



# PLANNING COMMISSION COMMITTEE OF THE WHOLE AGENDA

April 11, 2023 at 6:00 PM

Assembly Chambers/Zoom Webinar

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<https://juneau.zoom.us/j/84670425826> or 1-669-444-9171 Webinar ID: 846 7042 5826

**A. LAND ACKNOWLEDGEMENT**

**B. ROLL CALL**

**C. REQUEST FOR AGENDA CHANGES AND APPROVAL OF AGENDA**

**D. APPROVAL OF MINUTES**

1. Draft Minutes from the March 14, 2023 Committee of the Whole meeting. - APPROVED

**E. UNFINISHED BUSINESS**

**F. OTHER BUSINESS**

2. April 3, 2023 Memo from Director Maclean to the Planning Commission Title 49 Committee of the Whole regarding Moderate and Severe Alvalanche Area Map, Severe Landslide Map, and Draft Ordinance.

**G. PLANNING COMMISSION COMMENTS AND QUESTIONS**

**H. EXECUTIVE SESSION**

**I. SUPPLEMENTAL MATERIALS**

3. Public Comments Received

**J. 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](mailto:city.clerk@juneau.org).

# ***DRAFT MINUTES***

Agenda

**Planning Commission**

***Committee of the Whole***

CITY AND BOROUGH OF JUNEAU

*Mandy Cole, Acting Chairman*

March 14, 2023

## **I. LAND ACKNOWLEDGEMENT – Read by Commissioner Arndt.**

We would like to acknowledge that the City and Borough of Juneau is on Tlingit land, and wish to honor the indigenous people of this land. For more than ten thousand years, Alaska Native people have been and continue to be integral to the well-being of our community. We are grateful to be in this place, a part of this community, and to honor the culture, traditions, and resilience of the Tlingit people. Gunalchéesh!

## **II. ROLL CALL**

Mandy Cole, Chair, called the Title 49 Committee of the Whole Meeting of the City and Borough of Juneau (CBJ) Planning Commission (PC), held in Assembly Chambers of the Municipal Building, virtually via Zoom Webinar, and telephonically, to order at 5:34 p.m.

**Commissioners present:** Commissioners present in Chambers – Mandy Cole; Travis Arndt; Matthew Bell; Erik Pedersen; Paul Voelckers; Adam Brown; David Epstein

Commissioners present via video conferencing – None

**Commissioners absent:** Michael LeVine; Nina Keller

**Staff present:** Jill Maclean, CDD Director; Teri Camery, Senior Planner; Ilsa Lund, CDD Administrative Assistant; Sherri Layne, Law Assistant  
Municipal Attorney

Staff present via video conferencing – Lily Hagerup, CDD Administrative Assistant;

**Assembly members:**

## **III. REQUEST FOR AGENDA CHANGES AND APPROVAL OF AGENDA - None**

**IV. ITEMS FOR RECONSIDERATION - None**

**V. REGULAR AGENDA**

**AME2021 0008: Avalanche & Landslide Hazard Maps Draft Ordinance**

STAFF PRESENTATION – Director Maclean gave a brief overview explaining the main points of the draft Ordinance and the development of the maps from Tetra Tech.

COMMISSIONER QUESTIONS AND DISCUSSION

Mr. Voelckers understood the 1987 maps are based on a 1972 analysis and asked how those apply to the Tetra Tech study. Ms. Maclean explained Tetra Tech used all information and past studies available. The 1987 maps combined avalanche areas with landslide areas into a single presentation. The Tetra Tech study split those out. As a result, the avalanche zones were not significantly changed.

Mr. Epstein noted the proposed ordinance focuses only on high-risk zones and asked if it has no bearing on the moderate and low-risk zones. He asked what would be subject to regulation if this ordinance is adopted. Ms. Maclean answered the ordinance would include anything deemed to be high risk by the Tetra Tech reports.

Mr. Arndt asked if this would clear up the proposed downtown area projects with a Conditional Use Permit (CUP). Ms. Maclean said the new maps make the risk areas clearer and the new code will clarify what counts as development and what does not. This helps to solve the problem encountered previously with distinction of commercial and residential zoning.

Ms. Cole asked for clarification whether this will make clear the difference between occupancy and density. Density is dwellings per acre and occupancy relates to how many people can be in a building per fire code. Ms. Maclean said it was not clear before but this does clarify that.

Mr. Voelckers asked for an explanation of the phrase “and do not count towards density” on page 2/5 line 12 and on page 4/5 line 4. Ms. Maclean explained it is to say an accessory unit, whether attached or detached, is considered development greater than a single family home and would not be permissible. The accessory unit would not count towards density. She explained part of the reasoning for this is that, while property owners could reasonably be expected to know their property was in a severe hazard zone, renters might not know that. She did not want renters put into a potentially dangerous situation without being informed.

Mr. Pedersen asked how the requirement that landlords inform renters if their unit is in a severe zone would be enforced. Ms. Maclean agreed it would not be easily enforceable but hopefully it being in code would help remind them to inform tenants.

Mr. Epstein felt there is a duty to inform and this phrase is in support of public safety.

Mr. Arndt thought it is a great idea that we tell everybody, but is concerned if the ordinance is “SHALL” then the CBJ may be held responsible if it is not enforced. Ms. Maclean suggested changing “shall” to “should.” Ms. Layne said the enforcement would be complaint based. If someone filed a complaint, then the CBJ would enforce. She was also comfortable with changing it to should.

Mr. Brown asked, if the PC is adding a requirement to inform renters, then why would accessory apartments be restricted? Ms. Maclean said it would apply to existing accessory apartments but would not allow new ones.

Mr. Voelckers referenced the 2015 slide in Sitka and asked if the department had looked into that and whether that informed the proposed ordinance. Ms. Maclean explained Sitka has struggled to come to a balance between property owners’ rights and regulations for safety.

Mr. Arndt said there is a housing crisis but high-risk areas are not where we should be adding more units.

Mr. Voelckers referred to the limitations listed in the Tetra Tech study. The study recommended seeking further assessments of risk, magnitude, and frequency of events. Mr. Voelckers found the comparison of the old and new hazard maps informative but thought there should be a focused study on the areas deemed severe hazard areas. Ms. Maclean explained that there was not an intention for a more in-depth study. This was primarily due to cost and funding issues. This study was intended to inform the department and the PC.

Mr. Bell felt it is too difficult to gauge when there is no actual landslide data.

Ms. Cole asked how this applies to properties that are partially within a severe zone. It was determined that if any portion of a property is in a severe zone, then the entire property is.

Mr. Arndt asked about the status of funding for additional studies like Mr. Voelckers suggested. Ms. Maclean is not aware of additional funding and there is not any in the current year budget to support more studies.

Mr. Voelckers suggested criteria could be established that could be used to mitigate risks. He suggested possibly adding language regarding design or engineering that could lower risks to a property. Ms. Maclean pointed out that page 4/5 includes language informing owners how to prove their way out of a severe hazard zone.

Ms. Cole pointed out number 3 under B on page 2/5 does not allow subdivision on any lot lacking sufficient buildable site outside a severe avalanche area without the need for a variance and asked why there was a method for asking for a variance when she understood the point of the ordinance was to not ask for variances. Ms. Maclean said the point she was trying to make is a property owner cannot subdivide if it requires a variance. She agreed to work with Ms. Layne on the wording.

Mr. Arndt suggested striking the phrase 'licensed geotechnical engineer' and replacing it with 'civil engineer' on pages 2/5 and 3/5.

As a recap of unresolved questions to be discussed, Ms. Cole proposed:

1. If the verbiage is kept as 'landlord shall inform renters' in the severe avalanche zone, then should the addition of accessory apartments be allowed?
2. Are we comfortable with the distinction between severe avalanche and severe landslide?

Ms. Maclean explained in a severe avalanche zone a single-family dwelling can be constructed. An accessory apartment would require a conditional use permit. Accessory apartments would not be allowed in severe landslide areas.

Mr. Voelckers cited the City Manager's letters to the assembly which pointed out the landslide zones along Franklin have not produced slides. It seemed most of the historical slides resulted from vibrations related to mining. In the time since mining has stopped, there have been no significant issues. Based on this, it could be inferred that landslide risk along South Franklin may be mitigatable. Ms. Maclean had no opinion on this and suggested if there need to be changes, this is the time to take those into consideration.

Mr. Arndt asked for there to be clarification included to address changes between occupancy and density to avoid the confusion that prompted the Glory Hall case.

Mr. Voelckers suggested a verbiage change at the bottom of page 2 and top of page 3 as follows: rewrite the sentence ending "the proposed development is outside the proposed avalanche area the department shall proceed accordingly" with "If in the opinion of the Director of Engineering and Public Works, the studies clearly establish that the map boundaries are inaccurate, the hazard maps are edited and adjusted accordingly." Ms. Maclean said she would need to confirm with Law that they have the authority to adjust the Tetra Tech maps as they have been adopted.

#### Recommendation

Ms. Cole suggested to Ms. Maclean that they come back with a new draft to bring before the COW.

#### **VI. STAFF REPORTS - None**

#### **VII. SUPPLEMENTAL MATERIALS**

Additional Materials for AME2021 0008

#### **VIII. ADJOURNMENT – 6:46 p.m.**

Respectfully submitted by *Kathleen Jorgensen Business Assists (907)723-6134* 



(907) 586-0757  
Jill.Maclean@juneau.org  
www.juneau.org/CDD  
155 S. Seward Street • Juneau, AK 99801

**April 3, 2023**

**MEMO**

**To: Mandy Cole, Chair, Planning Commission Committee of the Whole**

**CC: Rorie Watt, City Manager**

**From: Jill Maclean, Director, AICP** 

**RE: Moderate and Severe Avalanche Area Map, Severe Landslide Area Map, and Draft Ordinance**

**Background**

The Planning Commission Committee of the Whole (COW) has been asked to review and provide guidance on draft ordinance language, and a set of avalanche and landslide area maps that would replace the adopted 1987 maps for downtown Juneau that were created in the 1970's.

The Planning Commission Title 49 Subcommittee met as the COW on March 14, 2023 to discuss the draft ordinance. Suggested revisions have been addressed in the revised draft Ordinance (Attachment A). Staff is recommending that the moderate avalanche areas be regulated; and the moderate and severe avalanche map and severe landslide map (Attachment B) be recommended for adoption.

The public process leading to this draft ordinance and maps has been extensive. In 2018, CBJ received a FEMA grant to hire a contractor, Tetra Tech, Inc., to conduct a hazard assessment that included technical memos and the creation of new maps. Throughout the assessment, public outreach, public comment, and numerous discussions have been held at Planning Commission and Assembly meetings. This information is available on the [CDD Landslide and Avalanche Assessment webpage](#).

Included in your packet is a memo from the most recent Assembly meeting at which the topic was discussed: November 7, 2022, Assembly Committee of the Whole Meeting. (Attachment C).

**Recommendation**

Staff recommends the COW make a motion to forward the Severe Avalanche and Severe Landslide Area Maps and draft Ordinance to the full Planning Commission for a public hearing to take public testimony and make a recommendation to the Assembly.

**Attachments**

Attachment A Moderate and Severe Avalanche Areas and Severe Landslide Areas Draft Ordinance

Attachment B Moderate and Severe Avalanche Areas and Severe Landslide Areas Maps

Attachment C City Manager Hazard Mapping Memo November 2022

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Presented by: The Manager  
Presented: 2023  
Drafted by:

ORDINANCE OF THE CITY AND BOROUGH OF JUNEAU, ALASKA  
Serial No. 2023 XX

An Ordinance Amending the code related to avalanche and landslide areas and replacing the avalanche and landslide areas maps

WHEREAS, and...

BE IT ENACTED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF JUNEAU, ALASKA:

**Section 1. Classification.** This ordinance is of a general and permanent nature and shall become a part of the City and Borough of Juneau Municipal Code.

**Section 2. Amendment of Section.** CBJC49.70.300 Avalanche and landslide areas is amended to read:

- (a) *Generally.*
  - (1) Development in mapped moderate and severe avalanche and severe landslide areas shall minimize the risk of loss of life or property due to landslides and avalanches.
  - (2) Boundaries of severe avalanche areas will be as shown on the avalanche area maps dated April 27, 2022, as the same may be amended from time to time by the assembly by ordinance.
  - (3) Boundaries of severe landslide areas will be as shown on the landslide area maps dated April 27, 2022, as the same may be amended from time to time by the assembly by ordinance.



# Summary of Comments on Ordinance 2022-48

Page: 1

- Number: 1

Author: Jill Maclean

Date: 3/21/2023 2:42:00 PM

Commission discussed regulating severe avalanche and severe landslide areas the same.

Staff recommends the commission reconsider and further discuss this point at the next COW
- Number: 2

Author: Jill Maclean

Date: 3/2/2023 8:17:00 PM -09'00'

To be added at time of finalizing draft ordinance
- Number: 3

Author: Jill Maclean

Date: 3/2/2023 8:25:00 PM -09'00'

Confirm date prior to final ordinance if revised
- Number: 4

Author: Jill Maclean

Date: 3/2/2023 8:25:00 PM -09'00'

Confirm date prior to final ordinance if revised

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2 (4) <sup>1</sup> Owners and developers should provide written notice to potential buyers or renters that  
3 the property is located in a moderate or severe avalanche area, or a severe landslide  
4 area, or both.

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6 (b) *Moderate and Severe avalanche areas.*

7 (1) Notwithstanding any other provision, subdivision other than a boundary line relocation,  
8 a lot line adjustment, or a lot consolidation, or development greater than a single-family  
9 dwelling within severe avalanche areas shall require a conditional use permit.

