REQUEST FOR DECISION
Howe Sound East and Electoral Area D Housekeeping Amendments – Development Permit Areas (Second Reading)

Meeting Date: January 26, 2022

To: SLRD Electoral Area Directors/SLRD Board

RECOMMENDATIONS:

THAT Bylaw 1717-2021, cited as "Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021" be given second reading.

THAT the Board direct staff to schedule and advertise a public hearing, to be held electronically, and delegate the holding of the public hearing to Electoral Area D Director Tony Rainbow with Director Jen Ford as alternate delegate pursuant to Section 469 of the Local Government Act, for the consideration of Bylaw 1717-2021, cited as "Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021".

KEY ISSUES/CONCEPTS:

The SLRD Electoral Area D Development Permit Areas (DPAs) require updating to address new development concerns, legislative changes, and current planning practices. The Howe Sound East developments in particular require more extensive Development Permit Areas to guide development in these new neighbourhoods. The following Development Permit Areas form the updated Section 7 within Electoral Area D Official Community Plan (OCP) Bylaw No. 1135-2013 (see Appendix A, Schedule 1):

DEVELOPMENT PERMIT AREA	AMENDMENT DETAILS
Riparian Protection Development Permit Area	Updated
Environmental Protection Development Permit Areas	Expanded and now a separate DPA from the Comprehensive
Natural Hazards Protection Development Permit Areas	Expanded and now a separate DPA from the Comprehensive
Wildfire Protection Development Permit Area	Updated
Slope Stability Protection Development Permit Area	Updated (formerly Comprehensive DPA)
Form, Character & Conservation Development Permit Area	Expanded and now a separate DPA from the Comprehensive
Farming Protection Development Permit Area	Now a separate DPA from Comprehensive

Housekeeping type mapping revisions are also proposed (see Appendix A, Schedule 2 and 3).

Amendment Bylaw 1717-2021 was given first reading at the July 28, 2021 Board meeting. The referral process was also initiated at that time. Referral comments and staff responses are outlined in this report. See Appendix B, Schedule 1 (tracked changes) for revisions made between first and second reading. With referral comments addressed, SLRD staff are recommending the Board give second reading to Amendment Bylaw 1717-2021 and schedule a public hearing.

RELEVANT POLICIES:
Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013
Squamish-Lillooet Regional District Regional Growth Strategy Bylaw No. 1062, 2008

BACKGROUND:
The SLRD has received two applications for development in Howe Sound East – Furry Creek and Britannia South (Tiger Bay). The nature and extent of the proposed developments require new expanded Development Permit Areas (DPAs) to guide planning and development within environmentally sensitive or hazardous areas, as well as conservation and form and character of intensive residential, commercial, industrial and multi-family residential development. DPAs will provide a consistent approach and communicate clear expectations for how development is to contribute to the goals, objectives and policies of the OCP. Housekeeping updates to existing Electoral Area D DPAs are also proposed to support more effective implementation.

See First Reading Staff Report for more details.

Previous Board Resolutions
At the July 28, 2021 Board meeting the following resolutions were passed:

> *THAT Bylaw 1717-2021, cited as "Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021" be introduced and given first reading.*
>
> *THAT Bylaw 1717-2021, cited as "Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021" be referred to the appropriate First Nations, District of Squamish, and provincial agencies including the Ministries of Transportation and Infrastructure, Forests, Lands, Natural Resource Operations and Rural Development, and Vancouver Coastal Health for comment.*

ANALYSIS:
The referral process allows for input from adjacent local governments and relevant agencies. The below table provides a summary of referral comments and SLRD responses.

Referral Comments and SLRD Responses

Referral Comment	**SLRD Response**
District of Squamish	
Riparian Protection • DPA does not address bonding or security for DPs where environmental monitoring or restoration works are required for completion; recommend inclusion to ensure development is carried out in accordance with assessment reports/recommendations and permit conditions	Bonding requirement has been added to Riparian Protection DPA.
Environmental Protection • Marine Shoreline assessment area – only includes backshore area (30m upland from natural boundary of the sea); closely consider including foreshore area as well to include works/alterations below high water within identified foreshore (guidance for development within high sensitivity intertidal areas) • DPA does not address bonding or security for DPs where environmental monitoring or restoration works are required for completion; recommend inclusion to ensure development is carried out in accordance with assessment reports/recommendations and permit conditions.	SLRD approach is to address this through the Riparian Protection DP and Environmental Protection DP and have generally opted to leave this to DFO. Riparian Protection DP: *7.2.8 (s) For any in water works required below the high-water mark, a DFO request for review and a Section 11 approval under the Water Sustainability Act will be required.* Environmental Protection DP: *7.3.7 c) A request for review from DFO concerning the Fisheries Act must be obtained when detailed development plans have been completed for the lands adjacent to marine foreshore to receive applicable marine buffer setbacks.* Bonding requirement has been added to Environmental Protection DPA.
Wildfire Protection • Exemptions 7.5.3 (d) – consider and clarify exemption for temporary uses *only where owners/operators comply with Wildfire Protection DPA guidelines*, in order to manage risks with temporary uses/structures/development that may be in place for some time (TUPs can legislatively be issued for up to 3 years, with renewal for additional term of up to 3 years). • Consider the application of the Wildfire Development Permit area to subdivisions to ensure site design minimizes risk,	SLRD approach is to put the Wildfire Protection requirements directly into the TUP conditions, where appropriate/relevant As the SLRD does not have subdividing authority (this is with MOTI); subdivision aspects are proposed to be addressed through a new Natural Hazards policy: *3.3.12 For Zoning Amendment applications involving the subdivision of 10 parcels or more, a Wildfire Protection Plan prepared by a Qualified Professional may be requested. The Wildfire Protection Plan should address safe access and evacuation routes, fire hydrant locations, and fuel management.*
Slope Stability • Consider implications of climate change on slope stability within guidelines. • Strengthen guidelines and language respecting requirements and avoidance of hazards (state what is (not may be) required in geotechnical reports; go beyond 'cautioning property owners')	The qualified professional will consider implications of climate change and set thresholds for restricting overall development. Note geohazard reports submitted in support of a development permit application shall meet the requirements outlined in the EGBC Geohazard Assurance Statement and appropriate EGBC Professional Practice Standards.

• Consider upper threshold for restricting development overall (e.g. guideline stating development on slopes greater than 40% for example) • Slope stability protection for areas abutting Highway 99 especially important (critical infrastructure) and emergency management and evacuation plans	The Slope Stability DPA applies in Britannia North only; mapping indicates all properties that have a slope of 30% or greater. Note much of Britannia North is already under restrictive covenants due to geotechnical hazards, and would capture this aspect of restricting development entirely where hazards are high. SLRD prefers to consider all these aspects on a case-by-case basis through the geotechnical assessment process for all slopes that are 30% or greater. A guideline for special consideration of areas abutting highway 99 has been added.
Farming Protection • DPA aligned with *Squamish Valley Agriculture Plan* objectives and implementation actions. • General Guideline 7.8.8 (a) needs clarification (Re: subdivision design 'avoiding increasing access to agricultural lands'?)	Has been re-phrased.
Vancouver Coastal Health	
General Comments This is an important initiative given the potential for large scale community development in several parts of Electoral Area D. The information provided is detailed and comprehensive and we offer the following comments: VCH generally supports the need for DPA's as they typically lead to development that supports healthy behaviours and sustainable living. In particular we are pleased to see very strong support for transportation mode shift in the DPA. We also support moving towards carbon neutrality using the BC Step Code and other means, while mitigating other health concerns (particularly air quality, heat, and noise).	N/A
7.7.2 o) grammatical error	Fixed
7.7.8 Form, Character and Conservation Development Permit Area - Objectives: Since this section relates to substantial developments we recommend consideration for the cumulative impact on groundwater resources be required in the siting and design of buildings and amenities. This is particularly important since the ongoing servicing of these developments will in all likelihood depend on adequate protection of groundwater quality and quantity. Section 7.7,10 (d) hints at this but not in the context of groundwater for drinking purposes. Strengthening these requirements would greatly assist with aquifer protection from the outset which is key to long term servicing success.	Added language to address aquifer protection and consideration of cumulative impacts to groundwater resources – objective, general guidelines and specific siting guideline.
7.7.14 (b) We are unclear about the meaning of "appropriate to the size of the building."	To be determined through DP and design review process.

Perhaps the intent will be to look at design specifics later in the process but wonder whether some reference to appropriate guidance should be considered here.	
• 7.7.16. (c) We are unclear how encouraging the use of pumps would help with energy conservation.	Deleted.
• 7.7.17 (a) While we recognize this section only provides examples of the individuals who must be considered in design accommodation, we encourage the SLRD to consider diversifying this list to consider those with auditory challenges, as well as those who have been traditionally excluded in community building.	Addressed.
• 7.7.18 (i) In addition to providing internal connectivity and efficient links to existing or planned neighbouring sidewalks and trails, consider including connection to "key destinations" to support travel options for non-commute-related trips.	Added.
• 7.7.18 (g) - Provide more clarity on what "convenient" car share and bike share parking locations might look like.	Detail to be determined through design process.
General comments • Incorporate consideration of heat mitigation and adaptation as it relates to the development area; for example, under section 7.7.14, one might consider providing outdoor open space / common areas / amenity spaces that are flexible for all weather, particularly extreme heat (i.e. using design and building features to tackle outdoor spaces, children's play areas, providing an indoor shared amenity space that is air conditioned if air conditioning is not provided in every unit, etc). As development or revision of guidelines, bylaws, programs, etc. progresses, we suggest looking at the following resources: • Development of gathering spaces that assist in building social connections in neighbourhoods and mixed-use developments - Hey Neighbour Collective https://www.hevneiKhbourcollective.ca/2Q21/07/what-were-following-on-social-connectedness-trusthousing-and-loneliness/	Added.
FLNRORD	
Crown Lands has no comments on this referral since the proposed changes involve only private land.	N/A
MOTI	
Preliminary Approval is granted for the Bylaw Amendment for one year pursuant to section 52(3)(a) of the Transportation Act. No additional comments provided	N/A
Squamish Nation	
No response received.	N/A

REGIONAL IMPACT ANALYSIS:
Impacts of the Electoral Area D Development Permit Area amendments will largely be localized, as the amendments are only applicable to Electoral Area D. The Development Permit Areas are aligned with the Regional Growth Strategy and support implementation toward achieving the regional goals therein.

OPTIONS:
Option 1 (PREFERRED OPTION)
Give second reading to Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021 and schedule an electronic public hearing.

Option 2
Revise as per Board direction and give second reading to the Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021 as revised and schedule an electronic public hearing.

Option 3
Refer the OCP amendment back to SLRD staff for more information, or for revision.

FOLLOW UP ACTION: If approved by the Board, proceed with scheduling and advertising the electronic public hearing.

ATTACHMENTS:
Appendix A: Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021 and Schedules (1-5)
Appendix B: Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021 Schedule 1 – tracked changes from first reading

Prepared by: C. Dewar, Senior Planner
Reviewed by: K. Needham, Director of Planning and Development Services
Approved by: M. Helmer, Chief Administrative Officer

Appendix A

SQUAMISH-LILLOOET REGIONAL DISTRICT ELECTORAL AREA D OFFICIAL COMMUNITY PLAN BYLAW NO. 1135-2013, AMENDMENT BYLAW NO. 1717-2021

A bylaw of the Squamish-Lillooet Regional District to amend
Electoral Area D Official Community Plan Bylaw No. 1135-2013

WHEREAS the Board of the Squamish-Lillooet Regional District wishes to amend the Electoral Area D Official Community Plan Bylaw No. 1135-2013;

NOW THEREFORE the Regional Board of the Squamish-Lillooet Regional District in open meeting assembled enacts as follows:

1. This bylaw may be cited for all purposes as "Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013, Amendment Bylaw No. 1717-2021".

2. Schedule A Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013 is hereby amended as follows:

   a. Replacing Section 7 DEVELOPMENT PERMIT AREAS with a new Section 7 DEVELOPMENT PERMIT AREAS, attached as Schedule 1 to this bylaw.

   b. Updating Development Permit Area and Mapping references as follows:

      i. Update table of contents to reflect new Section 7 Development Permit Areas;

      ii. Update list of schedules "Schedule B to Bylaw 1130-2013 – Electoral Area D OCP Maps";

      iii. Update Map and text reference on page 19, Section 3.5 Services and Infrastructure by replacing "Service areas within Electoral Area D are outlined on Map 3" with "Service areas within Electoral Area D are outlined on Map 3 and Schedule C Map 3";

      iv. Update Map and text reference on page 17, Section 3.4 Transportation by replacing "The transportation network is shown on Map 3" with "The transportation network is shown on Map 3 and Schedule C Map 3";

      v. Update Map and text reference on page 11, Section 3 Sustainability and Resilience by replacing "Electoral Area D provides important habitat for a diversity of wildlife, including a number of species that are considered rare at the provincial level (i.e., spotted owl) and/or at the limits of their range (i.e. moose and grizzly bear) (see Map 6)" with ""Electoral Area D provides important habitat for a diversity of wildlife, including a number of species that are considered rare at the provincial level and/or at the limits of their range. Wildlife and Old Growth Management Areas are shown on Map 5 and Schedule C Map 5. The Environmental Protection Development Permit Areas outlined in Section 7 provide guidelines for development"; and

      vi. Update Map and text reference on page 11, Section 3 Sustainability and Resilience by replacing "RAR, enacted under Section 12 of the *Fish Protection Act* in July 2004, applies to lands within 30m of all waterbodies within Electoral Area D, as described in the Development Permit Guidelines in Section 7.0" with

"RAR, enacted under the *Riparian Areas Protection Act*, applies to lands within 30m of all waterbodies within Electoral Area D, as shown on Map 6 and Schedule C Map 15. The Riparian Protection Development Permit Area in Section 7.0 provides guidelines for development".

c. By adding the following definitions to Section 1.1 DEFINITIONS:

   Tree Cutting means to top a Tree or cut its main stem or trunk to the extent that the tree is substantially damaged, but does not include ordinary pruning of a tree.

   Hazard Tree means a Tree, identified in writing by a Certified Arborist as being in such a condition that there is a substantial likelihood that all or part of the Tree will fail, resulting in the risk of personal injury or property damage.

d. By adding the following policy to Section 3.3 NATURAL HAZARDS:

   3.3.12 For Zoning Amendment applications involving the subdivision of 10 parcels or more, a Fire Protection Plan prepared by a Qualified Professional may be requested. The Fire Protection Plan should address safe access and evacuation routes, fire hydrant locations, and fuel management.

3. Schedule B Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013 (Mapping) is amended as follows:

   a. Updating all logos with current SLRD logo.

   b. Replacing Schedule B Map 3 – Transportation, Trails, Community Crown Land Interface and Service Areas with a new map Schedule B Map 3 – Transportation, Trails, Community Crown Land Interface, and Service Areas, attached as Schedule 2 to this bylaw.

   c. Replacing Schedule B Map 6 – Development Permit Areas with Map 6 –Riparian Protection Development Permit Area, attached as Schedule 3 to this bylaw.

4. Schedule C Squamish-Lillooet Regional District Electoral Area D Official Community Plan Bylaw No. 1135-2013 (Howe Sound East Sub Area Plan Mapping) is hereby amended as follows:

   a. Labeling the "Land Use Designations" map as "Map 1 – Land Use Designations, Howe Sound East Sub Area, Schedule C Electoral Area D Official Community Plan Bylaw No. 1135-2013";

   b. Labeling the "Natural Hazards" map as "Map 2 – Natural Hazards, Howe Sound East Sub Area, Schedule C Electoral Area D Official Community Plan Bylaw No. 1135-2013";

   c. Replacing the "Service Areas, Community Crown Land Interface, and Transportation" map with a new "Map 3 – Service Areas, Community Crown Land Interface, and Transportation & Trails, Howe Sound East Sub Area, Schedule C Electoral Area D Official Community Plan Bylaw No. 1135-2013", attached as Schedule 4 to this bylaw;

   d. Labelling the "Aggregate Resources" map as "Map 4 – Aggregate Resources, Howe Sound East Sub Area, Schedule C Electoral Area D Official Community Plan Bylaw No. 1135-2013";

e. Labeling the “Wildlife & Old Growth Management Areas” map as “Map 5 – Wildlife and Old Growth Management Area, Howe Sound East Sub Area, Schedule C Electoral Area D Official Community Plan Bylaw No. 1135-2013”;

f. Deleting the “Wildfire Development Permit Area” map as this DPA now applies to the entire Electoral Area D and thus can be defined by text; and

g. Adding a new “Map 6 – Slope Stability Protection Development Permit Area, Britannia Beach, Schedule C Electoral Area D Official Community Plan Bylaw No. 1135-2013”, attached as Schedule 5 to this bylaw.

5. By adding Amendment Bylaw 1717-2021 to the Summary of Amendments table as follows:

1717-2021	Development Permit Area Amendments – Howe Sound East and Housekeeping	[Date of Bylaw Adoption]

READ A FIRST TIME this	28 day of	July, 2021.
READ A SECOND TIME this	day of	, 2021.
PUBLIC HEARING this	day of	, 2021.
READ A THIRD TIME this	day of	, 2021.
ADOPTED this	day of	, 2021.

____
Jen Ford
Chair

____
Kristen Clark
Corporate Officer

7. DEVELOPMENT PERMIT AREAS

Development Permit Areas are established under provisions of the *Local Government Act* to guide planning and development within environmentally sensitive or hazardous areas, as well as conservation and form and character of intensive residential, commercial, industrial and multi-family residential development. Development Permit Areas apply to a mapped or designated area and include guidelines for development activities. The purpose of DPAs is to help ensure that development is consistent with the goals, objectives and policies of the OCP.

On lands in DPAs, a Development Permit (DP) must be approved by the SLRD before a building permit can be obtained. The authority to issue certain DPs has been delegated to the Director of Planning and Development. This is indicated in each DPA Section. Following a review, and pursuant to Section 489 of the *Local Government Act*, conditions or restrictions may be imposed on the development. In addition, the SLRD may require security in the form of an Irrevocable Letter of Credit in the amount of 135% of estimated costs, to be held until the requirements of the permit have been fulfilled to the SLRD's satisfaction.

Where a property is subject to multiple development permit areas, the application fee of each DPA applies though separate development permit applications under this section may not be required, provided the guidelines for each DPA are addressed in a single development permit application.

Development permits may be issued for phases of development involving several individual buildings or lots where appropriate. The issuance of a development permit does not exempt a development from the requirement for a building permit or any other requirement of a bylaw, statute or regulation.

The provisions of other bylaws may be varied under a development permit, where it can be shown that the public intertest will benefit from the resulting modifications, as follows:

1. Setbacks from lot lines;
2. Height limits may be increased;
3. As may be described within the specific DP Area Guidelines.

Development permits may not, however, vary the allowable use or density of the land.

Interpretation of specific guidelines is subject to detailed discussion with Regional District planning staff. These guidelines are applied on a site specific or case-by-case basis. It is unlikely that every development can or will be able to meet all of the guidelines included in a DPA. The overarching objective of these Development Permit Guidelines is to ensure that all new developments make a positive contribution to the communities in which they are located and to meet the overall purpose and objectives of the Development Permit Guidelines. It is critically important that these guidelines also not be considered in isolation; rather they should be considered and integrated into the design process along with all other Board plans, policies, and regulations, as well as other best practices and design standards.

7.1 Activities Requiring a Development Permit

7.1.1 Each Development Permit Area (DPA) designation includes a purpose and objectives that justify its designation, established under provisions of the *Local Government Act,* as well as guidelines that must be met to achieve the purpose and objectives. As per Section 489 of the *Local Government Act*, where designated as a DPA, a development permit must be issued prior to:

(a) subdivision of land;
(b) starting construction of, addition to or alteration of a building or structure;
(c) the alteration of land (where designated for protection of natural environment or from hazardous conditions); or
(d) the alteration of land, a building or any other structure (where designated for energy conservation, water conservation, or greenhouse gas reduction);

unless specifically exempt under this bylaw.

7.1.2 A development permit may not be required prior to subdivision of land where the subject lands are designated as a DPA, but no development or development activities (e.g. construction, grading, clearing, trenching, installation of services) relating to the creation of lots or the provision of services for those lots will occur.

7.1.3 A development permit may not be required prior to subdivision of land where subject lands are designated for Form, Character & Conservation, but no development is proposed at time of subdivision, and there is no siting (e.g. grading, clearing), access, or lot layout and connectivity considerations that would apply per the DPA guidelines.

7.1.4 Where building construction and/or vegetation fuel management is proposed to take place within an Environmental Protection Area or Riparian Protection Area, as outlined in this bylaw, all work undertaken should be consistent with the Environmental Protection and Riparian Protection DPA Guidelines.

7.1.5 It is the applicant's responsibility to comply with all other relevant Bylaws, Acts and Regulations, including but not limited to the *Riparian Areas Protection Regulation*, *Water Sustainability Act*, *Fisheries Act*, *Wildlife Act*, *Migratory Birds Convention Act*, *Species at Risk Act*, and *Weed Control Act*.

7.2 Riparian Protection Development Permit Area

BACKGROUND

Purpose

7.2.1 Pursuant to Section 488(1)(a) of the *Local Government Act*, the Riparian Protection Development Permit Area (DPA) is designated for the protection of the natural environment, its ecosystems, and ecological diversity.

Application & Area

7.2.2 The Riparian Protection DPA applies to land within Electoral Area D, including mapped and unmapped streams, as indicated on Schedule B Map 6, and Schedule C Map 15. This DPA consists of the following Riparian Assessment Area:

(a) A 30 metre strip on both sides of the waterbody, measured from the **natural boundary**.

(b) For a ravine less than 60 metres wide, a strip on both sides of the stream measured from the **natural boundary** to a point that is 30 metres beyond the top of the ravine bank.

(c) For a ravine 60 metres wide or greater, a strip on both sides of the stream measured from the **natural boundary** to a point that is 10 metres beyond the top of the ravine bank.

7.2.3 A Riparian Protection Development Permit is required for development activities within the Riparian Assessment Area. Examples include, but are not limited to:

(a) removal, alteration, disruption or destruction of vegetation;

(b) disturbance of soils;

(c) construction or erection of buildings and structures;

(d) additions to existing buildings and structures that encroach into the Riparian Assessment Area;

(e) creation of non-structural impervious or semi-pervious surfaces;

(f) flood protection works;

(g) construction of roads, trails, docks, wharves and bridges;

(h) provision and maintenance of sewer and water services;

(i) development of drainage systems;

(j) development of utility corridors;

(k) any reconstruction, renovations, repairs, or maintenance to an existing building that will require work to the existing foundation; and

(l) reconstruction, renovations, repairs, or maintenance to an existing building on its existing foundation that are equal to or greater than 75% of the building's value above its foundations (and thus considered new development/construction) in accordance with Section 532 of the *Local Government Act.*

7.2.4 A Riparian Protection Development Permit is required for the following cases where the QEP assessment report may not be required:

(a) Works approved by the Department of Fisheries and Oceans Canada (DFO) and/or the Ministry of Environment (MOE), and/or the Ministry of Forests, Lands, and Natural Resource Operations (MFLNRO).

(b) Stream enhancement and fish and wildlife habitat restoration works that have obtained the required Provincial and Federal approvals. Any activity within the stream channel that has or may have an impact on a stream requires compliance with Provincial and Federal legislation, and notification to the SLRD.

(c) Removal of invasive species on a small scale provided that such works are conducted in accordance with a vegetation management plan prepared by a qualified professional, and measures are taken to avoid sediment or debris being discharged into the watercourse or onto the foreshore and the area is replanted immediately in accordance with 'Application' provisions 1 and 2 above.

