

**ASSEMBLY STANDING COMMITTEE
PUBLIC WORKS AND FACILITIES COMMITTEE
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

March 2, 2020 12:00 PM
Assembly Chambers - Municipal Building
Regular Meeting

I. CALL TO ORDER

II. APPROVAL OF MINUTES

III. PUBLIC PARTICIPATION on NON-AGENDA ITEMS

IV. ITEMS FOR ACTION

- A. FY21 Capital Improvement Plan
- B. Lee Street and Bonnie Brae Pump Station Transfer
- C. River Road and McGinnis LID Transfers

V. INFORMATION ITEMS

- A. JCOS Update
- B. PFAS Update
- C. CBJ Wastewater Effluent Limit Exceedances
- D. Chamber, Travel Juneau, JACC Memo Regarding Centennial Hall
- E. Biathlon Range Assembly Grant Request

VI. CONTRACTS DIVISION ACTIVITY REPORT

- A. February 5, 2020 to February 25, 2020

VII. ADJOURNMENT

ADA accommodations available upon request: Please contact the Clerk's office 72 hours prior to any meeting so arrangements can be made to have a sign language interpreter present or an audiotape containing the Assembly's agenda made available. The Clerk's office telephone number is 586-5278, TDD 586-5351, e-mail: city.clerk@juneau.org



DATE: March 2, 2020

TO: Michelle Hale, Chair
Public Works and Facilities Committee

FROM: John Bohan, Chief Engineer

SUBJECT: Draft FY 2021 CIP

Attached is the draft FY 2021 CIP for the Committee's review, discussion and comment.

The Planning Commission reviewed the FY21 Projects for consistency at their February 25 regular meeting and found them to conform to the policies of the Comprehensive Plan.

For historical reference, past years 6 Year CIP Plans can be found on the web at:

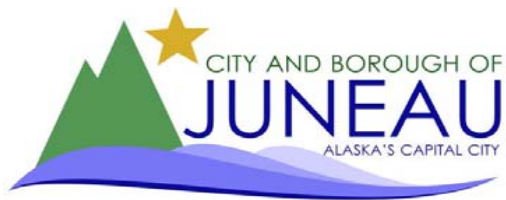
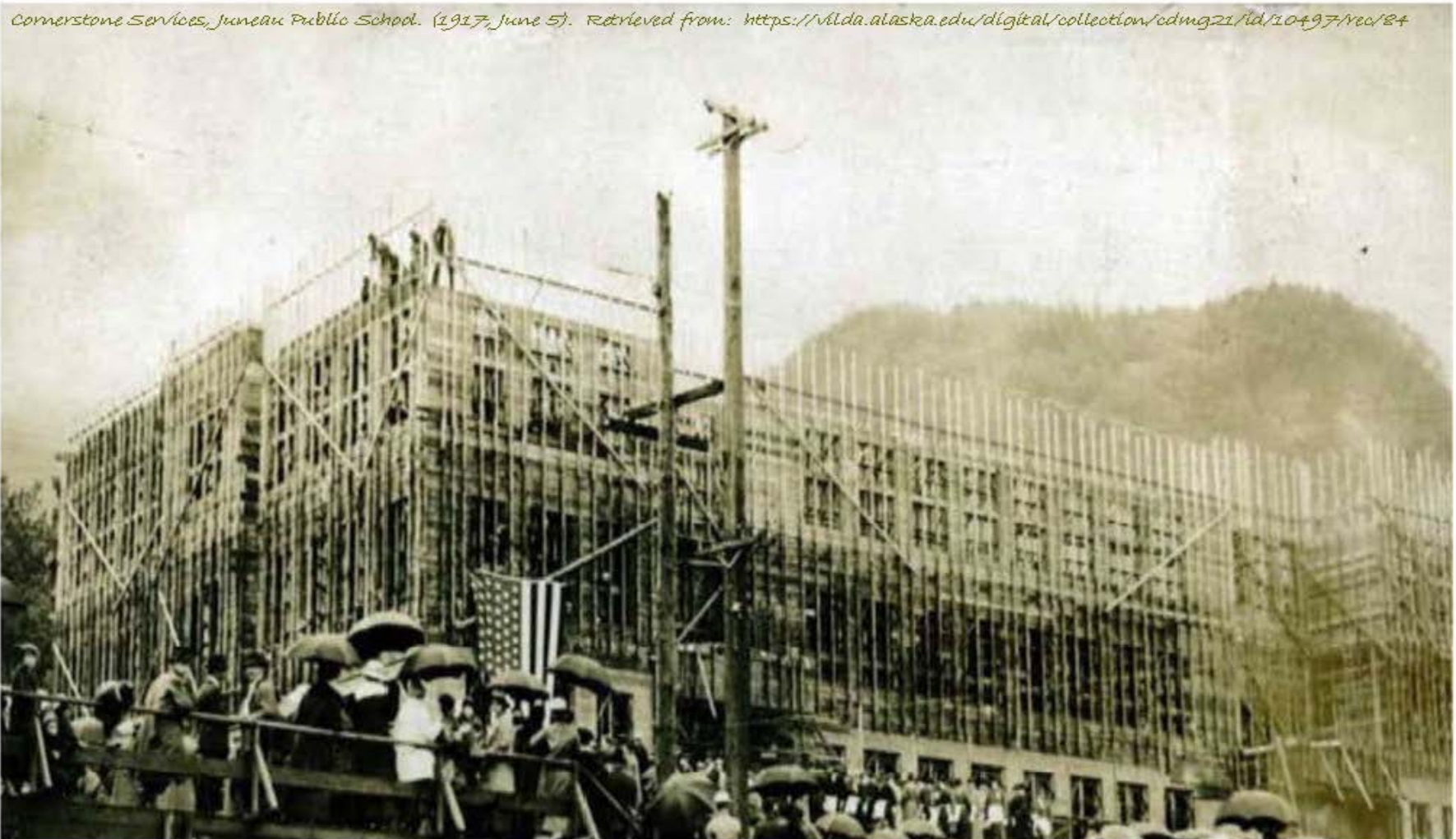
http://www.juneau.org/engineeringftp/CIP_Process.php

Recommendation:

Staff recommends that the PWFC forward the CIP to the Finance Committee.

CITY AND BOROUGH OF JUNEAU PRELIMINARY CAPITAL IMPROVEMENT PROGRAM

FISCAL YEARS 2021-2026



Prepared By
City and Borough of Juneau
Engineering & Public Works Department
February 24, 2020

INTRODUCTION

Each year, the City and Borough of Juneau (CBJ) adopts a capital improvement program (CIP). The legal requirements applicable to the CIP are set forth in Section 9 of the CBJ Charter. In general, the CIP is a plan of capital improvements proposed for a six-year period, together with an estimated cost of each improvement and the proposed method of financing it. The CIP serves as the overarching strategic plan for improving the public infrastructure of Juneau and is collectively developed by the CBJ Assembly, its boards and commissions, CBJ staff, and the citizens of Juneau.

The CBJ Charter requires the City Manager to assemble and submit a CIP to the Assembly by April 5th of each year. This document is the City Manager's CIP. The Charter further requires this document to be available for public inspection. This document is available from the CBJ Engineering Department at the third floor of the Marine View Building in downtown Juneau or from CBJ's website at http://www.juneau.org/engineering/CIP_Process.php. This year the Engineering website is being updated. After the update occurs, access will be at <https://beta.juneau.org/engineering-public-works/cip>.

By May 1st, the Charter requires the Assembly to hold a public hearing on the CIP. In addition to the Charter requirement, the Assembly holds a public hearing at its Public Works and Facilities Committee and the Planning Commission reviews it for conformance with the Area Wide Comprehensive Plan. The meetings are announced in the Juneau Empire, on the CBJ's web pages, and the public access channel. Citizens are encouraged to provide their comments at these meetings.

By June 15th, the Assembly must adopt its own CIP or the City Manager's CIP. In practice, the Assembly uses the City Manager's CIP as the starting point, adjusts it during the public comment period, and adopts its own CIP at the same time it adopts the budget in early June.

If you would like more information about the CIP please contact Robert Barr by phone at (907) 586-0800 or by email at robert.barr@juneau.org.

FY 2021 CIP RECOMMENDATIONS

This section of the preliminary six-year CIP plan lists capital project priorities of the City and Borough of Juneau for FY 2021 that are being recommended by the City Manager. A table is presented to show the name of each improvement, the department recommending the improvement, and the amount and type of funding being recommended.

A summary table at the end of the section lists all funding sources, and the total amount recommended for expenditure in each fund.

The City Manager recommends capital improvement projects according to the following criteria:

Support: Projects that are a high priority of the Department or Committee proposing it, as well as the general public.

Consistency: Projects that are consistent with applicable CBJ plans or policies.

Health and Safety: Projects that will address an imminent or expected threat or danger to users or occupants.

Maintenance or Repair of Existing Property: Projects that will prevent further deterioration or damage to property.

Local Match for Federal/State Grants: Funds required to match federal or state capital project funds.

Maintenance Impact: Projects that will increase efficiency and reduce on-going operating costs.

Economic Development Stimulus: Projects that directly or indirectly stimulate economic development in the community.

Anticipated Need: Projects that enhance or expand an existing facility or service to accommodate increased public use.

Recreational: Projects that establish, enhance or expand a facility or service to accommodate new or increase public use.

Funding Alternatives: Funding alternatives are explored for each project.

RESOLUTION OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 2877

A Resolution Adopting the City and Borough Capital Improvement Program for Fiscal Years 2021 through 2026, and Establishing the Capital Improvement Project Priorities for Fiscal Year 2021.

WHEREAS, the CBJ Capital Improvement Program is a plan for capital improvement projects proposed for the next six fiscal years; and

WHEREAS, the Assembly has reviewed the Capital Improvement Program for Fiscal Year 2021 through Fiscal Year 2026, and has determined the capital improvement project priorities for Fiscal Year 2021.

NOW, THEREFORE, BE IT RESOLVED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

Section 1. Capital Improvement Program.

(a) Attachment A, entitled "City and Borough of Juneau Capital Improvement Program, Fiscal Years 2021 - 2026," dated June 1, 2020, is adopted as the Capital Improvement Program for the City and Borough.

(b) The following list, as set forth in the "City and Borough of Juneau Capital Improvement Program, Fiscal Years 2021 - 2026," are pending capital improvement projects to be undertaken in FY21:

FISCAL YEAR 2021		
GENERAL SALES TAX IMPROVEMENTS		
DEPARTMENT	PROJECT	FY21 BUDGET
Eaglecrest	Deferred Maintenance /Mountain Operations Improvements	\$ 275,000
Manager's Office	JPD - Crow Hill Radio Site Improvements and Upgrades	150,000
Manager's Office	CCFR - Glacier Sta. Air Quality Improvements (vehicle and aircraft exh)	100,000
Parks & Recreation	Deferred Building Maintenance	425,000
Parks & Recreation	Park & Playground Deferred Maintenance and Repairs	350,000
Parks & Recreation	Sports Field Resurfacing & Repairs	100,000
Parks & Recreation	Trail Maintenance	100,000
General Sales Tax Improvements Total		<u>\$ 1,500,000</u>

FISCAL YEAR 2021**AREAWIDE STREET SALES TAX PRIORITIES**

DEPARTMENT	PROJECT	FY21 BUDGET
Street Maintenance	Pavement Management	\$ 600,000
Street Maintenance	Sidewalk & Stairway Repairs	200,000
Street Maintenance	CBJ Minor Arterial Streets ADA Curb Ramp improvements	180,000
Street Maintenance	Areawide Drainage Improvements	100,000
Street Maintenance	Capital Ave (Wiloughby to 9th)	100,000
Street Maintenance	Calhoun Avenue - Main to Gold Ck Phase 2	800,000
Street Maintenance	Meadow Lane (south end)	2,660,000
Street Maintenance	Cedar (Mendenhall to Columbia)	620,000
Street Maintenance	Robbie Road, Ling Court and Laurie Lane	800,000
Street Maintenance	Tongass Boulevard - (Trinity to Loop)	2,140,000
Street Maintenance	Harborview School Zone Expansion	200,000
Street Maintenance	4th Street Drainage -F to I Streets and Side Streets	400,000
Capital Transit	Bus Shelters Improvements	150,000
Capital Transit	Install additional Elect. Bus Charger Infrastructure - Bus Barn	200,000
Parks & Recreation	Kax Trail DOT Match (9.03% match required for ADOT TAP Grant)	350,000
Engineering	EV (Electric Vehicle) Policy and Charging Infrastructure	50,000
Engineering	Contaminated Sites Reporting	50,000
Areawide Street Sales Tax Priorities Total		\$ 9,600,000

FISCAL YEAR 2021**TEMPORARY 1% SALES TAX PRIORITIES****Voter Approved Sales Tax 10/01/18 - 09/30/23**

DEPARTMENT	PROJECT	FY21 BUDGET
Manager's Office	IT - Infrastructure Upgrades	\$ 400,000
Manager's Office	Affordable Housing Fund	400,000 *
Wastewater Utility	MWWTP Pretreatment	1,400,000
Wastewater Utility	ABTP Facility Structural and Painting Projects	100,000
Water Utility	Salmon Creek Efficiency Improvements	500,000
Water Utility	Crow Hill and W Juneau Reservoir Inspection and Rehab	500,000
Parks & Recreation	Deferred Building Maintenance	550,000
Parks & Recreation	Deferred Building Maintenance - DT Library Exterior Siding Repl.	150,000
Parks & Recreation	Augustus Brown Pool Deferred Maintenance	3,300,000
School District	JSD Buildings Major Maintenance / Match	1,000,000
Public Works	Waste - RecycleWorks Waste Diversion Program	400,000 *
Parks & Recreation	Centennial Hall Upgrades/Deferred Maintenance (future receipts advanced by Central Treasury Loan)	4,500,000
Temporary 1% Sales Tax Priorities Total		\$ 13,200,000

* Operating Budget Funding

FISCAL YEAR 2021**HOTEL-MOTEL TAX PRIORITIES**

DEPARTMENT	PROJECT	FY21 BUDGET
Parks & Recreation	Centennial Hall Upgrades/Deferred Maintenance (future receipts advanced by Central Treasury Loan)	\$ 2,300,000
Hotel-Motel Tax Priorities Total		\$ 2,300,000

FISCAL YEAR 2021**MARINE PASSENGER FEE PRIORITIES**

DEPARTMENT	PROJECT	FY21 BUDGET
Docks and Harbors	Auke Bay Passenger for Hire - Phase IIIC	\$ 1,350,000
Engineering	Waterfront Seawalk	1,100,000
Engineering	Downtown Transportation Study (Circulator, Glacier Express etc.)	150,000
Marine Passenger Fee Priorities Total		\$ 2,600,000

**FISCAL YEAR 2021
PORT DEVELOPMENT FEE PRIORITIES**

DEPARTMENT	PROJECT	FY21 BUDGET
Docks and Harbors	Shorepower	\$ 1,000,000
Wastewater Utility	Wastewater Realtime Monitoring	500,000
Port Development Fee Priorities Total		\$ 1,500,000

**FISCAL YEAR 2021
STATE MARINE PASSENGER FEE PRIORITIES**

DEPARTMENT	PROJECT	FY21 BUDGET
Docks and Harbors	Safety Guard Rail Along Dock Face	\$ 1,000,000
Docks and Harbors	Auke Bay Passenger for Hire - Phase IIIC	1,650,000
Engineering	Marine Park Seawalk Infill (Lightering Float Area)	1,600,000
Engineering	S. Franklin Street Pedestrian Safety Capacity Improvements	1,000,000
Engineering	Homestead Park Planning / Cost Estimate	50,000
State Marine Passenger Fee Priorities Total		\$ 5,300,000

**FISCAL YEAR 2021
BARTLETT HOSPITAL ENTERPRISE FUND**

DEPARTMENT	PROJECT	FY21 BUDGET
Bartlett Hospital	Asphalt Replacement Drive from Admin to JMC	\$ 400,000
Bartlett Hospital	Crises Stabilization	\$ 5,500,000
Bartlett Hospital	Study to Determine a Secondary Campus Access	\$ 90,000
Bartlett Hospital	Operating Room Ventilation	\$ 300,000
Bartlett Hospital	Deferred Maintenance	\$ 4,000,000
Bartlett Hospital Enterprise Fund Total		\$ 10,290,000

**FISCAL YEAR 2021
DOWNTOWN PARKING FUND**

DEPARTMENT	PROJECT	FY21 BUDGET
Parks & Recreation	Marine Park and Downtown Transit Center Parking Garages Security Cameras	\$ 50,000
Downtown Parking Fund Priorities Total		\$ 50,000

**FISCAL YEAR 2021
DOCKS AND HARBORS ENTERPRISE FUND**

DEPARTMENT	PROJECT	FY21 BUDGET
Harbors	Harris Harbor Anode Installation Match Funds	\$ 125,000
Harbors Enterprise Fund Total		\$ 125,000

**FISCAL YEAR 2021
LANDS & RESOURCES FUND**

DEPARTMENT	PROJECT	FY21 BUDGET
Lands & Resources	Pits and Quarries Infrastructure Maintenance and Expansion	\$ 50,000
Lands & Resources Fund Total		\$ 50,000

**FISCAL YEAR 2021
WASTEWATER ENTERPRISE FUND**

DEPARTMENT	PROJECT	FY21 BUDGET
Wastewater Utility	Process Controls & SCADA (Supervisory Control And Data Acquisition) Upgrades	\$ 1,000,000
Wastewater Utility	Pump Station Upgrades	2,383,000
Wastewater Utility	JDTP Pretreatment Improvements	500,000
Wastewater Utility	MWWTP SBR/WS/TS Pump Replacement	1,000,000
Wastewater Utility	JDTP Facility Structural Improvements	250,000
Wastewater Utility	MWWTP Furnace & Fuel System Upgrades	650,000
Wastewater Utility	Meadow Lane(south end) (Street Recon)	379,000
Wastewater Utility	Cedar St (Mend to Columbia) (Street Recon)	118,000
Wastewater Utility	Robbie Rd, Ling Ct and Laurie Lane Reconstruction (street recon)	20,000
Wastewater Utility	Tongass Blvd (Trinity to Loop) (Street Recon)	265,000
Wastewater Utility	Douglas 4th St F to I and Side Streets Sewer System Replacement	800,000
Wastewater Utility	Pavement Management Utility Adjustments	20,000
Wastewater Utility	ADOT Project Utility Adjustments	30,000
Wastewater Enterprise Fund Total		\$ 7,415,000

**FISCAL YEAR 2021
WATER ENTERPRISE FUND**

DEPARTMENT	PROJECT	FY21 BUDGET
Water Utility	Douglas 4th St F to I and Side Streets Water System Replacement	\$ 850,000
Water Utility	Calhoun Avenue	75,000
Water Utility	Hospital Drive Waterline Replacement (Street Recon)	100,000
Water Utility	Meadow Lane(south end) (Street Recon)	350,000
Water Utility	Cedar St (Mend. to Columbia) (Street Recon)	107,000
Water Utility	Robbie Rd, Ling Ct and Laurie Lane Reconstruction (Street Recon)	140,000
Water Utility	Tongass Blvd (Trinity to Loop) (Street Recon)	250,000
Water Utility	Goodwin Rd (Street Recon)	112,000
Water Utility	Delta Drive (Street Recon)	229,000
Water Utility	Airport Area Water Replacement (Mallard, Jordan, Alpine, Crest etc)	117,000
Water Utility	LCB Well Pump VFD Conversion and Programming Updates	950,000
Water Utility	LCB Chlorine Generators replacement	300,000
Water Utility	Salmon Creek Efficiency Improvements	325,000
Water Utility	Outer Drive Watermain Replacement Dgn(Main St. south to Admiral)	150,000
Water Utility	Pavement Management Water Utility Adjustments	8,000
Water Utility	Areawide Water Repairs / Minor Replacements	150,000
Water Enterprise Fund Total		\$ 4,213,000

ORDINANCE 2019-06 CAPITAL PROJECTS FUNDING TOTAL	\$ 57,343,000
---	----------------------

ORDINANCE 2019-06 OPERATING BUDGET FUNDING TOTAL	\$ 800,000 *
---	---------------------

** Operating Budget Funding*

(c) The following list, as set forth in the "City and Borough of Juneau Capital Improvement Program, Fiscal Years 2021-2026," are capital improvement projects identified as priorities proposed to be undertaken beginning in FY21, but are dependent on other unsecured funding sources. As the sources are secured, the funds will be appropriated:

FISCAL YEAR 2021		
JUNEAU SCHOOL DISTRICT UNSCHEDULED FUNDING		
DEPARTMENT	PROJECT	
School District	Sayeik: Gastineau School Partial Roof Replacement	\$ 1,500,000
School District	Dzantiki Heeni Middle School Roof Replacement	1,750,000
Juneau School District Unscheduled Funding Total		<u>\$ 3,250,000</u>

FISCAL YEAR 2021		
AIRPORT UNSCHEDULED FUNDING		
DEPARTMENT	PROJECT	
Airport	26 MALSR (FAA F&E)	\$ 3,750,000
Airport	Channel Flying Property Acquisition (1.4m FAA, 100k JNU)	1,500,000
Airport	Float Pond south road and embankment imp. (1.63FAA, 110kJNU)	1,730,000
Airport	North Ramp Fencing and Lighting (375k FAA, 25k JNU)	400,000
Airport Unscheduled Funding Total		<u>\$ 7,380,000</u>

FISCAL YEAR 2021		
UNSCHEDULED FUNDING		
DEPARTMENT	PROJECT	
Lands & Resources	Pederson Hill	300,000
Parks & Recreation	Kaxdigoowu Heen Dei Trail and Bridge Reconstruction (DOT Grant)	2,361,581
Parks & Recreation	Hank Harmon Rifle Range Safety Improvements (Grant)	25,000
Parks & Recreation	Neighborhood Park Challenge Grant - Juneau Park Foundation	30,000
Eaglecrest	Magic Carpet	190,000
Unscheduled Funding Total		<u>\$ 2,906,581</u>

Section 2. Fiscal Year 2021 Budget. It is the intent of the Assembly that the capital improvement project budget allocations as set forth in the FY21 pending Capital Improvements List in Section 1(b), above, not already appropriated, shall become a part of the City and Borough's Fiscal Year 2021 Budget.

Section 3. State and Federal Funding. To the extent that a proposed CIP project, as set forth in Section 1(c), above, includes state funding, federal funding, or both, the amount of funding for that project is an estimate only, and is subject to appropriation contingent upon final funding being secured. It is the intent of the Assembly that once funding is secured, these items will be brought back to the Assembly for appropriation.

Section 4. Effective Date. This resolution shall be effective immediately upon adoption.

Adopted this **3rd** day of **June**, 2020.

Attest:

Beth A. Weldon Mayor

Elizabeth J. McEwen, Municipal Clerk

FY 2021 CIP PROJECT

DEPARTMENT	Division	Priority	Project	Funding Source	Amount
Administration					
	Manager's Office	1	IT - Infrastructure Upgrades	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/1/18 - 09/30/23	\$ 400,000
		2	Affordable Housing Fund	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/1/18 - 09/30/23	\$ 400,000
	Fire	1	Glacier Station Air Quality Improvements.	General Sales Tax Improvements	\$ 100,000
	Police	1	Crow Hill Radio Site Improvements and Upgrades	General Sales Tax Improvements	\$ 150,000
Administration Total Funding					\$ 1,050,000
Airport					
		1	26 MALSR (FAA F&E)	Airport Unscheduled Funding	\$ 3,750,000
		2	Channel Flying Property Acquisition (1.4m FAA, 100k JNU)	Airport Unscheduled Funding	\$ 1,500,000
		3	Float Pond South Road and Embankment Improvements (1.63FAA, 110K JNU)	Airport Unscheduled Funding	\$ 1,730,000
		4	North Ramp Fencing and Lighting (375K FAA, 25K JNU)	Airport Unscheduled Funding	\$ 400,000
Airport Total Funding					\$ 7,380,000
BRH					
		1	Asphalt Replacement Drive from Admin to JMC	Bartlett Hospital Enterprise Fund	\$ 400,000
		2	Crises Stabilization	Bartlett Hospital Enterprise Fund	\$ 5,500,000
		3	Study to Determine a Secondary Campus Access	Bartlett Hospital Enterprise Fund	\$ 90,000
		4	Operating Room Ventilation	Bartlett Hospital Enterprise Fund	\$ 300,000
		5	Deferred Maintenance	Bartlett Hospital Enterprise Fund	\$ 4,000,000
BRH Total Funding					\$ 4,000,000
Docks & Harbors					
	Docks	1	Auke Bay Passenger for Hire - Phase IIIC	State Marine Passenger Fees	\$ 3,000,000
		2	Shorepower	Port Development Fees	\$ 1,000,000
		3	Safety Guard Rail Along Dock Face	State Marine Passenger Fees	\$ 1,000,000
Docks Total					\$ 5,000,000
	Harbors	1	Harris Harbor Anode Installation Match Funds	Docks and Harbors Enterprise Fund	\$ 125,000
Harbors Total					\$ 125,000
Docks & Harbors Total Funding					\$ 5,125,000

FY 2021 CIP PROJECT					
DEPARTMENT	Division	Priority	Project	Funding Source	Amount
Eaglecrest					
		1	Deferred Maintenance/Mountain Operations Improvements	General Sales Tax Improvements	\$ 275,000
Eaglecrest Total Funding					275,000
Lands & Resources					
		1	Pits & Quarries Infrastructure Maintenance and Expansion	Lands & Resources Fund	\$ 50,000
		2	Pederson Hill	Unscheduled Funding	\$ 300,000
Lands & Resources Total Funding					350,000
Parks & Recreation					
Building Maintenance					
		1	Deferred Building Maintenance	General Sales Tax Improvements & Temporary 1% Sales Tax Priorities - Voter Approved Sales Tax 10/01/18 - 09/30/23	\$ 975,000
		2	Deferred Building Maintenance - DT Library Exterior Siding Replacement	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/1/18 - 09/30/23	\$ 150,000
Building Maintenance Total					\$ 1,125,000
Parks/Rec Areas					
		1	Park & Playground Maintenance & Improvements	General Sales Tax Improvements	\$ 350,000
		2	Sportsfield Repairs & Improvements	General Sales Tax Improvements	100,000
		3	Hank Harmon rifle Range Safety Improvements (Grant)	Unscheduled Funding	25,000
		4	Neighborhood Park Challenge Grant - Juneau Park Foundation	Unscheduled Funding	30,000
Parks/Recreation Areas Total					\$ 505,000
Trail Maintenance					
		1	Trail Maintenance	General Sales Tax Improvements	\$ 100,000
		2	Kaxdigoowu Heen Dei Trail and Bridge Reconstruction (Match)	Areawide Street Sales Tax	350,000
		2	Kaxdigoowu Heen Dei Trail and Bridge Reconstruction (Grant)	Unscheduled Funding	2,361,581
Trail Maintenance Total					\$ 2,811,581
Rec Buildings					
		1	Augustus Brown Pool - Major Renovations	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/1/18 - 09/30/23	\$ 3,300,000
Rec Buildings Total					\$ 3,300,000