10 (2) Notwithstanding any other provision, development greater than a single-family  
11 dwelling, within the moderate or severe avalanche areas shall require a conditional use  
12 permit with site specific engineering for the following: peak drainage, special foundation  
13 or high back wall engineering, and debris flow diversion mechanisms. For the purposes  
14 of this section, <sup>2</sup> accessory dwelling units are considered development greater than a  
15 single-family dwelling. <sup>3</sup>

16  
17 (3) A subdivision must create lots that have a sufficient buildable site, without the need for  
18 a variance, in the moderate and severe avalanche areas, unless the lot is platted as a  
19 Public Use Lot (49.15.422).

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21  
22 (4) If a developer disagrees with the boundaries shown on the severe avalanche map, the  
23 developer may seek departmental relocation of the boundaries by submitting a site  
24 specific study prepared and stamped by a civil engineer licensed in the State of Alaska.  
25 Such studies shall include detailed analyses of topography, vegetation, potential snow  
accumulation, and other factors. The results should indicate actual hazard area

Page: 2

Number: 1	Author: Jill Maclean	Date: 3/21/2023 2:46:00 PM
Removed the references in the two sections below and placed here since it applies to both		
Number: 2	Author: Jill Maclean	Date: 3/21/2023 2:38:00 PM
Covered by new definition		
Number: 3	Author: Jill Maclean	Date: 3/21/2023 10:22:00 AM
Replaced with new ADU definition		

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boundaries and potential debris flow direction, time, distance and mass. If, in the <sup>1</sup> opinion of the Director of Engineering & Public Works, the studies clearly establish that the map boundaries are inaccurate and the proposed development is outside a moderate or severe avalanche area, the department shall proceed accordingly.

- (5) The commission may require mitigating measures certified as effective by a civil engineer licensed in the State of Alaska for development in moderate or severe avalanche areas. Such measures may include dissipating structures or dams, special structural engineering, or other techniques designed for the site. Mitigating measures may also include reduction in the proposed density, occupancy, or development.

(c) *Severe landslide areas.*

- (1) Notwithstanding any other provision, no subdivision other than a boundary line relocation, a lot line adjustment, or a lot consolidation, shall be approved in a severe landslide area. Applications for all other subdivision types shall not be accepted for filing or shall be rejected by the director.
- (2) Notwithstanding any other provision, no development or any part of a development, which is within a severe landslide area shall, by the addition of bedrooms, , conversions of buildings, or otherwise increase the density of the lot or increase the occupancy of the building; provided, that a single-family dwelling may be constructed on a vacant lot. Accessory dwelling units are not permissible on lots located in a severe landslide area.
- (3) Notwithstanding any other provision, development including a single-family dwelling within the severe landslide areas shall require a conditional use permit with site specific

Page: 3

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Number: 1      Author: Jill Maclean      Date: 3/31/2023 1:48:00 PM  
Do we want to add "with current errors and omissions liability insurance"

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Likely approx. \$1M; if yes, contact CBJ Risk Mngt - standard policy

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engineering for the following: peak drainage, special foundation or high back wall engineering, and debris flow diversion mechanisms.

(4) The commission may require mitigating measures certified as effective by a civil engineer licensed in the State of Alaska for development<sup>1</sup> in severe landslide areas. Such measures may include dissipating structures or dams, special structural engineering, or other techniques designed for the site. Mitigating measures may also include reduction in the proposed density, occupancy, or development. <sup>2</sup>

(5) If a developer disagrees with the boundaries shown on the severe landslide map, the developer may seek departmental relocation of the boundaries by submitting a site specific study prepared and stamped by a civil engineer licensed in the State of Alaska. Such studies shall include detailed analyses of topography, vegetation, potential snow accumulation, and other factors. The results should indicate actual hazard area boundaries and potential debris flow direction, time, distance and mass. If, in the opinion of the Director of Engineering & Public Works, the studies clearly establish that the map boundaries are inaccurate and the proposed development is outside a severe landslide area, the department shall proceed accordingly.

(d) *Warning and disclaimer of liability.* Avalanches and landslides may occur outside hazard areas in excess of engineering expectations. The location and severity of the event may be increased by manmade or natural causes. This article does not imply that land outside of designated hazard areas, or uses permitted within such areas, will be free from danger or damage. This article shall not create liability on the part of the City and Borough of Juneau

Page: 4

Number: 1	Author: Jill Maclean	Date: 3/21/2023 10:39:00 AM
Staff recommends that development in the severe landslide areas require a CUP to ensure mitigation is addressed		
Number: 2	Author: Jill Maclean	Date: 3/21/2023 10:40:00 AM
Addressed above – see page 3, lines 24 - 25		

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2 or any officer or employee thereof for any damages that result from reliance of this article or  
3 any administrative decision lawfully made under this article.

4       **Section 4. Amendment of Section.** CBJC 19.04.R301.9 Geophysical hazards is  
5 amended to read:

6       *"301.9 Geophysical hazards.* In Severe geophysical hazard zones as shown in  
7 "Downtown Juneau Landslide and Avalanche Hazard Assessment" dated April 27, 2022, and  
8 on the "Moderate and Severe Avalanche Maps and Severe Landslide Area Map", both adopted  
9 ~~by ordinance serial no. 87-49, adopted~~ 2023 or when the building official  
10 determines that development is proposed in an area similar in nature to those studied in the  
11 above referenced documents, and is located outside of the study area, an engineered  
12 structural analysis shall be submitted with the permit application. The building official may  
13 waive this requirement upon presentation of more specific studies prepared and stamped by a  
14 civil engineer licensed in the State of Alaska showing the proposed site is not likely to be  
15 affected by geophysical hazards."  
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17       **Section 5. Amendment of Section.** Hillside Development CBJ 49.70.210(a)(4) is  
18 amended to read:  
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20       Any hazard area identified on the avalanche and landslide area maps dated ~~September~~  
21 ~~9, 1987,~~ April 27, 2022 ~~consisting of sheets 1—8,~~ as the same may be amended from time to  
22 time by the assembly by ordinance or any other areas determined to be susceptible to  
23 geophysical hazards.  
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25       **Section 6. Amendment of Section.** Definitions CBJ 49.80.120 is amended to read:



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Accessory dwelling unit (ADU) means a subordinate dwelling unit added to, created within, or detached from a single-family residence, which provides basic requirements for living, sleeping, cooking, and sanitation. The unit may have a separate exterior entrance or an entrance to an internal common area accessible to the outside. ADUs are not included in the density calculation for a site.

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Density means the amount of development per acre permissible on a parcel under the applicable zoning, measured as dwelling units per acre (du/ac).

**Section 7. Effective Date.** This ordinance shall be effective 30 days after its adoption.

Adopted this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

Attest:

\_\_\_\_\_  
Beth A. Weldon, Mayor

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\_\_\_\_\_  
Elizabeth J. McEwen, Municipal Clerk

Page: 6

- Number: 1

Author: Jill Maclean Date: 3/2/2023 9:16:00 PM -09'00'

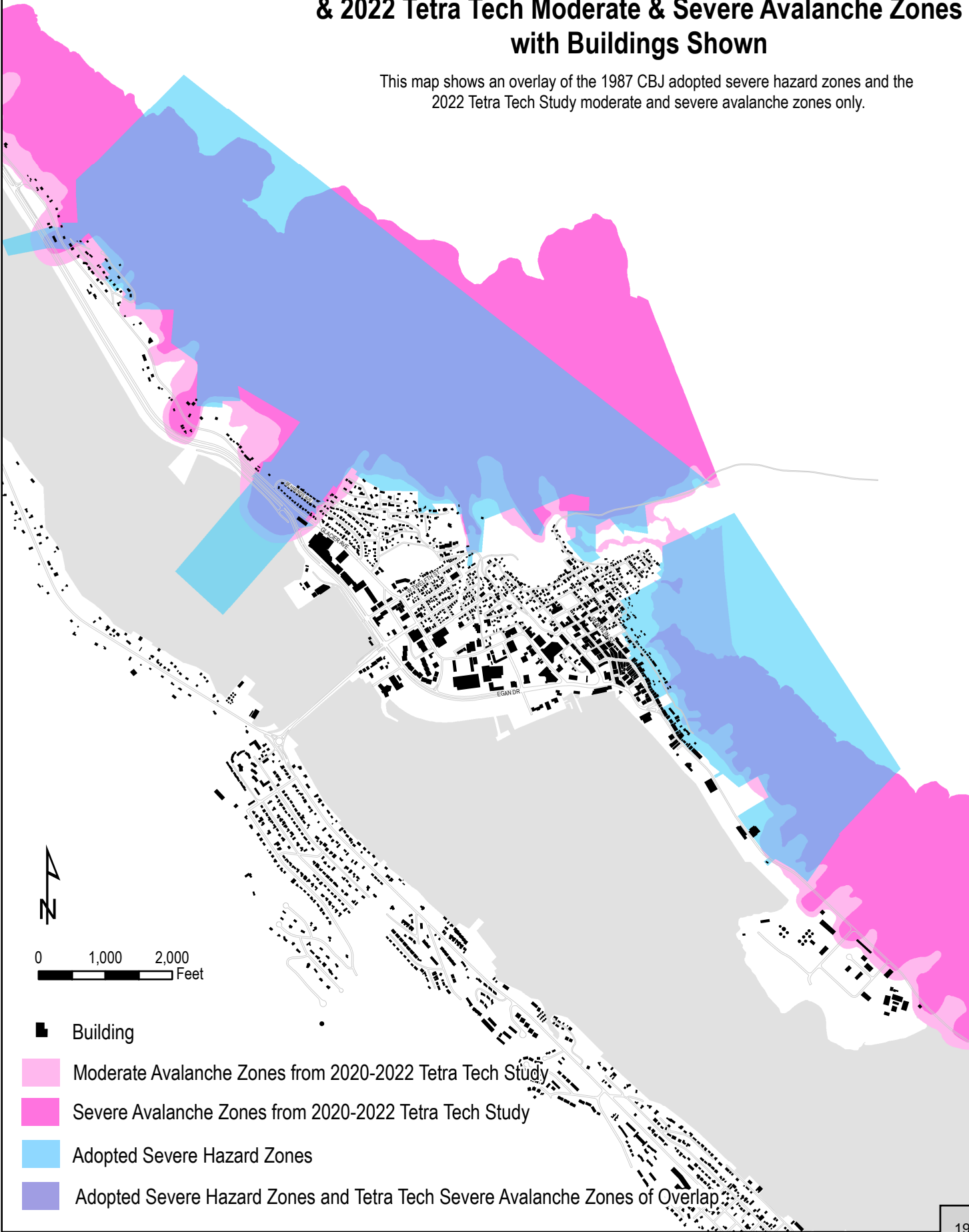
Confirm date prior to final draft
- Number: 2

Author: Jill Maclean Date: 3/21/2023 11:39:00 AM

Will need to update if/when accessory dwelling unit ordinance is adopted (proposed ordinance language provides for ADUs on duplexes)

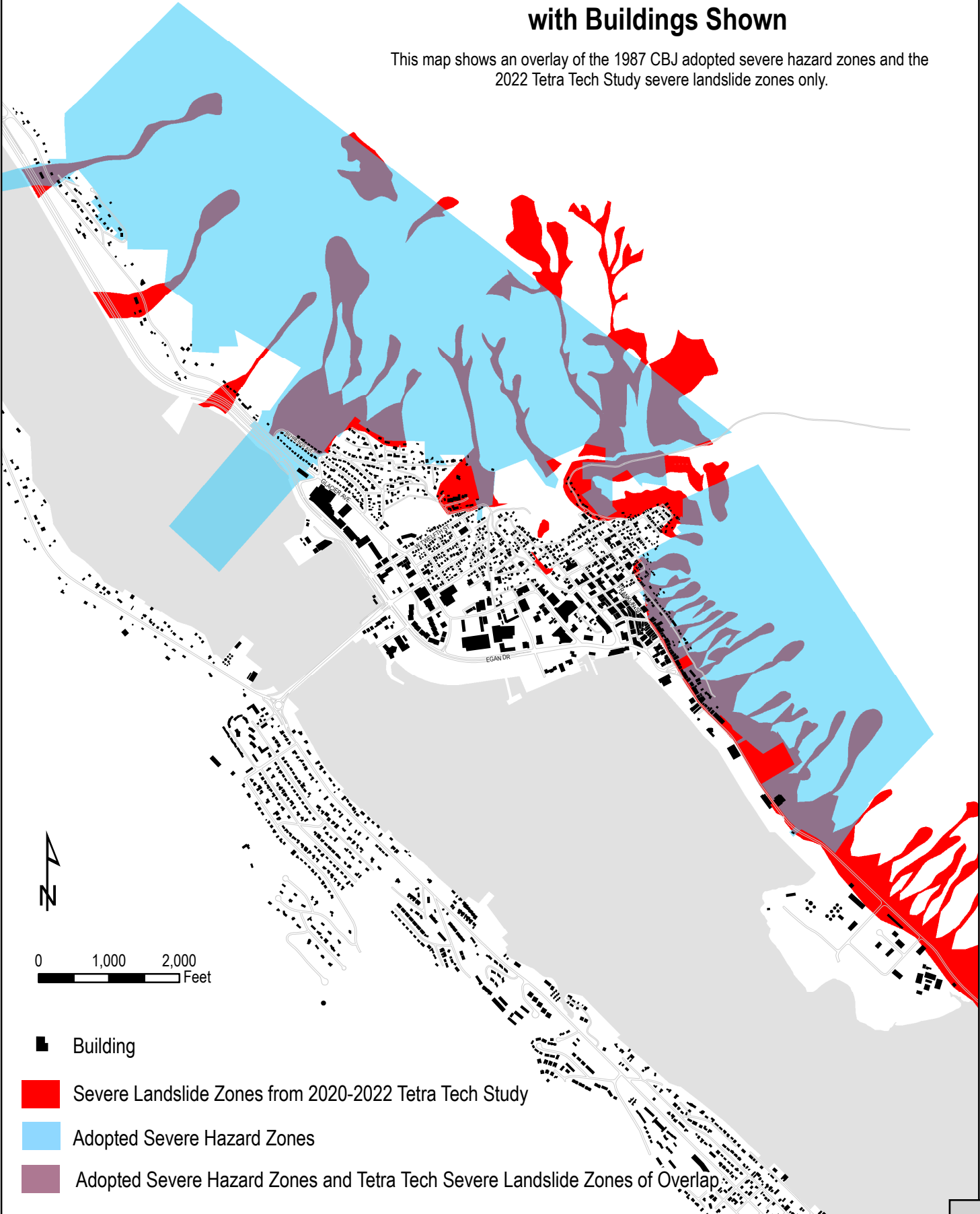
# Comparison of 1987 Adopted Severe Hazard Zones & 2022 Tetra Tech Moderate & Severe Avalanche Zones with Buildings Shown

This map shows an overlay of the 1987 CBJ adopted severe hazard zones and the 2022 Tetra Tech Study moderate and severe avalanche zones only.



