

Presented by:
Presented:
Drafted by: R. Palmer III

ORDINANCE OF THE CITY AND BOROUGH OF JUNEAU, ALASKA

Serial No. 2023-18 vCOW1

**An Ordinance Amending the Land Use Code Related to Development in
Landslide and Avalanche Hazard Areas.**

WHEREAS, the City and Borough of Juneau (CBJ) currently regulates development in landslide and avalanche zones based on hazard maps created in 1987 and associated standards, primarily in the Land Use Code (Title 49); and

WHEREAS, in 2020, the CBJ contracted with Tetra Tech to update the landslide and avalanche maps, which resulted in the new maps dated April 27, 2022; and

WHEREAS, in 2.3 “How are Avalanche Hazards Designated” of Tetra Tech’s Guide to Avalanche-Landslide Hazard Designations dated April 27, 2022 (at PDF page 206 of page 289), Tetra Tech described the following specific to avalanches:

The level of assessment prepared for this project is suitable for determining whether land areas could be affected by avalanches. A more detailed site-specific investigation and evaluation would be required to determine appropriate mitigations for specific properties; and

WHEREAS, in 3.3 “How are Landslide Hazards Designated” of Tetra Tech’s Guide to Avalanche-Landslide Hazard Designations dated April 27, 2022 (at PDF page 220 of page 289), Tetra Tech described the following specific to landslides:

1
2 The level of assessment prepared for this project is suitable for
3 determining whether land areas could be affected by landslides. A more
4 detailed site-specific investigation and evaluation would be required to
5 determine appropriate mitigations for specific properties; and

6 WHEREAS, given the scope of Tetra Tech’s avalanche assessments, the ability for the
7 Community Development Director to permit certain developments, like a house (Section 7,
8 49.70.300(b)(1)); the ability for the Planning Commission to permit other developments
9 ((Section 7, 49.70.300(b)(2)); and the ability for a property owner to adjust the hazard boundary
10 (Section 7, 49.70.300(a)(4); this ordinance reasonably balances the need to protect public health
11 and safety with individual property owner interests; and

12
13 WHEREAS, regulating development in mapped landslide and avalanche hazard areas
14 presents challenging public policy concerns like balancing the need for housing, minimizing
15 harm to people and investments, providing hazard information to people in hazard areas,
16 considering the economic effects that adopting new development regulations would have on
17 property insurance and mortgage availability, considering that only portions of the CBJ have
18 been mapped for landslide and avalanche hazards, among other public policies; and

19
20 WHEREAS, state law (A.S. 09.65.070(d)(1)) provides the CBJ with immunity from money
21 damages when the CBJ fails to inspect, discover, or abate a hazard on private property; and

22 WHEREAS, state law (A.S. 09.65.070(d)(2)) provides the CBJ with immunity for money
23 damages when the CBJ performs or fails to perform a discretionary function; and

24 WHEREAS, state law (A.S. 09.65.070(d)(3)) provides the CBJ with immunity for money
25 damages when the CBJ issues or fails to issue a permit, appeal, approval, exception, variance,
or other entitlement; and

1
2 WHEREAS, the Assembly would like the Manager to notify the community of avalanche
3 risks and resources to mitigate some of the risks; and

4 WHEREAS, upon balancing the various public policies, the Assembly believes the
5 community is best served by (1) regulating developments in moderate and severe avalanche
6 hazard areas based on Tetra Tech's Snow Avalanche Hazard Assessment of the Juneau
7 Landslide and Avalanche Hazard Assessment, dated April 27, 2022, Ord. 2023-18 Appendix A,
8 and (2) repealing the substantive landslide regulations in CBJC 49.70.300; and

9
10 WHEREAS, the Assembly reached the conclusion after considering various other policy
11 approaches, reviewing the Planning Commission's discussions, holding extensive public
12 meetings in committees and at the Assembly, and taking public testimony.