FY 2021 CIP PROJECT

DEPARTMENT	Division	Priority	Project	Funding Source	Amount
Downtown Parking		1	Marine Park & Downtown Transit Center Parking Garages Security Cameras	Downtown Parking Fund	\$ 50,000
Downtown Parking Total					\$ 50,000
Centennial Hall		1	Centennial Hall Upgrades/Deferred Maintenance	Hotel-Motel Tax Priorities & Temporary 1% Sales Tax - Voter Approved Sales Tax 10/1/18 - 09/30/23	\$ 6,800,000
Centennial Hall Total					\$ 6,800,000
Parks and Recreation Total Funding					\$ 14,591,581
Public Works & Engineering Department					
Capital Transit					
		1	Bus Shelters Improvements	Areawide Street Sales Tax	\$ 150,000
		2	Install Additional Electric Bus Charger Infrastructure - Bus Barn	Areawide Street Sales Tax	200,000
Capital Transit Total					\$ 350,000
Engineering					
		1	Marine Park Seawalk Infill (Lightering Float Area)	State Marine Passenger Fees	1,600,000.00
		2	South Franklin Street pedestrian Safety Capacity Improvements	State Marine Passenger Fees	1,000,000.00
		3	Homestead Park Planning/Cost estimate	State Marine Passenger Fees	50,000.00
		4	Waterfront Seawalk	Marine Passenger Fees	1,100,000.00
		5	Downtown Transportation Study (Circulator, Glacier Express, etc.).	Marine Passenger Fees	150,000.00
		6	EV (Electric Vehicle) Policy and Charging Infrastructure	Areawide Street Sales Tax	\$ 50,000.00
		7	Contaminated Site Reporting	Areawide Street Sales Tax	50,000.00
Engineering Total					\$ 100,000.00
RecycleWorks					
		1	RecycleWorks Waste Diversion Program	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/01/18 - 09/30/23	400,000
RecycleWorks Total					\$ 400,000
Streets					
		1	Pavement Management	Areawide Street Sales Tax	\$ 600,000
		2	Sidewalk & Stairway Repairs	Areawide Street Sales Tax	200,000
		3	CBJ Minor Arterial Streets ADA Curb Ramp Improvements	Areawide Street Sales Tax	180,000
		4	Areawide Drainage Improvements	Areawide Street Sales Tax	100,000
		5	Capital Avenue - Main to Gold Creek, Phase 2	Areawide Street Sales Tax	800,000

FY 2021 CIP PROJECT

DEPARTMENT	Division	Priority	Project	Funding Source	Amount
Streets Continued		6	Meadow Lane (South end)	Areawide Street Sales Tax	2,660,000
		7	Cedar (Mendenhall Blvd. to Collumbia Blvd.)	Areawide Street Sales Tax	620,000
		8	Robbie Road, Lind Court, and Laurie Lane	Areawide Street Sales Tax	800,000
		9	Tongass Boulevard - (Trinity to Loop Road)	Areawide Street Sales Tax	2,140,000
		10	Harborview School Zone Expansion	Areawide Street Sales Tax	200,000
		11	4th Street Douglas F to I Street Drainage Improvements	Areawide Street Sales Tax	400,000
Streets Total				\$	8,700,000
Wastewater Utility					
		1	Mendenhall Wastewater Treatment Plant (MWWTP) Pretreatment	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/01/18 - 09/30/23	\$ 1,400,000
		2	Auke Bay Treatment Plant (ABTP) Facility Structural and Painting Projects	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/01/18 - 09/30/23	100,000
		3	Wastewater Realtime Monitoring	Port Development Fees	500,000
		4	Process Controls and SCADA (Superfisory Control And Data Acquisition) upgrades	Wastewater Enterprise Fund	1,000,000
		5	Pump Station Upgrades	Wastewater Enterprise Fund	2,383,000
		6	JDTP Pretreatment Improvements	Wastewater Enterprise Fund	500,000
		7	MWWTP SBR/WS/TS Pump Replacement	Wastewater Enterprise Fund	1,000,000
		8	JDTP Facility Structural Improvements	Wastewater Enterprise Fund	250,000
		9	MWWTP Furnace & Fuel System Upgrades	Wastewater Enterprise Fund	650,000
		10	Meadow Lane (South end) (Street Recon)	Wastewater Enterprise Fund	379,000
		11	Cedar St. (Mendenhall Blvd. to Collumbia Blvd.) (Street Recon.)	Wastewater Enterprise Fund	118,000
		12	Robbie Road, Lind Court, and Laurie Lane Reconstruction (Street Recon.)	Wastewater Enterprise Fund	20,000
		13	Tongass Boulevard - (Trinity to Loop Road) (Street Recon.)	Wastewater Enterprise Fund	265,000
		14	Douglas 4th Street - F St. to I St. & Side Streets Sewer System Seplacement	Wastewater Enterprise Fund	800,000
		15	Pavement Management Utility Adjustments	Wastewater Enterprise Fund	20,000
		16	ADOT Project Utility Adjustments	Wastewater Enterprise Fund	30,000
Wastewater Utility Total				\$	9,415,000
Water Utility					
		1	Douglas 4th Street - F St. to I St. and sidestreets water system replacement	Water Enterprise Fund	850,000
		2	Calhoun Avenue	Water Enterprise Fund	75,000
		3	Hospital Drive Waterline Replacement (Street Recon)	Water Enterprise Fund	100,000
		4	Meadow Lane (South end) (Street Recon)	Water Enterprise Fund	350,000

FY 2021 CIP PROJECT

DEPARTMENT	Division	Priority	Project	Funding Source	Amount
	Water Continued	5	Cedar St. (Mendenhall Blvd. to Columbia Blvd.) (Street Recon.)	Water Enterprise Fund	107,000
		6	Robbie Road, Ling Court and Laurie Lane Reconstruction (Street Recon)	Water Enterprise Fund	140,000
		7	Tongass Boulevard (Trinity to Loop Road) (Street Recon.)	Water Enterprise Fund	250,000
		8	Goodwin Road (Street Recon)	Water Enterprise Fund	112,000
		9	Delta Drive (Street Recon)	Water Enterprise Fund	229,000
		10	Airport Area Water Replacement (Mallard, Jordan, Alpine, Crest, etc.)	Water Enterprise Fund	109,000
		11	Last Chance Basin (LCB) Well Pump VFD Conversion and Programming Updates	Water Enterprise Fund	950,000
		12	LCB Chlorine Generators Maintenance	Water Enterprise Fund	300,000
		13	Salmon Creek Efficiency Improvements	Water Enterprise Fund & Temporary 1% Sales Tax - Voter Approved Sales Tax 10/01/18 - 09/30/23	\$ 825,000
		14	Outer Drive Watermain Replacement Design (Main St. south to Admiral Way.)	Water Enterprise Fund	150,000
		15	Pavement Management Water Utility Adjustments	Water Enterprise Fund	8,000
		16	Crow Hill and West Juneau Reservoir Inspection &	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/01/18 - 09/30/23	500,000
		17	Areawide Water Repairs/Minor Replacements	Water Enterprise Fund	150,000
Water Utility Fund Total					\$ 5,205,000
Public Works and Engineering Total Funding					\$ 24,170,000
Schools					
		1	JSD Buildings Major Maintenance/Match	Temporary 1% Sales Tax - Voter Approved Sales Tax 10/01/18 - 09/30/23	\$ 1,000,000
		2	Sayeik: Gastineau School Partial Roof Replacement	Juneau School District Unscheduled Funding	1,500,000
		3	Dzantiki Heeni Middle School Roof Replacement	Juneau School District Unscheduled Funding	1,750,000
Schools Total Funding					\$ 4,250,000

2021 CAPITAL IMPROVEMENT PROJECTS FUNDING SOURCES
--

FUNDING SOURCES	General Sales Tax	\$ 1,500,000
	Areawide Street Sales Tax	\$ 9,600,000
	Temporary 1% Sales Tax - Voter Approved 10/1/18 - 9/30/23	\$ 13,200,000
	Hotel-Motel Tax	\$ 2,300,000
	Marine Passenger Fee	\$ 2,600,000
	Port Development Fee	\$ 1,500,000
	State Marine Passenger Fee	\$ 5,300,000
	Bartlett Hospital enterprise Fund	\$ 10,290,000
	Downtown Parking Fund	\$ 50,000
	Docks & Harbors enterprise Fund	\$ 125,000
	Water Enterprise Fund	\$ 4,213,000
	Wastewater enterprise Fund	\$ 7,415,000
	Lands & Resources Fund	\$ 50,000
	Juneau School District Unscheduled Funding	\$ 3,250,000
	Airport Unscheduled Funding	\$ 7,380,000
	Unscheduled Funding	\$ 2,906,581
		\$ 71,679,581

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS

This section of the CIP shows the capital improvement plan for each CBJ department for fiscal years 2021 – 2026. The plans were submitted by the director of the department and were developed in conjunction with a governing board or committee. For example, the Docks and Harbors plan was submitted by the Port Director and developed by the Port Director and the Docks and Harbors Board.

The projects identified for 2021 are those recommended by the City Manager for funding in FY21. Projects identified by the City Manager in years 2022 and 2023 will be recommended for funding in the coming fiscal years. Those projects identified for funding beyond 2023 provide a general direction of capital spending in those years, not a specific direction.

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS								
Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future
Administration								
Manager's Office								
IT - Infrastructure Upgrades	1	\$ 400,000	\$ 400,000					
Affordable Housing Fund	2	\$ 400,000	\$ 400,000	\$ 400,000				
Willoughby Parking Structure	3							\$ 15,000,000
New City Hall	4							\$ 50,000,000
South End of Gastineau Ave.	5							\$ 200,000
Composting Feasibility Study	6							\$ 100,000
Wayfinding and Gateway Signage - auke Bay	7							\$ 250,000
W. Douglas Road Feasibility Study/Plan	8							\$ 250,000
W. Douglas Road Middle Creek Crossing	9							\$ 4,000,000
Cordova St. Alternate Access	10							\$ 8,000,000
Move Riverbend Elementry Access to Dimond Park Signalized Entrance	11							\$ 1,500,000
Replace Montana Creek Bridge (Past Rifle Range)	12							\$ 750,000
North Douglas Channel Crossing	13							\$ 90,000,000
Mass Wasting Study for Downtown Area	14							\$ 750,000
Implement/Build Lemon Creek Area Plan	15							\$ 15,000,000
W. Douglas Expansion/Development	16							\$ 25,000,000
Manager's Office Total:			\$ 800,000	\$ 800,000	\$ 400,000	\$ -	\$ -	\$ 210,800,000
Fire								
GFS Air Quality Improvements	1	\$ 100,000						
JFS Kitchen & Living Space Renovation	2		\$ 500,000					
JFS Classroom Technology Upgrade	3		\$ 50,000					
Hagevig Regional Training Center Improvements	4			\$ 750,000				
DFS Renovation	5			\$ 75,000				

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS								
Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future
Fire	Station Alerting System for Volunteer Stations	6			\$ 120,000			
	Lemon Creek Fire Station Design & Permits	7				\$ 950,000		
	JFS SCBA Air Compressor Replacement	8				\$ 100,000		
	Auke Bay Live In Quarters	9					\$ 1,250,000	
	JFS Apparatus Door Replacement	10					\$ 165,000	
	Lemon Creek Fire Station Construction & Permits	11						\$ 12,000,000
	Burn Pit Replacement and Paving at Hagavig Regional Training Center	12						\$ 1,500,000
	Fire Total:		\$ 100,000	\$ 550,000	\$ 945,000	\$ 1,050,000	\$ 1,415,000	\$ 13,500,000
	Police							
	Crow Hill Radio site Improvements and Upgrades	1	\$ 150,000					
	Impound Lot Security Improvements	2		\$ 90,000				
Police	Building/Flooring Replacement	3		\$ 200,000				
	Physical Evidence Storage	4			\$ 400,000			
	Police Total:		\$ 150,000	\$ 290,000	\$ 400,000			
Administration Total:			\$ 1,050,000	\$ 1,640,000	\$ 1,745,000	\$ 1,050,000	\$ 1,415,000	\$ 224,300,000
Airport								
Airport	26 MALSR (FAA F&E Project)	1	\$ 3,750,000					
	Channel Flying Property Acquisition (FAA Compliance)	2	\$ 1,500,000					
	Float Pond Improvements (South Road/Embankment)	3	\$ 1,730,000					
	Fencing & Lighting North Ramp	4	\$ 400,000					
	Channel Flying Property Acquisition (FAA Compliance)	5		\$ 3,163,735				
	Float Pond Improvements (South Road/embankment)	6		\$ 3,163,735				
	Fencing & Lighting North Ramp	7		\$ 3,163,735				
	Fencing & Lighting Bond Interest	8		\$ 1,480,000				

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
		Terminal Camera Surveillance System Design & Install	9		\$ 200,000				
		Replace Trash Compactors and Pads	10		\$ 100,000				
		Multi-Modal Feasibility Planning	11		\$ 10,000				
		Passenger Terminal Parking Lot Rehab	12			\$ 3,000,000			
		Terminal Area (121) Apron Rehabilitation	13			\$ 3,500,000			
		Terminal Area (135) Apron	14			\$ 6,000,000			
		Emergency Vehicle Access Road (EVAR) Extend Design/Construct	15			\$ 500,000			
		Acquire Wetlands Access Vehicle (w/CCFR)	16			\$ 250,000			
		Replace Snow Removal Equipment	17			\$ 5,000,000			
		NE Development Area Sewer Infrastructure	18			\$ 100,000			
		Phase IC SREB (remainder of maintenance shop) non -FAA elig.	19			\$ 5,500,000			
		Design & Reconstruct Alex Holden Way, Cessna and Renshaw	20				\$ 2,200,000		
		Design/Const. Taxiway C Reconfiguration	21				\$ 5,000,000		
		Design/Const. Conversion of Runway 8/26 to 9/27 - MAGVAR (2025)	22				\$ 200,000		
		Design/Const. Safety Area Grading @ RW Shoulder and NAVAIDs (2025)	23					\$ 3,300,000	
		Reconstruct West GA Taxilanes (2026)	24					\$ 2,500,000	
		Reconstruct West Tiedown Apron (2026)	25					\$ 3,000,000	
		Replace ARFF Truck (2026)	26					\$ 1,000,000	
		Reconstruct East GA Taxilanes (2027)	27					\$ 2,000,000	
		Reconstruct East Tiedown Apron (2027)	28					\$ 3,000,000	
		Reconstruct E-1 Ramp (2027)	29					\$ 5,500,000	
		Terminal Expansion Planning - Baggage, Departure Loounge	30					\$ 600,000	
		Parking Garage	31						\$ 20,000,000

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS								
Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future
Snow Removal Equipment Acquisition		32						\$ 5,000,000
ARFF Truck Replacement		33						\$ 1,000,000
Demolish (old) Sand/Chem Facility Complete Subsurface		34						\$ 1,000,000
Terminal Infrastructure Replacement		35						\$ 5,000,000
Airport Master Plan Update		36						\$ 1,200,000
Relocate/Construct FAA ATCT		37						\$ 50,000,000
Terminal Expansion Construction		38						\$ 10,000,000
Landside Access Roads Pavement Rehab		39						TBD
Airfield Pavement Rehab		40						TBD
Civil Air Patrol Hangar Relocation		41						TBD
Fish & Wildlife Service Hangar Relocation		42						TBD
Airport Total:			\$ 7,380,000	\$ 11,281,205	\$ 23,850,000	\$ 7,400,000	\$ 20,900,000	\$ 93,200,000
BRH								
Asphalt Replacement Drive from Admin t		1	\$ 400,000					
Crises Stabilization		2	\$ 5,500,000	\$ 1,500,000				
Study to Determine a Secondary Campus Access		3	\$ 90,000					
Operating Room Ventilation		4	\$ 300,000					
Deferred Maintenance		5	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000
Master Facility Project		6		TBD	TBD	TBD	TBD	TBD
Parking Ramp (200 places)		7		\$ 2,000,000				
Relocate & Remodel Biomed, Dietary, Laundry, Materials Management Building		8		\$ 2,500,000	\$ 2,500,000			
Medical Office Building		9			\$ 2,000,000	\$ 1,000,000		
Remodel Laboratory (5,000 Sq Ft)		10						\$ 3,750,000
Maintenance Building for Equipment		11						\$ 750,000
Oxygen Tank (Bulk) Storage		12						\$ 500,000
BRH Total:			\$ 10,290,000	\$ 10,000,000	\$ 8,500,000	\$ 5,000,000	\$ 4,000,000	\$ 9,000,000

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS								
Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future
Docks & Harbors								
Docks								
	Shore Power at Cruise Ship Berths	1	\$ 1,000,000					\$ 25,000,000
	Dock Waterside Safety Railings	2	\$ 1,000,000					
	Downtown Waterfront Improvements Ph II	3		\$ 3,000,000				
	Deck Over at People's Wharf	4		\$ 3,000,000				
	Small Cruise Ship Infrastructure	5			\$ 5,000,000			
	Lightering Float Replacement	6			\$ 650,000			
	NOAA Dock	7						
Docks Total:			\$ 2,000,000	\$ 6,000,000	\$ 5,650,000	\$ -	\$ -	\$ 25,000,000
Harbors								
	Auke Bay Passenger for Hire Ph IIIC	1	\$ 3,000,000	\$ 1,500,000				
	Anode Installation Matching Funds - Harris Harbor	2	\$ 125,000					
	Aurora Harbor Rebuild - Ph IIII	3		\$ 4,000,000				
	Harbor Security Upgrades	4		\$ 100,000				
	Statter Breakwater Deferred Maintenance	5		\$ 100,000				
	Auke Bay Net Repair Float	6		\$ 300,000				
	Aurora Harbor Dredging - Tug Slips	7		\$ 350,000				
	Wayside Float Maintenance Dredging	8		\$ 350,000				
	Cost Share w/ ACOE - Statter Breakwater Feasibility	9						\$ 500,000
	Juneau Fisheries Terminal Development	10						\$ 25,000,000
	Marine Services Center	11						\$ 25,000,000
	Auke Bay Non-Motorized Coastal Transportation Link	12						\$ 12,500,000
	North Douglas Boat Ramp Improvements	13						\$ 5,000,000
	Aurora Harbormaster Building and Shop	14						\$ 3,000,000

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
	Douglas Harbor Uplands Improvements		15						\$ 2,000,000
	Statter Harbor Shop/Garage/Storage Facility		16						\$ 1,500,000
	Fish Sales Facility/Seaplane Float		17						\$ 1,000,000
	Taku Harbor Stockade Point Float Replacement		18						\$ 300,000
		Harbors Total:		\$ 3,125,000	\$ 6,700,000	\$ -	\$ -	\$ -	\$ 75,800,000
	Docks & Harbors Total:			\$ 5,125,000	\$ 12,700,000	\$ 5,650,000	\$ -	\$ -	\$ 100,800,000
Eaglecrest Ski Area									
	Deferred Maintenance/Mountain Operations								
	Lodge Maintenance/Improvements		1	\$ 25,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
	Lift Operations - Misc Lift Parts		2	\$ 20,000	\$ 20,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
	Mountain Operations - Trail Conditioning		3	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
	Mountain Operations - Hiking/Biking Trails		4	\$ 15,000	\$ 15,450	\$ 15,914	\$ 16,391	\$ 16,883	\$ 17,389
	Mountain Operations - Ski Run Maintenance		5	\$ 30,000	\$ 30,900	\$ 31,827	\$ 32,782	\$ 33,765	\$ 34,778
	Mountain Operations - Snowmaking Improvements		6	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
	Lift Operations - Black Bear Drive Terminal		7			\$ 200,000	\$ 300,000	\$ 50,000	
	Parking Lot and Traffic Flow Improvements		8	\$ 10,000					\$ 100,000
	Magic Carpet, Snowmaking Improvements /Grant Funds/ Eaglecrest Foundation		9	\$ 190,000					
	Mountain Operations - Nordic Improvements		10	\$ 10,000			\$ 15,000		\$ 60,002
	Rock Quarry Blasting and Crushing for Nordic and Alpine Trail Improvement		11	\$ 100,000					
	Lift Paint		12	\$ 40,000	\$ 40,000	\$ 30,000	\$ 40,000		
	Mountain Operations - Septic System Upgrades		13		\$ 40,000				
	Generator Building Repairs (Brown Shop)		14		\$ 50,000	\$ 50,000			

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS								
Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future
Patrol Locker Room Rebuild		15		\$ 100,000				
Ptarmigan Chair		16		\$ 85,000			\$ 300,000	
Hooter Chair		17		\$ 30,000				\$ 130,000
Mountaint - Night Lighting		18			\$ 60,000			
Mountain Operations - Caretaker Shack		19						\$ 50,000
Water Treatment Plant Upgrades		20						TBD
Summer Operations Development		21						TBD
Eaglecrest Ski Area Total:			\$ 465,000	\$ 511,350	\$ 502,741	\$ 519,173	\$ 515,648	\$ 507,169
Lands & Resources								
Pits & Quarries Infrastructure Maintenance and Expansion		1	\$ 50,000	\$ 50,000	\$ 50,000	\$ 150,000	\$ 75,000	\$ 200,000
Pederson Hill		2	\$ 300,000					
Lands & Resources Total:			\$ 350,000	\$ 50,000	\$ 50,000	\$ 150,000	\$ 75,000	\$ 200,000
Library								
Downtown Library Exterior Siding Replacement - Deferred Maintenance		1	\$ 150,000					
Downtown Library - Air Source Heat Pump		2		\$ 250,000				
Downtown Library - Digital Building Controls		3		\$ 200,000				
Douglas Meeting Room		4		\$ 87,000				
MPG/Downtown Library Elevator Lobby		5		\$ 45,000				
Douglas Library Carpeting		6		\$ 65,000				
Valley Library /Dimond Park Aquatic Center Outdoor Space Upgrade		7		TBD				
Library Total:			\$ 150,000	\$ 647,000	\$ -	\$ -	\$ -	\$ -
Parks & Recreation								
Building Maintenance								
Deferred Building Maintenance		1	\$ 825,000	\$ 2,050,000	\$ 2,100,000	\$ 2,150,000	\$ 2,200,000	\$ 2,250,000

	SIX-YEAR DEPARTMENT IMPROVEMENT PLANS								
	Division	Project Description							
Division			Priority	FY21	FY22	FY23	FY24	FY25	Future
Building Maintenance Total:				\$ 825,000	\$ 2,050,000	\$ 2,100,000	\$ 2,150,000	\$ 2,200,000	\$ 2,250,000
Centennial Hall									
	Centennial Hall - Major Renovations		1	\$ 6,800,000					
	Meeting Room Wing Renovation		2		\$ 1,860,100				
	Office, Entry, Greenroom and Exterior		3			\$ 4,063,900			
	Restroom, Kitchen and Ballroom		4				\$ 456,600		
	Site & Civil Improvements		5					\$ 3,080,000	
Centennial Hall Total:				\$ 6,800,000	\$ 1,860,100	\$ 4,063,900	\$ 456,600	\$ 3,080,000	\$ -
Trail Maintenance									
	Trail Maintenance		1	\$ 100,000	\$ 255,000	\$ 260,000	\$ 270,000	\$ 275,000	\$ 280,000
	Kaxdigoowu Heen Dei Trail and Bridge Repairs (Grant)		2	\$ 2,361,581					
	Kaxdigoowu Heen Dei Trail and Bridge Repairs (CBJ Match)		2	\$ 350,000					
Trail Maintenance Total:				\$ 2,811,581	\$ 255,000	\$ 260,000	\$ 270,000	\$ 275,000	\$ 280,000
Rec Buildings									
	Augustus Brown Pool Deferred Maintenance		1	\$ 3,300,000					
	Treadwell Ice Arena - Roof Replacement		2		\$ 1,200,000				
	Aquatic Facilities Security Cameras		3		\$ 50,000				
	Augustus Brown Pool - Parking Lot Repairs & Security Lighting		4			\$ 500,000			
	Dimond Park Aquatic Center - Pool Deck Safety Surfacing Repairs		5			\$ 350,000			
	Valley Park Operations Shop Improvements		6				\$ 50,000	\$ 250,000	
	Treadwell Ice Arena - Parking Lot Paving		7				\$ 280,000		
	Treadwell Ice Arena Custom Bleachers/Storage Unit		8				\$ 90,000		
	Treadwell Ice Arena - Refrigeration System Replacement		9					\$ 1,650,000	\$ 500,000

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
	Landscape Operations Greenhouse Replacement		10						\$ 30,000
	Treadwell Ice Arena - Concession Area Upgrade		11						\$ 5,500,000
	Consolidated Facilities & Park Maintenance Shop		12						\$ 750,000
	Douglas Shop - Indoor Gym Conversion		13						
	Recreation Buildings Total:			\$ 3,300,000	\$ 1,250,000	\$ 850,000	\$ 420,000	\$ 1,900,000	\$ 6,780,000
Parks/Rec Areas									
	Parks & Playground Deferred Maintenance and Repairs		1	\$ 350,000	\$ 410,000	\$ 420,000	\$ 430,000	\$ 440,000	\$ 450,000
	Sports Field Resurfacing & Repairs		2	\$ 100,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
	Hank Harmon Rifle Range Safety Improvements (Grant)		3	\$ 25,000		\$ 75,000			
	Neighborhood Park challenge Grant Matching Funds (JPF)		4	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
	Hank Harmon Rifle Range Safety Improvements (Match)		5		\$ 25,000	\$ 75,000			
	Twin Lakes Pathway Safety Lights		6		\$ 350,000				
	Montana Creek Cross Country Running & Skiing Trail Expansion		7		\$ 10,000	\$ 450,000			
	Cope Park Paving, ADA Paths, &		8		\$ 650,000				
	Riverside Rotary Park Parking Lot & Pathway Repairs, Lighting		9		\$ 300,000	\$ 350,000			
	Amalga Meadows Park Site Improvements, Drainage ADA and		10		\$ 300,000				
	Jackie Renninger Skate Park Drainage, Parking Lot Repairs, Lighting		11		\$ 100,000	\$ 250,000			
	Arboretum & EVC Water Well-Drilling & Infrastructure		12		\$ 200,000				
	Adair-Kennedy Park Repair and Replacement		13			\$ 1,800,000	\$ 800,000	\$ 8,500,000	
	Savikko Park Repairs (Lighting, Sidewalks, Shelters, & Parking Lot)		14			\$ 2,500,000			

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future	
Fish Creek Park ADA Fishing Platform, campground and vault toilet	15				\$ 250,000				
Melvin Park Parking Lot & Fence Repairs	16				\$ 225,000				
Savikko Park Restroom #1 Replacement (joint project with D&H)	17					\$ 650,000			
Savikko Park (Sandy Beach) Restroom Replacement	18					\$ 650,000			
Riverside Rotary Park Restroom	19					\$ 225,000			
Auke Lake Wayside Restrooms and Dock	20					\$ 350,000			
Sunshine Cove Vault Toilet	21						\$ 125,000		
Savikko Park Gold Rush Days Plaza Improvements	22							\$ 650,000	
Twin Lakes ADA Dock Replacement	23							\$ 100,000	
Evergreen Cemetery Headstone Restoration for City Founding Figures (Juneau, Harris, Kowee)	24							\$ 30,000	
Twin Lakes Ice Skating Lights	25							\$ 150,000	
Parks/Rec Areas Total:			\$ 490,000	\$ 2,610,000	\$ 6,660,000	\$ 3,370,000	\$ 9,330,000	\$ 1,645,000	
Land Acquisition									
Auke Lake Trail - Montana Creek Trail Corridor and Brotherhood Park Consolidation (Grant)	1				\$ 2,000,000				
Outer Point Waterfront	2					\$ 210,000			
West Mendenhall Valley Wetlands	3							\$ 480,000	
North Bridget Cove	4							\$ 540,000	
Land Acquisition Total:			\$ -	\$ -	\$ 2,000,000	\$ 210,000	\$ -	\$ 1,020,000	
Downtown Parking									
Marine Park & Downtown Transit Center Parking Garages Security Cameras	1		\$ 50,000	\$ 75,000					

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS								
Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future
Marine Parking Garage Vehicle Barrier Replacement		2						\$ 500,000
Downtown Parking Total:			\$ 50,000	\$ 75,000	\$ -	\$ -	\$ -	\$ 500,000
Parks & Recreation Department Total:			\$ 14,276,581	\$ 8,100,100	\$ 15,933,900	\$ 6,876,600	\$ 16,785,000	\$ 12,475,000
Public Works & Engineering								
Capital Transit								
Bus Shelter Improvements		1	\$ 150,000					
Install Additional Electric Bus Charger Infrastructure - Bus Barn		2	\$ 200,000					
Bus Shelter Improvements		3		\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Install Additional Electric Bus Charger Infrastructure - Bus Barn		4		\$ 200,000				
Capital Transit Total:			\$ 350,000	\$ 250,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Engineering								
Marine Park Seawalk Infill (Lightering Float Area)		1	\$ 1,600,000					
S. Franklin Street Pedestrian Safety		2	\$ 1,000,000					
Homestead Park Planning/Cost		3	\$ 50,000					\$ 750,000
Waterfront Seawalk		4	\$ 1,100,000	\$ 1,500,000	\$ 2,000,000			\$ 10,000,000
Downtown Transportation Study		5	\$ 150,000					
EV (Electric Vehicle) Policy and		6	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Contaminated Sites Reporting		7	\$ 50,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 50,000	\$ 50,000
Engineering Department Total:			\$ 4,000,000	\$ 1,750,000	\$ 2,250,000	\$ 250,000	\$ 100,000	\$ 10,850,000
RecycleWorks								
Waste Diversion Program		1	\$ 400,000	\$ 200,000				
RecycleWorks Total:			\$ 400,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -
Streets								
Pavement Management Program		1	\$ 600,000	\$ 800,000	\$ 900,000	\$ 1,200,000	\$ 800,000	\$ 1,000,000
Sidewalks and Stairs Repairs		2	\$ 200,000	\$ 250,000	\$ 200,000	\$ 200,000	\$ 250,000	\$ 250,000
CBJ Minor Arterial Streets ADA Curb Ramp Improvements		3	\$ 180,000					

