

C.3 POTABLE WATER QUANTITY AND SUPPLY OBJECTIVES AND POLICIES

Background Note: The objectives and policies in this Section pertain to water quantity only. Objectives and Policies about water quality are in Part A.

C.3.1.1 GENERAL OBJECTIVE

- C.3.1.1.1 To apply the precautionary principle in ensuring that the density and intensity of land use is not increased in areas which are known to have concerns with the supply of potable water.
- C.3.1.1.2 To acknowledge that the surface water supply sources on the island are finite and remain under Provincial control and that more effective use, management and sharing of the resource should be encouraged to support present commitments and future desired land use decisions.

C.3.1.2 GENERAL POLICIES

- C.3.1.2.1 The Local Trust Committee will continue to support and participate in the Salt Spring Island Water Council.

C.3.2 Community Water Systems

Background Note: Map 6 shows the boundaries of the island's community water systems and their water sources.

C.3.2.1 OBJECTIVES

- C.3.2.1.1 To ensure that the potential water demand of development within community water systems does not exceed the licensed capacity, or the amount of water that can be safely withdrawn from each system's water source.
- C.3.2.1.2 To reduce, delay or avoid the impacts of withdrawing additional water from surface water bodies.
- C.3.2.1.3 To ensure that zoning changes in the North Salt Spring Waterworks District do not result in such a level of development that water cannot be supplied to needed public facilities or would not be available for firefighting purposes. In particular, to ensure that water remains available for hospital and school expansion, and *affordable housing*.
- C.3.2.1.4 To encourage a variety of *conservation* methods in all community water systems
- C.3.2.1.5 To ensure that zoning changes within the boundaries of water systems do not result in such a level of demand on island water sources that agricultural activities cannot obtain water.

**TABLE 1 - North Salt Spring Waterworks District
Supply and Demand - 2008**

	Licence Peak Day Limit (Million Imperial gallons/day)	Estimated Annual Limit (Million Imperial gallons/year)
Current Water Licences		
Lake Maxwell	0.500	91¹
St Mary Lake	0.943	172¹
Total	1.443	263¹
Current Demand²		175
Build-Out Demand³		277
Surplus (Deficit) at maximum build-out		(14)

Source: North Salt Spring Waterworks District (2008)

Notes:

1. All NSSWD licences have peak day limits, but only the most recent licences have annual limits. A 2.0:1 peak day to average day ratio appears appropriate based on the past 5 years usage adjusted for meter wear and estimated losses from watermain leaks. With current peak day licenses totalling 1.443 mgd and a 2:1 peak/avg day ratio, the calculated annual licence limit would be 263 MGY.
2. Current demand is based on very dry summer years (like 2003), the total of customer meters plus a 5% allowance for customer meter wear, plus a 15% allowance for losses from watermain leaks.
3. Build-out demand is based on the June 30, 2006 Islands Trust Staff Report build-out projection for development within NSSWD geographic boundaries permitted with current zoning. The demand estimate is on the same basis as current demand.

Note: Within the North Salt Spring Waterworks District (NSSWD), the amount of development expected under existing zoning is likely to require all of the water available under the NSSWD's current water licences. There is no assurance at this time that NSSWD could obtain additional water licenses. Also, NSSWD completed a supply-demand study in January 2007 and concluded that with current climate St Mary Lake drawdown may be excessive during future major droughts if all licensees were withdrawing water at their current licence limits. Climate change is expected to result in increasing irrigation demand and may result in declining water supply. Service extensions from NSSWD and Capital Regional District waterworks may increasingly be needed for supply replacement for north-island areas with failing or polluted groundwater supplies. The Capital Regional District is now conducting a study of the NSSWD water supply situation. Therefore, until such time as adequate water supply is assured, the target for zoning changes within the NSSWD's boundaries will be to achieve no net increase in water demand. Zoning proposals within the NSSWD's boundaries which would lead to an increase in water demand may be considered, if they also propose other sources of water, conservation strategies, or other zoning changes that would offset any predicted increase in water demand.

