



STAFF REPORT

File No.: NP – 2021 Groundwater
Sustainability
Implementation

DATE OF MEETING: April 28, 2022
TO: North Pender Island Local Trust Committee
FROM: Narissa Chadwick
Southern Team
COPY: Robert Kojima, Regional Planning Manager
William Shulba, Senior Freshwater Specialist
Kim Stockdill, Island Planner
SUBJECT: Groundwater Sustainability Implementation – Draft LUB and OCP Amendments

RECOMMENDATION

- 1. That the North Pender Island Local Trust Committee endorse the general amendment and Development Permit Area guidelines contained in Bylaw No. 228 cited as “North Pender Island Official Community Plan Bylaw No. 171, 2007, Amendment No. 1, 2022”.**
- 2. That the North Pender Island Local Trust Committee endorse Bylaw No. 229 cited as “North Pender Island Land Use Bylaw No., 1996, Amendment No. 1, 2022”.**
- 3. That the North Pender Island Local Trust Committee request staff send Bylaw No. 228 and Bylaw No. 229 to relevant agencies and First Nations for early referral once preferred DPA boundary option is confirmed.**
- 4. That the North Pender Island Local Trust Committee request staff update the Development Approvals Information Bylaw in order to be consistent with Bylaw No. 228 and Bylaw No. 229.**

REPORT SUMMARY

The purpose of this report is to present the LTC with draft bylaws supporting the implementation of groundwater sustainability measures. The report identifies the amendments proposed to the OCP and LUB.

BACKGROUND

At the February 1, 2021 meeting the LTC endorsed a project charter for the implementation phase (Phase 3) of the Groundwater Sustainability Science Program. Staff have been working to identify options for supportive bylaw

amendments based on review and analysis of groundwater availability studies and groundwater recharge mapping.

At the February 24, 2022 LTC meeting the following resolutions were passed:

“That the North Pender Island Local Trust Committee request staff to prepare a draft bylaw to amend the “North Pender Island Official Community Plan Bylaw No. 171, 2007” to include Critical Aquifer Recharge Development Permit Area guidelines, map updates and minor updates to relevant sections as identified in the February 24, 2022 staff report”.

“That the North Pender Island Local Trust Committee request staff to prepare a draft bylaw to amend the Land Use Bylaw to include updates to definitions, addition of cistern requirements for all new builds and updates to subdivision regulations related to potable water”.

“That the North Pender Island Local Trust Committee request staff to identify options for changes to zoning regulations informed by GW Solutions (2021) groundwater availability assessment data”.

“That the North Pender Island Local Trust Committee endorse the revised Project Charter for the Groundwater Sustainability Implementation Project”.

Reports and mapping related to the research phases of the project can be found here:

<https://islandstrust.bc.ca/island-planning/north-pender/projects/>

ANALYSIS

Bylaw amendments are comprised of:

1. Amendments to the Land- Use Bylaw (Attachment 1)

- New Definitions related to term in proof of water regulations.
- Freshwater cistern requirements for all new builds and secondary suites (potable or non-potable, 18,000 litres total).
- Updates to regulations related to proof of water for subdivision modelled after model bylaw for the Southern Gulf Islands. The bylaw has been extensively reviewed by provincial staff through a multi-year project of the Salt Spring Islands LTC.

2. General Amendments to OCP (Attachment 2)

- Updates to Objectives and Policies for Land Use to include focus on groundwater sustainability and acknowledgement of indigenous cultural knowledge.
- Removing reference to “Schedule F” which will be updated to include groundwater regions.
- Updating Water Systems (3.2) to align with other proposed changes.
- Updating Groundwater Resources (4.1) to align with other proposed changes and existing realities including reference to the Islands Trust Freshwater Sustainability Strategy.

3. The Creation of a Groundwater Recharge Protection Development Permit Area (Attachments 2 and 3)

- New DPA guidelines based on those proposed for Galiano Island.
- The draft bylaw attached to this staff report does not yet include a map of DPA boundaries.

