

**BOWEN ISLAND MUNICIPALITY**

**BYLAW NO. 296, 2011**

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A Bylaw to amend Land Use Bylaw No. 57, 2002  
to establish a Steep Slopes Development Permit Area

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WHEREAS, “Bowen Island Municipality Official Community Plan Bylaw No. 282, 2010”, establishes Development Permit areas;

AND WHEREAS, Council wishes to amend “Bowen Island Municipality Land Use Bylaw No. 57, 2002” in order to establish a Steep Slopes Development Permit Area;

NOW THEREFORE the Council of the Bowen Island Municipality in open meeting assembled enacts as follows:

1. This Bylaw may be cited as the “Bowen Island Municipality Land Use Bylaw No. 57, 2002, Amendment Bylaw No. 296, 2011.”
2. Part 1, Section 1.1 of Schedule A of Bylaw No. 57, 2002 is hereby amended by inserting the following definition:  
  
“**STEEP SLOPE AREAS** are defined as lands in their natural state that have a slope angle of 30 percent or greater for a minimum horizontal distance of 10 metres.”
3. Part 6 (Subdivision Regulations) of Schedule A of Bylaw No. 57, 2002 is hereby amended by inserting the following:

**6.45.2 - Subdivision Objectives in Steep Slope Areas**

Subdivision and site design on Steep Slope Areas, as identified on Schedule B-2 of Bowen Island Municipality Official Community Plan Bylaw No. 282, 2010, needs to avoid significant disruption to the natural terrain as well as respond to the unique characteristics of each site. To better respect these characteristics, the following subdivision planning and design objectives should be considered, including:

- A) Being respectful of the existing terrain, riparian corridors, and hazardous conditions, along with enhancing the natural character of the surrounding area.
- B) As part of site assessment, and prior to any construction, identifying significant site features.

- C) Minimizing slope alterations, the impact of grading, disturbance to natural vegetation, and maintaining slope stability.
  - D) Allowing as much untouched native vegetation and natural green space as possible within the development site.
  - E) Directing more density to the less sensitive parts of a site.
  - F) Retaining natural features and the topographic character of the site.
  - G) Providing flexibility in road and trail layout patterns and widths to enable multi-modal use as well as to complement hillside character and enhance environmental and visual qualities.
4. Part 7 (Development Permit Guidelines and Exemptions) of Schedule A of Bylaw No. 57, 2002 is hereby amended by inserting the following:

**“Part 7.6 – STEEP SLOPES DEVELOPMENT PERMIT AREAS**

Steep Slope Areas are lands that have a high hazard for slope instability, landslip, rock fall, or soil erosion. These areas are identified on Schedule B-2 of Bowen Island Municipality Official Community Plan Bylaw No. 282, 2010. However, it should also be noted that the steepness of slopes does not necessarily correlate with their stability. Slope stability depends upon many factors such as geologic materials, soils, moisture content, and vegetation cover.

Principles

- A) Unless exempted, all development within defined Steep Slope Areas will require a Development Permit.
- B) New development in Steep Slope Areas should adhere to the following principles:
  - 1) avoid unstable or hazardous sites and protect lives and property from hazardous conditions such as rock falls, storm runoff, and erosion;
  - 2) provide safe year-round access for residents, visitors, and service providers;
  - 3) support economic and efficient construction and maintenance standards;
  - 4) complement Bowen Island’s hillside character by integrating development into its landforms, hilltops and ridgelines, cliff ecosystems, rock outcroppings, talus slopes, ravines, and water features as well as viable existing stands of trees or other vegetation;
  - 5) protect wildlife habitat, corridors, and Environmentally Sensitive Areas;
  - 6) vegetation should be maintained and/or reinstated on slopes and within any buffer area above the slopes;

- 7) no fill, including yard clippings, excavated material, sand, or soil should be placed within 10.0 metres of the top of slopes or along pre-existing drainage channels;
- 8) water should be diverted away from slopes, yards, and structures in a controlled manner and ponding should be avoided near slopes;
- 9) landscaping should be designed to divert water away from slopes, yards, and structures in a controlled manner;
- 10) the extent of paved or hard-surfaced areas should be limited and absorbent or permeable surfaces should be used instead to increase the rate of on-site infiltration; and
- 11) where appropriate, lots should be graded so that water is directed toward the street and away from slopes.

