



Geological Hazard

Department of Public Works
Development Engineering Program
1300 Franklin Street
Vancouver, WA 98660
(360) 397-6118 ext. 4559
www.clark.wa.gov/comdev
email: engsrv@clark.wa.gov

revised 07.01.09



Geologic Hazard Areas

Handout #30 Revised 070109

What exactly are Geologic Hazard areas?

"Geologic hazard areas" are areas having steep slopes; potential, active or previous landslides; or, extreme seismic hazards.

Clark County has adopted regulations in an effort to safeguard public health by placing limitations on development on three (3) types of hazardous areas, which are:

- a) Seismic Hazard Areas – a seismic hazardous area is an area subject to severe risk of damage as a result of an earthquake, slope failure, settlement, or surface faulting. This area is defined by a map published by the Washington State Department of Natural Resources.
- b) Landslide Hazard Areas – areas that are susceptible to land sliding due to a combination of slope inclination, soil type, and presence of water.
- c) Steep Slope Hazard Areas – areas where there is not a mapped or designated landslide hazard, but are steep slopes equal to or greater than forty percent (40%) slope. The presence of steep slopes suggests that slope stability problems are possible.

Can I do anything in an area that has identified Geologic Hazards?

Yes. Activity can take place with a permit and some can take place without one. Any development, earth movement, clearing, or other site disturbance activities within or adjacent to a Geo-Hazard area requires permit approvals from the County. Activities that can take place without permit review include building remodels, maintenance and repair of existing buildings, work on utilities, and some emergency work when there is an immediate threat to safety (though a permit would be needed after the emergency situation is abated).

My property is on your Geologic Hazard area maps. Can I still build a home?

Yes. Before construction can commence, the location of the home needs to be reviewed for consistency with the Geologic Hazard Area regulations to ensure a safe and stable building site.

How do I know I have chosen a safe and stable location for my home?

The primary purpose of Geologic Hazard regulation is to ensure safe development. As the property owner, you will need to hire a qualified professional engineer to do a Geologic Hazard Area Study of your property.

The "Geologic Hazard Area Study", usually called a Geologic Technical (Geo-tech) report must be prepared, stamped, and signed by a geotechnical engineer or geologist who meets the requirements set forth in Clark County Code Section 40.4100.070.

This study will include a review of topography, soils information, a site history, slope stability study, soil compaction data, a discussion of study methods, and all the recommended measures to ensure the suitability of the Geologic Hazard Area for your proposed project. The study will determine the viability of any proposal, and staff will use it to determine if developments are stable and safe.

For a residence, what permits do I apply for?

If you have a house plan chosen, you may apply for both your building permit and the Geologic Hazard study review at the same time.

What if I want to develop the property in some other manner than for just a residence?

To begin the process, you will need to apply for a “Pre-Application Conference”. This conference is a preliminary process to familiarize you with the County regulations and staff members you will be dealing with.

At the conference, staff will discuss all the other potential development regulations that will affect you. This conference will help you best accommodate Geo-Hazard constraints within the framework of your proposed development.

Once the Pre-Application Conference is completed, the next step is to submit all the completed Application Forms and fees as a consolidated application packet to the Customer Service Center.

What if I didn't submit all of the required information?

The County conducts two application checks to ensure that applications are complete before staff begins their review. Prior to accepting your application, the Customer Service staff will conduct a “**Counter Complete**” review of your submittal package. This initial review ensures that **all items with a bold underlined space** listed within the submittal requirements have been submitted before accepting your application (see attached submittal list). These include:

1. Cover Sheet & Table of Contents
2. Application Form
3. Application Fee
4. Pre-Application Conference Report (If one was completed)
5. Developer's GIS Packet Information
6. Narrative
7. Proposed Site Plan
8. Geotechnical Report
9. State Environmental Review
10. Submittal Copies

Once your application is accepted, the original submittal package is routed to our review staff. Staff conducts a second completeness check within 28 days, known as the “**Fully Complete**” review. This more detailed review ensures that **all items with a box to the left** listed under the numbered headings of the attached

“Type II Geologic Hazard Application Submittal Requirements” have been submitted.

If required items are missing from your original submittal, you will receive a letter of “**Not** Fully Complete,” with a list of the missing items. If you have not submitted the requested information within 30 days of this written request, staff will return your application and refund the application fee, less the processing costs incurred to date.

