

Feb 02 2022

STATE CLEARING HOUSE

From: [Frost, Erik@DOC](mailto:Frost.Erik@DOC)
To: cmurdock@pacificagov
Cc: [McCrink, Tim@DOC](mailto:McCrink.Tim@DOC); [Wilson, Rick@DOC](mailto:Wilson.Rick@DOC); [OPR State Clearinghouse](#); OLRA@DOC
Subject: Comments - NOC for City of Pacifica General Plan Update and Sharp Specific Plan (SCH 2020089010)
Date: Tuesday, February 1, 2022 4:18:23 PM

Mr. Murdock,

The California Geological Survey (CGS) has received a Notice of Completion regarding the Draft Environmental Impact Report (DEIR) for the City of Pacifica's General Plan Update and Sharp Specific Plan. This letter conveys the following suggestions and recommendations from CGS concerning geologic and soils issues relevant to the planning area:

1. Earthquake Hazard Zones

Numerous potential earthquake hazards exist within the planning area:

a) *Fault Rupture, Liquefaction and Landslide Hazards*

The DEIR includes figures depicting the most up-to-date Earthquake Zones of Required Investigation produced under the Alquist-Priolo Earthquake Fault Zoning Act and the Seismic Hazards Mapping Act. The City may also wish to provide in the Safety Element links to CGS websites that will be updated as maps are published and revised:

<https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/>

<https://maps.conservation.ca.gov/cgs/informationwarehouse/apereports/>

<https://maps.conservation.ca.gov/cgs/EQZApp/app/>

b) *Tsunami Hazards*

The DEIR includes the most recent Tsunami Hazard Area maps for evacuation planning, which were updated in 2020. Within the next couple years, CGS will be completing new Tsunami Hazard Zones under the Seismic Hazard Mapping Act. These new Tsunami Hazard Zones will use the same area of the 2020 Tsunami Hazard Area maps to delineate the overall hazard zone but will include within it an additional Engineering Analysis Subzone, which will be delineated by probabilistic tsunami hazard analyses. When these new Tsunami Hazard Zones are released, the City of Pacifica will be responsible for requiring site-specific investigations and reviewing investigation reports for development projects, in the same manner as the other Earthquake Hazard Zones. CGS will reach out to the City of Pacifica close to the time Preliminary Tsunami Hazard Zones are released.

2. Geologic Hazards

a) *Landslides*

The DEIR currently includes a figure depicting the relative density of existing landslides (“mostly landslides,” “few landslides,” and “not landslide prone”) throughout the planning area. The City should also consider providing a map of specific landslides. CGS has compiled an inventory of landslides in the planning area (as shown in Seismic Hazard Zone Reports 128 and 133), and we recommend this inventory be shown in an appropriate figure. The GIS data for this landslide inventory will be transmitted separately.

b) *Debris Flows*

Shallow, rainfall-triggered landslides, described in the DEIR as debris flows, are a known hazard within the City of Pacifica. The DEIR mentions debris flow hazards but does not provide much information on where this hazard exists nor where it has occurred in the past. CGS recommends that the Final EIR and Safety Element include debris flow hazard maps and information prepared by the USGS ([USGS OFR 97-745 E](#); [USGS Professional Paper 1434](#) including [Plate 8](#)). In particular, the City should consider using these references to help identify existing developments subject to debris flow hazards and determine what new development areas should have geotechnical site investigations prepared prior to project approval.

Please let us know if you have any questions or concerns with the comments in this letter.

Sincerely,

Erik

Dr. Erik Frost

Senior Engineering Geologist | Seismic Hazards Program

California Geological Survey

715 P Street, MS 1901, Sacramento, CA 95814

(916) 205-8255

erik.frost@conservation.ca.gov