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File No.: 420-20

November 15, 2013

via e-mail: [livingwatersmart@gov.bc.ca](mailto:livingwatersmart@gov.bc.ca)

*Water Sustainability Act*  
Ministry of Environment, Water Protection and Sustainability Branch,  
PO Box 9362 Stn Prov Gov  
Victoria BC, V8W 9M2

Dear Sir/Madam:

**Re: Islands Trust comments on the *Water Sustainability Act* legislative proposal**

Please find attached Islands Trust's submission, which highlights the unique circumstances of the Islands Trust Area requiring accommodation during drafting of the legislation and regulations, and emphasizes our request for significant ongoing provincial investment to implement the legislation. Due to the short time frame for the consultation we have limited our comments to groundwater issues only.

Thank you for receiving these comments. We look forward to further consultation on the regulations once the legislation is drafted.

Yours sincerely,

Sheila Malcolmson  
Chair, Islands Trust Council

cc. Islands Trust website

**Islands Trust comments  
on Groundwater Aspects of *Water Sustainability Act* legislative proposal  
November 15, 2013**

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**Introduction**

The Islands Trust Area is water-scarce<sup>1</sup> and has long been identified as an area of groundwater concern<sup>2</sup>. Since 1981<sup>3</sup>, Islanders and the Islands Trust Council have been asking for provincial support to address issues of water quality and quantity in the Islands Trust Area. As development pressures increase and as understanding grows about the current and future impacts of climate change on the islands, concerns about the quantity and quality of water supplies are increasing.

We commend the province for finally making this a legislative priority. Modernization of the *Water Act* is long overdue, and regulation of groundwater on the Islands Trust Area is more urgent than ever.

This submission is intended to highlight the unique circumstances of the Islands Trust Area requiring accommodation during drafting of the legislation and regulations. It also emphasizes our request for significant ongoing provincial investment in implementing the legislation, so that local governments are not burdened with the costs (both financial and political) of enacting and enforcing the new governance framework.

**SUMMARY OF REQUESTS:**

- That future consultation review periods be at least 60 days
- That the Province provide funding and prioritize studies of Gulf Island aquifers to inform future regulatory decisions
- That the Province assign priority to the Islands Trust Area, or at least the islands of greatest concern, for area-based regulations and Water Sustainability Plans
- That regulatory mechanisms be supported with adequate provincial funding and staff resources
- That the Province to invest in education programs prior to beginning consultations that may result in domestic licencing requirements
- That the *Act* make provisions to consult domestic users when licencing commercial use of well-water
- That the Province prescribe standardized methods to establish that sufficient water is available to support a new structure or use, and monitor the cumulative impacts of individual wells drilled



*Conserve Water  
Dawn Stofer, Denman Island*

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<sup>1</sup> Appendix 1 describes the special groundwater requirements of the Islands Trust area.

<sup>2</sup> Appendix 2 contains the sections from Policy Statement relevant to groundwater.

<sup>3</sup> Appendix 3 lists the formal positions our Council has taken about groundwater since 1981.

We request special consideration of the needs of the Gulf Islands while drafting or implementing the following components of the *Water Sustainability Act* legislation: consultation process, aquifer mapping, area-based regulations, license review periods, funding and governance. Below are the more detailed concerns under those headings.

### **Consultation Process**

The Minister of Environment did not respond to our request for more time to review the current legislative proposal. Because the comment period was just four weeks, this submission addresses only groundwater issues, and with more time we would have addressed surface water issues so essential for island community and ecological health.

We recognize that the *Water Sustainability Act* will be “enabling” legislation and that the specific details about water governance and regulation will be addressed during implementation of the Act and through area-based regulations.

We look forward to open, transparent engagement during the development of *Water Sustainability Act* regulations and during the multi-year plan for implementation. We request that future consultation review periods be at least 60 days.

### **Aquifer Mapping**

We support the legislative proposal that “Anyone applying to extract and use groundwater would be required to assess the impact of their proposed extraction and use on known existing groundwater users, including exempted domestic groundwater users (p.38).” So that it can be achieved, we request the Province to 1) prescribe standardized methods to establish that sufficient water is available to support a new structure or use, 2) expand the science available on the groundwater budget of the islands, and 3) monitor the cumulative impacts of individual wells drilled. Otherwise, this lack of knowledge requires a precautionary approach to groundwater regulation on the islands in order to meet any definition of “sustainable.”

