

DOCKETED

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Use of Faults as a land use screen for EGS

Additional submitted attachment is included below.

RE: Land Use “Should near-field and deep-field EGS have additional land use screens applied, beyond PAL and TE exclusions, to estimate resource potential?”

→ *Should Distance from fault lines be considered as a screening component?”*

The CGS recommendation on this item is the following:

We recommend this dataset be used for informational purposes, and not to preclude locations for geothermal siting, as some fault settings are favorable for geothermal resources.

We suggest using the Quaternary Fault and Fold Database of the United States ([Faults | U.S. Geological Survey](#)) as a feature in the screening map. We do not recommend generating derivative geospatial layers such as exclusion buffers from this dataset. Rather, proximity to these mapped fault traces should be used as an indication that further study is needed. There are two important aspects of this dataset that we feel preclude its use in generating exclusion buffers at set distances around fault traces. The first is that faults may be both favorable indicators of geothermal resource potential, as well as indicative of increased seismic risk. The relative weighting of these two potentially competing factors should be based on a site-specific risk assessment, and will depend on the co-occurrence of many other factors not captured in this dataset, including the regional stress field, refined fault location and geometry, etc.

The second aspect of this dataset that precludes generating derivative buffers is that the data is heterogeneous; faults in this dataset are mapped at different scales (some were mapped in the 1970s) and have varying rates of activity and location certainty. In addition, faults included have varying levels of peer review given to a particular fault trace, and varying amount and quality of data available on the fault characteristics.