

**ASSEMBLY STANDING COMMITTEE
COMMITTEE OF THE WHOLE
THE CITY AND BOROUGH OF JUNEAU, ALASKA**

September 20, 2021, 7:00 PM.

Assembly Chambers/Zoom Webinar/FB Livestream

PLEASE NOTE - START TIME FOR THIS MEETING IS AT 7PM (instead of the usual 6pm COW Start Time.) Assembly Worksession - No Public Comment taken; Zoom link <https://juneau.zoom.us/j/95424544691> or call 1-253-215-8782 Webinar ID: 954 2454 4691

AGENDA

I. CALL TO ORDER

II. ROLL CALL

III. APPROVAL OF AGENDA

IV. PUBLIC PARTICIPATION

The Assembly will follow COVID protocols in accordance with CDC guidelines, CBJ ordinances & resolutions, and COVID mitigation strategies at the time of the meeting. Assemblymembers will be meeting in person, to the extent possible. **In-person public attendance will be limited on a first come, first served basis in accordance with room capacity protocols. All attendees will be required to wear a mask regardless of vaccination status.** *Attendees in excess of the room capacity protocols may be requested to participate via Zoom webinar.* As this is an Assembly Committee of the Whole Worksession, NO public testimony will be taken. Members of the public are encouraged to send any comments about agenda topics to BoroughAssembly@juneau.org For up to the minute meeting calendar/details with links to the Zoom webinars, check our online CBJ Meeting Calendar at <https://juneau.org/calendar>.

V. AGENDA TOPICS

A. Landslide Hazard Mapping

B. Homeless Service Update

C. Solid Waste Plan Recommendations

VI. ADJOURNMENT

ADA accommodations available upon request: Please contact the Clerk's office 36 hours prior to any meeting so arrangements can be made for closed captioning or sign language interpreter services depending on the meeting format. The Clerk's office telephone number is

586-5278, TDD 586-5351, e-mail: city.clerk@juneau.org



MEMORANDUM

DATE: September 17, 2021

TO: Assembly Committee of the Whole

FROM: Alexandra Pierce, Planning Manager

SUBJECT: Landslide and Avalanche Hazard Maps

The Assembly Committee of the Whole (COW) will receive a presentation from CBJ's contractor, Tetra Tech, on the proposed landslide and avalanche hazard report and maps. This is an informational item and no action is necessary at this time. This is an opportunity for the Assembly to receive information and ask questions.

BACKGROUND

The currently adopted landslide and avalanche maps for downtown Juneau, dated September 9, 1987, are based on maps developed in the 1970s. These low-resolution maps combine landslide and avalanche areas into a single map, which identifies moderate and severe hazard areas. These maps are used to inform CBJ policy and land use decisions, long range planning, and applied in the zoning code by limiting further development including subdivisions and accessory apartments in severe hazard zones.

In 2018, CBJ Community Development Department (CDD) was awarded a grant from the Federal Emergency Management Agency (FEMA) to update these maps with current scientific analysis, and to evaluate landslide and avalanche areas separately. Following a competitive bid process, Tetra Tech Inc. was hired as the contractor.

Tetra Tech scientists conducted fieldwork assessments in Juneau in September 2019. Tetra Tech provided the first draft assessment and maps to CDD in August 2020. CDD sent this draft to 18 scientific and land use experts for review and comment. The review found the report scientifically sound but in need of revision for clarity and consistency. This resulted in a substantially revised second draft report, and eventually a third draft report. The third draft was released to the public and posted on the CDD Special Projects website on July 9, 2021. (Note, AELP's avalanche forecaster was not able to comment in a timely manner, and has some information about weather stations that they thought was relevant. This is just an FYI.)

CDD will evaluate new hazard policies and regulations through a separate grant process and second competitive bid process in 2022, and is currently working with FEMA on additional funding for public outreach regarding the new maps.

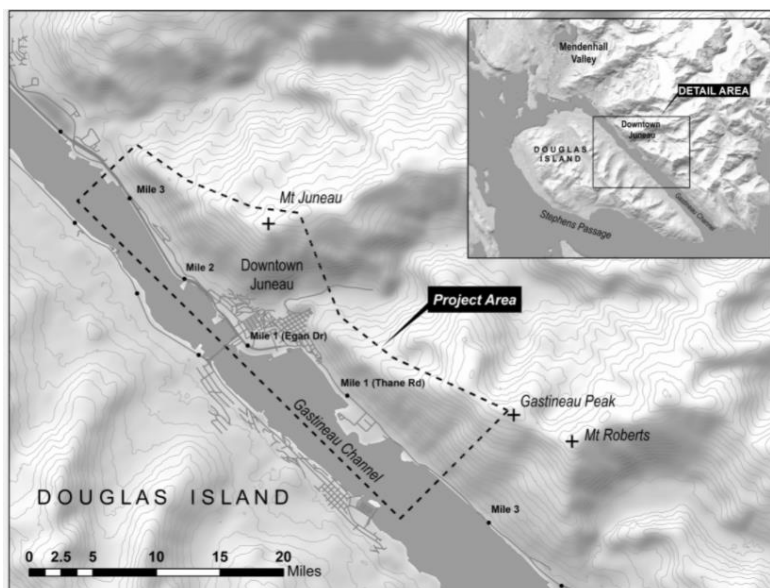
A virtual public meeting with CDD, Tetra Tech, and affected property owners was held on July 21, 2021. Prior to this meeting, a postcard mailer was sent to all property owners within the project area. In addition, email announcements were sent to downtown and Thane neighborhood associations, to the Blueprint Downtown, and the Downtown Juneau Alternative Development Overlay District email lists from CDD, and to the Downtown Business Association and other downtown email lists maintained by the Juneau Economic Development Council. KTOO ran online and radio stories on July 20, 2021 about the updated maps and upcoming public meeting. Over 100 residents attended the meeting. Tetra Tech has produced a series of technical memos (attached) in response to the major themes of public questions.

At its meeting on August 10, 2021, The Planning Commission heard AME 2021 0008 with a staff recommendation to forward the hazard maps to the Assembly for adoption. The Commission forwarded AME2021 0008 to the Assembly for direction on next steps for an appropriate community review and adoption process, including funding for steps which are deemed necessary. The Commission further recommended that new landslide and avalanche hazard mapping and study results should be held without adoption, pending development of associated hazard zone policies and regulations.

The Commission's findings included an acknowledgement of the need for additional community process and the need to better understand the potential impacts that ordinance changes could have for property owners. It was noted that additional information from the banking and insurance industries would be valuable in understanding potential community impacts from ordinance changes and that the best way to avoid unintended consequences would be to adopt the new maps and ordinance changes simultaneously.

SUMMARY OF PROPERTY RE-CATEGORIZED

The Project Area, as defined by CDD's FEMA grant, is shown in the map below:



This project area is larger than the currently adopted 1987 maps; so many properties have been evaluated for the first time, while the remaining properties have been updated. The following chart provides approximate figures on the changes between the adopted and proposed maps.

	1987 Adopted Maps	2021 Proposed Maps
Number of properties within the mapped study area	1108	1150
Number of properties within high/severe landslide and avalanche zones	173	374
Number of properties within the 1987 adopted severe zone, but out of the 2021 proposed high/severe zone	16	N/A
Number of properties within the proposed 2021 high/severe zone, but out of the 1987 adopted severe zone	N/A	217

Downtown Juneau had severe landslide damage from a November 30 to December 2 storm in 2020. The same storm event resulted in landslides in Haines that killed two people and destroyed nine homes. In late February 2021, CBJ's Emergency Program Manager recommended evacuation of the Behrends Avalanche path in downtown Juneau. These storm events further emphasize the need for new scientifically accurate maps to protect public safety and provide an accurate picture of landslide and avalanche hazard zones to inform decision making.