13 NOW THEREFORE BE IT ENACTED BY THE ASSEMBLY OF THE CITY AND BOROUGH OF
14 JUNEAU, ALASKA:

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

17
18 **Section 2. Amendment of Section.** CBJC 19.04.R301.9 Geophysical hazards, is
19 amended to read:

20
21 **19.04.R301.9 Geophysical hazards.**

22 Add a new section as follows:

23 "301.9 Geophysical hazards. In moderate and severe avalanche hazard areas shown on
24 the Avalanche Hazard Designation Mapping, dated April 27, 2022, and attached to Ordinance
25 2023-18, or when the director of engineering and public works. ~~In Moderate and Severe~~
geophysical hazard zones as shown in "Geophysical Hazards Investigation, Juneau, Alaska"

1
2 ~~dated 10/72 and on the "Landslide and Avalanche Area Maps", both adopted by ordinance serial~~
3 ~~no. 87-49, or when the building official determines that development is proposed in an area~~
4 ~~similar in nature to those studied in the above referenced documents but outside of the study~~
5 ~~area, an engineered structural analysis shall be submitted with the permit application. The~~
6 ~~building official may waive this requirement upon presentation of more specific studies showing~~
7 ~~the proposed site is not likely to be affected by geophysical hazards."~~
8

9
10 **Section 3. Amendment of Section.** CBJC 49.15.330 Conditional use permit, is
11 amended to read:

12 **49.15.330 Conditional use permit.**

13 ...

14 (g) Specific conditions. The commission may alter the director's proposed permit conditions,
15 impose its own, or both. Conditions may include one or more of the following:

16 ...

17
18 (9) Avalanche areas. Development in moderate and severe avalanche hazard areas shown
19 on the Avalanche Hazard Designation Mapping, dated April 27, 2022, and attached to
20 Ordinance 2023-18 must minimize the risk to life and property. ~~Landslide and~~
21 ~~avalanche areas. Development in landslide and avalanche areas, designated on the~~
22 ~~landslide and avalanche area maps dated September 9, 1987, consisting of sheets 1-8,~~
23 ~~as the same may be amended from time to time by assembly ordinance, shall minimize~~
24 ~~the risk to life and property.~~

25 ...

1
2 **Section 4. Amendment of Section.** CBJC 49.15.401 Minor subdivisions, is amended
3 to read:

4 **49.15.401 Minor subdivisions.**

5 (a) Permit required. A minor subdivision permit is required for the following:

6 (1) Thirteen or fewer lots. A minor subdivision permit is required for all subdivisions
7 resulting in 13 or fewer lots. No minor subdivision application may be filed or
8 approved:

9 (A) If it is a part of or is made in connection with a present or projected major
10 subdivision development as determined by the director;

11 (B) If the property is within a parcel any part of which has been subdivided by a minor
12 subdivision within the preceding 24 months, unless the proposed subdivision
13 creates no new lots; or

14 (C) For the subdivision of a parcel any part of which is within ~~a landslide or an~~
15 avalanche area identified as such in the comprehensive plan, attachments thereto,
16 other adopted maps, or in accordance with CBJ 49.70.300.
17

18 ...
19

20
21 **Section 5 Amendment of Section.** CBJC 49.15.600 [Planned Unit Development]
22 Purpose, is amended to read:

23 **49.15.600 Purpose.**

24 The general purpose of the planned unit development code is to permit flexibility in the
25 regulation and use of land in order to promote its most appropriate use; to facilitate the
adequate and economical provisions of streets and utilities; to preserve the natural and scenic

1
2 qualities of open space; and to encourage, consistent with the goals and objectives of the
3 comprehensive plan, residential developments that are planned, designed, and developed to
4 function as integral units. The specific purposes of the planned unit development code are to:

- 5 (a) Encourage uses of land that are efficient, aesthetic, in harmony with the
6 surrounding area, and consistent with the comprehensive plan and available public
7 services;
8
9 (b) Encourage innovation in site design and building layout, pedestrian and vehicular
10 circulation, parking facilities and streets, configuration and use of open space, and
11 mixing of housing types and compatible land uses;
12 (c) Encourage economy and efficiency in common facilities;
13 (d) Preserve and protect natural features, streams, lakes, wetlands, natural drainage
14 channels, vegetation, and vistas;
15 (e) Avoid avalanche, ~~landslide~~, and flood hazard areas; and
16 (f) Encourage development of quality housing at a reasonable price.
17

18 **Section 6. Amendment of Section.** CBJC 49.70.210 [Article II. Hillside
19 Development] Applicability and scope, is amended to read:
20

21 **49.70.210 Applicability and scope.**

22 (a) This article applies to all development on hillsides in the City and Borough that involves
23 the following:

- 24 (1) Removal of vegetative cover;
25 (2) Excavation of any slope in excess of 18 percent;

- 1
- 2 (3) Creation of a new slope in excess of 18 percent for a vertical distance of at least five
- 3 feet; and ~~or~~
- 4 (4) Development in moderate and severe avalanche hazard areas shown on the Avalanche
- 5 Hazard Designation Mapping, dated April 27, 2022, and attached to Ordinance 2023-
- 6 18. Any hazard area identified on the landslide and avalanche area maps dated
- 7 September 9, 1987, consisting of sheets 1—8, as the same may be amended from time
- 8 to time by the assembly by ordinance or any other areas determined to be susceptible
- 9 to geophysical hazards.
- 10

11 ...

