



# Salt Spring Island Watershed Protection Authority

## Regular Meeting Draft Agenda

**Date of Meeting:** Friday April 21, 2017 12:30 pm - 2:30 pm

**Location:** CRD Portable, 143 Vesuvius Bay Rd., Salt Spring Island BC

**Acronyms:**

AGRI - Ministry of Agriculture

CEWG - SSIWPA Conservation and Efficiency Working Group

CRD - Capital Regional District

FLNRO - Ministry of Forests, Lands and Natural Resource Operations

NSSWD - North Salt Spring Waterworks District

MOE (ENV) - Ministry of Environment

SSIWPA - Salt Spring Island Watershed Protection Authority

TWG - SSIWPA Technical Working Group

**1. CALL TO ORDER**

**2. APPROVAL OF AGENDA**

**3. MINUTES**

- 3.1 Draft minutes of the March 17, 2017 steering committee regular meeting -  
*attached for approval*

**4. BUSINESS ITEMS**

4.1 **Chair's report** - G. Grams

4.2 **St. Mary Lake water quality update** – NSSWD Board Representative

4.3 **Cusheon Lake water quality update** – Beddis Water Commissioner

4.4 **Coordinator's report** – *attached*

4.5 **Technical Working Group update** – TWG Co-Chair

**4.6 Conservation and Efficiency Working Group update - CEWG Chair**

**4.7 Outreach Materials for approval**

4.7.1 Water Group Comparison Chart - [weblink click here](#), print version in meeting

4.7.2 IWM Workplan (public ver.) - *attached*

4.7.3 Best Management Practices Draft for discussion - *attachment pending*

**4.10 Events and Announcements**

**Sunday April 23, Earth Day** Centennial Park SSIWPA Booth: RRU-SSIWPA Rainwater Survey (contact: Shannon Cowan, Royal Road Student team)

**Friday June 30: SAVE THE DATE!** Well Owner Workshop SSIWPA Booth (Islands Trust, contact: Shelley Miller) (Date set. This item appears in approved Outreach Plan for SSIWPA.)

**5. OTHER BUSINESS**

5.1 Questions and Comments from Public

**6. CLOSED MEETING RESOLUTION**

The Salt Spring Watershed Protection Authority closes this meeting to the public subject to Community Charter Section 90(1)(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality.

**7. OPEN MEETING RESOLUTION**

The Salt Spring Island Watershed Protection Authority re-opens this meeting to the public subject to Community Charter Section 89.

**8. RISE AND REPORT**

**9. UPCOMING MEETING**      Friday, May 19th, 2017 at 10:30 am  
@ School District 112 Rainbow Rd.

**10. ADJOURNMENT**



# Salt Spring Island Watershed Protection Authority

Minutes of a Regular Meeting

- Date of Meeting:** Friday, March 17, 2017  
**Location:** School District Boardroom, 112 Rainbow Road  
Salt Spring Island
- Members Present:** George Grams, Chair, Islands Trust Local Trustee  
Dale Green, Capital Regional District, Integrated Watershed (via telephone conferencing)  
Doreen Hewitt, Beddis Water Service Area Commissioner  
Pat Lapcevic, Ministry of Forests, Lands and Natural Resource Operations (FLNRO) (via telephone conferencing)  
Wayne McIntyre, Deputy Chair, Capital Regional District (CRD) Director  
Ron Stepaniuk, District Manager, North Salt Spring Waterworks District (NSSWD)
- Regrets:** Lorrie Hunt, Fernwood Water Service Area Commissioner  
Derek Masselink, Ministry of Agriculture  
Sandra Ungerson, Chair, SSIWPA Conservation and Efficiency Working Group
- Staff Present:** Shannon Cowan, Coordinator  
Justine Starke, Island Planner (North Pender Island)  
Sarah Shugar, Recorder
- Technical Working Group Liaison:** Don Hodgins, Co-chair, SSIWPA Technical Working Group
- Conservation Working Group:** Ian Peace, SSIWPA Conservation and Efficiency Working Group Member
- Media and Others Present:** 4 members of the public

These minutes follow the order of the agenda although the sequence may have varied.

## 1. CALL TO ORDER

Chair Grams called the meeting to order at 10:37 a.m.

