

# AME2021-0008

## August 10, 2021

An ordinance change to update CBJ 49.15.330(g)(9), Conditional Use Permit; 49.70.210, Hillside Development; and 49.70.300, Landslide and Avalanche Areas, to adopt the May 28, 2021 Downtown Juneau Landslide and Avalanche Assessment

**Staff recommends the Planning Commission forward the proposed ordinance with a recommendation of APPROVAL to the Assembly.**

# Summary of Key Considerations

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- Applicant, CBJ

Ordinance change addresses:

- Revisions to CBJ Code 49.15.330(g)(9), Conditional Use Permit; 49.70.210, Hillside Development; and 49.70.300, Landslide and Avalanche Areas, to replace the 1987 hazard maps with the May 28, 2021 Landslide and Avalanche maps.
- Revision to CBJ Code 49.70.300(c) and (d) to amend the current regulations that apply to severe avalanche areas to also apply to severe and high landslide areas.

# Background and Project Timeline

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- Current downtown hazard maps are dated September 1987, based on maps from the 70s. These low-resolution maps combine landslide and avalanche areas into a single map with moderate and severe hazard areas.
- CDD was awarded a grant from FEMA in 2018 to update the maps with current scientific analysis and to evaluate landslide and avalanche areas separately for more precision and to accurately portray the specific risk.
- Field work was conducted by Tetra Tech Inc., in 2019.
- First draft of the report was received in August 2020. Rigorously reviewed by state and federal agencies; found to be scientifically sound, revised for clarity.
- The third draft was released to the public on the CDD Special Projects website on July 9, 2021

# Background continued

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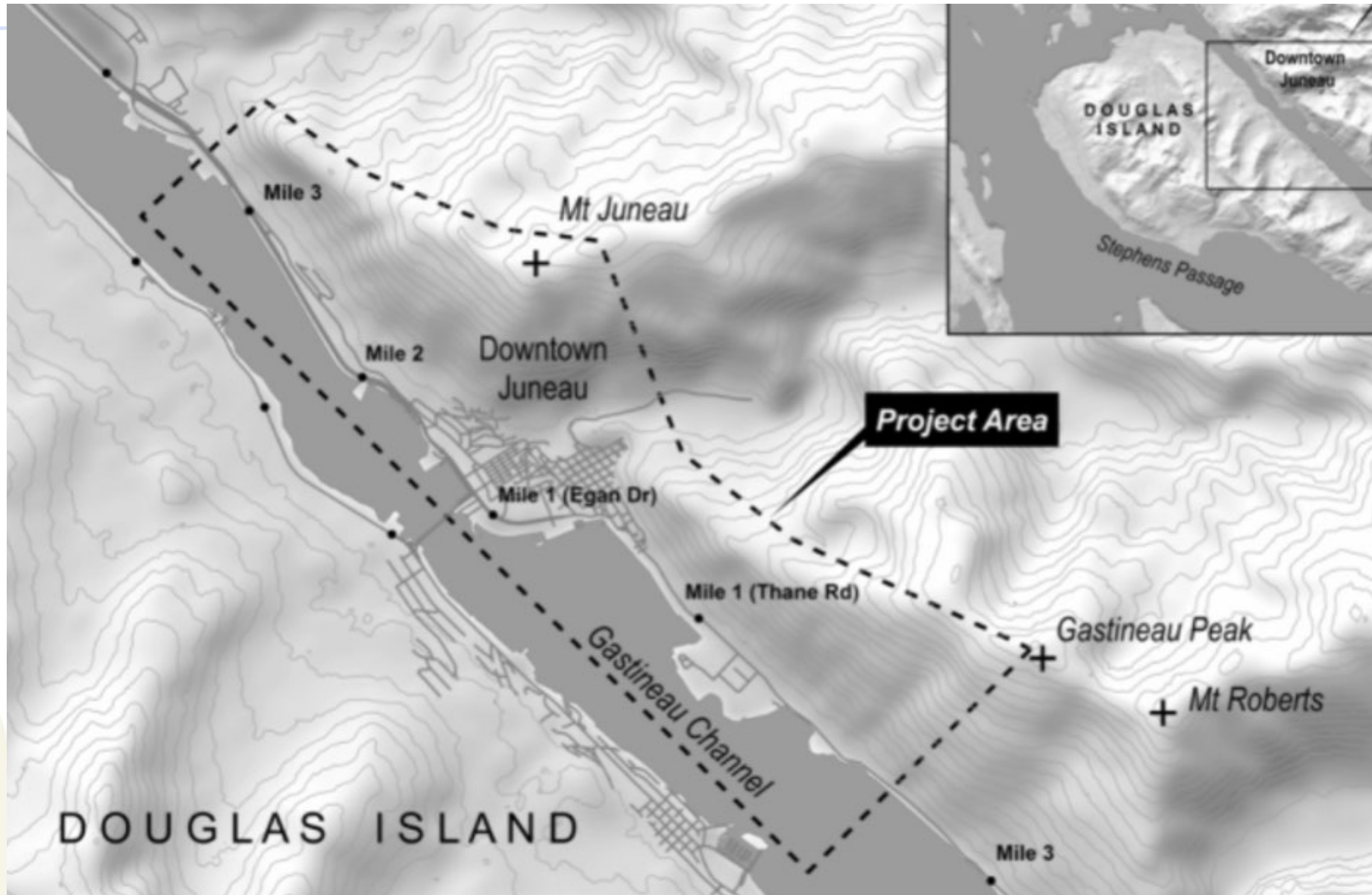
- Downtown Juneau had severe landslide damage from an early December storm in 2020. The same storm event resulted in landslides in Haines that killed two people and destroyed nine homes. In February 2021, CBJ's Emergency Manager recommended evacuation of the Behrends Avalanche path.
- The current weather forecast notes the likelihood of an “atmospheric river,” a similar storm system to last December, and the possibility of landslides later this week.
- These storm events further emphasize the need for updated scientifically accurate maps to protect public safety