# Comparison of 1987 Adopted Severe Hazard Zones & 2022 Tetra Tech Severe Landslide Zones with Buildings Shown

This map shows an overlay of the 1987 CBJ adopted severe hazard zones and the 2022 Tetra Tech Study severe landslide zones only.





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 Gladyszewski and Assembly Committee of the Whole

FROM: Rorie Watt, City Manager

DATE: November 3, 2022

RE: Hazard Mapping Update/Recommendation

From a municipal policy perspective, hazard mapping is very complicated. While we all acknowledge that the existing mapping and code is weak and antiquated, several attempts to update the code and maps have failed. In order to effect an update to the code, the Assembly should be prepared to spend quality time on the topic. While draft recommendations are included in this memo, no action is requested tonight. I suggest that the Assembly digest the information in this memo, read a lot of the companion information and take the topic up again at the 11/28 Committee of the Whole.

Changes to hazard maps and implementing code will be codified in Title 49 and all changes to this chapter are required by code to go to the Planning Commission for work, public input and recommendation. Any direction the Assembly gives will be a point of departure for staff to begin that work with the Commission.

As this is an enormous topic, I have included quite a few endnotes to help frame the topic.

Many documents (including the new maps) are available on the Community Development Department webpage under special projects, linked here:

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

The existing adopted hazard maps from 1987 are antiquated and the companion Code (49.70.300) does not accommodate the necessary subtlety to allow for best answers for development in or near hazard areas. Existing Mapping and Code generally guides and limits development as follows:

*Purpose - Minimize the risk of loss of life or property due to landslides and avalanches*

*Mapping - Two zones: Moderate and Severe (same categories for both avalanche and landslide)*  
*Restrictions*

- every action except a single family home requires a Conditional Use Permit
- developer may change map boundaries with engineering analysis
- Planning Commission may require mitigating measures
- severe areas may not increase density or construct more than a single family home

The new mapping has more hazard categories (and we have not developed companion code):

*Mapping Categories-*

*Landslide - Four zones: Moderate, High, Severe, Severe w/ Bedrock failure*

*Avalanche - Two zones: Moderate, Severe*

- Estimated impact pressure threshold differentiating the zones
- Impact pressure can be used to inform building requirements

Uncomplicated policy implementations are at the ends of the spectrum – either doing nothing, or outright prohibiting development is the least complex. Anything decision in between is significantly more complex. Partially limiting property owners from developing requires very careful rationale to allow justifications to

limit development rights – in situations that are all subtly different. New companion accommodate existing building renovation/expansion proposals while also regulating vacant land. This is made more complicated by disclaimers in the study that indicate that the maps are not to be used for site specific decisions. At a high cost, the consultant has indicated that additional site specific analysis could cost between \$250K and \$1M per hazard path.

Because landslide mapping can never be perfect, and if development is to be restricted, I recommend that the code should continue to allow property owners an avenue to change map boundaries. There is a less strong case that we should allow changes to avalanche mapping. The avalanche mapping has been historically consistent, yet allowing an avenue for change/updating does seem reasonable. I have to admit to having mixed feelings about this recommendation.

Landslides are more complicated than avalanches (or flood plains) from a policy perspective, they are less predictable and can take more forms than avalanches. We can (and do) measure and analyze snow packs and make risk predictions throughout the winter and an occupant that is in danger of an avalanche could temporarily vacate a structure. Similarly, a person can also vacate a structure during a high water event when flooding is predicted or when it is occurring.

Landslides can occur in several forms – large mass wasting events (1921, 1936), episodic gully washers and September's large tree event are examples. Unlike avalanches, landslides are not at all easy to predict. Some communities have adopted slope or weather and soil monitoring approaches, but those do not seem like obviously good strategies for Juneau. Monitoring would not have predicted the tree event of 9/26/22 or the episodic gully washing events that occur from time to time in the main drainage channels (organic debris builds up over time, high rainfall events trigger relatively minor and localized slide events, scouring the drainage channels to bedrock). Peak hour rainfall monitoring may be a better landslide risk indicator (but is unlikely to be a flawless metric).

#### **Code Purpose Draft Recommendation:**

The existing purpose statement in 49.70.300 appears to be appropriate. Minimizing loss of life and property is appropriate. Unfortunately, eliminating loss of life and property is not possible. I recommend that we maintain this same purpose.

#### **Avalanches:**

The new and existing avalanche maps are similar, and the existing code appears to strike a reasonable balance between information, restriction and prohibition. The maps are clear and believable to the public (avalanche activity has been observed in our lifetimes and in documented memory), and enforce an uncomplicated restriction (nothing greater than a single family home in a severe avalanche hazard area). The draft report also recommends tangible mitigating standards, namely construction that has to resist a certain force.

#### **Avalanche Mapping & Code Draft Recommendation:**

I recommend that the Assembly request a draft Ordinance that would adopt the new avalanche maps and contain companion legislation that mirror's the current code. The information on the estimated impact pressure should be included as an advisory note in the draft legislation. The Draft would be sent to the Commission for review.

#### **Landslides:**

Landslides have been reported in recent years in several other Southeast communities, some with fatal results. People should reasonably ask – does Juneau face similar risks? Are our citizens at risk of fatality if development or occupancy proceeds in our hazard zones or in other areas of Juneau? The answers to these questions will be necessarily dissatisfying – we can't perfectly know. We can predict and estimate, but we can't know the real actuarial risk. We can, however, make reasonable decisions based on the available information that we have.

In comparison to the adopted maps, the new mapping is more assertive in where it shows lands zones. Whether the Assembly buys into this newly shown increased risk is uncertain. Whether the Assembly feels that restricting development is sound public policy is also uncertain. In weighing the consideration of the TGH project or the pre-development loan to the Gastineau Lodges project, both the Planning Commission and the Assembly seem inclined to support development projects and to let private applicants sort out the complicated details of hazard zone development.

***Landslide Mapping & Code Recommendation:***

I recommend that we adopt the maps as the best updated mapping available and develop a draft Ordinance for Commission review that would propose to regulate development as follows:

- No restrictions in Low, Moderate or High Hazard Areas
- Single Family Residency permissible in Severe Hazard Areas
  - Development Density Greater than Single Family Requires a Conditional Use Permit, with the developer proposing special engineering for the following:
    - Peak Drainage
    - Special Foundation and/or High back wall Engineering
    - Debris Flow diversion mechanisms
    - Possible Adjustments to Map Boundaries
- Additionally, the developer/owner should be required to notify hazard details to renters
- Consider requiring property sellers to disclose hazard designation to potential buyers

**Endnotes:**

**Skagway:**

In the last year, the White Pass cruise ship dock has been damaged by rock landslides and private consultants have been assessing the situation. The geological composition of that cliff side is different than downtown Juneau. The [exposed slope in Skagway](#) shows fractured and over steepened cliff bands; unconsolidated boulders are poised for descent some 950' down to their cruise ship dock. It is not immediately analogous to our situation and the immediate and severe nature of the risk is evident to a lay person. Skagway is considering some expensive [short term](#) measures than are not at all likely to make the north cruise dock safe for use.

**Haines:**

The tragic Haines slide of 12/2/2020 occurred on a forested slope, gentler in grade than Mount Roberts. It actually looks more similar to other Juneau slopes (including Douglas Island) than it does to our downtown hazard areas. It is a good reminder that any mountainous slope can be unstable. Soil depths to bedrock appear to be much greater than those on Mount Roberts which resulted in the availability of much more soils debris for the landslide.

**Sitka:**

Sitka experienced a fatal landslide on 8/18/2015. Sitka's soil strata is very different than much of southeast, a layer of tephra soils (explosively erupted ash from the Mount Edgecumbe Volcano) underlay surface soils in the region. These soils have different soil mechanics resulting in different slope stability considerations. Soil depths to bedrock appears to be greater than those found on Mount Roberts. With Federal NSF funding, the non-profit Sitka Science Center maintains a [Sitka landslide risk dashboard](#). I do not believe that the City and Borough of Sitka endorses this website's risk analysis. An interesting link to a video about correlation between rainfall and landslide risk is also [available](#) (time stamp at about 18:30 for discussion on correlation of peak rainfall and risk elevation). The problem with this approach is that people interested in understanding risk may get a false sense of security – landslides can and will occur outside of peak rainfall events.

**Juneau/Mount Roberts:**

Juneau had two large slide events on Mount Roberts in the earlier part of the 20<sup>th</sup> century. Both slides appear connected to the AJ Mine's rail road development and its practice of side dumping rock on the steep slopes above town for the construction of a rail road that ran side hill above town. Informing slope stability, the historic mill site ruins appear unchanged since they were constructed some 100 years ago. Several mine penetrations readily offer inspection of Mount Robert's bed rock which appears to be very stable. These mine tunnels provide limited but very valuable geotechnical information.

CBJ has cleaned up several smaller mudslides on Gastineau Avenue in the last 20 years. Several drainage channels have been episodically active and we should expect them to continue to be periodically active. When these channels have scouring events, the underlying bedrock is typically exposed and appears to be stable.

CBJ's significantly reconstructed Gastineau Avenue in 2001. Those project improvements are mitigating factors for slope hazard analyses for properties that are downhill of the road. Substantial geotechnical engineering including soil stabilization, retaining walls (including anchoring) and water management improvements were constructed as part of that project.

Soil depths in the drainage channels on Mount Roberts are observable in many locations and are shallow, resulting in the availability of less soil debris for landslide events.

### **Climate Change:**

As measured at the Juneau Airport, Juneau has seen a rough doubling in the last 20 years of days with more than one inch of rain from the historical averages. From 1944 – 1990 we had an average of about 5-8 days per year with greater than one inch of rain and from 2000-2020 about 10-15 days per year. There are many ways to measure climate changes (this one comes with a warning about a smallish sample size) but peak rainfall events appear to be increasing - which is very consistent with many climate change predictions.

### **Private Updating of Hazard Maps:**

Given the nature of our hazard maps (a broad overview, not property specific) it makes sense to allow applicants and property owners a process to update mapping. In theory this sounds reasonable, but in practice it is actually quite challenging for several reasons. First, private applicants don't have large financial resources that will likely result in more detail than CBJ's FEMA funded mapping effort. Second, private engineers and geologists who have expertise in hazard zones have little to gain by participating in individual site selections on reduced budgets. The liability is simply too great and the applicant's ability to pay for a detailed analysis is very limited. Private engineers with economic resources to protect are going to be naturally conservative.

In making the decision on whether to allow a path for property owners to update the hazard maps, the Assembly has to balance several issues. First, global hazard mapping is an effort to broadly help the community, while the ability to adjust maps would allow individual owners to represent their financial interests, the interests of specific properties. Second, it is unlikely that private proposals to update will have similar mapping quality than the new maps.

### **Statistics & Probability:**

Any policies about hazard zone regulation are inextricably bound to the likelihood that events occur within a named period of years. The avalanche efforts are tied to a 30 year concept that is derived from climate and event data. Flood mapping is typically tied to 100 or 30 year event probabilities. Like avalanche risk analysis, flood mapping is heavily reliant on measurable rainfall data, topography and records of historical events. Landslide or mass wasting probability is much more difficult to predict. The new landslide mapping is not linked to event probabilities. Some discussion of probability was included in the draft report and deleted by the consultant in the final report; the consultant was unwilling to tie their work to event probability estimates.

There are about 30 mapped severe landslide hazard chutes between about 2<sup>nd</sup> Street and the Little Rock Dump. The consultant has generally mapped the severe hazard exposure areas to the waterside of Franklin Street/Thane Road. When discussing probability of new code restrictions, I suggested to the Assembly that we not try to regulate hazards that are not predicted to occur within a 50 year time frame, the Assembly preferred a more conservative approach of not regulating events that are not predicted to occur within a 100 year timeframe.

### **Doing the Math:**

Statistically, a landslide path with a 100 year event probability has a 63% chance of occurring in any given 100 year period (or a 37% chance of NOT occurring). We have 30 mapped landslide paths and more than 100 years of data and two mine railroad related events that caused debris flows to reach South Franklin. The chance of ALL of these mapped paths having a 100 year event probability and ALL NOT having a non-made made debris slide reach South Franklin in ANY of these paths in a 100 year period is something like one millionth of a percent.

The simple math tells us that these mapped severe areas are not all likely to reach South Franklin Street as shown on the maps. Is it possible? Yes, of course. But it is more likely to be on some multi-100 year likelihood. Maybe we'll be unlucky enough to see a 500 or 1,000 year event in our lifetimes, but most probably not.

### **Downed Trees:**

Geologists consider the September event that damaged homes on Gastineau Avenue to be a landslide event. Another perspective is that the event very well may have been initiated by high winds which blew down a 300+



year old tree and it was this tree and associated woody debris that caused damage to the homes. The distinction is likely significant for homeowners and their insurance companies. While there was rainfall and soil erosion, the causative factor in the home damage was from trees that fell and mobilized at high velocity down the hillside.