In response to the BC Auditor General’s 2010 report, in 2012 the Ministry of Environment included the Gulf Islands in the 20 priority areas for more in depth aquifer characterization. How and when will this designation and associated regulations assist island communities? We request that the province fund studies of our aquifers to inform future regulatory decisions.

We request that the Ministry prioritize studies of Gulf Island aquifers so that appropriate standards can be in place to guide these assessments and support development of science-based consumption and water supply standards. Assessments of impacts on other users should focus not only on water availability, but also on quality risks (e.g. evaluating risk of saline intrusion).

### **Area-Based Regulations**

Once the *Act* has passed, we request that the Province assign priority to the Islands Trust Area, or at least the islands of greatest concern, for area-based regulations and Water Sustainability Plans and that those regulatory mechanisms be supported with adequate provincial funding and staff resources.

The *Act* must empower Area-Based Regulations able to meet the unique needs of the Gulf Islands. Specifically, the *Act* must permit withdrawal thresholds that are appropriate to small island aquifers. In our 2011 submission, we noted that thresholds for bulk water withdrawals

should be based upon the characteristics of particular aquifers and the demand upon them, and noted that fractured bedrock aquifers may have extremely low thresholds.

We understand that there is the potential for licencing domestic users under an area-based regulation or in a Water Sustainability Plan (e.g. all groundwater users may be required to obtain a licence in vulnerable areas). We encourage the Province to invest in education programs prior to beginning consultations that may result in domestic licencing requirements.

Prior to developing a licencing system we encourage the Province to consider situations where residential properties are being used to extract water for commercial sale. We don't know if the thresholds in the proposed legislation would capture such situations where the volumes extracted are high enough to evoke concern from residential neighbours dependent on the same water supply. We have heard the following questions:

- When considering issuing a new licence, would nearby unlicensed domestic users be considered legitimate stakeholders, and be fully informed and consulted?
- Is there sufficient science available about island aquifers on which to base a decision about licence conditions, and will those conditions include regular monitoring and reporting?
- If science is available now or in the future to show that extraction of groundwater for trucking and sale is compromising aquifer health, local streams or neighbouring wells, could this activity be stopped using provisions of the new *Act*?

### **Licence Review Periods**

The proposed 30-year review period for water licences is far too long in the island context. A 5 to 10-year review period would allow for an adaptive management approach that can respond to new information about climate change impacts and new science about these aquifers.

### **Funding**

Provincial funding from general revenues must be available for administering the new regime, both for the province and for delegated authorities and governance frameworks. Recent provincial legislation, including the 2008 Bill 27 - *Local Government (Green Communities) Statutes Amendment Act* and the 2004 *Riparian Areas Regulation*, have required local governments to pay for extensive consultation about and implementation of provincially mandated regulatory requirements, creating concern about a trend towards transferring provincial mandates to local government taxpayers.

### **Governance**

We appreciate that the legislative proposal states that the new *Act* will enable the potential for alternative governance approaches (p. xi) and area-based regulations. However, we are concerned about how alternative governance frameworks would be funded, and whether the province would remain the regulatory authority or provide new authority under the *Local Government Act*. We are concerned that a lack of funding and a decrease in provincial staff resources could undermine the potential of the new *Act* to make the urgently required changes.

In the absence provincial leadership on groundwater regulation, island non-governmental organizations have a long history of research and stewardship education to conserve island groundwater resources. We do not know, however, our constituents' support for groundwater being locally-regulated, so this should be addressed in the Ministry's next consultation process.

## Appendix 1

### **Why the *Water Sustainability Act* must accommodate the special groundwater needs of the Islands Trust Area**

There are a number of issues that threaten the quality and quantity of island groundwater such as saline intrusion, land use impacts, well interference, surface contamination, topography, recharge rates, soils, geology and seasonal water shortage. Climate change may also have an impact on groundwater supplies.