How does the application review process work?

Once a complete application is accepted, your packet will be routed to the County staff engineer who will review your study’s findings and methodology to ensure that the technical data has been properly collected and analyzed.

They will then review the study’s findings and recommendations and compare these recommendations to the Clark County Geologic Hazard Areas regulations to ensure the project can be safely completed. This comparison is then issued as a review decision which will direct you how to proceed.

Note: This handout is not a substitute for county code. For more detailed information, please refer to Clark County Code (CCC), Chapter 40.430 Geologic Hazard Areas.



DEVELOPMENT ENGINEERING GEOLOGICAL HAZARD REVIEW SUBMITTAL REQUIREMENTS

The following checklist identifies information to be included with the application. All submittals that are determined **not** "Counter Complete" will be **returned** to the applicant for correction and resubmittal. Submittals determined to be "Counter Complete" will be routed to Engineering Services for review.

GEOLOGICAL HAZARD REVIEW

- Application Fee
- Application Form
- Preapplication Conference Report
- Narrative. A written narrative shall be submitted that addresses the following: how the application meets or exceeds each of the applicable approval criteria, standards set forth in the Geological Hazard regulations; and, how the application meets or exceeds each of the applicable approval criteria, and standards set forth in the Geo-Technical Report.
- Proposed Site Plan. The proposed site plan shall be drawn to a minimum engineer's scale of 1" = 100' on a sheet no larger than 24" x 36". The proposed plan shall include the following information describing the subject property and areas within twenty-five (25) feet of the property line or smaller area of concern as deemed allowable at the time of Pre-Application Conference by the Responsible Official: site boundary lines; topography at contour intervals of no greater than five (5) feet; the location and size; location and size of all existing and proposed site improvements including structures, wells, drain fields, drain fields reverse areas, public and private right-of-ways easements and utilities; locations of all drainage-flows characteristics, streams, groundwater seeps, springs and evidence of seasonal surface water runoff or groundwater; location and extent of all existing and proposed grading activities and existing natural or artificial drainage control facilities and systems; location and description of all geological hazard located on the site and observed on properties within one hundred (100) feet of site boundaries; general location of all vegetation and general location, number and description of all trees over six (6) inch diameter measured three (3) feet above the ground; and location of proposed buffers and setbacks
- Geotechnical Report. Slope stability study and opinion on the subject property and adjacent properties; grading plan; structural foundation requirement and estimated foundation settlement; soil-compaction criteria; allowable soil-bearing pressure for foundations, minimum footing width, piling recommendations for foundations and design pressure for retaining walls; laboratory data and soil index properties for soil samples; suitability for fill; lateral earth pressures; description of erosion vulnerability and an erosion control plan as required in CCC Chapter 40.385; an evaluation of proposed surface and subsurface drainage in a stormwater control plan as required in CCC Chapter 40.85; building limitations; and a vegetation management and restoration plan or other means for maintaining long-term stability of slope.
- Site Geology Information. Topographic contours at two (2) foot intervals or as specified by the Responsible Official; subsurface data that includes the exploration method, location of soil borings, borings, soil and rock stratigraphy and groundwater levels including seasonal changes; location of landslides, or down-slopes soil movement, faults, and geological contacts on the subject property and adjacent properties; site history that describes any prior grading, soil inability or slope failure; and description of the site vulnerability to seismic events.
- State Environmental Review. A State Environmental Policy Act (SEPA) Environmental Checklist must be completed, signed in ink and submitted. (Available at the Clark County Permit Services Center.)
-

GEOLOGIC HAZARD APPLICATION FEE SCHEDULE

The following fees are required for review of a Geologic Hazard application. These fees are to be paid at the time of application.

Pre-Determination Review:	\$303	
Pre-Determination Decision:	\$554	
Hazard Area Study Review:	\$483	
Environmental Checklist Review (SEPA):		if applicable

**Public Service Center
Department of Public Works
Development Engineering Program
1300 Franklin Street
P.O. Box 9810
Vancouver, WA. 98666-9810
Phone: (360) 397-6118; Fax: (360) 397-6058
Web Page at: <http://www.clark.wa.gov>**