To my knowledge, we do not have historical knowledge of events like this one. There are many downed and dead trees on the hillside, yet they have not mobilized in storm events. Notably, AEL&P performs maintenance on the power line corridor that is above the roads. They cut down and trim trees that are potentially hazardous to the aerial power lines. These downed trees are in the power line corridor, slowly decomposing. It seems very strange and unusual to have 300ish year old tree fall and take a 600-700 toboggan ride, root wad first. Speaking for myself, it had not occurred to me that it would be possible, I would have assumed that falling trees would get hung up on other trees.

# **Additional Materials**

## **Committee of the Whole**

### **&**

## **Regular Planning Commission Meeting**

Assembly Chambers  
6:00pm  
Meeting Date: April 11, 2023

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**1. AME2021 0008:**

- a. Public comment with attachment from Shawn Eisele, received 3/12/23
- b. Public comment from Barbara Sheinberg, received 4/6/23
- c. Public comment from Colin Shanley, received 4/6/23
- d. Public comment from Andrew Heist with attachment, received 4/7/23
- e. Public comment from Yvette Soutiere, received 4/7/23
- f. Public comment from Sandra Harbanuk, received 4/7/23
- g. Public comment with attachment from Shawn Eisele, received 4/7/23
- h. Public comment with attachments from Larry Fanning, received 4/7/23
- i. Public comment from Olivia Sinaiko, received 4/7/23

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**From:** Shawn Eisele <shawneisele@gmail.com>  
**Sent:** Sunday, March 12, 2023 2:10 PM  
**To:** PC\_Comments  
**Cc:** Michael LeVine; Mandy Cole; Paul Voelckers; Travis Arndt; daniel.hickok@juneau.org; Erik Pedersen; josh.winchell@juneau.org; mathew.bell@juneau.org  
**Subject:** Concern with the new hazard maps  
**Attachments:** Eisele PC comments 2023-03-12.pdf

**EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS**

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Planning Commission members,

I apologize that I did not prepare comments before Friday noon to include in your packets. However, this issue is important to me, and I've tried to provide a few discrete points that can add to your discussion, hopefully with enough time for you to see them. If you'd prefer the comments in the body of an email, instead of the attached pdf, just let me know.

Thank you for your consideration of this issue, I appreciate the time you volunteer for this,

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Shawn Eisele  
[shawneisele@gmail.com](mailto:shawneisele@gmail.com)  
(907) 723-9066

Shawn Eisele

606 6<sup>th</sup> St.  
 Juneau, AK 99801  
 (907) 723-9066  
 shawneisele@gmail.com

March 12, 2023

Comments on the adoption of new avalanche and landslide maps.

Dear Planning Commission,

It's important to take avalanche and landslide risks seriously and protect our community, but simply adopting the proposed maps creates real complications that we have a duty to address before or while adopting the maps.

**1) There needs to be a meaningful public process or involvement before a vote to adopt the maps.** The planning commission clearly called for that at least a year ago, but it hasn't happened, and instead we are addressing the maps at a decision-making level yet again. I'm worried that public comment like this is hit or miss, and avoids creating a meaningful longitudinal record for the department to engage with when making policy decisions. That's a mistake. Although the consultant did field some written questions over Zoom regarding their mapping, *we haven't had a meaningful opportunity for the public to weigh in on the policy implication and direction of this process, let alone the regulatory impact, and for the department to wrestle with that public input.*

Another reason to have meaningful public comment: some of the consultant's conclusions lack crucial local knowledge. For example, the consultant appears to use Google street view to create a new landslide zone at 5<sup>th</sup> and Harris, yet the mud in Google street view was a construction project, not a slide as the consultant assumed. There are other examples like this, and they get swept under the rug without a public process. While it's satisfying to say we should "trust the modeling" or "trust the experts," errors like this point to scientific gaps that the public should have a right to bring up before the maps are made binding.

Homes are tremendously meaningful to our both our identity and our finances. These steps the city is taking are major, and they deserve to be done at a reasonable speed bringing public along and having the community feel invested instead of simply affected.

**2) Ideally we should identify a strategy, leading to more safety, that adopting maps serves.** We all feel the need to "do something" but maps themselves don't make people safer; rather, policies working with those maps can have that effect. We should identify and discuss what will make our community safer and then adopt hazard zones along with policies moving towards safety. We've seen Sitka quickly adopt and then un-adopt it's maps, and should not end up in the same situation. The department should research implications to building, lending, and insuring, and put their findings on the record. (We should not simply rely on staff statements made at various meetings.) Arguably, existing hazard zones have

meant that more low- and middle-income families live in hazard areas, because they are affordable, while the actual number of people at risk in hazard zones hasn't changed. I think we can do better, and should adopt hazard zones with a regulatory path to safety, instead of simply rushing to adopt maps to say we've done something.

**3) The new maps include a new hazard, point release debris fall, which our regulations should accommodate before the maps are adopted.** Our current regulations govern only "mass wasting" — almost by definition the opposite of debris fall. The new maps specifically identify this new "debris fall" hazard area, but then lumps those areas into general landslide zones. Without regulatory action, that would paradoxically result in point release hazards being governed by mass wasting regulations. The risks, impacts, and lending/insurance implications are different for debris fall and it would be irresponsible to adopt these maps and have the mass wasting regulations blanket a completely different risk. We should at least understand how our regulations could or should affect the classifications differently, or protect residents differently.

**4) Mitigation measures are one of the few realistic ways to promote safety, but are ignored by the proposed maps. Accordingly, we should at least adopt regulations that streamline mitigation projects or the consideration of mitigating structures.** The consultant's maps deliberately ignore human-built structures. Yet many Juneau homeowners have taken significant steps to mitigate the dangers to their property, and that investment should be honored. Moreover, there are probably dozens if not hundreds of structures the new maps classify in hazard zones, which in reality are protected by the buildings above them. ***In a city with a dramatic housing shortage, we should be prioritizing accurate assessment of mitigating structures, and promoting mitigation generally, to maximize housing in areas not truly at risk.*** While it might be appropriate for the maps to ignore mitigating structures, at the very least something in our regulations should streamline a non-onerous path for that, if the maps are to be adopted.

Please note, after the consultant was asked about human-made structures being ignored in the new maps, they justified it by stating that sometimes homes slide onto homes below, so homes shouldn't count as mitigating. That seems sloppy. First, many new zones are debris fall, not the earth movement hazard the consultant's response relies upon. While debris fall can move a house, the probability of it doing so and affecting the house below is appreciably lower. Second, even in situations where there is earth movement, the existence of concrete foundations will generally have an impact. Again, it does not alleviate the risk, but it lowers the probability, which is how we define hazard zones.

**5) Lidar precision of the new maps does not match the existing regulations that govern only whole lots. Creating regulations to use the new precision could improve safety, while neglecting the difference will cause a regulatory mess.** In the status quo, a property is either in or out of a hazard zone. But the new map boundaries are topographic, so only a few feet of a property or home might be in a zone. That will bring up all kinds of new questions.

For example, let's say a corner of a bedroom is in a hazard zone, but most of the house isn't. ***In a city with housing shortage and landslide risks, our policy should encourage remodeling to build new bedrooms or dwelling areas outside of hazard area.*** Yet our current regulations, in conjunction with these new maps, would probably prohibit any addition to that house. There are innumerable similar

examples that would affect double lots, duplexes, etc. We should take the opportunity to use the maps' precision for public benefit, and provide guidance before the maps are adopted.

I think there's a mistaken belief that these questions are simple and will be resolved later with common-sense policy. Certainly that ignores the immediate needs of people who want to renovate or sell their homes around the time when the maps are adopted. But even more importantly, the back-and-forth of the Glory Hall's building permit last year should be a stark reminder that *there's tremendous latitude to interpret ambiguous law or policy directions, and an agency can often do so in ways that seem counter to policy or even density in hazard areas.*

Take the example of a property where only a slice of yard is in a hazard area. I've heard the department say the entire home on that property would be treated as in a hazard zone, and I've heard them say it would not. While I do not believe they are trying to be evasive, I think this is the kind of thing that we should develop with a record and public participation before the maps are adopted. Too easily, a front-line staff member can give a quick, seemingly-simple answer to an issue, which then entrenches into ad-hoc patchwork regulatory interpretation instead of well-made policy.

Adopting new maps that can so fundamentally affect the sense of home and the finances of so many Juneau residents is going to create real questions. We have a responsibility to act deliberately addressing those issues before rushing to adopt maps. Please contact me anytime if you'd like to further discuss any of these issues, and thank you for your volunteer time on important matters like this.

Sincerely,

A handwritten signature in black ink, appearing to read 'Shawn Eisele', with a stylized, cursive script.

Shawn Eisele

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**From:** Barbara Sheinberg <barbarasheinberg@gmail.com>  
**Sent:** Thursday, April 6, 2023 12:27 PM  
**To:** PC\_Comments  
**Subject:** Comment on ordinance related to landslides and avalanche hazards

Dear Planning Commissioners,

Section (2) (c) (2) reads:

(2) Notwithstanding any other provision, no development or any part of a development, which is within a severe landslide area shall, by the addition of bedrooms, conversions of buildings, or otherwise increase the density of the lot or increase the occupancy of the building; provided that a single-family dwelling may be constructed on a vacant lot. Accessory dwelling units are not permissible on lots located in a severe landslide area.

The clause " or otherwise increase the density of the lot or increase the occupancy of the building" is problematic. Arguably, if a single family home owner with 2 occupants wants to sell their home to a family of 4, they have "otherwise increased the occupancy of the building" from 2 to 4. Please clarify intent, and amend as needed to ensure the city is not stepping in to comment upon, raise questions about, scare financiers, or otherwise regulate home sales in a manner like this.

Thank you,

Barbara Sheinberg

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Barbara Sheinberg, FAICP  
Sheinberg Associates  
mobile: 907-209-2272

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**From:** Colin Shanley <shanleycolin@yahoo.com>  
**Sent:** Thursday, April 6, 2023 5:00 PM  
**To:** PC\_Comments  
**Subject:** Landslide assessment: Report error  
**Attachments:** image002.jpg

Hello,

I'd like to submit a few comments on the CBJ landslide assessment. In particular, there is a clear error that I would like to bring to your attention in "Technical Memo 3: Mapping Overview Starr Hill Subdivision and Additional Information". I brought it to the attention of city planners soon after the report came out but they said it couldn't be fixed, so I'd like to bring it to the attention of the planning commission as well.

I live at 415 East Street downtown and I cleared the lot for construction in 2011. Attached below is what the lot looked like when I bought it with 50+ year old trees. The report incorrectly suggests there was a debris flow from an outdated Google Street view image (<https://goo.gl/maps/i7hXeqw4BwCRonXe7>). Here's is the incorrect statement from the report on Page 5:

"However, Google Street View (July 2011 imagery), near the southeast end of the paved part of East Street, clearly shows the aftermath of a recent debris flow and/or erosion type event from upslope of the road at 415 East Street. The 2013 imagery also suggests disturbed ground between the house closest to the road and the next house located almost due east at 622 4th Street."

It's very concerning that Google Street view is being using to make such a bold statement in what is supposed to be a scientific assessment. And then the assessment makes and even more concerning leap of faith on page 6:

"Tetra Tech has mapped the slope in the vicinity of 415 East Street and 622 4th Street as being within a High landslide hazard designation zone. However, given the findings of an apparent debris flow feature at that location, the judgement of whether to upgrade the landslide hazard designation to Severe should be made after a site-specific investigation in that area. It does appear possible that the debris flow might be related to a cutline upslope (apparently a former powerline alignment), and the problem might be solved by remediating the surface water drainage at the cutline. However, if the feature is not related to water drainage problems originating at the cutline, this area should be mapped as Severe."

Again, this is all incorrect and a wildly speculative assessment to make a from a Google Street view image. Therefore, there is no reason to list the property or any near it in a severe zone, and it honestly brings into question some of the speculative nature of the assessment. Given this clear error and clear overstatement, I hope the city sees this assessment for what it is - an contractor trying to point out as many potential hazards as possible to cover themselves.

My family and I have talked about adding an addition to our small 1,200 sf house to accommodate our growing family with two kids. I would be very disappointed if we had to move from our house and neighborhood of 10-years if there were restrictions put on our ability to add a bedroom.

Best,  
Colin





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**From:** Andrew Heist <andrew.heist@gmail.com>  
**Sent:** Friday, April 7, 2023 9:45 AM  
**To:** PC\_Comments  
**Subject:** Proposed Hazard Maps

Hello Planning Commission members,

I sent a lengthy email in January that outlined my concerns with the proposed maps. I did not receive a response, but ahead of your April 11 meeting I wanted to reach out again.

This is an extremely important and hugely impactful proposed action. In the several years this has been in discussion all parties have highlighted the need for a robust public process. This has not happened at all. At the April 11 meeting, again, no public testimony will be heard.

Please slow down on this initiative and complete the much needed public outreach and conversations. This decision could have absolutely devastating consequences (that have not been fully investigated) for many homeowners' most valuable asset.

Thank you.

Andrew Heist  
314 Irwin St.

**From:** [Andrew Heist](#)  
**To:** [PC Comments](#)  
**Subject:** Proposed Hazard Maps  
**Date:** Monday, January 23, 2023 10:41:23 AM

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## EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS

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Hello Planning Commission members,

I sent the below to the CBJ Assembly, but I understand the issue is still in the Planning Commission. Please consider my comments:

My name is Andrew Heist and I am the property owner of the adjacent properties at 310 & 314 Irwin Street. If the proposed maps are adopted, the 4-plex at 310 Irwin St. will go from 'moderate' to 'severe' risk and the single family dwelling at 314 Irwin St. will go from 'no risk' level to 'severe' risk. Both buildings are 103 years old and have no records or evidence of impact from an avalanche or slide event.