## 2. APPROVAL OF AGENDA

The following additions to the agenda were presented for consideration:

- 4.11.1 Graphical work plan for public release
- 4.13 021717 4.7.2: CRD outreach program list from Member Green
- 4.14 Correspondence

- 4.14.1 Letter from member of the public re: Minimum lot size received 27-2-2017
- 4.14.2 Letter from North Cowichan Watershed Conservation Group received 3-3-2017
- 6. Closed Meeting Resolution

**By general consent**, the agenda was adopted as amended.

### **3. MINUTES**

#### **3.1 Draft Minutes of the February 17, 2017 Salt Spring Island Watershed Protection Authority Regular Meeting**

**By general consent**, the Salt Spring Island Watershed Protection Authority Minutes of February 17, 2017 were adopted.

### **4. BUSINESS ITEMS**

#### **4.1 Chair's Report**

Chair Grams reported the following highlights from the Trust Council meetings held on March 14 to 16, 2017: approval of the 2017/18 SSIWPA budget in the amount of \$98,500 and approval of the budget for the fresh water specialist. SSIWPA has received a Constituency Funding for a Community Project grant of \$15,000 for the SML Integrated Watershed Management Plan. Chair Grams reported either the CRD or Islands Trust would administer the grant.

#### **4.2 St. Mary Lake water quality update – NSSWD Board Representative**

Committee Member Stepaniuk reported the level of St. May Lake is 40.89 metres and a low level of toxin (0.2 – 0.3 micrograms per litre) has persisted over the winter months. Maxwell Lake is cresting the weir. The rainfall records show substantial rainfall in October/November 2016 and less than seasonal average rainfall from December 2016 to March 2017.

#### **4.3 Cusheon Lake Water Quality Update – Beddis Water Commissioner**

Committee Member Hewitt presented an update regarding the Cusheon Lake Watershed and the following highlights were presented:

- The lake was still frozen in the east end and at the lake level gauge until March 3. The secchi disk measurements and temperature /oxygen profiles were not done.
- Rain/Snow received at Gulf Island Secondary School: March 2017: 61.0 mm; Mar: 2016: 159.8 mm; so far this 2017 winter Jan. – March: 220 mm received 2016 winter Jan. – March: 412.3 mm received. We have only received about half as much precipitation Mar. 2015: 85.3 mm.
- The flow gauge level has been fairly steady this past week although it has dropped from what it was during the heavy rains.
- The lake level has dropped.
- A dead beaver was discovered on a property next to the lake. It was frozen and will be delivered to the Ministry of Environment BC Wildlife veterinarian for autopsy.

#### 4.4 Coordinator's Report

Coordinator Cowan presented the Coordinator's Report for the period of February 14 to March 9, 2017. The Royal Roads University students will be conducting a survey regarding rainwater harvesting online and on Salt Spring Island on Earth Day 2017 weekend. The project will include a survey that will lead to 2 to 3 case studies of businesses or water users that would generally benefit from rainwater harvesting.

**By general consent** the Salt Spring Watershed Protection Authority agreed Coordinator Cowan and Fiona MacRaid, Senior Intergovernmental Policy Advisor would consult First Nations with a view to develop a communications approach to keep First nations advised and potentially involved in SSIWPA actions.

#### 4.5 Technical Working Group Report

Technical Working Group Co-chair Hodgins presented the following report:

- The St. Mary Lake Safe Yield TWG review is complete. The report has been revised, the report and sample spreadsheet have been sent to Professor Weiss at University of British Columbia for peer review and the Islands Trust has issued the contract for that review to Dr. Weiss.
- The draft Safe Yield for Maxwell Lake is complete and is being reviewed by the TWG.
- The climate change work scope memo is complete.
- The hydrological data for Cusheon Lake Watershed is being gathered including the water withdrawal data and the target is to complete the scope of work by the end of July 2017 that will include an assessment of instrumentation and resources required.
- The consumption data from surface resources work scope and memo is complete.
- The consumption production from the community well districts work scope is complete.
- The groundwater well mapping work scope will be presented at the April SSIWPA meeting.

P. Lapcevic reported the target date to present the Golder Aquifer Mapping project to the TWG is April 2017.

There was a question regarding tracking the in-kind labour costs. It was noted this could be useful to include in the SSIWPA Annual Report.

Planner Starke reported the contract for the St. Mary Lake Safe Yield report peer review by Dr. Weiss is due March 31, 2017.

#### 4.6 Conservation and Efficiency Working Group Report

Conservation and Efficiency Working Group Member Peace reported several draft proposals and draft short literature reviews are in process.

Coordinator Cowan reported Rob Kline is interested in the CEWG membership

although has not applied yet.