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
	Areawide Drainage Improvements		4	\$ 100,000		\$ 250,000	\$ 250,000	\$ 200,000	\$ 200,000
	Capital Ave. (Willoughby to 9th)		5	\$ 100,000					
	Calhoun Ave. - Main St. to Gold Ck., Phase 2		6	\$ 800,000					
	Meadow Lane (South End)		7	\$ 2,660,000					
	Cedar St. (Mendenhall Blvd. to Columbia Blvd.)		8	\$ 620,000					
	Robbie Road & Ling Court Reconstruction (Mountainside Rd. to		9	\$ 800,000					
	Tongass Blvd. (Trinity Dr. to Loop Rd.)		10	\$ 2,140,000					
	Harborview School Zone Expansion		11	\$ 200,000					
	4th St. Douglas Drainage - F St. to I St. & Side Streets		12	\$ 400,000					
	Delta Dr. Improvememnts (Valley Blvd. to end)		13		\$ 1,306,000				
	Goodwin Rd. Improvements (Blueberry Hills to end)		14		\$ 1,218,000				
	Poplar Ave. - (Mendenhall Blvd. to Taku Blvd.)		15		\$ 1,077,000				
	Chelsea Ct. Reconstruction		16		\$ 848,000				
	Retaining Wall Maintenance		17		\$ 200,000				
	Calhoun Ave. Improvements - Main St. to Gold Creek - Ph 2		18		\$ 1,000,000				
	Crowhill Dr. (Douglas Hwy to End)		19		\$ 1,100,000				
	Crest St. Reconstruction (Old Dairy to Yandukin)		20		\$ 1,200,000				
	Misty Ln. Improvements - bayview Subd)		21		\$ 600,000				
	Berhends Ave. Improvements		22		\$ 1,100,000				
	Dudley St. (Loop Rd. to end)		23		\$ 1,100,000				
	Basin Rd. (8th St. to Trestle)		24		\$ 700,000				
	N. Riverside Dr. Improvements (Division St. to tournure)		25			\$ 1,400,000			
	Foster Ave. Improvements - (Columbia to Poplar Ave.)		26			\$ 1,200,000			
	Dogwood Ln. Improvements - (Columbia to Poplar Ave.)		27			\$ 1,200,000			

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future	
	Lakeview Ct. Reconstruction	28			\$ 600,000				
	Vintage Blvd. - Riverside to Egan	29			\$ 1,200,000				
	Melrose St. Reconstruction & Drainage	30			\$ 1,100,000				
	Taku Blvd. Reconstruction (Ph I)	31				\$ 1,100,000			
	Nowell Ave Improvements - (North of Cordova)	32				\$ 600,000			
	Short St. (Glacier Hwy. to End)	33				\$ 600,000			
	Conifer Ln. Reconstruction	34				\$ 400,000			
	Radcliffe Rd. (Berner's Ave. to End)	35				\$ 850,000			
	Eyelet Ct. Improvements	36				\$ 400,000			
	Troy Ave. Improvements	37				\$ 1,100,000			
	Radcliffe Rd. - Berner's to End	38				\$ 850,000			
	Taku Blvd. Reconstruction (Ph II)	39					\$ 1,100,000		
	Mallard St. Improvements (Crest St. to Jordan Ave.)	40					\$ 1,100,000		
	Dogwood Ln. Improvements - (Columbia to Poplar Ave.)	41					\$ 1,100,000		
	Spruce Ln. (Loop Rd. to End)	42					\$ 500,000		
	Creek St. Improvements	43					\$ 600,000		
	Sharon St. Reconstruction (Killewich to Riverside)	44					\$ 1,200,000		
	Lawson Creek Rd. (crowhill Dr. to End)	45					\$ 1,100,000		
	Thunder Mountain Rd. Improvements	46						\$ 2,100,000	
	Blackrby St. (Glacier hwy to End)	47						\$ 2,100,000	
	Starlite Ct. Improvements - Bayview Subd	48						\$ 1,500,000	
	Long Run Dr. Improvements - Drainage - Riverside to End	49						\$ 2,500,000	
	Clinton Dr. Reconstruction	50						\$ 200,000	
	N. Franklin St. Reconstruction (Second St. to Sixth St.)	51						\$ 2,300,000	
Streets Division Total:			\$ 8,800,000	\$ 12,499,000	\$ 8,050,000	\$ 7,550,000	\$ 7,950,000	\$ 12,150,000	
Wastewater Utility									
	MWWTP Pretreatment	1	\$ 1,400,000						

	SIX-YEAR DEPARTMENT IMPROVEMENT PLANS								
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
		ABTP Facility Structural and Painting Projects	2	\$ 100,000		\$ 200,000			\$ 200,000
		Wastewater Realtime Monitoring	3	\$ 500,000					
		Process Controls & SCADA (Supervisory Control and Data Acquisition) Upgrades	4	\$ 1,000,000					
		Pump Station Upgrades (7 outdated stations remain)	5	\$ 2,383,000	\$ 2,000,000	\$ 2,000,000			
		JDTP Pretreatment Improvements	6	\$ 500,000	\$ 2,500,000				
		MWWTP SBR/WS/TS Pump Replacement	7	\$ 1,000,000					\$ 750,000
		JDTP Facility Structural Improvements	8	\$ 250,000	\$ 900,000	\$ 900,000	\$ 650,000		
		MWWTP Furnace & Fuel System Upgrades	9	\$ 650,000					
		Meadow Lane (South End) - Street Reconstruction	10	\$ 379,000					
		Cedar St (Mendenhall Blvd. to Columbia Blvd.) - Street Reconstruction	11	\$ 118,000					
		Robbie Rd, Ling Ct. & Laurie Ln. - Street Reconstruction	12	\$ 20,000					
		Tongass Blvd. (trinity to Loop) 0 street Reconstruction	13	\$ 265,000					
		Douglas 4th St. (F St. to I St.) -- Street Reconstruction & side Street Sewer Replacement	14	\$ 800,000					
		Pavement Management Program - Utility Adjustments (frames & Lids)	15	\$ 20,000	\$ 20,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 30,000
		ADOT Project Utility Adjustments	16	\$ 30,000	\$ 15,000		\$ 35,000		\$ 35,000
		Outer Drive Pump Station Pump Replacements and VFD Upgrades	17						
		ABTP Tank Replacement	18		\$ 2,250,000				
		Pump & Motors Improvements/Lift Station Upgrades	19		\$ 250,000		\$ 450,000		\$ 500,000
		MWWTP SBR Basin Repairs (Structural) and Resurfacing/Resealing	20		\$ 2,000,000	\$ 2,500,000	\$ 1,600,000		

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
	MWWTP Outfall Maintenance and		21		\$ 100,000				\$ 250,000
	ABTP SCADA and Instrumentation Upgrades		22		\$ 650,000				
	JDTP SCADA and Instrumentation Upgrades		23		\$ 850,000				
	JDTP Instrumentation Upgrades		24		\$ 400,000				
	Thunder Mt. Road - Street Reconstruction		25		\$ 35,000				
	Crest, Alpine, Airport Area Roads - Street Reconstruction		26		\$ 150,000				
	Lakeview Court - Street Reconstruction		27		\$ 100,000				
	Dogwood Lane - Street Reconstruction		28		\$ 150,000				
	Behrends Road - Street Reconstruction		29		\$ 100,000				
	S. 9th St & Indian St. Improvements (8th to Capitol) - Street Reconstruction		30		\$ 150,000				
	Conifer Ln. - Street Reconstruction		31		\$ 25,000				
	Poplar Ave. - Mendenhall to Taku - Street Reconstruction		32		\$ 90,000				
	Chelsea Ct. - Street Reconstruction		33		\$ 50,000				
	Bayview Subd. - Starlight and Misty Street Reconstruction (including Pump Stations)		34		\$ 950,000				
	Goodwin Rd. Improvements and Pump Station Replacement - Street Reconstruction		35		\$ 850,000				
	Basin Recirculation Pump Replacements - MWWTP		36			\$ 500,000			\$ 500,000
	West Juneau Pump Station Pump Replacements & VFD Upgrades		37			\$ 1,050,000			
	MWWTP Treatment Process Upgrades		38			\$ 1,500,000		\$ 7,500,000	
	MWWTP Site Improvements (Lighting, Security, Access)		39			\$ 500,000			
	JDTP Outfall Maintenance and Rehabilitation		40			\$ 1,000,000			\$ 500,000
	Foster Avenue - Street Reconstruction		41			\$ 200,000			

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
	Vintage Boulevard - Street Reconstruction		42			\$ 125,000			
	Melrose Street - Street Reconstruction		43			\$ 125,000			
	Crow Hill Drive - Street Reconstruction		44			\$ 55,000			
	JDTP Site Improvements (Lighting, Security, Access)		45				\$ 120,000		\$ 75,000
	JDTP Treatment Process Upgrades		46				\$ 1,000,000		\$ 5,000,000
	MWWTP Facility Structural and Painting Projects		47				\$ 500,000		\$ 500,000
	Wastewater Utility All Facilities Plan Update		48				\$ 850,000		
	Long Run (Riverside to River) - Street Reconstruction		49				\$ 150,000		
	Eyelet Ct. - Street Reconstruction		50				\$ 55,000		
	Lawson Creek Rd. - Street Reconstruction		51				\$ 100,000		
	Troy Ave. Improvements - Street Reconstruction		52				\$ 45,000		
	Long Run Dr. Lift Station Wet Well Improvements		53					\$ 500,000	
	Gruening Park Forcemain Replacement - Renninger to Mapco		54					\$ 1,250,000	
	ABTP Outfall Preventative Maintenance and Repairs		55					\$ 1,000,000	
	Street Reconstructions		56					\$ 400,000	\$ 400,000
	ABTP Treatment Process Repairs and Upgrades		57						\$ 2,500,000
	WW Collections Operations Shop		58						\$ 850,000
	ADOT Road Construction Utility Replacements		59						\$ 500,000
Wastewater Utility Division Total:				\$ 9,415,000	\$ 14,585,000	\$ 10,680,000	\$ 5,580,000	\$ 10,675,000	\$ 12,590,000
	Water Utility								
	Douglas 4th Street F to I and sidestreets water system replacement		1	\$ 850,000					
	Calhoun Avenue Water System Replacement (street reconstruction)		2	\$ 75,000					

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
		Hospital Drive Water System Replacement (street reconstruction)	3	\$ 100,000					
		Meadow Lane water System Replacement (street reconstruction)	4	\$ 350,000					
		Cedar (Mendhall Blvd. to Columbia Blvd.) Water System Replacement (street reconstruction)	5	\$ 107,000					
		Robbie Road, Laurie Lane, Ling Ct Recon (street reconstruction)	6	\$ 140,000					
		Tongass Blvd Water System (street reconstruction)	7	\$ 250,000					
		Goodwin Road Water System (street reconstruction)	8	\$ 112,000					
		recononstruction)	9	\$ 229,000					
		Airport Area Water Wystem Replacement (Mallard, Alpine, Jordan	10	\$ 117,000	\$ 500,000	\$ 500,000	\$ 500,000		
		LCB Well Pump VFD Conversion & Programming Upgrades	11	\$ 950,000	\$ 500,000	\$ 500,000			
		Last Chance Basin Chlorine Generator Replacement	12	\$ 300,000					
		Salmon Creek Efficiency Improvements	13	\$ 825,000					
		Outer Drive Watermain Replacement Main St. South to Admiral Way/S.	14	\$ 150,000	\$ 1,350,000				
		Areawide Water Repairs/Replacement	15	\$ 150,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 120,000
		Crow Hill & W Juneau Reservoir inspection, Rehab, Mixer and Cathodic	16	\$ 500,000					
		Pavement Management Utility Adjustments (valve boxes, vault lids	17	\$ 8,000	\$ 8,000	\$ 10,000	\$ 10,000	\$ 12,000	\$ 12,000
		4th St Douglas C to F Street (concurrent with road project)	18		\$ 225,000				
		Nowell Ave (North of Cordova) Water (Street Reconstruction)	19		\$ 150,000				
		Dudley Street (Loop Rd. to End) Water System (Street Reconstruction)	20		\$ 180,000				
		Channel Drive Water , Egan Crossing from DIPAC across Egan	21		\$ 250,000	\$ 1,500,000			

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
		Misty Lane - Bayview - Water System (Street Reconstruction)	22		\$ 100,000				
		Starlie Court - Bayview - Water System (Street Reconstruction)	23		\$ 200,000				
		Basin Road Water (8th St. to Trestle) (Street Reconstruction)	24		\$ 150,000				
		Reconstruction)	25		\$ 180,000				
		Poplar Ave Water System (Street Reconstruction)	26		\$ 175,000				
		Chelsea Ct Water System (Street Reconstruction)	27		\$ 185,000				
		Lakeview CT Water Replacement (Street Reconstruction)	28		\$ 80,000				
		Metering Upgrades, Radio Read, Master Station, Mobile Pack	29		\$ 500,000				
		Mendenhall Peninsula Water Replacement - Glacier Hwy. to Engeers Cutoff	30		\$ 3,000,000				
		East Valley Reservoir Improvments, Power to Reservoir, Mixer, Cathodic Protection	31		\$ 250,000				
		Cope Park Pump Station Upgrades, Pumps, Motors, and Communications	32		\$ 750,000				
		Last Chance Basin Wells Rehab	33		\$ 250,000				
		PRV Station Improvements/Upgrades, Crowhill, 5th St. Douglas	34		\$ 500,000				
		Salmon Creek Onsite Chlorine Generation Replace/Upgrade	35			\$ 400,000			
		Cedar Park (W Juneau) Pump Station Upgrades/Rehab	36			\$ 750,000			
		Last Chance Basin Well #4 Rehab	37			\$ 100,000			
		AJ Tunnel No. 3 and Mill Tunnel Rehab	38			\$ 500,000		\$ 2,500,000	\$ 2,500,000
		W 9th & Indian Street - 8th St. to Capital Ave. Water System (Street Reconstruction)	39			\$ 175,000			
		MOV Installations & Communications Mill Tunnel, W. Juneau, Crow Hill	40			\$ 250,000	\$ 1,250,000		

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
	I Street Douglas Watermain Replacement		41			\$ 185,000			
	Egan Drive water Crossings Repl, Norway Point, Highland Drive, Salmon Creek.		42			\$ 800,000			
	Downtown Stairway/Easements 3rd St., Franklin St. to Gold St., (Street Reconstruction)		43			\$ 220,000			
	Foster Avenue (South of Cordova) Water System Replacement (Street		44			\$ 180,000			
	Dogwood Water System - Columbia Blvd. to Poplar St. (Street		45			\$ 180,000			
	Vintage Blvd. - (Street Reconstruction)		46			\$ 200,000			
	Melrose St. - (Street Reconstruction)		47			\$ 180,000			
	Short St. (Glacier Hwy. to End) Water (Street Reconstruction)		48			\$ 50,000			
	Thunder Mt. Rd. Water (Street		48			\$ 225,000			
	Lena Loop Water System Replacement		50			\$ 2,500,000			
	ADOT Projects Utility Adjustments (provide valve boxes, vault lids etc.)		51			\$ 50,000		\$ 60,000	
	Crow Hill Reservoir Improvements, Mixer, Cathodic Protection		52				\$ 150,000		
	Last Chance Basin Well #5 Rehab		53				\$ 100,000		
	Channel Crossing Automation and SCADA Communication		54				\$ 400,000		
	5th Street Douglas up to Linellen Hts		55				\$ 850,000		
	Crow Hill Reservoir Fill Line Replacement - Above 5th St to Reservoir		56				\$ 1,500,000		
	First Street Douglas Water System Replacement		57				\$ 300,000		
	Long Run Dr. - Riverside to River - Street Reconstruction		58				\$ 225,000		
	Eyelet Ct - Street Reconstruction		59				\$ 45,000		
	Mark Alan St Water System (street reconstruction)		60				\$ 75,000		

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division		Priority	FY21	FY22	FY23	FY24	FY25	Future
		Crow Hill Drive Water Aystem (street reconstruction)	61				\$ 180,000		
		Troy Avenue - Street Reconstruction	62				\$ 180,000		
		N Douglas Highway Waterline Replacement - Bridge to 4000 block	63				\$ 3,600,000		
		Salmon Creek Filter Plant Filter Plant Upgrades	64					\$ 2,500,000	
		Mendenhall Peninsula Water Replacement - Engrs Cutoff to End	65					\$ 3,500,000	
		East Valley Reservoir improvments, mixer, cathodic protection, need power to res.	66					\$ 450,000	
		Glacier Highway Hospital to Vanderbilt Water Slip Lining or Replacement	67					\$ 3,500,000	
		East Valley Reservoir Fill Line Replacement	68					\$ 850,000	
		Harris Street 4th to 5th Watermain Replacement (street reconstruction)	69					\$ 80,000	
		Lawson Creek Road - Street Reconstruction	70					\$ 175,000	
		Blackerby Street	71					\$ 175,000	
		Street Reconstructions	72					\$ 900,000	
		LCB Well 1 Rehabilitation	73						\$ 100,000
		Engineers Cutoff Water Replacement	74						\$ 1,500,000
		Crow Hill Pump Station Upgrades/Rehab	75						\$ 750,000
		Downtown High Elevation PRV Replacements	76						\$ 950,000
		West Juneau Reservoir Fill Line Replacement (top of Jackson St. to	77						\$ 850,000
		Mill Tunnel to Franklin Piping and PRV Replacement	78						\$ 1,750,000
		Bonnie Brae Water System Replacement	79						\$ 1,500,000
		Lena Pump Station Upgrades	80						\$ 500,000
		Street Reconstructions	81						\$ 3,500,000
		Water Utility Division Total:		\$ 5,213,000	\$ 9,583,000	\$ 9,555,000	\$ 9,465,000	\$ 14,802,000	\$ 14,032,000
		Works & Engineering Department Total:		\$ 28,178,000	\$ 38,867,000	\$ 30,585,000	\$ 22,895,000	\$ 33,577,000	\$ 49,672,000

SIX-YEAR DEPARTMENT IMPROVEMENT PLANS									
	Division	Project Description							
	Division	Project Description	Priority	FY21	FY22	FY23	FY24	FY25	Future
Schools									
	JSD Buildings Major Maintenance/ Match		1	\$ 1,000,000					
	Sayeik: Gastineau Community School Partial Roof Replacement		2	\$ 1,500,000					
	Dzantik'I Heeni Middle School Roof Replacement		3	\$ 1,750,000					
	Riverbend Elementary School Roof Replacement		4		\$ 2,000,000				
	Juneau-Douglas High School Roof Repair		5			\$ 500,000			
	Marie Drake Renovation		6				\$ 31,000,000		
	Mendenhall River Community School Renovation		7				\$ 20,000,000		
	Floyd Dryden Roof Repair		8					\$ 500,000	
Schools Total:				\$ 4,250,000	\$ 2,000,000	\$ 500,000	\$ 51,000,000	\$ 500,000	\$ -

	FY 2021 CIP PROJECT DESCRIPTIONS		
Department	Division	Priority	Project and Description
Administration	Manager's Office	1	IT - Infrastructure Upgrades: Provide funding for the updates and upgrades to the CBJ operational software.
		2	Affordable Housing Fund: These funds would provide funding for housing activities that target families and individuals who earn 120% of the Area Median Income and below. The fund can be used by local housing developers, non-profit agencies and social service agencies for the creation, acquisition, rehabilitation or preservation of affordable housing.
		3	Fire - Glacier Station Air Quality Improvements: Recent OSHA complaints are driving an improvement to air quality improvement needs (exhaust from aircraft and vehicles)
		4	Police - Crow Hill Radio Site Improvements and Upgrades: The current structure is rusting, has large holes and is not worthy of repair. The Crow Hill site is integral with moving forward with simulcast and is consistently leveraged for radio communications. The shed and backup power are included in the price estimate.
Airport		1	26 MALSR (FAA F&E): Install remaining approach lighting to Runway 26.
		2	Channel Flying Property Acquisition (1.4m FAA, 100K JNU): Purchase property at 8995 Yandukin - surrounded on all sides by JNU property.
		3	Float Pond South Road and Embankment Improvements: Completes the float pond improvements, south roadway and bank stabilization.
		4	North Ramp Fencing and Lighting: Relocate perimeter fencing and lighting due to terminal reconstruction and tenant lease development.
BRH		1	Asphalt Replacement Drive from Admin to MJC: This is to repair and reconstruct existing campus roadway that is deteriorating. \$500,000 was included in CIP for FY2020. However that is not adequate funding to complete the project. The total cost is currently estimated at \$900,000 so an additional \$400,000 is added to the project. This project is scheduled to begin in the Spring of 2020.
		2	Crises Stabilization: This project would create an 8-bed crisis stabilization center at Bartlett Regional Hospital, serving adults (4 beds) and youth (4 beds) from Juneau and the surrounding communities who are experiencing behavioral health crises. This project was included in CIP for FY2020 at \$3,500,000. This project has expanded as the location for the building is located on the site of the existing Behavioral Outpatient Services building which was scheduled to be replaced. The new building would consist of 2 levels with Behavioral Outpatient Services on the first floor with a second floor for Crises Stabilization. Grant dollars of \$1,700,000 have been awarded to the Crises Stabilization project.

FY 2021 CIP PROJECT DESCRIPTIONS			
Department	Division	Priority	Project and Description
		3	Secondary Campus Access: To study the feasibility of establishing a second access to BRH campus from Egan.
		4	Operating Room Ventilation: The ventilation system in the Operating Room needs to be updated. Pats are no longer available for the current equipment. The new system will also provide for redundancy preventing a shutdown of the OR.
		5	Deferred Maintenance: These funds are to address infrastructure projects. These funds will be used for known and planned projects and also used to address replacement or repairs that are not anticipated.
Docks & Harbors			
	Docks	1	Shorepower: This project would construct shore tie power connections at the Cruise Ship Terminal and Alaska Steamship Wharf to supply cruise ships with electricity and allow them to "cold iron".
		2	Dock Waterside Safety Railings: This project would install new safety railings along the seawalk between the Alaska Steamship Wharf and Cruise Ship Terminal where the low working railing is no longer required by vessels.
	Harbors	1	Auke Bay Passenger for Hire Ph IIIC: This project would install new steel piles, a waiting shelter with restrooms, parking and uplands pavement for the bus loading zone.
		2	Anode Installation Matching Funds - Harris: CBJ matching funds for the installation of sacrificial anodes to the steel piles at the Harris Harbor facility. CBJ received grant funding via the ADOT Municipal Harbor Matching Grant program.
Eaglecrest			
		1	Deferred Maintenance/Mountain Operations Improvements: This CIP funds the following projects:
			Lodge Maintenance/Improvements: this project will be for small roofing repairs on the Fish Creek Lodge, construct a new exterior stair well and connecting deck on the Porcupine Lodge, update Fish Creek Lodge Heating controls to improve efficiency, and yearly painting projects.
			Lift Operations - Misc Lift Parts: This project is to purchase parts and labor to replace lift tower support bolts on the Ptarmigan Chair Lift and 2 to 4 chair Lift Towers on the Hooter Chair Lift; manufacture and purchase replacement chair clips that secure the chairs to the haul rope of the Black Bear Chair; purchase new bearings and liners for the sheave wheel assemblies on all chair lifts; and wiring of new fire alarm system for the Black Bear Chair Lift for compliance with new safety standards.
			Mountain Operations - Trail Conditioning: This project will be to purchase culverts, filter fabric and occasionally renting heavy machinery for the purpose of improving drainage, repairing washouts and performing larger scale ski trail smoothing and repair.
			Mountain Operations - Hiking/Biking Trails: The project is for the ongoing efforts of expanding our hardened hiking and biking trail network around the mountain to better serve residents and visitors. These funds will cover labor, miscellaneous equipment and materials needed to stabilize certain areas. Summer use of hiking and biking is increasing every year.

FY 2021 CIP PROJECT DESCRIPTIONS			
Department	Division	Priority	Project and Description
			Mountain Operations - Ski Run Maintenance: This project will be for manicuring of ski trails, removing brush and small tree growth in the early and mid-summer, late summer efforts shift to mowing by hand all lower mountain Alpine and Nordic ski trails. This work is critical to allowing the mountain to operate with very low amount of natural and manmade snow.
			Mountain Operations - Snowmaking Improvements: This project is for in-house fabrication of two movable compressed air manifolds to be used in conjunction with our new high efficiency air/water snowmaking equipment and to purchase air and water hoses as well as high voltage extension cords necessary for operation of snowmaking equipment.
			Parking Lot and Traffic Flow Improvements: The Eaglecrest Parking Lot has numerous large sinkholes in both the upper and lower parking lots that create hazards and risk of vehicle damage in both summer and winter. This project is to cut existing asphalt fill with the rock to be created from the Quarry and patch with fresh asphalt.
		2	Magic Carpet /Grant funds/ Eaglecrest Foundation: The Eaglecrest Board is working with the Eaglecrest Foundation to launch another round of Fund Raising for construction of a Magic Carpet Ski Lift in the Procupine Learning Area and continued improvements to the snowmaking infrastructure. The last fund raising campaign from the Eaglecrest Foundation was for the construction of the Black Bear Chair Lift. This campaign sold corporate sponsorship signs on ski lift towers and back of chairs for a five year term. The proceeds from this previous effort was \$190,000. The eaglecrest Foundation is confident that they can have similar success while returning to this donor pool to renew their existing sign placement. The Magic Carpet Ski Lifts have become the most commonly used first time beginner ski lift across the ski industry worldwide. Eaglecrest desires to install a Magic Carpet Conveyor Ski Lift to quicken the learning curve of the beginners to graduate to the Porcupine Chair Lift
Lands & Resources		1	Pits and Quarries infrastructure Maintenance and Expansion: Provide funding for major maintenance and expansion to meet the needs of the material source users.
		2	Pederson Hill: Partial funding for construction of subsequent phases of Pederson Hill Subdivision.
Library		1	Downtown Library - Exterior Siding Replacement: Replace downtown library siding where water infiltration has occurred, damaging the building envelope and reducing insulation quality.
Parks & Rec	Bldg. Maintenance	1	Deferred Building Maintenance: Annual funding for deferred maintenance and repair of municipal buildings, facilities, and infrastructure.