# Background continued

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- CDD will evaluate new hazard policies and regulations and possible mitigation/engineering interventions through a separate grant and bid process in 2022.
- CDD is proposing only the minimum regulatory changes necessary to adopt the new maps and to reflect the landslide and avalanche designations in the new assessment.

# Project Area



# Text Amendment Summary

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- **CBJ Code 49.15.330(g)(9), Conditional Use Permit.** This revision updates the reference in the list of specific conditions that the Planning Commission can apply to Conditional Use Permits to refer to the May 2021 Downtown Juneau Landslide and Avalanche Assessment instead of the 1987 landslide and avalanche maps.
- **CBJ 49.70.210, Hillside Development.** This revision updates the reference in the Hillside Development ordinance to refer to the May 2021 Downtown Juneau Landslide and Avalanche Assessment instead of the 1987 landslide and avalanche maps.
- **CBJ 49.70.300(a)(2), Landslide and Avalanche Areas.** This revision updates the reference in the landslide and avalanche areas ordinance to refer to the May 2021 Downtown Juneau Landslide and Avalanche Assessment instead of the 1987 landslide and avalanche maps.

# Text Amendment Summary and Current Regulations

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- **CBJ 49.70.300(c) and (d), Landslide and Avalanche Areas.** This revision updates the code to apply development restrictions to severe and high landslide areas as well as severe avalanche areas.



# Current Regulations

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CBJ code 49.70.300(b)(1) and (2)

- (1) Notwithstanding any other provision, no development or any part of a development which is within a severe avalanche area shall, by the addition of bedrooms, conversions of buildings, or otherwise, increase the density of that parcel; provided, however, that a single-family house may be constructed on a vacant lot.”*
- (2) “No subdivision shall be approved which creates a lot lacking sufficient building space outside a severe avalanche area.”*

# Current Regulations

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- The currently adopted 1987 maps show severe and moderate landslide and avalanche areas together with a single label on the maps.
- Because of this, the restriction in the current code to avalanche areas, but not landslide, is not intentional; landslides have always had the same development restrictions as avalanches, because it is referring to the map that does not distinguish between the two.

# Text Amendment Summary continued

- New scientific analysis shows that 4 categories are necessary for landslide areas (severe, high, moderate, and low), while avalanche areas would maintain the three categories currently used (severe, moderate, and low).
- CDD's revision limits development in the highest hazard areas of both landslide and avalanche to protect public safety. Given the significant public safety risk of both high and severe hazard areas, CDD and the Emergency Services Manager have concluded that density restrictions are warranted in both areas.