#### **4.7 Scope of Work - Work plan Task 2 “Climate Extremes”**

D. Hodgins presented a PowerPoint presentation regarding Safe Yield Climate Change – Task 2 Work plan.

There was question regarding whether some of the climate change expenses could be aligned with CRD climate change initiatives. D. Green reported there is not one specific group doing this analysis for the region. There was question regarding ownership of software that SSIWPA purchases. It was noted the \$350 cost to upgrade the computer software is for an addition to a software licence that a TWG member currently owns. It was noted the agency that will administer the Constituency Funding for a Community Project grant would administer the expenditures.

**By general consent**, the Salt Spring Watershed Protection Authority approved the IWMP Climate Change work plan Task 2, as presented.

It was noted D. Hodgins would contact D. Green regarding CRD climate change initiatives prior to meeting with UVIC.

#### **4.8 Scope of Work - Work plan Tasks 4a & 4b “Consumption Statistics for Surface Supplies”**

TWG Co-chair Hodgins presented a PowerPoint presentation regarding Consumption –Tasks 4a and 4b IWMP work plan.

**By general consent**, the Salt Spring Watershed Protection Authority approved IWMP work plan Consumption Tasks 4a and 4b, as presented.

#### **4.9 Scope of Work - Work plan Tasks 4c & 5c “Community Well Supply Survey and Consumption Study”**

Coordinator Cowan presented an overview of the Scope of Work – Work plan Tasks 4c & 5c “Community Well Supply Survey and Consumption Study”.

**By general consent**, the Salt Spring Watershed Protection Authority approved IWMP work plan Community Well Supply and Consumption Study Tasks 4c and 5c, as presented.

#### **4.10 Amendment to St. Mary Lake IWMP 2015**

**By general consent**, the Salt Spring Watershed Protection Authority approved the St. Mary Lake IWMP 2015 Amendment, as presented.

#### **4.11 SSIWPA 2017-18 Final Work plan**

- 4.11.1 Graphical work plan for public release  
Graphical work plan (draft) for public release was presented for feedback.

Planner Starke will send comments regarding the graphical work plan for public release to Coordinator Cowan.

#### 4.11.2 Project Management Work Plan Chart

The Project Management Work Plan Chart was presented for information.

#### 4.12 Review of action items 6-17-16 4.3.1 and 4.3.2

##### 4.12.1 See screenshot of relevant item from minutes of a closed meeting

Member Hewitt presented an update regarding the Waste Management Plan for SSI and looking into well testing at 360 Blackburn Rd. closed landfill and proposed that the wells need to be tested. There was discussion regarding a mechanism for well testing from appropriate regulatory authority and it was noted SSIWPA is not a groundwater testing regulatory authority. D. Hewitt will talk to the CRD regarding well testing of the closed landfill site.

#### 4.13 Other SSIWPA Action List Review

##### 4.13.1 021717 4.9 b: Vice-Chair McIntyre and Member Green to contact Brent Reems regarding the CRD proposed budget bylaw impacts on the SSIWPA 2017-18 IWM Work plan

D. Green reported he is waiting for a response and will contact Coordinator Cowan. Item to be added to the next agenda.

##### 4.13.2 021717 4.9.1a: Planner Starke to follow up with the TWG regarding the island-wide water information database and mapping tools.

Planner Starke confirmed Islands Trust GIS is available to assist TWG with the scope of work as needed. It was noted the TWG members would need to enter into a data sharing agreement with agencies providing data. Coordinator Cowan is assisting with the agency agreement templates.

##### 4.13.3 021717 4.7.2: Member Green to provide summary of CRD outreach programs that relate to SSIWPA

A Summary of Capital Regional District drinking water related outreach initiatives dated March 2017 was presented.

#### 4.14 Correspondence

##### 4.14.1 Letter from member of the public re: Minimum lot size received February 27, 2017

##### 4.14.2 Letter from North Cowichan Watershed Conservation Group received March 3, 2017

The correspondence items were received.

**5. OTHER BUSINESS**

**5.1 Questions and Comments from Public**

A member of the public reported the Water Preservation Society has received the report from Maggie Squires and will invite SSIWPA to attend the presentation of the report. The data may be available to SSIWPA upon request prior to the presentation. The member of the public also noted First Nations seem to prioritize the protection of shellfish.

A member of the public requested the memorandums include a description of acronyms.

A member of the public asked Chair Grams for an opinion regarding whether property owners should be given notice regarding water limitations and whether the Islands Trust should issue caveats regarding water availability.

**6. CLOSED MEETING RESOLUTION**

At 12:17 p.m., it was **MOVED** and **SECONDED** that the Salt Spring Island Watershed Protection Authority closes this meeting to the public subject to Community Charter Section 90(1)(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality.

