.05	Higher	4.61	Moderate
Water Warming	5.38	Higher	5.19	Moderate
Anadromous Fish Habitat	6.76	Moderate	10.00	Higher
Water Cooling	5.30	Moderate	5.99	Higher
Invertebrate Habitat	5.04	Moderate	10.00	Higher
Nitrate Removal	2.09	Moderate	6.82	Higher
Waterbird Feeding Habitat	5.85	Moderate	3.21	Moderate
Waterbird Nesting Habitat	5.66	Moderate	9.40	Moderate
Phosphorus Retention	3.02	Moderate	3.02	Moderate
Water Storage	3.67	Moderate	1.11	Lower
Organic Nutrient Export	7.55	Moderate	N.A.	N.A.
Carbon Sequestration	5.21	Moderate	N.A.	N.A.
Sediment Retention & Stabilization	1.68	Lower	3.81	Moderate
Wetland Ecological Condition	N.A.	N.A.	6.45	Higher
Public Use & Recognition	N.A.	N.A.	6.26	Higher
Wetland Sensitivity	N.A.	N.A.	5.97	Moderate
Wetland Risk	N.A.	N.A.	3.32	Lower
Wetland Stressors	N.A.	N.A.	3.05	Lower

EC08 • **type:** forested peatland • **acres:** 7.4 • **boundary criteria:** w-u, type, subsh • **pcn:** 3B4501000010 • no known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Water Warming	6.16	Higher	6.56	Higher
Songbird, Raptor, & Mammal Habitat	9.92	Higher	3.33	Moderate
Pollinator Habitat	8.11	Higher	4.43	Moderate
Amphibian Habitat	7.39	Higher	4.93	Moderate
Stream Flow Support	7.28	Higher	2.60	Moderate
Water Cooling	5.84	Higher	3.51	Moderate
Native Plant Habitat	5.82	Higher	2.88	Moderate
Invertebrate Habitat	6.83	Higher	1.44	Lower
Organic Nutrient Export	9.59	Higher	N.A.	N.A.
Nitrate Removal	2.15	Moderate	5.05	Moderate
Water Storage	3.49	Moderate	1.11	Lower
Carbon Sequestration	5.51	Moderate	N.A.	N.A.
Sediment Retention & Stabilization	1.35	Lower	3.86	Moderate
Phosphorus Retention	1.92	Lower	1.92	Lower
Anadromous Fish Habitat	0.00	Lower	0.00	Lower
Resident Fish Habitat	0.00	Lower	0.00	Lower
Waterbird Feeding Habitat	0.00	Lower	0.00	Lower
Waterbird Nesting Habitat	0.00	Lower	0.00	Lower
Wetland Ecological Condition	N.A.	N.A.	6.43	Higher
Wetland Sensitivity	N.A.	N.A.	4.30	Lower
Wetland Risk	N.A.	N.A.	3.25	Lower
Wetland Stressors	N.A.	N.A.	2.99	Lower
Public Use & Recognition	N.A.	N.A.	1.48	Lower



Unit maps for EC08, 48 & 57

EC09 • **type:** open peatland • **acres:** 1.3 • **boundary criteria:** type • **pcn:** 3B4501000010 • **known**
or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Stream Flow Support	7.98	Higher	6.35	Higher
Songbird, Raptor, & Mammal Habitat	8.42	Higher	4.02	Moderate
Pollinator Habitat	7.82	Higher	3.15	Moderate
Waterbird Feeding Habitat	6.30	Higher	3.21	Moderate
Water Warming	5.38	Higher	4.73	Moderate
Native Plant Habitat	6.75	Higher	1.49	Lower
Carbon Sequestration	6.94	Higher	N.A.	N.A.
Anadromous Fish Habitat	6.39	Moderate	10.00	Higher
Water Cooling	5.30	Moderate	5.83	Higher
Nitrate Removal	2.61	Moderate	6.82	Higher
Resident Fish Habitat	6.93	Moderate	4.96	Moderate
Waterbird Nesting Habitat	4.78	Moderate	9.40	Moderate
Phosphorus Retention	3.66	Moderate	3.66	Moderate
Sediment Retention & Stabilization	2.47	Moderate	3.81	Moderate
Water Storage	3.98	Moderate	1.11	Lower
Organic Nutrient Export	6.74	Moderate	N.A.	N.A.
Amphibian Habitat	1.98	Lower	7.98	Higher
Invertebrate Habitat	2.64	Lower	4.16	Moderate
Public Use & Recognition	N.A.	N.A.	6.61	Higher
Wetland Ecological Condition	N.A.	N.A.	6.19	Higher
Wetland Sensitivity	N.A.	N.A.	4.30	Lower
Wetland Risk	N.A.	N.A.	2.89	Lower
Wetland Stressors	N.A.	N.A.	2.75	Lower