# Current Regulations and Text Amendment Summary

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- CBJ Code 49.70.300(a)(4) describes the process for seeking a departmental change to the hazard boundary, which requires a site-specific study prepared by a civil engineer with experience in landslide and avalanche analysis.
- No changes are proposed to this section.
- CDD will conduct a separate review of hazard policies, regulations, and potential engineering interventions and mitigation through a separate grant and competitive bid process in 2022.

# Differences between 1987 and 2021 maps

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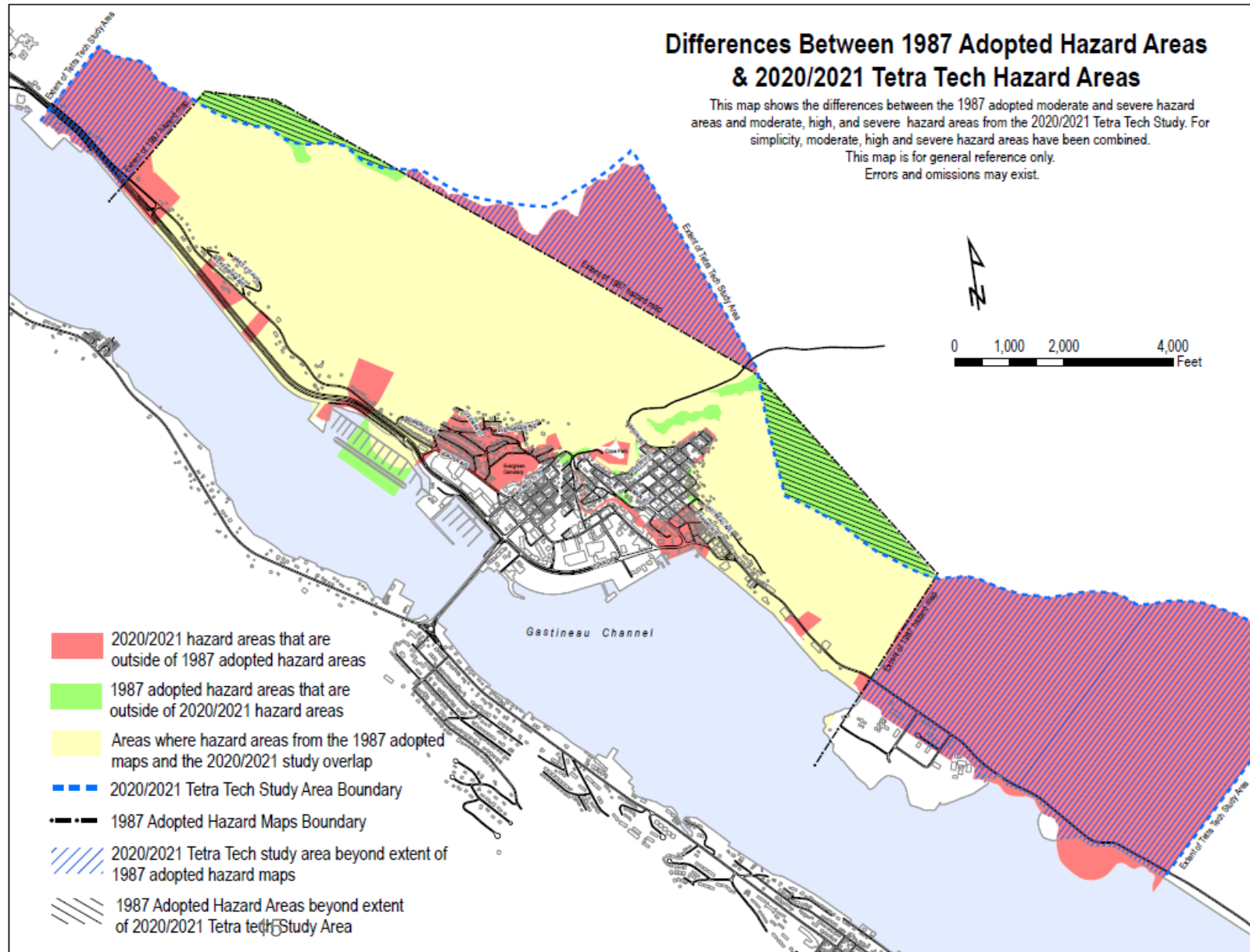
- 1987 maps combine landslide and avalanche into solid zones of moderate or severe hazard
- 2021 maps distinguish between landslide and avalanche for more precision and a more specific risk identification; landslides and avalanches behave differently, don't always overlap, and have different risks to life and property
- 2021 maps have three categories for avalanche (severe, moderate, and low); and four categories for landslide (severe, high, moderate, and low)
- 2021 map expands the project area