#### **Provincial recognition of groundwater scarcity in the Islands Trust Area**

In 2008, the Ministry's Living Water Smart Plan identified the Gulf Islands as a priority area for the regulation of groundwater use.

In April 2012, in response to a 2010 report from the BC Office of the Auditor General, the Ministry of Environment developed a list of 20 priority areas or aquifers for more in depth aquifer characterization and included the Gulf Islands on the list.

#### **Island Aquifers**

Overuse of aquifers can reduce the quantity of well water, affecting quality of life and property values, and can also result in contamination due to salt water intrusion. Sufficient groundwater is vital for many ecological processes on the islands and plays an important role in maintaining base flows in rivers and streams, which are critical for domestic and agricultural use and in providing wildlife habitat and maintaining fish spawning areas and wetlands.

There are two types of aquifers that exist in the Gulf Islands: sand and gravel layers and fractured bedrock. Fractured bedrock provides the primary source of freshwater for the majority of the island residents. Fractures in the bedrock located below the water table are filled with water and tapped by wells. The density of fractures and proximity to major faults determine the water yield from individual wells.

Development pressures continue to raise concerns over adequate quantity and quality of water on the Islands. The drinking water in the Gulf Islands comes from a variety of sources – private wells, private water systems, improvement districts, regional district water systems, surface water all which rely on a safe supply of groundwater from aquifers. Many rely on rainwater catchment, fewer on desalinization. Some residents supplement with bottled and trucked water, especially in the summer.

#### **Water Management Roles in the Islands Trust Area**

The Islands Trust (through its 13 local trust committees and Bowen Island Municipality) has an important but limited role to play in groundwater protection. Local trust committees control long-range development (Official Community Plans) and land use planning, zoning, development permit areas, bylaw enforcement, subdivision servicing bylaws and in coordination with the Regional Districts. The Ministry of Transportation and Infrastructure (MoTI) deals with water utilities and subdivision approvals (i.e. provision of potable water), road construction and maintenance respectively. Vancouver Island Health Authority (VIHA) approves septic fields through registered installers.

Local trust committee decisions about how and where land is developed have direct consequences for groundwater quality and quantity. Island communities expect those decisions to protect both water quality and quantity of groundwater. Even low density development can

increase the rate of groundwater extraction through the use of wells while reducing the permeability of surfaces needed to recharge aquifers. Local land-use decision-making is currently made with minimal science-based knowledge of the aquifer and urgently needs provincial support to provide a better regulatory framework.

Some islands have addressed water protection through development permit areas such as Salt Spring Island with its Development Permit Area 5 for the protection of Community Well Capture Zones or Galiano Island with its Development Permit Area 4, which addresses the protection Elevated Groundwater Catchment Areas. In one part of Saturna Island where there is limited water quality and quantity, the zoning bylaw requires that the lots contain a cistern for the storage of water. Galiano Island also has a similar bylaw requirement for areas identified as Water Management Areas and the requirement for extra cistern water storage.

Currently, local trust committees can require proof of sufficient water before approving a change in land use or zoning that triggers a bylaw amendment, even for domestic use. But if the land use is already permitted by zoning and the developer is able to prove it can supply the minimum amount of water required by the bylaw at the time of subdivision or building permit, the local trust committees have no further authority to regulate the extraction of groundwater. It is in gaps like this where some islands urgently need provincial regulation.

On June 10, 2013, Trust Council approved [Bylaw 154](#), a bylaw that delegates certain Trust Council powers (from *Islands Trust Act* section 8.2(b)) to the Salt Spring Island Local Trust Committee that support coordinating multiple agencies in addressing watershed management. With these additional powers, the Salt Spring Island Local Trust Committee is acting as a coordinating body for the [Salt Spring Island Watershed Protection Authority](#). The Authority is currently working with other agencies to implement policies that will improve water quality in St. Mary Lake.

### **Islands Trust's Recent Water Initiatives**

The Islands Trust Council's 2011-14 Strategic Plan includes promoting good management of island water resources by:

- Encouraging voluntary stewardship
- Advocating for reform of the provincial *Water Act*
- Exploring creative solutions for watershed management
- Using land use planning tools and decisions to protect the quality and quantity of water resources

In support of these goals, existing education materials about island water resources have been compiled [online](#) to educate island residents about sustainable water practices, and a planning toolkit is being developed to help local trust committees protect groundwater quality and quantity through land use decisions.