EC10 • **type:** beaver influenced • **acres:** 40.0 • **boundary criteria:** type • **pcn:** 3B4501000010 • known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Stream Flow Support	10.00	Higher	7.37	Higher
Resident Fish Habitat	8.74	Higher	6.34	Higher
Amphibian Habitat	5.47	Higher	9.07	Higher
Water Warming	5.00	Higher	6.31	Higher
Phosphorus Retention	3.97	Higher	3.97	Higher
Songbird, Raptor, & Mammal Habitat	8.29	Higher	5.36	Moderate
Waterbird Feeding Habitat	8.06	Higher	3.21	Moderate
Pollinator Habitat	7.45	Higher	4.21	Moderate
Waterbird Nesting Habitat	7.30	Higher	9.40	Moderate
Native Plant Habitat	5.32	Higher	2.52	Moderate
Water Cooling	5.01	Moderate	6.44	Higher
Anadromous Fish Habitat	6.77	Moderate	6.67	Moderate
Invertebrate Habitat	4.02	Moderate	5.44	Moderate
Sediment Retention & Stabilization	3.22	Moderate	3.86	Moderate
Nitrate Removal	2.89	Moderate	5.30	Moderate
Water Storage	4.87	Moderate	1.11	Lower
Organic Nutrient Export	7.30	Moderate	N.A.	N.A.
Carbon Sequestration	4.48	Moderate	N.A.	N.A.
Wetland Ecological Condition	N.A.	N.A.	4.56	Moderate
Wetland Stressors	N.A.	N.A.	2.86	Lower
Wetland Sensitivity	N.A.	N.A.	2.83	Lower
Wetland Risk	N.A.	N.A.	2.28	Lower
Public Use & Recognition	N.A.	N.A.	1.39	Lower

EC11 • **type:** beaver influenced • **acres:** 4.6 • **boundary criteria:** type • **pcn:** 3B4501000010 •
known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Resident Fish Habitat	9.01	Higher	6.14	Higher
Stream Flow Support	7.31	Higher	8.43	Higher
Amphibian Habitat	6.04	Higher	7.98	Higher
Water Warming	5.46	Higher	6.38	Higher
Phosphorus Retention	3.99	Higher	3.99	Higher
Invertebrate Habitat	8.69	Higher	5.46	Moderate
Waterbird Nesting Habitat	8.09	Higher	9.40	Moderate
Waterbird Feeding Habitat	7.79	Higher	3.21	Moderate
Songbird, Raptor, & Mammal Habitat	7.19	Higher	5.36	Moderate
Native Plant Habitat	7.15	Higher	2.52	Moderate
Sediment Retention & Stabilization	4.51	Higher	2.21	Moderate
Water Storage	5.32	Higher	1.11	Lower
Water Cooling	4.02	Moderate	6.47	Higher
Anadromous Fish Habitat	6.85	Moderate	6.67	Moderate
Pollinator Habitat	5.98	Moderate	4.21	Moderate
Nitrate Removal	2.66	Moderate	4.80	Moderate
Organic Nutrient Export	7.05	Moderate	N.A.	N.A.
Carbon Sequestration	2.89	Lower	N.A.	N.A.
Wetland Ecological Condition	N.A.	N.A.	4.55	Moderate
Wetland Sensitivity	N.A.	N.A.	3.23	Lower
Wetland Stressors	N.A.	N.A.	2.79	Lower
Wetland Risk	N.A.	N.A.	2.20	Lower
Public Use & Recognition	N.A.	N.A.	0.00	Lower