# Differences between 1987 and 2021 maps

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- 1987 maps follow property lines, which isn't scientifically accurate; 2021 maps don't address property lines, instead reflect predicted lines of avalanche and landslide paths
- The precision in the new maps presents new challenges with how to determine whether a structure is in or out of a hazard zone
- Comments received from property owners who have part of their lot in a severe hazard area. If the maps are adopted CDD will develop a departmental protocol on how to address this.
- Development restrictions apply when the hazard line touches the structure, not the property.

# Map Changes



# Map changes

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



# Public Notice

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- Virtual public meeting held July 21, 2021. Two hour meeting extended by 90 minutes to accommodate questions. Zoom records indicate 101 people in attendance.
- Two postcard mailings sent to all property owners within the project area.
- PSAs
- News articles on KTOO and in the Juneau Empire
- Multiple announcements sent to project area neighborhood associations, the Blueprint Downtown and ADOD lists, and lists maintained by JEDC.
- Frequently updated CDD website with all documents and recordings.
- Responding to individual requests about hazard designations

# Public Comment

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- In addition to the comments in the staff report, two Additional Materials packets sent to the Commission on Friday and Monday; 24 comments received
- Two comments received from downtown residents in hazard zones in support of adopting the maps, appreciative of the public safety information

# Public Comment continued

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## Comment summary:

- Landslide mapping is not accurate, particularly in the Highlands and Starr Hill areas
- Field work has been inadequate
- Maps are difficult to understand; need to be at a larger scale
- Public needs more time to understand the designations; all-day open house needed with the contractor for open discussion
- Regulations should be developed before the maps are adopted, not after; or regulations should be adopted concurrently with the maps
- Concern over loss of development potential, loss of property value, and high home insurance rates

# Public Comment continued

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- Concern over being able to afford their home without the planned apartment for additional income
- Concern over being able to sell a home
- Proposed hazard designation is not accurate because of no impacts on their property or surrounding properties in decades
- The city needs to consider mitigation options for homes and neighborhoods to address or minimize damage
- Creates high insurance rates for downtown property owners while other areas of CBJ with known hazards don't have the burden

# Public Comment response

- The regulation and policy analysis, along with evaluation of mitigation options and possible engineering interventions, must come after adoption of the maps, not before or at the same time
- This is because the analysis must respond to the specific documented risks and hazards in individual areas
- For example, a contractor can't make recommendations on mitigation interventions without clear documentation on where the hazard is and the neighborhoods with the greatest risk and need for intervention. Similarly, regulatory review must be based on a full understanding of the hazard.

# Public Comment response

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- The report's rigorous scientific analysis follows established methods and scientific best practices for hazard mapping.
- Downtown Juneau is a priority due to inaccurate maps, established development, and known high risks
- Maps in the report have some quality issues, but are at a scale and resolution adequate to determine if a property is in or out of a hazard area.
- In the near future CDD will use GIS layers to produce more user-friendly map products for better visual clarity and ease with making determinations.

# Findings

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1. The ordinance change complies with the Comprehensive Plan and other adopted plans.
2. The ordinance change conforms to the purpose and intent of Title 49 land use code. The ordinance change does not create any inconsistencies within the code.

# Recommendation

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**Staff recommends the Planning Commission forward the proposed ordinance with a recommendation of APPROVAL to the Assembly.**



# Current Hazard Regulations—Appeal Process

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## **CBJ 49.70.300(a)(4)**

*If a developer disagrees with the boundaries shown on the maps, the developer may seek departmental relocation of the boundaries by submitting site specific studies prepared by a civil engineer experienced in avalanche and landslide analysis. 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 city engineer, the studies clearly establish that the map boundaries are inaccurate and the proposed development is outside a severe avalanche area or outside any avalanche or landslide area, the department shall proceed accordingly.*