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MEMO

To: Maria Gladziszewski, Chair, Committee of the Whole and Members

CC: Rorie Watt, City Manager

From: Scott Ciambor, CDD Planning Manager *Scott Ciambor*

Re: An Ordinance Amending the Sensitive Areas Requirements of the Land Use Code Related to Landslide and Avalanche Areas – Follow-up Information and Memo Clarification

This memo includes follow-up information requested at the 8-28-23 COW meeting and language clarification to the memo in that meetings packet.

Assembly Committee of the Whole 8-28-23 Hazard Assessment additional information requested.

- 1) Cost estimate of a semi-quantitative borough-wide hazard assessment comparable to the 2022 Tetra Tech report. These numbers are extrapolated from the Tetra Tech costs:
 - Entire borough on a parcel by parcel basis: Several hundred million
 - Developed area of the borough: Approximately 10 Million
- 2) Number of properties that are within the avalanche area but not within the landslide area on the 2022 Tetra Tech maps.
 - There are 90 structures within the moderate and severe avalanche areas that are not within high and severe landslide areas in the 2022 Tetra Tech maps. (The 90 structures may include a few out-buildings that aren't houses.)
- 3) Hazard regulations in other communities.
 - **Avalanche areas.**
 - The abstract for the article in this link states that four communities in the western United States have detailed avalanche mapping available, each with different development restrictions. The abstract incorrectly states that Juneau does not restrict development in avalanche zones. [Municipal Avalanche Zoning: Contrasting Policies of Four Western United States Communities | Journal of Glaciology | Cambridge Core](#)

- **Geologically hazardous areas including landslides.** Geologically hazardous areas including landslides. Many municipalities have regulations regarding development in “geologically hazardous areas,” along with adopted maps. A few examples include:
 - Kirkland, Washington. The community maintains critical area maps noting “landslide susceptibility” and “liquefaction potential” and requires site-specific geologic hazard studies prior to approval of development. [KZC Chapter 85 – CRITICAL AREAS: GEOLOGICALLY HAZARDOUS AREAS \(codepublishing.com\)](#)
 - Bothell, Washington. The community has adopted landslide hazard area maps and prohibits development in these areas with some exceptions. Geotechnical studies are required. [Ch. 21.64 Critical Areas Regulations | Redmond Zoning Code \(municipal.codes\)](#)
 - Bellevue, Washington. The community defines landslide hazard areas as areas with slopes of 15 percent or more with more than 10 feet of rise in addition to other characteristics. Requires buffers around these zones and establishes performance standards for development. [Part 20.25H Critical Areas Overlay District | Bellevue Land Use Code \(municipal.codes\)](#)
 - Cincinnati, Ohio. The City of Cincinnati has established a Geotechnical Office to provide geotechnical expertise concerning landslide stabilization and prevention within property controlled by the city. Private hillside development is under the control of the Department of City Planning and Buildings through the building code. The Geotechnical Office assists building plan examiners in their review of building permits. [Retaining Walls & Landslides - Transportation & Engineering \(cincinnati-oh.gov\)](#).
 - Pittsburgh, Pennsylvania. The community has a landslide prone layer in adopted maps. [Pittsburgh Zoning Map - Landslide Prone Layer — Details Reviewed LLC](#)
 - Rancho Palos Verdes, California. The city has placed a moratorium on development in three landslide areas. [Landslide Moratorium Areas | Rancho Palos Verdes, CA - Official Website \(rpvca.gov\)](#)
 - City of Lake Oswego, Oregon. The city has landslide inventory and landslide susceptibility mapping and a guide for property owners. [Landslides | City of Lake Oswego](#)
 - Article of interest on California landslides: [Deadly California mudslides show the need for maps and zoning that better reflect landslide risk \(phys.org\)](#)

4) Summary of what happened with the Sitka hazard maps and regulations.

- The Sitka landslide that killed three people happened in 2015.
- At the time of the landslide, Sitka had several different hazard maps from federal and state agencies.
- In response to the landslide, Sitka enacted a Landslide Area Management ordinance and commissioned geotechnical reports that were used to identify properties at risk. The

ordinance required property owners who wanted to build on a vacant lot or expand on an existing lot located in a medium or high hazard zone to record a “land covenant” that referenced the hazard report.

- The unintended effect was that banks and insurance companies didn’t want to assume additional risk, so the ordinance was repealed.
- Without the code requirement to have a covenant clearing linking the property to the hazard reports, the problem with lenders and insurers seems to be resolved.
- The hazard reports and maps are still available.
- This summary is based on phone conversations and email correspondence with Coral Crenna, Planning Manager for the City and Borough of Sitka.
- Attached is a report from the Rand Corporation (June 2023) about hazard insurance in Sitka.

August 28, 2023, Memo Clarification

The August 28, 2023, Memo included the following language when referring to the Planning Commission Notice of Recommendation:

"Do not adopt the director's analysis and findings, and do not adopt the proposed ordinance amending the code related to landslide and avalanche areas, and do not adopt the landslide and avalanche area maps. Consider a method of public notification based on the 2022 avalanche and landslide area maps for affected property owners."

This is inaccurate. The Planning Commission’s Notice of Recommendation was formally corrected to read: “Consider a method of public notification based on the 1987 adopted hazard maps for affected property owners.”