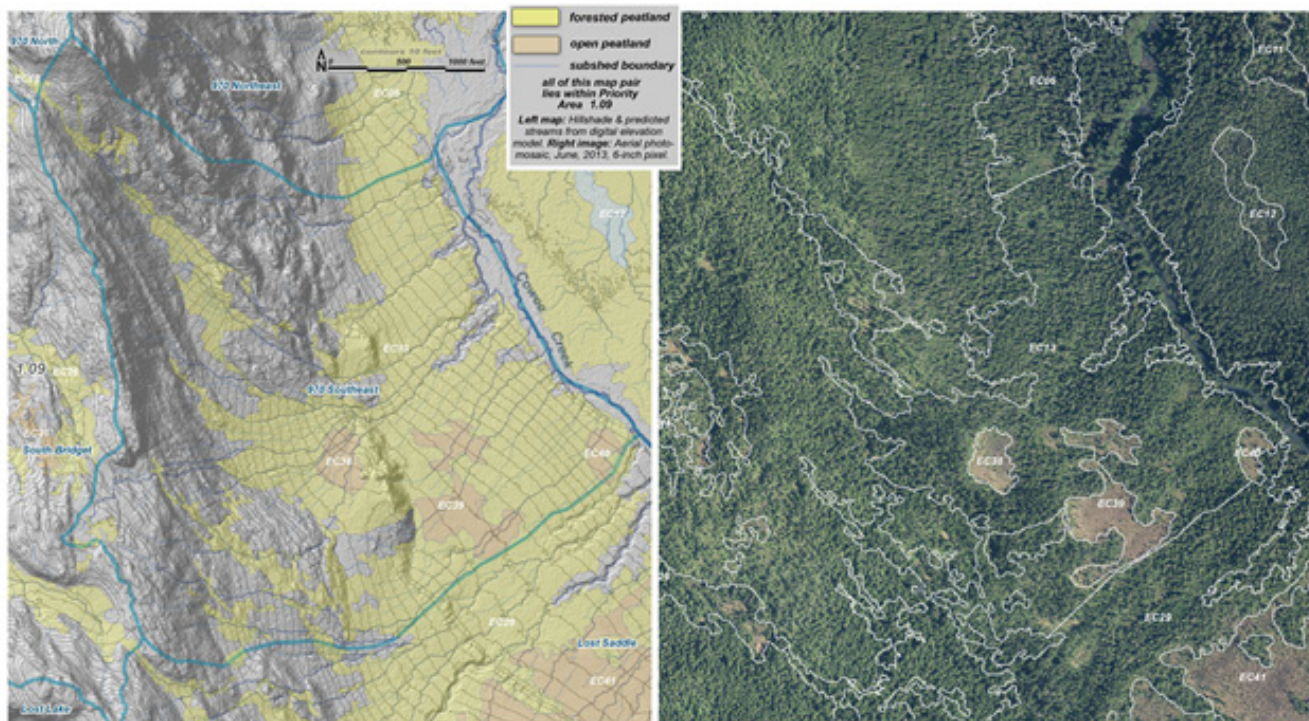
EC12 • **type:** beaver influenced • **acres:** 3.7 • **boundary criteria:** type • **pcn:** 3B4501000010 • known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Phosphorus Retention	5.35	Higher	5.35	Higher
Water Warming	5.04	Higher	6.10	Higher
Songbird, Raptor, & Mammal Habitat	7.46	Higher	3.33	Moderate
Native Plant Habitat	5.93	Higher	2.52	Moderate
Invertebrate Habitat	5.82	Higher	4.04	Moderate
Nitrate Removal	4.74	Higher	4.80	Moderate
Sediment Retention & Stabilization	4.52	Higher	2.21	Moderate
Resident Fish Habitat	8.75	Higher	0.00	Lower
Waterbird Nesting Habitat	6.69	Higher	0.00	Lower
Water Storage	5.55	Higher	1.11	Lower
Organic Nutrient Export	8.10	Higher	N.A.	N.A.
Stream Flow Support	4.64	Moderate	7.84	Higher
Water Cooling	4.09	Moderate	6.57	Higher
Anadromous Fish Habitat	7.09	Moderate	6.67	Moderate
Pollinator Habitat	6.41	Moderate	4.21	Moderate
Amphibian Habitat	3.86	Moderate	2.88	Lower
Carbon Sequestration	5.76	Moderate	N.A.	N.A.
Waterbird Feeding Habitat	0.00	Lower	0.00	Lower
Wetland Sensitivity	N.A.	N.A.	7.53	Higher
Wetland Ecological Condition	N.A.	N.A.	4.99	Moderate
Wetland Stressors	N.A.	N.A.	2.86	Lower
Wetland Risk	N.A.	N.A.	2.47	Lower
Public Use & Recognition	N.A.	N.A.	1.39	Lower