- Proposed options for DPA boundaries and methodology are contained in the attached memo written by the Senior Freshwater Specialist.

*As indicated at a previous LTC meeting identifying options for changes to zoning, while part of this project, will be a separate task.

Policy/Regulatory

Official Community Plan:

The North Pender OCP currently acknowledges the importance of supporting groundwater sustainability. Groundwater Resources (4.1) objectives are as follows:

- 1) *To implement land use planning that ensures the sustainable use of groundwater resources as a source of potable drinking water.*
- 2) *To ensure that the supply of groundwater on North Pender remains as a shared community resource that should not be used as a private commodity.*
- 3) *To ensure land use does not pollute the groundwater resources.*
- 4) *To ensure the best available information and science regarding the groundwater resources is utilized so water resources are preserved for current and future generations.*

As indicated above the OCP also references the implementation of a “Groundwater Management Strategy” (4.1.1.). This subsection has been changed to reference the Islands Trust “Freshwater Sustainability Strategy” as the equivalent of the strategy contemplated at the time of the drafting of the OCP.

Land Use Bylaw:

North Pender’s LUB in its current form does not include the measures supporting groundwater sustainability identified in the OCP. The proposed changes would be a step in implementing OCP policies through Land Use Bylaw regulations.

Consultation

Once the North Pender LTC has endorsed the draft LUB and OCP bylaws, staff are recommending that they be sent out for early referral to relevant agencies and First Nations. This will provide opportunity for early input and opportunity for revision prior to First Reading.

Agencies

The draft bylaws will be sent for early referral to a number of agencies. The list is as follows:

Capital Regional District
Ministry of Land, Water and Resource Stewardship
Ministry of Forests
Ministry of Environment and Climate Change Strategy
Engineers and Geoscientists of BC – Sustainability Advisory Group

First Nations

Cowichan Tribes
Halalt First Nation
Lake Cowichan First Nation
Lyackson First Nation
Malahat First Nation
Pauquachin First Nation
Penelakut Tribe
Semiahmoo First Nation

Snuneymuxw First Nation
Stz'uminus First Nation
Tsartlip First Nation
Tsawout First Nation
Tsawwassen First Nation
Tseycum First Nation
WSANEC Leadership Council

Rationale for Recommendation

LTC endorsement of Bylaws 228 and 229 will enable staff to engage in early consultation with relevant agencies. Early consultation will enable input and update to draft bylaws prior to first reading facilitating a more efficient bylaw approval process. Changes to the DAI bylaw will be required in order to facilitate the implementation of the new development permit area guidelines.

ALTERNATIVES

1. Hold a special meeting to consider all proposed changes related to the Groundwater Sustainability Implementation Project.

The LTC may ask staff to schedule a special meeting related to all aspects of this project to provide for more time and focussed discussion on the proposed amendments before moving forward.

That the North Pender Island Local Trust Committee request staff to schedule a special meeting to consider all the proposed bylaw amendments associated with the Groundwater Implementation Project.

2. Endorse the LUB amendments, general OCP amendments, and DPA guidelines and hold a special meeting to consider the DPA boundaries.

The LTC may endorse the LUB amendments (definitions, cistern requirements and proof of water for subdivision) and ask staff to schedule a special meeting to focus on the DPA guidelines and boundaries.

That the North Pender Island Local Trust Committee request staff to schedule a special meeting to consider the DPA boundaries associated with the Groundwater Implementation Project.

3. Request further information

The LTC may request that staff return to a future LTC meeting with further information prior to making a decision. This will impact the timing of the project.

That the North Pender Island Local Trust Committee request that staff provide further information on.....

4. Make further revisions to amendments

The LTC may ask staff to make further revisions to the draft bylaws prior to sending the draft bylaws out for early referral.

That the North Pender Island Local Trust Committee request staff to make the following changes....