(d) Reconstruction, renovations, repairs, or maintenance to an existing building on its existing foundation that are less than 75% of the building's value above its foundations in accordance with Section 532 of the *Local Government Act*.

Exemptions

7.2.5 A Riparian Protection Development Permit is not required for the following:

(a) Development activities located outside of the Riparian Assessment Area. For properties where the distance from the Riparian Assessment Area is questionable, a survey may be required.

(b) To resolve emergency situations that present an immediate danger related to flooding, erosion, or other immediate threats to life or property.

(c) Activities conducted under the Provincial Emergency Program or the SLRD Emergency Management Program within 28 days of the emergency incident/event.

(d) Removal of trees deemed hazardous by a qualified professional that threaten the immediate safety of life and buildings.

(e) Agricultural development activities on lands used, or proposed to be used, for a farm operation as defined by the Farm Practices Protection Act, except where such activities are done in conjunction with, or in preparation for, non-farm uses.

(f) Development activities on lands subject to the Forest Act or Private Managed Forest Land Act.

Delegation of Authority

7.2.6 The Board delegates the authority to issue Riparian Protection Development Permits to the Director of Planning and Development.

Objectives

7.2.7 To protect the range of valuable and sensitive riparian ecosystems within Electoral Area D and implement the *Riparian Areas Protection Regulation*, as required by the provincial government.

GUIDELINES

General Guidelines

7.2.8 The following general guidelines apply:

(a) All development within the Riparian Protection Development Permit Area must be consistent with the provincial Riparian Areas Protection Regulation.

(b) A Qualified Environmental Professional (QEP) must be retained, at the expense of the applicant, to prepare and submit a Riparian Areas Protection Regulation Assessment Report to the Province.

(c) The report must be submitted to the Province via the Riparian Areas Protection

Regulation Notification System, and a copy must be provided to the SLRD.

(d) The applicant shall be requested to provide an explanatory plan of the Streamside Protection and Enhancement Area.

(e) The property owner shall implement all measures necessary to maintain the integrity of the Streamside Protection and Enhancement Area as specified in the QEP report, and such measures as may be included as conditions of the development permit.

(f) Bonding in the amount of $5,000 shall be provided where environmental monitoring or restoration works are required for completion.

(g) Where a mapped or unmapped stream is found not to be subject to the Riparian Areas Protection Regulation, a report prepared by a QEP, generally following the Riparian Areas Protection Regulation Assessment methodology shall be required to be submitted to the SLRD.

(h) A Development Permit shall not be issued without notification via Riparian Areas Protection Regulation Notification System, or from the Department of Fisheries and Oceans Canada and/or the Ministry of Environment, and/or the Ministry of Forests, Lands, and Natural Resource Operations that they have been notified of the proposed development and provided with an acceptable copy of the QEP assessment report, or having received evidence of the Minister of Fisheries and Oceans Canada approval under the authority of Section 4(3) of the Riparian Areas Protection Regulation.

(i) Where the QEP report proposes a Harmful Alteration, Disruption, or Destruction or serious harm to fish habitat pursuant to Section 35(2) of the Canada Fisheries Act, the development permit shall not be issued unless approval under the authority of Section 4(3) of the Riparian Areas Protection Regulation is received from the DFO. The SLRD may consider providing comments to the DFO in regards to a proposed approval under the authority of Section 4(3) of the Riparian Areas Protection Regulation.

(j) The SLRD may, when considering comments to the DFO on a proposed approval under Section 4(3) of the Riparian Areas Protection Regulation, require additional information from the QEP and other senior levels of government.

(k) Ensure all watercourses delineated as Riparian Protection Areas identified to be protected under the Riparian Areas Protection Regulation remain free from impact and development and Streamside Protection and Enhancement Areas are protected both during and after development. Watercourses need to be surveyed by a BC Land Surveyor in order to establish setbacks prior to development.

(l) Maintain vegetated corridors between watercourses where possible to provide wildlife movement corridors and prevent further fragmentation of available habitat. Install amphibian and small mammal eco-passages under roadways via culverts to preserve and enhance habitat connectivity, subject to the project design and review by the project QEP.

(m) Encourage additional setbacks adjacent to Streamside Protection and Enhancement Areas wide enough to accommodate trails in appropriate locations.

(n) For development within the Howe Sound East Sub Area, prior to any construction activities within the riparian areas for any creek crossings, have targeted surveys conducted by a QEP for the following species at risk:

- Northern red-legged frog, western toad, and coastal tailed frog; and
- Northern rubber boa.

If any are found, appropriate mitigation measures will be determined.

(o) Any construction activities anticipated to have any potential effect on water quality in water bodies on or adjacent to the site should be monitored by a QEP.

(p) Where wetlands, watercourse or riparian areas are disturbed, restoration of the disturbance or compensation equal to 100% of the disturbed area should be provided.

(q) Minimize crossings of Streamside Protection and Enhancement Areas. Low impact creek crossings such as clear span bridges and/or arch culverts/box culverts should be used where stream crossings are necessary. Permitting for stream crossings will be required from the MFLNRORD under Section 11 of the *Water Sustainability Act*. Stream crossings will also have to be constructed under compliance with the federal *Fisheries Act*.

(r) Instream work and stream crossings should meet the requirements of the Land Development Guidelines, the B.C. *Water Act*, and newer guidelines that are being developed.

(s) Timing of any works in and about a stream should be in accordance with provincial guidelines and regulations.

(t) For any in water works required below the high-water mark, a DFO request for review and a Section 11 approval under the *Water Sustainability Act* will be required.

Restoration & Remediation Guidelines

7.2.9 Where development has occurred in violation of this Development Permit Area, the following guidelines shall apply:

(a) A Qualified Environmental Professional (QEP) must be retained at the expense of the applicant for the purpose of preparing a report outlining the necessary remediation and restoration work.

(b) The QEP must certify that they have carried out a remediation assessment, that they are qualified to carry out such an assessment, and that all applicable provincial regulations have been followed.

(c) The report must outline how to mitigate the damage done by any clearing and site development, and how to restore the area to its previous condition.

(d) Any cleared areas must be replanted with native riparian vegetation at the applicant's expense.

(e) Buildings and structures constructed in violation of this DPA may be subject to removal at the applicant's expense in order to restore the integrity of the riparian area.

(f) Riparian Protection Development Permits issued may require:

i. Areas of land, specified in the permit, must remain free of development, except in accordance with any conditions contained in the permit and any intrusions authorized or permitted under the provincial Water Sustainability Act and/or federal Fisheries Act.

ii. Specified natural features or areas be preserved, protected, restored or enhanced in accordance with the permit.

iii. Natural watercourses be surveyed and returned to the Crown.

iv. Protection measures be implemented, including that trees or other vegetation be planted or retained in order to preserve, protect, restore or enhance fish habitat or riparian areas, control drainage, or control erosion or protect banks.

v. An explanatory or reference plan be prepared by a BC Land Surveyor that delineates the identified Streamside Protection and Enhancement Area.

vi. Development complies with current best practices for land development in and around riparian areas.

7.3 ENVIRONMENTAL PROTECTION DEVELOPMENT PERMIT AREAS

BACKGROUND

Purpose

7.3.1 Pursuant to Section 488(1)(a) of the *Local Government Act*, the Environmental Protection Development Permit Areas (DPA) are designated for the protection of the natural environment, its ecosystems, and ecological diversity.

Application & Areas

7.3.2 The Environmental Protection DPA applies to land within the Howe Sound East Sub Area and includes the Marine Shoreline Area, Wildlife Habitat Areas, and the Ecological Sustainability Area, as indicated on Schedule C Map 15. Guidelines are outlined for each Area.

Delegation of Authority

7.3.3 The Board delegates the authority to issue Environmental Protection Development Permits to the Director of Planning and Development.

Objectives

7.3.4 To protect the environmental, intrinsic and aesthetic values of marine shoreline areas within the Howe Sound East Sub Area, recognizing the shoreline provides an important interface between the terrestrial and marine ecosystems.

7.3.5 To protect wildlife species and habitat at risk, with mature forests providing many of the environmentally valuable resources (e.g. wildlife trees, course woody debris, wildlife movement corridors) that provide suitable habitat.

7.3.6 To protect the ecological sustainability of the Howe Sound East Sub Area.

GUIDELINES

Marine Shoreline Area Guidelines

7.3.7 The Marine Shoreline Assessment Area specifically refers to the area 30 meters upland (backshore) of the **natural boundary** of the sea. An Environmental Protection Development Permit is required for development activities within the Marine Shoreline Assessment Area, where the following guidelines:

(a) Development design must strive to balance coastal flood protection and planning for future sea level rise while minimizing erosion, preserving coastal functions and processes and maintaining water quality, sensitively locating foreshore access and structure and enhancing marine habitat and adjacent coast waters wherever possible.

(b) Additional structural shoreline and flood protection measures should be constructed upland of the natural shoreline boundary or be authorized by DFO under the Fisheries Act. The size of any flood protection structure must be limited to the minimum size necessary to provide adequate protection.

(c) The Marine Shoreline Assessment Area should be evaluated prior to the preparation of the detailed development plans by a Qualified Environmental Professional (QEP) to ascertain an applicable marine shoreline buffer. A request for review from DFO concerning the Fisheries Act must be obtained when detailed development plans have been completed for the lands adjacent to marine foreshore to receive applicable marine buffer setbacks. Different shoreline types have a different ability to accommodate disturbance. Estuary and mud flats are fragile and easily destroyed and require larger setback (minimum 30 metres), while rocky shores are typically very stable and are quite resistant to change (preliminarily minimum setback of 15 metres, subject to a detailed design review). The setbacks should be protected from development unless an approval is received from DFO.

(d) Marine Shorelines Areas affected by development will be subject to vegetation restoration plans prepared by a QEP.

(e) Bonding in the amount of $5,000 shall be provided where environmental monitoring or restoration works are required for completion.

Wildlife Habitat Areas Guidelines

7.3.8 Wildlife Habitat Areas include all mapped wildlife species at risk critical habitat areas, and mature red listed ecological communities at risk. An Environmental Protection Development Permit is required for development activities within Wildlife Habitat Areas, where the following guidelines:

(a) Design the development to protect sensitive ecosystems including wetlands, creeks, riparian areas, rock outcrops, cliffs, foreshore areas and mature forests.

(b) The proponent shall retain a QEP to review and assess existing mapped species at risk critical habitat based on current baseline conditions. The QEP would provide recommendations for adjusting and amending the habitat mapping and providing recommendations for preservation and conservation measures.

(c) Bonding in the amount of $5,000 shall be provided where environmental monitoring or restoration works are required for completion.

(d) Conduct a survey for raptor nests, particularly those of northern goshawk, as well as marbled murrelet of mature forests within the development pods prior to detailed design in order to identify any nests and nesting habitat, and to ensure that appropriate protective buffers are in place.

(e) Avoid disturbances and vegetation clearing within the areas of mature forests where possible and minimize disturbances where not. If clearing or other disturbance is proposed within areas of mature forest, have a survey conducted by a QEP for the following species at risk:

- Moss species, including Holzinger's brachythecium, Roell's brotherella, Callicladium haldanianum, and Tripterocladium leucocladulum; and
- Northern rubber boa.

If any are found, appropriate mitigation measures will be determined.

(f) Effort should be made to retain as much existing vegetation as possible, especially significant vegetation and habitat, using the following guidelines:

i. Minimize the extent of cut and fill required for road construction and instead conform to the natural contours of the landscape. All cut and fill slopes should be treated with growing medium, hydroseeded, and planted with native vegetation.

ii. Plan open space areas to incorporate stands of mature forest.

iii. Retain existing ground vegetation and trees where possible within development areas.

iv. Delineate the location of all veteran trees within proposed development pods and manage design to avoid disturbance and removal where possible. Protect existing veteran trees within appropriately sized vegetation clumps.

(g) Minimize disturbances of rock outcrops and cliffs through appropriate road design and clustering development to allow for rock outcrop preservation opportunities. If any blasting or other disturbance of rock outcrops is to occur, it is recommended that this occur between late spring and early fall when mammals are less likely to be seeking shelter and temperatures are warm enough for reptiles to maintain body heat away from rocks. Prior to any disturbance of these habitats, have targeted surveys conducted by a QEP for the following species at risk:
- Rubber boa and sharp-tailed snake;
- Peregrine falcon nests, particularly between April 1 and July 31; and
- Washington springbeauty, in late spring to early summer.

If any are located, appropriate mitigation measures will be determined.

(h) Identify and manage potentially hazardous trees, while maintaining as many of these as possible for wildlife habitat. As assessment of any potential hazard trees should be conducted by a certified Wildlife/Danger Tree Assessor. Any trees removed within the riparian areas must also be replaced as per the BC Ministry of Environment, Lands and Parks tree replacement criteria.

(i) It is recommended that as much coarse woody debris (CWD), of varying sizes and stages of decay, be maintained as possible. If CWD is to be removed, this should occur between late spring and early fall when mammals are less likely to be seeking shelter. There is the opportunity to improve existing riparian habitat by relocating any pieces of CWD needing to be removed into the riparian areas.

(j) Site multi-family residential buildings so as to provide preservation opportunities as well as movement corridors for wildlife in both listed and unlisted ecological communities.

(k) All vegetation clearing should occur outside of the typical bird breeding period of April 1 to July 31 to ensure that no active nests are disturbed. If clearing is to take place during this window, it must be preceded by a nesting bird survey, conducted by a QEP, and any active nests protected with suitable buffers until nesting is complete. Particular attention should be paid to:
- Forest edges and openings for band-tailed pigeon and goshawk;
- Rock outcrops and sparsely vegetated areas for common nighthawk and peregrine falcon; and
- Wildlife trees and snags for western screed-owl, goshawk, and olive-sided flycatcher.

(l) Wildlife attractants, including food and other odorous materials, must not be left at construction sites and must be secured anytime the construction site is unattended. Further, bear safe guidelines should be incorporated into the proposed development, including garbage facilities and landscaping.

Ecological Sustainability Area Guidelines

7.3.9 The Ecological Sustainability Area pertains to the entire Furry Creek Neighbourhood, Britannia South Neighbourhood, and Porteau Cove Neighbourhood. The guidelines address the projects in their entirety, with development permit requirements to be met by the developer at the outset of the project rather than at the individual parcel level, where the following guidelines:

(a) Development and construction of the property should follow guidelines and recommendations outlined in: Environmental Best Management Practices for Urban and Rural Land Development (BC MOE, 2014, or latest version). This includes best management recommendations for storm water, pollution prevention and wildlife ecosystem management.
(b) An invasive species survey and management plan that incorporates the recommendations included in this report should be developed by a QEP and implemented for the subject property. The plan should be prepared prior to any land clearing or earthworks.
(c) Development of a Stormwater Management Plan and a Sediment Erosion and Control Plan for site preparation, construction and post-construction. Minimizing land disturbance in areas subject to possible erosion during seasonal periods of high rainfall.
(d) The extensive BC Hydro Rights-of-way, particularly in the Furry Creek Neighbourhood, provide potential opportunities to create bio-ponds for stormwater detention, bio-treatment and infiltration.
(e) The effects of shading on common property (i.e. the beach to the seaward side of the Waterfront Lands) should be considered for building siting and heights.

7.4 NATURAL HAZARDS PROTECTION DEVELOPMENT PERMIT AREAS

BACKGROUND

Purpose

7.4.1 Pursuant to Section 488(1)(b) of the *Local Government Act*, the Natural Hazards Protection Development Permit Areas (DPA) are designated for the protection of development from hazardous conditions.

Application & Areas

7.4.2 The Natural Hazards Protection DPA applies to land within the Howe Sound East Sub Area and specifically includes Landslide Hazard Areas, Excavated Rock and Foundation Stability Hazards Areas, Seismic Liquefaction and Fan Stability Hazard Areas, Coastal Hazard Areas and Creek Hazard Areas, as indicated on Schedule C Map 16A and Map 16B. Guidelines are outlined for each Area.

Exemptions

7.4.3 Exemptions may be granted for the following circumstances:

(a) Additions to buildings or structures up to 25% of the existing ground floor area
(b) Buildings or structures with footprint of 20 m^2 or less, not intended for residential occupancy
(c) Removal of hazard trees by a Certified Arborist or professional forester
(d) Riparian enhancement
(e) Subdivision to facilitate a lot consolidation or a boundary adjustment, provided that no additional parcels are created
(f) Lots/subdivisions with an existing registered covenant or proposed covenant
(g) Parks for local and regional facilities

(h) Emergency response
(i) Flood management
(j) Public utilities and infrastructure
(k) Forestry activities on Crown Land

7.4.4 For Seismic Liquefaction and Fan Stability Hazard Areas, the following additional exemptions may be granted:
(a) Alteration or disturbance of land; and
(b) Subdivision of land.

Delegation of Authority

7.4.5 The Board delegates the authority to issue Natural Hazards Protection Development Permits to the Director of Planning and Development.

Objectives

7.4.6 To limit development within or near hazardous areas thereby minimizing the potential that new developments and alterations of land will increase hazards to adjacent lands and existing developments, both upslope and downslope.
7.4.7 To ensure adequate professional evaluation of geohazards and associated mitigation works.
7.4.8 To obtain assurance from Qualified Professionals that the development satisfies the Engineers and Geoscientists British Columbia Geohazard Assurance Statement.

GUIDELINES

Landslide Hazard Areas Guidelines

7.4.9 Landslide Hazard Areas are outlined on Schedule C Map 16A (DP-NH-01). A Natural Hazards Protection Development Permit is required for development activities within Landslide Hazard Areas, where the following guidelines.
(a) Where possible, development should be sited to avoid hazards. Where impossible or impractical to avoid hazards, mitigation measures may be required.
(b) Applications for land alteration/disturbance, subdivision, or building permits shall include a site-specific report from a qualified Professional Engineer or Professional Geoscientist that considers all relevant potential landslide hazards including, but not limited to, debris slides/slumps, rock falls, and rock slides.
(c) The report shall include the following information, as applicable to the development:
   i. Slope profiles with documentation of the limits of slope instability shall be provided. Consideration shall be given to the limits and types of instability and changes in stability that may be induced by site clearing, road building, climate change, timber harvesting, and future development both upslope and downslope of the subject property.
   ii. Recommended wet weather shutdown criteria for worker safety during site clearing, road building, and building construction.
   iii. Appropriate land use recommendations such as restrictions on *tree cutting*, surface drainage, filling and excavation.
   iv. A detailed stability assessment indicating potential failure modes, limiting factors of safety, and stability during seismic events. Geotechnical analytical techniques for evaluating seismic slope stability should follow the procedures described Engineers and Geoscientists British Columbia’s Guidelines for Legislated

Landslide Assessments for Proposed Residential Developments in British Columbia (May 2010 or current version).

v. A recommendation of required building setbacks from the crests and/or toes of steep slopes, and a demonstration of suitability for the proposed use.

vi. An assessment of shallow groundwater conditions and the anticipated effects of septic systems, footing drains, etc. on local slope stability.

vii. If required, definition of the site-specific rock fall shadow area, including an indication of the appropriate buffer zone and required protective works.

(d) Development Permits shall be in accordance with the recommendations of the applicable geohazard report or reports, including required mitigative measures.

(e) Geohazard reports submitted in support of a development permit applications shall meet the requirements outlined in the EGBC Geohazard Assurance Statement and appropriate EGBC Professional Practice Standards.

(f) Where development also falls within Environmental/Creek Hazard/Coastal Hazard/other DP(s), geohazard report shall be coordinated with other Qualified Professionals to create a comprehensive development permit application.

(g) Property owners are cautioned that the following activities may exacerbate hazards and contribute to slope failure, and should generally be avoided:

i. Alterations to natural drainage patterns or vegetation;

ii. Excavation on steep slopes or at the base of slopes;

iii. Constructing swimming pools, ponds, or other water features along or near the crest of slopes, where these features are not founded on competent bedrock;

iv. Placing fill, organic wastes, and debris along or near the crest of slopes;

v. Dumping of significant quantities of plowed snow on or near the crest of slopes;

vi. Discharge of surface or ground water on or near the crest of slopes;

vii. Cutting trees or removing other vegetation on or near the crest of slopes, except where required for emergency works.

Excavated Rock and Foundation Stability Hazard Areas Guidelines

7.4.10 Excavated Rock and Foundation Stability Hazard Areas are outlined on Schedule C Map 16A (DP-NH-02). Within these areas, further, site-specific geotechnical assessments will be required to confirm the siting of individual buildings and associated foundation design and construction requirements related to bedrock. A Natural Hazards Protection Development Permit is required for development activities within Excavated Rock and Foundation Stability Hazard Areas, where the following guidelines:

(a) Where possible, development should be sited to avoid hazards. Where impossible or impractical to avoid hazards, mitigation measures may be required.

(b) Applications for land alteration/disturbance, subdivision, or building permit shall include a site-specific report from a qualified Professional Engineer or Professional Geoscientist that considers all relevant potential hazards related to rock excavation, foundation construction, and foundation stability in bedrock.

(c) The report shall include the following information, as applicable:

i. Slope profiles with documentation of the limits of slope instability shall be provided. Consideration shall be given to the limits and types of instability and changes in stability that may be induced by rock excavation and foundation construction. The impacts of rock excavation and foundation construction both upslope and downslope shall also be considered.

ii. A detailed stability assessment indicating potential failure modes, limiting factors of safety, and stability during seismic events. For strong rock masses which are structurally controlled, kinematic stability analyses as well as limit equilibrium stability analyses on dominant, kinematically possible failure modes should be carried out.
iii. A recommendation of required building setbacks / foundation setbacks from the crest of steep rock slopes, and a demonstration of suitability for the proposed use.
iv. Recommended rock excavation methods (e.g. blasting, ripping, non-explosive splitting, machine excavation, or other) based on the anticipated rock mass conditions and foundation design and construction requirements, including anticipated measures that may be required to contain flyrock and dislodged boulders such as blast mats, berms, barriers, or catchment fences.
v. Anticipated rock slope stabilization measures such as shotcrete and rock bolts which may be required for both temporary and permanent stability.
vi. Recommendations and key issues that should be considered for blast design such as ground vibration thresholds and associated monitoring requirements. Additional requirements may apply where blasting will be required near fish-bearing waters or near other infrastructure such as high-pressure gas lines or the CN Rail tunnel.

(h) Development Permits shall be in accordance with the recommendations of the applicable geohazard report or reports, including required mitigative measures.
(i) Geohazard reports submitted in support of a development permit applications shall meet the requirements outlined in the Engineers and Geoscientists British Columbia Geohazard Assurance Statement and appropriate EGBC Professional Practice Standards.
(j) Where development also falls within Environmental/Creek Hazard/Coastal/other DP(s), geohazard report shall be coordinated with other Qualified Professionals to create a comprehensive development permit application.

Seismic Liquefaction and Fan Stability Hazard Areas Guidelines

7.4.11 Seismic Liquefaction and Fan Stability Hazard Areas are outlined on Schedule C Map 16A (DP-NH-03). Seismic slope stability and soil liquefaction hazards will need to be assessed on a site-specific basis as per the BC Building Code (BCBC 2018), and may require specific consideration in development approvals. A Natural Hazards Protection Development Permit is required for development activities within Seismic Liquefaction and Fan Stability Hazard Areas, where the following guidelines.