ADDITIONAL INFORMATION

Project background and information can be found on the project website:

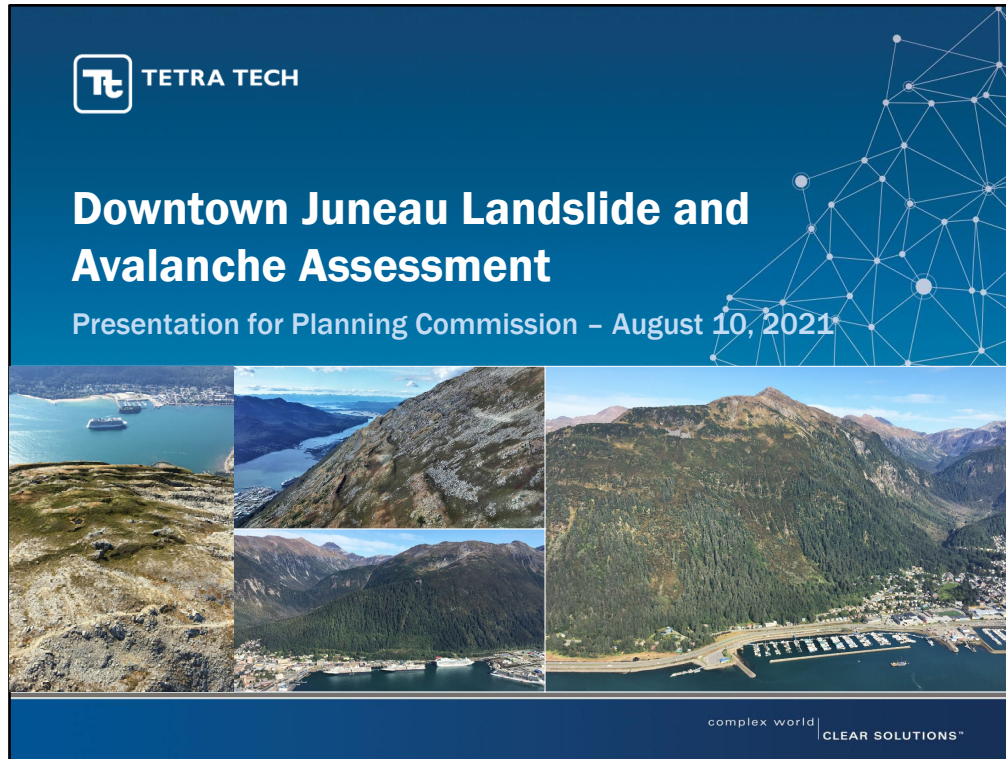
<https://juneau.org/community-development/special-projects/landslide-avalanche-assessment>

The full technical Downtown Juneau Landslide and Avalanche Assessment report can be found here:

[https://chstm2y9cx63tv84u2p8shc3-wpengine.netdna-ssl.com/wp-content/uploads/2021/07/Downtown Juneau Landslide and Avalanche Assessment IFR Report Third%20Draft Reduced.pdf](https://chstm2y9cx63tv84u2p8shc3-wpengine.netdna-ssl.com/wp-content/uploads/2021/07/Downtown_Juneau_Landslide_and_Avalanche_Assessment_IFR_Report_Third%20Draft_Reduced.pdf)

Tetra Tech produced three technical memos responding to residents' requests for more information:

1. Mapping Methodology:
https://chstm2y9cx63tv84u2p8shc3-wpengine.netdna-ssl.com/wp-content/uploads/2021/09/1_Mapping-Methodology-Technical-Memo-8-09-2021.pdf
2. Landslide Methodology – Bathe Creek Highlands
https://chstm2y9cx63tv84u2p8shc3-wpengine.netdna-ssl.com/wp-content/uploads/2021/09/2_Landslide-Methodology-Bathe-Creek-Highlands-Technical-Memo-8-10-2021.pdf
3. Starr Hill Mapping Overview and Methodology
https://chstm2y9cx63tv84u2p8shc3-wpengine.netdna-ssl.com/wp-content/uploads/2021/09/3_Starr-Hill-Mapping-Overview-and-Methodology-9-16-2021.pdf



Good evening, everyone. It's a real pleasure for us to join you online tonight. We'll be summarizing the findings from the Landslide and Avalanche Assessment, and we'll have some time for answering your questions at the end of the presentation.



Tt TETRA TECH

Presented by:

Dynamic Avalanche Consulting Avalanches:
Alan Jones, M.Sc., P.Eng., P.E. (Idaho)
Senior Avalanche Specialist

Tetra Tech Landslides:
Rita Kors-Olthof, P.E. (Alaska), P.Eng.
Overall Technical Lead and Senior Landslide Specialist

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Thanks for your introductions, Teri. I'm Alan Jones from Dynamic Avalanche Consulting and I'll start us off with a summary of the avalanche mapping. Then Rita Kors-Olthof from Tetra Tech will continue with a summary on the landslide mapping and a bit of landslide history in Juneau.



Snow Avalanche Hazard - Study Objectives

- Identify (map) avalanche paths in the Study Area (identified by CBJ), including initiation, track and runout zones
- Field investigations
- Technical analyses
- Avalanche hazard designation mapping with *Low*, *Moderate* and *Severe* hazard designations



Methods

- Reviewed and analyzed:
 - Snow climate data
 - Previous reports and studies
 - Historic avalanche occurrence records
 - Air photos, satellite imagery, LiDAR data
- Field investigation: terrain, vegetation, avalanche evidence
- Meetings with Juneau-based avalanche experts
- Avalanche modelling



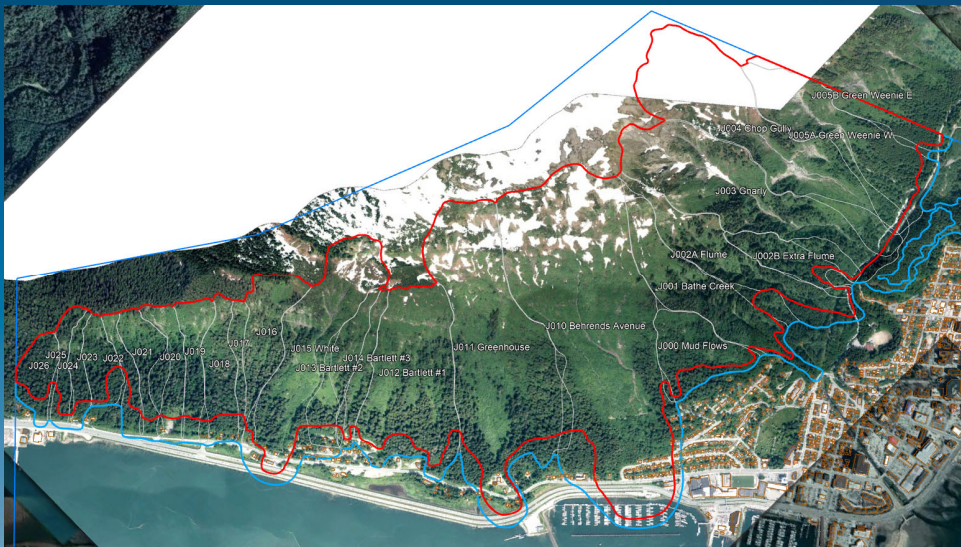


Avalanche Path Mapping

- **Identified 52 avalanche paths in project area, in 3 areas**
 - Mt. Juneau (25 paths)
 - Gastineau Ave. (11 paths)
 - Thane Road (16 paths).
- **Paths delineate a 300-year hazard boundary for destructive flow (dense, powder)**