NEXT STEPS

If the staff recommendation are endorsed the next steps are as follows:

- Once preferred DPA boundaries are identified, staff will send draft bylaws out for referral;
- Bylaws will come back to the LTC for review and consideration of first reading;
- LTC gives first reading;
- Bylaw referrals, with comments, received prior to Public Hearing;
- Community Information Meeting and Public Hearing held;
- LTC gives second and third reading;
- Proposed bylaw referred to Executive Committee and the OCP amendment to the Minister of Municipal Affairs & Housing for approval; and
- LTC gives final reading and adopts bylaw.

Submitted By:	Narissa Chadwick, Island Planner	April 19, 2022
Concurrence:	Robert Kojima, Regional Planning Manager	April 20, 2022

ATTACHMENTS

1. Draft Bylaw no. 228 - OCP
2. Draft Bylaw no. 229 -LUB
3. Groundwater Recharge DPA Boundary Methodology – Staff Memo (to be included as late agenda item)

DRAFT

NORTH PENDER ISLAND LOCAL TRUST COMMITTEE BYLAW NO. 228

A BYLAW TO AMEND NORTH PENDER ISLAND OFFICIAL COMMUNITY PLAN BYLAW NO. 171, 2007

The North Pender Island Local Trust Committee in open meeting assembled enacts as follows:

1. CITATION

This Bylaw may be cited for all purposes as “North Pender Island Official Community Plan Bylaw No. 171, 2007, Amendment No. 1, 2022”.

2. SCHEDULES

North Pender Island Official Community Plan Bylaw No. 171, 2007 is amended as shown on Schedule 1, attached to and forming part of this bylaw.

3. SEVERABILITY

If any provision of this Bylaw is for any reason held to be invalid by a decision of any Court of competent jurisdiction, the invalid provision must be severed from the Bylaw and the decision that such provision is invalid must not affect the validity of the remaining provisions of the Bylaw.

READ A FIRST TIME THIS	_____	DAY OF	_____	20__
PUBLIC HEARING HELD THIS	_____	DAY OF	_____	20__
READ A SECOND TIME THIS	_____	DAY OF	_____	20__
READ A THIRD TIME THIS	_____	DAY OF	_____	20__
APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST THIS	_____	DAY OF	_____	20__
APPROVED BY THE MINISTER MUNICIPAL AFFAIRS THIS	_____	DAY OF	_____	20__
ADOPTED THIS	_____	DAY OF	_____	20__

CHAIR

SECRETARY

**NORTH PENDER ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 228**

SCHEDULE 1

The North Pender Island Official Community Plan No. 171, 2007, is amended as follows:

1. Section 2.1 Residential Land Uses is amended by deleting “3)” in its entirety and replacing it with “3) To plan for a land use pattern which ensures the sustainable use of natural resources, protects groundwater recharge potential and water quality and minimizes greenhouse gas emissions.”
2. Section 2.1 Residential Land Uses, Subsection 2.1.G is amended by adding “and limit or reduce negative impact on groundwater quality and quantity” after “reduce greenhouse gas emissions” and before “.”
3. Section 2.1.1. Rural Residential Land Use “2)” is amended by removing “and” between “natural habitat” and “to limit” and replacing it with “,” and by adding “and protects groundwater recharge potential and water quality” after “greenhouse gas emissions”.
4. Section 2.1.1 Rural Residential Land Use, Subsection 2.1.1.5 is amended by adding “, protect critical groundwater recharge areas,” after “reduce emissions” and before “or preservation”.
5. Section 2.1.2 Rural Land Use, Subsection 2.1.2.5 is amended by removing “2.1.2.3” and replacing it with “2.1.2.4” and by adding “f) The proposal is not in an area where increasing density will threaten groundwater recharge and availability.”
6. Section 2.1.2 Rural Land Use, Subsection 2.1.2.6 is amended by adding “groundwater recharge areas and other” after “preservation of” and before “the environmentally sensitive” and removing “the” after “and other” and before “environmentally sensitive”.
7. Section 2.4 Commercial Land Uses, is amended by removing Subsection 2.4.8 in entirety and replaced by “ 2.4.8 New buildings are encouraged to incorporate water conservation measures, including freshwater catchment and retention systems.”
8. Section 3.2 Water Systems is amended by removing “The location of the existing community water systems and water licenses are shown on Schedule F.”
9. Section 3.2 Water Systems, Subsection 3.2.3 is amended by removing “2045 litres/day/lot (450 gallons/day/lot)” and replacing it with “2000 litres/day/lot (440 gallons/day/lot)”