### **Previous requests from Islands Trust to the Minister of Environment**

Since 1981 the Islands Trust Council has been making formal requests to address groundwater issues in the Islands Trust Area. See Appendix 3 for earlier requests.

In 2007 we wrote to the Minister of Environment expressing concern about hydrofracturing to increase well yields. Since we understand that the Ministry will be considering hydrofracturing in the next Phase of the Groundwater Protection Regulation, we recommend this link for our previous suggestions on this topic:

<http://www.islandstrust.bc.ca/news/pdf/tcltrjun282007barrypenner.pdf>

The Environment Minister then replied that he had asked the Ministry's Groundwater Advisory Board the following questions (which remain unanswered and are relevant to this legislative review):

1. Do we have the appropriate data, science and expertise in British Columbia to support our decision-making on the practice of hydrofracturing water wells in a coastal environment?
2. What types of data, studies or investigations could be undertaken to confidently address the issue of hydrofracturing water wells in a coastal environment?
3. In the absence of current appropriate information, how should we proceed to ensure that in regard to the practice of hydrofracturing, our regulation is proactive and leads to the management and protection of the ground water resources?

In 2008, the Islands Trust Chair wrote to the Minister of Environment to convey support for the commitments expressed in the Living Water Smart Plan, especially for the identification of the Gulf Islands as a priority area for the regulation of groundwater use.

In 2010 we wrote to the Minister of Environment about the Gulf Islands as a Priority Area for regulation. <http://www.islandstrust.bc.ca/news/pdf/tcltrdec072010murraycoell.pdf>

An excerpt from our letter is below:

The recent report from the Office of the Auditor General of British Columbia, "An Audit of the Management of Groundwater Resources in British Columbia," states that groundwater "is a precious resource that can be all too easily depleted or contaminated, and needs to be protected for both current and future generations" and that the "government is not yet a good steward of this treasure." We were pleased to read that the Ministry of Environment has accepted the report's recommendations and we look forward to seeing improvements in groundwater protection and management.

We also look forward to seeing the results of the *Water Act* Modernization consultation process. In 2008, we were encouraged by the identification of the Gulf Islands as a priority area for the regulation of groundwater use in the ministry's Living Water Smart Plan. However, we continue to wait for a regulatory response to the urgent surface and groundwater shortages facing the Islands Trust Area. We hope our staff's submission to the *Water Act* Modernization consultation process will help in developing such regulations. We suggested that the Ministry of Environment's first priority be the definition of groundwater allocation and groundwater extraction "thresholds" based on the special characteristics of our islands. We also provided recommendations on: the interrelationship of surface water and groundwater; bulk water extraction; saltwater intrusion; hydrofracturing; and water conservation.

Our 2011 submission on the *Water Act* Modernization process argued that special regulations for the Gulf Islands were urgently required where bulk water extraction, saltwater intrusion and/or hydrofracturing exists.

## Appendix 2

### Islands Trust Policy Statement sections relevant to groundwater

The principles of the Islands Trust Policy Statement specifically enable Trust Council to provide advice in the development of provincial policies, to help carry out the legislated Object of the Islands Trust. Accordingly, we attach the policies that relate to the proposed *Water Act*.

In 1994, the British Columbia Minister of Municipal Affairs approved the Islands Trust Policy Statement, a statutory document founded in extensive community consultation. The preamble to the document explains that “the Trust Area continues to experience extreme pressure from population growth and tourism. Most visitors come to islands during the summer months when demand for fresh water is highest and water supplies are lowest, placing pressure on limited water supplies.” It also explained that “The Islands Trust today faces a major challenge. While populations, numbers of visitors and the demand for intensified use and residential development of the Trust Area can be expected to continue to grow, capacities of the Area’s resources and systems are limited.”

Since 1996, almost 3,000 more people have moved into the region, bringing the 2011 population to 25,568. The water challenges on the islands are immense. Water shortages have already become a source of conflict in our communities.