I am requesting that you delay adoption of these maps until the following has occurred:

- extensive public outreach
- additional research/studies on potential mitigation strategies
- additional analysis of how existing structures mitigate risks outlined in new maps
- extensive research into factors involved in the City of Sitka's recent adoption of new hazard maps followed by nearly immediately rescinding their action.
- extensive research on the real-world consequences the new classifications will have on Juneau property owners' ability to borrow, buy, sell, develop, and insure their affected properties.
- clearly outline and communicate to the public the restrictions/ramifications these classifications will have on affected properties.

I know that assembly members are aware that this is a very complicated issue with huge potential consequences (many of which are not known), and I'll try to be brief in my comments and close with how the proposed changes will directly affect me.

The work of TetraTech was going on without much public awareness until the proposed maps were published, showing some 220 additional properties now included in hazard areas. This resulted in very justifiable concern from many affected residents. Through several meetings and information sessions, one large takeaway agreed upon by all parties was that a great deal of public outreach was necessary before moving ahead with anything. After the initial flurry of activity, possibly due to the depth and complexity of the issue, it seemed to be stalled in committee without much public outreach, or anything else, happening.

In September 2022, a slide occurred on Gastineau Ave resulting in severe damage to several properties. This event seemed to jump-start the process to adopt the maps despite the fact that

little additional work, research, or public involvement had occurred.

The Gastineau slide was very unfortunate, and thankfully no individuals were injured. This slide would have occurred whether or not the maps had been adopted and the maps would not have prevented any of the damage. While it's understandable that this brings the issue back to the fore, rushing ahead to adopt these maps despite the fact that very little additional work, study, research, and outreach has occurred feels extremely reactionary, and that is not at all a sound methodology for effective policy making. There is so much more work to be done before this decision can be responsibly enacted— please do not let the Gastineau slide push you to rush this monumental decision that will hugely affect some 220 property owners.

Please complete the following additional work before coming to a decision:

- Communicate with your peers in Sitka to see how their new maps affected property owners. Talk to members of the Real Estate, Banking, and Insurance communities to learn how the maps affected them. Research why the maps were quickly rescinded. And -most importantly- proactively share this information with your constituents. With such a recent and nearby event and subsequent map and policy change in Sitka, that was rather quickly undone, CBJ should be learning everything they can from that and sharing it with the public here in Juneau.

- Embark on further studies to assess risk mitigation strategies. How and where are they possible?

- Do further study on how existing structures affect or mitigate risk of other structures. My 4-plex sits directly below a massive condominium complex. There is no consideration given to this massive barrier when my property is assigned a new risk level. A decision with these important impacts on property owners needs to be fully researched before enacting.

- Communicate to the public about your plans to re-map other areas of Juneau. This project only covers a small section of Juneau and has huge potential negative impacts for affected property owners. There are areas of Juneau that have topography much more similar than downtown is to where the massive Haines slide occurred, yet they are not changing risk levels. Is this a fair way to make policy?

- Do extensive research with lenders, insurers, real estate agents and developers to learn the actual consequences these new maps will have on property owners. This must be done prior to the adoption of new maps to avoid potential serious implications for many peoples' most valuable and substantial investment.

In closing I'd like to share how these proposed changes will affect me and my specific situation.

After several seasons working at Allen Marine Tours and saving up barely enough for a down payment, I purchased my first home in 2008. It is the big yellow 1920 4-plex at 310 Irwin St. I lived in it for eight years and unlike many other Juneau landlords, I devised a business plan that I could be proud of. I would work hard to keep up with all necessary maintenance, while working on a long range plan to upgrade the aging plumbing and heating systems. I would keep rents more reasonable

than most, opting for longer term residents who would be part of the community of our neighborhood. I would make the apartments great places to live, keep the building in excellent condition and when the time came to sell the property, I would have a very valuable asset.

While the exact consequences of these new maps are not yet known, they will dramatically alter this plan. The uncertainty around buying, selling, borrowing and insurance brought up by these changes mean that my most significant, important investment, and the keystone to my lifelong business plan may not actually be a valuable investment at all. Now, instead of looking ahead to the day my investment bears fruit when I sell it, I am inclined to shift gears into the much more common mindset of: invest as little as possible in the property while reaping the maximum profit. Make the money now, and it doesn't matter if the deferred maintenance and poor upkeep result in a lower sale price. In my case, though I have resisted it at all costs, I am inclined to convert my four 2-bedroom apartments to short term vacation rentals to maximize profit. I have loved being a part of the community by providing nice, affordable, stable rentals for a very long list of fantastic Juneau community members. If these maps move forward as proposed, with none of the additional work and research needed to make this decision responsibly, that's the decision I will be forced to make to protect my most important investment.

Both of my affected properties are in D-18 multi family areas. With the restrictions on increasing density in hazard areas, these new classifications nullify this valuable zoning classification. I have plans to add a rear dormer on the 4-plex to add two additional 1-bedroom apartments as well as expanding the neighboring single family home to a 3-bedroom, 2-bathroom home with an attached accessory apartment. If these maps go forward, those plans become impossible. Does CBJ plan to compensate property owners for these extremely substantial changes to their properties' potential?

It's worth noting again that both of these properties have been standing for 103 years and neither have been affected by any slide or avalanche damage. An event of the magnitude needed to destroy the gigantic condominium complex above my properties and hit mine would be a 500 or 1,000 year event. Is this the scope of planning the assembly is undertaking?

Please— do a great deal more work, learning, research, strategizing and communicating with the public before making this decision that will potentially decimate the small business I have built from the ground up here in my beloved Juneau and hugely impact hundreds of other members of our community.

Respectfully,

Andrew Heist

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**From:** Eve S <bering.sea.kayaker@gmail.com>  
**Sent:** Friday, April 7, 2023 10:27 AM  
**To:** PC\_Comments  
**Cc:** Paul Korchin  
**Subject:** New Hazard Mapping - Comments

Planning Commission,

My name is Yvette Soutiere and I live at 634 6th St in Juneau and am one of the homeowners affected by the proposed changes in the hazard mapping. I am dismayed by the process, though not surprised. First, at the August 2021 Planning Commission meeting, the Commission itself called for a more public process and input, though input has not been allowed to occur. There have been five meetings since that time and a sum-total of zero opportunities for public testimony. Through this process, changes have occurred to what was initially proposed. These changes severely and detrimentally affect homeowners, property values, and completely restrict the ability for an owner to sell to anyone but those able to pay full cash value for the home. What the Commission has done by considering entire lots within a hazard zone if any portion touches the hazard zone is to effectively reduce our property values to zero. It is also ridiculous that the proposed regulations discourage hazard mitigation. My neighbors and I would likely engage in hazard mitigation if it were something that would be available to us as an option, yet, again, the Commission seems determined to reduce our property resale values to zero. In tandem with discouraging hazard mitigation, the Commission provides no easy path for site-specific analysis. The Commission makes no distinction between mass wasting zones and debris fall zones. Honestly, this also affects home values as it restricts our ability to purchase insurance covering our homes, and, in turn, affects our ability to sell our homes to all but the most cash-flush buyer.

Honestly, The City and Borough of Juneau appears to be working hard to encourage people to abandon their homes by selling to corporations that are able to financially accept the risk. This attitude destroys neighborhoods and turns them into the worst of the worst. I am from Colorado. This is exactly what is occurring in many formerly-small, close-knit communities there. Once it happens, those who work in industries such as tourism have nowhere to live. The teenagers who once were able to work in the industry in the commensurate relationship that is a summer job (trading low pay for experience) will no longer be available as their families will no longer be able to afford to live here. Unlike Colorado, there are no roads to "bedroom communities".

Yvette Soutiere

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Live as if you were living a second time, and as though you had acted wrongly the first time.

Viktor Frankl

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**From:** Sandy Harbanuk <sandyharbanuk@gmail.com>  
**Sent:** Friday, April 7, 2023 10:43 AM  
**To:** PC\_Comments  
**Subject:** CBJ Proposed Landslide/Avalanche Maps/Regulations

**EXTERNAL E-MAIL: BE CAUTIOUS WHEN OPENING FILES OR FOLLOWING LINKS**

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Dear CBJ:

I'm writing to you today out of concern for the limited opportunity to date for public input into the decision-making process around the new landslide/avalanche risk maps. When the opportunity for public comment is delayed until after all of the staff and committee work is complete, the public is commenting on a done deal that severely restricts residents' ability to effect improvements. There have been multiple Planning Commission meetings about the issues in the past 18 months, but none have allowed public testimony.

The maps are broad brush, and the lack of site-specific detail will create uncertainties for homeowners, sellers, and prospective buyers regarding actual property values, insurance eligibility, improvements such as additions to structures, level of actual risk, and potential mitigations to any risks. Additionally, the CBJ has recently raised assessments across the board, while the adoption of the maps as they are currently configured may seriously affect property values when a homeowner renews insurance or tries to sell.

The unintended consequences that will emerge over time will likely be addressed as they occur, but that means waiting until one or more homeowners are harmed by the decisions you are making now. My property appears to be on a dividing line, I believe as a debris fall area, but pretty low risk for that, yet it's lumped in with mass wasting. That is flatly wrong. There needs to be a mechanism for site-specific analysis that will reliably be accepted by CBJ and that homeowners can access without ruinous costs. I am retired, on a fixed income; the recent increase in my assessment coupled with the uncertain financial impacts of your project suggests I can expect some level of financial harm at a point in my life when I cannot afford it.

Please open up the public process to Juneau homeowners now, not after the deal has been sealed.

Thank you,

Sandra Harbanuk  
604 Fourth St  
Juneau, AK 99801

Starr Hill resident/homeowner since 1984.

---

**From:** Shawn Eisele <shawneisele@gmail.com>  
**Sent:** Friday, April 7, 2023 11:22 AM  
**To:** PC\_Comments  
**Subject:** input for Planning Commission Committee of the Whole 4/11/23  
**Attachments:** PC COW input 2023-04-07 Eisele.pdf

Attached is input for the PC COW 4/11/23. It can be included in the meeting packet in addition to my comments from last month. Please let me know if you have questions, and thank you very much.

--

Shawn Eisele  
[shawneisele@gmail.com](mailto:shawneisele@gmail.com)  
(907) 723-9066



Shawn Eisele

606 6<sup>th</sup> St.  
Juneau, AK 99801  
(907) 723-9066  
shawneisele@gmail.com

April 7, 2023

Updated comments on hazard regulations and maps

Dear Planning Commission,

Thank you for your volunteer time on this. My March 12, 2023 letter is included in your meeting packet, and here are updates based on the proposed regulations that came out since then.

It seems wrong to not allow conditional use permits in landslide areas, but allow them in avalanche areas. Realistically, the only way you'd want a conditional use permit for adding density in *either* area is if the applicant can demonstrate the action they're taking actually reduces or avoids the risk. Why not spell that out, and allow it in either case—reducing risk would be a positive result. The goal here should be to increase safety, while secondarily maintaining the housing stock if possible. Also, please remember that much of the new landslide areas are actually debris fall areas, not earth movement. (While there are probably ways to mitigate the impact of earth movement, protecting from debris fall is easier to think about.)

The use of "should" when discussing disclosures seems like a poor choice. Transparency is important and a path to safety and personal responsibility. Changing the language from "shall" to "should" just makes this regulation toothless. Obviously ask your attorney, but mandating an action generally doesn't create an excessive obligation for the city to police every transaction. Property disclosures are part of almost every real estate transaction, and the city isn't forced to review each one.

Staff are proceeding on the assumption that landslide zones are more dangerous than avalanche zones, but you should ask for professional support for that opinion. The consultants drew maps based on degree of risk, and it seems like the randomness and different risk thresholds were already taken into account in their designations. Further, I don't imagine it's true that avalanches are predicted and landslides aren't—that's a conclusion that should be supported by professional opinion. The landslides I'm aware of have occurred during significant precipitation events, just like avalanches, and subject to national weather service warnings. A difference, though, is that avalanche snowpack can have a persistent weak layer that lurks for months, whereas that same risk isn't present with landslides. Whatever choice you make on this, it should be informed by science not lay opinion.

The regulations should cover only the identified hazard area, not an entire lot or home touched by a hazard area. At the 2021 Planning Commission meetings I believe the Department responded to public questions by saying that only the portion of a lot in the hazard zone would be affected. But the last Committee of the Whole meeting seemed to propose the opposite. Maybe I'm totally wrong here, but if that's true, it's a bad look to publicly say one thing and do the opposite, and in this case it's also bad policy. The point of the new maps is that they are precise topographically, and show what portion of a lot is out of a zone. We should make use of that by allowing, and even promoting, development in parts of a lot that are clearly outside of the hazard area. That's a no-brainer increasing public safety (it encourages living outside hazard areas) and it's particularly true in light of the city's housing crisis. If you as Commissioners feel that a debris fall or traditional landslide will have an impact beyond the severe zone, then adopt the high zone or the moderate zone, but don't randomly burden lots and homes that are predominately out of any hazard zone.

We should embrace paths to safety like mitigation measures and support site specific analysis. I was surprised to hear resistance at the last COW meeting to engineering buildings. Hazard regulations should be aimed at making us safer. Promoting mitigation measures such as drainage, barriers, and structural engineering are great way to do that and should obviously be promoted by the regulations. That's particularly true in a town with a housing crisis. Similarly the consultants noted the importance of further site specific studies. Our regulations should promote homeowner doing these, since they are an identified need and not being taken by the city. We could even develop a fund to support homeowners with site-specific analysis.

Consider closing the loophole allowing new buildings in severe hazard areas. Generally with this hazard assessment the department's goal seems to be limiting any increase in density, but the biggest increase will come from building on undeveloped lots. This loophole presumably exists because prohibiting a new home will constitute a "regulatory taking," meaning the city is required to compensate the owner as if it were eminent domain. But it's fine to create a regulatory taking. If safety is really our goal, and we continue to restrict increased density in hazard areas, then we should obviously also prohibit new dwellings. Hundreds of Juneau homeowners are going to experience a significant devaluation in their property the second these maps are adopted, and there's no reason the city shouldn't bear its responsibility too if we really want safety and the limitation of density sought by this hazard assessment.

