

Implementation of the ECA Ordinance for Seismic Hazard Mitigation

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Environmentally Critical Areas

- **Geologic Hazard Areas**
 - Known slide
 - Potential slide
 - Steep slope
 - Peat (~July 2008)
- **Seismic Hazard Areas**
 - Liquefaction
 - Seattle Fault Zone
 - Tsunami
 - Seiche

ECA Review in Landslide Prone Areas

Topographic survey

Geotechnical report

Slope stability analyses

**Plan review and minimum
risk statement**

Special inspections

**“Complete stabilization” of
the developed area**

**Potential slide area covenant
to protect City and to inform
future owners**




Peat Settlement- Prone Areas

New ECA ~ July 2008

**Dewatering/construction
below the groundwater table**

**Effect of construction on
adjacent properties**

**Seattle Building Code Soil
Type F – ground motion
amplification**

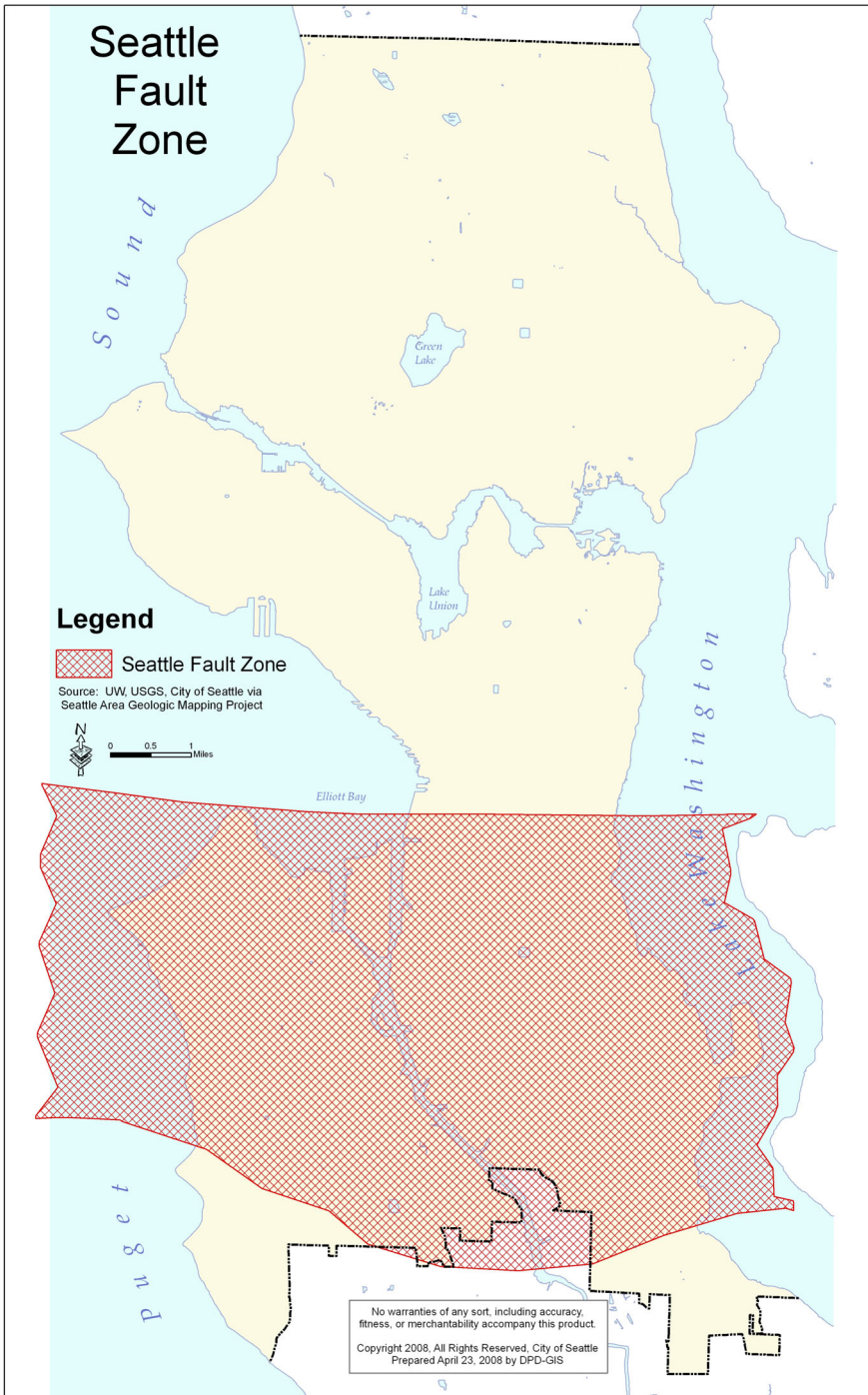


ECA Review in Liquefaction- Prone Areas

**Liquefaction and lateral
spreading**

**Single family vs. multi-family
and commercial**

**Potential liquefaction area
covenant**



ECA Review in Seattle Fault Zone

Meeting with USGS and building officials from Bellevue, Mercer Island, King County, and Snohomish County

Review for ground shaking

No further regulation other than requirements of the Seattle Building Code

Tsunami Hazard
Map Modeled
from a Seattle
Fault Earthquake



Tsunamis and Seiches

Inundation zone based on study by Walsh et al., 2003.

Area is mapped and designated as ECA, but no further regulation

The URM Problem

**Statement of legislative intent
for URM study**

Obvious public safety hazard

Impacts on owners, tenants

**Race and social justice:
lower income tenants (e.g. 3-
story brick apartments),
marginal businesses**

FEMA funds for URM retrofit?

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