Example: Avalanche Mapping – Mt. Juneau





Avalanche Hazard Designation Mapping

- Designates areas in Study Area as Low, Moderate or Severe
- **Severe** hazard: typically includes initiation zone and track, lower return period (< 30 years) AND/OR higher impact pressure (≥ 600 lbs/ft²)
- **Moderate** hazard: longer return period (30-300 years) AND lower impact pressures (< 600 lbs/ft²)
- **Low** hazard: long return period (> 300 years) OR low impact pressure (< 20 lbs/ft²) (typically powder impacts)



Avalanche Hazard Designation System

- Reviewed US, Canadian, European systems
- No US national guidelines or standards, determined by town/county
- Most systems based on combination of magnitude (e.g., impact pressure) and frequency, 3 or 4 categories
- CBJ designations equivalent to White/Blue/Red zones (Eur., Can.)

Table 2.3: Avalanche Hazard Designation System

Hazard Designation	Symbol	Hazard Attribute Description
<i>Low</i>	L	▪ Return period greater than 300 years; - OR ▪ Impact pressures less than 20 lbs/ft² (1 kPa) with a return period greater than 30 years.
<i>Moderate</i>	M	▪ Return period between 30 and 300 years; - AND ▪ Impact pressure less than 600 lbs/ft² (30 kPa).
<i>Severe</i>	S	▪ Return period less than 30 years; - AND/OR ▪ Impact pressure greater than or equal to 600 lbs/ft² (30 kPa).



Conclusions

- **Completed work included:**
 - Identification of 52 avalanche paths in the Study Area
 - Delineation of mapped areas into **Severe** and **Moderate** hazard areas. Areas beyond path boundaries are **Low** hazard.
- **Level of assessment is suitable for CBJ to determine whether or not land areas could be affected by avalanches**
- **Recommend continued use of Low, **Moderate**, **Severe** designations (4 modifications, see report)**
- **Limitations:**
 - Climate Change (UAS study in progress)
 - Uncertainty in magnitude/frequency estimates and hazard boundaries;
 - Data inputs (CBJ)
 - Not suitable for determining mitigation measures
 - Changes in forest cover (e.g., fire, pests, landslides, climate change).

The slide features a dark blue background with a white network diagram of interconnected dots and lines on the right side. The Tetra Tech logo is in the top left corner. The title 'Landslides' is prominently displayed. Below it, the Tetra Tech name is followed by the project title 'Landslides:'. The team members and their roles are listed in a bulleted format. At the bottom right, the company's tagline is present.

Tt TETRA TECH

Landslides

Tetra Tech Landslides:

- Rita Kors-Olthof, P.E. (Alaska), P.Eng.
Overall Technical Lead and Senior Landslide Specialist
- Vladislav Roujanski, Ph.D., P.Geol.
Project Manager and Landslide Hazard Assessment Lead
- Shirley McCuaig, Ph.D., P.Geol.
Senior Geohazards Specialist – Senior Mapper

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Hi everyone, I'm Rita Kors-Olthof from Tetra Tech.



Landslides

- **Tonight's presentation will concentrate on:**
 - an overview of the mapping process,
 - how the hazard zones are designated, and
 - what those designations mean.
- **Four main types of questions**
- **Why manage avalanche hazards separately from landslide hazards?**

Tonight, our landslides presentation will concentrate on:

- an overview of the mapping process,
- how the hazard zones are designated, and
- what those designations mean.

Along the way, we'll also review some important questions that arose from the mapping, and see how those apply to the map areas.

Finally, we'll discuss why it's important to manage avalanche hazards separately from landslide hazards.



Four main types of questions:

- How does the mapping process work, and what is possible to do with a limited budget?
- Why is my property suddenly designated High or Severe, and what does it mean?
- Questions about where I live - mostly from:
 - Bathe Creek area
 - Starr Hill area
- What about climate change and reforestation?

Some questions relate to the mapping process and what can be done on a limited budget; lots of questions are from people who suddenly find themselves in a High or Severe zone; there are also lots of questions about Bathe Creek and Starr Hill; and a few questions about climate change and reforestation.

We've written some technical memos to answer questions, and tonight we'll show you some maps and photos to help in understanding the hazards a little better.



The Mapping Process

- **Collect and review information**
- **Mapping:**
 - Surficial geology,
 - Historical slope movement activity, and
 - Historical gully activity
- **Confirm or correct the mapping – FIELDWORK**
- **Update the mapping**
- **Mapping the hazard designations**



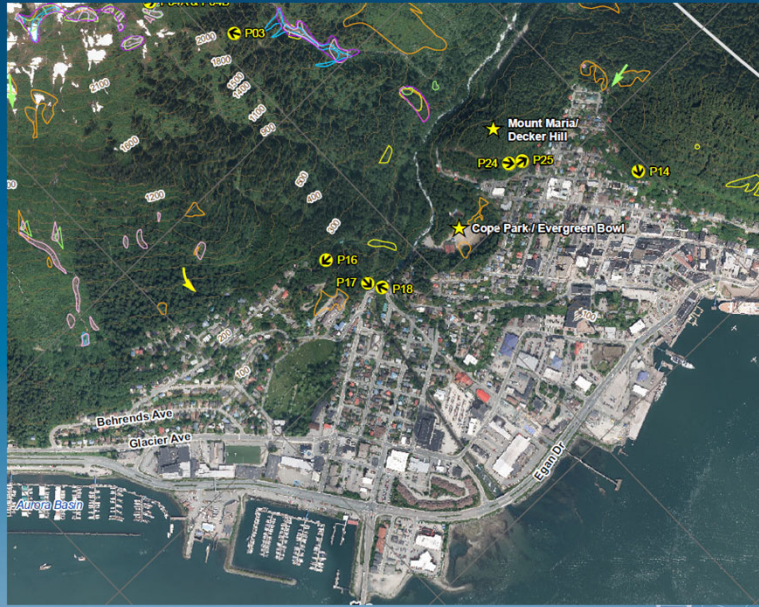
Here's a summary of the mapping process: [READ SLIDE]

Have a look at the July 21st presentation for more information on different parts of the study area. For tonight, we'll concentrate on the middle of the study area, as we did on August 10th.

Notice the different shapes and colours that represent the different soil and rock features that were identified on the air photos. There are a lot of similar shapes in some of the later maps. This tells us that the different soil and rock features have a big influence on how the slopes behave. Remember these long narrow up-and-down strips that look a bit like the handles on a straw broom.