(a) Applications for development permits in Seismic Liquefaction and Fan Stability Hazard Areas shall include a site-specific report from a qualified Professional Engineer that considers seismic liquefaction and related geotechnical hazards (e.g. submarine landslides, flow slides, lateral spreading, subsidence), as applicable to the proposed building per BCBC (2018 or current version).
(b) The report shall include the following information, as applicable to the development:
    i. Seismic liquefaction triggering assessments, conducted in general accordance with the procedures recommended by Idriss and Boulanger (2008) and Boulanger and Idriss (2014), which are the current standard of practice in British Columbia.

ii. A detailed global stability assessment of the proposed building site indicating potential failure modes, limiting factors of safety, and stability under both static and seismic loading. Geotechnical analytical techniques for evaluating seismic slope stability should follow the procedures described EGBC's Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in British Columbia (May 2010 or current version). Consideration shall also be given to the limits and types of instability and changes in stability that may be induced by nonseismic factors including site grading loads, foundation loads, extreme low tides, and sea level rise.

iii. Assessment of liquefaction and its consequences, including recommendations for ground improvement and foundation design, should reference the Greater Vancouver Liquefaction Task Force Report, Geotechnical Design Guidelines for Buildings on Liquefiable Sites in Accordance with NBC 2005 for Greater Vancouver Region (May 2007 or current version), as applicable.

iv. Recommended geotechnical building setbacks from the natural boundary of Howe Sound, and a demonstration of suitability for the proposed use.

v. Recommended mitigative measures to limit potential impacts to the building site and adjacent developments from construction-related disturbances including, as applicable, the stockpiling of soil, excavation shoring, dewatering, ground improvement, and pile driving.

(c) Development Permits shall be in accordance with the recommendations of the applicable geotechnical report or reports, including required mitigative measures.

(d) Where development also falls within Environmental/Creek Hazard/Coastal Hazard/other DPA(s), geohazard report shall be coordinated with other Qualified Professionals to create a comprehensive development permit application.

Coastal Hazard Areas Guidelines

7.4.12 Coastal Hazard Areas are outlined on Schedule C Map 16B (DP-NH-04). Coastal hazard areas include flooding (from high sea level, waves, and tsunami) and erosion. Within these areas, further, site-specific geotechnical assessments will be required. A Natural Hazards Protection Development Permit is required for development activities within Coastal Hazard Areas, where the following guidelines apply.

(a) Development applications should involve a refined assessment of the coastal flood level by an appropriately qualified professional engineer or geoscientist, with particular emphasis on highly variable wave effects, and include considerations of the following:

i. If any area on the property is below 8 m (GSC), a coastal flood hazard assessment should be required, that would include: estimation of a site-specific coastal flood level, consideration of future sea level rise and allowance for wave runup as outlined in the Provincial Guidelines.

ii. Areas subject to coastal flooding should require the definition of an appropriate flood construction level (FCL) that reflects the foreseeable coastal flood levels for the life of the development, in view of pertinent guidelines and SLRD provisions.

(b) Some considerations for a coastal flood hazard mitigation plan are noted below.

i. The preferred approach is to avoid development within the coastal flood hazard area.

ii. In some situations, it may be appropriate to consider the need for a sea dike, with an appropriate setback from the shoreline.

iii. As dikes are subject to approval by the Inspector of Dikes (IOD) pursuant to the Dike Maintenance Act, it is important that any dike design is performed in consideration of IOD standard dike criteria. This includes provision for any constructed dikes to be under the maintenance authority of SLRD. The design criteria would include appropriate allowances for sea level rise and wave effects, and provision for long-term upgrading of dikes for additional sea level rise.
iv. In the absence of a sea dike, an appropriate coastal setback should be provided. In general, the setback should be sufficient to preclude development being affected by shoreline erosion without the need for shore protection works.
v. Development should meet applicable setback provisions from the landside dike toe and any internal watercourses.
vi. The FCL should be achieved by landfill to the FCL. Any construction of basements or other habitable areas below the FCL would require justification and variance.
vii. The mitigation plan should consider appropriate protection of infrastructure associated with the proposed development.
viii. Integration with mitigation plans for other hazards may be required.

Creek Hazard Areas Guidelines

7.4.13 Creek Hazard Areas are outlined on Schedule C Map 16B (DP-NH-05). Creek hazard areas include creek corridors, ravines, low channel confinement, and debris floods/flows. Within these areas, further, site-specific geotechnical assessments will be required. A Natural Hazards Protection Development Permit is required for development activities within Creek Hazard Areas, where the following guidelines apply.

(a) Development applications should involve a refined assessment of the creek hazards by an appropriately qualified professional engineer or geoscientist and include considerations of the following:

i. Potential creek-related hazards should be assessed in terms of frequency and magnitude, and potential area of impact. The hazard assessment should cover the entire land parcel being considered for development, with a focus on the hazard areas identified in this DPA. The hazard assessment should reasonably consider the potential for upstream resource development activity (such as forestry) and land development in adjacent areas. The hazard assessment should also consider the potential for future climate change.
ii. Creek corridors upstream and on the property should be subject to detailed assessment, including survey to establish the natural boundary location and provide information regarding the channel geometry (including cross-sections).
iii. The proposed development design should endeavour to avoid the area of potential creek hazard impact. Where development is proposed within an area of potential creek hazard, an appropriate mitigation plan should be prepared.
iv. The need for a setback from the crest and/or toe of a ravine, and the natural boundary of a creek, should be considered.
v. Debris flow and debris flood hazards may require consideration of channel and slope characteristics upstream from the subject property. Associated data may include stream and ravine bank profiles, bank stability assessment, and run out limits of debris within the creeks.
vi. The degree of hazard assessment work may be tailored to suit the proposed scale of development, as provided in the EGBC guidelines for flood assessments.

(b) Some considerations for a flood hazard mitigation plan are noted below.

i. The preferred approach is to avoid development within creek hazard areas.

ii. In some situations, it may be appropriate to consider the need for a flood protection dike, with an appropriate setback from the creek.

iii. As dikes are subject to approval of the IOD under the Dike Maintenance Act, it is important that any dike design is performed in consideration of IOD standard dike criteria. This includes provision for any constructed dikes to be under the maintenance authority of SLRD.

iv. Development should meet applicable setback provisions from the natural boundary of the creek or the landside dike toe.

v. A flood construction level (FCL) should be developed in consideration of the design flood level and other design considerations as noted herein.

vi. The FCL should be achieved by landfill to the FCL. Any construction of basements or other habitable areas below the FCL would require justification and variance.

vii. The mitigation plan should consider appropriate protection of infrastructure associated with the proposed development.

viii. The mitigation plan should include documentation that it will not result in a transfer of risk to other properties, or otherwise mitigate such impacts.

ix. Integration with mitigation plans for other hazards may be required. Integration with any pertinent stormwater management plans may also be required.

Save Harmless Covenant

7.4.14 Property owners are required to register a “save harmless” covenant on the title of the property where proposed development is located within the mapped Natural Hazards Protection Development Permit Areas, as per Schedule C Map 16A and 16B.

7.5 WILDFIRE PROTECTION DEVELOPMENT PERMIT AREA

BACKGROUND

Purpose

7.5.1 Pursuant to Section 488(1)(b) of the *Local Government Act*, the Wildfire Protection Development Permit Area (DPA) is designated for the protection of development from hazardous conditions.

Application & Area

7.5.2 The Wildfire Protection DPA applies to all lands within Electoral Area D. A Wildfire Protection Development Permit is required for development activities that involve any of the following:

(a) Construction of, addition to or alteration of a building or other structure, where a building permit is required.

Exemptions

7.5.3 A Wildfire Protection Development Permit is not required for:

(a) additions to existing buildings where the total area of the additions is less than 50 m^2;
(b) renovations within an existing building that are not roofing related (note: roof renovations require non-combustible construction materials as per section 7.5.6);
(c) where a covenant is registered on title requiring property owners to comply with the Wildfire Protection DPA guidelines;
(d) a temporary use being carried on under a Temporary Use Permit issued by the **Board;**
(e) where exempted by the building inspector.

Delegation of Authority

7.5.4 The Board delegates the authority to issue Wildfire Protection Development Permits to the Director of Planning and Development.

Objective

7.5.5 To ensure new developments in Electoral Area D are designed and constructed to minimize wildfire hazard, and contribute to the fire safety of neighbourhoods and communities.

GUIDELINES

General Guidelines

7.5.6 The following general guidelines apply:

(a) a development permit shall be issued only if non-combustible roofing materials that conform to Class A or Class B fire resistance as referenced in the current BC Building Code are utilized (examples include metal, asphalt, clay and composite rubber tiles) and if <u>two or more</u> of the following measures identified in the BC FireSmart Home Owner's Manual and BC Building Code are indicated in the application:

i. Non-Combustible Zone (0 – 1.5 meters from face of building) implement all of the following: non-combustible siding (including but not limited to cement board, slate, metal, plaster, stucco, and other concrete products, excluding decorative trim, soffit, fascia, and similar features); fire resistant windows (exterior windows, windows within exterior doors, and skylights shall be tempered, multilayered glazed panels, or glass block), install spark arrestor on chimney (for fireplaces, wood stoves and furnaces), screen vents, eaves, attics and underfloor openings with three-millimetre non-combustible wire mesh;

ii. Zone 1 (1.5 – 10 meters) – implement fire resistant landscaping (plant low-growing, well-spaced, fire-resistant plants and shrubs – refer to BC Fire Smart Landscaping Guide) and maintain a 1.5-metre, non-combustible zone around the entire home and any attachments (rock, or stone surface with no plants, debris or combustible materials); or

iii. Zone 2 (10 – 30 meters) -On parcels 2 ha or greater, implement coniferous tree spacing (spacing trees at least 3 meters apart) and remove combustible materials.

(b) Applications for a Wildfire Protection Development Permit shall be accompanied by plans indicating the following, as necessary to show how the requirements under 7.5.6 (a) are being implemented in the proposed development:

i. Location of all existing and proposed buildings and structures, parking areas, and driveways;

ii. Extent and nature of existing and proposed landscaping, including details of trees and ground cover; and
iii. The exterior materials of existing and proposed structures.

(c) Additional information that may be required in order to consider issuance of a Development Permit includes landscape plans that are prepared in consultation with a Registered Professional Biologist, Forester, or Landscape Architect and that provide recommendations for ensuring minimal fuel loading within landscaped areas, ongoing protection from interface fire hazard, and the type and density of fire resistive plantings that may be incorporated within landscaped areas to help mitigate the interface fire hazard.

(d) Applicants are encouraged to review and comply with the BC FireSmart Guidelines and the fuel management recommendations outlined in the SLRD Community Wildfire Protection Plan.

(e) Applicants are encouraged to remove all debris from land clearing (clean wood and vegetation) and take it to an appropriate facility to be composted.

7.6 Steep Slope Protection Development Permit Area

BACKGROUND

Purpose

7.6.1 Pursuant to Section 488(1) (a) and (b) of the *Local Government Act*, the Steep Slope Protection Development Permit Area is designated for the protection of development from hazardous conditions.

Application & Area

7.6.2 The Steep Slope Protection DPA applies to lands within the Britannia North Neighbourhood with slopes of 30% or greater, as indicated on Schedule C Map 6.

7.6.3 A Steep Slope Protection Development Permit is required for development activities that involve any of the following:

(a) Removal, alteration, disruption or destruction of vegetation on land with slopes of 30% or greater, and land within 20 m of land with slopes of 30% or greater.

(b) Alteration of land with slopes of 30% or greater, including clearing, grading, blasting and other site preparation activities;

(c) Construction of, addition to or alteration of a building or structure on slopes of 30% or greater; and

(d) Subdivision of land with slopes of 30% or greater, where the number of parcels is increased.

Exemptions

7.6.4 A Steep Slope Protection Development Permit is not required for:

(a) The removal of one tree from a property within a two-year time period, only where that tree is located outside a covenant area as described on the land title of the subject property. This applies to any tree that has a diameter (width) of 20 cm or greater, measured at 1.4 m above the ground;

(b) The removal of a *hazard tree* as identified by a hazard assessment report prepared by a Certified Arborist and submitted to the Director of Planning and Development;
(c) Gardening and yard maintenance activities within an existing landscaped area, such as lawn mowing, minor pruning of trees (not *tree cutting*) and shrubs (where minor is considered 10% or less of trees/shrubs located on a property), and planting of vegetation, except where such activities would occur within a covenant area as described on the land title of the subject property;
(d) The removal or planting of trees that have a diameter (width) of 5 cm or less, measured at the base;
(e) The installation of fencing or similar;
(f) The clean-up of accumulations of fallen branches, leaves, dry grass and needles from the ground within 30 m of the dwelling, only where that combustible material is located outside a covenant area as described on the land title of the subject property;
(g) A temporary use being carried on under a Temporary Use Permit issued by the Board;
(h) Soil deposit and/or removal activity that has been issued a valid soil deposit/removal permit by the SLRD;
(i) The removal of invasive species including, but not limited to those identified by the Sea to Sky Invasive Species Council (or a similar society) and/or Provincial regulations.
(j) Forestry practices associated with a provincially approved Community Forest pursuant to the BC Forest Act;
(k) *Tree cutting* or removal that is undertaken by B.C. Hydro, a utility under the *Utilities Act* (B.C), a utility owned or operated by the Province of British Columbia, or a telecommunications or other federally regulated utility, on land owned or held by the utility, and done for the purpose of safety, maintenance or operation of the utility's infrastructure;
(l) *Tree cutting* or removal pursuant to works undertaken by the SLRD;
(m) To resolve emergency situations that present an immediate danger related to flooding, erosion, or other immediate threats to life or property; and
(n) Activities conducted under the Provincial Emergency Program or the SLRD Emergency Management Program.

Delegation of Authority

7.6.5 The Board delegates the authority to issue Steep Slope Protection Development Permits to the Director of Planning and Development.

Objectives

7.6.6 To limit development within or near steep slope hazardous areas thereby minimizing the potential that new developments and alterations of land will increase hazards to adjacent lands and existing developments, both upslope and downslope.

7.6.7 To ensure adequate professional evaluation of geohazards and associated mitigation works.

7.6.8 To obtain assurance from Qualified Professionals that the development satisfies the Engineers and Geoscientists British Columbia Geohazard Assurance Statement.

GUIDELINES

General Guidelines

7.6.9 The following general guidelines apply:

(a) Where possible, development should be sited to avoid steep slopes and hazardous conditions. Where impossible or impractical to avoid, mitigation measures may be required.

(b) Property owners may be required to register a “save harmless” covenant on the title of the property where development is proposed in areas where there are hazardous conditions.

(c) Applications for alteration of land, subdivision, or building permits on land with slopes of 30% or greater, and land within 20 m of land with slopes of 30% or greater may be required to include a site-specific report from a qualified Professional Engineer or Professional Geoscientist stating that the site is “safe for intended’ and considers all relevant potential landslide hazards including, but not limited to, debris slides/slumps, rock falls, and rock slides.

(d) The report may be required to include the following information, as applicable to the development:

i. Slope profiles with documentation of the limits of slope instability. Consideration shall be given to the limits and types of instability and changes in stability that may be induced by site clearing, road building, climate change, timber harvesting, and future development both upslope and downslope of the subject property.

ii. Recommended wet weather shutdown criteria for worker safety during site clearing, road building, and building construction.

iii. Appropriate land use recommendations such as restrictions on *tree cutting*, surface drainage, filling and excavation.

iv. A detailed stability assessment indicating potential failure modes, limiting factors of safety, and stability during seismic events. Geotechnical analytical techniques for evaluating seismic slope stability should follow the procedures described Engineers and Geoscientists British Columbia’s Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in British Columbia (May 2010 or current version).

v. A recommendation of required building setbacks from the crests and/or toes of steep slopes, and a demonstration of suitability for the proposed use.

vi. An assessment of shallow groundwater conditions and the anticipated effects of septic systems, footing drains, etc. on local slope stability.

vii. If required, definition of the site-specific rock fall shadow area, including an indication of the appropriate buffer zone and required protective works.

viii. If required, an erosion and sediment control plan.

(e) Development Permits shall be in accordance with the recommendations of the applicable geohazard report or reports, including required mitigative measures.

(f) Geohazard reports submitted in support of a development permit applications shall meet the requirements outlined in the EGBC Geohazard Assurance Statement and appropriate EGBC Professional Practice Standards.

(g) Where development also falls within other DP(s), geohazard report shall be coordinated with other Qualified Professionals to create a comprehensive development permit application.

(h) Property owners are cautioned that the following activities may exacerbate hazards and contribute to slope failure, and should generally be avoided:

i. Alterations to natural drainage patterns or vegetation;
ii. Excavation on steep slopes or at the base of slopes;
iii. Constructing swimming pools, ponds, or other water features along or near the crest of slopes, where these features are not founded on competent bedrock;
iv. Placing fill, organic wastes, and debris along or near the crest of slopes;
v. Dumping of significant quantities of plowed snow on or near the crest of slopes;
vi. Discharge of surface or ground water on or near the crest of slopes;
vii. *Cutting trees* or removing other vegetation on or near the crest of slopes, except where required for emergency works.

(i) Parking areas and buildings should be designed to minimize run-off, and wherever possible, permeable materials such as gravel shall be used to reduce drainage impacts on adjacent lands and streams.

(j) Areas abutting Highway 99 must ensure slope stability protection measures are in place to mitigate potential impacts to critical infrastructure.

Vegetation Management Guidelines

7.6.10 The following vegetation management guidelines apply:

(a) Application for removal, alteration, disruption or destruction of vegetation on land with slopes of 30% or greater, and land within 20 m of land with slopes of 30% or greater, shall include a site-specific report from a Professional Engineer, Geoscientist, Certified Arborist, or Landscape Architect that supports the removal of the trees/vegetation and considers all relevant slope stability, drainage and vegetation management issues.

(b) The report may be required to include the following information, as applicable to the development:

i. Vegetation management plan (outlining what will be removed and what will be retained, including rationale and before and after photos);
ii. A recommendation of required vegetation management setbacks from the crests and/or toes of steep slopes;
iii. Slope profiles and site survey plan;
iv. If required, replacement planting plan; and
v. If required, an erosion and sediment control plan.

(c) Any removal of trees/vegetation shall only occur as recommended by the professional report outlined in 7.6.10 (a) and (b).

(d) Effort should be made to retain as much existing vegetation as possible, especially significant vegetation and habitat, using the following guidelines:

i. Minimize the extent of cut and fill required for road construction and instead conform to the natural contours of the landscape. All cut and fill slopes should be treated with growing medium, hydroseeded, and planted with native vegetation.
ii. Plan open space areas to incorporate stands of mature forest.
iii. Retain existing ground vegetation and trees where possible within development areas.
iv. Delineate the location of all veteran trees within proposed development areas and manage design to avoid disturbance and removal where possible. Protect existing veteran trees within appropriately sized vegetation clumps.

(e) Tree management considerations shall provide a natural and environmentally appropriate response to retention, pruning, and removal.

(f) Longer term protection of vegetation on steeply sloped areas may be managed through covenants registered on property titles if appropriate.

7.7 FORM, CHARACTER & CONSERVATION DEVELOPMENT PERMIT AREA

BACKGROUND

Purpose

7.7.1 Pursuant to Section 488(1) (e), (f), (h), (i), (j) of the Local Government Act, the Form, Character and Conservation Development Permit Area is designated for the following purposes:

(a) establishment of objectives for the form and character of intensive residential development;

(b) establishment of objectives for the form and character of commercial, industrial or multi-family residential development;

(c) establishment of objectives to promote energy conservation;

(d) establishment of objectives to promote water conservation; and

(e) establishment of objectives to promote the reduction of greenhouse gas emissions.

Application

7.7.2 The Form, Character and Conservation Development Permit Area applies to all intensive residential (including duplex and small lot subdivision), multi-family, industrial and commercial development in the Electoral Area D.

7.7.3 A Form, Character and Conservation Development Permit is required for development activities that involve any of the following:

(a) Construction of, addition to or alteration of a building or other structure, where a building permit is required;

(b) the alteration of land, a building or any other structure; or

(c) Subdivision of land where the number of parcels is increased.

7.7.4 Specific guidelines identified as Multi-Family or Commercial only apply to development that encompasses those specified uses.

Exemptions

7.7.5 A Form, Character and Conservation Development Permit is not required for:

(a) buildings having a gross floor area of less than 10 m^2;

(b) single-family dwellings;

(c) renovations within an existing building;

(d) a temporary use being carried on under a Temporary Use Permit issued by the **Board;** and

(e) soil deposit and/or removal activity that has been issued a valid soil deposit/removal permit by the SLRD.

Delegation of Authority

7.7.6 The Board delegates the authority to issue Form, Character and Conservation Development

Permits to the Director of Planning and Development for the following instances:

(a) Applications involving buildings and structures with a maximum Gross Floor Area (GFA) of $500m^2$.

(b) Applications involving land alteration with no buildings or structures being constructed.

7.7.7 Applications involving buildings and structures with a Gross Floor Area (GFA) of greater than 500 m^2 require approval of the Board.

Objectives

7.7.8 To guide the form and character of development to:

(a) ensure a high-quality built environment;
(b) support a cohesive landscape;
(c) reflect the natural beauty and character of the natural environment;
(d) ensure safe, functional, liveable neighbourhoods;
(e) enhance connectivity and the public realm;
(f) ensure adequate protection of groundwater quality and quantity; and
(g) encourage energy and water conservation in new development.

GUIDELINES

General Guidelines

7.7.9 The following general guidelines apply:

(a) Applications for a development permit shall be accompanied by plans, including but not limited to survey plans, site development plans, grading plans, building plans, storm water management plans, landscape plans, lighting plans, site servicing plans and a written description of the proposal, to indicate how the proposed development is meeting the following guidelines.

(b) All projects are encouraged to apply design philosophies and incorporate practices and materials that significantly reduce energy and water use, greenhouse gas emissions, as well as employ renewable energy sources where possible. With respect to energy and water, conservation principles should be incorporated through building construction, siting, and landscaping. Efforts to minimize the generation of solid waste in construction and deconstruction is also encouraged.

(c) All projects shall consider and manage their cumulative impact on groundwater resources.

(d) New developments shall eliminate infrastructure that maintains fossil fuel dependence. For certainty, Development Permits associated with new developments that show fossil fuel connections will not be accepted.

7.7.10 **Context, Character, Siting, and Orientation**

(a) Building design and siting should fit the existing terrain, minimize the need for cutting, filling or regrading, and incorporate and enhance natural landscape features such as trees and other significant vegetation, rock outcroppings and water courses.

(b) Buildings should be designed to suit the physical character and terrain of the site and reflect the west coast mountain location.

(c) Use sensitive site clearing techniques to preserve existing landscape values, maintain topsoil onsite for reuse, maintain natural grades and prevent cut and fill.

(d) Prevent soil and water contamination, and incorporate sediment and erosion control measures to protect watercourses.
(e) Work with natural grades wherever possible to minimize cuts and fills and limit impacts to the hydrology of adjacent lands.
(f) Design and siting of buildings and amenities should ensure aquifer protection for drinking water sources.
(g) Design and siting of buildings should ensure view corridors and sunlight access is maintained.
(h) Design and siting of accessory buildings should complement the main building with the form, massing, articulation, and the use of colours, finishes and materials.
(i) Proposed site development must be carefully integrated with existing or proposed public trails, parks and open spaces.
(j) Support connections to transit and preferred modes of transportation networks.

Retaining Walls

(k) Avoid the use of high retaining walls adjacent to public spaces.
(l) Where visible the retaining walls should take on a natural look wherever possible and reflect the mountain and forested terrain character.
(m) Retaining walls should largely be rock stack and / or vegetated wall systems., with the type of system used dependent on the visibility of the wall, geotechnical considerations, topography, surrounding vegetation types, solar orientation (south facing vegetated walls tend to dry out) and spatial constraints.
(n) Retaining Wall Acceptable Materials include:
    i. Rock stacked walls where visible should be limited to 2.5 m. steps with 1.2 m. planting areas in between;
    ii. Vegetated Walls Systems such as FlexMSE https://www.flexmse.com/ or Sierra Scape Gabian Walls with local blasted rock;
    iii. Faced MSE walls;
    iv. Reinforced Concrete with formed finish to a maximum height of 2 m. with 1.2 m. planting in between;
    v. Cast in place walls with treated surface to a maximum height of 2 m. with 1.2 m. planting in between; and
    vi. Shotcrete walls with treated surface to mimic natural bedrock.
(o) Retaining Wall Not Acceptable Materials includes:
    i. Lock block walls are not permitted where visible unless faced with stone.