10. Section 3.2 Water Systems, is amended by deleting 3.2.4 in its entirety and replaced with “Regulations may be considered requiring the installation of freshwater catchment and retention systems in new construction.”
11. Section 4.1 Groundwater Resources, Objective “4)” is amended by adding “, including indigenous cultural knowledge, after “resources” and before “is utilized”.
12. Section 4.1 Groundwater Resources is amended by removing Subsection 4.1.1 in its entirety and replacing it with “4.1.1 The Local Trust Committee shall work with other agencies and the community in the implementation of the Islands Trust’s Freshwater Sustainability Strategy. The Strategy Implementation should involve the following elements:
 - a) the development of land use polices and regulations informed by groundwater recharge data and groundwater availability assessment data;
 - b) the use of groundwater recharge data and groundwater availability assessment data in land use decision-making to reduce impacts on groundwater recharge and groundwater supply;
 - c) the assessment of existing zoning and implementation of changes to support the sustainability of groundwater resource;
 - d) the protection of groundwater from potential contamination;
 - e) the promotion of sustainable use of the groundwater resource.”
13. Section 4.1 Groundwater Resources, Subsection 4.1.4 is amended by removing the space between “ground” and “water”
14. Section 4.1 Groundwater Resources, Subsection 4.1.12 is amended by inserting “freshwater” after “retention of” and before “in cisterns”.
15. Section 5.2 Development Permit Areas is amended by adding:

“5.2.12 DEVELOPMENT PERMIT AREA ELEVEN – GROUNDWATER RECHARGE PROTECTION

5.2.12.1 Description of Area

Development Permit Area 11 includes critical groundwater recharge areas identified on Schedule Q. Critical groundwater recharge areas contain hydrogeological conditions that facilitate aquifer recharge and/or transmit contaminants to an underlying aquifer. Factors considered in the identification of critical aquifer recharge areas include topography, remote sensing, satellite multispectral analysis depth to water table, presence of highly permeable soils, land-cover analysis, structural geology, presence of flat terrain, and the presence of more permeable surficial geology.

5.2.12.2 Authority

The Critical Groundwater Recharge Development Permit Area is designated a development permit area pursuant to Section 488(1)(a) of the *Local Government Act* for the protection of the natural environment, its ecosystems and biological diversity and Section 488(1)(i) of the *Local Government Act* for the establishment of objectives to promote water conservation.

5.2.12.3 Special Conditions and Objectives that Justify the Designation

It is the Object of the Islands Trust to “Preserve and protect the Trust Area and its unique amenities and environment of the Trust Area for the benefit of the residents of the Trust Area, and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia.”

It is Provincial legislation in Section 473(1)(d) of the Local Government Act that an official community plan must include statements and map designations for the area covered by the Plan respecting restrictions on the use of land that is environmentally sensitive to development.

The Islands Trust Council has committed to identifying, protecting and, where possible, restoring or rehabilitating groundwater recharge areas in the Trust Area.

It is policy of the Islands Trust Council that Local Trust Committees address measures that ensure:

- neither the density nor intensity of land use is increased in areas which are known to have a problem with the quality or quantity of the supply of freshwater, and
- the quality and quantity of drinking water sources for current and future Trust Area residents is preserved and protected, and
- the overall health of watersheds and ground water in the Islands Trust Area is protected.

Mapping of recharge and water balance completed in 2021 for North Pender Island identifies that the island has a number of areas of critical concern with respect to groundwater vulnerability.

