



SAN JUAN COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

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CRITICAL AREA REGULATIONS FOR GEOLOGICALLY HAZARDOUS AREAS

On March 1, 2014, San Juan County's new "critical area" regulations will go into effect. These regulations are found in San Juan County Code (SJCC) sections 18.35.020-18.35.140. Critical areas include wetlands, areas subject to flooding, areas with geologic hazards, and certain types of fish and wildlife habitat including marine shorelines, lakes, naturally occurring ponds, streams, and habitats associated with particular plants and animals. Complete applications for permits received prior to March 1, 2014 will be processed under the current regulations, and those submitted on or after that date will be subject to the new regulations.

- The purpose of critical area regulations is to prevent property damage and to ensure that development does not harm water quality, groundwater recharge, and some types of fish and wildlife habitat.
- Because of the risk of earthquakes, all of San Juan County is subject to regulations for geologically hazardous areas. For most areas however, the regulations consist of following the construction requirements of adopted building codes.
- Potential risks associated with geologic hazards include the risk of landslide, severe erosion, severe shaking during an earthquake due to soil liquefaction, and risks associated with tsunami waves. Maps of potential Category I and Category II geologically hazardous areas, maps of soil liquefaction susceptibility, adopted critical area regulations, and other guidance materials are available on the County web site at: <http://sanjuanco.com/985/Critical-Area-References>, and State and Federal maps of landslide hazard areas are available at: http://www.dnr.wa.gov/researchscience/topics/geosciencesdata/pages/geology_portal.aspx.
- SJCC 18.35.030.C contains exemptions for some common activities.
- Existing, legally established structures, uses and activities may continue in perpetuity and are considered to conform with the new critical area requirements.
- Structures are not allowed on slopes exceeding 80%.
- Structures where the primary occupancy is public assembly, and facilities for emergency response and public safety, are prohibited in Category I hazard areas.
- For other development, the regulations require that a qualified professional conduct an analysis of the site and the proposed development, and prepare a report outlining actions necessary to ensure the stability of the site and surrounding areas. (Note: The map of Category II geologically hazardous areas shows slopes exceeding 15%. These areas do not meet the

definition of a geologically hazardous area unless they also have pervious soil layers overlying semi-pervious or impervious soil layers, and evidence of springs or groundwater seepage to the surface).

- For marine shorelines that are not bedrock, as part of permit applications, it will be necessary to provide a geologic assessment identifying setbacks and other measures necessary to allow for natural erosive processes for the life of proposed structures without construction of a bulkhead (at least 75 years). This is necessary to help prevent damage to nearby properties and sensitive aquatic habitats that support shellfish, salmon, shore birds, orca and other marine animals. The soil liquefaction map on the above County web page shows areas underlain by bedrock.
- Some areas may be subject to frequent flooding. Development in these areas must follow the County Flood Hazard Control Regulations (SJCC Chapter 15.12). Areas subject to flooding are shown on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps: <https://msc.fema.gov/portal>
- For some low lying areas along marine shorelines there is a tsunami risk, with the risks higher along the north, west, and southern areas of the County, and in bays and inlets including East Sound, West Sound and Lopez Sound. The source of tsunamis include a Cascadia Subduction Zone earthquake, an underwater landslide in the Fraser River delta near Vancouver, British Columbia, and an earthquake in a fault south of Lopez Island. Wave heights from tsunamis would vary depending on the magnitude of the event and the location in relation to the property. Following is a web site with a time lapse model of a tsunami associated with a Cascadia Subduction Zone earthquake: <https://www.youtube.com/watch?v=YhjsAjZQZeg&feature=youtu.be>
- There are recommendations, and in some cases requirements, for protecting the habitat of specific plants and animals. These regulations generally apply within 200 feet of protected habitats, but extend to 1,000 ft. for golden eagle nests, and to ¼ mile for peregrine falcon and great blue heron nests. Maps of known locations, photos of protected plants and animals, and protection provisions are described in handouts available on the above County web page.
- When developing property, the following are situations and activities that may result in additional development restrictions, approval processes, cost, or risk of property damage:
 - Development in and within 200 feet of Category I and II geologically hazardous areas.
 - Construction of structural shoreline stabilization measures such as seawalls and bulkheads that adversely affect other properties or natural resources and where mitigation of impacts is required.
 - Development in areas subject to landslides, severe erosion, flooding, soil liquefaction or tsunamis.

Note: Parcels with streams, lakes, ponds, wetlands, and those located on the marine shoreline are also subject to critical area regulations for those areas.

Additional Resources: <ftp://ftp.pmel.noaa.gov/tsunami/ForDiego/WaStateReport/draft/Cascadia-SanJuanIslands/SanJuanIslandsReport.pdf>