(p) **Multi-Family and Commercial:** Developments must incorporate architectural design that is sensitive to the location.
(q) **Multi-Family and Commercial:** Proposed building siting must consider the effect on neighbours including sunlight access and view impacts.
(r) **Multi-Family and Commercial:** Retaining walls employed in siting the buildings on the sloping site should be stepped in ways to minimize their visual impact and screened with soft landscaping.
(s) **Multi-Family and Commercial:** All rooftop mechanical equipment must be screened.
(t) **Multi-family and Commercial:** Principal building entrances must be clearly visible and accessible from the street with well defined pick-up and drop-off facilities. Entry canopies should be integrated with the building design.
(u) **Multi-Family and Commercial**: Use landscaping to soften service and storage areas and

to improve pedestrian comfort.

(v) **Multi-Family:** Consideration of grade separation is encouraged to improve privacy for the enjoyment of patios.

(w) **Multi-Family:** Consideration should be given to the provision of individual exterior entrances to grade level apartments and townhouses.

(x) **Multi-family:** When beneficial for privacy, ground floor patio spaces that extend beyond the face of the building should be defined with landscape edge treatments including walls, hedges and decorative railings. The materials used for the walls should integrate with the material on the building.

(y) **Commercial:** Strong visible and physical connections tying the interior spaces with the exterior are encouraged.

7.7.11 Building Form, Massing and Variation

(a) Buildings shall be designed for human scale, visual interest and variety, with consideration of:

i. Articulated building plans that create rhythm and visual interest;
ii. Varied and broken roof lines and forms;
iii. Gables, porches, recessed balconies that incorporate robust wood and stone;
iv. Wall projections and indentations, windows and siding treatments as well as varied material textures;
v. Extending the use of building base materials at entries and stairs to the landscape
vi. Terracing of building forms
vii. The avoidance of extensive flat unarticulated walls
viii. Maintaining view corridors; and
ix. Mitigating the actual and perceived bulk of buildings by utilizing appropriate massing.

(b) Buildings shall incorporate techniques and treatments that emphasize the transition between inside and outside (e.g. operable windows, overhead rolling doors, canopies, trellises, recessed entrances, and extended building planes).

(c) Utilize landscaping treatments to further soften the mass of building form (e.g. strategic placement of trees, shades, vines, trellis, privacy screens and arbours along with surface materials such as pavers).

(d) Buildings should be designed for human scale and visual interest at all elevations.

(e) **Multi-Family and Commercial:** Buildings should be designed as a coherent group articulated for human scale and visual interest and sharing common details and exterior materials.

(f) **Multi-Family and Commercial:** All rooftop mechanical equipment and main floor service areas must be screened.

(g) **Multi-Family and Commercial:** Consideration should be given to reducing the overall impact of building bulk and massing by incorporating:

i. Balconies (with 2 m depth for usability), bay windows and cantilevered projections;
ii. Variations of cornice lines and roof slopes;
iii. Hips, gables, dormers, chimneys and other architectural features to break up larger scale roof forms; and
iv. Sun shades, trellises and privacy screens.

(h) **Commercial:** Incorporate thematic paving, seating, planters, signage, lighting and other features to enhance the pedestrian experience.

(i) **Commercial:** The principal entrance of resort commercial developments must include well-defined drop-off areas for visitors, and local public transportation.

(j) **Commercial and Industrial:** The outdoor storage of equipment or materials should generally be placed at the rear of the site to reduce visibility from surrounding roads and any visible residential areas.

7.7.12 Building Materials and Colours

(a) Buildings shall be constructed of natural materials and colours that blend in well with the surrounding natural environment, suit the physical character and terrain of the site and reflect the west coast mountain character.

(b) Wood and stone should feature predominantly in the finishing treatments.

(c) The use of sustainable or 'green' building materials, including low carbon, recycled, recyclable, healthy and locally-sourced materials, is encouraged.

(d) The use of durable building materials and finishes that have low "embodied energy", are from rapidly renewable sources that will yield long service life and low maintenance, is encouraged

(e) Construct/install with deconstruction in mind to allow for material reuse.

(f) **Commercial and Multi-Family:** Building materials should achieve a cohesive and unified building image that complements the character of the surrounding neighbourhood.

(g) **Multi-Family and Commercial:** Principal exterior materials should include glass, local stone and wood, with robust wood detailing employed for weather protection and entry canopies.

7.7.13 Landscaping

(a) Use native or adaptive vegetation. All invasive plant materials are prohibited.

(b) Pollinator plants should be considered and encouraged.

(c) Retain existing native mature trees and shrubs in setback areas where feasible.

(d) Fully landscape all areas not covered by buildings, structures, driveways, parking or natural rock surfaces.

(e) Hard landscaping must consider the retention of natural features, vegetation and trees.

(f) Incorporate vegetated buffer areas throughout and around impervious paved areas to filter rainwater, and moderate heat island effects and air emissions.

(g) Use plant materials that reduce and filter runoff, and support rainwater infiltration.

(h) Group plantings according to water requirements, sun requirements and the site location and provide groupings of shade trees and shrubs on large expanses of open space.

(i) Encourage planting materials that eliminate the need for pesticide use.

(j) Minimize the use of water intensive lawn types and/or use lawn alternatives such as natural ground covers and native grasses. Meadow Lawn may be used where appropriate for gathering, picnicking or informal play. Lawn areas in park spaces may be native grasses and meadow grass that require minimal maintenance.

(k) Install above or below ground cisterns to capture, store and potentially reuse rainwater to irrigate non-edible plants and landscaping.

(l) Design, install, and manage cost effective and efficient irrigation systems that support water, soil, and energy conservation practices. The intent is that irrigation shall be minimized and used strategically.

(m) Encourage urban agriculture and provide for community gardens.

Tree Management

(n) Tree management considerations shall provide a natural and environmentally appropriate response to retention, pruning, and removal.

(o) Development shall minimize the disturbance of forested areas where ever possible as buildings, roads and infrastructure are planned, designed, and constructed.

(p) All development sites within forested areas and adjacent to significant tree stands should be reviewed by a qualified arborist to ensure the trees incorporated into parcels are healthy and wind firm.

(q) For trees located on development lots, retention should occur where possible through sensitive site planning, and significant trees should be incorporated into the development, if possible.

(r) When trees are removed for site buildings and roads, an uneven staggered edge rather than a straight line of trees is recommended to maximize edge habitat for wildlife, regenerate under storey growth and reduce windthrow hazards.

(s) Prior to any work being carried out in any phase of the development the developer may be required to retain a Landscape Architect or Arborist to prepare plans for tree retention, preservation, and removal.

(t) **Commercial:** For resort commercial developments, the incorporation of landscaped terraces and vegetated roofs is encouraged.

Fencing

(u) Fencing should be used minimally and used to provide privacy where required and for safety and security reasons.

(v) Fencing should take on a more open character and not be solid, blocking out views and connection to the surrounding landscape. Fencing materials and design should reflect a west coast contemporary character and look.

7.7.14 Outdoor Open Space, Common Areas and Amenity Spaces

(a) **Multi-Family:** Outdoor gathering spaces, places between buildings, and pedestrian connections should all be designed in conjunction with the building plans to maximize usability and aesthetics.

(b) **Multi-Family:** Interior and exterior common amenity spaces should be appropriate to the size of the building and be flexible for all weather, particularly extreme heat.

(c) **Multi-Family:** Exterior spaces should be located for good sunlight access and views, while providing for heat mitigation. Consideration should be given to developing upper roof areas for amenity use.

(d) **Multi-Family:** Communal amenity areas should be carefully designed and included in all multi-family sites. These areas should include gathering spaces for outdoor cooking, entertaining, play, and urban agriculture (where appropriate). These spaces should be designed to encourage community and flexibility for all weather.

(e) **Multi-Family:** Physical comfort should be considered through site planning, use of windscreens and arbours, and/or planting for sun protection.

(f) **Multi-Family:** Roof terraces, patios and gardens are encouraged as private or shared outdoor space. These areas should be designed to mitigate impacts on the privacy and enjoyment of neighboring residences and outdoor spaces.

(g) **Commercial and Multi-Family:** New developments, not within 250-500 metres of a publicly accessible playground, should prioritize on-site outdoor children's play areas. Children's play areas should be designed with:

i. play equipment or natural elements for a range of ages;
ii. universally-accessible features and furnishings;
iii. seating for supervising adults;
iv. separation of play areas from vehicle circulation and parking areas;
v. maximized sunlight with areas of shade in the summer;
vi. areas of overhead weather protection to enable functional use of the site in the rain and heat; and
vii. hardy planting for adjacent landscaping.

(h) **Commercial:** Consideration shall be made for public restrooms.

7.7.15 Rainwater and Stormwater Management

(a) Innovative, on-site water management techniques should be considered, such as green roofs, raingardens, bioswales, use of pervious surfaces, engineered rock pits and soil cells, and roof drainage collection and storage for landscaping purposes.

7.7.16 Energy Conservation

(a) Designing buildings to be net zero ready is encouraged.
(b) The use of onsite renewable power generation systems to supply electrical, heating, and cooling needs to buildings and other structures, is encouraged.
(c) New developments shall eliminate fossil fuel combustion for heating, cooling and cooking.
(d) The orientation and siting of buildings and structures should take advantage of opportunities for passive solar gain to maximize winter heating and summer cooling.
(e) Cool roofs and pavements made of highly reflective and emissive materials are encouraged to mitigate urban heat, lower energy use and GHG emissions and improve human health and comfort.
(f) Select materials that encourage thermal massing and seasonal thermal energy storage.
(g) Building design that promotes daylight exposure for natural lighting is encouraged.
(h) Building design that allows for natural ventilation, such as operable windows on at least two sides of the building, is encouraged.
(i) Design measures and exterior shading devices, such as fixed awnings or retractable canopies that are adjustable according to season, should be employed to limit summer solar gain through south facing windows and glazing.
(j) Variances may be considered for energy efficient buildings that commit to achieve BC Energy Step Code Step 5 or higher in order to facilitate energy efficient form of construction.

7.7.17 Accessibility

(a) Design to accommodate the functional needs of all individuals, especially those who have been traditionally excluded from community building including children, adults, and seniors, and those with visual, auditory, mobility or cognitive challenges.
(b) Ensure that site circulation and grade changes facilitate movement by people with disabilities, and that colour contrast in materials in outdoor areas adequately marks transitions (e.g. to stairs between two levels) for those who are visually impaired.

(c) Pedestrian routes should be level or gently graded, illuminated, hard surfaced, smooth (no interlocking bricks/perpendicular banding), and non-slip.
(d) Access for persons with disabilities should be appropriately designed and clearly visible from the principal entrance, visually integrated with the overall building design and site plan, and not relegated to an alternate building frontage for the sake of architectural convenience.
(e) Ensure that colour contrast in materials in outdoor parking and pedestrian areas adequately marks transitions for those who are visually impaired.
(f) Provide universal design features such as accessible pedestrian routes through the development separated from parking and lanes, ramps and curb cuts, crosswalks, street or park furnishings, lighting, and wayfinding.
(g) **Multi-Family:** Building design that allows for future adaptation in unit configuration and use to allow aging in place is encouraged.

7.7.18 Parking, Transportation and Circulation

(a) The majority of off-street surface parking should be housed in enclosed or covered spaces within a building and garage doors recessed from the face of the building.
(b) Provide for an apron in front of garages sized to accommodate parked cars.
(c) Minimize the use of impervious paving and dark coloured absorptive materials for sidewalks, driveways, roads, and parking lots.
(d) Location and design of parking areas should minimize impacts on sidewalk and bike path continuity.
(e) Provide weather-protected transit stops and lay-bys for intensive residential, multi-family and commercial developments, where appropriate and aligned with transit plans.
(f) Connect transit facilities with existing or planned preferred modes of transportation networks.
(g) Car share or bike share spaces should be visible and conveniently located.
(h) Provide easily accessible, secure, and weather-protected bicycle parking facilities.
(i) Pedestrian and cycling routes should provide internal connectivity and efficient links to existing or planned neighbouring sidewalks, trails, and key destinations, demarcated at vehicular intersections and avoiding high vehicular traffic areas where possible
(j) **Multi-Family:** Provide internal pedestrian pathways or sidewalks which connect to each unit. Public pedestrian mid-block connections are encouraged.
(k) **Multi-Family:** Internal road networks should incorporate curb cuts at road crossing, and traffic calming strategies that support safe cycling.
(l) **Multi-Family:** The majority of off-street parking should be contained within the bulk massing of the building. On sloping sites where parking structures are partially visible at the lower sides, they should be appropriately screened and landscaped. Surface parking should be suitably landscaped and impervious paving minimized.
(m) **Multi-Family:** Smaller visitor parking areas, in close proximity to individual units or buildings, are favoured over large parking areas.
(n) **Commercial:** Provide preferred modes of transportation end of trip support facilities for employees, including showers and change rooms.

(o) **Commercial and Multi-Family:** Improve standards for the delivery and pickup of goods and services in new developments. Provide appropriate locations for loading bays and service areas, consider safe pedestrian access, and avoid negative visual impacts to public places, paths, and views.

(p) **Commercial:** Loading areas should be at the rear of the building and accessed from the lane.

7.7.19 Lighting and Signage

(a) Ensure lighting and signage are pedestrian oriented and integrated with the built and natural environment.

(b) Principal building signage must be to an appropriate scale and integrated with the building and the landscaping.

(c) Civic addresses must be clearly visible from the street and illuminated at night.

(d) Use energy efficient exterior lighting systems with timers and sensors to provide light only when required. Ambient lighting should be minimized.

(e) Where possible, use lighting systems that are powered by renewable energy sources, such as solar.

(f) All exterior lights should emit the minimum amount of light necessary. Exterior lighting should be directed or shielded to illuminate the ground only and to prevent light pollution from encroaching onto adjacent properties, residential areas and environmentally sensitive areas.

(g) **Multi-Family**: Exterior security lights should be motion and light activated only.

(h) **Multi-Family:** Signage should be integrated with the landscaped area along the public street frontage. Signage should be low key in character and softly lit to fit with the surrounding residential context. All ground level units should have highly visible individual unit numbers.

(i) **Commercial and Multi-Family:** Signage shall be indirectly illuminated and pedestrian oriented in scale.

(j) **Commercial and Multi-Family:** Include sufficient and suitable lighting to provide safe pedestrian access to building entrances in the dark

(k) **Commercial and Multi-Family:** All on-site pedestrian walkways used by employees or the public should have sufficient lighting to permit easy surveillance and safe use at night.

7.7.20 Solid Waste

(a) **Commercial and Multi-Family:** Garbage, recycling and composting storage must be located within a building, or in a separate building and designed to the standards outlined in the solid waste storage technical design guidelines.

(b) Adequate space for source-separation of garbage, recyclables, and compost should be provided.

(c) Make areas for recycling, composting, and garbage storage sufficiently large and easily accessible by users and waste removal trucks, with planned capacity for expansion if necessary. Waste storage should be sited in a convenient, well lit, universally accessible location in a central area or at the rear of the development.

(d) Recycling, composting, and garbage storage options must be located within wildlife proof enclosures.

(e) Sufficient space must be provided in each enclosed garage, or other fully enclosed space, for bear-resistant garbage, composting and recycling containers.

(f) Neighbourhood waste buildings should be provided for all new development, where feasible.

7.8 FARMING PROTECTION DEVELOPMENT PERMIT AREA

BACKGROUND

Purpose

7.8.1 Pursuant to Section 488(1)(c) of the Local Government Act, the Farming Protection Development Permit Area (DPA) is designated for the protection of farming.

Application

7.8.2 The Farming Protection DPA applies to all land within 300 m of the Agricultural Land Reserve (ALR).

7.8.3 A Farming Protection DP is required prior to the commencement of any of the following:

(a) Development of dwellings within 300 m of the ALR.
(b) Additions to existing dwellings within 300 m of the ALR.
(c) Subdivision within 300 m of the ALR.
(d) Alteration of land within 300 m of the ALR.
(e) Commercial or industrial development within 300 m of the ALR.

Exemptions

7.8.4 A Farming Protection Development Permit is not required for:

(a) Forestry practices associated with a provincially approved Community Forest pursuant to the BC Forest Act.
(b) Agricultural uses and buildings on properties classified as farm under the *BC Assessment Act*.
(c) The removal of invasive species including, but not limited to those identified by the Sea to Sky Invasive Species Council (or a similar society) and/or Provincial regulations.
(d) A temporary use being carried on under a Temporary Use Permit issued by the Board
(e) Soil deposit and/or removal activity that has been issued a valid soil deposit/removal permit by the SLRD.

Delegation of Authority

7.8.5 The Board delegates the authority to issue Farming Protection Development Permits to the Director of Planning and Development.

Objectives

7.8.6 To regulate development activities within and adjacent to the Agricultural Land Reserve (ALR) in order to reduce conflicts between agricultural and non-agricultural uses.

7.8.7 To provide buffering along the agricultural edge to protect farming.

GUIDELINES

General Guidelines

7.8.8 Development on a parcel, or any portion of a parcel thereof, that is within 300 m of the ALR must adhere to the following guidelines:

(a) Subdivision design should minimize potential impacts to farmlands.

(b) Road ends that end at the ALR should be avoided, except as necessary for farm access.

(c) Subdivision design should consider creating parcel sizes that can accommodate an appropriate buffer to be established on the non-farm side of the ALR.

(d) Undeveloped spaces with landscaped or retained naturally occurring vegetation should be established along the ALR boundary.

(e) Principal use structures or dwellings should generally be located at least 30 m from the ALR boundary.

(f) Buffers should be designed as follows:

i. A continuous landscaped strip of not less than 15 m

ii. Established within 30 m of the ALR boundary, and not closer than 2 m to the ALR boundary

iii. Existing native vegetation within 30 m of the ALR boundary should be retained. Nonnative species may be removed and replaced with suitable native species

iv. The buffer should contain a mixture of coniferous and deciduous species

v. The buffer should be approximately 6 m in height. Appropriate species should be selected to reach this minimum height, and should reach at least 2 m in height at the time of planting vi. If vegetation is planted to establish the buffer, it should consist of native species only.

(g) Where an existing natural feature such as a watercourse or ravine provides a physical separation within 30 m of the ALR boundary, the width of the buffer may be reduced or not required. Applications should provide sufficient information, such as photographs, site plans, reports from a qualified professional, etc. to show how the natural feature is providing the equivalent effect of some or all of the 15 m buffer.

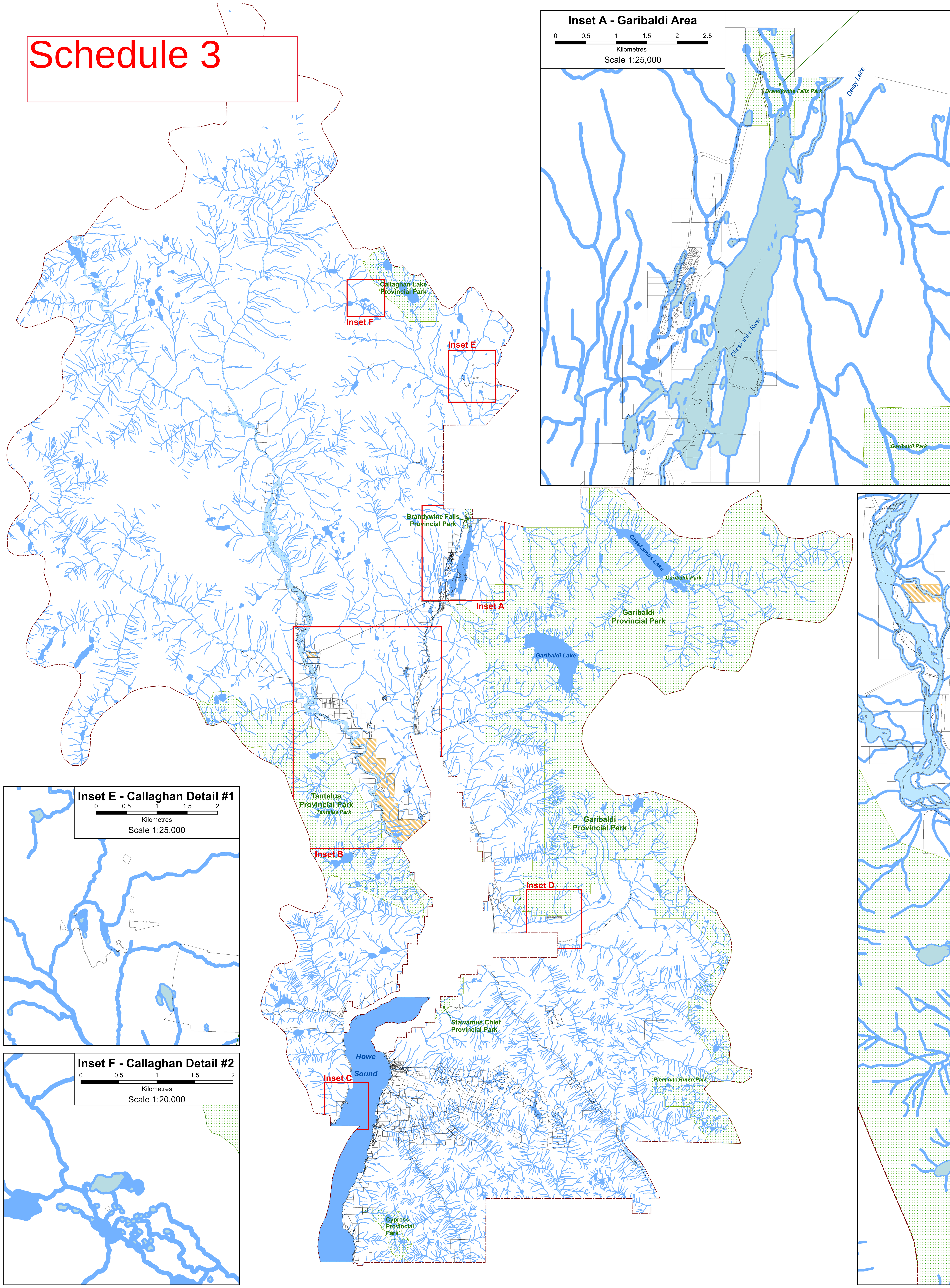
(h) Additional information that may be required in order to consider issuance of a Farming Protection Development Permit includes landscape plans prepared in consultation with a qualified professional such as an Agrologist, Forester, or Landscape Architect that provide recommendations for ensuring the type and density of the plantings, or retained vegetation provide a suitable buffer to mitigate the potential negative effects of agricultural and non-agricultural activities occurring on adjacent lands.