**CARRIED**

**7. OPEN MEETING RESOLUTION**

At 12:22 p.m. it was **MOVED** and **SECONDED** that he Salt Spring Island Watershed Protection Authority re-opens this meeting to the public subject to Section 89 of the Community Charter.

**CARRIED**

**8. RISE AND REPORT**

The Salt Spring Island Watershed Protection Authority agreed to appoint John Millson to the Technical Working Group.

**9. NEXT MEETING**

The next regular meeting is scheduled for Friday, April 21, 2017, 10:30 a.m. to 12:30 p.m. at the School District 64 Boardroom Portable, 112 Rainbow Road.

**10. ADJOURNMENT**

**By general consent** the meeting adjourned at 12:23 p.m.



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George Grams, Chair

**CERTIFIED CORRECT:**

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Sarah Shugar, Recorder

DRAFT



## **Coordinator's Report**

**For the period: March 10 – April 13, 2017**

### **Meeting Admin:**

- Created agenda for steering committee meeting April 21, 2017 and attachments
- Draft minutes edited, shared with Steering Cttee for March 17 2017-04-12
- Adopted minutes for February 17<sup>th</sup> signed, online and saved in Trust folder
- Created agenda for TWG meeting April 25, 2017
- Coordinated Golder presentation April 21 meeting planning and logistics
- Coordinated project meetings for TWG GW group and CEWG-RRU team (April 18, 19), respectively

### **Project Management/Facilitation:**

- correspondence re "Well Owner Workshops"– ongoing (Date is June 30<sup>th</sup> for SSI)
- created Scope of Work task 5a Well inventory draft documents for TWG GW group
- created Scope of Work task 5b Well Monitoring draft doc for TWG GW group
- development of First Nations education and outreach plan to inform and include/invite First Nations communities through their technical staff, about the work of SSIWPA – have plan, calls in process
  - participated in webinar about Kootenay Partnership (First Nation T'unaxa and Nelson local gov) April 6<sup>th</sup>

### ***Integrated Water Management Program***

- community well data project - terms of use agreement template (done, reviewed by S. Barroso), outreach begun with water districts - 092616 Item 7.4 still in process

### ***Budget***

- Assisted with development of Task area budget proposals for TWG-GW tasks 5a, 5b

***Conservation and Efficiency Working Group Projects Coordination***

- Royal Roads project work group – weekly communications, created contact spreadsheet for assistance with deployment of survey

***Technical Working Group Projects Coordination***

- document creation and edits for “data terms of use” and “data sharing” agreement templates (review by Sylvia Barroso received for Community Well Data Collection Task 4c and 5c)
- liaise with RDN Drinking Water and Watersheds Program Coordinator re: well monitoring program, data collection and well owner workshop
- liaise with TWG GW subcommittee and assist with writing proposals for workplan subtasks 5a, 5b

***Outreach and Educational Event Planning and Coordination***

- Graphical workplan – incorporated feedback from Planner Starke
- Workplan product printing for public use
- Incorporated review to comparison chart for water groups
- Comparison chart printing and laminating under way for outreach product
- Earth day logistics and developing new outreach materials (RRU Survey assistance)
- 021717 4.7 – Cusheon neighbourhood event SSIWPA outreach role
- staying current on e-news from regional and provincial and national water networks (e.g. POLIS project, Partnership for Water Sustainability in BC, Canadian Freshwater Alliance etc.)
- assisted with receipt of constituency funding from Minister Stone

***Watermark newsletter***

- April edition text and images - created and sent
- Sent special e-blast about Apr 11 water webinar of interest to Steering members and general public

***Website: ongoing checking for library2 uploads***

# Integrated Water Management Program Workplan

## Determine Safe Supply - Lakes

- Analyze Hydrological Data
- Predict and Address Climate Extremes
- Develop Flow Monitoring in Cusheon Watershed in 2017-18

## Determine Safe Supply - Groundwater

- Well Inventory
- Characterize Groundwater Aquifers & Develop Island-Wide GroundWater Budget Model
- Establish Aquifer Safe Supply Potential
- Research Expanded Groundwater Monitoring Program (implement 2018)

## Calculate "Safe Yield" Model for Surface Watersheds (Consumption vs. Supply)

- Implement and Analyze 2017 Agricultural Water Demand Survey
- Analyze Consumption Patterns by Parcel & by District

## Calculate "Safe Yield" Model for Groundwater Regions (Consumption vs. Supply)

- Access and Analyze Consumption Patterns by Well / District
- Implement and Analyze 2017 Agricultural Water Demand Survey

