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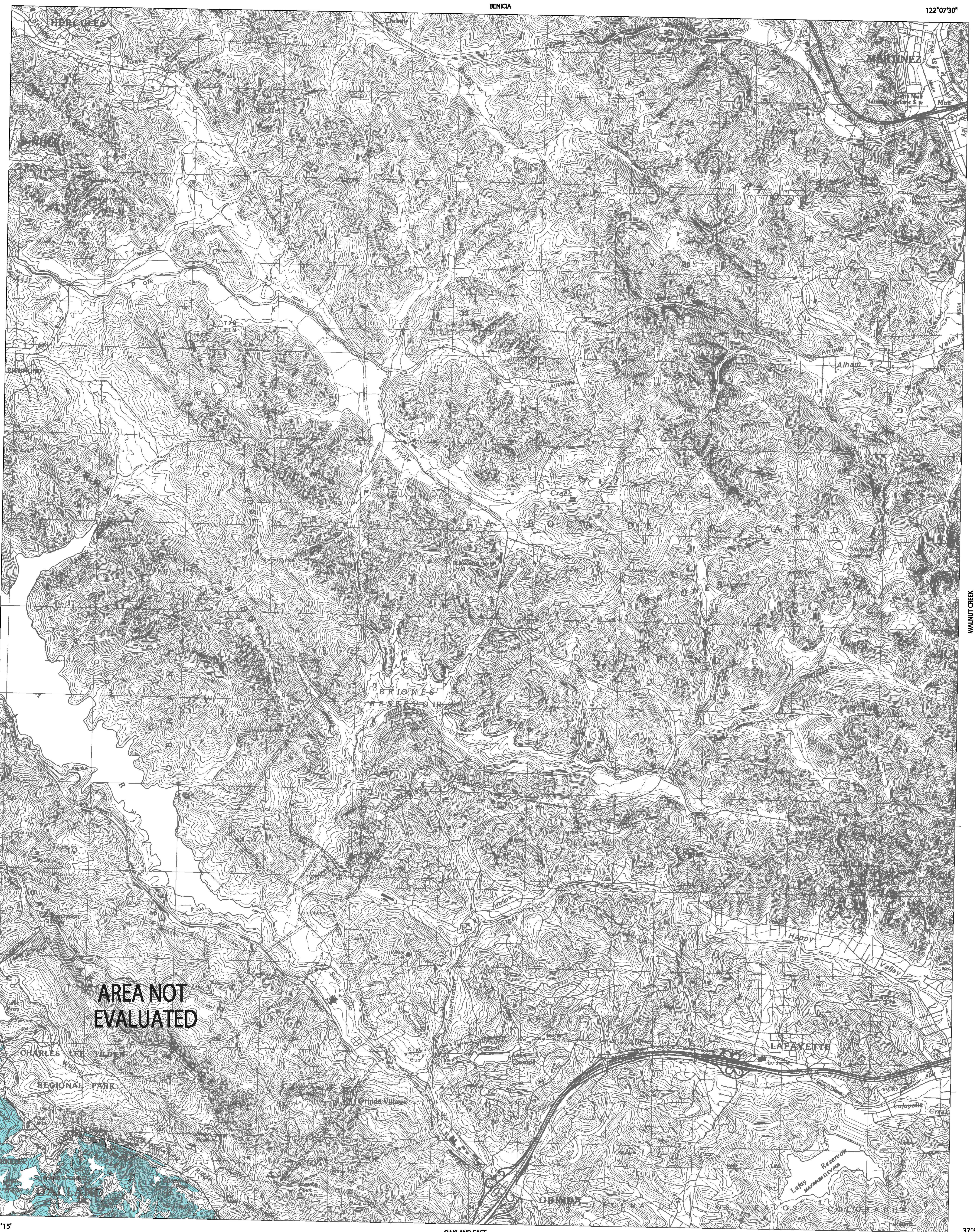
SEISMIC HAZARD ZONES
Briones Valley Quadrangle

MARE ISLAND | 122°15' | 38°00' | BENICIA | 122°07'30" | VINE HILL | 38°00'

RICHMOND | WALNUT CREEK



37°52'30" | 122°15' | OAKLAND WEST | OAKLAND EAST | 122°07'30" | 37°52'30" | LAS TRAMPAS RIDGE

Base Map prepared by U.S. Geological Survey, 1995.
Zones of required investigation boundaries may reflect updated digital topographic data that can differ significantly from contours shown on the base map.

