

GEOLOGICALLY HAZARDOUS AREAS

WHAT IS A GEOLOGICALLY HAZARDOUS AREA?

A Geologically Hazardous Area (GHA) is susceptible to erosion, landslides, and/or seismic instability. Often these areas require specific geotechnical studies to determine appropriate buffers, setbacks, and/or structural reinforcement. GHAs are defined within *Federal Way Revised Code (FWRC)* Chapter 19, “Zoning and Development in General” and Chapter 19.145 “Environmentally Critical Areas.” They specifically include erosion, landslide, and seismic hazards.

WHY DO WE NEED GEOLOGICALLY HAZARDOUS AREAS REGULATIONS?

Regulations and procedures related to GHAs are intended to protect the environment, human life, and property from harm and degradation. Uncontrolled or improper work within these areas can significantly increase the potential for damage to your site and adjoining properties. For example, improperly removing vegetation that binds and shields the ground from rain can increase erosion and runoff resulting in unstable slope conditions. Additionally, structural improvements often require specialized foundations recommended by a geotechnical engineer that will not compromise the stability of a slope or cause damage during an earthquake.

HOW DO I DETERMINE IF MY PROPERTY CONTAINS GEOLOGICALLY HAZARDOUS CONDITIONS?

Maps

Federal Way maintains a citywide map inventory of certain GHA conditions. This inventory is an accumulation of existing information collected from other local, state, and federal agencies. On a citywide scale, it is not possible to identify all GHAs and therefore not all areas are included in this inventory. The inventory is provided as the best available information. Careful site-specific investigation may also be required in conjunction with specific development proposals or ground disturbances.

Visual Inspection

A second source of information involves a visual inspection of property. In some instances, GHAs such as steep slopes or eroded areas are easily identified. Other geologically hazardous conditions such as seismic hazards are more difficult to identify. In those cases, research of other information sources such as soil conservation maps may be beneficial.

Experts

A third source of information involves the use of experts hired to investigate site conditions. Expert analysis may be required when activities are proposed on or within 50 feet of a GHA. Therefore, it is important to bring experts into the development process as early as possible.

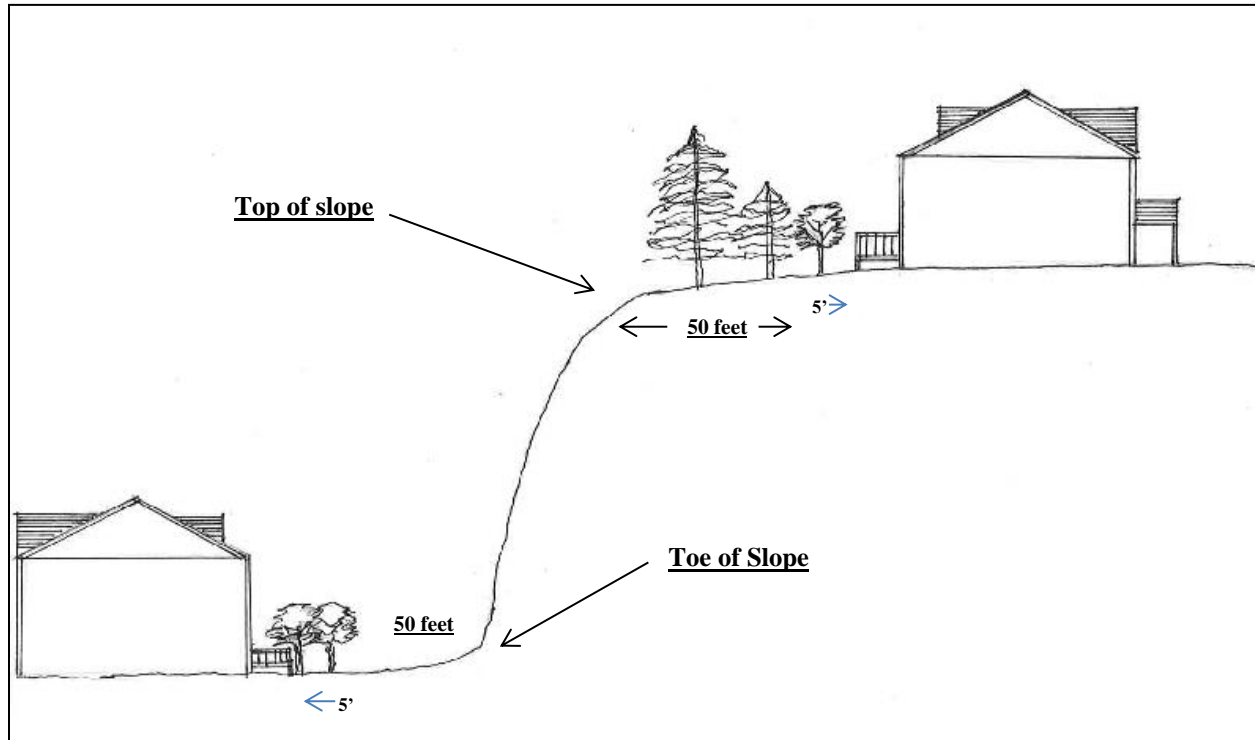
CAN I DISTURB GEOLOGICALLY HAZARDOUS AREAS AND ARE THERE BUFFERS?