FY 2021 CIP PROJECT DESCRIPTIONS			
Department	Division	Priority	Project and Description
	Centennial Hall	1	Centennial Hall Upgrades/Deferred Maintenance: Replacement of mechanical and electrical systems throughout the facility including a new heat plant and electrical switchgear; renovation of the ballrooms including operable partition upgrades or replacement, lighting replacement, A/V upgrades, acoustic upgrades, and finish replacement; renovation and expansion of existing lobby, and associated improvements to facilitate the above work.
	Downtown Parking	1	Marine Park and Downtown Transit Center Parking Garages Security Cameras: Providing safe parking facilities in the downtown area supports Assembly goals for economic development and public safety. In response to increasing concern about public safety, the Parks & Recreation Department installed better lighting at the Marine Parking Garage and increased security patrols at both parking structures. Existing cameras at the Marine Parking Garage no longer work, and the Downtown Transit Center is not equipped with a camera system. Security cameras are needed to assist the Police Department in the prevention and prosecution of criminal activity in the municipal parking structures and will help to deter theft, vandalism and other unwanted activity in the parking structures.
	Parks/Rec Areas	1	Park & Playground Deferred Maintenance & Repairs: This CIP funds maintenance of parks, playgrounds, and athletic facilities throughout Juneau, including playground equipment, restrooms, safety surfacing, accessibility, drainage, sidewalks, parking areas, landscaping, and other infrastructure
		2	Sportsfield Resurfacing and Repairs: This CIP supports the repair and replacement of athletic fields, courts, and related facilities throughout Juneau, including those for basketball, tennis, softball, baseball, soccer, and football.
		3	Hank Harmon Rifle Range Safety Improvements (Match/Grant): Grant funding request through ADFG to complete deferred maintenance and safety improvements.
		4	Neighborhood Park Challenge Grant Matching Funds (JPF): This project will fund small challenge grants to replace playground equipment, park furnishings, and make other capital improvements to municipal parks. To be eligible for matching funds, projects must demonstrate not less than a 1:1 private match. Projects will be selected by the Parks & Recreation Department in consultation with the Juneau Park Foundation (JPF). The intent of this new project is to leverage limited city funds with private support. Funding will be used directly by CBJ to make purchases in accordance with CBJ Code; funding will not be directly provided to JPF or any other entity.
	Trail Maintenance	1	Trail Maintenance: This fund supports trail maintenance work, connections between existing trail infrastructure, signage, repair and/or replacement of structures (bridges, culverts, etc.), and other access improvements.
		2	Kaxdigoowu Heen Dei Trail and Bridge Reconstruction (Grant): ADOT TAP Grant to reconstruct the Kax Trail from Brotherhood Bridge to River Road, including the Montana Creek foot bridge.
		2	Kaxdigoowu Heen Dei Trail and Bridge Reconstruction (CBJ Match): This request funds the reconstruction of the Kaxdigoowu Heen Dei Trail and bridge over Montana Creek. The trail will be replaced from the base of Petersen Hill at the end of the meadow to the River Road trailhead.
	Rec Buildings	1	Augustus Brown Pool - Major Renovations: Complete critical repairs to structural, mechanical, and operational systems at Augustus Brown Pool.

FY 2021 CIP PROJECT DESCRIPTIONS			
Department	Division	Priority	Project and Description
Public Works and Engineering Department			
Capital Transit		1	Bus Shelter Improvements: Add two new bus shelters, one on the North side of Back Loop Road at Glacier Spur Road and one on Glacier highway at or near the Juneau Animal Rescue.
		2	Install Additional Electric Bus Chargers Infrastructure - Bus Barn: Evaluate current available power in bus barn and determine degree of upgrade needed to accommodate chargers for all busses and support vehicles. Design electrical changes needed to provide adequate power on a separate metered service for charging vehicles. Install a charger to facilitate charging the electric bus we have ordered.
Engineering		1	Marine Park Seawalk Infill (Lightering Float Area): Construct infill and extension of the gap in the seawalk at the location of the old lightering float ramp and dock that is adjacent to Marine Park. Filling this gap will provide better pedestrian continuity between the cruiseship docks and key tourist destinations around Marine Park and the nearby downtown attractions via Seward Street.
		2	South Franklin Street Pedestrian Safety Capacity Improvements: Construct improvements within the S. Franklin corridor to promote safety and reducing congestion from the high volume of tourists. Work is anticipated to include continuation of pedestrian stanchions, removal of sidewalk obstructions and upgrade lighting as possible.
		3	Homestead Park Planning/Cost Estimate: Begin planning and cost estimating for the upgrade/improvements to Homestead Park. The viewing infrastructure (timber and concrete) has outlived its useful life and is in need of repair. Homestead Park is located on the water side of Douglas Highway across from the David Street intersection. The Park is a stop for cruise passengers tours, and is a valuable tourist location with views of downtown.
		4	Waterfront Seawalk: Continued efforts on the planning, designing, and constructing of the next phases of the Seawalk.
		5	Downtown Transportation Study (Circulator, Glacier Express, Etc.): Evaluation of downtown congestion and potential solutions, including but not limited to circulators, water taxis and consolidated Glacier Express bus services
		6	EV (Electric vehicle) Policy and Charging Infrastructure: Create and implement policy and code regarding the enforcement jurisdiction, installation, implementation and fee structure for EV charging stations and install charging infrastructure.
		7	Contaminated Sites Reporting: This funding is to pay for ADEC administrative fees that are now passed onto CBJ for any correspondence with DEC regarding contaminated sites, whether active or perceived closed. Funds will also be used to close/address CBJ contaminated sites that are still active.
RecycleWorks		1	RecycleWorks Waste Diversion program: Provide operational funds to continue the CBJ's recycling, junk vehicle and hazardous household waste program to prolong the life of the landfill.
Streets		1	Pavement Management Program: This is an on-going pavement management program to provide chip seal, asphalt overlays, and other preventative maintenance treatments to CBJ streets. Pavement maintenance is required to extend the functional life of the road surfaces an additional 5 to 10 years. The program also provides capital funding to purchase and repair specialized asphalt maintenance equipment and to purchase necessary paving materials for pavement maintenance.

FY 2021 CIP PROJECT DESCRIPTIONS			
Department	Division	Priority	Project and Description
		2	Sidewalks and Stairs Repairs: Reconstruct and repair areawide stairs and sidewalks. Programmed repair of sidewalks and stairs reduces maintenance costs and promotes pedestrian safety.
		3	CBJ Minor Arterial Streets ADA Curb Ramp Improvements: Survey and replace existing out of compliance ADA ramps with new code compliant accessible ramps on CBJ Arterials, including the Riverside Drive corridor.
		4	Areawide Drainage Improvements: This is a multi-phase project that involves permitting, design, and construction of storm drainage improvements to both surface and underground infrastructure throughout the Juneau area to reduce the impacts from seasonal flooding and ground water damage to private and public property. Failure to repair or replace failing culverts and storm sewer piping may result in significant damage to roadways and adjacent private properties.
		5	Capital Avenue (Willoughby to 9th): Supplemental funding for the Capital Ave. Reconstruction project between Willoughby and 9th St. funded in FY20.
		6	Calhoun Avenue - Main to Gold Creek, Ph 2: Roadway repair between Main Street and Governor's Mansion.
		7	Meadow Lane (South End): Reconstruct roadway, improve drainage and replace utilities as needed. Roadway base to be excavated and replaced with shot rock to improve drainage under roadway and new asphalt applied.
		8	Cedar St. Mendenhall Blvd. to Columbia Blvd.): Reconstruct roadway, Install storm drainage and replace utilities as needed. Roadway base to be excavated and replaced with shot rock to improve drainage under roadway and new asphalt applied. Replace missing street light.
		9	Robbie Road and Ling Ct. Reconstruction and Laurie Lane (Mountainside Rd. to End.): Reconstruct roadway, improve drainage and replace utilities as needed. Roadway base to be excavated and replaced with shot rock to improve drainage under roadway and new asphalt applied.
		10	Tongass Blvd. (Trinity Dr. to Loop Rd.): Reconstruct roadway, improve drainage and replace utilities as needed. Roadway base to be excavated and replaced with shot rock to improve drainage under roadway and new asphalt applied. Install newly needed sidewalk and evaluate lighting needs.
		11	Harborview School Zone Expansion: Expand school zone to include 12th Street.
		12	4th Street Douglas Drainage - F to I Streets and Side Streets: Improve and replace drainage system during the utility replacement project.
Wastewater Utility		1	MWWTP Pretreatment: Evaluate and improve the solids handling, Fats, Oils, Garbage (FOGS) collection, Source control, etc., to improve operation of the Mendenhall Treatment Plant.
		2	Auke Bay Treatment Plant Facility Structural and Painting Projects: Complete needed structural maintenance and re-coating the infrastructure within ABTP.
		3	Wastewater Realtime Monitoring: Provide instrumentation for the Cruise Ship waste discharges to Juneau Douglas treatment Plant (JDTP) to real time monitor the concentration, chemical composition, etc., to allow the JDTP Operators to better treat the Cruise Ship waste flows coming into the plant.
		4	Process Controls & Scada (Supervisory Control and Data Acquisition) Upgrades: Complete recontrol of outdated process controls and SCADA and integration with the upgraded Biosolids Dryer SCADA System.
		5	Pump Station Upgrades: Replace outdated Wastewater Collection System pump stations and install new, standardized equipment and controls.
		6	Juneau-Douglas Treatment Plant (JDTP) Pretreatment Improvements: Evaluate and improve the solids handling, FOGS (Fats, Oils and Grease) collection, source control, etc., to improve operation of the JDTP.

FY 2021 CIP PROJECT DESCRIPTIONS			
Department	Division	Priority	Project and Description
		7	Mendenhall Wastewater Treatment Plant (MWWTP) SBR/WS/TS Pump Replacement: Pump replacements and associated infrastructure.
		8	JDTP Facility Structural Improvements: Rehabilitate aging structural infrastructure at JDTP.
		9	MWWTP Furnace & Fuel System upgrades: Improve and update the main MWWTP furnace and fuel delivery system.
		10	Meadow Lane (South end) (Street Recon): Replace aging infrastructure while rebuilding the roadway
		11	Cedar St. (Mendhall Blvd. to Columbia Blvd.) (Street Recon): Replace aging infrastructure while rebuilding the roadway.
		12	Robbie Road, Ling Ct., and Laurie Lane Reconstruction (Street Recon): Replace aging infrastructure while rebuilding the roadway.
		13	Tongass Blvd. (Trinity Dr. to Loop Rd.): Replace aging infrastructure while rebuilding the roadway.
		14	Douglas 4th St. F St. to I St. and Side Streets Sewer System Replacement: Replacing aging water and sewer infrastructure within the gravel portion of 4th Street Douglas.
		15	Pavement Management Utility Adjustments: Provide for sewer infrastructure adjustments during road repaving.
		16	ADOT Project Utility Adjustments: provide for sewer infrastructure adjustments during ADOT construction projects.
	Water Utility	1	Douglas 4th St. - F St. to I St. and Side Streets Water System Replacement: Replacing aging water and sewer infrastructure within the gravel portion of 4th Street Douglas.
		2	Calhoun Avenue: Replace aging water infrastructure while rebuilding the roadway.
		3	Hospital Drive Waterline Replacement (Street Recon): Replace aging water infrastructure while rebuilding the roadway.
		4	Meadow Lane (South end) (Street Recon): Replace aging water infrastructure while rebuilding the roadway.
		5	Cedar St. (Mendenhall Blvd. to Columbia Blvd.) (Street Recon): Replace aging water infrastructure while rebuilding the roadway.
		6	Robbie Rd, Ling Ct. and Laurie Lane Reconstruction (Street Recon): Replace aging water infrastructure while rebuilding the roadway.
		7	Tongass Blvd. (Trinity to Loop) (street Recon): Replace aging water infrastructure while rebuilding the roadway.
		8	Goodwin Rd. (Street Recon): Replace aging water infrastructure while rebuilding the roadway.
		9	Delta Drive (Street Recon): Replace aging water infrastructure while rebuilding the roadway.
		10	Airport Area Water Replacement (Mallard, Jordan, Alpine, Crest, Etc.): Replace aging water infrastructure while rebuilding the roadway.
		11	Last Chance Basin (LCB) Well Pump VFD Conversion and Programming Updates: Convert existing well pumps to VFD operations for energy efficiency and update control and communications systems to modern day technology.
		12	Last Chance Basin (LCB) Chlorine Generators Replacement: Perform major overhauls on the chlorine generators at LCB.
		13	Salmon Creek Efficiency Improvements: Includes increasing waste storage tank size to meet ADEC discharge permit requirements, modifications to piping configurations to increase efficiencies in operations and water movement in the Salmon Creek Area.

FY 2021 CIP PROJECT DESCRIPTIONS			
Department	Division	Priority	Project and Description
		14	Outer Drive Watermain Replacement Dgn (Main St. South to Admiral Way): Begin planning and design to replace aging water infrastructure in Outer Drive between Main Street and Admiral Way prior to ADOT reconstructing this roadway segment.
		15	Areawide Water Repairs/Minor Replacements: Revolving funds used to make preventative maintenance, repairs and minor replacements to the water system as they are discovered.
		16	Crow Hill and W Juneau Reservoir Inspection and Rehab: These reservoirs are critical to water supply and cannot be taken off line. Diver inspection is required to ensure proper operation, make repairs and also will install mixers to improve water quality while divers are in Juneau.
		17	Pavement Management Water Utility Adjustments: Provide valve boxes for adjusting during road repaving.
Schools		1	JSD Buildings Major Maintenance/Match: Fund ongoing civil, architectural, mechanical and electrical deferred maintenance projects and provide matching funds to any outside maintenance or construction grant funding that could be acquired.
		2	Sayeik: Gastineau School Partial Roof Replacement: School roof replacement.
		3	Dzantiki Heeni Middle School Roof Replacement: School roof replacement.

FINANCIAL SUMMARY OF CURRENT PROJECTS
--

This section of the CIP provides a financial summary for the capital improvements that were active on February 11, 2020. a table is presented showing the project name, budget, commitments, expenditures to date, and the funds available to complete each improvement. This financial information is botained from infor (formally known as Lawson), CBJ's official accounting system.

FY 2021 CIP PROJECT DESCRIPTIONS					
Financial Summary					
as of Feb 11, 2020					
Activity	Project Name	Budget	Commitments	Actuals	Funds Available
001-001	AC for Penny problems GM	\$ -	\$ -	\$ 3	\$ (3)
A50-001	Airport CIP Project Design	\$ 261,432	\$ -	\$ 116,644	\$ 144,788
A50-074	Runway Safety Area Constructio	\$ 58,617,341	\$ -	\$ 58,617,341	\$ -
A50-081	Runway 26 MALSR	\$ 93,750	\$ -	\$ 6,051	\$ 87,699
A50-083	ARFF Building Modifications	\$ 2,611,722	\$ -	\$ 2,294,549	\$ 317,173
A50-086	SREB	\$ 21,650,411	\$ 451,421	\$ 20,123,399	\$ 1,075,591
A50-090	Design Twy A Rehab/E&D-1 Reali	\$ 2,111,000	\$ 512,673	\$ 1,626,278	\$ (27,951)
A50-091	RSA 2C-NE/NW Quad Apron	\$ 11,200,000	\$ 296,895	\$ 9,774,656	\$ 1,128,449
A50-092	Float Pond Improvements	\$ 816,000	\$ 26,369	\$ 815,258	\$ (25,626)
A50-093	Snow Removal Equipment	\$ 5,145,121	\$ 1,679,277	\$ 2,227,470	\$ 1,238,374
A50-094	Ramp LED Lighting	\$ 256,000	\$ -	\$ 12,210	\$ 243,790
A50-095	Gate 2 Pax boarding bridge	\$ 1,911,779	\$ -	\$ 1,758,457	\$ 153,321
A50-096	Terminal Reconstr Desing/Const	\$ 1,552,997	\$ -	\$ 1,518,544	\$ 34,453
A50-097	Constr Sand/Chem/Fuel Facility	\$ 10,851,221	\$ 405,467	\$ 9,612,970	\$ 832,784
A50-098	Twy A&E Rehab	\$ 27,096,430	\$ 24,113,102	\$ 389,135	\$ 2,594,193
A50-101	Replace Exit Lane System	\$ 380,000	\$ 314,685	\$ 15,101	\$ 50,214
A50-102	Terminal Construction	\$ 9,198,883	\$ 16,521,566	\$ 1,859,053	\$ (9,181,735)
B55-075	BRH Roof for Medical Arts Bldg	\$ 250,000	\$ 10,000	\$ 242,674	\$ (2,674)
B55-077	RFV Admin Build-Siding	\$ 300,000	\$ 6,206	\$ 139,370	\$ 154,425
B55-078	RRC Detox Addition	\$ 3,100,000	\$ 1,210,822	\$ 1,634,235	\$ 254,943
B55-079	BRH PHARMACY CLEANROOM RENO	\$ 1,300,000	\$ 284,501	\$ 955,183	\$ 60,316
B55-080	Crises Stabilization-BOPS	\$ 4,000,000	\$ 76	\$ 62,565	\$ 3,937,359
D12-046	Capitol Plaza Planning	\$ 25,000	\$ -	\$ -	\$ 25,000
D12-047	Areawide EV Charging Stations	\$ 100,000	\$ 7,193	\$ 17,161	\$ 75,646
D12-048	Busns Case-New City Hall Estim	\$ 150,000	\$ 15,709	\$ 52,501	\$ 81,791
D12-049	Manager's Energy Efficiency	\$ 164,342	\$ 3,044	\$ 70,744	\$ 90,553
D12-070	Open Space Waterfront Land Acq	\$ 2,465,349	\$ -	\$ 2,023,840	\$ 441,509
D12-081	Gastineau Apartments Demo	\$ 1,800,000	\$ -	\$ 1,692,068	\$ 107,932
D12-082	Land for Senior Housing	\$ 1,512,000	\$ -	\$ 1,512,000	\$ -
D12-083	JRES Implementation	\$ 103,000	\$ 5,000	\$ -	\$ 98,000
D12-095	Vehicle&Equipment Wash Bays PI	\$ 2,200,000	\$ 115,054	\$ 2,095,442	\$ (10,496)
D12-096	North Douglas Crossing	\$ 250,000	\$ -	\$ -	\$ 250,000
D12-097	Dwntwn Wayfndng/Interpret Sign	\$ 730,000	\$ 335,851	\$ 126,219	\$ 267,929
D14-019	Lemon Creek 2nd Access	\$ 300,000	\$ -	\$ 130,441	\$ 169,559

FY 2021 CIP PROJECT DESCRIPTIONS					
Financial Summary					
as of Feb 11, 2020					
Activity	Project Name	Budget	Commitments	Actuals	Funds Available
D14-038	North Lemon Creek Gravel Sourc	\$ 162,419	\$ -	\$ -	\$ 162,419
D14-051	Pederson Hill Land Srvy & Plan	\$ 6,915,560	\$ 493,843	\$ 5,268,265	\$ 1,153,452
D14-060	N. Douglas Highway Extension	\$ 2,972,785	\$ -	\$ 2,972,785	\$ -
D14-096	Stabler Quarry Infr&Expansion	\$ 1,065,000	\$ 21,715	\$ 541,313	\$ 501,972
D14-097	Pits/Quarries Infrastructure	\$ 150,000	\$ -	\$ -	\$ 150,000
D23-059	City Museum Exhibit Case Repl	\$ 100,000	\$ 2,629	\$ 82,526	\$ 14,845
D24-001	AJ Mine	\$ 250,000	\$ 14,533	\$ 152,364	\$ 83,103
D24-044	Stormwater Mgmt Standard II	\$ 21,521	\$ 11,000	\$ -	\$ 10,521
D24-049	Contaminated Sites Reporting	\$ 100,000	\$ 11,722	\$ 12,036	\$ 76,242
D28-097	Eaglecrest Learning Center & L	\$ 3,558,964	\$ -	\$ 3,535,055	\$ 23,909
D28-098	EagleDfrd Maint/Mtn Ops Impvm	\$ 999,670	\$ 29,614	\$ 953,234	\$ 16,822
D28-099	Snow Making Equip	\$ 250,000	\$ 197	\$ 267,339	\$ (17,535)
D71-053	Capital Transit Bus Shelters	\$ 392,601	\$ -	\$ 392,601	\$ -
D71-085	Capital Transit Maint Shop	\$ 6,318,301	\$ -	\$ 6,318,301	\$ -
D71-089	Valley Transit Center	\$ 2,002,095	\$ 17,278	\$ 132,393	\$ 1,852,424
D71-090	Electronic Fare Boxes	\$ 775,780	\$ -	\$ 2,496	\$ 773,284
D71-091	Pwr Upgrades for Elctrc Buses	\$ 150,000	\$ 7,700	\$ 11,518	\$ 130,782
D71-092	Capital Transit Bus Shelters	\$ 140,379	\$ 4,999	\$ 1,230	\$ 134,151
D77-001	Recycleworks Consolidated Faci	\$ 1,474,553	\$ 1,804,537	\$ 115,641	\$ (445,625)
E28-100	Eaglecrest Fin Sustain Plan	\$ 50,000	\$ -	\$ -	\$ 50,000
F21-039	Glacier Station HVAC improv	\$ 56,339	\$ 2,165	\$ 39,826	\$ 14,348
F21-040	Hagevig Training Cntr Imp	\$ 100,000	\$ -	\$ -	\$ 100,000
F22-026	JPD Facility Security Upgrades	\$ 150,000	\$ -	\$ -	\$ 150,000
H51-083	Marine Pk/Steamship Whrf II	\$ 163,546	\$ -	\$ 163,546	\$ -
H51-092	Waterfront Seawalk II	\$ 15,299,208	\$ 10,962	\$ 15,199,892	\$ 88,355
H51-100	Aurora Harbor Improvements	\$ 15,842,720	\$ -	\$ 15,842,720	\$ -
H51-104	Dock Cathodic Protection	\$ 830,968	\$ -	\$ 830,968	\$ -
H51-105	Amalga Fish Cleaning Station	\$ 66,898	\$ -	\$ 66,898	\$ -
H51-107	Tug Assist	\$ 120,920	\$ -	\$ 14,300	\$ 106,620
H51-108	Statter Improv-Phase III	\$ 10,607,380	\$ 2,799,231	\$ 3,208,268	\$ 4,599,880
H51-110	Visitor Info Kiosk Replmt-Desi	\$ 277,290	\$ -	\$ 277,290	\$ -
H51-112	Dwntwn Restrooms Location/Desi	\$ 575,000	\$ -	\$ 1,762	\$ 573,238
H51-113	Waterfront Seawalk	\$ 697,780	\$ 26,782	\$ 334,231	\$ 336,767
H51-116	MPtoTaku Upland Imprv/Archiplg	\$ 20,212,876	\$ 10,913,225	\$ 6,769,264	\$ 2,530,386

FY 2021 CIP PROJECT DESCRIPTIONS Financial Summary as of Feb 11, 2020					
Activity	Project Name	Budget	Commitments	Actuals	Funds Available
H51-117	ABMS Maint & Impr	\$ 485,000	\$ -	\$ 263,364	\$ 221,636
H51-118	Public/Private Port Infrastruc	\$ 150,000	\$ -	\$ 918	\$ 149,082
H51-119	Small Cruiseshp Moorg	\$ 150,000	\$ 85,217	\$ 47,152	\$ 17,632
H51-120	Seawalk Major Maintenance	\$ 216,454	\$ -	\$ 22,357	\$ 194,097
H51-121	Pile Anode Installation	\$ 403,164	\$ 35,715	\$ 780	\$ 366,669
H51-122	Dock Security Stations	\$ 699,000	\$ 341,334	\$ 319,528	\$ 38,138
H51-123	Weather Monitor & Communicatio	\$ 32,652	\$ -	\$ 15,250	\$ 17,402
H51-124	Lrg Berth Shore Pwr Design	\$ 300,000	\$ -	\$ -	\$ 300,000
H51-125	Aurora Harbor Improvements	\$ 609,221	\$ -	\$ -	\$ 609,221
M14-062	Switzer Area Muni Land Dev	\$ 1,550,000	\$ -	\$ 1,273,972	\$ 276,028
M15-002	IT Infrastructure Modernizatio	\$ 1,336,217	\$ -	\$ 1,336,663	\$ (446)
M15-003	IT - Infrastructure Upgrades	\$ 894,165	\$ 32,059	\$ 233,320	\$ 628,787
M15-004	Accounting Systems Upgrade	\$ 1,281,001	\$ -	\$ 231,361	\$ 1,049,641
P41-059	Parks & Playground Improvement	\$ 4,087,798	\$ 5,000	\$ 3,928,559	\$ 154,239
P41-085	Sportfield Repairs	\$ 1,344,231	\$ -	\$ 1,344,231	\$ -
P41-089	Restrooms, Paving, & Concessio	\$ 1,332,493	\$ -	\$ 1,032,731	\$ 299,762
P41-090	Bridge Park	\$ 1,560,000	\$ 1,925	\$ 1,558,075	\$ -
P41-091	Horse Tram Trail Repairs	\$ 125,000	\$ 17,054	\$ 94,040	\$ 13,906
P41-092	Sports Field Resurfacing-Repai	\$ 270,000	\$ 30,711	\$ 8,828	\$ 230,461
P41-093	Parks & Playground Maint & Rep	\$ 1,174,650	\$ 55,715	\$ 138,429	\$ 980,506
P41-094	Treadwell Arena Prkng Lot Lite	\$ 50,000	\$ -	\$ 42,612	\$ 7,388
P41-095	Playground Rebuild	\$ 1,706,272	\$ 2,019	\$ 1,640,319	\$ 63,934
P41-096	Crow Hill Trail	\$ 20,000	\$ -	\$ -	\$ 20,000
P41-097	Sporfield Repairs	\$ 253,908	\$ 273	\$ 5,480	\$ 248,155
P42-077	Arboretum Residence Def Maint	\$ 246,264	\$ 20,152	\$ 194,136	\$ 31,976
P44-085	Mt Jumbo Gym Roof	\$ 250,000	\$ -	\$ -	\$ 250,000
P44-086	AB Pool Short Term Repairs	\$ 2,095,000	\$ 529,217	\$ 231,510	\$ 1,334,272
P44-087	Cent. Hall Floor Replacement	\$ 120,272	\$ -	\$ 120,272	\$ -
P44-088	Deferred Building Maintenance	\$ 2,646,907	\$ 40,430	\$ 1,991,935	\$ 614,542
P44-089	Deferred Building Maintenance	\$ 1,070,000	\$ 148,728	\$ 31,430	\$ 889,842
P46-069	Auke Lake Wayside POT/PT Match	\$ 170,000	\$ -	\$ 99,470	\$ 70,530
P46-090	OHV Park Site Analysis	\$ 245,000	\$ -	\$ 95,493	\$ 149,507
P46-101	ZGYC & AB Pool Improvements	\$ 55,000	\$ -	\$ -	\$ 55,000
P46-102	Trail Improvements	\$ 380,099	\$ 35,487	\$ 205,907	\$ 138,705

FY 2021 CIP PROJECT DESCRIPTIONS Financial Summary as of Feb 11, 2020					
Activity	Project Name	Budget	Commitments	Actuals	Funds Available
P46-103	Kax Trail Bridge River Bank St	\$ 400,000	\$ 67,517	\$ 273,843	\$ 58,640
P46-104	Treadwell Ditch Trail Repairs	\$ 145,279	\$ 8,026	\$ 147,422	\$ (10,168)
P46-106	Augustus Brown Pool Covers	\$ 151,864	\$ -	\$ 51,686	\$ 100,178
P46-107	Hut to Hut	\$ 50,000	\$ -	\$ -	\$ 50,000
P46-108	Dimond LoopField Repair	\$ 228,983	\$ -	\$ 79,680	\$ 149,303
P46-109	Cap School Park Impvmts	\$ 450,000	\$ -	\$ -	\$ 450,000
P46-110	Lemon Creek Park	\$ 250,000	\$ -	\$ 897	\$ 249,103
P46-111	Off-Highway Vehicle (OHV) Park	\$ 100,000	\$ -	\$ -	\$ 100,000
P47-073	Cent Hall Reno Phase 2	\$ 64,380	\$ 2,926	\$ 58,113	\$ 3,341
P48-087	Willoughby District Parking	\$ 1,574,466	\$ 35,393	\$ 1,439,919	\$ 99,154
P48-088	Downtown Parking Management	\$ 575,000	\$ -	\$ 27,625	\$ 547,375
R72-004	Pavement Management	\$ 11,155,457	\$ 98,972	\$ 10,999,316	\$ 57,170
R72-038	Valley Snow Storage Permitting	\$ 1,791,562	\$ -	\$ 1,763,817	\$ 27,745
R72-048	MntnaCrkRd Closure/Prkg Mdfctn	\$ 100,000	\$ -	\$ 85,701	\$ 14,299
R72-053	Eagles Edge Utility LID	\$ 3,629,256	\$ -	\$ 3,575,891	\$ 53,365
R72-056	Areawide Drainage Improvements	\$ 1,291,736	\$ -	\$ 718,462	\$ 573,274
R72-060	City Shop Demolition/Removal	\$ 300,000	\$ 1,864	\$ 298,136	\$ -
R72-061	Industrial Boulevard Match	\$ 1,534,815	\$ -	\$ 1,437,123	\$ 97,693
R72-081	St Maint Shop Design - New Loc	\$ 13,944,159	\$ -	\$ 13,933,237	\$ 10,921
R72-101	Glacier Ave Intersection	\$ 15,000	\$ -	\$ -	\$ 15,000
R72-103	Flood Plain Mappng Tech Assist	\$ 150,000	\$ -	\$ 57,348	\$ 92,653
R72-107	Meadow Lane Improvements	\$ 1,325,000	\$ -	\$ 1,236,337	\$ 88,663
R72-110	Areawide Snow Storage Facility	\$ 250,000	\$ -	\$ -	\$ 250,000
R72-111	Distin/W. 8th St. Reconstructi	\$ 1,271,000	\$ 296	\$ 1,224,516	\$ 46,188
R72-112	McGinnis Sub LID Ph 1	\$ 4,756,000	\$ 20,270	\$ 3,527,649	\$ 1,208,081
R72-114	Blueberry Hills Road	\$ 2,243,618	\$ -	\$ 2,243,618	\$ -
R72-115	Dunn Street	\$ 536,350	\$ -	\$ 516,212	\$ 20,138
R72-116	Downtown Street Improvements	\$ 6,946,629	\$ 97,926	\$ 5,932,772	\$ 915,932
R72-117	DOT Riverside/Stephen Richards	\$ 250,000	\$ -	\$ 200,843	\$ 49,157
R72-120	River Rd Reconstruct LID	\$ 2,275,000	\$ 10,491	\$ 31,787	\$ 2,232,722
R72-121	Bridge Repairs	\$ 150,000	\$ -	\$ 13,958	\$ 136,042
R72-122	Retaining Wall Repairs	\$ 150,000	\$ -	\$ 143,233	\$ 6,767
R72-123	West 8th Street Reconstruction	\$ 720,000	\$ 27,786	\$ 656,366	\$ 35,848
R72-126	F St Douglas- 3rd to 5th	\$ 549,939	\$ -	\$ 549,939	\$ -