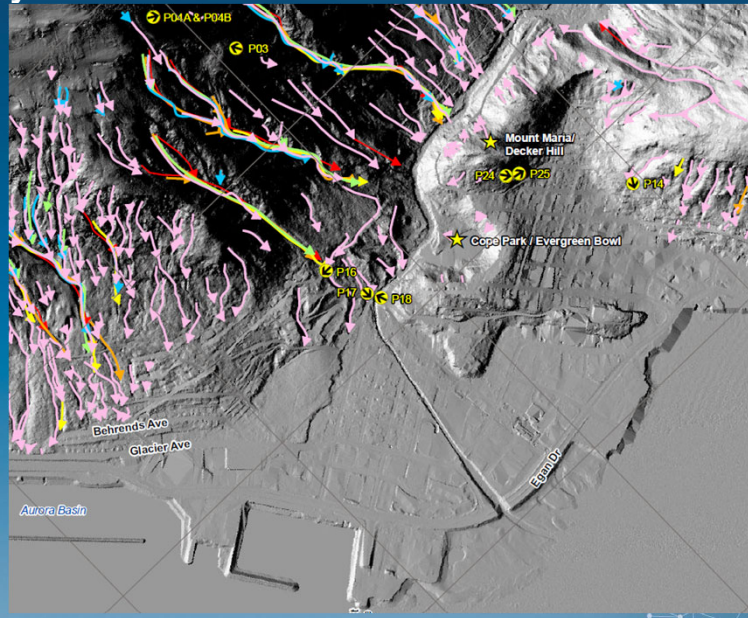
Also notice that there is a lot of colluvium on this map – all the beige and brown areas. Colluvium is soil and rock that has moved downhill, as a debris slide, a debris flow, a rockfall or a rockslide. Some examples of colluvium are all those cone-shaped features along Mt. Juneau and Mt. Roberts. Cope Park, Mt. Maria, and Starr Hill have colluvium on the slopes too.

Historical Slope Movements - Downtown



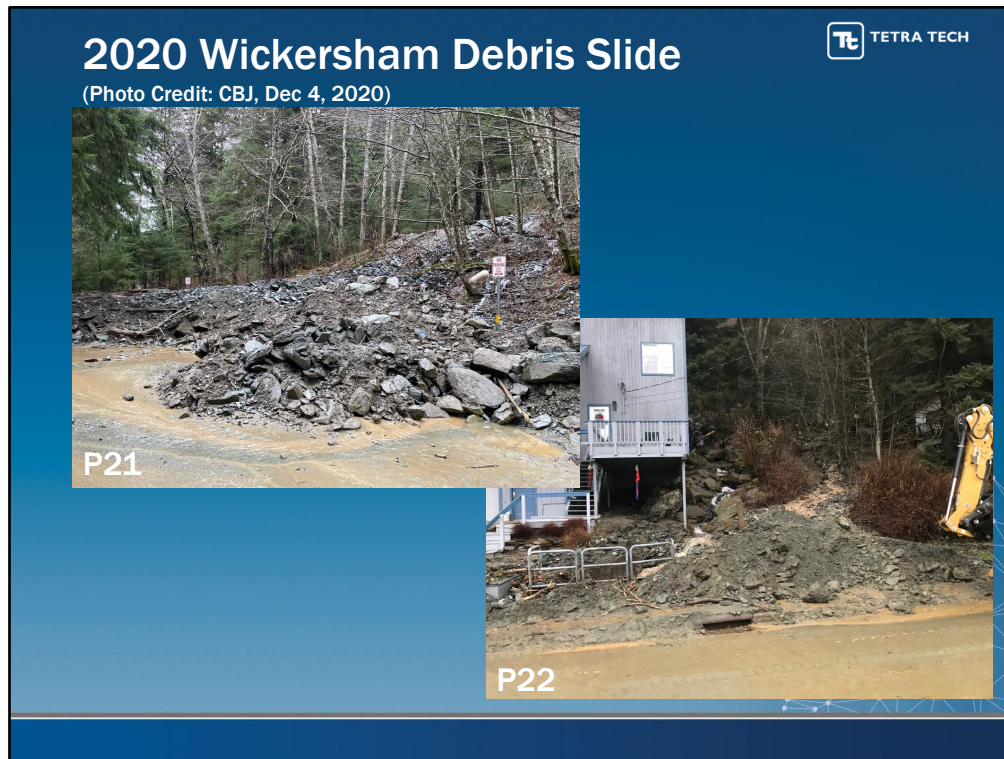
Next, let's see what the historical records can tell us about *where* the slope has been moving, with evidence from the air photos, satellite imagery, site investigations, and the incident reports or news reports. The arrows and outlines that represent debris slides or rockslides are coded by colour to show which air photo year they were identified on.

Gully Erosion Features - Downtown



Here we have a bunch of gullies that were mapped from the imagery. You might ask, why map the gullies in such detail? That's because they're another major way of moving debris downslope, like flushing water, dirt and rocks down half-pipes, and there are a lot of them! Different colours of arrows mean the gullies were mapped from different years of imagery. The pink ones are from the LiDAR, so they were easier to see.

Remember those long narrow up-and-down strips from the geology map? They show up here as major gullies. The red arrows show gullies that were already clearly visible in 1948. Gullies with several colours are a lot more active than the ones that only have one or two colours. Notice these major gullies at Bathe Creek. We'll come back to that area in a minute.



Well, those maps look pretty interesting, but how do we check that they're accurate? One way to do that is to go into the field and inspect a lot of the features that were identified on the air photos. We did some helicopter flights, both for an overview and to reach hard-to-access areas. We covered a lot of ground on foot in Juneau, including a lot of time above residential areas. We took measurements and photos, and recorded GPS data for landslide initiation and runout zones.

Here's an example of what gullies can do – dump a lot of debris and water where nobody wants it. CBJ told us about this one and sent us their photos.



Here's the Bathe Creek debris flow gully – the top photo is looking down towards the Gold Creek Flume Trail. There's a lot of fresh debris in this gully and scarring on the tree beside the road. In the bottom photo, debris flow deposits from the main gully at Bathe Creek are visible under the Irwin Street bridge at Gold Creek.

As we saw on the map, there are two big gullies alongside the Bathe Creek debris-flow deposition cone, one on each side of the Hermit/Rheinhardt residential area. The upper east end of Evergreen Avenue is near the top of the cone, and Irwin Street is at the bottom. Smaller gullies are also visible above Hermit Street within the cone. Any diversion of the debris at Evergreen or the Gold Creek Flume Trailhead could result in debris flowing through the residential area.

[See Slide 20 for the gully features at Bathe Creek, if anyone would like to see it again.]

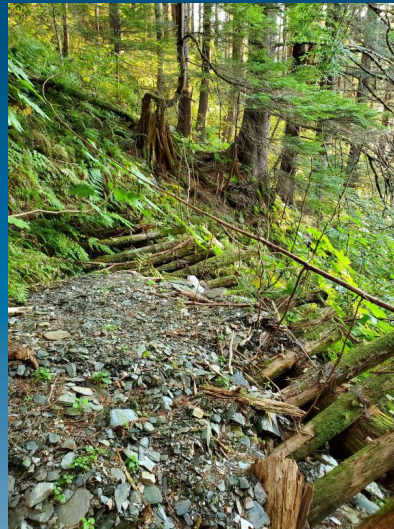
Starr Hill - Rockfall



Sometimes, we discover exactly what we expected from the maps. Other times, we discover that there are even *more* landslide features that couldn't be seen on the air photos, like rockfall that doesn't destroy the trees, or very narrow gullies or slide paths hidden by the trees, such as on the slopes above parts of Starr Hill. In the field, we try to collect enough information to confirm or correct the mapping.

