



United States Department of the Interior
U.S. GEOLOGICAL SURVEY



Rear Admiral Hering
Commander, Navy Region Southwest
937 N. Harbor Drive
San Diego, California 92132-0058

October 6, 2008

Dear Rear Admiral Hering,

I have reviewed "Geology, Seismicity, and Soils" section of the Draft Environmental Assessment for Implementation of the Development Agreement for the Navy Broadway Complex. I have a few minor comments that I will include on a separate page, but the section presents a thorough and up-to-date summary of known geological hazards to which the Broadway Complex is potentially exposed.

As the section describes, faulting in the San Diego area is complex, with numerous mapped fault structures that are potentially active. It might be useful to reference a recently released, comprehensive state-wide study of earthquake probabilities in California:
<http://pubs.usgs.gov/of/2007/1437/>

As you'll see from the map at top left, virtually all of California is exposed to significant seismic hazard, but the probability of M>6.5 earthquakes in central San Diego is significantly lower than the probability in many other parts of California. A development project at the Broadway Complex will be subject to the same strict building codes and other state statutes as any other project in California. In particular, the Alquist-Priolo Act provides strict guidelines for developers, should they find evidence of active surface fault traces at the site. Regarding liquefaction, state statutes also provide specific regulation of development in potential liquefaction zones. The engineering community has developed several approaches for reliably mitigating liquefaction hazard, including deep piles to anchor a structure and *in situ* densification of soils.

If you would like additional information or clarification, please feel free to ask.

Sincerely,

Susan E. Hough, PhD
Scientist in Charge, USGS Pasadena

Comment L4-a

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This is a general comment regarding the USGS review of the EA. No further response is necessary.