12

13 **Section 7. Amendment of Section.** CBJC 49.70.300 Landslide and avalanche areas,

14 is amended to read:

15 **49.70.300 Avalanche hazard areas. ~~Landslide and avalanche areas.~~**

16 (a) Generally.

- 17
- 18 (1) Minimize risks. Development in all ~~landslide and~~ avalanche hazard areas shall
- 19 minimize the risk of loss of life or property due to ~~landslides and~~ avalanches.
- 20 (2) Avalanche Hazard Maps. The boundaries of avalanche hazard areas are shown on the
- 21 Avalanche Hazard Designation Mapping, dated April 27, 2022, and attached to
- 22 Ordinance 2023-18. ~~Boundaries of potential and severe avalanche areas will be as~~
- 23 ~~shown on the landslide and avalanche area maps dated September 9, 1987, consisting~~
- 24 ~~of sheets 1—8, as the same may be amended from time to time by the assembly by~~
- 25 ~~ordinance.~~

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

(3) ~~Reserved. Notwithstanding any other provision, all subdivision other than a boundary line relocation and all development greater than a single family dwelling within landslide or avalanche areas shall require a conditional use permit.~~

(4) Hazard boundary adjustment. 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 licensed in the State of Alaska or a licensed geotechnical 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 director of engineering and public works ~~city engineer~~, the studies clearly establish that the map boundaries are inaccurate and the proposed development is outside a moderate or severe avalanche area ~~or outside any avalanche or landslide area~~, the department shall proceed accordingly.

(5) The director for moderate avalanche hazard areas and the commission for severe avalanche hazard areas may require mitigating measures certified as effective by a professional engineer for development in ~~landslide and~~ 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, and development.

(b) Moderate and severe avalanche hazard area standards. ~~Severe avalanche areas.~~ Notwithstanding any other provision of this title, no development or any part of a development may occur in a moderate or severe avalanche hazard area except as provided in this section.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

- (1) Director approval in a moderate avalanche hazard area. The director may only approve the following in a moderate avalanche hazard area:
 - (A) a permit for a single dwelling unit per parcel;
 - (B) a hazard boundary line adjustment;
 - (C) a lot line adjustment when the resulting lots are more compliant with this title and the resulting lots would likely reduce the risk to life and property; and
 - (D) a lot consolidation.

- (2) Commission approval in a moderate or severe avalanche hazard area. The commission may approve developments in the moderate and severe avalanche hazard areas—including accessory dwelling units—via the conditional use permit process with the following additional requirements:
 - (A) The development application must include site specific engineering for peak drainage, special foundations or high-wall engineering, debris flow diversion mechanisms and any other information required by the commission, for the commission to evaluate the potential effects of the development on public health and safety; and
 - (B) No subdivision shall be approved that creates a lot lacking sufficient building space outside a severe avalanche area—without the need for a variance—unless a lot in a severe avalanche area is platted as a Public Use Lot (49.15.422); and
 - (C) The commission is prohibited from approving a development application that increases residential density in the severe avalanche hazard area, except that the commission may authorize development of one dwelling unit on a vacant lot in a severe avalanche hazard area.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

~~(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.~~

(c) Warning and disclaimer of liability. Avalanches ~~and landslides~~ may occur outside mapped hazard areas and in excess of engineering expectations. The location and severity of the event may be increased by human ~~manmade~~ or natural causes. This article does not imply that land outside of mapped ~~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 or any officer or employee thereof for any damages that result from reliance of this article, or any administrative decision ~~lawfully~~ made under this article.

Section 8. Amendment of Section. CBJC 49.85.100 Generally [Chapter 49.85 Fees for Land Use Actions], is amended to read:

49.85.100 Generally.

Processing fees are established for each development, platting, and other land use action in accordance with the following schedule:

...

(8) Special use or area.

...

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

(F) Development in ~~landslide or~~ avalanche hazard area conditional use, \$400.00.

...

Section 9. Effective Date. This ordinance shall be effective 30 days after its adoption.

Adopted this _____ day of _____, 2023.

Beth A. Weldon, Mayor

Attest:

Elizabeth J. McEwen, Municipal Clerk