From: To: Cc: Subject:	Zachariasen, Judith@DOC HGuerra@tularecounty.ca.gov OLRA@DOC; OPR State Clearinghouse Matheny Tract Wastewater Collection System and Pipeline Inter-tie Project Draft MND; SCH Number: 2023010516	Feb 15	202
Date: Attachments:	Wednesday, February 15, 2023 12:43:15 PM image001.png	TE OF CA	LIFORM

Hello, Mr. Guerra,

Thank you for providing Tulare County's draft Mitigated Negative Declaration (MND) for the Matheny Tract Wastewater Collection System and Pipeline Inter-tie Project for review. This email conveys the following recommendations from the California Geological Survey (CGS) concerning geologic issues within the planning area:

#### Seismic Hazards

The content regarding seismic hazards in Tulare County is years, even decades, out of date. CGS recommends that the seismic hazards section be updated to reflect current codes and hazard characterization. California and the California Building Code (CBC) now use the IBC as a basis for the CBC. The UBC and the Seismic Zones described in the text are no longer used and should not be cited. In addition, the terms "active" and "potentially active" faults have generally been replaced by more precise terms. CGS suggests that the County revise the MND to reflect current hazard information and nomenclature. Please refer to:

- 1. The 2022 California Building Code, which is based on the 2021 International Building Code, available at <a href="https://www.dgs.ca.gov/bsc">https://www.dgs.ca.gov/bsc</a>
- Third Uniform California Earthquake Rupture Forecast (UCERF3), available at <u>https://pubs.usgs.gov/of/2013/1165/</u>. A non-technical discussion of this model is available here: <u>https://pubs.usgs.gov/fs/2015/3009/pdf/fs2015-3009.pdf</u>
- 3. Special Publication 42, revised in 2018, provides information on current fault activity nomenclature. <u>https://www.conservation.ca.gov/cgs/publications/sp42</u>

### Ground Shaking

The draft MND provides an overview of ground shaking hazard, its relation to underlying geology, and the potential effects on built structures in the county. It could be useful for the County also to include explicit discussion of potential ground motions as depicted in recent seismic hazard analyses. Some recommended sources for appropriate background material could include:

- Earthquake scenarios developed for the Building Seismic Safety Council: <u>https://usgs.maps.arcgis.com/apps/webappviewer/index.html?</u> <u>id=14d2f75c7c4f4619936dac0d14e1e468</u>. These maps depict expected ground shaking intensity due to a variety of earthquake scenarios
- Map Sheet 48 from CGS, published in 2016 and using the UCERF3 model, provides a statewide overview of ground shaking hazard. <u>https://www.arcgis.com/home/webmap/viewer.html?</u> <u>url=https%3A%2F%2Fgis.conservation.ca.gov%2Fserver%2Frest%2Fservices%2FCGS%2FMS48</u> <u>ShakingPotential%2FMapServer&source=sd</u>

### Fault Hazard

Three faults are singled out as faults "that have been, and will be, principal sources of potential seismic activity within Tulare County." The text omits, however, closer and likely more recently active faults than, for example, the Clovis fault. CGS suggests updating the discussion of regional

faulting to include currently recognized regional Holocene active faults. Recommended sources for appropriate background material include the USGS/CGS Quaternary Fault and Fold Database at <a href="https://usgs.maps.arcgis.com/apps/webappviewer/index.html?">https://usgs.maps.arcgis.com/apps/webappviewer/index.html?</a>

id=5a6038b3a1684561a9b0aadf88412fcf, which provides the most current depiction of Quaternary active faults in California.

## Liquefaction and Landslide

The MND report includes a discussion of liquefaction and landslides hazards. CGS recommends that both sections include an indication that the State of California has not yet evaluated this area for seismically induced landslide and liquefaction hazard.

# <u>References</u>

Almost all the references in the Geology and Seismic Hazards section are derivative and do not provide a reference to the actual information presented in the text. The original source material should be referenced.

Thank you again for providing this draft MND for review. If you have any additional comments or questions, feel free to call or email.

Judy Zachariasen



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