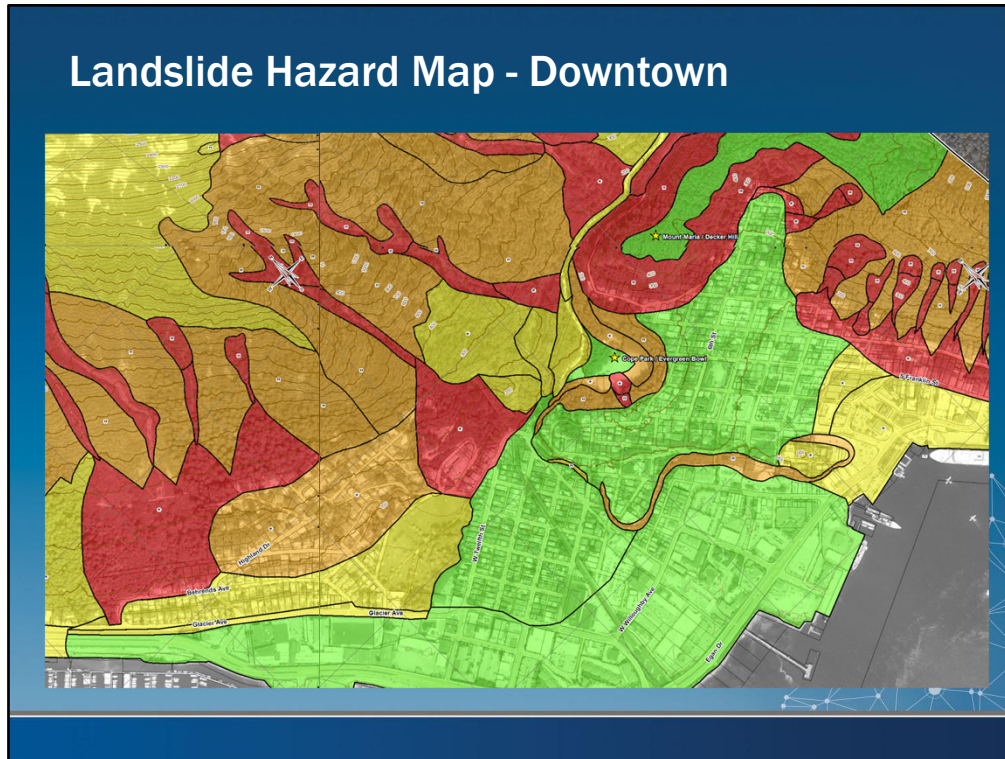
Some people have asked if landslide modelling would help to be able to get a better idea of where the trouble spots are. It might, but it would cost a whole lot more money to get better information than what we already have, based on the detailed air photo study. Landslide modelling wasn't in the scope and neither was geotechnical drilling.

G000 Park Path – Starr Hill



Here are a couple of mitigation structures built by homeowners living below the G000 Park debris flow path above Starr Hill. Thank you to nearby residents for that photo on the left. That structure appears to be full of debris already. The structure on the right has captured debris material from one or possibly two events. Depending on the size of the next debris flow, these structures could retain a little more debris or, instead, they could collapse, be overrun by debris, or even be completely scoured out by a larger debris flow originating further up the gully. The homeowners currently living below this debris flow path reported that some of the structures need repair or replacement. Also of concern, the creek in this gully is currently routed through a culvert under a house lower on the slope.

The debris flow and rock bluffs aren't the only issue around Starr Hill. Above the southeast corner of Nelson and 5th, there are a lot of steep slope sections with few or no trees that are subject to debris slides. Those slopes are most easily seen in the winter when the leaves are off, but are visible in summer by a variation in the color of the vegetation. Some recent debris slides have also resulted in trees coming downslope with the soil and rock debris.



All those different kinds of maps that were created and updated lead us to yet another kind of map – the Landslide Hazard Designation Map. All the shapes from the surficial geology map are now classified with different landslide hazard designations, including those long up-and-down strips that turned out to be gullies.

On this map, red areas mark Severe hazard, for example, the area along Behrends Avenue and upslope of Highland Drive and over to Willow Street; near Bathe Creek; along Basin Road, around a large part of Starr Hill, and a lot of property along the toe of Mt. Roberts.

Note that it's not always what's happening beside you that determines your hazard, it's what happening high on the slope above you. We can see that the major gullies account for a lot of Severe hazard designations.



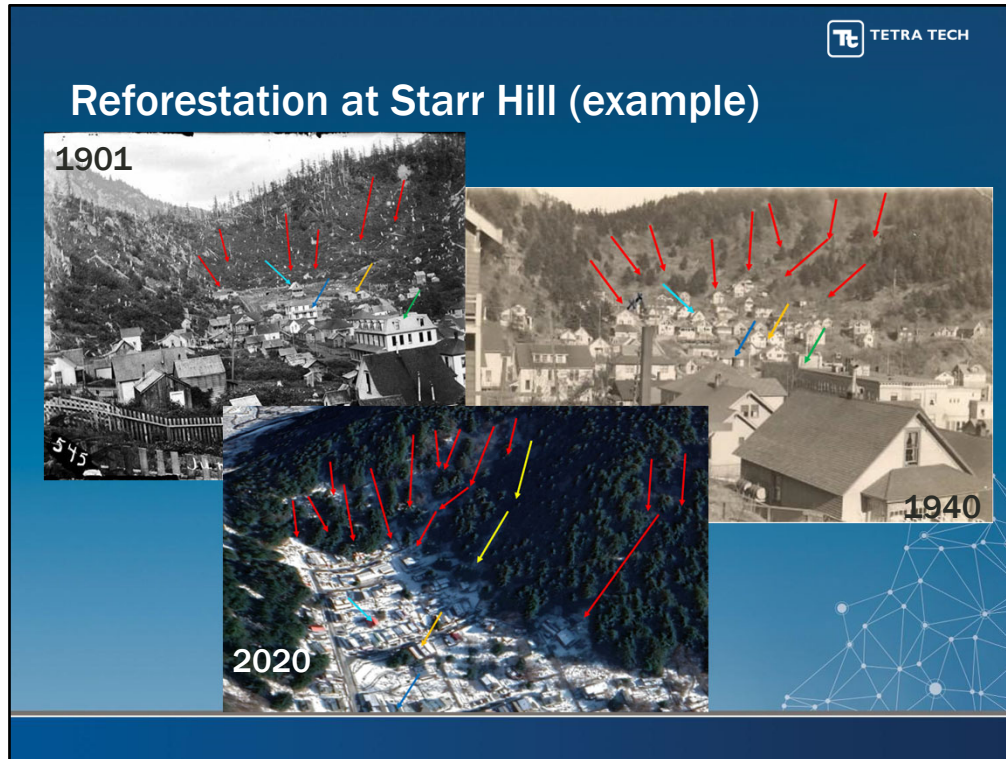
Climate change and reforestation

- **For climate change effects:**
 - Evaluation was *not* in the project scope
 - We can suspect increasing extreme precipitation and/or wind events
 - More extremes might make slope instabilities worse
- **For reforestation of:**
 - Old clearcut slopes, or
 - Former active mining operations leaving bare slopes, or slopes with sidecast waste rock
 - More trees might reduce some slope instabilities

Reforestation is likely not enough to reduce slope instability hazards, especially on slopes with shallow bedrock, and if extreme weather events are becoming more common.

A few people asked about the effects of climate change and reforestation. [Read slide]

Even just looking at the past two years and comparing Tetra Tech's field observations from 2019 to the observations of CBJ and residents in 2020 and 2021, landslide activity is clearly ongoing.



Here's an example of reforestation on the slopes above Starr Hill, with two images from the Alaska State Library, and one from Google Earth. In 1901, some swales and gullies with few or no stumps are visible. In 1940, those same locations have no trees. And in 2020, still no trees.

Reforestation helps – but it isn't the only factor that affects slope stability.