SCALE 1:24,000

1 .5 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

PURPOSE OF MAP

This map will assist cities and counties in fulfilling their responsibilities for protecting the public from the effects of earthquake-triggered ground failure as required by the Seismic Hazards Mapping Act (Public Resources Code Sections 2690-2699.6).

For information regarding the general approach and recommended methods for preparing this map, see DMG Special Publication 118, *Recommended Criteria for Delineating Seismic Hazard Zones in California.*

For information regarding the scope and recommended methods to be used in conducting the required site investigations, see DMG Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards in California.*

For a general description of the Seismic Hazards Mapping Program, the Seismic Hazards Mapping Act and regulations, and related information, please refer to the website at **www.conservation.ca.gov/dmg/.**

IMPORTANT - PLEASE NOTE

1) This map may not show all areas that have the potential for liquefaction, landsliding, strong earthquake ground shaking or other earthquake and geologic hazards. Also, a single earthquake capable of causing liquefaction or triggering landslide failure will not uniformly affect the entire area zoned.

2) Liquefaction zones may also contain areas susceptible to the effects of earthquake-induced landslides. This situation typically exists at or near the toe of existing landslides, downslope from rockfall or debris flow source areas, or adjacent to steep stream banks.

3) This map does not show Alquist-Priolo earthquake fault zones, if any, that may exist in this area. Please refer to the latest official map of earthquake fault zones for disclosures and other actions that are required by the Alquist-Priolo Earthquake Fault Zoning Act. For more information on this subject and an index to available maps, see DMG Special Publication 42.

4) Landslide zones on this map were determined, in part, by adapting methods originally developed by the U.S. Geological Survey (USGS). Landslide hazard maps prepared by the USGS typically use experimental approaches to assess earthquake-induced and other types of landslide hazards. Although aspects of these new methodologies may be incorporated in future California Geological Survey (CGS) seismic hazard zone maps, USGS maps should not be used as substitutes for these Official SEISMIC HAZARD ZONES maps.

5) U.S. Geological Survey base map standards provide that 90 percent of cultural features be located within 40 feet (horizontal accuracy) at the scale of this map. The identification and location of liquefaction and earthquake-induced landslide zones are based on available data. However, the quality of data used is varied. The zone boundaries depicted have been drawn as accurately as possible at this scale.

6) Information on this map is not sufficient to serve as a substitute for the geologic and geotechnical site investigations required under Chapters 7.5 and 7.8 of Division 2 of the Public Resources Code.

7) DISCLAIMER: The State of California and the Department of Conservation make no representations or warranties regarding the accuracy of the data from which these maps were derived. Neither the State nor the Department shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

STATE OF CALIFORNIA
SEISMIC HAZARD ZONES

Delineated in compliance with
Chapter 7.8, Division 2 of the California Public Resources Code
(Seismic Hazards Mapping Act)

BRIONES VALLEY QUADRANGLE
OFFICIAL MAP
Released: February 14, 2003

STATE GEOLOGIST

MAP EXPLANATION

Zones of Required Investigation:

Earthquake-Induced Landslides

Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Within the Alameda County portion of the Briones Valley 7.5-Minute Quadrangle, no areas have been designated as "zones of required investigation for liquefaction." At the 1:24,000 scale of mapping used in producing Seismic Hazard Zone Maps, no areas of saturated, young granular materials were identified. The Alameda County part of the Briones Valley quadrangle is hilly and is underlain by bedrock, not young sediment.

NOTE: Seismic Hazard Zones identified on this map may include developed land where delineated hazards have already been mitigated to city or county standards. Check with your local building/planning department for information regarding the location of such mitigated areas.

DATA AND METHODOLOGY USED TO DEVELOP
THIS MAP ARE PRESENTED IN THE FOLLOWING:

Seismic Hazard Zone Report of the Briones Valley 7.5-Minute Quadrangle, Alameda County California: California Geological Survey, Seismic Hazards Zone Report 084.

For additional information on seismic hazards in this map area, the rationale used for zoning, and additional references consulted, refer to CGS's World Wide Web site

www.conservation.ca.gov/cgs/

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