FY 2021 CIP PROJECT DESCRIPTIONS					
Financial Summary					
as of Feb 11, 2020					
Activity	Project Name	Budget	Commitments	Actuals	Funds Available
R72-127	East Street-5th to 6th	\$ 595,000	\$ -	\$ 475,753	\$ 119,247
R72-128	Pavement Management	\$ 2,890,000	\$ 112,105	\$ 2,121,048	\$ 656,847
R72-129	Sidewalk & Stairway Repairs	\$ 700,000	\$ 1,632	\$ 168,313	\$ 530,055
R72-130	Shaune Dr Imprv-Anka to Barrow	\$ 1,112,010	\$ 59,464	\$ 663,043	\$ 389,503
R72-131	Birch Lane Sewer Replacement	\$ 2,978,000	\$ 88,811	\$ 2,351,840	\$ 537,349
R72-132	Calhoun Av Imprv-Main to Gold	\$ 1,450,000	\$ -	\$ -	\$ 1,450,000
R72-133	Douglas Side Streets -D and E	\$ 977,000	\$ 38,627	\$ 936,359	\$ 2,014
R72-134	Sitka Street Reconstruction	\$ 365,000	\$ 2,623	\$ 357,172	\$ 5,205
R72-135	Contract Specif & Languag Upda	\$ 65,000	\$ -	\$ -	\$ 65,000
R72-136	Areawide Drainage Improv	\$ 500,000	\$ -	\$ -	\$ 500,000
R72-137	Gold Creek Flume Repairs	\$ 700,000	\$ -	\$ 12,948	\$ 687,052
R72-138	Columbia/Poplar Reconstr	\$ 3,320,000	\$ 2,892,731	\$ 240,497	\$ 186,772
R72-139	7 Mile Shop Yrd Sec System	\$ 150,000	\$ 21,823	\$ 28,348	\$ 99,830
R72-140	Cap Ave - Willoughby to Ninth	\$ 650,000	\$ 12,400	\$ 60,252	\$ 577,348
R72-141	HOSPITAL DRIVE IMPRV	\$ 1,485,000	\$ 69,263	\$ 116,847	\$ 1,298,890
R72-142	Savikko Road Improvement	\$ 1,154,350	\$ 1,002,292	\$ 76,351	\$ 75,708
R72-143	Aspen Ave - Mend to Taku	\$ 1,250,000	\$ 1,308,175	\$ 63,346	\$ (121,521)
R72-144	S Franklin St Sfty&Capcty Impr	\$ 100,000	\$ 5,000	\$ 1,685	\$ 93,315
S02-102	JSD Def maint and Minor Impov	\$ 3,900,544	\$ 741,102	\$ 2,764,955	\$ 394,487
U76-004	Wastewater SCADA Improvements	\$ 113,597	\$ -	\$ 113,597	\$ -
U76-014	Auke Bay Sewer Extension	\$ 75,000	\$ -	\$ 49,784	\$ 25,216
U76-015	JD Plant Infrastructure Improv	\$ 204,245	\$ -	\$ 189,226	\$ 15,019
U76-100	Glacier Hwy Sewer-Anka to Walm	\$ 2,625,766	\$ 36,587	\$ 859,671	\$ 1,729,509
U76-103	Facilities Planning	\$ 250,000	\$ 26,253	\$ 99,521	\$ 124,226
U76-106	Treatment Plants Headworks Imp	\$ 5,275,156	\$ 7,647	\$ 4,228,853	\$ 1,038,656
U76-107	MWWTP Instrumentation Upgrades	\$ 300,000	\$ -	\$ -	\$ 300,000
U76-108	MWWTP Roof Repair	\$ 1,100,000	\$ 194,565	\$ 859,006	\$ 46,428
U76-109	BioSolids Treatment and Dispos	\$ 21,048,350	\$ 728,212	\$ 20,113,286	\$ 206,852
U76-111	RealTime Cruise WW Dschrg Mntr	\$ 50,000	\$ -	\$ -	\$ 50,000
U76-112	JDTP New Vactor Dump	\$ 625,000	\$ 48,892	\$ 57,815	\$ 518,294
U76-113	Maier Dr Forcemain Emerg Repai	\$ 1,065,546	\$ 33,566	\$ 928,077	\$ 103,903
U76-114	Wastewater Infrastructure Main	\$ 3,000,000	\$ -	\$ -	\$ 3,000,000
U76-115	Kaiser Forcemain Replac	\$ 1,000,000	\$ -	\$ 651,750	\$ 348,250
U76-116	JD Clarifier/DigestertankImpro	\$ 225,000	\$ -	\$ -	\$ 225,000

FY 2021 CIP PROJECT DESCRIPTIONS Financial Summary as of Feb 11, 2020					
Activity	Project Name	Budget	Commitments	Actuals	Funds Available
U76-117	Anode Repl. Outer Drive FM	\$ 250,000	\$ 70,732	\$ 31,409	\$ 147,859
U76-118	ADOT Proj Utility Adj-F419	\$ 65,000	\$ 12	\$ 4,988	\$ 60,000
U76-119	MWWTP IMPROVEMENTS	\$ 3,198,687	\$ -	\$ -	\$ 3,198,687
U76-120	ABTP IMPROVEMENTS	\$ 1,445,000	\$ -	\$ -	\$ 1,445,000
U76-121	Collection Sys Pump Stn Upgrd	\$ 950,000	\$ 36,522	\$ 26,193	\$ 887,285
U76-122	Outer Dr & W Jnu Station Impv	\$ 350,000	\$ -	\$ -	\$ 350,000
U76-123	Delta Drive Imprv	\$ 75,000	\$ -	\$ -	\$ 75,000
U76-124	Wastewater SCADA Improv	\$ 250,000	\$ -	\$ -	\$ 250,000
W75-037	Lst Chance Basin Hydro-Geo Inv	\$ 3,454,136	\$ -	\$ 3,435,931	\$ 18,205
W75-046	SCADA Upgrades	\$ 405,000	\$ 30,202	\$ 215,732	\$ 159,066
W75-048	Back Loop Rd Auke Bay Waterlin	\$ 926,576	\$ -	\$ 751,294	\$ 175,282
W75-050	Egan Drive Water - Main to Ten	\$ 2,080,939	\$ -	\$ 941,028	\$ 1,139,911
W75-052	Crow Hill Reservoir improvemen	\$ 700,000	\$ 5,000	\$ 610,754	\$ 84,246
W75-054	Douglas Highway Water Repl.	\$ 3,259,157	\$ 37,164	\$ 2,915,102	\$ 306,891
W75-055	Salmon Creek Filtration Projec	\$ 1,470,068	\$ -	\$ 1,087,653	\$ 382,415
W75-056	LCB Fuel Tank Removal and Relo	\$ 215,000	\$ 25,000	\$ 2,057	\$ 187,943
W75-057	Lee Street Pump Station Replac	\$ 500,000	\$ 20,122	\$ 88,577	\$ 391,301
W75-058	CrowHill/CedarParkPSControlUpd	\$ 300,000	\$ 40,129	\$ 68,970	\$ 190,901
W75-059	Areawide Watermain Repairs	\$ 157,415	\$ -	\$ 30,981	\$ 126,434
W75-060	ADOT Proj Utility Adj-F414	\$ 45,000	\$ -	\$ -	\$ 45,000
W75-061	Dgls Hwy Water - David to I	\$ 4,000,000	\$ 3,361,727	\$ -	\$ 638,273
W75-062	Cedar Prk Pump Stn Gen & Tnk R	\$ 500,000	\$ -	\$ -	\$ 500,000
		\$ 437,886,135	\$ 75,297,924	\$ 301,563,203	\$ 61,025,009


Engineering & Public Works Department

155 South Seward Street

Juneau, Alaska 99801

Phone: 907-586-0800 | Fax: 907-463-2606

DATE: February 26, 2020

TO: Michelle Hale, Chair
Public Works and Facilities Committee

FROM: John Bohan, Chief CIP Engineer and Water Superintendent

SUBJECT: Transfer Request: Lee Street and Bonnie Brae Pump Stations Upgrades

The Water Utility recently received a \$4 million low interest ADEC loan to leverage existing water utility funds. This loan will be used to complete the Douglas Highway Water system replacement, David Street to I Street, project, making \$4 million of water utility funds, originally appropriated for the water system replacement, available to complete other Water Department priorities.

The next identified priorities requiring funding are Lee Street and Bonnie Brae Pump Stations. Lee Street pump station initially funded in the FY19 CIP at \$500k. The project was bid during the summer of 2019, one bid was received and it was significantly above the available funding, leading to cancellation of the bid.

Bonnie Brae pump station is Water Utilities next pump station priority for upgrade and of similar configuration to the Lee Street Pump Station. Combining the two similar pump station upgrades into one bid package will gain economy of scale and reduce construction costs. To accomplish the combined project, an additional \$800k is necessary. This funding would come from the available funds in the Douglas Highway Water Replacement CIP.

<u>Transfer From</u>	<u>Amount</u>	<u>CIP End Balance</u>
W75-061 Douglas Hwy Water System Replacement David to I Street	\$800k	\$3.6 million
<u>Transfer to</u>	<u>Amount</u>	<u>CIP End Balance</u>
W75-057 Lee Street Pump Station Replacement	\$800k	\$1.19 million

Recommendation

Staff requests the above transfer be forwarded to the Full Assembly for approval.

**Engineering & Public Works Department**

155 South Seward Street

Juneau, Alaska 99801

Phone: 907-586-0800 | Fax: 907-463-2606

DATE: February 26, 2020

TO: Michelle Hale, Chair
Public Works and Facilities Committee

FROM: John Bohan, Chief CIP Engineer and Water Superintendent

SUBJECT: CIP Transfer Requests

Staff requests the following transfers be forwarded to the Assembly for approval:

<u>Transfer From:</u>	<u>Transfer Amount</u>	<u>CIP End Balance</u>	<u>Project Status</u>
R72-120 – River Road Paving LID	\$2.034 million	\$196k	LID vote failed-perform needed work to facilitate efficient maint.
R72-112 – McGinnis Subdivision Paving LID	\$1.19 million	\$20k	Work complete – minor seeding & cleanup remains for spring 2020
Totals:	\$3.224 million		

<u>Transfer To:</u>	<u>Transfer Amount</u>	<u>CIP End Balance</u>	<u>Project Status</u>
R72-141 – Hospital Drive Reconstruction	\$700k	\$1.99 million	Phase 1 construction to be bid in March 2020
U76-123 – Delta Drive Reconstruction	\$1.306 million	\$2.056 million	Project scheduled for design summer 2020
NEW CIP – Goodwin Road Reconstruction	\$1.218 million	\$1.218 million	Project scheduled for design summer 2020
Totals:	\$3.224 million		

Descriptions for the requested transfers are below:

River Road LID: as presented to the PWFC on 2-10-20, the LID neighborhood poll did not receive majority support. This transfer request would move the street reconstruction CIP funds to the next priority street reconstruction CIPs that did not receive funding in the draft FY 21 CIP - Delta Drive Reconstruction (\$1.306mil) and Goodwin Road Reconstruction (\$728k). The remaining balance (\$196k) will be used to remove the failing roadway chip seal road surface treatment and other improvements to facilitate efficient maintenance by the Street Department.

McGinnis Subdivision Paving LID: This \$3.6 million, 5 phase, 6 year project is finally complete with the exception of some seeding and addressing of other minor unforeseen issues that will be completed during the spring of 2020. The remaining funds are requested to be transferred to CIPs requiring additional funding: Hospital Drive Reconstruction (\$700k), Goodwin Road Reconstruction (\$490k). Upon the transfer and completion of the outstanding issues, this CIP would be closed.

Hospital Drive: this project was funded in with Street Sales tax and Hospital funds to rebuild from Glacier Highway through the hospital campus to Salmon Creek Lane. The project has been broken into 2 phases in order to allow the Hospital to complete their master planning exercise and determine the appropriate alignment and treatment for the road through the campus. The first phase is currently being prepared for bid and extends from Glacier Highway to just before the intersection with the Hospital Campus and will address the failed asphalt segment of the hospital campus road. The project estimate in the FY20 CIP was substantially low as well as the discovery of additional storm drainage and other improvements that were required in addition to pavement replacement. This \$700k funding request takes into account the \$100k of Water Utility funds requested in the FY21 preliminary CIP. This project will be prepared for bid in March of 2020 with approval of this transfer.

Delta Drive Reconstruction: This CIP project was nominated as a priority by Wastewater Utilities in the FY20 CIP (\$75k) and is a priority of the Water Utility with a funding request in the FY21 CIP (\$229k); as both the water and wastewater systems require replacement. The project was listed as a priority for the Street Department in FY21 however did not receive funding. It is the next project on the priority list for the Street Department and requires \$1.306 million of funding to proceed. This project would be designed during the summer of 2020, with construction beginning in spring of 2021, with approval of this transfer.

Goodwin Road Reconstruction: This CIP project is currently nominated by both Water and Wastewater Utilities for funding in the FY21 CIP as the water system and sewer pumping station require replacement. This project was prioritized as next after Delta Drive in the Street Department's priority list and requires \$1.218 million to proceed. The project design would occur during the summer of 2020, with construction beginning in spring of 2021, with approval of this transfer.

Recommendation

Staff requests the above transfers be forwarded to the Full Assembly for approval.



Engineering & Public Works Department

155 South Seward Street

Juneau, Alaska 99801

Phone: 907-586-0800 | Fax: 907-463-2606

DATE: February 26, 2020

TO: Michelle Hale, Chair
Public Works and Facilities Committee

FROM: Lori Sowa, Engineer II
Engineering & Public Works Department

SUBJECT: Update on PFAS investigations in Juneau

PFAS are a large group of man-made chemicals used in consumer products and industrial processes. PFAS are being investigated at the state and national level due to their persistence in the environment and potential to cause human health impacts, particularly when found in drinking water. The sources of CBJ's public drinking water are the Salmon Creek reservoir and the Last Chance Basin groundwater. CBJ drinking water was tested for PFAS in 2015; PFAS were not detected in any of the water samples submitted.

CBJ is currently investigating PFAS in three areas as required by ADEC: Hagevig Fire Training Center soil and groundwater, airport soil and groundwater, and within biosolids and sludge produced from the Mendenhall and JD treatment plants. Below is a brief overview of the current status of the PFAS investigations in Juneau.

Hagevig Fire Training Center

On July 25, 2018, ADEC sent a letter requesting that CBJ test the soil and groundwater at the Hagevig Fire Training Center for PFAS, contaminants known to be found in fire fighting foams. CBJ Engineering hired Cox Environmental to prepare a workplan for ADEC approval and to install several groundwater wells at the HFTC. PFAS were detected in both soil and groundwater samples at the site. CBJ then had Cox Environmental conduct a door-to-door well search to determine if any historic drinking water wells in the area were still in use; none were found to be in use. Houses in this area are served by piped public drinking water. Cox Environmental has prepared a second workplan that has been approved by ADEC to install additional groundwater wells to delineate the extent of PFAS impacts in soil and groundwater. The wells will be installed and testing completed as driller availability and weather allows.

Airport

On January 30, 2019, ADEC sent a letter requesting that CBJ test the soil and groundwater at the Airport for PFAS, again because these contaminants are known to be found in fire fighting foams. CBJ Airport hired Cox Environmental to prepare a workplan for ADEC approval and to install/test several groundwater wells at the airport. PFAS were detected in both soil and groundwater samples at the site. A follow-up report and workplan has been submitted to ADEC for review/approval, and to further delineate impacts at the airport.

Biosolids/sludge

CBJ recently received a permit from ADEC for the biosolids produced at the new dryer facility. ADEC requested the biosolids be tested for PFAS to determine what end uses of the biosolids would be allowed. CBJ submitted a sample of the dry biosolids (currently produced from MWWTP sludge) and the JDTP wet sludge. PFAS results were received and are being evaluated by ADEC.



Engineering & Public Works Department

155 South Seward Street

Juneau, Alaska 99801

Phone: 907-586-0800 | Fax: 907-463-2606

DATE: February 27, 2020

TO: Michelle Hale, Chair
Public Works and Facilities Committee

FROM: Robert Barr
Acting Engineering and Public Works Department Director

SUBJECT: CBJ Wastewater Effluent Limit Exceedances

In July 2019, Alaska Department of Environmental Conservation (ADEC) sent CBJ a "Notice of Intent to Seek Penalties for Clean Water Act Violations, Opportunity to Confer" letter. This letter was in regards to wastewater effluent violations over a five-year period from the Juneau Douglas and Mendenhall treatment plants. CBJ staff met with ADEC by telephone in August of 2019 and agreed to hire a consultant to conduct a review of the violations, identify causes for the violations if possible, and to recommend corrective actions. Tetra Tech was hired to conduct the review which is now complete.

Tetra Tech determined the exceedance were due to the following:

- JDWWTP violations primarily occurred in the summer of 2017 during a major construction project (headworks construction) which reduced the treatment capacity of the plant, and
- MWWTP violations are linked to high strength influent.

The near-term planned actions to address the causes of the violations are:

- JD – Better prediction of cruise ship wastewater discharges through improved planning and collaboration with cruiselines along with monitoring upgrades, and
- MWWTP – source control efforts, beginning with data collection & voluntary efforts, along with a recontrol of the plant through SCADA and instrumentation upgrades

Please see Tetra Tech's report for additional detail.

CBJ staff will meet with ADEC to review the findings of the report on March 5, 2020 and the possible development of a Compliance Order by Consent (COBC).



OFFICE OF THE MANAGER

Telephone: (907) 586-5240; Fax: (907) 586-5385

February 7, 2020

Jon Wendel
Environmental Program Specialist IV
410 Willoughby Ave #303
Juneau AK 99801

Dear Mr. Wendel:

As agreed upon during the August 8, 2019 conference call between ADEC and CBJ staff, the CBJ hired an engineering consultant to conduct a review of wastewater discharge permit exceedances at both the JDWWTP and MWWTP between 2015 and 2019. Our consultant, Tetra Tech, worked with CBJ to identify and understand the causes of those exceedances and to recommend actions moving forward to prevent future exceedances. This report is attached.

We acknowledge that violations have occurred at both plants over the past five years and strive to eliminate future exceedances. The CBJ has invested heavily in the maintenance of our sewage collection and treatment systems throughout the borough, and we will continue to do so. As you are aware, the CBJ recently completed major upgrades to the headworks of both the JD and Mendenhall plants, and are in the process of commissioning a biosolids dryer. Construction costs for these two projects alone were \$19.8 million.

We request that ADEC consider not pursuing a COBC for the Juneau Douglas Treatment plant. As detailed in Tetra Tech's report, the majority of the exceedances (including all of the BOD and TSS violations) occurred during the summer of 2017 during construction of the new headworks. Replacing unit processes at a functioning wastewater treatment plant is inherently difficult because you cannot stop the flow of incoming wastewater. Replacement of pipe networks requires that construction happen in the summer season. The JD plant receives the highest flows during the summer season due to tourism and cruise ship greywater inputs. The JD plant provides the only location for ships to offload wastewater to shore-based treatment facilities in all of Southeast Alaska. CBJ acknowledges that we need to work more closely with the cruise lines to better accommodate their disposal needs while ensuring that we do not exceed our treatment capacity. We have plans in place to do this.

Influent loading at the MWWTP is consistently high, and permit violations at this plant happen intermittently. The CBJ already has over \$2 million in funding in place for a major SCADA and instrumentation project that will improve our ability to monitor and control processes within the

plant. We expect this work to be completed over the next two years. Along with the SCADA upgrade, the CBJ is committed to putting a source control plan in place to reduce the concentration of wastewater coming into the plant. At the same time, we plan to investigate alternative treatment technologies that could increase the efficiency of this plant within the current constrained footprint.

Our management staff is dedicated to improving the efficiency of our systems, complying with permit requirements, and working with community and industrial partners on wastewater management issues. After you've had a chance to review the attached report, please contact Brian McGuire, CBJ Utilities Superintendent, to set up a meeting. We do not believe that a COBC is necessary or helpful to either ADEC or CBJ.

Sincerely,

A handwritten signature in black ink, appearing to read "Duncan Rorie Watt". The signature is stylized with a large "D" and "W".

Duncan Rorie Watt
City and Borough Manager



Effluent Limit Exceedance Evaluations

Effluent Limit Exceedance Evaluations

February 2020

PREPARED FOR

City and Borough of Juneau

230 S. Franklin St # 310
Juneau, AK 99801

PREPARED BY

Tetra Tech

217 Second Street, Suite 207
Juneau, AK 99801

Phone: 907.586.6400
Fax: 907.463.3677
tetratech.com

Tetra Tech Project #200-12554-20001

C:\Users\bridget.lapenter\Desktop\CBJ WW Exceedance Report Final.docx

CONTENTS

1. Introduction.....	1
1.1 Purpose.....	1
1.2 Background.....	1
2. Juneau-Douglas Wastewater Treatment Plant.....	2
2.1 Effluent Limit Exceedances.....	3
2.1.1 Parameter: Biological Oxygen Demand 5-Day, 20 °C.....	3
2.1.2 Parameter: Total Suspended Solids.....	4
2.1.3 Parameter: Ammonia Total (as Nitrogen).....	4
2.1.4 Parameter: pH.....	5
2.2 Probable Causes.....	6
2.2.1 Headworks Construction.....	6
2.2.2 Cruise Ship Impacts.....	8
2.2.3 Low pH in Effluent.....	10
2.3 Possible Solutions.....	11
2.3.1 Construction Planning.....	11
2.3.2 Prediction and Management of Cruise Ship Impacts.....	11
2.3.3 Operational Adjustments and Alkalinity Monitoring.....	12
2.4 Recommendations.....	13
2.4.1 Near-Term.....	13
2.4.2 Mid-Term.....	14
3. Mendenhall Wastewater Treatment Plant.....	15
3.1 Effluent Limit Exceedances.....	16
3.1.1 Parameter: BOD 5-Day, 20 °C.....	16
3.1.2 Parameter: TSS.....	17
3.1.3 Parameter: Fecal Coliforms.....	18
3.2 Probable Causes.....	19
3.2.1 Plant Operating Conditions.....	19
3.2.2 Industrial Users.....	20
3.3 Possible Solutions.....	21
3.3.1 Plant Operating Conditions.....	21
3.3.2 Industrial Users.....	21
3.4 Recommendations.....	21
3.4.1 Near-Term.....	21
3.4.2 Mid-Term.....	22
3.4.3 Long-Term.....	22
4. Summary and Implementation Strategy.....	23

Tables

Table 2-1. BOD Exceedances at JDTP—September 2015 through March 2019.....	3
Table 2-2. TSS Exceedances at JDTP—September 2015 through March 2019.....	4

Table 2-3. Ammonia Exceedances at JDTP—September 2015 through March 2019	5
Table 2-4. pH Readings Outside Permit Limits at JDTP—September 2015 through March 2019.....	5
Table 2-5. JDTP Design and Observed Loading (Averaged from 2014 – 2019).....	6
Table 2-6. JDTP Cruise Ship Wastewater Flow and Load Summary – Combined Flow All Ships.....	10
Table 2-7. JDTP Source Water Alkalinity, 3-year Average	10
Table 2-8. JDTP Estimated 10-Year Capital Improvement Projects.....	11
Table 2-9. JDTP Design Loads and 2019 Summer Season Loading Comparison	12
Table 3-1. BOD Exceedances at MTP—September 2015 through March 2019.....	16
Table 3-2. TSS Exceedances at MTP—September 2015 through March 2019	17
Table 3-3. Fecal Coliform Exceedances at MTP—September 2015 through March 2019.....	18
Table 3-4. Plant Design and Observed Loading (Averaged from 2014-2019).....	19
Table 4-1. Borough-Wide Corrective Actions	23
Table 4-2. Juneau-Douglas Wastewater Treatment Plant.....	24
Table 4-3. Mendenhall Wastewater Treatment Plant	25

Figures

Figure 2-1. JDTP Service Area Map	2
Figure 2-2. JDTP Effluent Limit Violations by Year, September 2015 – March 2019.....	7
Figure 2-3. JDTP 2017 Effluent Limit Exceedance Timeline	7
Figure 2-4. Monthly Cruise Ship Wastewater Discharge to JDTP (2015-2019).....	8
Figure 2-5. Monthly Cruise Ship BOD Loading to JDTP (2015-2019)	9
Figure 2-6. Monthly Cruise Ship TSS Loading to JDTP (2015-2019).....	9
Figure 2-7. JDTP Monthly Plant Influent Loads and Cruise Ship Wastewater Contributions.....	10
Figure 3-1. MTP Service Area Map	15

ACRONYMS

Acronym	Definition
APDES	Alaska Pollutant Discharge Elimination System
BMP	best management practice
BOD	biological oxygen demand
CBJ	City and Borough of Juneau
DEC	Alaska Department of Environmental Conservation
DMR	discharge monitoring report
FOG	fats, oils and grease
IU	industrial user
JDTP	Juneau-Douglas Wastewater Treatment Plant
mg/L	milligrams per liter
mgd	million gallons per day
MTP	Mendenhall Wastewater Treatment Plant
ppd	pounds per day
SBR	sequencing batch reactor
SIU	significant
SRT	solids retention time
TSS	total suspended solids
Tt	Tetra Tech
UV	ultraviolet

1. INTRODUCTION

1.1 PURPOSE

The City and Borough of Juneau (CBJ) hired Tetra Tech (Tt) to assist in determining the cause of and to propose solutions for effluent limit violations occurring between September 2015 and March 2019 at the Juneau-Douglas Wastewater Treatment Plant (JDTP) and the Mendenhall Wastewater Treatment Plant (MTP). This report evaluates circumstances behind the permit effluent limit exceedances during this period for both treatment plants, the corrective actions taken upon notice of the exceedances, actions the CBJ is taking to prevent future occurrences of the same causes, and an implementation strategy for these measures for the CBJ to present to the Alaska Department of Environmental Conservation (DEC) in order to achieve a feasible path to compliance.

1.2 BACKGROUND

The CBJ contacted Tt after receiving a “Notice of Intent to Seek Penalties for Clean Water Act Violations Opportunity to Confer” letter from the DEC dated July 22, 2019, concerning alleged federal Clean Water Act violations occurring from September 2015 through March 2019. The letter indicated that the alleged violations at the JDTP and the MTP placed the facilities out of compliance with their Alaska Pollutant Discharge Elimination System (APDES) individual permits. DEC specifically cited 31 permit effluent limit exceedances for the JDTP and 55 permit effluent limit exceedances for the MTP during the period under scrutiny.

