

23. Natural Hazards DPA

Guidelines that relate to flooding pertain to all areas of Colwood located below 5.6 m in elevation above the Canadian Geodetic Vertical Datum (Canadian Geodetic Vertical Datum roughly equals mean sea level). Areas subject to localized inland flooding at higher elevations shall be addressed through the application of the flood protection regulations contained within the Land Use Bylaw.

23.1 Steep Slopes

- a. Development on lands with slopes greater than 30% must be avoided. Development may be considered on slopes greater than 30% only where it can be demonstrated that the proposed development will not create geotechnical, ecological or visual impacts, can be sensitively integrated with terrain, and presents no hazards to people or property.
- b. Grading or alteration of key topographic features such as knolls, ridgelines, rocky outcrops, cliffs and ravines must be avoided.
- c. Do not develop in areas with a potential for natural hazard, unless a qualified geotechnical professional:
 - i) provides recommendations for mitigation measures to reduce the risk of natural hazards for both the subject site and any potentially affected sites to an acceptable level during all stages of development; and
 - ii) outlines conditions and form of development necessary to reduce the risk of potential natural hazards to acceptable levels.

- d. All applications for a development permit must be accompanied by a geotechnical evaluation prepared by a geotechnical professional registered in BC certifying that the site is safe for the intended use and outlining development requirements to ensure human safety and slope stability. All portions of the parcel must be evaluated, regardless of whether development will occur on a particular steep slope.
- e. All development, including septic fields, water features, swimming pools and other site amenities or uses at or near the top or base of a steep slope must be set back a minimum of 10 m from the top or base of any steep slope except as otherwise recommended by a geotechnical professional. Where development is near steep slopes greater than 30%, the setback must be increased to a minimum of 15 m except as otherwise recommended by the geotechnical professional.

23.2 Flooding

- a. Permanent structures must be located upland of all areas subject to erosion or flooding over the building design life.
- b. All structures shall be at least 2 m above the highest elevation of the present natural boundary of the sea and the occupied portions of a building shall also meet the locally established flood construction levels where these are more stringent. On greenfield sites, or previously developed sites without fill, infilling of low-lying areas is not an acceptable approach to meeting the vertical elevation requirement.
- c. Permanent structures must be setback a minimum of 30 m horizontal distance from the present natural boundary (not the registered land title boundary).
- d. Permanent structures located at the top of coastal banks or bluffs, where the toe of the bluff is exposed to coastal erosion under natural conditions, must be setback a horizontal distance equal to at least three times the vertical height of the bluff as measured horizontally from the toe of the bluff in addition to the 15 m setback outlined above, unless otherwise justified by an analysis conducted by a qualified professional with suitable experience in coastal erosion processes and in consideration of Provincial landslide assessment guidelines.