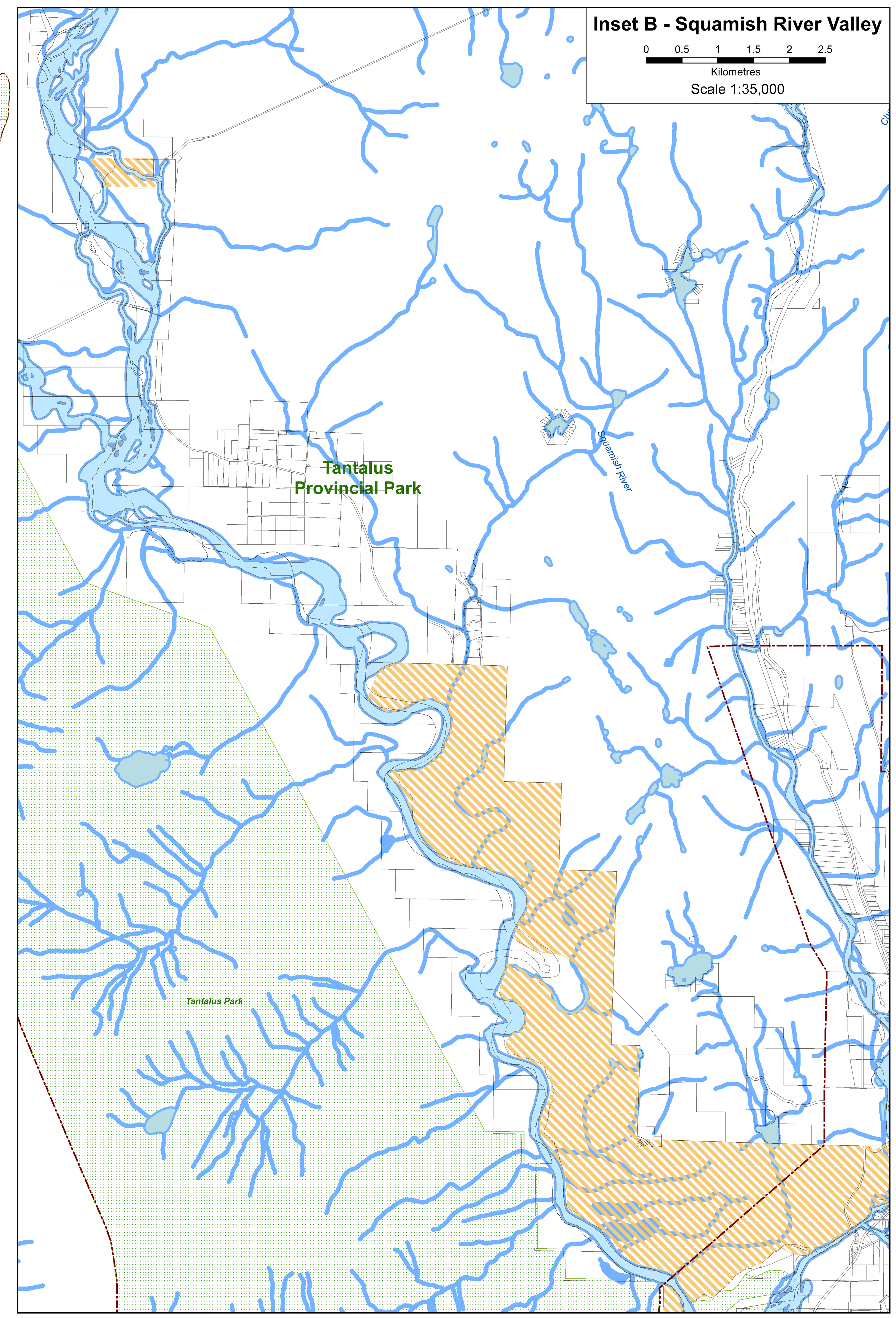
(i) Applicants must consult “A Guide to Edge Planning” and similar documents as published and updated by the Ministry of Agriculture for further information with respect to buffering along the agriculture edge.

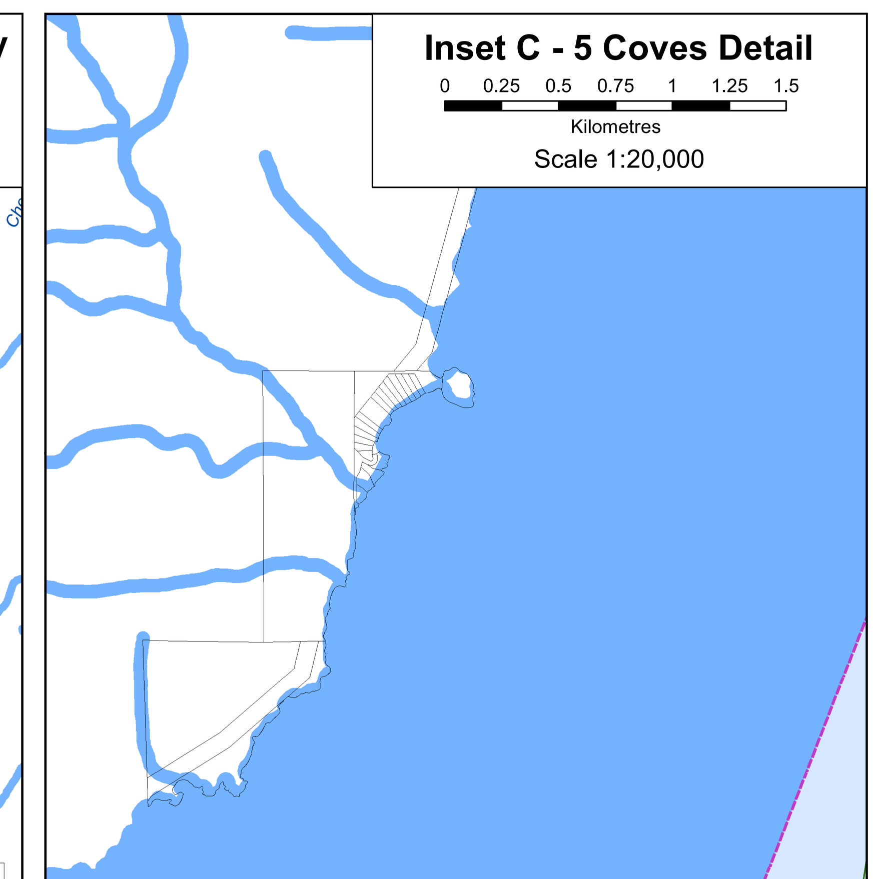
Schedule 2

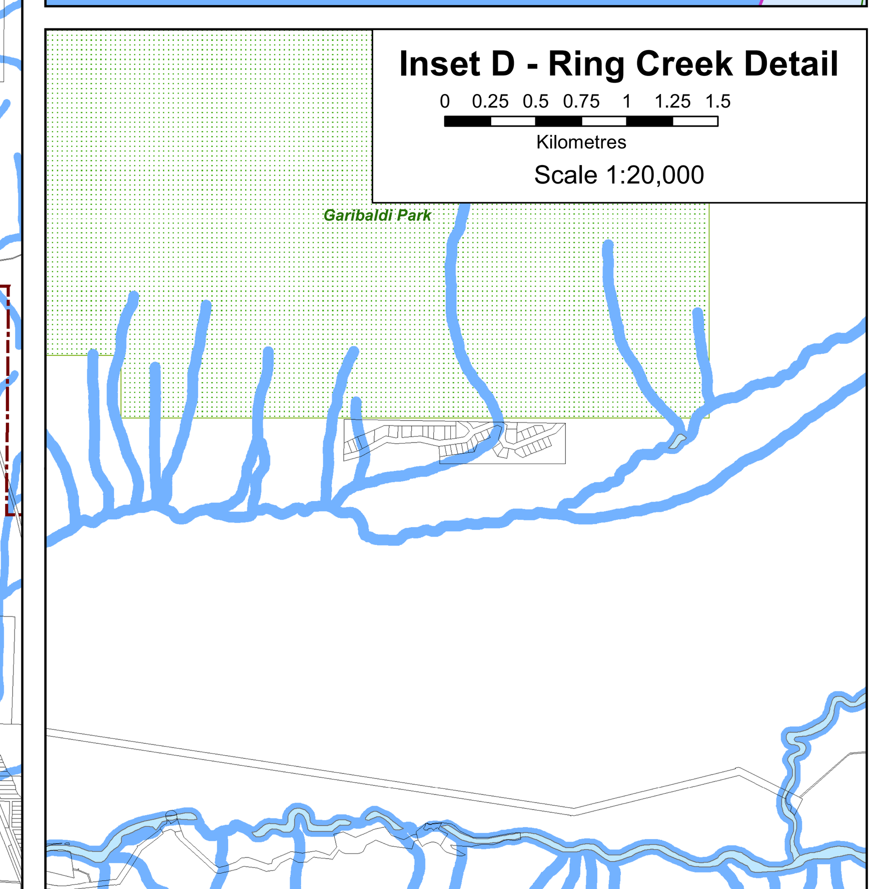
SQUAMISH - LILLOOET
REGIONAL DISTRICT
Electoral Area D Offical Community Plan
Bylaw No. 1135 - 2013
Schedule B
Map 3 - Transportation, Trails, and Service Areas
0 2.5 5 10 15 20
Kilometers
Scale 1:125,000
NAD 1983 UTM Zone 10N
Date of Map Production: Friday, May 28, 2021
Recreational Trails
Sea to Sky Trail
Other Recreational Trails
Transportation
Highway #99
Roads - Main
Roads - Secondary
Railway
Administration Service Areas
GARIBALDI FIRE
SQUAMISH FIRE
SLRD Area D Boundary
Sub-area Boundaries
Cadastre
Inset A - Garibaldi Area
Scale 1:25,000
Brandywine Falls Park
Garibaldi Park
Inset B - Squamish River Valley
Scale 1:35,000
Tantalus Park
Inset C - 5 Coves Detail
Scale 1:20,000
Inset D - Ring Creek Detail
Scale 1:20,000
Garibaldi Park
Inset E - Callaghan Detail #1
Scale 1:25,000
Inset F - Callaghan Detail #2
Scale 1:20,000
Inset A
Inset B
Inset C
Inset D
Inset E
Inset F
Garibaldi Park
Tantalus Park
Pinecone Burke Park
Howe Sound Sub-area
(See Schedule C)

Schedule 3









SQUAMISH - LILLOOET
REGIONAL DISTRICT

Electoral Area D Offical Community Plan Bylaw No. 1135 - 2013

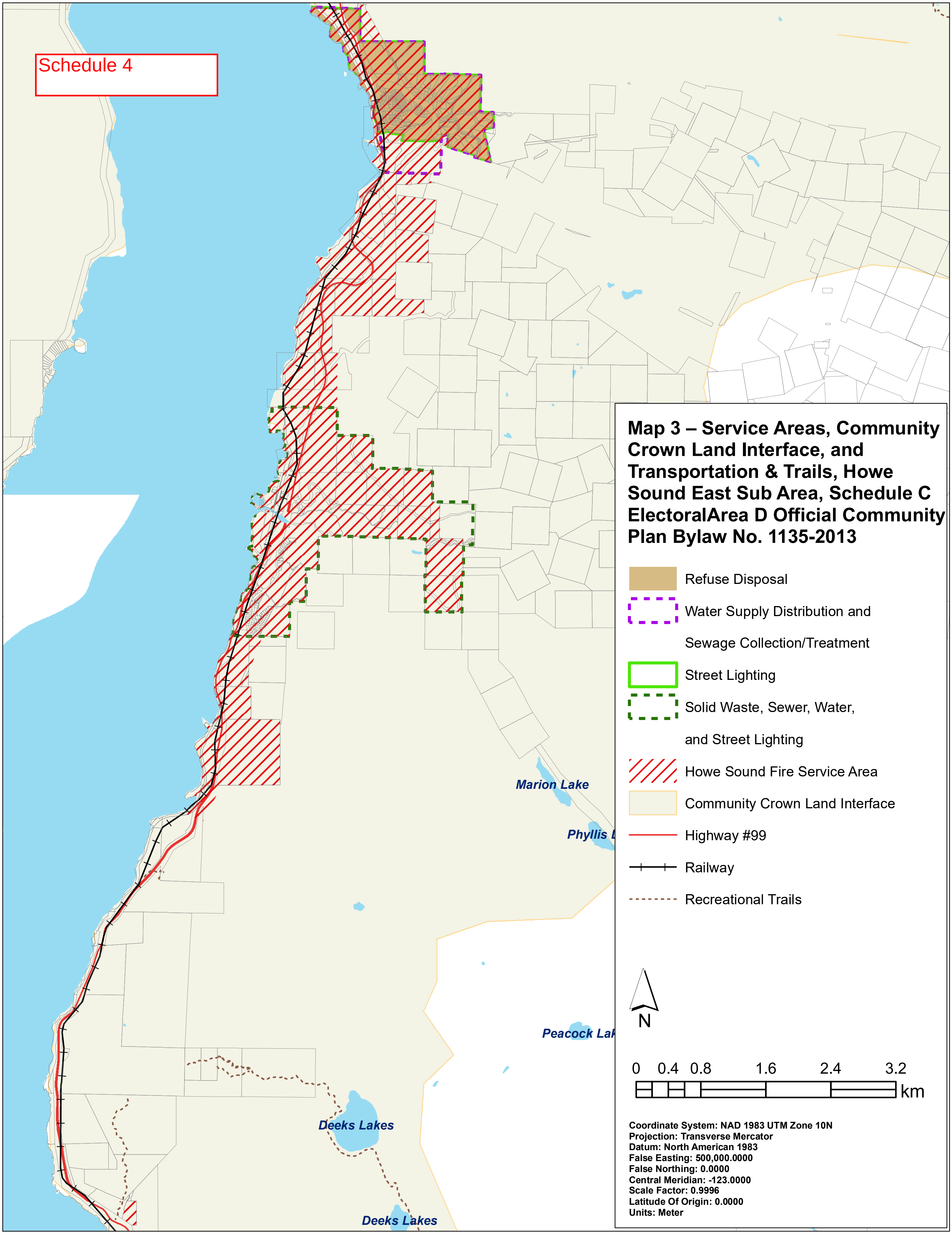
Schedule B
Map 6 - Riparian Protection Development Permit Area

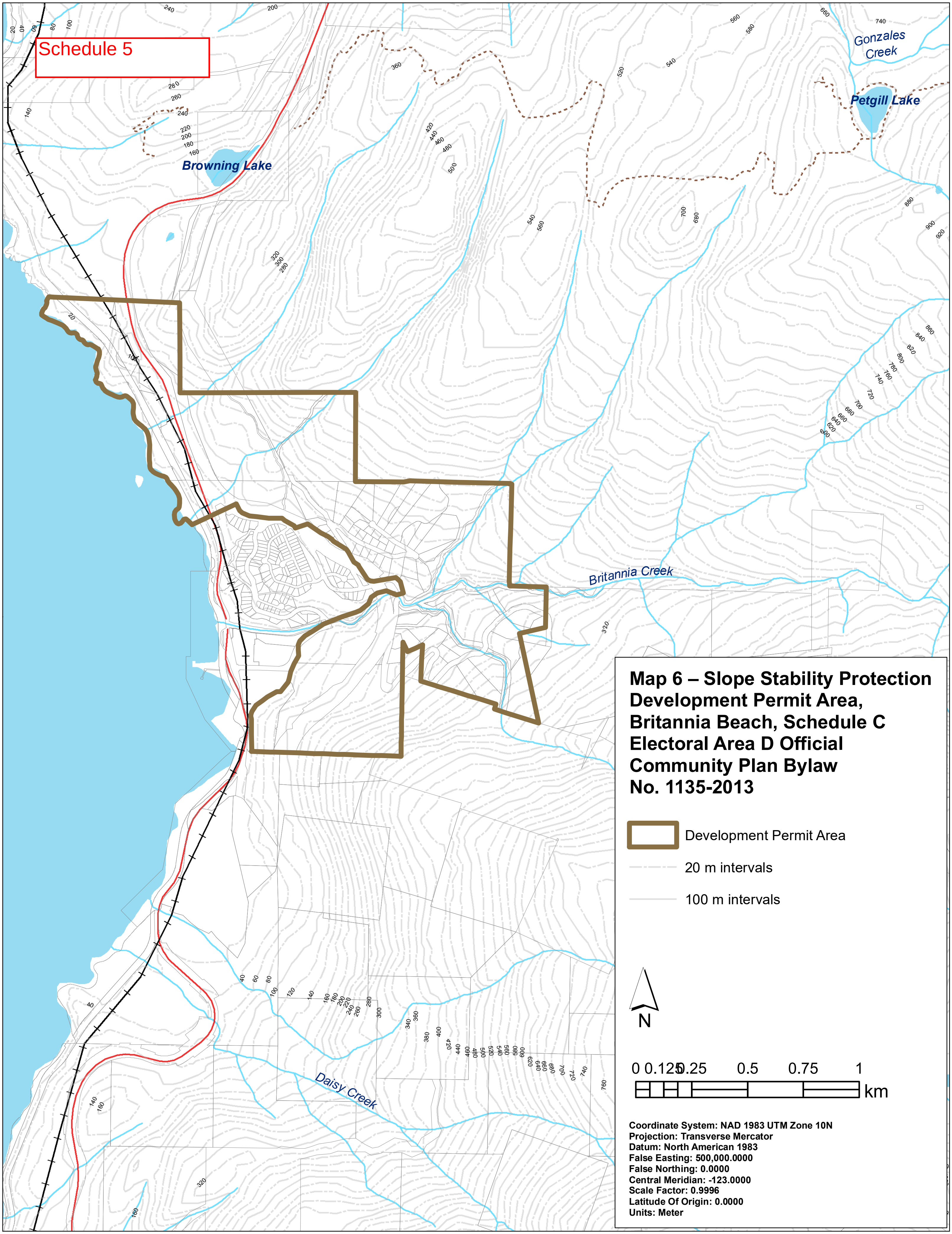
0 2 4 6 8 10 12 14 16
Kilometres
Scale 1:125,000

NAD 1983 UTM Zone 10N

Date of Map Production: Thursday, June 3, 2021

- Riparian Development Permit Area
- SLRD Area D Boundary
- Parcel Lines
- Indigenous Reserves


Schedule 4
Map 3 – Service Areas, Community Crown Land Interface, and Transportation & Trails, Howe Sound East Sub Area, Schedule C ElectoralArea D Official Community Plan Bylaw No. 1135-2013
Refuse Disposal
Water Supply Distribution and Sewage Collection/Treatment
Street Lighting
Solid Waste, Sewer, Water, and Street Lighting
Howe Sound Fire Service Area
Community Crown Land Interface
Highway #99
Railway
Recreational Trails
N
0 0.4 0.8 1.6 2.4 3.2 km
Coordinate System: NAD 1983 UTM Zone 10N
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -123.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter
Marion Lake
Deeks Lakes
Deeks Lakes


Schedule 5
Map 6 – Slope Stability Protection Development Permit Area, Britannia Beach, Schedule C Electoral Area D Official Community Plan Bylaw No. 1135-2013
Development Permit Area
20 m intervals
100 m intervals
N
0 0.125 0.25 0.5 0.75 1
km
Coordinate System: NAD 1983 UTM Zone 10N
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -123.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter
Browning Lake
Petgill Lake
Gonzales Creek
Britannia Creek
Daisy Creek

7. DEVELOPMENT PERMIT AREAS

Development Permit Areas are established under provisions of the *Local Government Act* to guide planning and development within environmentally sensitive or hazardous areas, as well as conservation and form and character of intensive residential, commercial, industrial and multi-family residential development. Development Permit Areas apply to a mapped or designated area and include guidelines for development activities. The purpose of DPAs is to help ensure that development is consistent with the goals, objectives and policies of the OCP.

On lands in DPAs, a Development Permit (DP) must be approved by the SLRD before a building permit can be obtained. The authority to issue certain DPs has been delegated to the Director of Planning and Development. This is indicated in each DPA Section. Following a review, and pursuant to Section 489 of the *Local Government Act*, conditions or restrictions may be imposed on the development. In addition, the SLRD may require security in the form of an Irrevocable Letter of Credit in the amount of 135% of estimated costs, to be held until the requirements of the permit have been fulfilled to the SLRD's satisfaction.

Where a property is subject to multiple development permit areas, the application fee of each DPA applies though separate development permit applications under this section may not be required, provided the guidelines for each DPA are addressed in a single development permit application.

Development permits may be issued for phases of development involving several individual buildings or lots where appropriate. The issuance of a development permit does not exempt a development from the requirement for a building permit or any other requirement of a bylaw, statute or regulation.

The provisions of other bylaws may be varied under a development permit, where it can be shown that the public intertest will benefit from the resulting modifications, as follows:

1. Setbacks from lot lines;
2. Height limits may be increased;
3. As may be described within the specific DP Area Guidelines.

Development permits may not, however, vary the allowable use or density of the land.

Interpretation of specific guidelines is subject to detailed discussion with Regional District planning staff. These guidelines are applied on a site specific or case-by-case basis. It is unlikely that every development can or will be able to meet all of the guidelines included in a DPA. The overarching objective of these Development Permit Guidelines is to ensure that all new developments make a positive contribution to the communities in which they are located and to meet the overall purpose and objectives of the Development Permit Guidelines. It is critically important that these guidelines also not be considered in isolation; rather they should be considered and integrated into the design process along with all other Board plans, policies, and regulations, as well as other best practices and design standards.

7.1 Activities Requiring a Development Permit

7.1.1 Each Development Permit Area (DPA) designation includes a purpose and objectives that justify its designation, established under provisions of the *Local Government Act,* as well as guidelines that must be met to achieve the purpose and objectives. As per Section 489 of the *Local Government Act*, where designated as a DPA, a development permit must be issued prior to:

(a) subdivision of land;
(b) starting construction of, addition to or alteration of a building or structure;
(c) the alteration of land (where designated for protection of natural environment or from hazardous conditions); or
(d) the alteration of land, a building or any other structure (where designated for energy conservation, water conservation, or greenhouse gas reduction);

unless specifically exempt under this bylaw.

7.1.2 A development permit may not be required prior to subdivision of land where the subject lands are designated as a DPA, but no development or development activities (e.g. construction, grading, clearing, trenching, installation of services) relating to the creation of lots or the provision of services for those lots will occur.

7.1.3 A development permit may not be required prior to subdivision of land where subject lands are designated for Form, Character & Conservation, but no development is proposed at time of subdivision, and there is no siting (e.g. grading, clearing), access, or lot layout and connectivity considerations that would apply per the DPA guidelines.

7.1.4 Where building construction and/or vegetation fuel management is proposed to take place within an Environmental Protection Area or Riparian Protection Area, as outlined in this bylaw, all work undertaken should be consistent with the Environmental Protection and Riparian Protection DPA Guidelines.

7.1.5 It is the applicant's responsibility to comply with all other relevant Bylaws, Acts and Regulations, including but not limited to the *Riparian Areas Protection Regulation*, *Water Sustainability Act*, *Fisheries Act*, *Wildlife Act*, *Migratory Birds Convention Act*, *Species at Risk Act*, and *Weed Control Act*.

7.2 Riparian Protection Development Permit Area

BACKGROUND

Purpose

7.2.1 Pursuant to Section 488(1)(a) of the *Local Government Act*, the Riparian Protection Development Permit Area (DPA) is designated for the protection of the natural environment, its ecosystems, and ecological diversity.

Application & Area

7.2.2 The Riparian Protection DPA applies to land within Electoral Area D, including mapped and unmapped streams, as indicated on Schedule B Map 6, and Schedule C Map 15. This DPA consists of the following Riparian Assessment Area:

(a) A 30 metre strip on both sides of the waterbody, measured from the **natural boundary**.

(b) For a ravine less than 60 metres wide, a strip on both sides of the stream measured from the **natural boundary** to a point that is 30 metres beyond the top of the ravine bank.

(c) For a ravine 60 metres wide or greater, a strip on both sides of the stream measured from the **natural boundary** to a point that is 10 metres beyond the top of the ravine bank.