In a subsequent phone call, the DEC agreed to allow the CBJ to continue operating both treatment plants while working with Tt to develop this report detailing each exceedance, why it occurred (if known), what measures were taken to resolve the issue, and recommendations for any further measures that should be taken to resolve the issue (as required).

In general, the CBJ operates both the JDTP and the MTP to be compliant with their individual permit limits. In the event of a non-compliant event, the CBJ contacts the DEC within 24 hours to give oral notification of noncompliance. Within five calendar days after operators become aware of the circumstances, the CBJ submits a written documentation of noncompliance (noncompliance notification) to the DEC’s Division of Water and engages in corrective actions where applicable. The noncompliance notifications written by wastewater treatment staff provide information on what occurred when the exceedance was noticed (if known), and how the exceedance was resolved.

2. JUNEAU-DOUGLAS WASTEWATER TREATMENT PLANT

The CBJ owns, operates, and maintains the JDTP, located approximately 1 mile south of downtown Juneau. Limits on the JDTP's treated effluent are governed in accordance with the Clean Water Act by APDES Individual Permit AK0023213, effective June 1, 2015.

The JDTP was designed and constructed in 1973 with the capacity to treat average daily flows of 2.76 million gallons per day (mgd). An activated sludge facility, the JDTP serves a resident population of approximately 9,000 people as well as commercial businesses, cruise ships, and State of Alaska and CBJ offices. Figure 2-1 shows the boundaries of the plant's service area. As Juneau is a summer holiday destination, seasonal population fluctuations have an impact on wastewater volume at the JDTP. In addition, cruise ship discharges are a factor regarding seasonal changes in volume and strength.

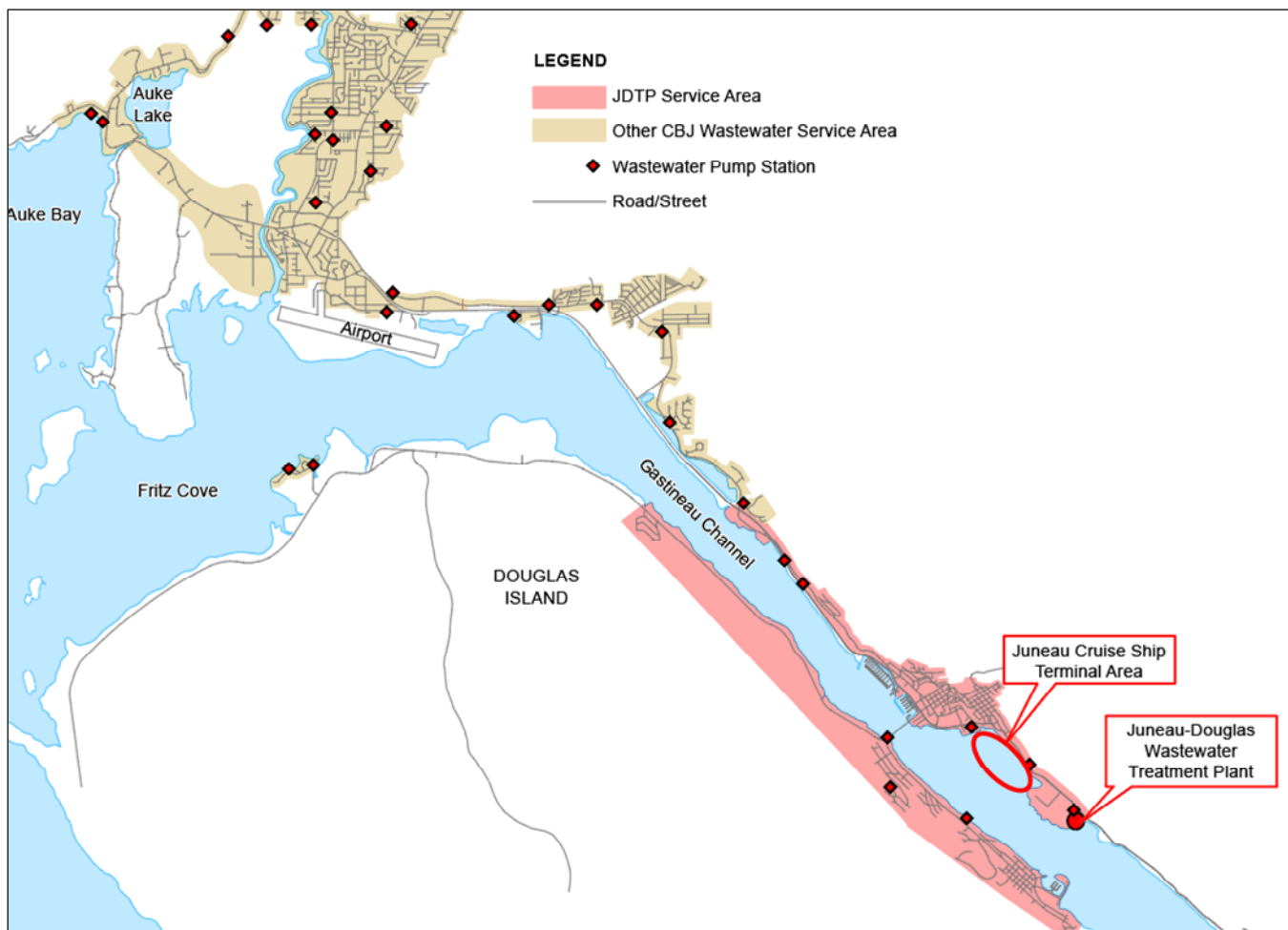


Figure 2-1. JDTP Service Area Map

The JDTP provides preliminary treatment of influent sewage by fine screening and grit removal in the headworks. Secondary biological treatment is completed in one or two aeration basins, each having two 30-hp aerators. Activated sludge mixed liquor flows by gravity to a distribution box and then into one of two clarifiers. Sludge removed during the treatment process is sent for further treatment to an aerobic digester with one 30-hp aerator. The digester stores thickened sludge until it can be sent to a belt filter press. Treated effluent from the clarifier is disinfected with ultraviolet (UV) light treatment.

The CBJ has made significant investment in capital improvements to the JDTP during the previous permit cycle (2014-2019), including the following:

- **Headworks upgrades**—The Auger Monster (a unit combining grinder, screen and compactor) was upgraded to two new 3-mm perforated plate automatic screens and screening washer/compactors
- **Aeration basin upgrades**—Upgrades included replaced platforms and access walkways, replacement of each of the five electric aerator motors, aeration guide pipe replacement, and resurfacing of sump and aeration basin floors with reinforced concrete overlay
- **Digester upgrades**—Digester aerator mixer impellers were replaced
- **Auxiliary pump upgrades**—Each of the two auxiliary pumps was replaced, and the new pumps were supplied with new control panels

2.1 EFFLUENT LIMIT EXCEEDANCES

DEC identified 31 effluent limit exceedances at the JDTP from September 2015 through March 2019. The records registered by DEC (in the U.S. Environmental Protection Agency Enforcement and Compliance History Online database) were compared to noncompliance notifications that the CBJ sent to DEC during this period. Noncompliance notifications include additional operator information about each exceedance incident, including possible causes. Using this information, the exceedances were categorized by parameter for further examination.

Following are the known exceedances for each parameter, including permitted limit type and value as compared to the value reported on the JDTP's discharge monitoring report (DMR). The percent by which the reported value from the DMR exceeded the permitted limit is shown where appropriate.

2.1.1 Parameter: Biological Oxygen Demand 5-Day, 20 °C

Daily maximum, weekly average and monthly average effluent biological oxygen demand (BOD) limits were exceeded during the period under evaluation, as summarized in Table 2-1. Based on noncompliance notifications and interviews with CBJ wastewater treatment staff, the following were reported causes for BOD exceedances:

- Hydraulic surge causing a loss of solids from the clarifiers
- Facility operating on one aeration basin
- BOD dilution for the effluent sample did not meet QA/QC parameters
- Unknown

Table 2-1. BOD Exceedances at JDTP—September 2015 through March 2019

Month	Limit Type	Limit Value	DMR Value	% Exceedance
June 2017	Weekly Average Load	1,035 ppd	2,205 ppd	113
July 2017	Daily Maximum Concentration	60 mg/L	78 mg/L	30
August 2017	Monthly Average Concentration	30 mg/L	35 mg/L	17
August 2017	Weekly Average Concentration	45 mg/L	57 mg/L	27
August 2017	Daily Maximum Load	1,380 ppd	1,830 ppd	33
August 2017	Daily Maximum Concentration	60 mg/L	120 mg/L	100

ppd = pounds per day; mg/L = milligrams per liter

Reported actions taken at the time of noncompliance to reduce BOD were as follows:

- Increase waste removal from the system
- Return operation to both aeration basins after completion of construction
- Reinforce QA/QC procedures for sampling and testing

CBJ wastewater staff reported the following long-term corrective actions:

- Operate both aeration basins
- Continue to reinforce QA/QC procedures for sampling and testing

2.1.2 Parameter: Total Suspended Solids

Daily maximum, weekly average, monthly average effluent total suspended solids (TSS) limits were exceeded during the time period under evaluation, as summarized in Table 2-2. Based on noncompliance notifications and interviews with CBJ wastewater treatment staff, the following were reported causes for TSS exceedances:

- Hydraulic surge causing a loss of solids from the clarifiers
- Facility operating on one aeration basin
- Unknown

Table 2-2. TSS Exceedances at JDTP—September 2015 through March 2019

Month	Limit Type	Limit Value	DMR Value	% Exceedance
July 2017	Weekly Average Concentration	45 mg/L	85 mg/L	89
July 2017	Monthly Average Concentration	30 mg/L	32 mg/L	7
July 2017	Daily Maximum Load	1,380 ppd	2,496 ppd	81
July 2017	Daily Maximum Concentration	60 mg/L	232 mg/L	287
August 2017	Minimum Percent Removal	85%	74%	--
August 2017	Daily Maximum Concentration	60 mg/L	290 mg/L	383
August 2017	Daily Maximum Load	1,380 ppd	4,824 ppd	250
August 2017	Weekly Average Concentration	45 mg/L	101 mg/L	124
August 2017	Weekly Average Load	1,035 ppd	1,652 ppd	60
August 2017	Monthly Average Concentration	30 mg/L	61 mg/L	103
August 2017	Monthly Average Load	690 ppd	715 ppd	4
September 2017	Daily Maximum Concentration	60 mg/L	115 mg/L	92
September 2017	Daily Maximum Load	1,380 ppd	2,103 ppd	52

Reported actions taken at time of noncompliance to reduce TSS were as follows:

- Increase waste removal from the system
- Return operation to both aeration basins after completion of construction

CBJ wastewater staff reported the following long-term corrective actions:

- Operate both aeration basins

2.1.3 Parameter: Ammonia Total (as Nitrogen)

The monthly average ammonia permit limit was exceeded a total of five times during this period, as summarized in Table 2-3. Based on noncompliance notifications and interviews with CBJ wastewater treatment staff, the following were reported causes for ammonia exceedances:

- Switching back and forth between basins
- Facility operating on one aeration basin
- Unknown

Table 2-3. Ammonia Exceedances at JDTP—September 2015 through March 2019

Month	Limit Type	Limit Value	DMR Value	% Exceedance
July 2016	Monthly Average Concentration	14 mg/L	15 mg/L	7
June 2017	Monthly Average Concentration	14 mg/L	18 mg/L	29
July 2017	Monthly Average Concentration	14 mg/L	17 mg/L	21
August 2017	Monthly Average Concentration	14 mg/L	15 mg/L	7
September 2017	Monthly Average Concentration	14 mg/L	17 mg/L	21

Reported actions taken at time of noncompliance to reduce ammonia were as follows:

- Cease switching basins during construction
- Stabilize treatment and mean cell reaction time
- Return operation to both aeration basins after completion of construction

CBJ wastewater staff reported the following long-term corrective actions:

- Operate both aeration basins

2.1.4 Parameter: pH

The monthly average pH permit limit was unmet a total of seven times during this period, as summarized in Table 2-4. Based on noncompliance notifications and interviews with CBJ wastewater treatment staff, the following were reported causes for pH readings outside the permit limits:

- Second basin put online and system still stabilizing from the change
- Mass of biosolids high, causing the process to go into nitrification
- Suspect influent shock load with low pH in influent
- Unknown

Table 2-4. pH Readings Outside Permit Limits at JDTP—September 2015 through March 2019

Month	Limit Type	Limit Value	DMR Value
April 2016	Monthly Average Minimum	6.5	6.3
September 2016	Monthly Average Minimum	6.5	6.3
October 2016	Monthly Average Minimum	6.5	5.9
April 2017	Monthly Average Minimum	6.5	6.0
November 2017	Monthly Average Minimum	6.5	6.3
December 2017	Monthly Average Minimum	6.5	6.0
January 2018	Monthly Average Minimum	6.5	6.3

The reported actions taken at time of noncompliance to address pH were as follows:

- Cease switching basins during construction
- Stabilize treatment and mean cell reaction time
- Return operation to both aeration basins after completion of construction
- Monitor the mixed liquor suspended solids (MLSS) and turbidity

CBJ wastewater staff reported the following long-term corrective actions:

- Increase return rate to aeration basins and increase wasting to lower the F/M ratio and biosolids balance in Aeration Basin #1 and Aeration Basin #2
- Increase pH testing frequency and analysis to adjust operation of aeration basins

2.2 PROBABLE CAUSES

The sections above listed the expected causes as observed and reported by CBJ wastewater operators. CBJ staff and Tt have reviewed the reported causes and have developed from them the three expected overriding causes detailed below.

2.2.1 Headworks Construction

Between May 1st and November 23rd 2017, the JDTP underwent a period of extensive headworks modification and construction. The previously installed Auger Monster system was not effective at removing all small debris such as rags and other items that could negatively affect the treatment process or items that cannot be broken down by the biological process.

CBJ removed the Auger Monster and upgraded the headworks screening system to two new 3-mm perforated plate automatic screens and screening washer/compactors. The project included new electrical connections to the screens and compactors, construction of new concrete influent channels, piping to connect the new channels to existing piping, and a headworks building addition to enclose the new channels. The screens have operated since 2017 with no incident and have improved solids removal at the JDTP.

The nature of the construction required that the upgrades take place during the warm weather of summer. Summer is also when the JDTP receives its highest flow rate (see Table 2-5). Typically, the JDTP operates on two aeration basins during the high-flow summer season, and only one aeration basin during the low-flow winter season. Due to construction of the headworks, the plant was required to operate on only one aeration basin during the summer of 2017. As described in the preceding section, staff indicated operational challenges related to construction (operating on one aeration basin, switching back and forth between basins, system still stabilizing) lead to effluent limit exceedances.

Table 2-5. JDTP Design and Observed Loading (Averaged from 2014 – 2019)

Parameter	Design	Observed	Percent of Design
Influent Flow			
Average Annual Flow	2.76 mgd	0.92 mgd	33%
Average Flow May-September	—	0.99 mgd	36%
Average Flow Winter	—	0.84 mgd	30%
Peak Day Flow	7.23 mgd	4.89 mgd ^a	68%
BOD			
BOD Load, Annual Average	3,290 pounds/day	1,987 pounds/day	60%
BOD Load, Peak Day	—	19,426 pounds/day ^b	
TSS			
TSS Load, Annual Average	4,259 pounds/day	1,547 pounds/day	36%
TSS Load, Peak Day	—	12,627 pounds/day ^b	

a. Occurred October 14, 2018

b. Corresponds with flow rate of 1.94 mgd, occurred September 9, 2015.

As shown in Table 2-1 through Table 2-4 above, the headworks construction period correlates with the time period during which 24 of the 31 identified effluent limit exceedances occurred, including all BOD, TSS and nearly all ammonia violations. It is likely that all BOD and TSS exceedances, and all but one ammonia limit exceedance were caused by the headworks construction (see Figure 2-2 and Figure 2-3).

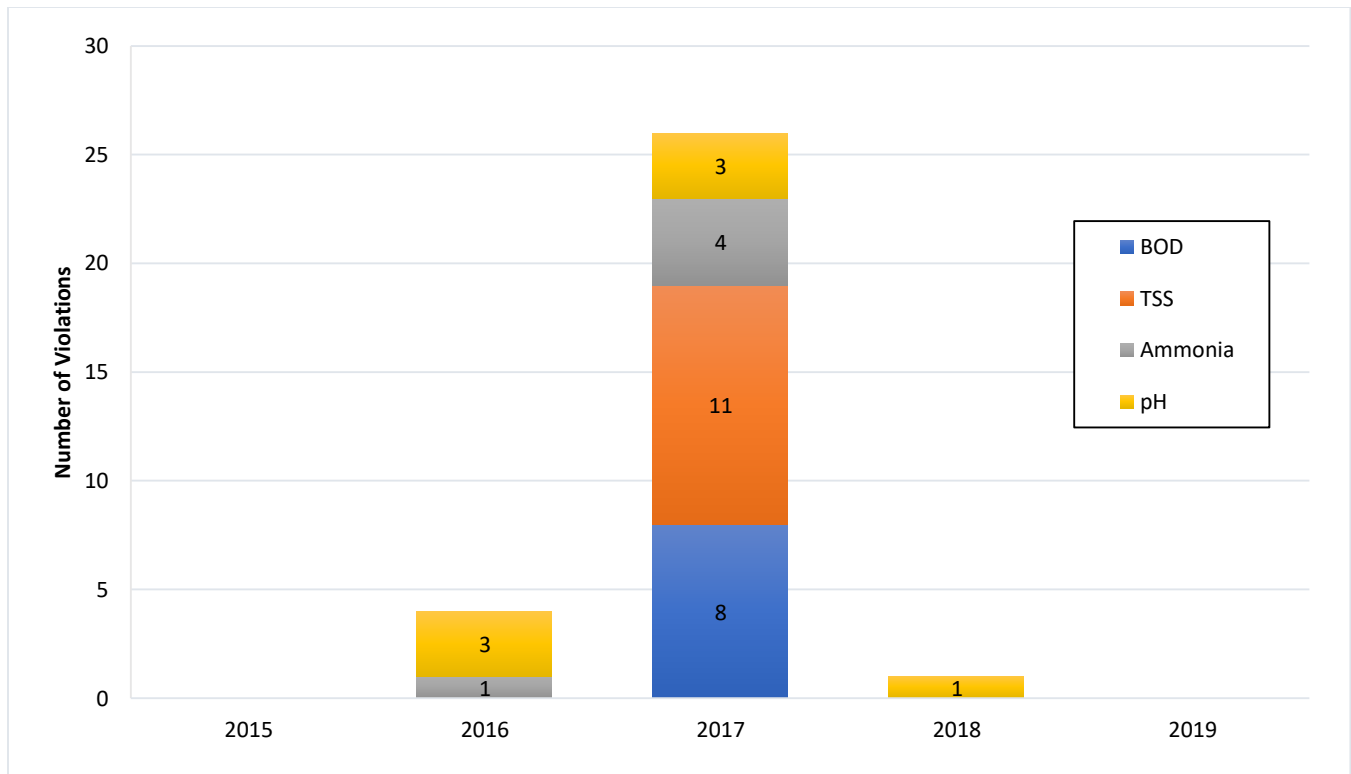


Figure 2-2. JDTP Effluent Limit Violations by Year, September 2015 – March 2019

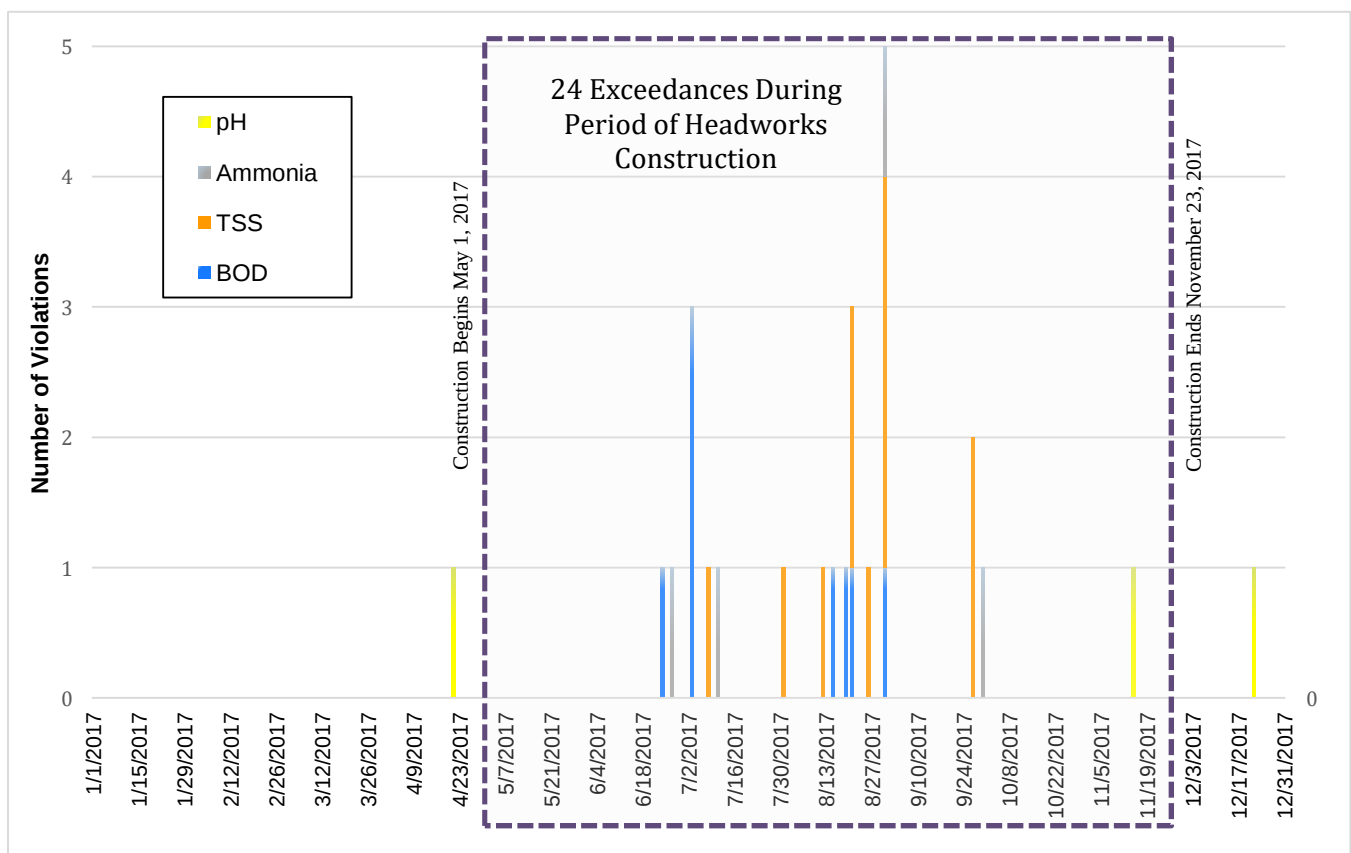


Figure 2-3. JDTP 2017 Effluent Limit Exceedance Timeline

2.2.2 Cruise Ship Impacts

Cruise ship wastewater discharge received by the plant may also have contributed to 23 of the effluent limit exceedances occurring during the summer of 2017. The JDTP has observed a steady seasonal volume increase of cruise ship wastewater during the previous permit cycle. From 2015 to 2019, 16 vessels discharged over 57 million gallons of wastewater to the JDTP. Figure 2-4 illustrates this steady seasonal volume increase.

In conjunction with a three-fold volume increase, the organic loading of the wastewater has also increased over the last five years, as shown on Figure 2-5 and Figure 2-6. Monthly average treatment plant TSS and BOD loadings are shown along with the monthly total cruise ship discharges from 2015 through 2019 in Figure 2-7. With all four cruise ship dock wastewater discharge facilities in operation, the average per day volume and loading from the docks is as summarized in Table 2-6.

The cruise ship contributions to wastewater loading are another likely cause of the BOD, TSS and ammonia violations during the summer of 2017. It is likely that the additional load received by the plant was more than the facility was capable of treating with only one aeration basin operating. The CBJ worked with cruise lines to try to reduce loading received at the plant. However, it is evident from Figure 2-4 through Figure 2-6 that while the cruise lines did reduce loading, it may not have been enough to prevent violations.