The Policy Statement contains the principles and policies that guide the Islands Trust's work towards three main goals:

- Foster the preservation and protection of the Trust Area's ecosystems
- Ensure that human activity and the scale, rate and type of development in the Trust Area are compatible with maintenance of the integrity of Trust Area ecosystems
- Sustain island character and healthy communities.

The Policy Statement is fundamental to the operations of the Islands Trust. It guides the development of land use planning and regulatory bylaws of local trust committees and Bowen Island Municipality, as well as Trust Council's strategic plan and advocacy program. In some ways, it is similar to the Regional Growth Strategies that guide land use planning documents in other parts of British Columbia.

### **Policy Statement Sections Relevant to *BC's Water Sustainability Act*:**

In the Policy Statement, “Sustainable” is defined as:

“capable of being maintained indefinitely; capable of meeting the environmental, economic and social needs of current generations without compromising the ability of future generations to meet their needs.”

### ***Commitments of Trust Council***

3.1.1 Trust Council holds that:

- proactive land use planning is essential for the protection of Trust Area ecosystems,
- protection must be given to the natural processes, habitats and species of the Trust Area, including those of the old forests, Coastal Douglas-fir forests, Coastal Western Hemlock, Garry Oak/Arbutus forests, wetlands, open coastal grasslands,

the vegetation of dry rocky areas, lakes, streams, estuaries, tidal flats, salt water marshes, drift sectors, lagoons, and kelp and eel grass beds, and

- planning must account for the cumulative effects of existing and proposed development to avoid detrimental effects on watersheds, **groundwater supplies** and Trust Area species and habitats.

3.3.1 Trust Council holds that:

- the freshwater wetlands, bodies of surface water, natural drainage patterns, water courses, fish-bearing streams, watershed and **groundwater recharge areas** of the Trust Area should be identified, protected and, where possible, restored or rehabilitated, and
- the natural wetlands of the Trust Area, including those in the Agricultural Land Reserve that have not been altered in the past for agriculture, should not be drained, filled or degraded.

4.4.1 It is Trust Council's policy that islands in the Trust Area should be self-sufficient in regard to their supply of freshwater.

***Directive Policies***

3.1.5 Local trust committees and island municipalities shall, in their official community plans and regulatory bylaws, address the regulation of land use and development to restrict emissions to land, air and water to levels not harmful to humans or other species.

3.3.2 Local trust committees and island municipalities shall, in their official community plans and regulatory bylaws, address means to prevent further loss or degradation of freshwater bodies or watercourses, wetlands and riparian zones and to protect aquatic wildlife.

4.4.2 Local trust committees and island municipalities shall, in their official community plans and regulatory bylaws, 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,
- water quality is maintained, and
- existing, anticipated and seasonal demands for water are considered and allowed for.

4.4.3 Local trust committees and island municipalities shall, in their official community plans and regulatory bylaws, address measures that ensure water use is not to the detriment of in-stream uses.

***Recommendations***

3.1.9 Trust Council encourages actions and programs of other government agencies which:

- place priority on the side of protection for Trust Area ecosystems when judgment must be exercised,
- protect the diversity of native species and habitats in the Trust Area, and
- prevent pollution of the air, land and fresh and marine waters of the Trust Area.

4.4.4 Trust Council encourages island property owners, residents and visitors to adopt conservation practices in their use of freshwater.

- 4.4.5 Trust Council encourages the Provincial government to implement property tax incentives for the retention of groundwater and watershed recharge areas and freshwater wetlands.
- 4.4.6 Trust Council encourages the Provincial government to adopt legislation that protects the sustainability and quality of the groundwater of the Trust Area.
- 4.4.7 Trust Council encourages government agencies, corporations, property owners and residents to use innovative technologies that promote efficient use of freshwater resources, including cisterns, alternative sewage disposal systems, reuse of water, the treatment and use of grey water, and the use of water saving devices.