The Department should seek answers from the insurance and lending community about the implications of these regulatory choices. Insurance often covers debris fall, but not mass earth movement, and we should expect the department to report the lending and insurance impacts of lumping those two hazards together in this assessment. Similarly, the proposed regulations would take homes that are not in any hazard area even on the new maps, and regulate them as if they were in a hazard zone. (That's because any lot touched by a hazard area would be regulated as if the entire lot were in a hazard area.) Instead of staff opinions about how lending and insurance would be affected, you should expect staff to have consulted industry experts, and have that information documented in the record you weigh.

In closing, I feel like a well-intentioned push to adopt maps has gotten away from our basic goal, safety. If I understand them right, the regulations currently proposed would make disclosures optional, would restrict development on the *safe* parts of a lot, would allow brand new development in severe hazard areas, and would not seem to recognize engineering solutions in landslide zones, and would fail to take into account existing structures that actually protect many homes. That's very little public benefit for a lot of public hassle. We should step back and ask bigger questions. If these hazards exist, what do we want our city to look like in 25 years, and how do we provide guiderails that promote homeowners in making the changes we need. The place to have those conversations should be a public format, yet since the Planning Commission called for better public engagement in August of 2021, there's been no outreach and instead five Assembly COW or PC COW meetings where public testimony isn't allowed. As a result, this process is moving forward with maps the public hasn't fully weighed in on and taking directions that don't provide the solutions sought by our community.

I also understand Commissioners and city staff are working on this matter to address true hazards, and while I disagree with many of the steps that are being taken, I want to be clear that I sincerely appreciate everyone's dedication to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn Eisele". The signature is fluid and cursive, with the first name "Shawn" and last name "Eisele" clearly distinguishable.

Shawn Eisele

Please include  
in Packet for  
Planning Commission  
Meeting April 11, 2023

To the members of the Planning Commission,

As you continue your deliberations with regard to the recently created hazard maps, I respectfully request that you examine the attached documents. Included are statements from local officials, professionals in home financing and insurance, which underscore the devastating impact a sudden reclassification of this zone will have on the properties therein, and the lives of the people who reside there, MANY of whom are senior citizens who have no where else to go and no means to recover from the losses incurred by such a decision.

Also to be considered is the financial loss to the city in property taxes in the event that these maps are adopted, resulting in the properties, in the words of Wesley Shutt, becoming "worthless."

Also please find a Slope Hazard Analysis as prepared by Certified Engineering Geologist, Douglas Swanston and Professional Engineer F. W. Bill Baxendall, in May, 1997.

There are many areas in SE Alaska which could be described as "hazard zones", avalanche, landslide and otherwise. Please consider other options to address these issues (eg. no longer issue new building permits in KNOWN slide areas).

Thank you for your hard work on behalf of the wonderful community of Juneau.

LARRY Fanning

L. Fanning

04/07/2023

300 Hermit St #9  
Juneau, AK 99801

907-957-1587 fannkl4@gci.net

# **SLOPE HAZARD ANALYSIS**

**TRACTS B , B-1 & 3A  
ERWIN ADDITION  
JUNEAU TOWNSITE**

**PREPARED FOR**

**John MacKinnon**  
**1114 GLACIER AVENUE**  
**JUNEAU, ALASKA 99801**

**PREPARED BY**

**BAXANDALL ASSOCIATES**  
**CONSULTING ENGINEERS**  
*P.O. Box 32478*  
*Juneau, Alaska 99803*  
*(907) 364-3213*

**MAY 1997**

# HAZARD AREA ANALYSIS

## Tracts B, B-1 & 3A ERWIN ADDITION JUNEAU TOWNSITE

### GENERAL

The property includes Tracts B, B-1 & 3A of the Erwin Addition to the Juneau Townsite.

At present, portions of Tracts B, B-1 and 3A are identified by the City & Borough of Juneau as being within the Composite Hazard Area. The Geophysical Hazards Investigation Report that was developed by Daniel, Mann, Johnson & Mendenhall for the City & Borough of Juneau in 1972 had classified the property as being within a potential hazard zone for both mass wasting and snow avalanches. The current CBJ mapping shows portions of the property to be within the severe landslide/avalanche area. The December 1991 Draft CBJ Hazard Analysis did not address this area.

It should be recognized that this hazard analysis is based on a 100 year storm event and the long term evidence of reasonable slope stability. Should the 100 year storm event occur at the same time as a major earthquake event, what one would consider as a catastrophic event, one could anticipate a great deal of slope movement and property damage beyond that addressed in this report. Such an event would have serious consequences throughout the entire City & Borough of Juneau. Based on history to date, the likelihood of such an event could be considered as small.

### STUDY OBJECTIVES

The objective of this study is to identify the current potential for mass wasting that could impact structures placed on the property, and any potential slope stability problems that could occur in the construction of residences and access driveways.

Page two, Hazard Analysis, Tracts B, B-1 & 3, Erwin Addition, Juneau Townsite

## HAZARD ANALYSIS

The property is located between Evergreen Avenue and the Westridge Condominiums on the lower slopes of the Mt. Juneau. Portions of Tracts B & B-1 had been excavated as a gravel source prior to the 1970's and were regraded to their present profile during the construction of the Westridge Condominiums. Tract 3 has been recently subdivided and the access road across Tract 3 to Alaska Electric Light & Power's flume has been reconstructed.

The subject property lies between two debris chutes. Bathe Creek lies to the east and has a fairly active stream course that flows most of the year. This stream course was the scene of a large torrent during the September 1996 storm event. During that event, extensive stream flow brought down a considerable amount of soils coupled with many large trees, rocks and associated debris.

The debris chute along the westerly side of the property basically starts at Evergreen Avenue and has been less active with no definable stream course. During the September 1996 storm event, the roadway embankment for easterly end of Evergreen Avenue slid into the upper end of the chute, but quickly came to rest upon reaching the shallower gradient at the base of the roadway slope. The soil movement was a classical circular failure of the slope. Subsurface water flows were the primary cause of this failure.

The timber on the upper elevations of the property is old growth spruce and hemlock in the 200-300 year age class. The lower portions that were within the gravel pit area are now covered with alder as are the graded slopes above the access drive to Westridge Condominiums. The "V" notch along the west side of Tract B is covered with grasses and small bushes. The majority of the old growth show minimal stem re-curving which indicates they are in areas that are experiencing minimal soil creep. The soils on the west side of the "V" notch on Tract B, especially on the lower third of the property, are showing definite signs of soil creep.

The ground directly above the property is relatively uniform slopes broken by several linear ridges and gullies. These gullies head at a massive cliff at approximately 800 feet in elevation and terminate in debris fans to the left and right above the proposed development. The majority of the soils outside of the debris gullies are developed in shallow colluvium overlying bedrock. There are small scattered areas of glacial till and alluvial deposits.

There is a high risk of continuing debris flow activity in the debris flow chute along the easterly side of Tract 3 & B-1. Fortunately, during the major storm event in September 1996, trees and large rocks were wedged against trees just above the AEL&P access road which helped direct the debris and water flow to the east of the subject property. Reconstruction of the access drive has resulted in removal of the deflection debris and filling of the depression above the roadway embankment. This added to the placement of an inadequate sized drainage structure in the chute poses a real risk to the easterly side of the property.



Page three, Hazard Analysis, Tracts B, B-1 & 3, Erwin Addition, Juneau Townsite

Evergreen Avenue has been repaired with most of the displaced soils being incorporated into the new roadway embankment.

Several minor soil sloughs occurred on the lower slopes of Tract B during the September event as well. There are numerous areas where ground water flows are surfacing on the property and these were the basic cause of these minor sloughs along with high surface water runoff being channeled into these areas.

## CONCLUSIONS

There appears to be no problems with building residences on the proposed lots 2 & 3. Both lots encompass small ridges that are outside of debris flow paths and appear to be reasonably stable.

There are some definite concerns with the safety of a structure placed on proposed lot 1. Should there be any deflection of the water or debris flow in the chute to the east and directly above this lot, the flow would be directed onto this lot and endanger any structure built thereon.

Construction of the access drive to the proposed townhouses along the base of Tract B poses some problems. The slope in this area is fairly steep and construction of a full bench section for the drive would result in a ten foot high bank on the uphill side of the drive. Some form of a retaining wall would be necessary as the slope is at the natural angle of repose for the soils present which precludes sloping the cut bank. With the degree of slope below the proposed drive, it is not advisable to do a cut/fill roadway section as the fill placed on the lower slope would unduly load the slope and result in possible slope failure.

The proposed parking area for the townhouse units is located on the somewhat flat area within the "V" notch/debris chute that runs along the westerly side of Tract B. It is proposed to extend into the west side slope of the chute. This slope has considerable ground water movement through the soils and is definitely unstable. There is ongoing soil creep taking place.

The proposed location for the westerly two townhouse units at the southwest corner of Tract B would place these units within a potential debris flow impact zone. The easterly proposed townhouse unit is located outside the impact zone and could be safely built in this location.

Any structure placed at or along the base of the slope will require an effective subsurface drainage system to deal with the subsurface water flows exiting the slope. The drainage system also needs to be capable of collecting surface flows and directing them away from any structure placed in these areas.

Page four, Hazard Analysis, Tracts B, B-1 & 3, Erin Addition, Juneau Townsite

The potential for snow avalanches impacting the property are minimal. Existing vegetative cover, ground topography and existing residences above the property hold the ground snow cover in place.

## RECOMMENDATIONS

Any structure placed on the proposed Lots 2 & 3 should be placed toward the ridge crest or supported on a piling type foundation to minimize the loading of the side slopes of the ridges. Maintenance of the existing vegetative cover, including as many of the existing large trees as possible, should be a priority in any construction on these two lots.

Should development on Lot 1 take place, the priority need is the placement of a reinforced rock deflection berm along the west side of Bathe Creek, above the AEL&P access road. This would help keep any large water/debris flow within the existing channel and direct it to the east of the property. Placement of a ditch and protective rock slope on the uphill side of the proposed access drive to lots 1 & 2 is also a priority. Any structure placed on Lot 1 should be located as far to the west on the lot as is possible, and there should be no disturbance of the existing ridge along the easterly side of Tract B-1.

Location of the townhouse units along the lower portion of Tract B should be to the east of the debris chute that lies along the westerly side of the property. The parking area for the units could be placed in the debris chute, but it should not extend into the westerly slope of the chute.

Location of the access drive to the townhouse units needs to be carefully placed to minimize the amount of cut and fill slopes. Use of retaining walls will be necessary to keep backslope areas to a minimum.

Any building placed on the property shall have a foundation drainage system including a wall drainage membrane with a drainage pipe placed at the base of the wall foundation. Surface drainage depressions are needed to direct surface water flows around and away from any structure.