## Conservation and Efficiency

- Compare and Evaluate Technologies and Alternatives for Water Conservation
- Assess Actual/potential Rainwater Harvesting - Survey and case examples
- Assess Conservation and Efficiency Strategies already being used
- Assess Feasibility of Reclaimed Water Re-use (potable, non-potable)
- Assess Policies, Incentives and Barriers to Alternatives for Conservation

## Water Quality

- Develop and Implement Cusheon Watershed Monitoring Program
- Review Water Quality Data - all other watersheds were data exist

## Develop Salt Spring Island Water Sustainability Plan

**Item 4.7.3 - attachment here**

## Cover page for draft resource under development.

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Proposed Title:

**“Watershed Management  
Information Links to  
Policy, Regulations  
and Best Practices”**

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Purpose:

This was developed at the request of Steering Committee, to fulfill on the established need for:

- a) Realtors to share up to date information with potential land purchasers.
- b) A public resource that holds links and information published by each of the SSIWPA member agencies, in one place, to guide residents and visitors, property owners and business-owners in their search for information about water resource use, conservation and sustainable management, including development of alternative technologies (such as rainwater harvesting, composting toilets, water metering, and development of a community water system).

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Proposed Audience:

- a) Electronic format: on SSIWPA website, and linked to this page by each member agency website, if desired.
- b) Brochure format distributed (one time volume of hard copy material as a SSIWPA outreach expense, then link to electronic brochure provided annually (updated by SSIWPA coordinator) for reprinting. Recipients: Individual realtors and realty agencies, and/or Tourist Info Centre, and Chamber of Commerce. This might populate a “welcome wagon” package for all new residents and Chamber members, as well as for visitors to use.
- c) Brochure (hard copy) format at Islands Trust and CRD PARC and CRD Building Inspection local offices.
- d) other?

# Watershed Management Information Links to Policy, Regulations and Best Practices

This document is updated approximately twice per calendar year by SSIWPA Coordinator. Please communicate any broken links or additional information to the SSIWPA Coordinator ([ssiwpacoord@gmail.com](mailto:ssiwpacoord@gmail.com)). Thank you!

## Agriculture

Agricultural Alliance on Salt Spring Island <http://plantofarm.org/>

Bylaws in Farming Areas - BC Ministry of Agriculture Guide for Bylaw Development  
[http://www.alc.gov.bc.ca/assets/alc/assets/about-the-alc/working-with-local-governments/840000-1\\_guide\\_for\\_bylaw\\_development\\_in\\_farming\\_areas-2013.pdf](http://www.alc.gov.bc.ca/assets/alc/assets/about-the-alc/working-with-local-governments/840000-1_guide_for_bylaw_development_in_farming_areas-2013.pdf)

Environmental Farm Planning <https://www.bcac.bc.ca/ardcorp/program/environmental-farm-plan-program>

Agricultural Research Development Corporation of BC

Environmental Farm Plan  
<https://www.bcac.bc.ca/ardcorp/program/environmental-farm-plan-program>

Drainage (Runoff) Management Guide  
Guide  
[http://www.al.gov.bc.ca/resmgmt/EnviroFarmPlanning/EFP\\_Drainage\\_Mgmt\\_Guide/Drainage\\_Mgmt\\_Guide\\_toc.htm](http://www.al.gov.bc.ca/resmgmt/EnviroFarmPlanning/EFP_Drainage_Mgmt_Guide/Drainage_Mgmt_Guide_toc.htm)

Nutrient Management Guide  
NM Guide  
[http://www.agf.gov.bc.ca/resmgmt/EnviroFarmPlanning/EFP\\_Nutrient\\_Guide/Nutrient\\_Guide\\_toc.htm](http://www.agf.gov.bc.ca/resmgmt/EnviroFarmPlanning/EFP_Nutrient_Guide/Nutrient_Guide_toc.htm)

Irrigation Management Guide

## Irrigation Guide

[https://www.bcac.bc.ca/sites/bcac.localhost/files/Ardcorp\\_Program\\_Documents/EFP/Irrigation%20Managment%20Guide.pdf](https://www.bcac.bc.ca/sites/bcac.localhost/files/Ardcorp_Program_Documents/EFP/Irrigation%20Managment%20Guide.pdf)

Keyline Water Management [crkeyline.ca](http://crkeyline.ca)

Salt Spring Island Area Farm Plan 2008 <http://masselinkdesign.com/pdf/reports/SSI%20Area%20Farm%20Plan.pdf>

Stewardship for Agriculture: Department of Fisheries and Oceans Canada: Watershed Stewardship Guide for Agriculture Brochure  
<http://www.dfo-mpo.gc.ca/Library/216753.pdf>

Water and Livestock:

[http://www.cattlemen.bc.ca/docs/livestock\\_drinking\\_water\\_brochure.pdf](http://www.cattlemen.bc.ca/docs/livestock_drinking_water_brochure.pdf)  
<http://www.cattlemen.bc.ca/docs/cattle%20grazing%20in%20watersheds.pdf>

## **Building/ Construction**

Islands Trust - Guide to Environmentally-Friendly Building and Renovating in the Gulf Islands - <http://islandstrust.bc.ca/media/189932/sgienvirbldgguidejul2011.pdf>

Islands Trust - Newcomer's Guide to the Islands: <http://islandstrust.bc.ca/media/96307/A%20Place%20In%20The%20Islands%20Complete%20and%20Final%20APITIBookFIN.pdf>

Potable Rainwater Systems for Domestic and Non-Domestic Use  
<https://www.crd.bc.ca/docs/default-source/building-inspection-pdf/bylaw3780.pdf?sfvrsn=2>

The Salt Spring Island "Sustainability Checklist" contains information on how to build and develop in a water wise way. <http://www.islandstrust.bc.ca/media/341730/ssrptsustainabilitychecklist.pdf>

## **Conservation**

Water conservation tips for homeowners

<https://www.crd.bc.ca/education/water-conservation/at-home/outdoor-water-use>

CRD Best Management Practices Guide to Water Conservation in the Public Sector - 2001

<https://www.crd.bc.ca/docs/default-source/water-pdf/best-management-practices-for-water-efficiency-for-public-agencies.pdf?sfvrsn=0>

Business water efficiency opportunity in Capital Regional District (not yet the islands)  
<http://www.crd.bc.ca/education/climate-action/at-work/food-services-water-energy-savings>

## Greywater

Rainwater - Greywater Health Regulations and System Design Specifications

[www2.gov.bc.ca/assets/gov/environment/waste-management/sewage/provincial-composting-toilet-manual.pdf](http://www2.gov.bc.ca/assets/gov/environment/waste-management/sewage/provincial-composting-toilet-manual.pdf)

Very Light Greywater from showers, baths and hand basins (not kitchen or laundry) is approved for toilet flushing grey water use, in the home, as a separate collection system, treatment and reuse when designed by an accredited plumbing engineer.

From the local Building Inspector (CRD):

“The provincial health regulations for “light greywater” (section D-3 of this doc: [www2.gov.bc.ca/assets/gov/environment/waste-management/sewage/provincial-composting-toilet-manual.pdf](http://www2.gov.bc.ca/assets/gov/environment/waste-management/sewage/provincial-composting-toilet-manual.pdf)) indicate that grey water in-house is not under the “sewerage regulations”, nor is it part of the BC Plumbing Code.

The CRD Building Bylaw and the BC Building Code allow a plumbing engineer to design an alternate solution for items not directly within the Plumbing Code.

This allows much more flexibility in design. The engineer also provides the maintenance manuals for the system.”

Greywater may be collected, treated and re-used for outdoor non-potable uses, but unless the system for grey water reuse is designed by an accredited plumbing engineer, it must be treated as sewerage and only delivered underground.



# Groundwater

Advocacy - SSI

<http://www.islandstrust.bc.ca/trust-council/advocacy/groundwater-regulation-advocacy.aspx> (resource links at bottom of page)

Toolkit Islands Trust: <http://www.islandstrust.bc.ca/media/259555/groundwater-toolkit.pdf>

Provincial BC Well Index

[http://www.env.gov.bc.ca/wsd/data\\_searches/wells/](http://www.env.gov.bc.ca/wsd/data_searches/wells/)

Water Sustainability Act: Groundwater Licensing Regulations

<http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/water-licences-approvals/new-requirements-for-groundwater-users>

Land Use bylaws and Official Community Plans regulate land use with consideration of groundwater use, in some cases requiring permits. See Land Use and Community Planning below.

# Invasive Species

BMP - How to protect against invasive organisms that are transferred between bodies of water by boats, gear, etc.?

<http://www.gofishbc.com/fish-facts/invasive-plants-animals/aquatic-invaders.aspx>

BMP – Avoiding illegal fish introductions (\$100,000 penalty and/or prison term)

<http://www.gofishbc.com/fish-facts/invasive-plants-animals/invasive-aquatic-species.aspx>

# Lakes and Water Quality

General

British Columbia Lake Stewardship Society: <http://www.bclss.org/>

BC Riparian Areas Regulation

These regulations apply to all lakes and surface water bodies on Salt Spring Island

<http://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/riparian-areas-regulation>

BC Approved Water Quality Guidelines – Summary Report (May 2015). These regulations apply to drinking water lakes on Salt Spring Island, such as St. Mary Lake.