The principles identified above will be applied during development review and approval (including plans of subdivision) in all areas of Bowen Island that are within defined Steep Slopes Areas.

#### Guidelines

Unless exempted, staff will apply the following guidelines in determining whether a Development Permit is required:

- A) A comprehensive geotechnical investigation *may* be required to support proposed development within defined Steep Slope Areas. Municipal staff will use the following activities/criteria to determine whether such an investigation is required:
  - 1) excavation or construction within the face of a Steep Slope Area;
  - 2) alteration to the natural drainage within a defined Steep Slope Area;
  - 3) removal of vegetation within the face of a Steep Slope Area;
  - 4) proximity of the slope of a proposed development to a Steep Slope Area;
  - 5) introduction of new roads and driveways or alteration to existing roads and driveways;
  - 6) introduction of new utilities or alteration to existing utilities;
  - 7) subdivision that creates additional new lots; and/or
  - 8) removal of any well-established tree and/or trees with a trunk diameter greater than 40 cm. (measured 1.5 m. above the ground).
- B) If a geotechnical investigation is required to support development, factors related to the following conditions may need to be considered by the geotechnical expert:

- 1) specific slope characteristics including location related to the top or toe of the slope;
  - 2) surface drainage and in-ground disposal of storm water;
  - 3) bedrock and surface geology;
  - 4) seismic data;
  - 5) water well records and hydrogeology;
  - 6) terrain stability assessments;
  - 7) removal of trees and vegetation; and/or
  - 8) previous development.
- C) Where Steep Slope areas have been disturbed, and remedial activity is necessary to rehabilitate these areas and/or mitigate the potential for hazard, the following guidelines will apply:
- 1) rehabilitative landscaping should minimize the terracing of land and instead follow natural contours;
  - 2) disturbed slopes should be reinforced and re-vegetated, especially where gullied or where bare soil is exposed. Planting should be done in accordance with the recommendations of a Landscape Architect or Registered Professional Forester; and
  - 3) rehabilitation plans should avoid the need for retaining walls and, specifically, large single-plane retaining walls. Retaining walls must be designed by a qualified professional.

#### Exemptions

- A) The following activities are exempted from the requirements to obtain a Steep Slope Area Development Permit:
- 1) A landscaped area (an area set aside from structures and parking which is characterized by lawns, trees, shrubs, vines, hedges, bedding plants, rock and decorative features including paving materials, walls, fences, and street furniture) and/or garden (an area devoted to outdoor cultivation of flowers, fruit, and vegetables and unenclosed by any structure other than a fence) up to 50 square metres in size.
  - 2) Alterations to an existing building or structure if construction involves interior renovations or exterior renovations which do not change the structural footprint or disturb the existing grade and natural soil conditions.
  - 3) Land alteration and/or vegetation removal within an Agricultural Land Reserve area that is done for farming purposes and that is consistent with best farm practices established under the *Farm Practices Protection (Right to Farm) Act*.

- 4) Any necessary maintenance activities carried out by, or on behalf of, Bowen Island Municipality that are designed to protect and enhance existing road networks and public trails.
  - 5) Emergency works to prevent or respond to flood or fire damage and land slip events.
- B) The following activities *may* be exempted by the Director of Planning from the requirements to obtain a Steep Slopes Area Development Permit:
- 1) Any landscaped or garden area (as defined above) greater than 50 square metres in size will require a staff assessment to determine whether a Development Permit is required.
  - 2) In cases where the proponent can demonstrate site suitability through previous geotechnical assessment and recommendations or can otherwise demonstrate that development will take place on a portion of the site that does not meet the Assessment Criteria established in the Guidelines above. These exemptions may need to be confirmed through a site visit by staff.
  - 3) The subdivision of land where a conservation covenant satisfactory to and in favour of Bowen Island Municipality, the Islands Trust Fund, or another conservation agency has already been registered for the prevention of soil erosion and/or the protection of development from slope instability hazards.
  - 4) The removal of a hazardous tree as defined by a qualified professional such as a registered arborist, environmental engineer, or registered professional biologist.”

**READ A FIRST TIME** this    day of    , 2011

**READ A SECOND TIME** this    day of    , 2011

**PUBLIC HEARING HELD** this    day of    , 2011

**READ A THIRD TIME** this    day of    , 2011

**RECONSIDERED and FINALLY ADOPTED** this    day of    , 2011

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Bob Turner  
Mayor

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Kathy Lalonde  
Corporate Officer