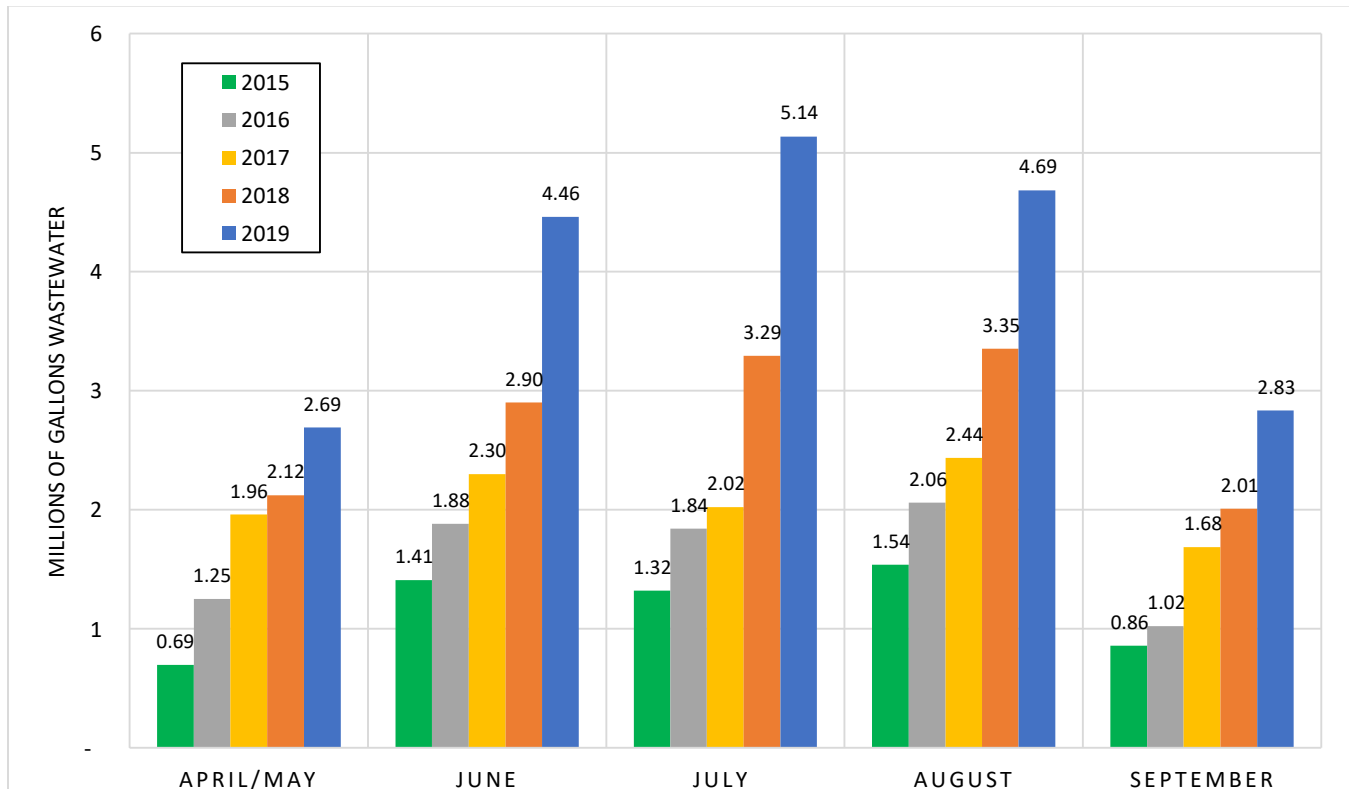


Figure 2-4. Monthly Cruise Ship Wastewater Discharge to JDTP (2015-2019)

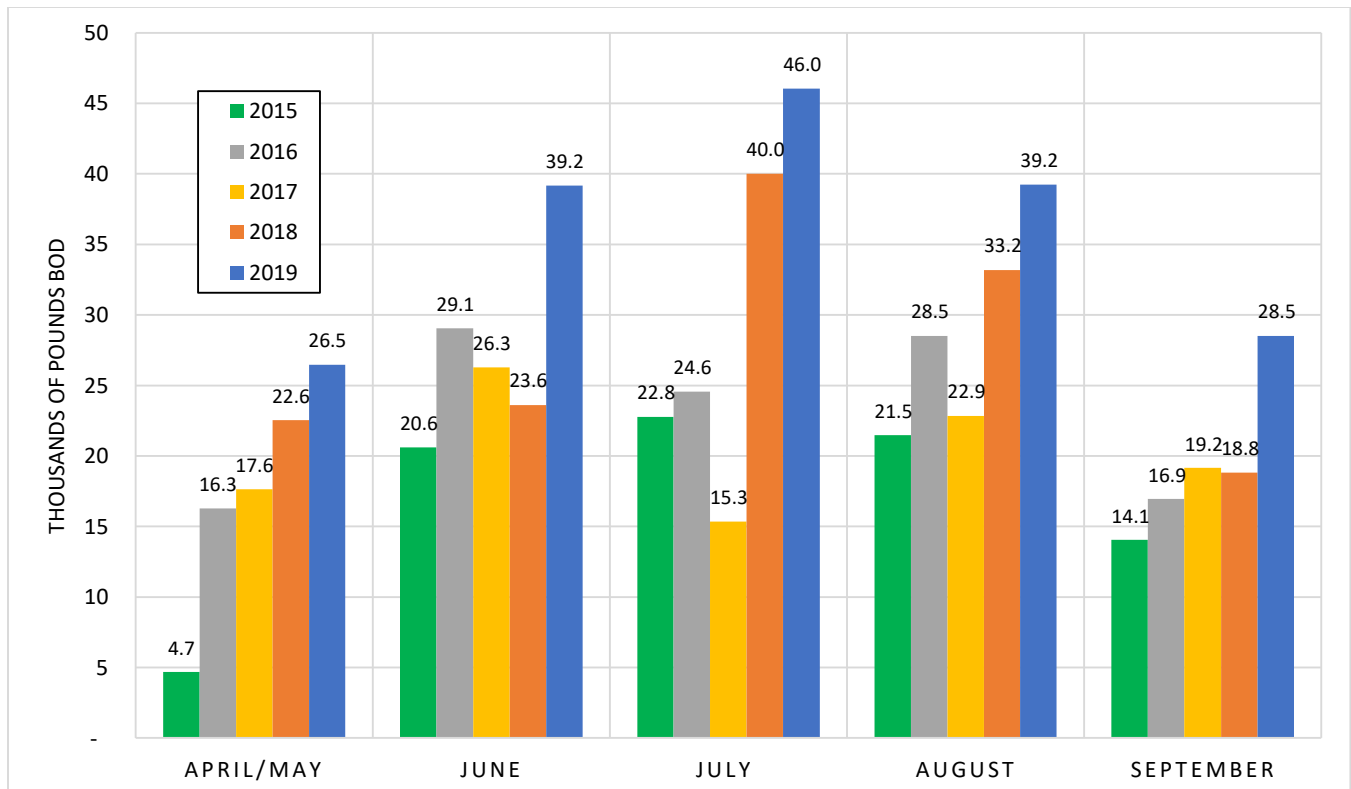


Figure 2-5. Monthly Cruise Ship BOD Loading to JDTP (2015-2019)

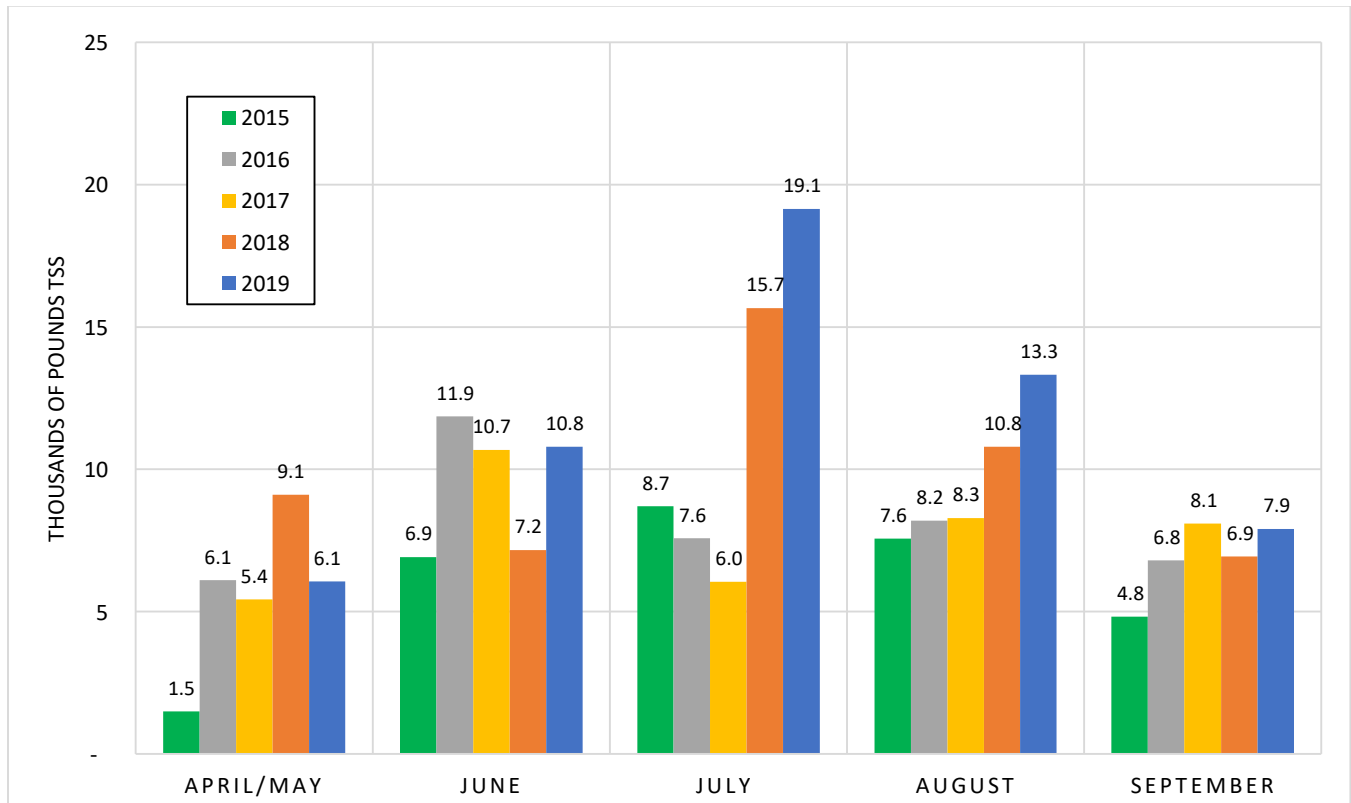


Figure 2-6. Monthly Cruise Ship TSS Loading to JDTP (2015-2019)

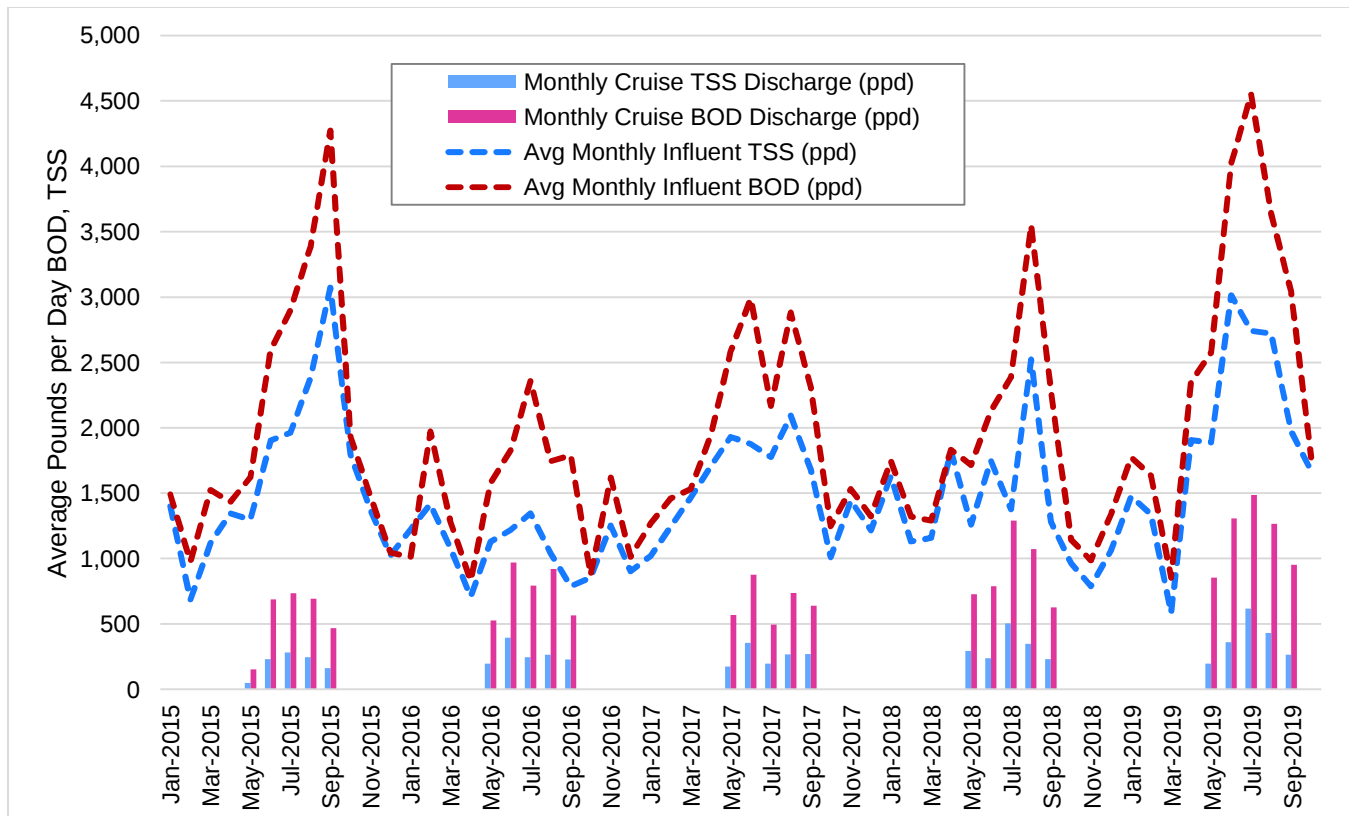


Figure 2-7. JDTP Monthly Plant Influent Loads and Cruise Ship Wastewater Contributions

Table 2-6. JDTP Cruise Ship Wastewater Flow and Load Summary – Combined Flow All Ships

Year	Wastewater Flow		BOD		TSS	
	Season Per Day Average (mgd)	Peak Day (mgd)	Per Day Average (ppd)	Peak Day (pounds)	Per Day Average (ppd)	Peak Day (pounds)
2015	0.04	0.12	626	5,451	220	2,935
2016	0.06	0.18	577	4,498	214	2,434
2017	0.07	0.19	718	6,170	273	3,719
2018	0.09	0.20	927	4,315	333	2,042
2019	0.13	0.22	1,196	3,990	383	4,423

2.2.3 Low pH in Effluent

Operational data for the treatment plant show that the influent pH appears to have an acceptable average value of 7.4 for the period in question, so it is likely not a cause for low pH in the effluent, aside from reported shock load incidents.

When influent pH is satisfactory (near 7.0), low effluent pH is usually caused by nitrification in combination with low alkalinity in the water supply. Alkalinity data was not available for the JDTP influent, as it is not presently measured. However, the water utility collections department provided alkalinity measurements of the treated source water prior to distribution, which is measured once weekly. Three year average (January 6, 2017 to December 6, 2019) alkalinity measurements are listed in Table 2-7.

Table 2-7. JDTP Source Water Alkalinity, 3-year Average

Year	Alkalinity as CaCO ₃ (mg/L)
Maximum	33.4
Minimum	17.5

Year	Alkalinity as CaCO ₃ (mg/L)
Average	26.6

The ideal minimum alkalinity in a drinking water supply is typically 20 mg/L. Alkalinity is added as people and businesses use water for potable purposes, so influent wastewater alkalinity at the JDTP will be higher than these values. For analysis, the average alkalinity of 26.6 mg/L is considered a low base amount of alkalinity at the plant. Low natural alkalinity in the influent wastewater in combination with nitrification (and associated anaerobic conditions) may be a cause of the low effluent pH when the plant attempts to fully nitrify high concentrations of influent ammonia nitrogen. In addition, nitrification conditions due to changes in seasonal operations (one aeration basin to two, or two aeration basins to one) may contribute to low pH in the effluent.

2.3 POSSIBLE SOLUTIONS

2.3.1 Construction Planning

Construction at a wastewater treatment facility is inherently different than other capital improvements in that the incoming flow cannot be stopped and construction cannot be completed in the winter. The 2017 headworks construction was a temporary condition endured and managed by the treatment plant staff. Although the new headworks screening system itself will likely not be modified in the near future, other capital improvement projects are scheduled for the JDTP that may disrupt typical treatment operations. Capital improvement projects identified by CBJ engineering include those listed in Table 2-8, as included in the CBJ 2020 fiscal year plan.

Table 2-8. JDTP Estimated 10-Year Capital Improvement Projects

Project	Total Estimated Cost	Timing of Expenditure	
		5 Years	10 Years
Pretreatment Improvements	\$3,000,000	\$3,000,000	-
Facility Structural Improvements	\$3,200,000	\$2,700,000	\$500,000
SCADA and Instrumentation Upgrades	\$850,000	\$850,000	-
Outfall Maintenance and Rehabilitation	\$400,000	\$400,000	-
Site Improvements (lighting, security, access)	\$1,500,000	\$1,000,000	\$500,000
Treatment Process Upgrades	\$1,500,000	\$1,000,000	\$500,000

During these periods of construction and plant modification, it will be essential for wastewater treatment staff to develop a comprehensive plan to operate the plant on limited or modified facilities in conjunction with phasing construction to ensure the plant will remain in continuous compliance. As an example, if construction activities were to require the JDTP to operate at reduced capacity, the staff could utilize the currently empty sludge storage vault as a holding tank in periods of higher flows, and meter the wastewater into the plant gradually in periods of lower flows to maintain constant influent flow rate into the plant. The CBJ should plan to allocate resources during the design and construction phases to develop solutions in order to maintain permit compliance.

2.3.2 Prediction and Management of Cruise Ship Impacts

Because the JDTP summer waste loads—including intermittent high-strength waste streams from cruise ships—are increasing each year and may continue to increase, it is important for the CBJ to determine the maximum amount of waste load the plant can treat and remain within permitted effluent limits. A simple way to begin this evaluation is to compare the average loading of the plant during the summer cruise ship season with its design capacity. Table 2-9 presents this comparison using the 2019 summer season data, as it is the highest summer loading the plant has seen in recent years. The average hydraulic load rate during the summer was only 34 percent

of design capacity, but the plant saw BOD loading of 108 percent of design capacity. The TSS loading was 59 percent of the design capacity.

Table 2-9. JDTP Design Loads and 2019 Summer Season Loading Comparison

	Design Loading	April 28 – October 2, 2019 Average Plant Loading	Difference	Average % Loading Contribution per Cruise Ship Discharge
Average Influent Flow (mgd)	2.76	0.94	1.82	12%
Average BOD (ppd)	3,290	3,551	(261)	28%
Average TSS (ppd)	4,259	2,502	1,757	13%

At the 2019 summer flow and loading rates, the plant was generally capable of achieving permitted effluent limits. Influent flow and TSS loading below the design level may have allowed the plant to accommodate a BOD load that was greater than the design level. However, the complexity of the treatment process does not lend itself to a simple determination of how much additional flow, BOD and TSS the plant can accommodate during the summer season.

In order to determine the maximum allowable cruise ship loadings and thereby define best management practices (BMPs) for the acceptance of cruise ship wastewater, the CBJ should devote resources to a re-evaluation of the plant design limits in consideration of flow rates below design capacity and increased biological loading. This will require an analysis of the capacity of each plant component given the changing characteristics of the load. This analysis should provide system operators with specific limits on waste loads that can be accepted at the plant without exceeding permitted effluent limits. In the near-term, the CBJ should carry out a planning meeting with cruise agencies prior to the 2020 season to develop a predictable schedule of cruise ship wastewater flows and loading.

The CBJ maintains oversight and control of the cruise ship wastewater discharges to the JDTP through contractual agreement. The following measures have already been put in place to ensure cruise ship discharge activity is monitored by the CBJ:

- Magnetic flow meters have been installed to measure flow of wastewater at each discharge location and report it to the CBJ.
- Composite samplers have been installed at each of the four docks to collect representative samples of the discharge from each ship. Samples are collected every 30 minutes at each dock during operation.
- Continuous TSS analyzers are installed at each of the four docks, although these have proven inaccurate due to the strength of the wastewater.
- Eccentric plug valves were installed at all four locations, but motor actuators have not yet been installed as flow regulation from the plant side has not yet been required.
- Control is maintained through contracts with the cruise lines.
- \$500,000 has been dedicated to upgrade wastewater monitoring at the JDTP. These funds will be available for use beginning July 1, 2020.

Despite these efforts, hydraulic and biological overloading of the treatment plant is possible without set limits on volume, BOD and TSS. Further study is recommended to evaluate plant capacity given known loading conditions and to develop daily, weekly and monthly limits to ensure that the JDTP operates within permit limits.

2.3.3 Operational Adjustments and Alkalinity Monitoring

Given the normally underloaded condition of the JDTP, the activated sludge system may inadvertently go into nitrification even if operators try to maintain a low solids retention time (SRT) to avoid it. Should the plant be in the nitrification mode to meet the effluent limit of 14 mg-N/L, on/off aeration cycles can be used to periodically promote anoxic conditions and denitrification (i.e. nitrate reduction) throughout the day, recovering a portion of

the alkalinity consumed by nitrification (ammonia oxidation). Another approach is to create an anoxic swing zone within each activated sludge basin and provide mixed liquor recycle pumps to recirculate nitrate from the end of the oxic zone to the beginning of the anoxic zone to foster nitrate reduction.

If neither of these is possible, then chemical addition may be an option to help correct the deficiency and raise the pH as an immediate solution. Common chemicals used to increase alkalinity and pH include:

- Calcium oxide or calcium hydroxide (as lime slurry)
- Sodium hydroxide (caustic soda)
- Sodium carbonate (soda ash) or sodium bicarbonate
- Magnesium hydroxide or magnesium bicarbonate

With respect to shock loads, the ultimate solution is to eliminate low-pH sources from the collection system by detailed analysis of known or suspected industrial users (IU) and working with these IUs to develop BMPs to prevent deleterious loads from entering the JDTP. Continuous monitoring will reveal the frequency and significance of shock loads on the system.

2.4 RECOMMENDATIONS

In recent years, the JDTP has had operational challenges, including headworks construction, that have contributed to the effluent violations described above. Given the normally underloaded condition at the JDTP, the principal concern seems to be jointly managing the need for nitrification to meet effluent ammonia limits coupled with the need for alkalinity supplementation when doing so. Following are prioritized recommendations that should allow the facility to work toward consistently operating within permit limitations.

2.4.1 Near-Term

Reevaluate Design Capacity of Plant at Current Average Flow Rate and Loads

Cruise ship wastewater contributes a significant amount of BOD and TSS to the JDTP by way of intermittent loads during the summer season. The maximum allowable cruise ship contributions are unknown but must be determined to ensure that the JDTP continues to operate within permitted discharge limits. The CBJ should devote resources to a re-evaluation of the plant design limits in consideration of current below design capacity flow rates and increased biological loading. The result of this analysis should provide system operators with specific limits on waste loads that can be accepted at the plant without exceeding permitted effluent limits.

On/Off Aeration

In the near-term, the JDTP may benefit from experimentation with on/off aeration, which may allow for denitrification when the plant is nitrifying. Denitrification would benefit the plant by recovering some of the alkalinity lost during the nitrification process, thereby preventing pH reduction in the effluent.

Alkalinity Study

Although on/off aeration may help to increase pH in the effluent, it is recommended to simultaneously carry out an alkalinity study. This investigation should begin by monitoring alkalinity in the influent wastewater and, depending on the results of that study, evaluating whether JDTP could benefit from chemical supplementation at the influent.

Cruise Ship Wastewater Instrumentation Upgrades

Cruise ship flow and load instrumentation upgrades at the influent would benefit JDTP operations. The additions of both a more accurate in-line ammonia sensor (used as a proxy for BOD) and UV backscatter instrumentation (for TSS) may allow for improved real-time plant loading estimates. Current contract documentation with the

cruise ships permits all wastewater to be discharged to the JDTP. However, the CBJ should be made aware of any discharges of sludge and send it directly to the aerobic digester to keep it out of the JDTP liquid stream. The CBJ has dedicated \$500,000 in marine passenger fees to monitoring upgrades at the JDTP.

Host Annual Planning Session

The CBJ would benefit from an annual planning meeting with cruise agencies prior to each season, beginning with the 2020 season, to develop a predictable schedule of cruise ship wastewater flows and loading expected at the JDTP. The first meeting was already held February 6th, 2020.

Continue Managing Cruise Ship Wastewater Contributions

The contract already in place between the CBJ and cruise ship agencies is a critical component of managing cruise ship wastewater contributions. An improvement upon this would be to include in this contract the approximate maximum volume of wastewater and/or total weight of BOD and TSS the JDTP can accommodate during a summer season.

2.4.2 Mid-Term

Develop Best Management Practices for JDTP

The JDTP should develop comprehensive BMPs that include, but should not be limited to:

- Operational plans for seasonal transitions
- Source control strategies
- Operational strategies for treating waste of industrial users
- Operational strategies for cruise ship flow and load equalization, integrated with cruise ship planning

Develop Detailed Operational Plans Prior to Construction Activities

Increased waste loading during the summer tourist and construction season should not rely on a single aeration basin for treatment. Wastewater staff should work with the engineer and construction contractor to develop detailed, creative operational plans prior to construction to ensure treatment limits are met. Solutions may include using existing facilities to hold influent waste and meter it out at a period of lower flow, restricting cruise ship inputs during construction, or providing additional resources to accommodate reduced treatment capacity.

3. MENDENHALL WASTEWATER TREATMENT PLANT

The CBJ owns, operates, and maintains the MTP in the Mendenhall Valley area of Juneau. Limits on the MTP's treated effluent are governed in accordance with the federal Clean Water Act by APDES Individual Permit AK0022951 effective August 1, 2014.

The MTP is largest of three wastewater treatment facilities serving the Juneau area, with a design flow of 4.9 mgd. It is an activated sludge facility utilizing sequencing batch reactor (SBR) technology. The MTP serves a resident population of approximately 15,000 to 20,000 people as well as commercial businesses. Figure 3-1 shows the boundaries of the plant's service area. Although Juneau is a summer destination area, seasonal population fluctuations do not have a significant impact on wastewater volume at the MTP, as the residents and businesses served by the plant are generally present year-round.

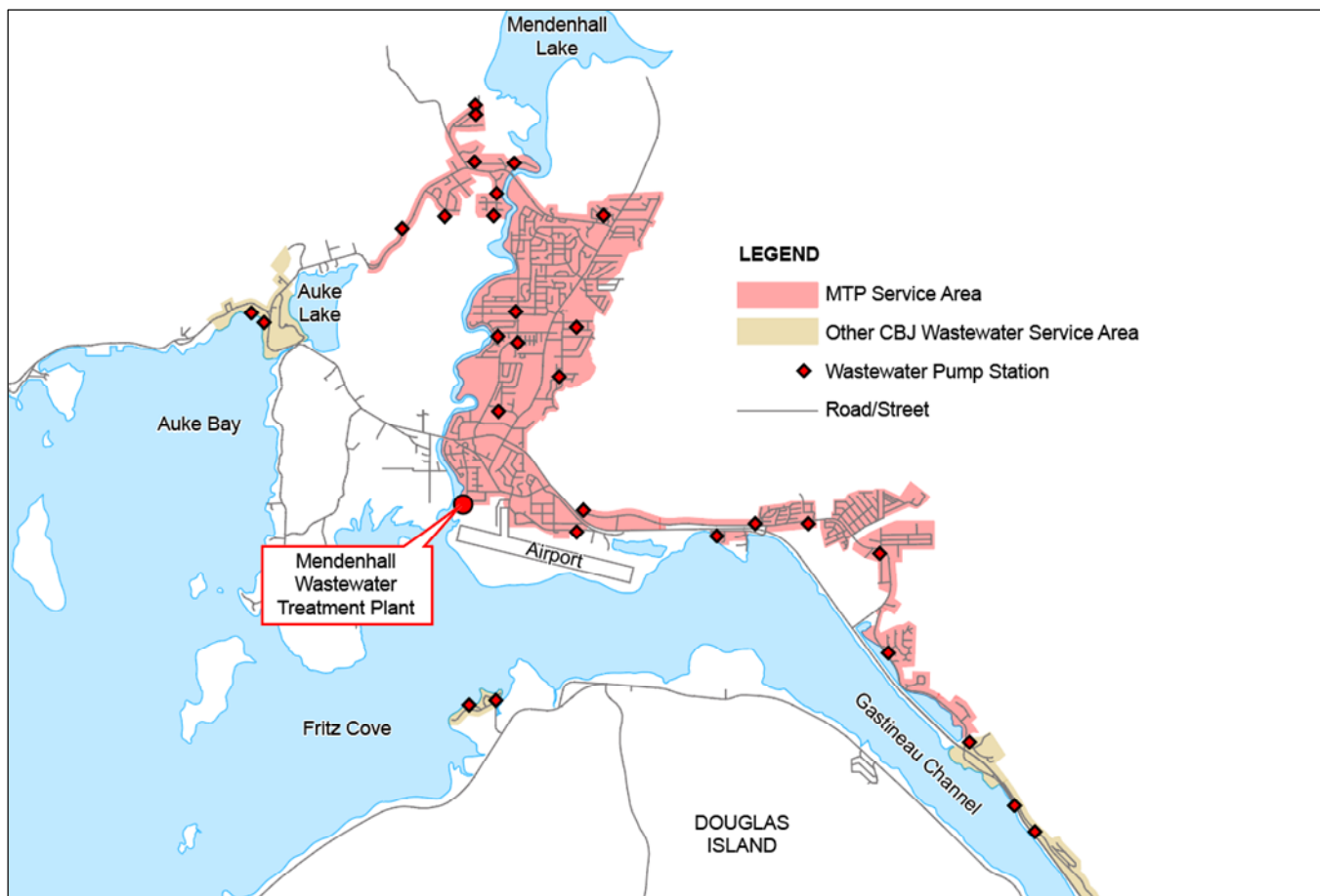


Figure 3-1. MTP Service Area Map

The MTP provides primary treatment of influent sewage by fine screening and grit removal and secondary biological treatment in a series of SBRs using aeration blowers and jet circulation pumps. Treated effluent is

decanted and disinfected with UV light treatment. The MTP discharges secondary treated, disinfected effluent into the Mendenhall River through a submerged multi-port diffuser located approximately 5,800 feet downriver of the Brotherhood Bridge and 1.4 miles upstream from Gastineau Channel. The outfall pipeline is anchored along the river bottom, oriented perpendicular to the direction of flow.

The CBJ has made significant investment in capital improvements to the MTP during the previous permit cycle (2014-2019), including:

- **Headworks upgrades.** The bar screen and auger monster were upgraded in 2017 to (2) new 3-mm perforated plate automatic screens and screening washer/compactors. This project included new electrical connections and piping, totaling \$2.87 million.
- **Biosolids upgrades.** The CBJ spent \$16.9 million on a high efficiency belt filter press and biosolids dryer which was commissioned in early 2019. Improved press efficiency and reduced water content of the sludge will allow the sludge dryer to process biosolids to Class A quality, providing improved opportunities for disposal.

3.1 EFFLUENT LIMIT EXCEEDANCES

DEC identified 55 effluent limit exceedances at the MTP from September 2015 to March 2019. The records registered by DEC (in the U.S. Environmental Protection Agency Enforcement and Compliance History Online database) were compared to noncompliance notifications the CBJ sent to DEC during this period. Noncompliance notifications include additional operator information about each exceedance incident, including possible causes. Using this information, the exceedances were categorized by parameter for further examination.