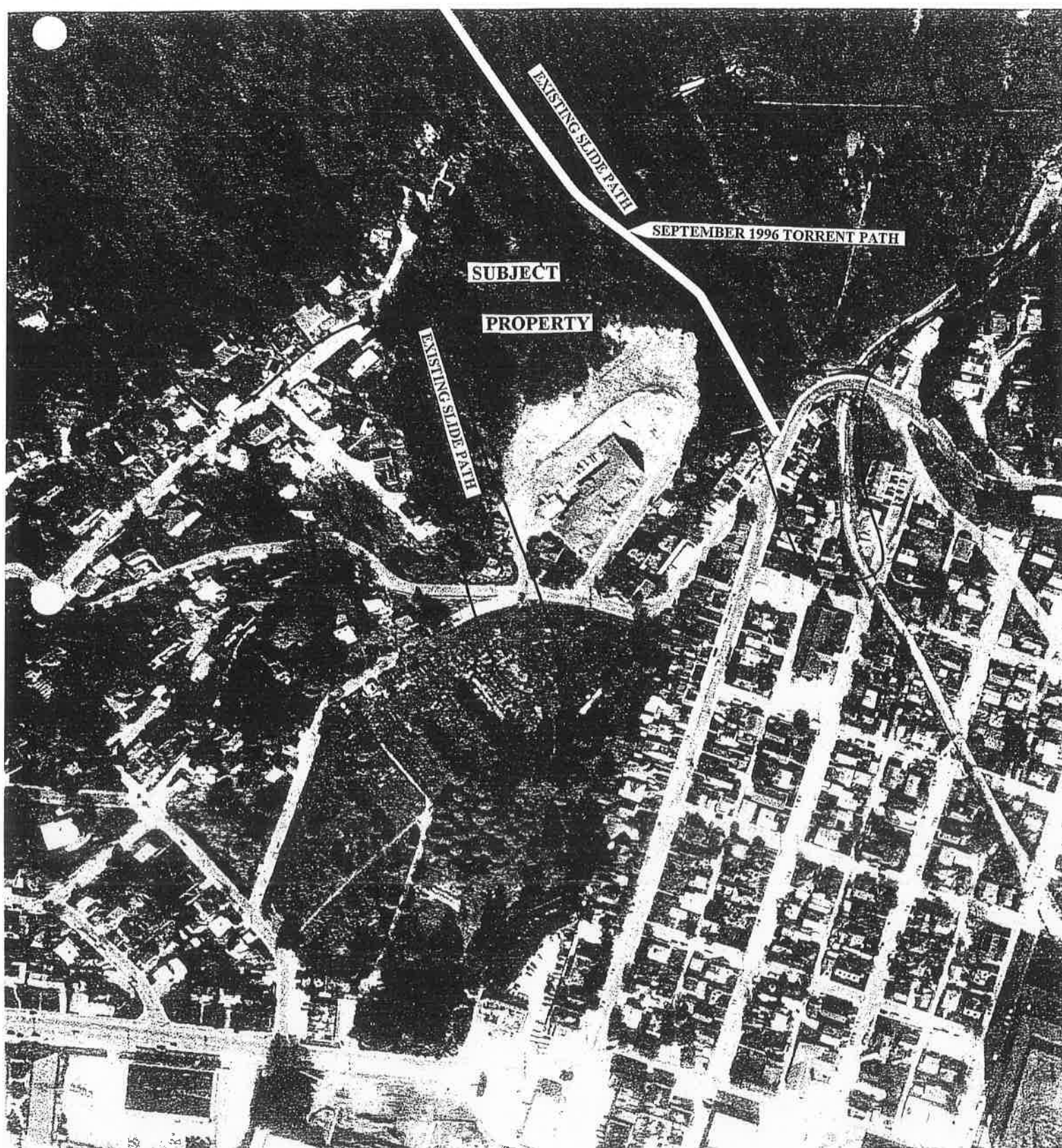
Date



Douglas N. Swanston  
Certified Engineering Geologist



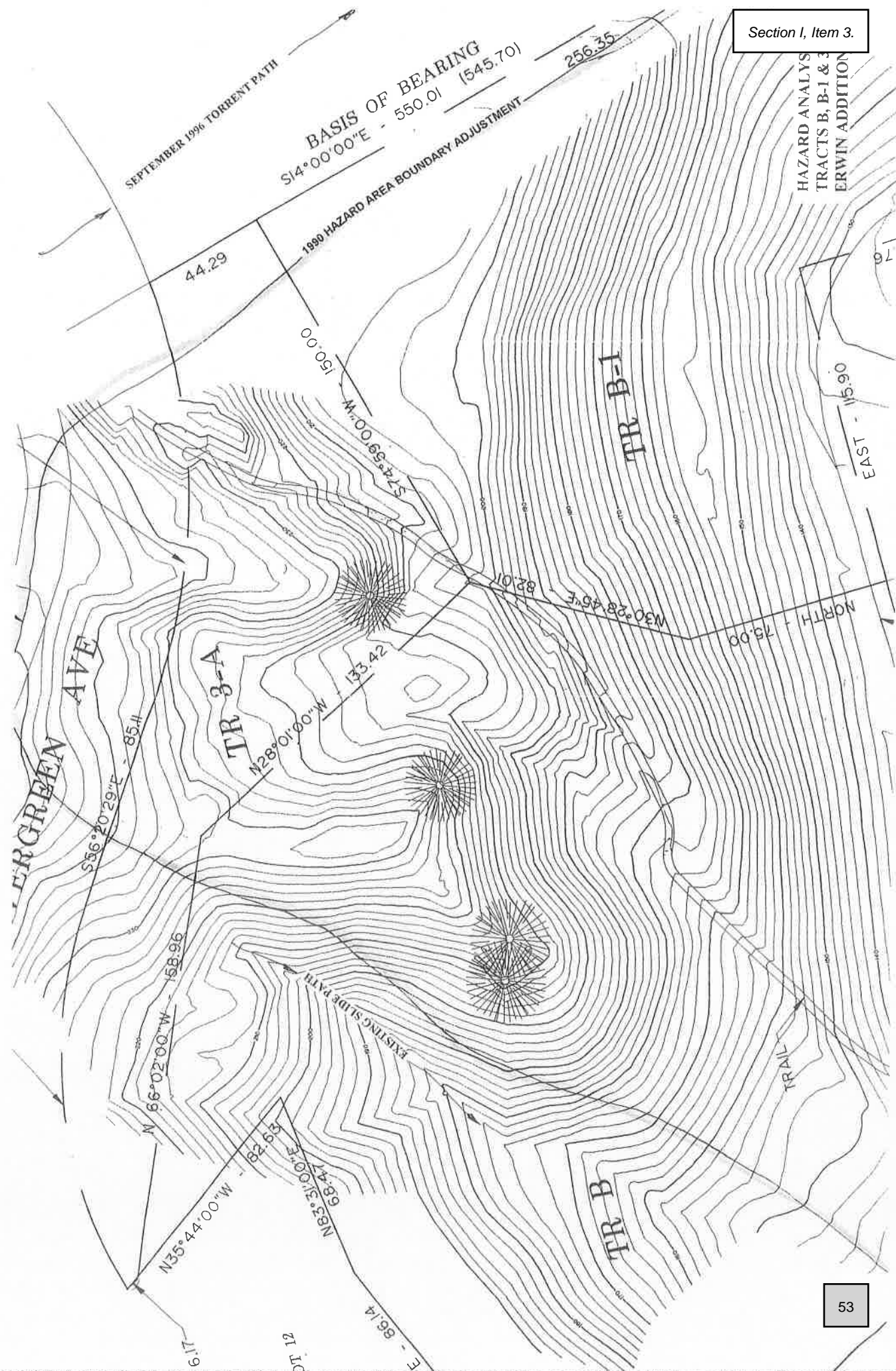
F.W. "Bill" Baxandall  
Professional Engineer



HAZARD ANALYSIS  
TRACTS B, B-1 &  
ERWIN ADDITION









**From:** Wesley Shutt wesley.shutt@movement.com  
**Subject:** Avalanche and Landslide Zones  
**Date:** April 6, 2023 at 11:59 AM  
**To:** fanniklj@gci.net

WS

Larry, thank you for the call today. If a lender receives an appraisal stating that the home is in a severe landslide or avalanche zone then you are going to have some major issues with being able to finance the property.

Fannie Mae states that if a property is in an area prone to geological phenomena, the property insurance coverage must include those phenomena.

<https://mfguide.fanniemae.com/node/4446>

If you can get coverage that will allow you to rebuild the home in case a landslide or avalanche hit it, you are able to get a loan. If you cannot get adequate coverage, they will not approve the loan.

Government loans, such as VA and FHA, are not offered in Red or Blue zones (severe and moderate) for avalanches specifically. VA states this on their local requirements page. [https://www.benefits.va.gov/HOMELOANS/appraiser\\_cv\\_local\\_req.asp](https://www.benefits.va.gov/HOMELOANS/appraiser_cv_local_req.asp) This means you cannot even do the loan in an avalanche zone if you can get adequate insurance coverage. FHA will reject loans that are subject to environmental hazards such as contaminants, excessive noise, and special hazards such as landslides and avalanches.

Conventional loans can be done as long as you can get the adequate coverage for the hazard noted (landslide and avalanche). But that is the big issue there. Lloyds of London was just about the only one willing to offer a policy to cover landslides up until the recent landslides that killed people in Sitka and Haines. They may be offering coverage again, but they will require a geological survey that costs from \$2,000 to \$12,000 just to find out if they are willing to quote you a price. That doesn't mean you can get a policy or even one you can afford. Without insurance for the hazard, you cannot get the loan.

For avalanches, we were required to show the coverage a homeowner had would cover one. See attached letter from State Farm that states they would cover ice and snow but would not cover damage caused by any rocks and dirt that break loose as part of the avalanche. If a boulder is picked up by an avalanche and takes out part of your house, that part that the boulder hit would not be covered.

There are lenders who will no longer do loans in avalanche zones due to the fact that the insurance company will call it earth movement and not ice and snow. We have been able to get Alaska Housing to lend in these areas though. Recently AHFC has been asking for more information on downtown Juneau slide hazards and are taking a stronger look at it. They may decide it is too high of a risk. They also may keep lending, we just don't know yet.

If half of the downtown homes become "unlendable" we are going to have some serious issues with people trying to buy or sell those homes. They buyer has to pay in cash or do owner financing and the seller has a very limited number of people who now can actually buy their property. This will mean those homes are now way less desirable and due lack of options, will now be worth dramatically less.

I will be very interested to see how CBJ addresses this. Do they adopt the new, more accurate maps? Will there be any land use restrictions implemented due to the hazard zones? How worried is CBJ of an actual incident happening that could cause the loss of a life? Historically, there have been land slides and avalanches both downtown. Its all going to come down to how sever of a worry is it to CBJ and how will any solution they come up with impact your ability to buy or sell that home in the future. The old map lumped avalanche and landslide together. The new map splits them out. Land previously in an avalanche zone that is no longer in an avalanche zone is now in a severe landslide zone. One problem was fixed and now a bigger, harder to deal with problem is about to show up once the maps are adopted.

Handy Link to have:

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

Thank you.

**APPLY NOW**

**Wesley Shutt** | Senior Loan Officer



**MOVEMENTMORTGAGE**

NMLS: 532237

Office: (907) 206-7744

Ext: Cell: (907) 723-5626

9107 Mendenhall Mall Rd STE 306

Juneau, Alaska 99801

[www.movement.com/wesley.shutt](http://www.movement.com/wesley.shutt)

Have I made you a raving fan today? If so, please email [Ravingfans@movement.com](mailto:Ravingfans@movement.com)  
Need to send me sensitive information via email? [Click here](#).

Movement Mortgage has implemented Mimecast Email Security Services. To learn more, please visit <https://www.mimecast.com/>.



**From:** sally.schlichting@gmail.com  
**Subject:** FW: [starrhillneighbors] CBJ COW to take up hazard mapping  
**Date:** November 25, 2022 at 8:06 AM  
**To:** starrhillneighbors@googlegroups.com

Thanks to Barb, I am sharing Emil Mackey's post on Juneau Community Collective on September 27. Emil Mackey is an insurance agent here in Juneau (in addition to serving on the School Board). I think there's some good information here that others may find helpful. His point #8 gets to the heart of the matter.

Sally

\*\*\*\*\*

### **Emil Mackey:**

There is a BUNCH to unpack here. Too much for Facebook, but here are key points.

1. The ISO standard excludes Landslides, mudflow, etc... in all homeowner policies. All major companies subscribe or adopt the ISO standard in their policy language. Therefore, you must purchase landslide coverages separately to have landslide coverage.
2. As someone already mentioned, you really need a Difference in Conditions (DIC) policy. This bundles landslide, flood, and earthquake into a single policy so you are covered no matter what the actual proximate cause of loss is. For example, Flood covers mudflow. Landslide covers rock, stone, earth, and debris. Earthquake covers a landslide where the cause of loss is earth movement that causes the landslide. If you do not have all three, you have gaps and some mass wasting events will not be covered with only landslide.
3. The only company underwriting this is Lloyds of London. Several agents and brokers in town offer it.
4. After the Haines slide, Lloyds of London REALLY tightened underwriting. They now require a recent geologic slope stability survey, at the insured's expense, prior to issuing a policy. It is not cheap and the survey could qualify or disqualify you for coverage.
5. The landslide maps do not really matter for underwriting. Lloyds requires strict underwriting for any property within 1 mile of a landslide zone or any known prior landslide or mass wasting event. That is basically anywhere within 1 mile of a mountain in Juneau.
6. During events like we just had, there is normally a 30-day freeze on new policies. Sometimes longer.
6. Avalanche is excluded in Lloyds DIC policies.
7. I have been unable to find any company offering Avalanche insurance in Alaska. If I find one, I will offer it. But I think we are too small to be an attractive market.
8. While I make my living as an Insurance Agent, this is really a problem that will have to be solved by government. The State or local governments will have to establish some kind of a risk pool, subsidize a company to serve the market, or establish a state-owned company similar to Citizens of Florida or Texas Windstorm to provide coverages since the



private market has been largely inaccessible for over 2 years now and will likely not soften anytime soon with more landslides in Juneau, Skagway, and Anchorage over the last year. Mandating coverage will not work and will just result in companies pulling out of Alaska similar to the implosion happening in Florida right now with companies going bankrupt or leaving Florida completely over windstorm roof coverage mandates.

**From:** Barbara Sheinberg <[barbarasheinberg@gmail.com](mailto:barbarasheinberg@gmail.com)>  
**Sent:** Wednesday, November 23, 2022 11:38 PM  
**To:** Sally Schlichting <[sally.schlichting@gmail.com](mailto:sally.schlichting@gmail.com)>  
**Cc:** Emily Kane <[dremilykane@gmail.com](mailto:dremilykane@gmail.com)>; Toby Harbanuk <[toby@capitalcopy.com](mailto:toby@capitalcopy.com)>; Eve S <[bering.sea.kayaker@gmail.com](mailto:bering.sea.kayaker@gmail.com)>; Starr Hill Neighbors <[starrhillneighbors@googlegroups.com](mailto:starrhillneighbors@googlegroups.com)>  
**Subject:** Re: [starrhillneighbors] CBJ COW to take up hazard mapping

CBJ needs to set up and run an insurance pool for those in hazard zone so home financing not impacted by CBJ new maps. See Emil Mackey Facebook post on this topic.

Sent from my mobile phone, please excuse typos.

On Nov 23, 2022, at 6:28 PM, Sally Schlichting <[sally.schlichting@gmail.com](mailto:sally.schlichting@gmail.com)> wrote:

To your second question, I'm not quite sure what you mean by "deal", Emily, but Rorie seems to speak to the issue in part when he discusses in his memo the consequences and challenges for homeowners being allowed to challenge the hazard designation on their property-- the cost involved, the level of uncertainty when it comes to landslide probability, and ultimately, whether any engineer would be willing to take on the liability of a revised hazard designation. He alludes to the notion that maybe city code shouldn't allow that, particularly for landslide risk.

I do agree with you that the CBJ can't have it both ways with respect to property valuation.

On Wed, Nov 23, 2022, 6:07 PM Emily Kane <[dremilykane@gmail.com](mailto:dremilykane@gmail.com)> wrote:

One aspect of the discussion will be that CBJ can't have it both ways

In other words, if they deem the properties more risky (less likely to sell at previous value or more expensive to insure) then property taxes must also go down. Fifty percent of CBJ's budget comes from property taxes; versus about 20% from tourism. Possibly CBJ would be willing to not "reduce value" if

**From:** Maricel Bohulano maricel.bohulano.jaz9@statefarm.com  
**Subject:** avalanche/landslide  
**Date:** April 6, 2023 at 11:23 AM  
**To:** fannlkj@gci.net

Hi Larry,

I've attached letter & flood covg summary to review. Let me know if you have any questions.