**TABLE 2 – Salt Spring Island Water Systems (excluding NSSWD)
Current Connections and Remaining Supply Capacity**

Community Water System	Water Source	Current Demand (MGY)	Build-Out Demand (MGY)	Peak Day Licence (Gal)	Annual Licence (MGY)
Beddis (CRD/NSSWD)	St Mary Lake	7.8	10	62,000	10*
Cedar Lane (CRD/NSSWD)	Wells	1.1	1.3		
Cedars of Tuam (CRD)	Wells	0.5	0.5		
Erskine Heights (NSSWD)	Wells	0.7	5		
Fernwood/North Beach (CRD)	St Mary Lake			75,000	22.8 (13.7)**
Fulford Harbour (CRD/NSSWD)	Lake Weston	9.6	12***	70,000	12.8*
Harbour View	Wells	0.5	0.5		
Highland (CRD)	St Mary Lake			114,000	27.7 (20.8)**
Maracaibo Estates	Wells	2.2	3.6		
Mount Belcher	Wells	1.5	1.9		
Reginald Hill	Wells				
Scott Point (NSSWD)	Wells	1.5	1.6		
Swan Point	Wells				

Notes: MGY – million Imperial gallons per year

* No annual licence limit – limit as shown is an estimate based on the peak day limit and an estimated peak day/average day ratio of 2.0

** Amount in brackets is estimated annual licence limit if the actual maximum day/average day ratio is 2.0 – the peak day limit will be reached at this ratio at this annual volume

*** Build-out demand includes Fulford School

NSSWD operates Beddis, Cedar Lane, Erskine Heights, Fulford Harbour, and Scott Point

C.3.2.2 POLICIES

- C.3.2.2.1 When the Local Trust Committee receives rezoning applications for land inside the boundaries of a community water system, it will refer the application to the operators of the affected system. They will be asked if water could be supplied to the proposed new development, considering the needs of their existing customers and the provision of water for firefighting, and any properties already zoned for further development. When it considers zoning changes within a community water system, the Local Trust Committee will also consider the amount and percentage of any remaining supply capacity that would be used by the proposed new use. The Committee will not make zoning changes within a community water system if the change would mean water could not be supplied (under the existing license) to existing customers. It should not normally make zoning changes if the change would mean water could not also be supplied to vacant or under-developed properties already zoned for further development. Should such zoning changes be proposed, the applicant could be encouraged to suggest other water supplies so that the application could be considered. Examples are rainwater catchment, groundwater use or a water *conservation* program.

The Local Trust Committee could make an exception to the above policy within the North Salt Spring Waterworks District to allow community facilities or *affordable housing* projects to proceed. However such changes should only be made if the Committee is satisfied that the District is likely to receive a sufficiently larger water license.

- C.3.2.2.2 In addition to policy C.3.2.2.1, the Local Trust Committee should not make zoning changes within the North Salt Spring Waterworks District that could mean that water will not be available (under the District's existing license) for the following projects (in order of priority):
- essential services such as hospitals and schools needed within the district to serve the island's projected population.
 - special needs and *affordable housing* needed by the community.

The Local Trust Committee could make an exception to this policy so that one of the above projects could proceed before another of higher priority. However, it must be satisfied that the District will receive a sufficiently larger water license in time to serve the higher priority project when it is needed.

- C.3.2.2.3 Within the Fulford Waterworks District, the Committee should not make zoning changes that would mean that water would not be available for *affordable housing* for seniors, in addition to the district's existing customers and development already allowed by zoning.

- C.3.2.2.4 The Local Trust Committee will support applications by community water systems to increase their water withdrawal levels to serve the development anticipated by this Plan, provided water *conservation* programs are in place, the environmental impacts are addressed and the new licence would enhance the ability of lakeside farms to obtain irrigation supplies.

- C.3.2.2.5 The Local Trust Committee will continue to cooperate with community water system operators to ensure water supply issues are considered before zoning changes are made. The Committee should also continue to assist in the development of better estimates of projected water demands and supply potential. The Committee could consider zoning changes that would limit land uses with a high water demand. The Committee particularly recognizes that this Plan could critically affect the North Salt Spring Waterworks District's ability to meet future needs and will cooperate with the District to address this issue.