The Objectives of the development permit area are:

- to protect and sustain access to a reliable and safe supply of drinking water for groundwater wells
- to protect and sustain the quality and supply of surface and groundwater necessary to the provision of ecological services
- to mitigate the impacts of development and climate change on groundwater supplies

5.2.12.4 Development Approval Information

The Groundwater Recharge Protection DPA is also designated an area for which development approval information (DAI) may be required according to Section 485(1) of the *Local Government Act*. The designation of these areas for this purpose is based on the special conditions or objectives supporting the designation of the DPA. Development approval information means

information on the anticipated impact of the proposed activity or development on the community or the natural environment.

5.2.12.5 Applicability

A development permit is required for the subdivision of land, construction of, addition to or alteration of a building or other structure, or land alteration, including the cutting of trees, unless exempted below.

5.2.12.6 Development Permit Exemptions

The following activities are exempt from any requirement for a development permit:

- a) Development for which Islands Trust has been provided with a written statement from a registered professional hydrogeologist with relevant experience certifying that the proposed would have no impact on critical groundwater recharge
- b) Repair, maintenance, alteration, additions to, or reconstruction of existing lawful buildings, structures or utilities, including those that are lawfully non-conforming (a building permit may still be required).
- c) Dwellings, cottages, accessory buildings and structures, and associated land alteration that are clustered within a residential home plate not exceeding an area of 1000m², and one access driveway and overhead utility lines and poles outside of the residential home plate.
- d) Land that is subject to a conservation covenant under section 219(4) of the *Land Title Act* in relation to natural, environmental, wildlife or plant life value relating to the land, granted to the Local Trust Committee or a covenantee designated under section 219(3)(c) of the *Land Title Act*.
- e) Repair and maintenance of existing roads, driveways, paths and trails, provided there is no expansion of the width or length of the road, driveway, path or trail, and no creation of additional impervious surfacing, including paving asphaltting or similar surfacing.
- f) Removal of invasive species.
- g) Cutting and removal of up to 5 trees per hectare (with a trunk diameter greater than 20 centimetres measured 1.5 metres above the ground) within a 12-month period on any one lot.
- h) Removal of trees that have been examined by an arborist and certified to pose an immediate threat to life or property.
- i) Farm operations as defined in the *Farm Practices Protection (Right to Farm) Act* and farm uses as defined in Section 2(2), (3), (4) and (5) of the *Agricultural Land Reserve Use, Subdivision, and Procedure Regulation*.
- j) Forest management activities, as defined in the *Private Managed Forest Land Regulation*, on land classified as managed forest land under the *Private Managed Forest Land Act*.

- k) The construction of an accessory building or structure with a lot coverage of less than 100m².
- l) Construction of trails or fences that does not alter contours of the land.
- m) Emergency actions required to prevent, control or reduce an immediate threat to human life, the natural environment or public or private property including:
 - i. Forest fire, flood and erosion protection works;
 - ii. Protection, repair or replacement of public facilities;
 - iii. Clearing of an obstruction from a bridge, culvert, dock wharf or stream; or
 - iv. Bridge repairs.
- n) Works undertaken by a local government or a body established by a local government.
- o) Works authorized under a provincial statute.

5.2.12.7 Guidelines

The *Local Government Act* prohibits construction of buildings and structures and the alteration of land and subdivision in Development Permit Area 11 unless the owner first obtains a development permit. Development permits will be issued in accordance with the following guidelines.

1. In general, development should minimize negative impacts on the quality and quantity of subsurface water supplies.
2. Where a qualified professional hydrogeologist or engineer has made recommendations for mitigation measures, the permit conditions may include a requirement for security in the form of an irrevocable letter of credit, to ensure the protection of groundwater supply quality or quantity consistent with the measures and recommendations described in the report.
3. Where the qualified professional hydrogeologist or engineer's report describes an area as suitable for development with special mitigating measures, the development permit should only allow the development to occur in compliance with the measures described in the report. Monitoring and regular reporting by a hydrogeologist or other professional at the applicant's expense may be required during construction and development phases, as specified in a development permit.
4. Where an application involves the subdivision of land, layout of the subdivision should be, to the greatest extent possible, designed to:
 - a) replicate the function of a naturally vegetated watershed;
 - b) maintain the hydraulic regime of surface and groundwater pre-development flow rates;
 - c) minimize interference with groundwater recharge;
 - d) not introduce or remove material where it would cause erosion of or the filling in of natural watercourses or wetlands.