7.2.3 A Riparian Protection Development Permit is required for development activities within the Riparian Assessment Area. Examples include, but are not limited to:

(a) removal, alteration, disruption or destruction of vegetation;

(b) disturbance of soils;

(c) construction or erection of buildings and structures;

(d) additions to existing buildings and structures that encroach into the Riparian Assessment Area;

(e) creation of non-structural impervious or semi-pervious surfaces;

(f) flood protection works;

(g) construction of roads, trails, docks, wharves and bridges;

(h) provision and maintenance of sewer and water services;

(i) development of drainage systems;

(j) development of utility corridors;

(k) any reconstruction, renovations, repairs, or maintenance to an existing building that will require work to the existing foundation; and

(l) reconstruction, renovations, repairs, or maintenance to an existing building on its existing foundation that are equal to or greater than 75% of the building's value above its foundations (and thus considered new development/construction) in accordance with Section 532 of the *Local Government Act.*

7.2.4 A Riparian Protection Development Permit is required for the following cases where the QEP assessment report may not be required:

(a) Works approved by the Department of Fisheries and Oceans Canada (DFO) and/or the Ministry of Environment (MOE), and/or the Ministry of Forests, Lands, and Natural Resource Operations (MFLNRO).

(b) Stream enhancement and fish and wildlife habitat restoration works that have obtained the required Provincial and Federal approvals. Any activity within the stream channel that has or may have an impact on a stream requires compliance with Provincial and Federal legislation, and notification to the SLRD.

(c) Removal of invasive species on a small scale provided that such works are conducted in accordance with a vegetation management plan prepared by a qualified professional, and measures are taken to avoid sediment or debris being discharged into the watercourse or onto the foreshore and the area is replanted immediately in accordance with 'Application' provisions 1 and 2 above.

(d) Reconstruction, renovations, repairs, or maintenance to an existing building on its existing foundation that are less than 75% of the building's value above its foundations in accordance with Section 532 of the *Local Government Act*.

Exemptions

7.2.5 A Riparian Protection Development Permit is not required for the following:

(a) Development activities located outside of the Riparian Assessment Area. For properties where the distance from the Riparian Assessment Area is questionable, a survey may be required.

(b) To resolve emergency situations that present an immediate danger related to flooding, erosion, or other immediate threats to life or property.

(c) Activities conducted under the Provincial Emergency Program or the SLRD Emergency Management Program within 28 days of the emergency incident/event.

(d) Removal of trees deemed hazardous by a qualified professional that threaten the immediate safety of life and buildings.

(e) Agricultural development activities on lands used, or proposed to be used, for a farm operation as defined by the Farm Practices Protection Act, except where such activities are done in conjunction with, or in preparation for, non-farm uses.

(f) Development activities on lands subject to the Forest Act or Private Managed Forest Land Act.

Delegation of Authority

7.2.6 The Board delegates the authority to issue Riparian Protection Development Permits to the Director of Planning and Development.

Objectives

7.2.7 To protect the range of valuable and sensitive riparian ecosystems within Electoral Area D and implement the *Riparian Areas Protection Regulation*, as required by the provincial government.

GUIDELINES

General Guidelines

7.2.8 The following general guidelines apply:

(a) All development within the Riparian Protection Development Permit Area must be consistent with the provincial Riparian Areas Protection Regulation.

(b) A Qualified Environmental Professional (QEP) must be retained, at the expense of the applicant, to prepare and submit a Riparian Areas Protection Regulation Assessment Report to the Province.

(c) The report must be submitted to the Province via the Riparian Areas Protection

Regulation Notification System, and a copy must be provided to the SLRD.

(d) The applicant shall be requested to provide an explanatory plan of the Streamside Protection and Enhancement Area.

(e) The property owner shall implement all measures necessary to maintain the integrity of the Streamside Protection and Enhancement Area as specified in the QEP report, and such measures as may be included as conditions of the development permit.

~~(e)~~(f) Bonding in the amount of $5,000 shall be provided where environmental monitoring or restoration works are required for completion.

~~(f)~~(g) Where a mapped or unmapped stream is found not to be subject to the Riparian Areas Protection Regulation, a report prepared by a QEP, generally following the Riparian Areas Protection Regulation Assessment methodology shall be required to be submitted to the SLRD.

~~(g)~~(h) A Development Permit shall not be issued without notification via Riparian Areas Protection Regulation Notification System, or from the Department of Fisheries and Oceans Canada and/or the Ministry of Environment, and/or the Ministry of Forests, Lands, and Natural Resource Operations that they have been notified of the proposed development and provided with an acceptable copy of the QEP assessment report, or having received evidence of the Minister of Fisheries and Oceans Canada approval under the authority of Section 4(3) of the Riparian Areas Protection Regulation.

~~(h)~~(i) Where the QEP report proposes a Harmful Alteration, Disruption, or Destruction or serious harm to fish habitat pursuant to Section 35(2) of the Canada Fisheries Act, the development permit shall not be issued unless approval under the authority of Section 4(3) of the Riparian Areas Protection Regulation is received from the DFO. The SLRD may consider providing comments to the DFO in regards to a proposed approval under the authority of Section 4(3) of the Riparian Areas Protection Regulation.

~~(i)~~(j) The SLRD may, when considering comments to the DFO on a proposed approval under Section 4(3) of the Riparian Areas Protection Regulation, require additional information from the QEP and other senior levels of government.

~~(j)~~(k) Ensure all watercourses delineated as Riparian Protection Areas identified to be protected under the Riparian Areas Protection Regulation remain free from impact and development and Streamside Protection and Enhancement Areas are protected both during and after development. Watercourses need to be surveyed by a BC Land Surveyor in order to establish setbacks prior to development.

~~(k)~~(l) Maintain vegetated corridors between watercourses where possible to provide wildlife movement corridors and prevent further fragmentation of available habitat. Install amphibian and small mammal eco-passages under roadways via culverts to preserve and enhance habitat connectivity, subject to the project design and review by the project QEP.

~~(l)~~(m) Encourage additional setbacks adjacent to Streamside Protection and Enhancement Areas wide enough to accommodate trails in appropriate locations.

~~(m)~~(n) For development within the Howe Sound East Sub Area, prior to any construction activities within the riparian areas for any creek crossings, have targeted surveys conducted by a QEP for the following species at risk:

- Northern red-legged frog, western toad, and coastal tailed frog; and
- Northern rubber boa.

If any are found, appropriate mitigation measures will be determined.

~~(n)~~(o) Any construction activities anticipated to have any potential effect on water quality in water bodies on or adjacent to the site should be monitored by a QEP.

~~(o)~~(p) Where wetlands, watercourse or riparian areas are disturbed~~ributed~~, restoration of the disturbance or compensation equal to 100% of the disturbed area should be provided.

~~(p)~~(q) Minimize crossings of Streamside Protection and Enhancement Areas. Low impact creek crossings such as clear span bridges and/or arch culverts/box culverts should be used where stream crossings are necessary. Permitting for stream crossings will be required from the MFLNRORD under Section 11 of the *Water Sustainability Act*. Stream crossings will also have to be constructed under compliance with the federal *Fisheries Act*.

~~(q)~~(r) Instream work and stream crossings should meet the requirements of the Land Development Guidelines, the B.C. *Water Act*, and newer guidelines that are being developed.

~~(r)~~(s) Timing of any works in and about a stream should be in accordance with provincial guidelines and regulations.

~~(s)~~(t) For any in water works required below the high-water mark, a DFO request for review and a Section 11 approval under the *Water Sustainability Act* will be required.

Restoration & Remediation Guidelines

7.2.9 Where development has occurred in violation of this Development Permit Area, the following guidelines shall apply:

(a) A Qualified Environmental Professional (QEP) must be retained at the expense of the applicant for the purpose of preparing a report outlining the necessary remediation and restoration work.

(b) The QEP must certify that they have carried out a remediation assessment, that they are qualified to carry out such an assessment, and that all applicable provincial regulations have been followed.

(c) The report must outline how to mitigate the damage done by any clearing and site development, and how to restore the area to its previous condition.

(d) Any cleared areas must be replanted with native riparian vegetation at the applicant's expense.

(e) Buildings and structures constructed in violation of this DPA may be subject to removal at the applicant's expense in order to restore the integrity of the riparian area.

(f) Riparian Protection Development Permits issued may require:

i. Areas of land, specified in the permit, must remain free of development, except in accordance with any conditions contained in the permit and any intrusions authorized or permitted under the provincial Water Sustainability Act and/or federal Fisheries Act.

ii. Specified natural features or areas be preserved, protected, restored or enhanced in accordance with the permit.

iii. Natural watercourses be surveyed and returned to the Crown.

iv. Protection measures be implemented, including that trees or other vegetation be planted or retained in order to preserve, protect, restore or enhance fish habitat or riparian areas, control drainage, or control erosion or protect banks.

v. An explanatory or reference plan be prepared by a BC Land Surveyor that delineates the identified Streamside Protection and Enhancement Area.

vi. Development complies with current best practices for land development in and around riparian areas.

7.3 ENVIRONMENTAL PROTECTION DEVELOPMENT PERMIT AREAS

BACKGROUND

Purpose

7.3.1 Pursuant to Section 488(1)(a) of the *Local Government Act*, the Environmental Protection Development Permit Areas (DPA) are designated for the protection of the natural environment, its ecosystems, and ecological diversity.

Application & Areas

7.3.2 The Environmental Protection DPA applies to land within the Howe Sound East Sub Area and includes the Marine Shoreline Area, Wildlife Habitat Areas, and the Ecological Sustainability Area, as indicated on Schedule C Map 15. Guidelines are outlined for each Area.

Delegation of Authority

7.3.3 The Board delegates the authority to issue Environmental Protection Development Permits to the Director of Planning and Development.

Objectives

7.3.4 To protect the environmental, intrinsic and aesthetic values of marine shoreline areas within the Howe Sound East Sub Area, recognizing the shoreline provides an important interface between the terrestrial and marine ecosystems.

7.3.5 To protect wildlife species and habitat at risk, with mature forests providing many of the environmentally valuable resources (e.g. wildlife trees, course woody debris, wildlife movement corridors) that provide suitable habitat.

7.3.6 To protect the ecological sustainability of the Howe Sound East Sub Area.

GUIDELINES

Marine Shoreline Area Guidelines

7.3.7 The Marine Shoreline Assessment Area specifically refers to the area 30 meters upland (backshore) of the **natural boundary** of the sea. An Environmental Protection Development Permit is required for development activities within the Marine Shoreline Assessment Area, where the following guidelines:

(a) Development design must strive to balance coastal flood protection and planning for future sea level rise while minimizing erosion, preserving coastal functions and processes and maintaining water quality, sensitively locating foreshore access and structure and enhancing marine habitat and adjacent coast waters wherever possible.

(b) Additional structural shoreline and flood protection measures should be constructed upland of the natural shoreline boundary or be authorized by DFO under the Fisheries Act. The size of any flood protection structure must be limited to the minimum size necessary to provide adequate protection.

(c) The Marine Shoreline Assessment Area should be evaluated prior to the preparation of the detailed development plans by a Qualified Environmental Professional (QEP) to ascertain an applicable marine shoreline buffer. A request for review from DFO concerning the Fisheries Act must be obtained when detailed development plans have been completed for the lands adjacent to marine foreshore to receive applicable marine buffer setbacks. Different shoreline types have a different ability to accommodate disturbance. Estuary and mud flats are fragile and easily destroyed and require larger setback (minimum 30 metres), while rocky shores are typically very stable and are quite resistant to change (preliminarily minimum setback of 15 metres, subject to a detailed design review). The setbacks should be protected from development unless an approval is received from DFO.

(d) Marine Shorelines Areas affected by development will be subject to vegetation restoration plans prepared by a QEP.

~~(d)~~(e) Bonding in the amount of $5,000 shall be provided where environmental monitoring or restoration works are required for completion.

Wildlife Habitat Areas Guidelines

7.3.8 Wildlife Habitat Areas include all mapped wildlife species at risk critical habitat areas, and mature red listed ecological communities at risk. An Environmental Protection Development Permit is required for development activities within Wildlife Habitat Areas, where the following guidelines:

(a) Design the development to protect sensitive ecosystems including wetlands, creeks, riparian areas, rock outcrops, cliffs, foreshore areas and mature forests.

(b) The proponent shall retain a QEP to review and assess existing mapped species at risk critical habitat based on current baseline conditions. The QEP would provide recommendations for adjusting and amending the habitat mapping and providing recommendations for preservation and conservation measures.

~~(b)~~(c) Bonding in the amount of $5,000 shall be provided where environmental monitoring or restoration works are required for completion.

~~(c)~~(d) Conduct a survey for raptor nests, particularly those of northern goshawk, as well as marbled murrelet of mature forests within the development pods prior to detailed design in order to identify any nests and nesting habitat, and to ensure that appropriate protective buffers are in place.

~~(d)~~(e) Avoid disturbances and vegetation clearing within the areas of mature forests where possible and minimize disturbances where not. If clearing or other disturbance is proposed within areas of mature forest, have a survey conducted by a QEP for the following species at risk:

- Moss species, including Holzinger's brachythecium, Roell's brotherella, Callicladium haldanianum, and Tripterocladium leucocladulum; and
- Northern rubber boa.

If any are found, appropriate mitigation measures will be determined.

~~(e)~~(f) Effort should be made to retain as much existing vegetation as possible, especially significant vegetation and habitat, using the following guidelines:

i. Minimize the extent of cut and fill required for road construction and instead conform to the natural contours of the landscape. All cut and fill slopes should be treated with growing medium, hydroseeded, and planted with native vegetation.

ii. Plan open space areas to incorporate stands of mature forest.

iii. Retain existing ground vegetation and trees where possible within development areas.

iv. Delineate the location of all veteran trees within proposed development pods and manage design to avoid disturbance and removal where possible. Protect existing veteran trees within appropriately sized vegetation clumps.

~~(f)~~(g) Minimize disturbances of rock outcrops and cliffs through appropriate road design and clustering development to allow for rock outcrop preservation opportunities. If any blasting or other disturbance of rock outcrops is to occur, it is recommended that this occur between late spring and early fall when mammals are less likely to be seeking shelter and temperatures are warm enough for reptiles to maintain body heat away from rocks. Prior to any disturbance of these habitats, have targeted surveys conducted by a QEP for the following species at risk:

- Rubber boa and sharp-tailed snake;
- Peregrine falcon nests, particularly between April 1 and July 31; and
- Washington springbeauty, in late spring to early summer.

If any are located, appropriate mitigation measures will be determined.

~~(g)~~(h) Identify and manage potentially hazardous trees, while maintaining as many of these as possible for wildlife habitat. As assessment of any potential hazard trees should be conducted by a certified Wildlife/Danger Tree Assessor. Any trees removed within the riparian areas must also be replaced as per the BC Ministry of Environment, Lands and Parks tree replacement criteria.

~~(h)~~(i) It is recommended that as much coarse woody debris (CWD), of varying sizes and stages of decay, be maintained as possible. If CWD is to be removed, this should occur between late spring and early fall when mammals are less likely to be seeking shelter. There is the opportunity to improve existing riparian habitat by relocating any pieces of CWD needing to be removed into the riparian areas.

~~(i)~~(j) Site multi-family residential buildings so as to provide preservation opportunities as well as movement corridors for wildlife in both listed and unlisted ecological communities.

~~(j)~~(k) All vegetation clearing should occur outside of the typical bird breeding period of April 1 to July 31 to ensure that no active nests are disturbed. If clearing is to take place during this window, it must be preceded by a nesting bird survey, conducted by a QEP, and any active nests protected with suitable buffers until nesting is complete. Particular attention should be paid to:

- Forest edges and openings for band-tailed pigeon and goshawk;
- Rock outcrops and sparsely vegetated areas for common nighthawk and peregrine falcon; and
- Wildlife trees and snags for western screed-owl, goshawk, and olive-sided flycatcher.

~~(k)~~(l) Wildlife attractants, including food and other odorous materials, must not be left at construction sites and must be secured anytime the construction site is unattended. Further, bear safe guidelines should be incorporated into the proposed development, including garbage facilities and landscaping.

Ecological Sustainability Area Guidelines

7.3.9 The Ecological Sustainability Area pertains to the entire Furry Creek Neighbourhood, Britannia South Neighbourhood, and Porteau Cove Neighbourhood. The guidelines address the projects in their entirety, with development permit requirements to be met by the developer at the outset of the project rather than at the individual parcel level, where the following guidelines:

(a) Development and construction of the property should follow guidelines and recommendations outlined in: Environmental Best Management Practices for Urban and Rural Land Development (BC MOE, 2014, or latest version). This includes best management recommendations for storm water, pollution prevention and wildlife ecosystem management.
(b) An invasive species survey and management plan that incorporates the recommendations included in this report should be developed by a QEP and implemented for the subject property. The plan should be prepared prior to any land clearing or earthworks.
(c) Development of a Stormwater Management Plan and a Sediment Erosion and Control Plan for site preparation, construction and post-construction. Minimizing land disturbance in areas subject to possible erosion during seasonal periods of high rainfall.
(d) The extensive BC Hydro Rights-of-way, particularly in the Furry Creek Neighbourhood, provide potential opportunities to create bio-ponds for stormwater detention, bio-treatment and infiltration.
(e) The effects of shading on common property (i.e. the beach to the seaward side of the Waterfront Lands) should be considered for building siting and heights.

7.4 NATURAL HAZARDS PROTECTION DEVELOPMENT PERMIT AREAS

BACKGROUND

Purpose

7.4.1 Pursuant to Section 488(1)(b) of the *Local Government Act*, the Natural Hazards Protection Development Permit Areas (DPA) are designated for the protection of development from hazardous conditions.

Application & Areas

7.4.2 The Natural Hazards Protection DPA applies to land within the Howe Sound East Sub Area and specifically includes Landslide Hazard Areas, Excavated Rock and Foundation Stability Hazards Areas, Seismic Liquefaction and Fan Stability Hazard Areas, Coastal Hazard Areas and Creek Hazard Areas, as indicated on Schedule C Map 16A and Map 16B. Guidelines are outlined for each Area.

Exemptions

7.4.3 Exemptions may be granted for the following circumstances:

(a) Additions to buildings or structures up to 25% of the existing ground floor area
(b) Buildings or structures with footprint of 20 m^2 or less, not intended for residential occupancy
(c) Removal of hazard trees by a Certified Arborist or professional forester
(d) Riparian enhancement
(e) Subdivision to facilitate a lot consolidation or a boundary adjustment, provided that no additional parcels are created

(f) Lots/subdivisions with an existing registered covenant or proposed covenant
(g) Parks for local and regional facilities
(h) Emergency response
(i) Flood management
(j) Public utilities and infrastructure
(k) Forestry activities on Crown Land

7.4.4 For Seismic Liquefaction and Fan Stability Hazard Areas, the following additional exemptions may be granted:
(a) Alteration or disturbance of land; and
(b) Subdivision of land.

Delegation of Authority

7.4.5 The Board delegates the authority to issue Natural Hazards Protection Development Permits to the Director of Planning and Development.

Objectives

7.4.6 To limit development within or near hazardous areas thereby minimizing the potential that new developments and alterations of land will increase hazards to adjacent lands and existing developments, both upslope and downslope.

7.4.7 To ensure adequate professional evaluation of geohazards and associated mitigation works.

7.4.8 To obtain assurance from Qualified Professionals that the development satisfies the Engineers and Geoscientists British Columbia Geohazard Assurance Statement.

GUIDELINES

Landslide Hazard Areas Guidelines

7.4.9 Landslide Hazard Areas are outlined on Schedule C Map 16A (DP-NH-01). A Natural Hazards Protection Development Permit is required for development activities within Landslide Hazard Areas, where the following guidelines.
(a) Where possible, development should be sited to avoid hazards. Where impossible or impractical to avoid hazards, mitigation measures may be required.
(b) Applications for land alteration/disturbance, subdivision, or building permits shall include a site-specific report from a qualified Professional Engineer or Professional Geoscientist that considers all relevant potential landslide hazards including, but not limited to, debris slides/slumps, rock falls, and rock slides.
(c) The report shall include the following information, as applicable to the development:
   i. Slope profiles with documentation of the limits of slope instability shall be provided. Consideration shall be given to the limits and types of instability and changes in stability that may be induced by site clearing, road building, climate change, timber harvesting, and future development both upslope and downslope of the subject property.
   ii. Recommended wet weather shutdown criteria for worker safety during site clearing, road building, and building construction.
   iii. Appropriate land use recommendations such as restrictions on *tree cutting*, surface drainage, filling and excavation.
   iv. A detailed stability assessment indicating potential failure modes, limiting factors

of safety, and stability during seismic events. Geotechnical analytical techniques for evaluating seismic slope stability should follow the procedures described Engineers and Geoscientists British Columbia's Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in British Columbia (May 2010 or current version).

v. A recommendation of required building setbacks from the crests and/or toes of steep slopes, and a demonstration of suitability for the proposed use.

vi. An assessment of shallow groundwater conditions and the anticipated effects of septic systems, footing drains, etc. on local slope stability.

vii. If required, definition of the site-specific rock fall shadow area, including an indication of the appropriate buffer zone and required protective works.

(d) Development Permits shall be in accordance with the recommendations of the applicable geohazard report or reports, including required mitigative measures.

(e) Geohazard reports submitted in support of a development permit applications shall meet the requirements outlined in the EGBC Geohazard Assurance Statement and appropriate EGBC Professional Practice Standards.

(f) Where development also falls within Environmental/Creek Hazard/Coastal Hazard/other DP(s), geohazard report shall be coordinated with other Qualified Professionals to create a comprehensive development permit application.

(g) Property owners are cautioned that the following activities may exacerbate hazards and contribute to slope failure, and should generally be avoided:

i. Alterations to natural drainage patterns or vegetation;

ii. Excavation on steep slopes or at the base of slopes;

iii. Constructing swimming pools, ponds, or other water features along or near the crest of slopes, where these features are not founded on competent bedrock;

iv. Placing fill, organic wastes, and debris along or near the crest of slopes;

v. Dumping of significant quantities of plowed snow on or near the crest of slopes;

vi. Discharge of surface or ground water on or near the crest of slopes;

vii. Cutting trees or removing other vegetation on or near the crest of slopes, except where required for emergency works.

Excavated Rock and Foundation Stability Hazard Areas Guidelines

7.4.10 Excavated Rock and Foundation Stability Hazard Areas are outlined on Schedule C Map 16A (DP-NH-02). Within these areas, further, site-specific geotechnical assessments will be required to confirm the siting of individual buildings and associated foundation design and construction requirements related to bedrock. A Natural Hazards Protection Development Permit is required for development activities within Excavated Rock and Foundation Stability Hazard Areas, where the following guidelines:

(a) Where possible, development should be sited to avoid hazards. Where impossible or impractical to avoid hazards, mitigation measures may be required.

(b) Applications for land alteration/disturbance, subdivision, or building permit shall include a site-specific report from a qualified Professional Engineer or Professional Geoscientist that considers all relevant potential hazards related to rock excavation, foundation construction, and foundation stability in bedrock.

(c) The report shall include the following information, as applicable:

i. Slope profiles with documentation of the limits of slope instability shall be provided. Consideration shall be given to the limits and types of instability and changes in stability that may be induced by rock excavation and foundation construction. The impacts of rock excavation and foundation construction both upslope and downslope shall also be considered.

ii. A detailed stability assessment indicating potential failure modes, limiting factors of safety, and stability during seismic events. For strong rock masses which are structurally controlled, kinematic stability analyses as well as limit equilibrium stability analyses on dominant, kinematically possible failure modes should be carried out.

iii. A recommendation of required building setbacks / foundation setbacks from the crest of steep rock slopes, and a demonstration of suitability for the proposed use.

iv. Recommended rock excavation methods (e.g. blasting, ripping, non-explosive splitting, machine excavation, or other) based on the anticipated rock mass conditions and foundation design and construction requirements, including anticipated measures that may be required to contain flyrock and dislodged boulders such as blast mats, berms, barriers, or catchment fences.

v. Anticipated rock slope stabilization measures such as shotcrete and rock bolts which may be required for both temporary and permanent stability.

vi. Recommendations and key issues that should be considered for blast design such as ground vibration thresholds and associated monitoring requirements. Additional requirements may apply where blasting will be required near fish-bearing waters or near other infrastructure such as high-pressure gas lines or the CN Rail tunnel.