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- C.3.2.2.6 The Local Trust Committee will continue to encourage water *conservation* through guidelines for xeriscape landscaping of commercial, *general employment* and multi-family developments in island villages.

- C.3.2.2.7 The Local Trust Committee will continue to obtain advice about local water supply topics from advisory bodies and water districts.

- C.3.2.2.8 The Local Trust Committee will consult, assist and cooperate with water districts in supply and demand management by providing data and supporting efforts to coordinate activities.
- C.3.2.2.9 The Local Trust Committee will continue to provide information to the public about water supply limits and about ways of conserving water.
- C.3.2.2.10 The Local Trust Committee will not support the dedication of water bodies as water supply reservoirs.
- C.3.2.2.11 When the Local Trust Committee receives applications for zoning changes within a water system's boundaries, and the zoning change would increase the demand for water, the Committee will consider the impacts on agriculture, as further outlined in Section B.6.2.

Others are encouraged to help achieve the objectives of this Section as follows:

- C.3.2.2.12 The Local Trust Committee encourages water improvement districts, private water purveyors and the Capital Regional District to collaborate on strategic planning and management of drinking water resources, including water *conservation* and watershed protection, in a manner that supports the land use objectives of this Plan.
- C.3.2.2.13 Because new development will likely be located within the North Salt Spring Waterworks District's boundaries in the future and will need an affordable water supply, the District is encouraged not to consider expansion of its service area.
- C.3.2.2.14 The Capital Regional District is encouraged to continue its development of sewage treatment methods that could create a supply of recirculated water for non-potable use and to include water *conservation* requirements in the *building* code.
- C.3.2.2.15 All developments and public institutions located within waterworks districts are encouraged to conserve water and to avoid using potable water to maintain ornamental landscapes that are not drought-resistant. The use of rainwater catchment systems or recirculated water is particularly encouraged to reduce demand.
- C.3.2.2.16 The NSSWD is encouraged to prepare and implement a long range community water supply plan.



HIGH HILL PUMP HOUSE AND ROAD photo: M. Levy

C.3.3 Private Surface Water and Groundwater Supplies

C.3.3.1 OBJECTIVES

- C.3.3.1.1 To avoid zoning changes that result in the depletion of existing wells or springs or water bodies used as water supplies.
- C.3.3.1.2 To preserve known groundwater recharge areas.

C.3.3.2 POLICIES

- C.3.3.2.1 To protect groundwater recharge areas, zones in the upland areas of the island will continue to allow only a low density of development. The Local Trust Committee may consider undertaking or supporting further analysis of groundwater recharge areas on the island, including the creation of a groundwater *conservation* strategy. The transfer of development potential to other parts of the island will be encouraged.
- C.3.3.2.2 When considering rezoning applications, the Local Trust Committee should consider the impacts of the proposed new use on existing wells, springs, or other water supplies. If the proposed use is expected to need more water than the uses already allowed on the property, then the Committee should ask for evidence that wells or other water supplies in the neighbourhood would not be depleted. The Committee should also consider whether water use would affect agricultural activities or deplete any springs necessary to maintain fish habitat. Should a zoning change be proposed where groundwater supplies are not adequate, the applicant could be encouraged to find other means of supplying water. Rainwater catchment or a water *conservation* program could be considered.
- C.3.3.2.3 The Local Trust Committee should continue to require proof of adequate potable water supply for each new lot created by subdivision.
- C.3.3.2.4 The Local Trust Committee could establish an advisory group to provide advice regarding local groundwater topics.
- C.3.3.2.5 The Local Trust Committee should not support rezoning applications that depend on the import of water from off the island.
- C.3.3.2.6 The Local Trust Committee should consider working with other agencies and stakeholders to develop a groundwater *conservation* strategy for Salt Spring Island. The strategy would combine educational efforts with the creation of demand management measures.

Others are encouraged to help achieve the objectives of this Section as follows:

- C.3.3.2.7 The Ministry of Environment – Water Management Division is strongly urged to develop a groundwater licensing program for individual wells that would protect existing wells from depletion.
- C.3.3.2.8 All users that rely on groundwater are encouraged to conserve water.