EC13 • **type:** forested peatland • **acres:** 90.2 • **boundary criteria:** w-u, type, subshed • **pcn:** 3B4501000010 • known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Water Cooling	5.40	Higher	6.78	Higher
Native Plant Habitat	7.16	Higher	2.88	Moderate
Resident Fish Habitat	7.54	Higher	0.00	Lower
Amphibian Habitat	7.09	Higher	1.11	Lower
Organic Nutrient Export	9.43	Higher	N.A.	N.A.
Stream Flow Support	4.54	Moderate	6.85	Higher
Water Warming	4.33	Moderate	7.65	Higher
Anadromous Fish Habitat	6.56	Moderate	6.67	Moderate
Pollinator Habitat	5.77	Moderate	4.43	Moderate
Phosphorus Retention	3.28	Moderate	3.28	Moderate
Sediment Retention & Stabilization	2.82	Moderate	2.16	Moderate
Invertebrate Habitat	3.82	Moderate	2.00	Lower
Water Storage	3.49	Moderate	1.11	Lower
Nitrate Removal	1.80	Lower	5.18	Moderate
Songbird, Raptor, & Mammal Habitat	0.00	Lower	0.00	Lower
Waterbird Feeding Habitat	0.00	Lower	0.00	Lower
Waterbird Nesting Habitat	0.00	Lower	0.00	Lower
Carbon Sequestration	3.78	Lower	N.A.	N.A.
Wetland Ecological Condition	N.A.	N.A.	6.03	Higher
Wetland Sensitivity	N.A.	N.A.	3.55	Lower
Wetland Risk	N.A.	N.A.	2.85	Lower
Wetland Stressors	N.A.	N.A.	2.79	Lower
Public Use & Recognition	N.A.	N.A.	0.00	Lower