(h) Development Permits shall be in accordance with the recommendations of the applicable geohazard report or reports, including required mitigative measures.

(i) Geohazard reports submitted in support of a development permit applications shall meet the requirements outlined in the Engineers and Geoscientists British Columbia Geohazard Assurance Statement and appropriate EGBC Professional Practice Standards.

(j) Where development also falls within Environmental/Creek Hazard/Coastal/other DP(s), geohazard report shall be coordinated with other Qualified Professionals to create a comprehensive development permit application.

Seismic Liquefaction and Fan Stability Hazard Areas Guidelines

7.4.11 Seismic Liquefaction and Fan Stability Hazard Areas are outlined on Schedule C Map 16A (DP-NH-03). Seismic slope stability and soil liquefaction hazards will need to be assessed on a site-specific basis as per the BC Building Code (BCBC 2018), and may require specific consideration in development approvals. A Natural Hazards Protection Development Permit is required for development activities within Seismic Liquefaction and Fan Stability Hazard Areas, where the following guidelines.

(a) Applications for development permits in Seismic Liquefaction and Fan Stability Hazard Areas shall include a site-specific report from a qualified Professional Engineer that considers seismic liquefaction and related geotechnical hazards (e.g. submarine landslides, flow slides, lateral spreading, subsidence), as applicable to the proposed building per BCBC (2018 or current version).

(b) The report shall include the following information, as applicable to the development:

i. Seismic liquefaction triggering assessments, conducted in general accordance with the procedures recommended by Idriss and Boulanger (2008) and Boulanger and Idriss (2014), which are the current standard of practice in British Columbia.

ii. A detailed global stability assessment of the proposed building site indicating potential failure modes, limiting factors of safety, and stability under both static and seismic loading. Geotechnical analytical techniques for evaluating seismic slope stability should follow the procedures described EGBC's Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in British Columbia (May 2010 or current version). Consideration shall also be given to the limits and types of instability and changes in stability that may be induced by nonseismic factors including site grading loads, foundation loads, extreme low tides, and sea level rise.

iii. Assessment of liquefaction and its consequences, including recommendations for ground improvement and foundation design, should reference the Greater Vancouver Liquefaction Task Force Report, Geotechnical Design Guidelines for Buildings on Liquefiable Sites in Accordance with NBC 2005 for Greater Vancouver Region (May 2007 or current version), as applicable.

iv. Recommended geotechnical building setbacks from the natural boundary of Howe Sound, and a demonstration of suitability for the proposed use.

v. Recommended mitigative measures to limit potential impacts to the building site and adjacent developments from construction-related disturbances including, as applicable, the stockpiling of soil, excavation shoring, dewatering, ground improvement, and pile driving.

(c) Development Permits shall be in accordance with the recommendations of the applicable geotechnical report or reports, including required mitigative measures.

(d) Where development also falls within Environmental/Creek Hazard/Coastal Hazard/other DPA(s), geohazard report shall be coordinated with other Qualified Professionals to create a comprehensive development permit application.

Coastal Hazard Areas Guidelines

7.4.12 Coastal Hazard Areas are outlined on Schedule C Map 16B (DP-NH-04). Coastal hazard areas include flooding (from high sea level, waves, and tsunami) and erosion. Within these areas, further, site-specific geotechnical assessments will be required. A Natural Hazards Protection Development Permit is required for development activities within Coastal Hazard Areas, where the following guidelines apply.

(a) Development applications should involve a refined assessment of the coastal flood level by an appropriately qualified professional engineer or geoscientist, with particular emphasis on highly variable wave effects, and include considerations of the following:

i. If any area on the property is below 8 m (GSC), a coastal flood hazard assessment should be required, that would include: estimation of a site-specific coastal flood level, consideration of future sea level rise and allowance for wave runup as outlined in the Provincial Guidelines.

ii. Areas subject to coastal flooding should require the definition of an appropriate flood construction level (FCL) that reflects the foreseeable coastal flood levels for the life of the development, in view of pertinent guidelines and SLRD provisions.

(b) Some considerations for a coastal flood hazard mitigation plan are noted below.

i. The preferred approach is to avoid development within the coastal flood hazard area.
ii. In some situations, it may be appropriate to consider the need for a sea dike, with an appropriate setback from the shoreline.
iii. As dikes are subject to approval by the Inspector of Dikes (IOD) pursuant to the Dike Maintenance Act, it is important that any dike design is performed in consideration of IOD standard dike criteria. This includes provision for any constructed dikes to be under the maintenance authority of SLRD. The design criteria would include appropriate allowances for sea level rise and wave effects, and provision for long-term upgrading of dikes for additional sea level rise.
iv. In the absence of a sea dike, an appropriate coastal setback should be provided. In general, the setback should be sufficient to preclude development being affected by shoreline erosion without the need for shore protection works.
v. Development should meet applicable setback provisions from the landside dike toe and any internal watercourses.
vi. The FCL should be achieved by landfill to the FCL. Any construction of basements or other habitable areas below the FCL would require justification and variance.
vii. The mitigation plan should consider appropriate protection of infrastructure associated with the proposed development.
viii. Integration with mitigation plans for other hazards may be required.

Creek Hazard Areas Guidelines

7.4.13 Creek Hazard Areas are outlined on Schedule C Map 16B (DP-NH-05). Creek hazard areas include creek corridors, ravines, low channel confinement, and debris floods/flows. Within these areas, further, site-specific geotechnical assessments will be required. A Natural Hazards Protection Development Permit is required for development activities within Creek Hazard Areas, where the following guidelines apply.

(a) Development applications should involve a refined assessment of the creek hazards by an appropriately qualified professional engineer or geoscientist and include considerations of the following:

i. Potential creek-related hazards should be assessed in terms of frequency and magnitude, and potential area of impact. The hazard assessment should cover the entire land parcel being considered for development, with a focus on the hazard areas identified in this DPA. The hazard assessment should reasonably consider the potential for upstream resource development activity (such as forestry) and land development in adjacent areas. The hazard assessment should also consider the potential for future climate change.
ii. Creek corridors upstream and on the property should be subject to detailed assessment, including survey to establish the natural boundary location and provide information regarding the channel geometry (including cross-sections).
iii. The proposed development design should endeavour to avoid the area of potential creek hazard impact. Where development is proposed within an area of potential creek hazard, an appropriate mitigation plan should be prepared.
iv. The need for a setback from the crest and/or toe of a ravine, and the natural boundary of a creek, should be considered.
v. Debris flow and debris flood hazards may require consideration of channel and slope characteristics upstream from the subject property. Associated data may

include stream and ravine bank profiles, bank stability assessment, and run out limits of debris within the creeks.

vi. The degree of hazard assessment work may be tailored to suit the proposed scale of development, as provided in the EGBC guidelines for flood assessments.

(b) Some considerations for a flood hazard mitigation plan are noted below.

i. The preferred approach is to avoid development within creek hazard areas.

ii. In some situations, it may be appropriate to consider the need for a flood protection dike, with an appropriate setback from the creek.

iii. As dikes are subject to approval of the IOD under the Dike Maintenance Act, it is important that any dike design is performed in consideration of IOD standard dike criteria. This includes provision for any constructed dikes to be under the maintenance authority of SLRD.

iv. Development should meet applicable setback provisions from the natural boundary of the creek or the landside dike toe.

v. A flood construction level (FCL) should be developed in consideration of the design flood level and other design considerations as noted herein.

vi. The FCL should be achieved by landfill to the FCL. Any construction of basements or other habitable areas below the FCL would require justification and variance.

vii. The mitigation plan should consider appropriate protection of infrastructure associated with the proposed development.

viii. The mitigation plan should include documentation that it will not result in a transfer of risk to other properties, or otherwise mitigate such impacts.

ix. Integration with mitigation plans for other hazards may be required. Integration with any pertinent stormwater management plans may also be required.

Save Harmless Covenant

7.4.14 Property owners are required to register a “save harmless” covenant on the title of the property where proposed development is located within the mapped Natural Hazards Protection Development Permit Areas, as per Schedule C Map 16A and 16B.

7.5 WILDFIRE PROTECTION DEVELOPMENT PERMIT AREA

BACKGROUND

Purpose

7.5.1 Pursuant to Section 488(1)(b) of the *Local Government Act*, the Wildfire Protection Development Permit Area (DPA) is designated for the protection of development from hazardous conditions.

Application & Area

7.5.2 The Wildfire Protection DPA applies to all lands within Electoral Area D. A Wildfire Protection Development Permit is required for development activities that involve any of the following:

~~(a)~~ Construction of, addition to or alteration of a building or other structure, where a building permit is required.~~; or~~

~~(b) Subdivision of land where the number of parcels is increased.~~

Exemptions

7.5.3 A Wildfire Protection Development Permit is not required for:

(a) additions to existing buildings where the total area of the additions is less than 50 m^2;

(b) renovations within an existing building that are not roofing related (note: roof renovations require non-combustible construction materials as per section 7.5.6);

(c) where a covenant is registered on title requiring property owners to comply with the Wildfire Protection DPA guidelines;

(d) a temporary use being carried on under a Temporary Use Permit issued by the **Board;**

(e) where exempted by the building inspector.

Delegation of Authority

7.5.4 The Board delegates the authority to issue Wildfire Protection Development Permits to the Director of Planning and Development.

Objective

7.5.5 To ensure new developments in Electoral Area D are designed and constructed to minimize wildfire hazard, and contribute to the fire safety of neighbourhoods and communities. ~~Implementation of the Wildfire Protection DPA will limit damage to property, should wildfires occur.~~

GUIDELINES

General Guidelines

7.5.6 The following general guidelines apply:

(a) a development permit shall be issued only if non-combustible roofing materials that conform to Class A or Class B fire resistance as referenced in the current BC Building Code are utilized (examples include metal, asphalt, clay and composite rubber tiles) and if two or more of the following measures identified in the BC FireSmart Home Owner's Manual and BC Building Code are indicated in the application:

i. Non-Combustible Zone (0 – 1.5 meters from face of building) implement all of the following: non-combustible siding (including but not limited to cement board, slate, metal, plaster, stucco, and other concrete products, excluding decorative trim, soffit, fascia, and similar features); fire resistant windows (exterior windows, windows within exterior doors, and skylights shall be tempered, multilayered glazed panels, or glass block), install spark arrestor on chimney (for fireplaces, wood stoves and furnaces), screen vents, eaves, attics and underfloor openings with three-millimetre non-combustible wire mesh;

ii. Zone 1 (1.5 – 10 meters) – implement fire resistant landscaping (plant low-growing, well-spaced, fire-resistant plants and shrubs – refer to BC Fire Smart Landscaping Guide) and maintain a 1.5-metre, non-combustible zone around the entire home and any attachments (rock, or stone surface with no plants, debris or combustible materials); or

iii. Zone 2 (10 – 30 meters) -On parcels 2 ha or greater, implement coniferous tree spacing (spacing trees at least 3 meters apart) and remove combustible materials.

~~A development permit shall be issued only ifnon-combustible construction materials are used for roofing that conform to Class A or Class B fire resistance as referenced in the current BC Building Code (Examples of typical Class A or B roofing products include but are not limited to asphalt shingles, torch-on asphalt membrane, metal, concrete tile, clay tile, and slate) and if two or more of the following measures identified in BC FireSmart Guidelines and BC Building Code are indicated in the application:~~

~~i. Non-combustible construction materials for exterior cladding and structures i.e.: decks attached to the principal building;~~

~~Non-combustible zone within 1.5 metres of buildings, structures and projections;~~

~~ii. Fire resistant landscaping (low density planting, fire-resistant plants, shrubs and trees) within 10 metres of buildings, structures and projections that features trees that are planted a minimum of 3 metres apart from each other, preferably deciduous and trimmed of branches to 3 metres in height, low- growing non-resinous shrubs, lawn and hard surfaces are preferred. Examples of fire resistant trees include poplar, birch, aspen, cottonwood, maple, alder, ash and cherry;~~

~~iii. On parcels 2 ha or greater fire-resistant landscaping within 30 metres of structures and projections where ground fuel has been removed, trees are thinned to a minimum of 3 metres apart, and branches are trimmed up to at least 3 m above the ground. Trees spaced more closely than 3 metres are acceptable where a hard surface, lawn, or other suitable fire break surrounds the cluster.~~

~~(a)~~(b) Applications for a Wildfire Protection Development Permit shall be accompanied by plans indicating the following, as necessary to show how the requirements under 7.5.6 (a) are being implemented in the proposed development:

i. Location of all existing and proposed buildings and structures, parking areas, and driveways;

ii. Extent and nature of existing and proposed landscaping, including details of trees and ground cover; and

iii. The exterior materials of existing and proposed structures.

~~(b)~~(c) Additional information that may be required in order to consider issuance of a Development Permit includes landscape plans that are prepared in consultation with a Registered Professional Biologist, Forester, or Landscape Architect and that provide recommendations for ensuring minimal fuel loading within landscaped areas, ongoing protection from interface fire hazard, and the type and density of fire resistive plantings that may be incorporated within landscaped areas to help mitigate the interface fire hazard.

~~(c)~~(d) Applicants are encouraged to review and comply with the BC FireSmart Guidelines and the fuel management recommendations outlined in the SLRD Community Wildfire Protection Plan.

~~(d)~~(e) Applicants are encouraged to remove all debris from land clearing (clean wood and vegetation) and take it to an appropriate facility to be composted.

7.6 Steep Slope Protection Development Permit Area

BACKGROUND

Purpose

7.6.1 Pursuant to Section 488(1) (a) and (b) of the *Local Government Act*, the Steep Slope Protection Development Permit Area is designated for the protection of development from hazardous conditions.

Application & Area

7.6.2 The Steep Slope Protection DPA applies to lands within the Britannia North Neighbourhood with slopes of 30% or greater, as indicated on Schedule C Map 6.

7.6.3 A Steep Slope Protection Development Permit is required for development activities that involve any of the following:

(a) Removal, alteration, disruption or destruction of vegetation on land with slopes of 30% or greater, and land within 20 m of land with slopes of 30% or greater.
(b) Alteration of land with slopes of 30% or greater, including clearing, grading, blasting and other site preparation activities;
(c) Construction of, addition to or alteration of a building or structure on slopes of 30% or greater; and
(d) Subdivision of land with slopes of 30% or greater, where the number of parcels is increased.

Exemptions

7.6.4 A Steep Slope Protection Development Permit is not required for:

(a) The removal of one tree from a property within a two-year time period, only where that tree is located outside a covenant area as described on the land title of the subject property. This applies to any tree that has a diameter (width) of 20 cm or greater, measured at 1.4 m above the ground;
(b) The removal of a *hazard tree* as identified by a hazard assessment report prepared by a Certified Arborist and submitted to the Director of Planning and Development;
(c) Gardening and yard maintenance activities within an existing landscaped area, such as lawn mowing, minor pruning of trees (not *tree cutting*) and shrubs (where minor is considered 10% or less of trees/shrubs located on a property), and planting of vegetation, except where such activities would occur within a covenant area as described on the land title of the subject property;
(d) The removal or planting of trees that have a diameter (width) of 5 cm or less, measured at the base;

(e) The installation of fencing or similar;
(f) The clean-up of accumulations of fallen branches, leaves, dry grass and needles from the ground within 30 m of the dwelling, only where that combustible material is located outside a covenant area as described on the land title of the subject property;
(g) A temporary use being carried on under a Temporary Use Permit issued by the Board;
(h) Soil deposit and/or removal activity that has been issued a valid soil deposit/removal permit by the SLRD;
(i) The removal of invasive species including, but not limited to those identified by the Sea to Sky Invasive Species Council (or a similar society) and/or Provincial regulations.
(j) Forestry practices associated with a provincially approved Community Forest pursuant to the BC Forest Act;
(k) *Tree cutting* or removal that is undertaken by B.C. Hydro, a utility under the *Utilities Act* (B.C), a utility owned or operated by the Province of British Columbia, or a telecommunications or other federally regulated utility, on land owned or held by the utility, and done for the purpose of safety, maintenance or operation of the utility's infrastructure;
(l) *Tree cutting* or removal pursuant to works undertaken by the SLRD;
(m) To resolve emergency situations that present an immediate danger related to flooding, erosion, or other immediate threats to life or property; and
(n) Activities conducted under the Provincial Emergency Program or the SLRD Emergency Management Program.

Delegation of Authority

7.6.5 The Board delegates the authority to issue Steep Slope Protection Development Permits to the Director of Planning and Development.

Objectives

7.6.6 To limit development within or near steep slope hazardous areas thereby minimizing the potential that new developments and alterations of land will increase hazards to adjacent lands and existing developments, both upslope and downslope.

7.6.7 To ensure adequate professional evaluation of geohazards and associated mitigation works.

7.6.8 To obtain assurance from Qualified Professionals that the development satisfies the Engineers and Geoscientists British Columbia Geohazard Assurance Statement.

GUIDELINES

General Guidelines

7.6.9 The following general guidelines apply:
(a) Where possible, development should be sited to avoid steep slopes and hazardous conditions. Where impossible or impractical to avoid, mitigation measures may be required.
(b) Property owners may be required to register a “save harmless” covenant on the title of the property where development is proposed in areas where there are hazardous conditions.
(c) Applications for alteration of land, subdivision, or building permits on land with slopes

of 30% or greater, and land within 20 m of land with slopes of 30% or greater may be required to include a site-specific report from a qualified Professional Engineer or Professional Geoscientist stating that the site is “safe for intended’ and considers all relevant potential landslide hazards including, but not limited to, debris slides/slumps, rock falls, and rock slides.

(d) The report may be required to include the following information, as applicable to the development:
   i. Slope profiles with documentation of the limits of slope instability. Consideration shall be given to the limits and types of instability and changes in stability that may be induced by site clearing, road building, climate change, timber harvesting, and future development both upslope and downslope of the subject property.
   ii. Recommended wet weather shutdown criteria for worker safety during site clearing, road building, and building construction.
   iii. Appropriate land use recommendations such as restrictions on *tree cutting*, surface drainage, filling and excavation.
   iv. A detailed stability assessment indicating potential failure modes, limiting factors of safety, and stability during seismic events. Geotechnical analytical techniques for evaluating seismic slope stability should follow the procedures described Engineers and Geoscientists British Columbia’s Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in British Columbia (May 2010 or current version).
   v. A recommendation of required building setbacks from the crests and/or toes of steep slopes, and a demonstration of suitability for the proposed use.
   vi. An assessment of shallow groundwater conditions and the anticipated effects of septic systems, footing drains, etc. on local slope stability.
   vii. If required, definition of the site-specific rock fall shadow area, including an indication of the appropriate buffer zone and required protective works.
   viii. If required, an erosion and sediment control plan.

(e) Development Permits shall be in accordance with the recommendations of the applicable geohazard report or reports, including required mitigative measures.

(f) Geohazard reports submitted in support of a development permit applications shall meet the requirements outlined in the EGBC Geohazard Assurance Statement and appropriate EGBC Professional Practice Standards.

(g) Where development also falls within other DP(s), geohazard report shall be coordinated with other Qualified Professionals to create a comprehensive development permit application.

(h) Property owners are cautioned that the following activities may exacerbate hazards and contribute to slope failure, and should generally be avoided:
   i. Alterations to natural drainage patterns or vegetation;
   ii. Excavation on steep slopes or at the base of slopes;
   iii. Constructing swimming pools, ponds, or other water features along or near the crest of slopes, where these features are not founded on competent bedrock;
   iv. Placing fill, organic wastes, and debris along or near the crest of slopes;
   v. Dumping of significant quantities of plowed snow on or near the crest of slopes;
   vi. Discharge of surface or ground water on or near the crest of slopes;
   vii. *Cutting trees* or removing other vegetation on or near the crest of slopes, except where required for emergency works.

(i) Parking areas and buildings should be designed to minimize run-off, and wherever possible, permeable materials such as gravel shall be used to reduce drainage impacts on adjacent lands and streams.

(j) Areas abutting Highway 99 must ensure slope stability protection measures are in place to mitigate potential impacts to critical infrastructure.

Vegetation Management Guidelines

7.6.10 The following vegetation management guidelines apply:

(a) Application for removal, alteration, disruption or destruction of vegetation on land with slopes of 30% or greater, and land within 20 m of land with slopes of 30% or greater, shall include a site-specific report from a Professional Engineer, Geoscientist, Certified Arborist, or Landscape Architect that supports the removal of the trees/vegetation and considers all relevant slope stability, drainage and vegetation management issues.

(b) The report may be required to include the following information, as applicable to the development:

i. Vegetation management plan (outlining what will be removed and what will be retained, including rationale and before and after photos);
ii. A recommendation of required vegetation management setbacks from the crests and/or toes of steep slopes;
iii. Slope profiles and site survey plan;
iv. If required, replacement planting plan; and
v. If required, an erosion and sediment control plan.

(c) Any removal of trees/vegetation shall only occur as recommended by the professional report outlined in 7.6.10 (a) and (b).

(d) Effort should be made to retain as much existing vegetation as possible, especially significant vegetation and habitat, using the following guidelines:

i. Minimize the extent of cut and fill required for road construction and instead conform to the natural contours of the landscape. All cut and fill slopes should be treated with growing medium, hydroseeded, and planted with native vegetation.
ii. Plan open space areas to incorporate stands of mature forest.
iii. Retain existing ground vegetation and trees where possible within development areas.
iv. Delineate the location of all veteran trees within proposed development areas and manage design to avoid disturbance and removal where possible. Protect existing veteran trees within appropriately sized vegetation clumps.

(e) Tree management considerations shall provide a natural and environmentally appropriate response to retention, pruning, and removal.

(f) Longer term protection of vegetation on steeply sloped areas may be managed through covenants registered on property titles if appropriate.

7.7 FORM, CHARACTER & CONSERVATION DEVELOPMENT PERMIT AREA

BACKGROUND

Purpose

7.7.1 Pursuant to Section 488(1) (e), (f), (h), (i), (j) of the Local Government Act, the Form, Character and Conservation Development Permit Area is designated for the following purposes:

(a) establishment of objectives for the form and character of intensive residential development;

(b) establishment of objectives for the form and character of commercial, industrial or multi-family residential development;

(c) establishment of objectives to promote energy conservation;

(d) establishment of objectives to promote water conservation; and

(e) establishment of objectives to promote the reduction of greenhouse gas emissions.

Application

7.7.2 The Form, Character and Conservation Development Permit Area applies to all intensive residential (including duplex and small lot subdivision), multi-family, industrial and commercial development in the Electoral Area D.

7.7.3 A Form, Character and Conservation Development Permit is required for development activities that involve any of the following:

(a) Construction of, addition to or alteration of a building or other structure, where a building permit is required;

(b) the alteration of land, a building or any other structure; or

(c) Subdivision of land where the number of parcels is increased.

7.7.4 Specific guidelines identified as Multi-Family or Commercial only apply to development that encompasses those specified uses.

Exemptions

7.7.5 A Form, Character and Conservation Development Permit is not required for:

(a) buildings having a gross floor area of less than 10 m^2;

(b) single-family dwellings;

(c) renovations within an existing building;

(d) a temporary use being carried on under a Temporary Use Permit issued by the **Board;** and

(e) soil deposit and/or removal activity that has been issued a valid soil deposit/removal permit by the SLRD.