5. Where freshwater collection and storage cisterns are required as a condition of the construction of a building, impervious surfaces should be minimized.
6. Where freshwater collection cisterns are required as a condition of construction of a building, the LTC may require that all new dwelling units include:
 - i. External equipment for collecting and distributing rainwater from the dwelling unit roof;
 - ii. A pumping system;
 - iii. An overflow handling system.
7. The use of impervious paved driveways shall be discouraged.
8. Where tree removal is not exempt from the requirement for a permit:
 - a. Removal of trees from steep slopes should only be allowed where necessary and where replacement vegetation / erosion control measures are established. Plans delineating extent of vegetation / tree removal and location of proposed construction, excavation and / or blasting, may be required.
 - b. All development should be undertaken and completed in such a manner as to prevent the release of sediment to any watercourse. An erosion and sediment control plan, including actions to be taken prior to land clearing and site preparation and the proposed timing of development activities to reduce the risk of erosion, may be required as part of the development permit application.
 - c. Existing, native trees should be retained wherever possible and trees to be retained near development should be clearly marked prior to development, and temporary fencing installed at the drip line to protect them during clearing, grading and other development activities.
 - d. If the area has been previously cleared of trees, or is cleared during the process of development, replanting requirements may be specified in the development permit. Areas of undisturbed bedrock exposed to the surface or natural sparsely vegetated areas should not require planting.
 - e. Tree species used in replanting, restoration or enhancement should be selected to suit the soil, light and groundwater conditions of the site, should preferably be native to the area, and should be selected for erosion control and/or wildlife habitat values as needed. Suitably adapted, non-invasive, non-native trees may also be considered acceptable.
 - f. All replanting should be maintained by the property owner for a minimum of 2 years from the date of completion of the planting to ensure survival. This may require removal of invasive, non-native weeds (e.g., Himalayan blackberry, Scotch broom, English ivy) and irrigation. Unhealthy, dying or dead trees should be replaced at the owner's expense in the next regular planting season. Permits may include, as a condition, the provision of security to guarantee the performance of terms of the permit.
9. Roads, driveways, trails and pathways should follow the contours of the land and appropriately manage drainage. The construction of roads and utility corridors and other activities involving

the disturbance of the soil, must be conducted in such a manner that the productivity of the local groundwater recharge area is not impaired through soil compaction, altered surface drainage patterns, siltation, erosion, or salt water intrusion.

10. Parking areas should be located and constructed so as to minimize erosion and water pollution by controlling storm runoff. Structural measures such as catch basins, oil separators, bio-filtration trenches or swales, unpaved or permeable all-weather surfaces should be considered for this purpose.
11. Permits may include minor variances to subdivision or building and structure siting or size regulations to meet the objectives of the development permit area.”
16. Schedule “F – Select Surface Water Resources” is removed and replaced with Schedule “F – Groundwater Regions and Water Service Areas” as shown on Plan No.1 attached and forming part of this bylaw.
17. Schedule “Q – Development Permit Area 11 – Groundwater Recharge Protection Development Permit Area” is added after “Schedule P – Development Permit Area 10 – Riparian and Aquatic Development Permit Area “ as shown on Plan No.2 attached and forming part of this bylaw.

**NORTH PENDER ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 228**

Plan 2

Schedule F - Groundwater Regions and Water Service Areas

**NORTH PENDER ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 228**

Plan 2

**Schedule Q – Development Permit Area 11 – Groundwater Recharge Protection
Development Permit Area**

DRAFT

NORTH PENDER ISLAND LOCAL TRUST COMMITTEE BYLAW NO. 229

A BYLAW TO AMEND NORTH PENDER ISLAND LAND USE BYLAW NO. 103, 1996

The North Pender Island Local Trust Committee, being the Local Trust Committee having jurisdiction in respect of the North Pender Island Local Trust Area under the *Islands Trust Act*, enacts as follows:

1. Citation

This bylaw may be cited for all purposes as “North Pender Island Land Use Bylaw No., 1996, Amendment No. 1, 2022”.