[http://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/waterqualityguidesobjs/approved-wat-qual-guides/wqg\\_summary\\_2015.pdf](http://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/waterqualityguidesobjs/approved-wat-qual-guides/wqg_summary_2015.pdf)

Water Treatment

BC Surface Water Treatment Objectives

Info: <http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality/drinking-water-quality/how-drinking-water-is-protected-in-bc>

Regulations: [http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/200\\_2003](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/200_2003)

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## St. Mary Lake & Watershed

St. Mary Lake - Squires. M. "A Guide - Recommendations for Lake Research". February 2016:

[http://www.northsaltspringwaterworks.ca/wordpress\\_water/wp-content/uploads/2016/02/A-Guide-to-St-Mary-Lake-Use-Misuse-Disuse-of-Aeration-What-is-Normal-Future-Research-Feb.-27-Squires-M.pdf](http://www.northsaltspringwaterworks.ca/wordpress_water/wp-content/uploads/2016/02/A-Guide-to-St-Mary-Lake-Use-Misuse-Disuse-of-Aeration-What-is-Normal-Future-Research-Feb.-27-Squires-M.pdf)

Salt Spring Island Watershed Protection Authority has produced many reports with assistance of it's Technical Working Group studies on stormwater, phosphorus lake inputs and budgets, phosphorus impacts on algal communities, drought analysis, and more....please click [here](#).

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## International Examples:

University of Utah Extension Service Best Practices for Stream Monitoring:  
[http://extension.usu.edu/waterquality/bmps/bmp\\_guidance](http://extension.usu.edu/waterquality/bmps/bmp_guidance)

United States National Forest System: [http://www.fs.fed.us/biology/resources/pubs/watershed/FS National Core BMPs April2012.pdf](http://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf)

## Local Government Requirements (Land Use and Community Planning)

- Bylaw 434. Salt Spring Island Official Community Plan (2008). Objectives that relate to watershed management and land use planning: <http://www.islandstrust.bc.ca/ltc/ss/pdf/ssbylbaseocp434vol1.pdf>

Especially,

- Watershed and Islet Residential Designation Section B.8.1. (e.g. B. 8.1.1.2. To avoid an increase in development or activity within watershed catchments.)
  - Objective C.3.2.1.3 "...to ensure that zoning changes do not result in such a level of development in North Salt Spring Waterworks District, such that water would not be available for firefighting, hospital and school expansion, and affordable housing."
  - Obj. c.3.2.1.5 applies to regulation of the demand of "island water sources" (not only St Mary Lake) to ensure that agricultural activities can still obtain water.
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- Bylaw 434. Volume 2. Part E.5. Page 34. Development Permit Area 5: Community Well Capture Zones, requiring a permit be issued prior to development in this water sensitive area. (Reference: Potter, R. P.Eng. 1996. "Gulf Islands Groundwater" for the Islands Trust.) <http://www.islandstrust.bc.ca/media/343777/ss-bl-355-2017-consolidation-2017-02-15.pdf>
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- Land Use Bylaw no. 355 Sections 4.4 - 4.6 inclusive on General Regulations for Setbacks from water bodies and wells.
  - Land Use Bylaw no. 355 Subdivision Servicing Regulations require adequate amounts of potable water be proven at time of subdivision:  
<http://www.islandstrust.bc.ca/islands/local-trust-areas/salt-spring/bylaws/salt-spring-island-land-use-bylaw-no-3>
  - RAR Bylaw 480.  
<http://www.islandstrust.bc.ca/media/312024/ss-bl-480-adopted.pdf>
  - Madrone Environmental Services Ltd. (2012) The Salt Spring Island Riparian Areas Regulations Peer Review – St Mary Lake and Cusheon Lake Watersheds (Prepared for Stefan Cermak, Islands Trust by Madrone Environmental Services Ltd.):

[http://www.islandstrust.bc.ca/media/241698/  
Peer Review Fina Report for St Mary Lake and Cusheon Lake RAR Ass  
essment Peer Review Salt Spring Island.pdf](http://www.islandstrust.bc.ca/media/241698/Peer_Review_Fina_Report_for_St_Mary_Lake_and_Cusheon_Lake_RAR_Assessment_Peer_Review_Salt_Spring_Island.pdf)

