

Part Two – Critical Areas

Seismic Hazard Areas

Seismic hazard areas in King County are those areas where the foundation soils may be subject to liquefaction (loss of strength and bearing capacity) or lateral spreading during an earthquake. Typically, these soils are found in low-lying areas near bodies of water, such as along the larger streams and around lakes. Sandy soils that are saturated with water are particularly prone to liquefaction.

Development standards

Alterations and developments in seismic hazard areas can only be approved if either:

- An evaluation of the potential seismic hazard area shows that there is no seismic hazard of the type described above (an investigative study by a consulting geotechnical engineer or geologist is sometimes required), or
- The development plans include mitigation based on the best available engineering and geological practices that either eliminates or minimizes the risk of structural damage or injury resulting from seismically induced settlement or liquefaction.

The requirements for mitigation (and indeed for any further geotechnical or geological investigation) may be waived for mobile homes, additions or alterations to existing structures that do not increase occupancy or affect the risk of damage or injury, or buildings of less than 2,500 square feet that are not dwelling units or places of public assembly (such as barns, agricultural buildings, garages, etc.).

Allowed alterations

All alterations are allowed, provided that either it is shown that no seismic hazard exists, or that mitigation is included in the development proposal that eliminates or minimizes the risk of structural damage or injury resulting from seismically induced settlement or liquefaction. Unlike most other critical areas, there are no requirements for buffers or building setbacks, but many seismic hazard areas are near streams, wetlands, and lakes that do have buffer and setback requirements. For some proposed developments (such as some clearing and grading projects), no seismic study and no mitigation may be required simply because none may be necessary for that particular project.