Refined Landslide Hazard Designation System

- **Low:**
 - Gentle to moderate slopes (0° to 26°)
 - No written record of property damage or loss of life
 - No signs of historical landslide activity on the air photos
- **Moderate:**
 - Moderate to Moderately steep slopes (27° to 35°)
 - No apparent written record of property damage or loss of life
 - May be signs of historical activity (scars on trees, vegetated debris lobes or scarps; some historical activity visible on air photos)
 - Can include low lying areas within the runout zones of slides from nearby slopes above

Now, let's have a closer look at what we mean by Low, Moderate, High, and Severe hazard designations. We also covered this in the last couple of presentations, so I'll concentrate just on the highlights here.

For Low and Moderate, the slopes are not as steep as for High and Severe. There should be no written record of property damage or loss of life for either Low or Moderate. For Low, there are no signs of historical landslide activity on the air photos, but for Moderate, there might be. For Moderate, there might also be scars on trees, or vegetated debris lobes or scarps.

Note that "Low" is everywhere that doesn't have a Moderate, High, or Severe hazard designation for landslides.



Refined Landslide Hazard Designation System

- **High:**
 - Steep slopes ($>35^\circ$)
 - May have written record of property damage or loss of life
 - Rockfall can hit trees but doesn't knock them over or destroy them
 - At least two of the following criteria are met:
 - Thin colluvium (Cv)
 - Maximum slope of 70 to 80
 - Average slope of 40 to 50
- **Severe:**
 - Steep to vertical slopes ($>35^\circ$)
 - May have written record of property damage or loss of life
 - Trees are likely to be destroyed
 - Signs of recent activity
 - Signs of repeated historical activity

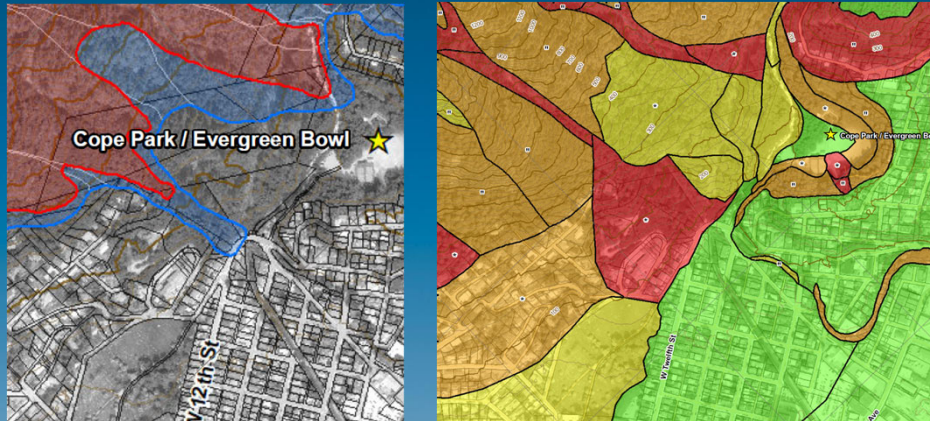


For High and Severe hazard designations, slopes are steeper than 35 degrees, and both can have written reports of property damage or loss of life. There are some differences, though:

For High, there can be rockfall that hits trees but doesn't knock them over or destroy them, and you might not be able to see it on the air photos. For Severe, trees *are* likely to be destroyed and there will be signs of recent activity on air photos or from field inspection and, usually, evidence of repeated historical activity, like when we saw a bunch of different-coloured arrows and outlines at the same place on the maps.

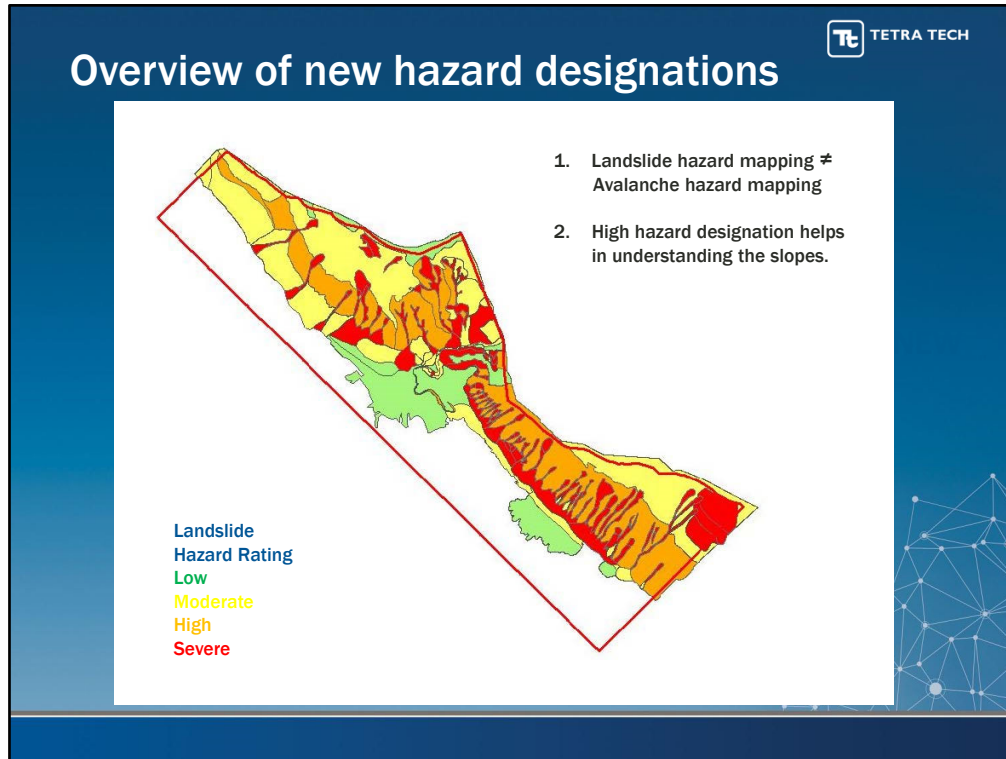
A few people have asked about using frequency to help define which hazard designation should be applied. That can be useful, but a magnitude-frequency analysis would be required to develop a suitable decision-making tool. In some cases, events can be equally frequent in Severe or High, but there is a significant difference in damage with Severe compared to High.

Why manage avalanche hazards separately from landslide hazards?