2. North Pender Island Local Trust Committee Bylaw No. 103, cited as “North Pender Island Land Use Bylaw No. 103, 1996,” is amended as follows:

2.1 Section 1.1 Definitions is amended by inserting the following in alphabetical order:

““aquifer” means a geological formation, a group of geological formations, or a part of one or more geological formations, that is capable of storing, transmitting and yielding groundwater

“groundwater” means water naturally occurring below the surface of the ground.

“Hydrogeologist” means an engineer or geoscientist with competency in the field of hydrogeology, regulated under the *Professional Governance Act*, Engineers and Geoscientists Regulation.

“potable” means water provided by a domestic water system that meets the standards prescribed by regulation including Heath Canada Guidelines for Canadian Drinking Water Quality, and is safe to drink and fit for domestic purposes without further treatment.

“pumping test” means a flow test to determine the long-term sustainable yield of a well, conducted under supervision of a hydrogeologist, and that is consistent with the British Columbia Guide to Conducting Pumping Tests, Guidance for Technical Assessments in Support of an Application for Groundwater Use in British Columbia, other guidance documents which may be issued, applicable legislation, and consists of pumping groundwater from a well typically for 12 to 72 hours depending on *aquifer* characteristics.

2.2 Section 1.1 Definitions, “community water system” is amended by deleting “a Regional District, or a water utility” and replacing it with “a regional district, a water utility, a society, or a water supplier”.

2.3 Part 3 General Regulations, Section 3.18 Secondary Suites is amended by inserting “3.18.7 A building permit for a property outside a water service area shall not be issued for a

secondary suite unless a freshwater catchment and storage system having a capacity of at least 18,000 litres is installed on the property .”

- 2.4 Part 3 General Regulations is amended by inserting Subsection “3.19 Cistern Requirements” as follows:

“3.19 Cistern Requirements

3.19.1 A building permit for a property outside a water service area shall not be issued for a new building to be used as a dwelling, including a cottage, unless a cistern (or combination of cisterns) is located on the property for the storage of freshwater having a total capacity of at least 18,000 litres.

3.19.2 The floor area occupied by any cistern located in a building and the housing provided for such cistern is excluded from the calculation of the floor area of the building and the lot coverage of the lot on which it is located.”

- 2.5 Section 4.4 Potable Water is amended by removing Subsections 4.4.1 through 4.4.9 in entirety and replacing with the following:

“4.2.1 Each lot in a proposed *subdivision* must be supplied with sufficient *potable* water to supply the uses permitted on the lot by this Bylaw according to the standards set out in Table 1.

TABLE 1 POTABLE WATER SUPPLY STANDARDS FOR SUBDIVISION	
USE	VOLUME (litres per day)
<i>Per lot (including one dwelling unit)</i>	2000
<i>Each additional dwelling unit</i>	2000

Information Note: If more than one dwelling unit is connected to the same source of water, the water system may be subject to the Drinking Water Protection Act, the Water Utility Act or other regulations pertaining to water supply systems.

Information Note: Water obtained from a stream, or non-domestic groundwater use requires a licence under the Water Sustainability Act.

- 4.4.2 Where potable water is to be supplied by a community water system, the community water system must provide written confirmation that it is able to supply *potable* water for the *uses* specified in Table 1 to each *lot*.
- 4.4.3 Where potable water is to be supplied from a *stream*, the applicant for subdivision must provide proof of authorization (water licence) indicating the total volume of water granted to the licence holder confirming that it is able to supply *potable* water for the volume specified in Table 1 to each *lot*.
- 4.4.4 Where a lot proposed to be subdivided contains a non-domestic use that requires a licence under the *Water Sustainability Act*, the applicant must provide proof of

authorization (water licence) indicating the total volume of water granted to the licence holder confirming that it is able to supply water for the non-domestic use, as well as *potable* water for the volume specified in Table 1 to each *lot*.