The city regulates activities on and within 50 feet of a GHA. The City may allow improvements and site work within these areas if the applicant provides a geotechnical report prepared by a qualified professional that clearly demonstrates the proposed improvements and/or site work can be done safely and will not destabilize the subject property or neighboring properties.

Within landslide hazard areas, a standard 50-foot buffer and five-foot structural buffer setback applies from the top and toe of the GHA. An applicant has the option of having a geotechnical engineer assist in the design of their improvements and potentially encroach into the buffer or even locate improvements

within the hazard area if the geotechnical engineer prepares the appropriate recommendations, mitigation, and provides their professional stamp on the construction plans or verifies otherwise that the plans are consistent with their recommendation(s). The applicant also has the option of locating improvements outside of the 50-foot buffer and five-foot buffer setback, thereby only requiring the services of a geotechnical engineer to delineate the buffer.

Erosion and seismic hazard areas do not require a standard buffer or setback. Instead the applicant may be required to obtain a geotechnical report that demonstrates the proposed improvements can be constructed safely and not adversely impact the subject property or neighboring properties.



Example of two single-family residences near a landslide hazard area. The sketch identifies the 50-foot buffer measured from the top of the slope, the 50-foot buffer from the toe (bottom) of the slope, and the five-foot structural buffer setbacks. These homeowners elected to build outside of the landslide hazard area buffer and setback. Any proposed encroachments into a landslide hazard area, its buffer or buffer setback requires geotechnical evaluation and recommendations for appropriate design, mitigation, and stabilization.

WORK PROPOSED WITHIN GEOLOGICALLY HAZARDOUS AREAS

Prior to allowing any work within GHAs the city may require the applicant to provide a critical area report containing information, mapping, studies, materials, inspections, and/or reviews that are reasonably necessary to implement the GHA regulations. An itemized list of requirements for a GHA critical area report can be found in FWRC 19.145.080 and 19.145.250. In some cases it may also be necessary to have the critical area report reviewed by the city's third party qualified professional at the applicant's expense. You will be advised at the earliest possible point if your project will be subject to these types of expenses.

QUESTIONS?

Additional questions about geologically hazardous areas may be directed to the Federal Way Community Development Department's Permit Center at 253-835-2607, permitcenter@federalwaywa.gov, or 33325 8th Avenue South, 2nd Floor, Federal Way, WA 98003. Chapter 19.145 FWRC, which contains the GHA regulations in their entirety, can be accessed at www.codepublishing.com/wa/federalway.

This handout is not a substitute for codes and regulations. Details of every project should be reviewed for specific compliance with City of Federal Way codes and regulations.