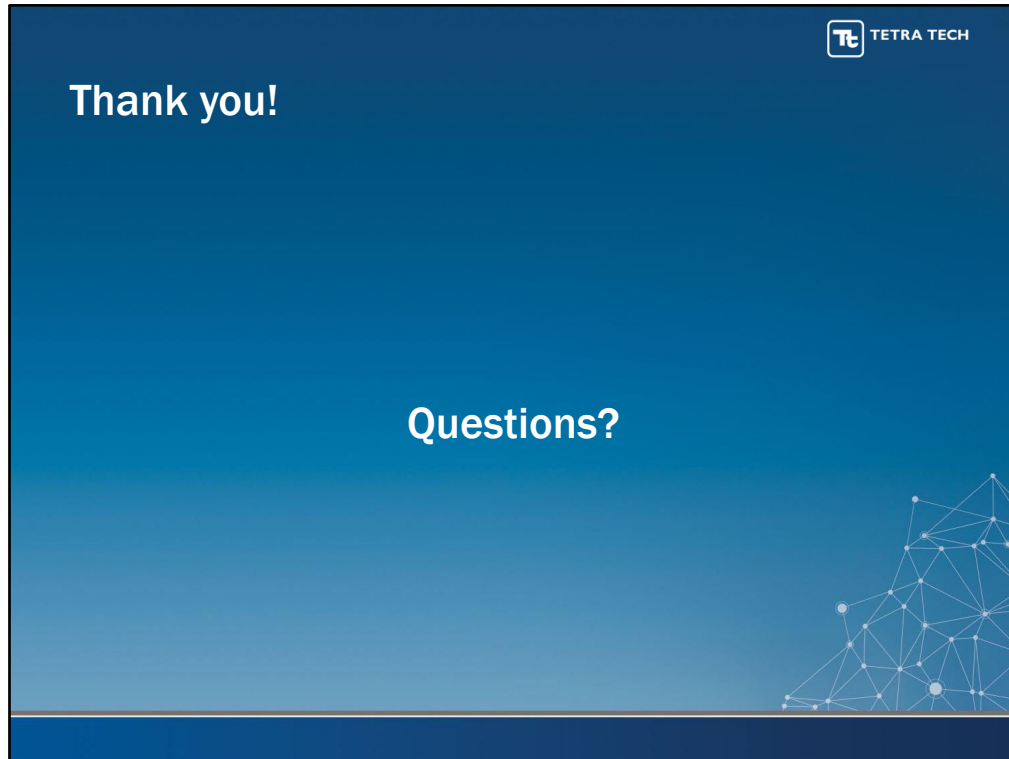


Why manage avalanche hazards separately from landslide hazards? Let's compare the hazard designation mapping in the area of Bathe Creek – avalanche hazard is on the left and landslide hazard is on the right. Avalanches and landslides can occur in the same locations; and understanding the terrain and vegetation can be useful in evaluating both types of hazard.

However, there are some important differences. Avalanche hazard is related to topography but not to geology. Landslide hazard is strongly related to both topography and geology. You can see how different the resulting hazard areas are and, for that reason, they should be considered and managed differently.



Looking at the overall Study Area, we see a few more differences between the landslide hazard mapping and avalanche hazard mapping that Alan showed you earlier: Most of the Severe avalanche zoning extends right to the top of slope, but that isn't the case for landslide hazard zoning. In the old hazard designation system, all of the orange areas would also be red or Severe. By separating the High hazard areas from the Severe hazard areas, we can see that the major debris flow gullies and their resulting cones are all mapped in red for Severe, making them very prominent on this map.



That brings us to the end of our presentations. Thank you so much for coming. Any questions?



City and Borough of Juneau
City & Borough Manager's Office
155 South Seward Street
Juneau, Alaska 99801
Telephone: 586-5240 | Facsimile: 586-5385

TO: Deputy Mayor and Assembly Committee of the Whole

DATE: September 14, 2021

FROM: Rorie Watt, City Manager

RE: Homeless Services Update

With the opening of the new Glory Hall facility on Teal Street there has been a major realignment of services in Juneau for people experiencing homelessness. The new facility has capacity for 40 single room occupants and overflow of 12 in a communal bunk environment. The TGH board is considering sale or repurposing of the downtown facility.

CBJ has attempted to play a complementary role in the provision of services, by providing seasonal options. The pattern (pre-COVID) has been to operate a seasonal campground with 22 platforms (currently at the form AJ Mine Mill site above Thane Road) and a cold weather warming shelter with capacity of up to 25 on nights temperature drops below 32 degrees. Social distancing and other COVID19 mitigation needs resulted in the cold weather shelter being moved to the JACC, adding capacity (70), and operating year round from the fall of 2019 all the way until August 2021.

The following preparations are being made for winter:

- St. Vincent's has the cold weather shelter contract and with Salvation Army is looking at potential spaces for Nov. 15;
- Glory Hall ordered additional bunk beds (space for 6);
- AWARE to work closely with Glory Hall to make space for people that would work better at AWARE;
- Outreach to Mill Campground has begun with coordination between the Glory Hall, Bartlett Navigators, and CBJ Parks and Recreations staff to try and get people housed by closing of campground Oct. 15th;

Even with these efforts, it should be noted that some persons experiencing homelessness may resist shelter/housing opportunities even if made available this winter.

As TGH Teal Street facility becomes complete and as operations stabilize, the question of the facility's ability to provide services to meet all or a portion of the need will become more clear. St Vincent DePaul is in the final year of a 3-year contract (for cold weather sheltering services) that ends April 15, 2022. A report evaluating the program and future options will be provided in late winter.

Mayor's ad hoc Committee on Homelessness

When thinking about next steps, a quick reminder on the outcomes from the Mayor's ad hoc Committee on Homelessness that took place between Oct. 8 and October 29, 2020.

- Support the establishment of a Youth Shelter;
- Support JCHH long-range planning and resource development;

- Appoint an Assembly liaison to JCHH; and
- Provide an opportunity for an annual JCHH Update to the Assembly.

Recommendation:

Schedule JCHH Update to the Assembly.

Receive update at November Finance Committee on funding requests and structure of CBJ grant program that is allocated through the Juneau Community Foundation.



MEMORANDUM

DATE: August 9, 2021

TO: Mayor Weldon and the CBJ Assembly

FROM: Chair Hale and CBJ Public Works and Facilities Committee

SUBJECT: Solid Waste Plan Recommendations

PWFC has been tasked with discussing solid waste in Juneau in the context of Assembly Goal 5.D:
Develop solid waste strategy including plans to increase recycling and deal with abandoned/junk vehicles.

The purpose of this memo is for the Committee to update the Assembly on the work PWFC has done on the topic and to request Assembly support for a zero waste plan and composting pilot project.

PWFC discussed this topic at the March 15, April 12, June 7, July 21 and August 9 meetings. To organize PWFC actions on this complex issue, the Committee has landed on the problem statements and recommendation actions below:

Problem Statement	Goal/Objective	Action Item	Time Frame
The community is concerned about odors from the landfill	Develop a real-time feedback loop to the Assembly on odor control measures	Work with Waste Management to update the Committee and public on odor control measures	Short-term
Juneau is an isolated community with a complex waste management situation. The landfill has a limited capacity	Reduce the waste stream	Develop a public/private partnership for a composting program capable of processing commercial volumes of organics	Mid-term
		Develop and implement a Zero Waste or Resource Recovery plan for CBJ	Long-term

Odor Control**Short-term**

Meet with Waste Management (WM) and get a better understanding of their business model and plans as the landfill reaches capacity. Establish a rapport and request for WM to present to PWFC, or otherwise correspond, with updates on WM odor control efforts, among other items.

Reduce Waste Stream**Mid-term (as funding is available):**

Introduce an ordinance to appropriate \$50,000 for CBJ to partner with the private sector on a composting pilot program that can create additional supply of compost and grow local composting capacity. One example could be to initiate composting at city facilities (school district, Eagle Crest, CCFR). Program development would occur at the PWFC level.

Reduce Waste Stream**Long-term (Assembly goal setting in fall followed up with funding in FY2023 capital budget)**

The most critical phase in developing a zero waste plan is making sure all the partners are at the table. Zero waste is a change in how the community deals with waste and requires extensive community involvement. The Visitor Industry Task Force is a great model for complex problem solving where multiple jurisdictions, stakeholders and community members interact. PWFC proposes establishing a solid waste coalition/task force with the objective to define the scope and goals of the plan, advise through the drafting of the plan, and encourage implementation within each members' sphere of influence.

Resources required for a plan are dependent on the scope of work and how ambitious waste reduction goals are. If drafting a plan in house, expect to spend half a position on staffing the task force, research, and plan development. If an outside consultant is used, staff support will still be critical to the success of the plan to provide local input on opportunities and challenges and staff the task force.