Following are the known exceedances for each parameter, including permitted limit type and value as compared to the value reported on the MTP's DMRs. The percent by which the reported value from the DMR exceeded the permitted limit value is shown where appropriate.

3.1.1 Parameter: BOD 5-Day, 20 °C

Daily maximum, weekly average and monthly average effluent BOD limits were exceeded during the time period under evaluation, as summarized in Table 3-1. Based on noncompliance notifications and interviews with CBJ wastewater treatment staff, the following were reported causes for BOD exceedances:

- Increased frequency of waste removal to alleviate excess accumulation of biomass caused by previous operational strategy adjustment of increasing SRT
- Shock load from Alaskan Brewing Company
- Unknown

Table 3-1. BOD Exceedances at MTP—September 2015 through March 2019

Month	Limit Type	Limit Value (mg/L)	DMR Value (mg/L)	% Exceedance
October 2016	Daily Maximum Concentration	60	74	23
March 2017	Monthly Average Concentration	30	37	23
October 2017	Daily Maximum Concentration	60	120	100
October 2017	Weekly Average Concentration	45	76	69
October 2017	Monthly Average Concentration	30	50	67
November 2017	Monthly Average Concentration	30	60	100
November 2017	Weekly Average Concentration	45	102	127
November 2017	Daily Maximum Concentration	60	150	150
January 2018	Monthly Average Concentration	30	31	3

Month	Limit Type	Limit Value (mg/L)	DMR Value (mg/L)	% Exceedance
February 2018	Monthly Average Concentration	30	31	3
March 2018	Monthly Average Concentration	30	33	10
January 2019	Daily Maximum Concentration	60	63	5
February 2019	Monthly Average Concentration	30	35	17
February 2019	Daily Maximum Concentration	60	71	18
February 2019	Weekly Average Concentration	45	47	4

Reported actions taken at time of noncompliance to reduce BOD were as follows:

- Manage process control inventory, adjusting to reduced mass in the system
- Modify aeration system from dissolved-oxygen control to manual control to increase oxygen in the treatment reactors
- Dose biomass inventory to improve settleability

CBJ wastewater staff reported the following long-term corrective actions:

- Increasing waste removal from system
- Stabilizing waste by optimizing chemical dosing to improve settleability

3.1.2 Parameter: TSS

Daily maximum, weekly average and monthly average effluent TSS limits were exceeded during the time period under evaluation, as summarized in Table 3-2.

Table 3-2. TSS Exceedances at MTP—September 2015 through March 2019

Month	Limit Type	Limit Value	DMR Value	% Exceedance
February 2016	Daily Maximum Concentration	60 mg/L	75 mg/L	25
October 2017	Weekly Average Load	1,839 ppd	2,128 ppd	16
October 2017	Monthly Average Concentration	30 mg/L	71 mg/L	137
October 2017	Weekly Average Concentration	45 mg/L	118 mg/L	162
October 2017	Daily Maximum Load	2,452 ppd	3,691 ppd	51
October 2017	Monthly Average Load	1,226 ppd	1,274 ppd	4
October 2017	Daily Maximum Concentration	60 mg/L	204 mg/L	240
October 2017	Minimum Percent Removal	85%	80%	--
November 2017	Minimum Percent Removal	85%	84%	--
November 2017	Monthly Average Load	1,226 ppd	1,288 ppd	5
November 2017	Weekly Average Concentration	45 mg/L	165 mg/L	267
November 2017	Weekly Average Load	1,839 ppd	2,460 ppd	34
November 2017	Daily Maximum Concentration	60 mg/L	260 mg/L	333
November 2017	Monthly Average Concentration	30 mg/L	89 mg/L	197
November 2017	Daily Maximum Load	2,452 ppd	3,447 ppd	41
December 2017	Daily Maximum Concentration	60 mg/L	66 mg/L	10
May 2018	Daily Maximum Concentration	60 mg/L	66 mg/L	10
June 2018	Daily Maximum Concentration	60 mg/L	65 mg/L	8
September 2018	Daily Maximum Concentration	60 mg/L	92 mg/L	53
October 2018	Weekly Average Concentration	45 mg/L	55 mg/L	22
October 2018	Daily Maximum Concentration	60 mg/L	74 mg/L	23

Month	Limit Type	Limit Value	DMR Value	% Exceedance
November 2018	Daily Maximum Concentration	60 mg/L	66 mg/L	10
January 2019	Daily Maximum Load	2,452 ppd	2,594 ppd	6
January 2019	Daily Maximum Concentration	60 mg/L	128 mg/L	113
January 2019	Weekly Average Concentration	45 mg/L	59 mg/L	31
February 2019	Weekly Average Concentration	45 mg/L	52 mg/L	16
January 2019	Daily Maximum Concentration	60 mg/L	112 mg/L	87

Based on noncompliance notifications and interviews with CBJ wastewater treatment staff, the following were reported causes for TSS exceedances:

- Increased frequency of waste removal to alleviate excess accumulation of biomass caused by previous operational strategy adjustment of increasing SRT
- Unknown

Reported actions taken at time of noncompliance to reduce TSS in the effluent were as follows:

- Increased waste removal from system
- Operational strategies were revised. The SRT was reduced to 11 days

CBJ wastewater staff reported the following long-term corrective actions:

- Increased waste removal from system
- Operational strategies were revised to shorten SRT

3.1.3 Parameter: Fecal Coliforms

Daily maximum and weekly geometric mean effluent fecal coliforms were out of permit limit during the time period under evaluation, as summarized in Table 3-3. Based on noncompliance notifications and interviews with CBJ wastewater treatment staff, the following were reported causes for fecal coliform exceedances:

- Inadequate disinfection
- UV lamps reaching end of anticipated effective life span
- Excess accumulation of biomass caused by previous operational strategy adjustment of increasing SRT
- Unknown

Table 3-3. Fecal Coliform Exceedances at MTP—September 2015 through March 2019

Month	Limit Type	Limit Value (#/100 mL)	DMR Value (#/100 mL)	% Exceedance
October 2015	Daily Maximum	800	1,400	75
November 2015	Daily Maximum	224	410	83
December 2015	Daily Maximum	224	4,000	1686
December 2015	Weekly Geometric Mean	168	823.4	390
January 2017	Daily Maximum	224	1,100	391
January 2017	Weekly Geometric Mean	168	187	11
March 2017	Daily Maximum	224	280	25
April 2017	Daily Maximum	224	270	21
November 2017	Weekly Geometric Mean	168	549	227
November 2017	Daily Maximum	224	4,300	1820
October 2018	Daily Maximum	800	2,200	175
December 2018	Daily Maximum	224	35,000	15,525
March 2019	Daily Maximum	224	240	7

Reported actions taken at time of noncompliance to reduce fecal coliforms in effluent were as follows:

- Institute weekly UV lamp cleaning (one of three banks in service each week)
- Measure effluent transmissivity to help diagnose issues
- Evaluate UV channel depth to confirm level is not above UV lamps during decant operations
- Increase frequency of waste removal

CBJ wastewater staff reported the following long-term corrective actions:

- Replace UV lamps annually
- Repair automatic level gate
- Repair and replace UV channel recirculation pumps
- Institute weekly UV lamp cleaning

3.2 PROBABLE CAUSES

The sections above listed the expected causes as observed and reported by CBJ wastewater operators. CBJ staff and Tt have reviewed the reported causes and have developed from them the expected overriding causes detailed below.

3.2.1 Plant Operating Conditions

Biological Overload

As was reported in the 2019 MTP Facility Plan, when compared to design loading, the plant is overloaded biologically (see Table 3-4). The per capita BOD and TSS loadings are very high—on the order of 0.5 pounds per capita per day. This is over twice what is expected for normal domestic wastewater (0.2 pounds per capita per day). The plant is not hydraulically overloaded, however, which may be the reason the plant has much of the time been able to meet effluent limits. It is likely the observed low influent flow volume has allowed for longer detention times, leading to improved effluent quality notwithstanding the settleability issues described below. Low flows observed during high BOD and TSS loading events indicate that the sources of high strength waste are likely not residential domestic waste streams. Despite the plant's general ability to meet effluent limits, the plant does not have the reserve capacity to meet projected future load.

Table 3-4. Plant Design and Observed Loading (Averaged from 2014-2019)

Parameter	Design	Observed	Percent of Design
Influent Flow			
Average Flow (mgd)	4.9	2.0	41%
Peak Day Flow (mgd)	7.8	5.8 ^a	74%
BOD			
BOD Load, Average (ppd)	7,360	7,910	107%
BOD Load, Peak Day (ppd)		27,650 ^b	
TSS			
TSS Load, Average (ppd)	8,990	11,130	124%
TSS Load, Peak Day (ppd)		103,440 ^c	

a. Occurred January 14, 2014

b. Corresponds with flow rate of 1.95 mgd

c. Corresponds with flow rate of 2.0 mgd

Settleability

Due to the overloaded condition of the plant, settleability and foaming are chronic issues causing operators to limit SRT. Excessive growth of filamentous bacteria (*Microthrix parvicella*, *Nocardia*) is also contributing to the bulking and foaming issues present at the MTP.

3.2.2 Industrial Users

In previous years, the CBJ has put considerable effort into identifying significant industrial users (SIUs) discharging wastewater to the MTP. In 2002, a borough-wide survey of IUs was completed. In 2013, the CBJ carried out a study of fats, oils and grease (FOG) at the MTP. Despite these efforts, management and oversight of IUs remains deficient.

Identified Significant Industrial Users

Alaskan Brewing Company

The Alaskan Brewing Company was the only identified SIU in the most recent IU survey report (June 2002). At the time, the Alaskan Brewing Company was discharging approximately 36,000 gallons per day on average, including process wastewater, facility washdown, and boiler/tower blowdown. Despite this designation, the CBJ conducts only a quarterly grab sample out of the manhole downstream of the brewery. Brewery wastewater is not consistent in volume or composition, and the quarterly grab samples likely do not present an accurate characterization of the brewery waste received at the plant on a consistent basis.

Categorical Significant Industrial Users

For our purposes, Categorical Significant Industrial Users are defined here as all industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, subchapter N. These include:

Bartlett Regional Hospital

Despite being a categorical SIU, Bartlett Regional Hospital was not mentioned in the IU survey report of 2002. Hospital wastewater typically contains high concentrations of BOD, chemical oxygen demand, and heavy metals. The CBJ currently has no oversight of hospital wastewater contributions.

Capitol Disposal Landfill

Capitol Disposal Landfill, also a categorical SIU, was not named in the IU survey report of 2002, but the CBJ is aware of high-strength leachate contributing to the MTP waste stream. Sampling by CBJ collections staff typically takes place only as a troubleshooting measure when the MTP is experiencing a shock load from an unknown source. CBJ recently met with landfill staff and will begin reviewing leachate flow and strength data collected by landfill staff over the previous year.

Unidentified Industrial Users

Additional, unidentified IUs may be contributing to the excessively high biological loading at the MTP. The most recent industrial user survey was completed over 17 years ago and likely does not accurately represent the industries currently discharging to the MTP.

3.3 POSSIBLE SOLUTIONS

3.3.1 Plant Operating Conditions

The MTP is overloaded with BOD and TSS on average, and the appropriate corrective action to put the MTP on a path to compliance is to reduce industrial loads in the near-term. If industrial source control efforts are not sufficient to reduce the load below the current permitted capacity and prevent permit violations, it may be necessary in the long-term to expand or modify the plant.

The wastewater treatment staff has tried a variety of temporary settleability control measures with limited success. Some additional temporary control measures the operators may evaluate include a properly designed chlorine or oxidant (potassium permanganate) treatment or polyaluminum chloride filament control. The goal of this effort would be to improve settleability now as the plant is overloaded while other options are being considered.

3.3.2 Industrial Users

Per capita loadings significantly higher than domestic waste indicate a source control problem. Load reduction may be achieved with comprehensive BMPs. However, before load reduction can occur, the CBJ needs to identify the SIUs, quantify their loads and determine how these loads can be mitigated or otherwise managed. This will require a detailed study and long-term monitoring and oversight. Given that the potential high-strength dischargers are likely limited in number, a BMP program for management of industry specific industrial wastes is recommended over a formal industrial pretreatment program.

3.4 RECOMMENDATIONS

The MTP has had significant operational challenges in the last permit cycle. Chronic overloaded conditions at the plant have made it difficult for the MTP to operate within permit limits. The following prioritized recommendations should allow the facility to work toward consistently operating within permit limitations.

3.4.1 Near-Term

Reevaluate Design Capacity of Plant at Current Average Flow Rate and Loads

The CBJ should devote resources to a re-evaluation of the plant design limits in consideration of below design capacity flow rates and increased biological loading. The result of this analysis should provide system operators with specific limits on waste loads that can be accepted at the plant without exceeding permitted effluent limits.

Identify and Quantify Loading from Industrial Users

Overloading conditions at the MTP are not caused by residential users alone. At 0.5 pounds per capita per day, the MTP is receiving over twice what is expected for normal domestic wastewater. The CBJ must undertake a detailed analysis of the identified SIU and categorical SIUs to determine actual contributions to the plant and what can be done to reduce this load through BMPs or pre-treatment. More IUs may exist on the MTP system, but until the known IUs are accurately quantified, it will be difficult to identify other high-strength waste contributors.

Develop Comprehensive Source Control Strategies for MTP

Comprehensive source control strategies should be developed for the MTP. These should include:

- Source control implementation strategies
- IU monitoring strategies
- Guidelines for IUs

3.4.2 Mid-Term

Load Reduction

Implement source control strategies developed in the short term to reduce load received at the MTP. This may include CBJ-sponsored waste FOG pickup and disposal from restaurants and grocery stores or CBJ-sponsored commercial composting of produce waste.

Study Long-Term Options

Although population is not expected to contribute to load increase at the MTP, the CBJ will need to begin to evaluate long-term options to increase treatment capacity at the facility. Load reduction and source control initiatives may not be enough to reduce the load received by the MTP to below treatment capacity. It would be beneficial for the CBJ to begin long-term planning for the future of the facility.

Upgrade SCADA and Instrumentation

Upgrades to SCADA and instrumentation have been prioritized by CBJ treatment staff as a possible means for gaining treatment capacity at the existing facility; \$2 million has been allocated to this major capital improvement project, which is moving forward. However, these changes should be utilized as enhancements to more fundamental change, such as load reduction. If the design capacity study indicates the plant is just on the edge of overload, this may be a viable option to fine-tune the plant until long-term plans can be realized.

3.4.3 Long-Term

Migrate from SBRs to Membrane Bioreactors

With the existing overloaded conditions and settling difficulties, the MTP could consider migrating from SBRs to membrane bioreactors. This system could be installed in phases, by refitting one SBR tank at a time. The facility may not need to migrate all SBRs to achieve the desired level of treatment capacity. However, the CBJ will need to have strict control of industrial users, to ensure the MTP does not receive high levels of FOG, which could cause operational difficulties

Consider Aqua Nereda or Equivalent Process

Another option may be to retrofit the SBRs with hydrocyclones and move to granular activated sludge treatment. Selection for faster settling particles, process configuration, and physical forces can encourage aerobic granular sludge formation. Hydrocyclones function by forcing denser flocs/solids to cyclone walls and down through the underflow to be recycled while the lighter solids move toward the cyclone center and are pushed upwards through the overflow to be wasted. With the use of an external mechanism for selective sludge wasting and biological process configuration, the MTP may be able to improve operations within its existing footprint.

Construct New Facility

It may be possible for the CBJ to acquire land surrounding the MTP to expand or rebuild the plant from the ground up. However, wastewater would need to be treated in the meantime. This option is likely the most costly option as a path forward.

4. SUMMARY AND IMPLEMENTATION STRATEGY

The following Table 4-1 through Table 4-3 summarize proposed borough-wide and facility-specific corrective actions to prevent future incidents of noncompliance. Implementation strategies and approximate schedules for completion are included for each action.

Table 4-1. Borough-Wide Corrective Actions

Action	Description	Implementation
Conduct weekly process control meetings	The CBJ has identified the need to evaluate plant operations and operational data on a frequent basis in an effort to better understand operational challenges as they occur.	This was implemented October 2019.
Hire utilities engineer to support compliance	In addition to weekly meetings, the CBJ identified the need for a full-time engineer on staff to ensure wastewater facilities come into and stay within compliance. The utilities engineer will also be responsible for hosting an annual planning session with the cruise ship agencies.	This was executed January 2020.
Hire second senior operator to support treatment operations	The CBJ identified the need for an additional senior operator on staff to support wastewater treatment operations and ensure compliance.	The CBJ expects to hire a senior wastewater treatment plant operator by February 2020.
Hire an additional wastewater treatment plant operator to support treatment operations	The CBJ identified the need for an additional operator on staff to support wastewater treatment operations and ensure compliance.	The CBJ expects to hire a wastewater treatment plant operator by February 2020.
Update and develop BMPs	The utilities engineer and wastewater staff will work together to develop a comprehensive set of BMPs, which may include but are not limited to the following: • Operational strategies for seasonal transitions • Source control strategies • Operational strategies for treating waste of industrial users utilizing all available CBJ wastewater treatment capacity • Guidelines for acceptance of cruise ship flow and load, integrated with cruise ship planning	Strategies and BMPs are expected to be completed by January 2021.
Improve construction planning	Construction planning period to be extended to the length of time necessary to develop detailed construction sequencing plans that ensure facilities remain in compliance throughout the construction period. When sequencing is not possible or construction activities are emergent in nature, the CBJ will alert and work closely with DEC to develop a mutually agreeable path toward compliance.	This is CBJ policy for all wastewater facilities beginning January 2020.

Table 4-2. Juneau-Douglas Wastewater Treatment Plant

Action	Description	Implementation
Better Prediction of Cruise Ship Wastewater Loads		
Initiate cruise line wastewater coordination meetings	In an effort to improve seasonal planning and communication with the cruise agencies, the CBJ has scheduled the first annual planning meeting, the focus of which will be predicting loading for the upcoming season. At this time, the CBJ is working with cruise agencies to accommodate ship wastewater.	Meeting took place February 2020.
Upgrade monitoring of cruise ship wastewater input and JDTP influent	Marine passenger fees have been dedicated to upgrade TSS, BOD and flow monitoring instrumentation.	Upgrades to instrumentation expected to be completed prior to the 2021 summer cruise ship season.
Reevaluate plant capacity	The result of this analysis will provide specific maximum waste loads that can be accepted at the plant without exceeding permitted effluent limits. This baseline plant design capacity can be then used to help design future improvements and evaluate the efficacy of implemented treatment strategies. Maximum allowable cruise ship contributions will be determined to ensure that the JDTP continues to operate within permitted discharge limits.	Study expected to be completed by January 2021.
Address pH Non-Compliance		
Evaluate alternative treatment strategies	Wastewater staff will begin experimenting with anoxic zone development and on/off aeration techniques, which may allow for denitrification when the plant is nitrifying. Denitrification may allow the plant to recover some of the alkalinity lost during the nitrification process, thereby preventing low pH in the effluent.	Wastewater staff will begin experimenting with anoxic zone development and on/off aeration techniques as soon as practicable, no later than June 2020.
Influent alkalinity study	The JDTP will carry out an alkalinity study. This investigation will begin by monitoring alkalinity in the influent wastewater, and may include chemical supplementation if alternative treatment techniques are unable to manage pH in the effluent.	Alkalinity study will begin after alternative treatment techniques are evaluated as alkalinity/pH control, no later than June 2021.

Table 4-3. Mendenhall Wastewater Treatment Plant

Action	Description	Implementation
SCADA and recontrol of the MTP	The CBJ has appropriated \$2 million to implement SCADA and instrumentation upgrades to improve efficiency of plant operations. Utilities staff has begun working with the CBJ Assembly to utilize alternative procurement to ensure the MTP remains in compliance during construction.	This is currently underway with a design/build contract solicitation to be advertised by April 2020.
Study alternative long-term treatment options	The CBJ acknowledges that chronic biological overloading at the MTP must be addressed to ensure permit compliance in the long-term. Improvements to influent loading and treatment efficiency are expected with source control efforts and SCADA upgrades, but how much is unknown. For this reason, the CBJ will evaluate long-term options which may include: • Evaluation of new treatment technologies • Seasonal redirection of wastewater to the JDTP • Expansion or construction of a new facility	Long-term options are expected to be evaluated by January 2021.
Develop Source Control Program		
Implement source control measures	Source control measures may include, but are not limited to the following: • Conduct an industrial users survey and report for the MTP • Characterize loads from industrial wastewater contributors • Increase collections of FOG • Develop composting capacity and incentives for commercial contributors • Develop industry-specific BMPs for industrial users • Develop policy for industrial waste pre-treatment requirements	Source control efforts may begin immediately, while policy and BMPs are expected to be developed by June 2022.
Reevaluate plant capacity	The MTP design limits will be reevaluated in consideration of reduced flow rates and increased biological loading. The result of this analysis will provide specific maximum waste loads that can be accepted at the plant without exceeding permitted effluent limits. This baseline plant design capacity can be then used to help design future improvements and evaluate the efficacy of implemented treatment strategies.	Study expected to be completed by January 2021, concurrent with source control implementation above.

February 18, 2020

Rorie Watt, City Manager
City & Borough of Juneau
155 S. Seward Street
Juneau AK 99801

Dear Rorie,

Leadership of Travel Juneau, the New JACC Partnership and Greater Juneau Chamber of Commerce have met twice to discuss proposed Centennial Hall renovations, particularly whether, and under what circumstances, Centennial Hall and the New JACC could be merged into a single facility to create more opportunities for our community.

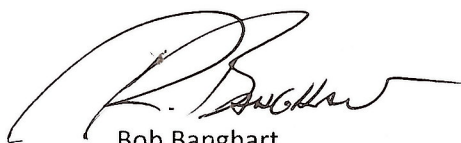
Our conversations included potential efficiencies in construction, maintenance, and management as an expanded Centennial Hall rather than two separate facilities, and we're happy to report that all three organizations would like to explore a CBJ-owned facility that merges convention and arts spaces.

We urge the Assembly to use the monies to be appropriated in Ordinance 2019-06(S) for the purpose of retaining professional services to evaluate such a merged project.

Regards, and thank you for your consideration.



Liz Perry
President & CEO
Travel Juneau



Bob Banghart
Executive Director
New JACC Partnership



Charlie Williams, President
Greater Juneau Chamber of
Commerce Board of Directors

February 2020

Biathlon Range -Project Proposal

Amount \$30,000 Design/Planning

There is ongoing interest in Juneau for the sport of biathlon (skiing and shooting). Biathlon is a growing international sport for athletes and spectators. The Juneau Nordic Ski Club (JNSC) is requesting funds to design and plan a new biathlon facility adjacent to the Hank Harmon Rifle Range in Montana Creek Natural Area Park. This project would complement existing CBJ facilities and partnerships, leverage significant grant funds, and alleviate seasonal parking congestion at this popular recreation area.

Currently the JNSC has ~550 members. At any one time dozens of skiers use the 3 km (one-way) groomed Montana Creek Trail. The combined pullout and Hank Harmon parking areas are often full with over two dozen cars, with additional cars lining Montana Creek Road. It makes logical sense to build a biathlon range next to the current shooting range and contiguous to current ski trails. Additionally, though traditional biathlon is a winter skiing sport, a facility in Juneau could be expanded to include the season of spring/summer/fall utilizing biking, roller-skiing, and running supplanting the snow.

The Pittman-Roberts Hunter Access DWC Grant is available for application and provides the opportunity to forge a partnership with the CBJ-HHRR and JNSC and other user groups. Currently up to \$1.5 million is available from this fund with no upper limit on project size. Using USFWS funds via ADF&G to fund shooting related infrastructure, 75% of funds could be leveraged through this program. A 25% non-federal match is required which could be from CBJ, donors, and in-kind volunteers. When approved, this funding request will allow a year for CBJ to plan and design a grant submission in April 2021.

Additional funding in subsequent years can be sought to develop the facility which would be owned and maintained by CBJ Parks and Recreation Department. The JNSC would continue to groom and maintain the trail portion. We have met with staff from the Parks & Recreation and the Department supports this project.

Project Plan and Design Basics:

- Biathlon Range - ~10 shooting lanes with appropriate targets. Backstop/berm would be constructed next to the current Hank Harmon Gun Range.

- Penalty Loop- ~150 meter penalty loop would be constructed near the range. (Athletes must ski a penalty loop for each of the 5 targets that they miss.)

- Trails- new trails would be identified and designed to connect the penalty loop and biathlon range to the Montana Creek Road/trail (that is groomed by the Juneau Nordic Ski Club). Additional side trails/loops could be constructed with possible connection across State of Alaska land to Spaulding Meadows (USFS) and a future connector trail across USFS land to the Mendenhall Glacier Recreation Area.

- Increased Parking for 20-30 additional cars.

- Safe spectator area.

- Grant application for 2021

MEMORANDUM

TO: Robert Barr
 Acting Engineering & Public Works Director

FROM: Greg Smith
 Contract Administrator

Date: February 26, 2020

SUBJECT: Contracts Division Activity
 February 5, 2020, to February 25, 2020

Current Bids – Construction Projects >\$50,000

BE20-024	Household Hazardous Waste Facility	Estimate \$1,750,000, bid opening 1/28/2020. 3 Bids received. AK Comm. Contractors low bidder 1,653,800.00. NTP issued 02/19/2020
BE20-022	Douglas Highway Water Main Replacement – Phase II	Estimate \$3,517,953, three bids received. Award in progress to Glacier State Contractors for \$3,361,727.
BE20-142	Aspen Avenue Improvements	Estimate \$1,215,000.00. Bids due March 3, 2020
DH20-032	Douglas Harbor Anode Installation	Estimate \$248,000.00. Bids due March 10, 2020
BE20-074	Pederson Hill Antenna & Generator Install	Estimate \$150,000. Bids due March 12, 2020.

Current RFP's – Services

RFP E20-154	Design and CA/I Services for Capital Transit Electric Bus Upgrades	Two proposals received, DOWL and Morris Engineering. Morris Engineering is the successful proposer. NTP sent on 01/29/2020,
RFP E20-183	CA&I for the Household Hazardous Waste Facility	NTP issued to Wilson Engineering 2/26/2020. \$151, 623
RFP E20-198	CA&I for Aspen Avenue Improvements	Proposals due 02/26/2020
RFP E 20-193	CA&I for Savikko Road Improvements	3 proposals Received, proHNS successful proposer. Award/ Contract in process.
RFP E20196	CA&I for Douglas Hwy Water Main Replacement Phase II	One proposer. Wilson Engineering. Currently in negotiations.

Other Projects – Professional Services – Contracts, Amendments & MR's >\$20,000

PA 10 to E17-166(JYW)	Design and CA/I for Glacier Fire Station Siding Replacement	NTP issued to Jensen Yorba Wall on 12/09/19 for \$46,945.
-----------------------	---	---

Term Contracts for Electrical Services (>\$20,000)

PA 8 to E18-164(C)	BRH UPS Installation	Chatham Electric, \$49,850.00. NTP issued on 02/14/2020
--------------------	----------------------	---

Utility Agreements (AEL&P)

MR17-037 UA 11	Household Hazardous Waste Facility	\$6,671.61
----------------	------------------------------------	------------

Construction Change Orders (>\$20,000)

C03 to E20-226	BRH Clean Room	Silver Bow Construction, \$30,908.49 02/20/2020
----------------	----------------	---

Contracts Division Activity
February 5, 2020, to February 25, 2020

MR E17-166 – Term Contract for Professional Services. This solicitation is open for a three-year period. Consultants continue to submit proposals. Contracts are in progress and underway.

Key for Abbreviations and Acronyms

A	Amendment to PA or Professional Services Contract
CA	Contract Administration ¹
CO	Change Order to construction contract or RFQ9
MR	Modification Request – for exceptions to competitive procurement procedures
NTE	Not-to-exceed
NTP	Notice to Proceed
PA	Project Agreement - to either term contracts or utility agreements
RFP	Request for Proposals, solicitation for professional services
RFQ	Request for Quotes (for construction projects <\$50,000)
RSA	Reimbursable Services Agreement
SA	Supplemental Agreement