### **Maricel Bohulano**

Reuben Willis, agent

720 W Willoughby Ave Juneau, Alaska 99801

Tel 907.586.2027 Fax 855-658-2027



Above is a searchable PFD of the flood policy for your records;

#### **NFIP Policy Definitions Terms:**

**A. Flood**, as used in this flood insurance policy, means:

1. A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (one of which is your property) from:
  - a. Overflow of inland or tidal waters,
  - b. Unusual and rapid accumulation or runoff of surface waters from any source,
  - c. Mudflow.
2. Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined in A.1.a. above.

#### **Exclusions:**

**A. We only pay for direct physical loss by or from flood, which means that we do not pay you for:**

**C. We do not insure for loss to property caused directly by earth movement even if the earth movement is caused by flood. Some examples of earth movement that we do not cover are:**

1. Earthquake;
2. Landslide;
3. Land subsidence;
4. Sinkholes;
5. Destabilization or movement of land that results from accumulation of water in subsurface land area; or

#### 6. Gradual erosion.

We do, however, pay for losses from mudflow and land subsidence as a result of erosion that are specifically covered under our definition of flood (see II.A.1.c. and II.A.2.).

**IIA1c MudFlow:** A river of liquid and flowing mud on the surface of normally dry land areas, as when earth is carried by a current of water. *Other earth movements, such as landslide, slope failure, or a saturated soil mass moving by liquidity down a slope, are not mudflows.*

#### PROPERTY NOT COVERED

Those portions of walks, walkways, decks, driveways, patios and other surfaces, located outside the perimeter, exterior walls of the insured building or the building in which the insured unit is located.



3-23 State  
FarmAv...e .docx



Flood Summary  
of Cov...ure.pdf



State Farm Mutual Automobile Insurance Company

Reuben Willis State Farm  
720 W Willoughby Ave  
Juneau, AK 99801  
Phone: 907 586-2027

Date

Address:

Re: Avalanche Coverage

State Farm's standard homeowner's policy will cover snow avalanches as damages caused by weight of ice and snow is not an excluded peril. However, if an avalanche occurs which also causes rocks and dirt to break loose from the mountain and the rocks/dirt damages the home, those damages may be excluded by the exclusion for Earth Movement (which includes landslide). If the home is damaged by both snow/ice and rocks/dirt, claims would attempt to separate out those damages if possible. However, if portions of the home are damaged by both and we're not able to separate those out, the benefit of coverage would be extended based upon damages by snow/ice. An investigation based on the actual claim circumstances would be required before a coverage decision can be rendered.

In regards to a homeowner's policy: State Farm does not exclude or red line properties determined to be within an avalanche zone. We do not offer any *additional* avalanche coverage nor do we require the insured to carry such endorsements. *Additional* coverage is available as an endorsement for Earthquake under homeowner's policy and mudflow/ flood through National Flood Insurance Program. If you need more details about Earthquake and flood insurance, please feel free to contact our office.

Sincerely,

Reuben Willis, State Farm Agent  
907-586-2027

## NATIONAL FLOOD INSURANCE PROGRAM

# SUMMARY OF COVERAGE



FEMA



## What Is Included on My Declarations Page?

The insurance company that issued your flood insurance policy will provide you with a declarations page. The declarations page includes:

- 1. Your policy number**
- 2. Billing details**
  - a. Who pays the premium
  - b. The cost of premiums, surcharges, fees, assessments
  - c. Any discounts for which you qualify
- 3. Insurance company contact information**
  - a. Address
  - b. Phone number
- 4. Property information**
  - a. Participating community name and number
  - b. Building occupancy type and description
  - c. Whether it is the policyholder's primary residence
  - d. Flood zone
- 5. Policyholder information**
  - a. Name of policyholder
  - b. Loss payees
    - NOTE: Your mortgage company and any other loss payees **MUST** be mentioned on any claim check.
- 6. Coverage information**
  - a. Policy coverage start and stop dates
    - In many, but not all cases, the policy term begins 30 days after the insurer accepts the application.
  - b. Amount of coverage
    - Flood insurance provides separate coverage for building (up to \$250,000) and contents (up to \$100,000).
  - c. Deductible amounts





## What Does My Flood Insurance Cover?

The following table provides general guidance on items covered by flood insurance, as well as the limited coverage available for areas below the lowest elevated floor or basements.

Building Coverage		Contents Coverage <i>Must be purchased separately</i>	
What Is Covered	Areas Below Lowest Elevated Floor	What Is Covered	Areas Below Lowest Elevated Floor
<ul style="list-style-type: none"> <li>• The insured building and its foundation</li> <li>• The electrical and plumbing systems</li> <li>• Central air-conditioning equipment, furnaces, and water heaters</li> <li>• Refrigerators, cooking stoves, and built-in appliances such as dishwashers</li> <li>• Permanently installed carpeting over an unfinished floor</li> <li>• Permanently installed paneling, wallboard, bookcases, and cabinets</li> <li>• Window blinds</li> <li>• Debris removal</li> </ul>	<ul style="list-style-type: none"> <li>• Foundation walls, anchorage systems, and staircases attached to the building</li> <li>• Central air conditioner</li> <li>• Cisterns and the water in them</li> <li>• Electrical outlets, switches, and circuit-breaker boxes</li> <li>• Fuel tanks and the fuel in them, solar energy equipment, and well water tanks and pumps</li> <li>• Furnaces, water heaters, heat pumps, and sump pumps</li> </ul> <p>The following items are covered in basements only:</p> <ul style="list-style-type: none"> <li>• Drywall for walls and ceilings</li> <li>• Non-flammable insulation</li> </ul>	<ul style="list-style-type: none"> <li>• Personal belongings such as clothing, furniture, and electronic equipment</li> <li>• Curtains</li> <li>• Portable and window air conditioners</li> <li>• Portable microwave ovens and portable dishwashers</li> <li>• Carpets not included in building coverage</li> <li>• Clothes washers and dryers</li> <li>• Food freezers and the food in them</li> <li>• Certain valuable items such as original artwork and furs (up to \$2,500)</li> </ul>	<ul style="list-style-type: none"> <li>• Washers and dryers</li> <li>• Food freezers and the food in them (but not refrigerators)</li> <li>• Portable and window air conditioners</li> </ul>

### What is the area below lowest elevated floor?

These areas include basements, crawlspaces under an elevated building, enclosed areas beneath buildings elevated on full-story foundation walls (sometimes referred to as "walkout basements"), and enclosed areas under other types of elevated buildings.

**Coverage tip:** If you keep a couch, computer, and television in your basement and the basement floods, your flood policy does not provide any coverage for those items. Those same items would be covered if above the lowest elevated floor.

### Understand Replacement Cost Value and Actual Cash Value

Your Standard Flood Insurance Policy will pay for physical damage to your insured property, either up to the replacement cost value (RCV) or the actual cash value (ACV), whichever is less. The difference between these two values is outlined below:

- **Replacement cost value:** RCV is the cost to replace that part of the building that is damaged. Eligibility relies upon three required conditions:
  1. The building must be a single-family dwelling;
  2. The building must be your principal residence at the time of loss, meaning you live there at least 80% of the year; and
  3. Your building coverage is at least 80% of the full replacement cost of the building, or is the maximum amount of insurance coverage available under the NFIP
- **Actual cash value:** ACV is RCV at the time of the loss, accounting for any degradation in quality due to age or damage. Contents are always valued at ACV. Some building items such as appliances and carpeting are always adjusted on an ACV basis. For example, wall-to-wall carpeting could lose 10% to 14% of its value each year, depending on the quality of the carpeting and regular wear and tear. This depreciation would be factored into the adjustment.

It's important to note that your NFIP flood insurance policy differs from other insurance products you may have or have heard about. **It is NOT a valued policy**, meaning it does NOT pay the limit of liability in the event of a total loss. For example, your home is destroyed by a fire and it costs \$150,000 to rebuild it. If your homeowners insurance policy is a valued policy with a \$200,000 limit on the building, you would receive \$200,000. In contrast, flood insurance pays the RCV or ACV of actual damage, up to the policy limit.

### Mitigate Future Losses

Most NFIP policies include Increased Cost of Compliance (ICC) coverage, which applies when flood damage is severe. ICC coverage provides up to \$30,000 of the cost to elevate, demolish, or relocate your home. If your community declares your home "substantially damaged" or "repetitively damaged" by a flood, you will be required to bring your home up to current community standards.

### Are you a condo owner?

If you are a condominium unit owner, your flood insurance may be written under the General Property Form or the Residential Condominium Building Association Policy Form, rather than the Dwelling form.

The **General Property Form** is used to insure five or more family residential buildings and non residential buildings.

The **Residential Condominium Building Association Policy Form** is used to insure residential condominium association buildings.

If your unit fits either of the descriptions above, please review the Flood Insurance Manual or consult with your insurance agent to learn more about key differences in your flood insurance coverage.



**From:** Larry Fanning fannklj@gci.net  
**Subject:** Fwd: Landslide Coverage,  
**Date:** January 9, 2023 at 10:43 AM  
**To:** Jean McBrien jnogma@gmail.com

LF

FYI

Larry

Begin forwarded message:

**From:** Connie Long <Connie.Long@dbiak.com>  
**Subject:** RE: Landslide Coverage,  
**Date:** January 9, 2023 at 10:41:14 AM AKST  
**To:** Larry Fanning <fannklj@gci.net>

Unfortunately, I do not. It is not available in SE AK without a Geotech report that will run upwards towards 10K and even then you cannot be guaranteed coverage. Im sorry we have been running into this or the last few years.

Connie

**From:** Larry Fanning <fannklj@gci.net>  
**Sent:** Monday, January 9, 2023 10:31 AM  
**To:** Connie Long <Connie.Long@dbiak.com>  
**Subject:** Re: Landslide Coverage,

Thank you for looking into this for us.

Any suggestions where we might find some insurance?

Larry

On Jan 9, 2023, at 10:28 AM, Connie Long <Connie.Long@dbiak.com> wrote:

Hi Larry,  
We do not have a carrier that will write Landslide Insurance unless you have a GeoTech report from an Engineer and even then we cannot guarantee that the company will offer a coverage.

*Thank you,*

*If you have any questions please do not hesitate to call.*

*\*\*\*Please remember you can also visit us online at [www.dbiak.com](http://www.dbiak.com) where you can make premium payments, file claims and more! \*\*\**

Connie Osorio-Long  
Account Executive

Account Executive

**Davies Barry Insurance | A Division of Porter Spaulding Inc**

4033 Tongass Ave Ste 100 Ketchikan, AK 99901

Direct 907-318-9439 | 907-206-4017 Main | 907-206-4032 Fax

Web [www.dbiak.com](http://www.dbiak.com)

<image002.jpg>

**From:** Olivia Salisbury Sinaiko <osinaiko@gmail.com>  
**Sent:** Friday, April 7, 2023 11:57 AM  
**To:** PC\_Comments  
**Cc:** Kiel Renick  
**Subject:** Landslide Maps

Dear Planning Commission,

I have a few issues with the new landslide maps and regulations that I don't feel have received sufficient public process or discourse, which I'd like to bring to your attention at this time.

The first issue concerns the overly broad language utilized in the maps and regulations. The label "severe landslide zone" conjures images of massive and catastrophic slides, like the slides that Haines recently experienced. But from the report and verbal explanations of the consultants, it is clear that "Severe Landslide Zone" in this context does not necessarily mean anything of the sort. To take the example of our property at 615 Basin Rd., the consultants have clarified that what they mean by "Severe Landslide Zone" in the case of our region of Starr Hill is a risk of rockslide/rockfall; although rockslides and rockfall can have serious impacts on property, this is almost certainly not what potential home-buyers would imagine when they see the "Severe Landslide Zone" designation, not to mention insurers and banks. If these maps are adopted, our house would be designated in the "Severe Landslide Zone," conjuring catastrophic images of total destruction, when in fact, due to true risk posed being one of rockfall and the current existence of protective uphill structures, the actual risk of landslide-related damage to our property may actually be quite low.

Prospective buyers, insurers, and banks will likely see the "Severe Landslide Zone" designation and assume the worst, when in fact, the actual current risk may be quite low to non-existent. We know many other properties are in a similar situation. It is crucial that the labels used in the new maps accurately represent to the public the kind of risk at issue, and the blanket inclusion of rockfall/rockslide risk and potential debris flows under the same broad label of "landslide zone" does not do that -- especially when combined with the total lack of accounting for extant uphill structures. The insurance and financial implications to homeowners could be tremendous, when there is actually little to no current risk of severe landslide-related damage to their property. The consultants have already done the work of distinguishing between these two types of landslide risks in their report -- it is clear from the report which areas are subject to rockfall, and which are subject to debris flow. Why can't we take it a step further by distinguishing between these two types of landslide risks in the official maps and regulations, much as we already distinguish between "avalanche" and "landslide" zones?

Relatedly, the maps currently do not account for extant uphill structures. In response to a question on this topic, the consultants cursorily responded that uphill structures don't necessarily protect downhill structures from landslides, pointing to a historical debris flow event in the Gastineau area when uphill structures were swept into the slide, exacerbating damage to downhill property. While that example may make the case that uphill structures should not be considered a mitigating factor in debris flow zones like Gastineau, it does not speak to the very different kind of risk that the consultants identified in the rockfall zones, where an uphill structure with a solid foundation is likely to impede any damage caused by rockfall to downhill properties. Because the limited public process at that time did not allow for follow-up questions, this distinction was never addressed.

Finally, the consultants made it clear that site-specific designations, including the consideration of extant uphill structures, were beyond the scope of their project. But given the unique considerations that determine the risk level for each individual site, there should be a clear path forward for homeowners seeking a site-specific risk determination for their property. This process would also incentivize property owners to take mitigation measures in order to increase safety, which at this time are not part of the policy framework.

Thank you all for the time and energy you are dedicating to careful consideration of these questions.

Olivia Sinaiko  
615 Basin Rd.