## Appendix 3

### Trust Council Resolutions re Groundwater 1981-2008

#### **September 1981**

The Islands Trust Council endorsed the following resolution:

*That, insofar as the area of the Province of British Columbia for which the Islands Trust is responsible for purposes of the Islands Trust Act is to a large extent serviced by groundwater; and*

*That, insofar as this area has been shown to be increasingly dependent on the use of groundwater; and*

*That, insofar as the population of this area, both in permanent residents and visitors alike, is growing rapidly, placing increasing pressures on groundwater use, with no or few supply alternatives; Therefore,*

*The Trust Council of the Islands Trust, representing 13 major islands, plus many associated islands, being extremely concerned over this diminishing water resource, asks that control, protection and licencing of this groundwater resource be provided by legislation.*

#### **June 1985**

Vice-Chairman Martin gave some background to Bill M205 – *Groundwater Regulation Act* (Private Members Bill) which defines the terms for the licensing of groundwater and requires drillers to have licenses in order to drill with appropriate regulations for such drilling.

The Islands Trust Council endorsed the following resolution:

*Whereas the Islands in the Trust area have had a long recognized problem with the quantity and quality of fresh water; and*

*Whereas the demand for potable water will likely increase significantly with population growth even without further subdivision; and*

*Whereas surface water is currently regulated by the government through issuance of water licenses;*

*Therefore be it resolved that the Islands Trust Council express support in principle to the concept of regulating groundwater extraction as outlined in Bill M205.*

#### **September 1990**

The Chairperson noted that this item (Groundwater Legislation) was placed on the agenda, at the urging of Trustee Susan Yates, as there has been no movement by the government to adopt legislation respecting the management, licensing and regulation of groundwater quality and quantity, and that the groundwater situation on the gulf islands has become critical.

Mr. Windsor spoke to a memo from Chairperson Gilbert to the Islands Trust Council, dated September 13, 1990, which outlined various actions the Trust has initiated in investigating this matter. Mr. Windsor explained that the problem of groundwater not being regulated has surfaced around the Province, and that the problem is especially growing on the Gulf Islands. He noted that the memo suggests making the islands in the Trust Area a groundwater control area.

### **June 1998**

The Islands Trust Council endorsed the following resolution:

*That Islands Trust Council endorse the voluntary groundwater management program pilot project and authorize the Executive Committee to select one island from the responses to the call for interest to participate in the project.*

### **March 2000**

The Islands Trust Council endorsed the following resolution:

*That the Minister of Health be requested to develop a policy to promote voluntary action by residents in the Trust Area to reduce overall loading of fecal matter entering the groundwater.*

### **March 2001**

The Islands Trust Council endorsed the following resolution:

*That Islands Trust Council supports the introduction of legislation that addresses:*

- *Certification of well drillers;*
- *Grouting of wells;*
- *Sealing abandoned and contaminated wells;*
- *Regulating purveyors of groundwater; and*
- *Designation of watershed reserves.*

### **September 2002**

The Islands Trust Council endorsed the following resolution:

*That staff be requested to prepare a briefing that identifies issues with respect to the authority of the Islands Trust to address groundwater protection and groundwater use for consideration at the December 2002 Trust Council meeting.*

### **September 2003**

The Islands Trust Council endorsed the following resolution:

*That the Islands Trust Council request the Chair to write to the Minister of Health Services and the Minister of Water, Land and Air Protection to reiterate Council's support for the timely implementation of the regulations under the Drinking Water*

*Protection Act that will address quality and quantity concerns relevant to groundwater supplies.*

**December 2006**

The Islands Trust Council endorsed the following resolution:

*That the Islands Trust Council request the Chair to write a letter to the Minister of the Environment on behalf of the Islands Trust Council which includes the following:*

- *a statement of Trust Council's support for the B.C. Ground Water Protection Regulation,*
- *a request for an update on Phases 2 and 3 of the Regulation, and*
- *a suggestion that the Islands Trust be considered as a pilot project for the development of a water management plan(s), or other planning processes to address localized water quality and quantity issues, under Phase 3 of the Regulation, due to the limited supply of water in the Trust Area.*

**June 2008**

The Islands Trust Council endorsed the following resolution:

*That the Islands Trust Council request the Chair to write to the Minister of Environment in support of the provincial commitment to regulate groundwater withdrawals in the Gulf Islands, as expressed in the recent Living Water Smart Plan.*