Unit maps for EC13, 38, 39 & 40

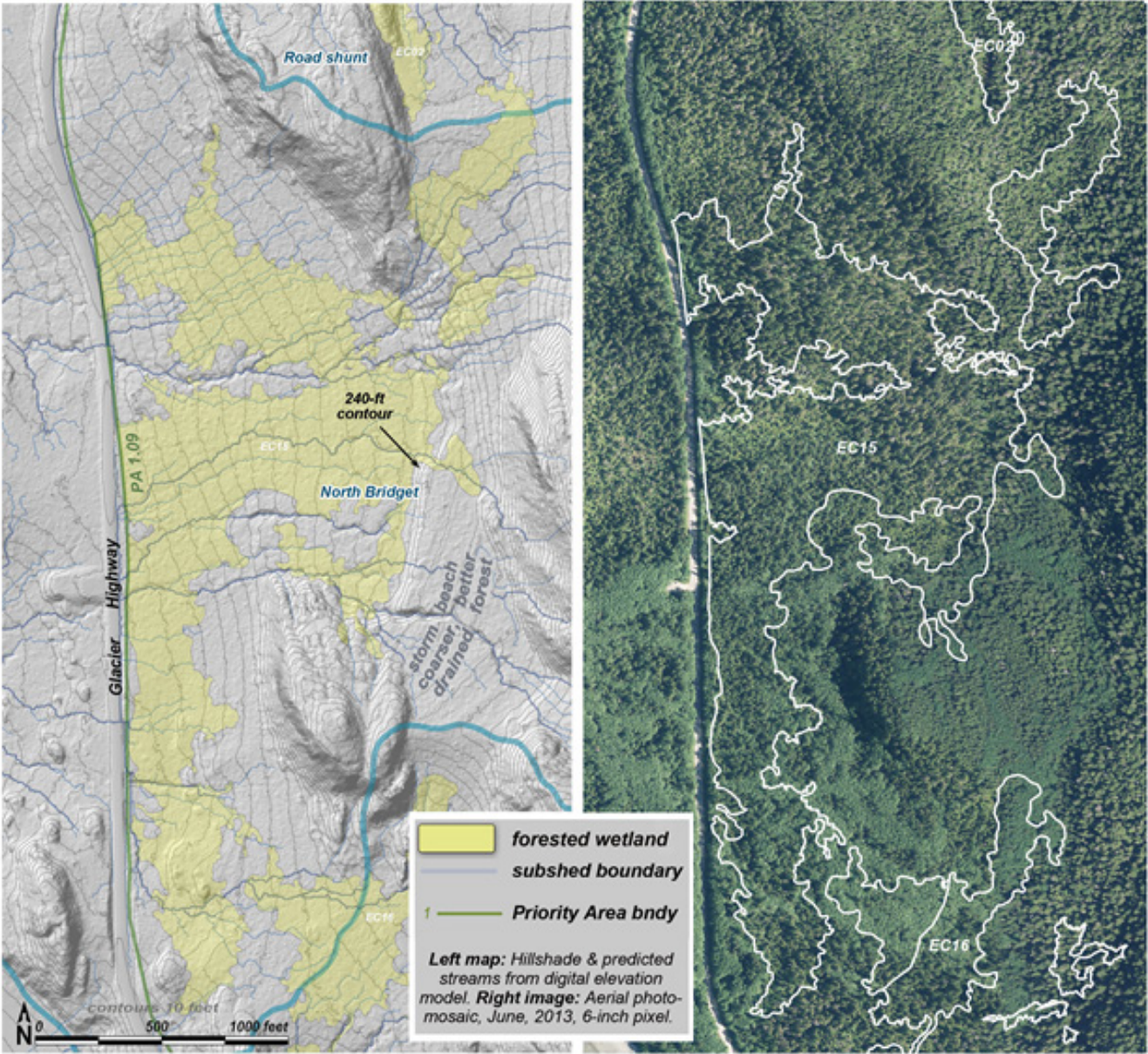


EC14 • **type:** forested peatland • **acres:** 8.4 • **boundary criteria:** w-u, pa • **pcn:** 3B4501000010 • no known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Stream Flow Support	7.28	Higher	2.40	Moderate
Water Cooling	5.59	Higher	3.29	Moderate
Invertebrate Habitat	5.86	Higher	0.00	Lower
Native Plant Habitat	5.48	Higher	0.00	Lower
Organic Nutrient Export	9.28	Higher	N.A.	N.A.
Water Warming	4.62	Moderate	6.62	Higher
Pollinator Habitat	5.25	Moderate	2.95	Moderate
Songbird, Raptor, & Mammal Habitat	3.63	Moderate	2.22	Lower
Amphibian Habitat	3.50	Moderate	0.00	Lower
Water Storage	3.35	Moderate	1.11	Lower
Carbon Sequestration	4.68	Moderate	N.A.	N.A.
Nitrate Removal	1.84	Lower	3.79	Moderate
Sediment Retention & Stabilization	1.38	Lower	4.43	Moderate
Phosphorus Retention	1.17	Lower	1.17	Lower
Anadromous Fish Habitat	0.00	Lower	0.00	Lower
Resident Fish Habitat	0.00	Lower	0.00	Lower
Waterbird Feeding Habitat	0.00	Lower	0.00	Lower
Waterbird Nesting Habitat	0.00	Lower	0.00	Lower
Wetland Ecological Condition	N.A.	N.A.	4.03	Moderate
Wetland Sensitivity	N.A.	N.A.	4.30	Lower
Wetland Stressors	N.A.	N.A.	2.79	Lower
Wetland Risk	N.A.	N.A.	1.97	Lower
Public Use & Recognition	N.A.	N.A.	0.00	Lower