- 4.4.5 In the absence of a water licence, where potable water is to be supplied by a drilled well, a pumping test shall be carried out on each well in a proposed subdivision by:
- pumping groundwater, at a constant rate, for a minimum period of 12 hours;
 - withdrawing the total daily required volume specified in Table 1 over a maximum period of 24 hours; and
 - monitoring groundwater levels continuously during the *pumping test* and during the recovery period.
- 4.4.6 Where potable water is to be supplied by a drilled well in accordance with Subsection 4.4.5, a sounding tube or wellhead port must be installed to enable the insertion of water level monitoring equipment.
- 4.4.7 Drilled wells used for the purposes of subdivision application must not be located within 50 metres of the natural boundary of the sea.
- 4.4.8 Where *potable* water is to be supplied by a drilled well in accordance with Subsection 4.4.5, the applicant for subdivision must provide written certification under seal of a hydrogeologist that:
- Each well has been constructed in accordance with the *Groundwater Protection Regulation*;
 - Each well has been constructed in accordance with Subsections 4.4.5 and 4.4.7;
 - Each well has sufficient available groundwater to provide the daily required volume of *potable* water for each lot in accordance with Table 1; and
 - Includes recommendations for mitigation measures, if applicable, to ensure long-term sustainable yield of the drilled well.
- 4.4.9 If the daily required volume of potable water cannot be supplied in accordance with Subsections 4.4.1 or if the certification referred to in Article 4.4.8(c) cannot be made, the applicant must grant a covenant under the *Land Title Act* to the North Pender Island Local Trust Committee that restricts the development of the subdivision to the uses for which there is a sufficient volume of water.
- 4.4.10 Where the potable water supply is provided through a drilled well or water licence, a hydrogeologist must also provide:
- Results of a water quality analysis, completed by an accredited laboratory;
 - A plan of the proposed subdivision indicating the location where each water sample was taken;
 - A statement that the water samples upon which the water quality analysis was performed were unadulterated samples taken from the locations indicated on the plan.
 - Confirmation, based on the accredited laboratory water quality analysis, that the proposed water supply source is potable, or can be made potable, with a treatment system; and

- e. Confirmation, based on the accredited laboratory water quality analysis of chloride concentrations, that the drilled well is not likely to be affected by the intrusion of saline groundwater or sea water in accordance with the Province of British Columbia guidance documents;

4.4.11 If the water to be supplied is not potable, but can be made *potable* with a treatment system, the applicant must grant a covenant under the *Land Title Act* to the North Pender Island Local Trust Committee that requires on-going treatment of the water to *potable* water standards.

4.4.12 For the purposes of subdivision, drilled wells impacted by seawater intrusion or whose operation is likely to cause seawater intrusion are not permitted sources of potable water.

4.4.13 For the purposes of subdivision, alternative potable water supplies including, but not limited to, shallow dug wells, rainwater catchment and desalination are not permitted sources of potable water.

4.4.14 The requirements of 4.4.1-4.4.13 shall not apply where the proposed subdivision is a boundary adjustment that does not result in an increase in the number of lots or permitted dwelling units, provided that all lots in the subdivision are currently serviced by existing wells, community water system connection or water licence. “

3. SEVERABILITY

If any provision of this Bylaw is for any reason held to be invalid by a decision of any Court of competent jurisdiction, the invalid provision must be severed from the Bylaw and the decision that such provision is invalid must not affect the validity of the remaining provisions of the Bylaw.

READ A FIRST TIME THIS _____ DAY OF _____ 20____

PUBLIC HEARING HELD THIS _____ DAY OF _____ 20____

READ A SECOND TIME THIS _____ DAY OF _____ 20____

READ A THIRD TIME THIS _____ DAY OF _____ 20____

APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST THIS

_____ DAY OF _____ 20____

ADOPTED THIS _____ DAY OF _____ 20____

CHAIR

SECRETARY