Delegation of Authority

7.7.6 The Board delegates the authority to issue Form, Character and Conservation Development Permits to the Director of Planning and Development for the following instances:

(a) Applications involving buildings and structures with a maximum Gross Floor Area (GFA) of 500m^2.

(b) Applications involving land alteration with no buildings or structures being constructed.

7.7.7 Applications involving buildings and structures with a Gross Floor Area (GFA) of greater than

500 m² require approval of the Board.

Objectives

7.7.8 To guide the form and character of development to:

(a) ensure a high-quality built environment;
(b) support a cohesive landscape;
(c) reflect the natural beauty and character of the natural environment;
(d) ensure safe, functional, liveable neighbourhoods;
(e) enhance connectivity and the public realm;
~~(e)~~(f) ensure adequate protection of groundwater quality and quantity; and
~~(f)~~(g) encourage energy and water conservation in new development.

GUIDELINES

General Guidelines

7.7.9 The following general guidelines apply:

(a) Applications for a development permit shall be accompanied by plans, including but not limited to survey plans, site development plans, grading plans, building plans, storm water management plans, landscape plans, lighting plans, site servicing plans and a written description of the proposal, to indicate how the proposed development is meeting the following guidelines.
(b) All projects are encouraged to apply design philosophies and incorporate practices and materials that significantly reduce energy and water use, greenhouse gas emissions, as well as employ renewable energy sources where possible. With respect to energy and water, conservation principles should be incorporated through building construction, siting, and landscaping. Efforts to minimize the generation of solid waste in construction and deconstruction is also encouraged.
(c) All projects shall consider and manage their cumulative impact on groundwater resources.
~~(b)~~(d) New developments shall eliminate infrastructure that maintains fossil fuel dependence. For certainty, Development Permits associated with new developments that show fossil fuel connections will not be accepted.

7.7.10 **Context, Character, Siting, and Orientation**

(a) Building design and siting should fit the existing terrain, minimize the need for cutting, filling or regrading, and incorporate and enhance natural landscape features such as trees and other significant vegetation, rock outcroppings and water courses.
(b) Buildings should be designed to suit the physical character and terrain of the site and reflect the west coast mountain location.
(c) Use sensitive site clearing techniques to preserve existing landscape values, maintain topsoil onsite for reuse, maintain natural grades and prevent cut and fill.
(d) Prevent soil and water contamination, and incorporate sediment and erosion control measures to protect watercourses.
(e) Work with natural grades wherever possible to minimize cuts and fills and limit impacts to the hydrology of adjacent lands.
~~(e)~~(f) Design and siting of buildings and amenities should ensure aquifer protection for

drinking water sources.

~~(f)~~(g) Design and siting of buildings should ensure view corridors and sunlight access is maintained.

~~(g)~~(h) Design and siting of accessory buildings should complement the main building with the form, massing, articulation, and the use of colours, finishes and materials.

~~(h)~~(i) Proposed site development must be carefully integrated with existing or proposed public trails, parks and open spaces.

~~(i)~~(j) Support connections to transit and preferred modes of transportation networks.

Retaining Walls

~~(j)~~(k) Avoid the use of high retaining walls adjacent to public spaces.

~~(k)~~(l) Where visible the retaining walls should take on a natural look wherever possible and reflect the mountain and forested terrain character.

~~(l)~~(m) Retaining walls should largely be rock stack and / or vegetated wall systems., with the type of system used dependent on the visibility of the wall, geotechnical considerations, topography, surrounding vegetation types, solar orientation (south facing vegetated walls tend to dry out) and spatial constraints.

~~(m)~~(n) Retaining Wall Acceptable Materials include:

- i. Rock stacked walls where visible should be limited to 2.5 m. steps with 1.2 m. planting areas in between;
- ii. Vegetated Walls Systems such as FlexMSE https://www.flexmse.com/ or Sierra Scape Gabian Walls with local blasted rock;
- iii. Faced MSE walls;
- iv. Reinforced Concrete with formed finish to a maximum height of 2 m. with 1.2 m. planting in between;
- v. Cast in place walls with treated surface to a maximum height of 2 m. with 1.2 m. planting in between; and
- vi. Shotcrete walls with treated surface to mimic natural bedrock.

~~(n)~~(o) Retaining Wall Not Acceptable Materials includes:

- i. Lock block walls are not permitted where visible unless faced with stone.

~~(o)~~(p) **Multi-Family and Commercial:** Developments must incorporate architectural design that is sensitive to the location.

~~(p)~~(q) **Multi-Family and Commercial:** Proposed building siting must consider the effect on neighbours including sunlight access and view impacts.

~~(q)~~(r) **Multi-Family and Commercial:** Retaining walls employed in siting the buildings on the sloping site should be stepped in ways to minimize their visual impact and screened with soft landscaping.

~~(r)~~(s) **Multi-Family and Commercial:** All rooftop mechanical equipment must be screened.

~~(s)~~(t) **Multi-family and Commercial:** Principal building entrances must be clearly visible and accessible from the street with well defined pick-up and drop-off facilities. Entry canopies should be integrated with the building design.

~~(t)~~(u) **Multi-Family and Commercial**: Use landscaping to soften service and storage areas and to improve pedestrian comfort.

~~(u)~~(v) **Multi-Family:** Consideration of grade separation is encouraged to improve privacy for the enjoyment of patios.

~~(v)~~(w) **Multi-Family:** Consideration should be given to the provision of individual exterior entrances to grade level apartments and townhouses.

~~(w)~~(x) **Multi-family:** When beneficial for privacy, ground floor patio spaces that extend beyond the face of the building should be defined with landscape edge treatments including walls, hedges and decorative railings. The materials used for the walls should integrate with the material on the building.

~~(x)~~(y) **Commercial:** Strong visible and physical connections tying the interior spaces with the exterior are encouraged.

7.7.11 Building Form, Massing and Variation

(a) Buildings shall be designed for human scale, visual interest and variety, with consideration of:

i. Articulated building plans that create rhythm and visual interest;
ii. Varied and broken roof lines and forms;
iii. Gables, porches, recessed balconies that incorporate robust wood and stone;
iv. Wall projections and indentations, windows and siding treatments as well as varied material textures;
v. Extending the use of building base materials at entries and stairs to the landscape
vi. Terracing of building forms
vii. The avoidance of extensive flat unarticulated walls
viii. Maintaining view corridors; and
ix. Mitigating the actual and perceived bulk of buildings by utilizing appropriate massing.

(b) Buildings shall incorporate techniques and treatments that emphasize the transition between inside and outside (e.g. operable windows, overhead rolling doors, canopies, trellises, recessed entrances, and extended building planes).

(c) Utilize landscaping treatments to further soften the mass of building form (e.g. strategic placement of trees, shades, vines, trellis, privacy screens and arbours along with surface materials such as pavers).

(d) Buildings should be designed for human scale and visual interest at all elevations.

(e) **Multi-Family and Commercial:** Buildings should be designed as a coherent group articulated for human scale and visual interest and sharing common details and exterior materials.

(f) **Multi-Family and Commercial:** All rooftop mechanical equipment and main floor service areas must be screened.

(g) **Multi-Family and Commercial:** Consideration should be given to reducing the overall impact of building bulk and massing by incorporating:

i. Balconies (with 2 m depth for usability), bay windows and cantilevered projections;
ii. Variations of cornice lines and roof slopes;
iii. Hips, gables, dormers, chimneys and other architectural features to break up larger scale roof forms; and
iv. Sun shades, trellises and privacy screens.

(h) **Commercial:** Incorporate thematic paving, seating, planters, signage, lighting and other features to enhance the pedestrian experience.

(i) **Commercial:** The principal entrance of resort commercial developments must include well-defined drop-off areas for visitors, and local public transportation.

(j) **Commercial and Industrial:** The outdoor storage of equipment or materials should generally be placed at the rear of the site to reduce visibility from surrounding roads and any visible residential areas.

7.7.12 Building Materials and Colours

(a) Buildings shall be constructed of natural materials and colours that blend in well with the surrounding natural environment, suit the physical character and terrain of the site and reflect the west coast mountain character.
(b) Wood and stone should feature predominantly in the finishing treatments.
(c) The use of sustainable or 'green' building materials, including low carbon, recycled, recyclable, healthy and locally-sourced materials, is encouraged.
(d) The use of durable building materials and finishes that have low "embodied energy", are from rapidly renewable sources that will yield long service life and low maintenance, is encouraged
(e) Construct/install with deconstruction in mind to allow for material reuse.
(f) **Commercial and Multi-Family:** Building materials should achieve a cohesive and unified building image that complements the character of the surrounding neighbourhood.
(g) **Multi-Family and Commercial:** Principal exterior materials should include glass, local stone and wood, with robust wood detailing employed for weather protection and entry canopies.

7.7.13 Landscaping

(a) Use native or adaptive vegetation. All invasive plant materials are prohibited.
(b) Pollinator plants should be considered and encouraged.
(c) Retain existing native mature trees and shrubs in setback areas where feasible.
(d) Fully landscape all areas not covered by buildings, structures, driveways, parking or natural rock surfaces.
(e) Hard landscaping must consider the retention of natural features, vegetation and trees.
(f) Incorporate vegetated buffer areas throughout and around impervious paved areas to filter rainwater, and moderate heat island effects and air emissions.
(g) Use plant materials that reduce and filter runoff, and support rainwater infiltration.
(h) Group plantings according to water requirements, sun requirements and the site location and provide groupings of shade trees and shrubs on large expanses of open space.
(i) Encourage planting materials that eliminate the need for pesticide use.
(j) Minimize the use of water intensive lawn types and/or use lawn alternatives such as natural ground covers and native grasses. Meadow Lawn may be used where appropriate for gathering, picnicking or informal play. Lawn areas in park spaces may be native grasses and meadow grass that require minimal maintenance.
(k) Install above or below ground cisterns to capture, store and potentially reuse rainwater to irrigate non-edible plants and landscaping.
(l) Design, install, and manage cost effective and efficient irrigation systems that support water, soil, and energy conservation practices. The intent is that irrigation shall be minimized and used strategically.
(m) Encourage urban agriculture and provide for community gardens.

Tree Management

(n) Tree management considerations shall provide a natural and environmentally appropriate response to retention, pruning, and removal.
(o) Development shall minimize the disturbance of forested areas where ever possible as buildings, roads and infrastructure are planned, designed, and constructed.
(p) All development sites within forested areas and adjacent to significant tree stands should be reviewed by a qualified arborist to ensure the trees incorporated into parcels are healthy and wind firm.
(q) For trees located on development lots, retention should occur where possible through sensitive site planning, and significant trees should be incorporated into the development, if possible.
(r) When trees are removed for site buildings and roads, an uneven staggered edge rather than a straight line of trees is recommended to maximize edge habitat for wildlife, regenerate under storey growth and reduce windthrow hazards.
(s) Prior to any work being carried out in any phase of the development the developer may be required to retain a Landscape Architect or Arborist to prepare plans for tree retention, preservation, and removal.
(t) **Commercial:** For resort commercial developments, the incorporation of landscaped terraces and vegetated roofs is encouraged.

Fencing

(u) Fencing should be used minimally and used to provide privacy where required and for safety and security reasons.
(v) Fencing should take on a more open character and not be solid, blocking out views and connection to the surrounding landscape. Fencing materials and design should reflect a west coast contemporary character and look.

7.7.14 Outdoor Open Space, Common Areas and Amenity Spaces

(a) **Multi-Family:** Outdoor gathering spaces, places between buildings, and pedestrian connections should all be designed in conjunction with the building plans to maximize usability and aesthetics.
(b) **Multi-Family:** Interior and exterior common amenity spaces should be appropriate to the size of the building and be flexible for all weather, particularly extreme heat.
(c) **Multi-Family:** Exterior spaces should be located for good sunlight access and views, while providing for heat mitigation. Consideration should be given to developing upper roof areas for amenity use.
(d) **Multi-Family:** Communal amenity areas should be carefully designed and included in all multi-family sites. These areas should include gathering spaces for outdoor cooking, entertaining, play, and urban agriculture (where appropriate). These spaces should be designed to encourage community and flexibility for all weather.
(e) **Multi-Family:** Physical comfort should be considered through site planning, use of windscreens and arbours, and/or planting for sun protection.
(f) **Multi-Family:** Roof terraces, patios and gardens are encouraged as private or shared outdoor space. These areas should be designed to mitigate impacts on the privacy and enjoyment of neighboring residences and outdoor spaces.
(g) **Commercial and Multi-Family:** New developments, not within 250-500 metres of a publicly accessible playground, should prioritize on-site outdoor children's play areas.

Children's play areas should be designed with:

i. play equipment or natural elements for a range of ages;
ii. universally-accessible features and furnishings;
iii. seating for supervising adults;
iv. separation of play areas from vehicle circulation and parking areas;
v. maximized sunlight with areas of shade in the summer;
vi. areas of overhead weather protection to enable functional use of the site in the rain and heat; and
vii. hardy planting for adjacent landscaping.

(h) **Commercial:** Consideration shall be made for public restrooms.

7.7.15 Rainwater and Stormwater Management

(a) Innovative, on-site water management techniques should be considered, such as green roofs, raingardens, bioswales, use of pervious surfaces, engineered rock pits and soil cells, and roof drainage collection and storage for landscaping purposes.

7.7.16 Energy Conservation

(a) Designing buildings to be net zero ready is encouraged.

(b) The use of onsite renewable power generation systems to supply electrical, heating, and cooling needs to buildings and other structures, is encouraged.

~~(b)~~(c) New developments shall eliminate fossil fuel combustion for heating, cooling and cooking.

~~(c) The use of water pumps and sewage pumps is encouraged.~~

(d) The orientation and siting of buildings and structures should take advantage of opportunities for passive solar gain to maximize winter heating and summer cooling.

(e) Cool roofs and pavements made of highly reflective and emissive materials are encouraged to mitigate urban heat, lower energy use and GHG emissions and improve human health and comfort.

(f) Select materials that encourage thermal massing and seasonal thermal energy storage.

(g) Building design that promotes daylight exposure for natural lighting is encouraged.

(h) Building design that allows for natural ventilation, such as operable windows on at least two sides of the building, is encouraged.

(i) Design measures and exterior shading devices, such as fixed awnings or retractable canopies that are adjustable according to season, should be employed to limit summer solar gain through south facing windows and glazing.

(j) Variances may be considered for energy efficient buildings that commit to achieve BC Energy Step Code Step 5 or higher in order to facilitate energy efficient form of construction.

7.7.17 Accessibility

(a) Design to accommodate the functional needs of all individuals, especially those who have been traditionally excluded from community building including children, adults, and seniors, and those with visual, auditory, mobility or cognitive challenges.

(b) Ensure that site circulation and grade changes facilitate movement by people with disabilities, and that colour contrast in materials in outdoor areas adequately marks transitions (e.g. to stairs between two levels) for those who are visually impaired.

(c) Pedestrian routes should be level or gently graded, illuminated, hard surfaced, smooth (no interlocking bricks/perpendicular banding), and non-slip.

(d) Access for persons with disabilities should be appropriately designed and clearly visible from the principal entrance, visually integrated with the overall building design and site plan, and not relegated to an alternate building frontage for the sake of architectural convenience.

(e) Ensure that colour contrast in materials in outdoor parking and pedestrian areas adequately marks transitions for those who are visually impaired.

(f) Provide universal design features such as accessible pedestrian routes through the development separated from parking and lanes, ramps and curb cuts, crosswalks, street or park furnishings, lighting, and wayfinding.

(g) **Multi-Family:** Building design that allows for future adaptation in unit configuration and use to allow aging in place is encouraged.

7.7.18 Parking, Transportation and Circulation

(a) The majority of off-street surface parking should be housed in enclosed or covered spaces within a building and garage doors recessed from the face of the building.

(b) Provide for an apron in front of garages sized to accommodate parked cars.

(c) Minimize the use of impervious paving and dark coloured absorptive materials for sidewalks, driveways, roads, and parking lots.

(d) Location and design of parking areas should minimize impacts on sidewalk and bike path continuity.

(e) Provide weather-protected transit stops and lay-bys for intensive residential, multi-family and commercial developments, where appropriate and aligned with transit plans.

(f) Connect transit facilities with existing or planned preferred modes of transportation networks.

(g) Car share or bike share spaces should be visible and conveniently located.

(h) Provide easily accessible, secure, and weather-protected bicycle parking facilities.

(i) Pedestrian and cycling routes should provide internal connectivity and efficient links to existing or planned neighbouring sidewalks, ~~and~~ trails, and key destinations, demarcated at vehicular intersections and avoiding high vehicular traffic areas where possible

(j) **Multi-Family:** Provide internal pedestrian pathways or sidewalks which connect to each unit. Public pedestrian mid-block connections are encouraged.

(k) **Multi-Family:** Internal road networks should incorporate curb cuts at road crossing, and traffic calming strategies that support safe cycling.

(l) **Multi-Family:** The majority of off-street parking should be contained within the bulk massing of the building. On sloping sites where parking structures are partially visible at the lower sides, they should be appropriately screened and landscaped. Surface parking should be suitably landscaped and impervious paving minimized.

(m) **Multi-Family:** Smaller visitor parking areas, in close proximity to individual units or buildings, are favoured over large parking areas.

(n) **Commercial:** Provide preferred modes of transportation end of trip support facilities for employees, including showers and change rooms.

(o) **Commercial and Multi-Family:** Improve standards for the delivery and pickup of goods and services in new developments. Provide appropriate locations for loading bays and service areas, consider safe pedestrian access, and avoid negative visual impacts to public places, paths, and views.

(p) **Commercial:** Loading areas should be at the rear of the building and accessed from the lane.

7.7.19 Lighting and Signage

(a) Ensure lighting and signage are pedestrian oriented and integrated with the built and natural environment.

(b) Principal building signage must be to an appropriate scale and integrated with the building and the landscaping.

(c) Civic addresses must be clearly visible from the street and illuminated at night.

(d) Use energy efficient exterior lighting systems with timers and sensors to provide light only when required. Ambient lighting should be minimized.

(e) Where possible, use lighting systems that are powered by renewable energy sources, such as solar.

(f) All exterior lights should emit the minimum amount of light necessary. Exterior lighting should be directed or shielded to illuminate the ground only and to prevent light pollution from encroaching onto adjacent properties, residential areas and environmentally sensitive areas.

(g) **Multi-Family**: Exterior security lights should be motion and light activated only.

(h) **Multi-Family:** Signage should be integrated with the landscaped area along the public street frontage. Signage should be low key in character and softly lit to fit with the surrounding residential context. All ground level units should have highly visible individual unit numbers.

(i) **Commercial and Multi-Family:** Signage shall be indirectly illuminated and pedestrian oriented in scale.

(j) **Commercial and Multi-Family:** Include sufficient and suitable lighting to provide safe pedestrian access to building entrances in the dark

(k) **Commercial and Multi-Family:** All on-site pedestrian walkways used by employees or the public should have sufficient lighting to permit easy surveillance and safe use at night.

7.7.20 Solid Waste

(a) **Commercial and Multi-Family:** Garbage, recycling and composting storage must be located within a building, or in a separate building ~~.~~and designed to the standards outlined in the solid waste storage technical design guidelines.

(b) Adequate space for source-separation of garbage, recyclables, and compost should be provided.

(c) Make areas for recycling, composting, and garbage storage sufficiently large and easily accessible by users and waste removal trucks, with planned capacity for expansion if necessary. Waste storage should be sited in a convenient, well lit, universally accessible location in a central area or at the rear of the development.

(d) Recycling, composting, and garbage storage options must be located within wildlife proof enclosures.

(e) Sufficient space must be provided in each enclosed garage, or other fully enclosed space, for bear-resistant garbage, composting and recycling containers.

~~(e)~~(f) Neighbourhood waste buildings should be provided for all new development, where feasible.

7.8 FARMING PROTECTION DEVELOPMENT PERMIT AREA

BACKGROUND

Purpose

7.8.1 Pursuant to Section 488(1)(c) of the Local Government Act, the Farming Protection Development Permit Area (DPA) is designated for the protection of farming.

Application

7.8.2 The Farming Protection DPA applies to all land within 300 m of the Agricultural Land Reserve (ALR).

7.8.3 A Farming Protection DP is required prior to the commencement of any of the following:

(a) Development of dwellings within 300 m of the ALR.
(b) Additions to existing dwellings within 300 m of the ALR.
(c) Subdivision within 300 m of the ALR.
(d) Alteration of land within 300 m of the ALR.
(e) Commercial or industrial development within 300 m of the ALR.

Exemptions

7.8.4 A Farming Protection Development Permit is not required for:

(a) Forestry practices associated with a provincially approved Community Forest pursuant to the BC Forest Act.
(b) Agricultural uses and buildings on properties classified as farm under the *BC Assessment Act*.
(c) The removal of invasive species including, but not limited to those identified by the Sea to Sky Invasive Species Council (or a similar society) and/or Provincial regulations.
(d) A temporary use being carried on under a Temporary Use Permit issued by the Board
(e) Soil deposit and/or removal activity that has been issued a valid soil deposit/removal permit by the SLRD.

Delegation of Authority

7.8.5 The Board delegates the authority to issue Farming Protection Development Permits to the Director of Planning and Development.

Objectives

7.8.6 To regulate development activities within and adjacent to the Agricultural Land Reserve (ALR) in order to reduce conflicts between agricultural and non-agricultural uses.

7.8.7 To provide buffering along the agricultural edge to protect farming.

GUIDELINES

General Guidelines

7.8.8 Development on a parcel, or any portion of a parcel thereof, that is within 300 m of the ALR must adhere to the following guidelines:

(a) Subdivision design should minimize potential impacts to farmlands. ~~by avoiding increasing access to agricultural lands.~~

(b) Road ends that end at the ALR should be avoided, except as necessary for farm access.

(c) Subdivision design should consider creating parcel sizes that can accommodate an appropriate buffer to be established on the non-farm side of the ALR.

(d) Undeveloped spaces with landscaped or retained naturally occurring vegetation should be established along the ALR boundary.

(e) Principal use structures or dwellings should generally be located at least 30 m from the ALR boundary.

(f) Buffers should be designed as follows:

i. A continuous landscaped strip of not less than 15 m

ii. Established within 30 m of the ALR boundary, and not closer than 2 m to the ALR boundary

iii. Existing native vegetation within 30 m of the ALR boundary should be retained. Nonnative species may be removed and replaced with suitable native species

iv. The buffer should contain a mixture of coniferous and deciduous species

v. The buffer should be approximately 6 m in height. Appropriate species should be selected to reach this minimum height, and should reach at least 2 m in height at the time of planting vi. If vegetation is planted to establish the buffer, it should consist of native species only.

(g) Where an existing natural feature such as a watercourse or ravine provides a physical separation within 30 m of the ALR boundary, the width of the buffer may be reduced or not required. Applications should provide sufficient information, such as photographs, site plans, reports from a qualified professional, etc. to show how the natural feature is providing the equivalent effect of some or all of the 15 m buffer.

(h) Additional information that may be required in order to consider issuance of a Farming Protection Development Permit includes landscape plans prepared in consultation with a qualified professional such as an Agrologist, Forester, or Landscape Architect that provide recommendations for ensuring the type and density of the plantings, or retained vegetation provide a suitable buffer to mitigate the potential negative effects of agricultural and non-agricultural activities occurring on adjacent lands.

(i) Applicants must consult “A Guide to Edge Planning” and similar documents as published and updated by the Ministry of Agriculture for further information with respect to buffering along the agriculture edge.