Developing and implementing a zero waste plan is a long-term commitment. Expect to spend 18-24 months on plan development. The first step PWFC recommends is to amend Assembly goal 5.d to refer specifically to a *zero waste* or *waste reduction* plan. An appropriation of (\$100,000) during the FY2023 capital budget process will initiate a planning process followed by a resolution to establish a solid waste coalition/task force.

Requested Action:

Informational. Solicit feedback and input from body.

Enc: Summary of zero waste as provided to PWFC

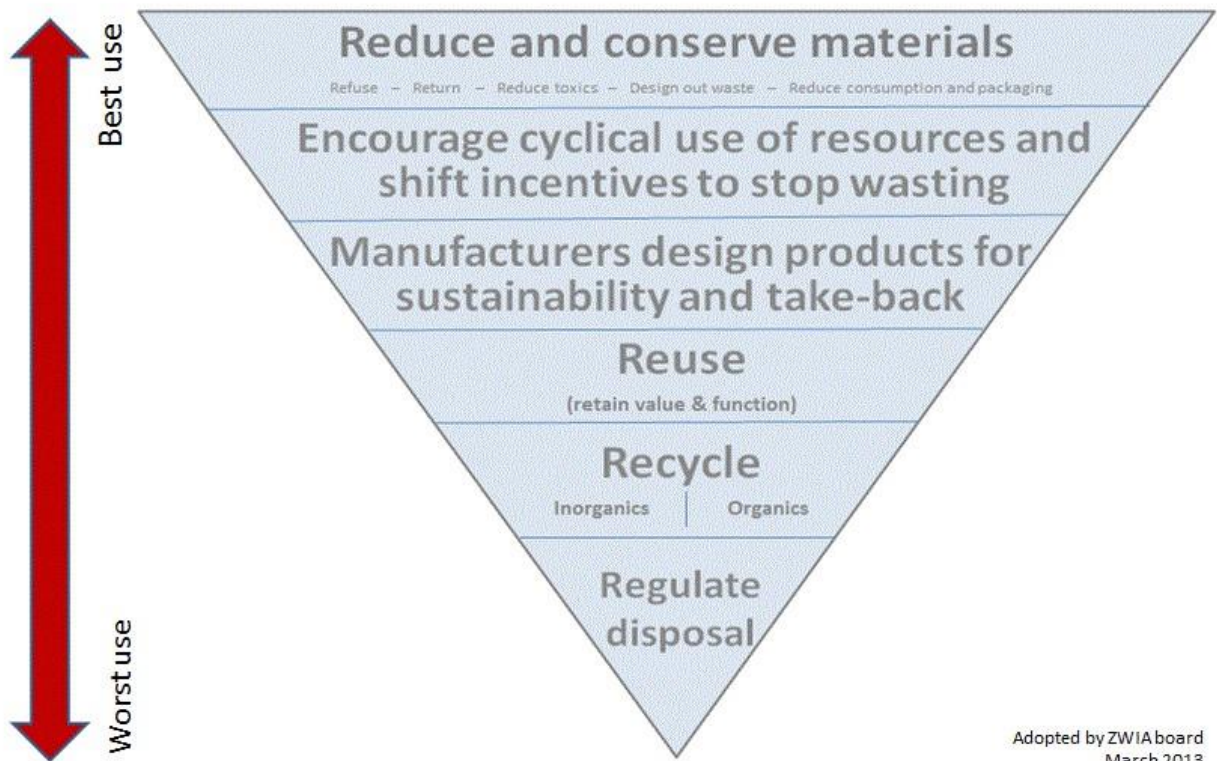
Summary of Zero Waste as provided to PWFC

(Excerpt from PWFC 7.19.21 memo & attachment Re: Solid Waste Plan)

What is a Zero Waste Plan?

Zero Waste is term used to describe an approach to waste management that minimizes waste generation and maximizes resource recovery. While zero waste is the goal, it is generally acknowledged that waste will not be completely eliminated but rather could be reduced by >90%. This method includes a focus on source reduction by working with businesses to produce or use products that can be reused, composted or recycled, and on developing community infrastructure for recycling, composting, repair, and reuse of various materials. The plan may begin with a community engagement process and goal setting before development of milestones with specific action plans.

Zero Waste Hierarchy



What Could a Zero Waste Plan Look Like in Juneau?

Developing a zero waste plan would entail a broad, comprehensive planning effort that would include many community partners along with CBJ staff/consultant to engage the public at large, local businesses and organizations. Outside of CBJ's own facilities, making changes to the resource use and disposal practices of local businesses and/or individuals would require the creation of ordinances that establish requirements such as bans on landfilling of organics or plastic bag bans, development of incentive programs to promote desired practices, or a combination of the two approaches. It is important to keep in mind that efforts to divert waste from our local landfill with the goal of extending the life of the

landfill could be offset by the landfill's acceptance of other wastes so as to remain profitable, and this is outside of CBJ's control. However, reducing waste production and increasing resource recovery efforts could still have positive benefits for the community. A zero waste plan has to take into account what is feasible for the community given existing constraints and limitations (budget, political will, ownership, regulatory authority, etc.)

The list below links to waste reduction efforts in other communities, including Missoula Montana where they do not own the waste stream, and White Horse, Yukon where they have taken a staged approach to waste reduction (with a goal of 50% diversion by 2015 and zero waste by 2040)

Waste Reduction Efforts in other Communities

Eco-cycle Solutions. This website provides a framework and platform for communities who want to go zero waste. There is a wealth of information here, including a case studies [Eco-Cycle Solutions Hub \(ecocyclesolutionshub.org\)](http://ecocyclesolutionshub.org)

Missoula, Montana is one of the communities featured on the Eco-Cycle site and is an example of a relatively similar community in terms of not controlling their waste stream, small and rural. They have a Zero Waste Plan that is on their website and provides a good model of what this might look like for us. The planning effort for the plan was spearheaded by a local waste recovery non-profit over the course of 17 months with a dedicated staff person working an average of 20 hours a week:

<http://www.ci.missoula.mt.us/2087/Zero-Waste>

<https://www.ci.missoula.mt.us/DocumentCenter/View/46366/ZERO-by-FIFTY-PlanFinal>

the full plan - executive summary is helpful as an overview and gives general timeline for objectives

<https://www.homeresource.org/wp-content/uploads/2018/11/ZERObyFIFTYActionsTimeline.pdf>

the action items pulled out in a standalone document

<https://www.ci.missoula.mt.us/DocumentCenter/View/55981/Missoula-Baseline-Waste-Composition-Report-2021-PDF> one of the first actions, a waste composition report (just completed)

Whitehorse has a waste reduction plan with a goal of diverting 50% of waste from the landfill while working towards a zero waste. This is a staged approach than zero waste, which might be a beneficial model for Juneau to consider.

<https://whitehorse.ca/departments/environmental-sustainability/waste-diversion-847>

Anchorage has an Integrated Solid Waste Plan, prepared by the consultant TetraTech, that spends a lot of time establishing the landscape. CBJ would likely need to make a similar effort to develop a current a real time understanding of our waste profile and the limitations and opportunities in the community.

<https://www.muni.org/departments/assembly/documents/final%20integrated%20solid%20waste%20master%20plan.pdf>

Anchorage has also adopted a commitment to zero waste internally (as an organization). This lead by example effort at CBJ, but would require additional resources (for example recycling is not available at all CBJ facilities).

<https://www.ecocyclesolutionshub.org/location/zero-waste-resolution-anchorage-alaska-usa/>