EC15 • **type:** forested peatland • **acres:** 55.0 • **boundary criteria:** w-u, pa, subsh • **pcn:** 3B4501000010 • known or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Pollinator Habitat	8.99	Higher	7.28	Higher
Native Plant Habitat	6.93	Higher	6.14	Higher
Phosphorus Retention	4.61	Higher	4.61	Higher
Songbird, Raptor, & Mammal Habitat	8.34	Higher	6.22	Moderate
Organic Nutrient Export	8.85	Higher	N.A.	N.A.
Carbon Sequestration	7.06	Higher	N.A.	N.A.
Water Cooling	4.66	Moderate	5.23	Higher
Stream Flow Support	3.83	Moderate	5.35	Higher
Water Warming	2.94	Moderate	6.03	Higher
Amphibian Habitat	3.32	Moderate	5.00	Moderate
Nitrate Removal	2.08	Moderate	4.95	Moderate
Resident Fish Habitat	5.87	Moderate	1.73	Lower
Anadromous Fish Habitat	4.99	Moderate	1.50	Lower
Invertebrate Habitat	1.92	Lower	10.00	Higher
Sediment Retention & Stabilization	1.19	Lower	3.76	Moderate
Water Storage	2.28	Lower	1.11	Lower
Waterbird Feeding Habitat	0.00	Lower	0.00	Lower
Waterbird Nesting Habitat	0.00	Lower	0.00	Lower
Wetland Stressors	N.A.	N.A.	6.62	Moderate
Wetland Risk	N.A.	N.A.	6.14	Moderate
Wetland Sensitivity	N.A.	N.A.	5.38	Moderate
Wetland Ecological Condition	N.A.	N.A.	4.28	Moderate
Public Use & Recognition	N.A.	N.A.	1.89	Lower



Unit map for EC15

EC16 • **type:** forested peatland • **acres:** 20.3
 • **boundary criteria:** w-u, pa, subsh • **pcn:** 3B4501000010 • **known** or probable anadromous fish

Function or Other Attribute	Function Score	Function Rating	Value Score	Value Rating
Pollinator Habitat	9.33	Higher	7.28	Higher
Native Plant Habitat	5.84	Higher	6.14	Higher
Nitrate Removal	3.28	Higher	5.81	Higher
Songbird, Raptor, & Mammal Habitat	8.20	Higher	6.22	Moderate
Water Cooling	5.44	Higher	2.04	Lower
Organic Nutrient Export	8.73	Higher	N.A.	N.A.
Invertebrate Habitat	3.72	Moderate	10.00	Higher
Amphibian Habitat	3.74	Moderate	5.00	Moderate
Phosphorus Retention	2.80	Moderate	2.80	Moderate
Water Warming	2.52	Moderate	4.26	Moderate
Resident Fish Habitat	7.10	Moderate	2.31	Lower
Anadromous Fish Habitat	4.70	Moderate	2.00	Lower
Water Storage	3.86	Moderate	1.11	Lower
Carbon Sequestration	5.19	Moderate	N.A.	N.A.
Stream Flow Support	2.04	Lower	6.03	Higher
Sediment Retention & Stabilization	1.72	Lower	3.86	Moderate
Waterbird Feeding Habitat	0.00	Lower	0.00	Lower
Waterbird Nesting Habitat	0.00	Lower	0.00	Lower
Wetland Risk	N.A.	N.A.	7.06	Higher
Wetland Ecological Condition	N.A.	N.A.	5.87	Higher
Wetland Stressors	N.A.	N.A.	6.82	Moderate
Wetland Sensitivity	N.A.	N.A.	4.30	Lower
Public Use & Recognition	N.A.	N.A.	1.97	Lower

Unit maps for EC16, 25, 26, 27, 28 & 31