## **Local Government Maps:**

Map 1 in OCP Schedule A “Land and Shoreline Use Designations”,  
available at: [http://www.islandstrust.bc.ca/islands/local-trust-areas/  
salt-spring/bylaws/salt-spring-island-official-community-plan-bylaw-  
no-434.aspx](http://www.islandstrust.bc.ca/islands/local-trust-areas/salt-spring/bylaws/salt-spring-island-official-community-plan-bylaw-no-434.aspx)

Map 21, Bylaw 434. Development Permit Area 4 Lakes, Streams and  
Wetlands [http://www.islandstrust.bc.ca/ltc/ss/pdf/  
ssbylbaseocp0434map21.pdf](http://www.islandstrust.bc.ca/ltc/ss/pdf/ssbylbaseocp0434map21.pdf)

And Map 28. DPA 7 Riparian Areas. [http://www.islandstrust.bc.ca/media/  
328027/ocp\\_28.pdf](http://www.islandstrust.bc.ca/media/328027/ocp_28.pdf)

## **Provincial Requirements**

Water Sustainability Act: Water Licensing and Rights

[http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-  
licensing-rights](http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights)

Water Sustainability Act: Groundwater Licensing Regulations (2016 - )

[http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-  
licensing-rights/water-licences-approvals/new-requirements-for-groundwater-  
users](http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/water-licences-approvals/new-requirements-for-groundwater-users)

Rules and regulations for licensing and approvals:

[http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-  
licensing-rights/water-licences-approvals](http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/water-licences-approvals)

Potential diversion from a sensitive stream:

[http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-  
licensing-rights/sensitive-streams](http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-licensing-rights/sensitive-streams)

# Rainwater

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## Rain Harvesting - Landscape Tools

CRD. Benefits of rainwater harvesting:

<https://www.crd.bc.ca/education/water-conservation/at-home/outdoor-water-use/collecting-recycling-water/rainwater-harvesting>

Islands Trust - Guide to Environmentally-Friendly Building and Renovating in the Gulf Islands - <http://islandstrust.bc.ca/media/189932/sgienvirbldgguidejul2011.pdf>

Drainscapes video Cowichan Valley Regional District - <http://cvrd.waterbalance-express.ca/>

List of rain barrel suppliers in Greater Victoria.

<https://www.crd.bc.ca/docs/default-source/water-pdf/cisternsupplierslistapril09.pdf?sfvrsn=6>

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## Storm water Runoff Control

Bylaw 2454 Salt Spring Island Stormwater Quality Management  
Extended Service Establishment No. 1, 1996:

<https://www.crd.bc.ca/about/document-library/Documents/bylaws/liquidwasteseptagesewersourcecontrolandstormwater>

Rainwater - Greywater Health Regulations and System Design  
Specifications

[www2.gov.bc.ca/assets/gov/environment/waste-management/sewage/  
provincial-composting-toilet-manual.pdf](http://www2.gov.bc.ca/assets/gov/environment/waste-management/sewage/provincial-composting-toilet-manual.pdf)

# Septic

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## General

Homeowner's Septic Information Webpage: <https://www.crd.bc.ca/service/sewers-wastewater-septic/septic-systems>

CRD weblink: [www.crd.bc.ca/septic](http://www.crd.bc.ca/septic)  
CRD septic information line at 250-360-3187  
CRD septic email inquiries [septic@crd.bc.ca](mailto:septic@crd.bc.ca).

Infosheet:

[https://www.crd.bc.ca/docs/default-source/septic-pdf/septic-savvy/septic\\_infosheet.pdf?sfvrsn=2](https://www.crd.bc.ca/docs/default-source/septic-pdf/septic-savvy/septic_infosheet.pdf?sfvrsn=2)

Dos and Don'ts - <https://www.crd.bc.ca/docs/default-source/septic-pdf/septic-savvy/septicsavvybrochure-jan-2011.pdf?sfvrsn=2>

Drainfield Info Sheet - [https://www.crd.bc.ca/docs/default-source/septic-pdf/septic-savvy/septic\\_infosheet1\\_drainfield.pdf?sfvrsn=2](https://www.crd.bc.ca/docs/default-source/septic-pdf/septic-savvy/septic_infosheet1_drainfield.pdf?sfvrsn=2)

Garburators and In-Sink Garbage Disposals (organics) - The CRD Dos and Don'ts suggests that use of a garburator and organic food waste disposal into your septic system is likely to cause the need for more frequent pumping, and premature filling of the septic tank. However, other resources (albeit by plumbers selling products and services) suggest that appropriately-sized septic systems and regular maintenance make it possible to install and to use organic waste disposal systems in your kitchen sink, but please read the following for more details on the topic:

<http://www.askthebuilder.com/septic-tank-garbage-disposal/>

<http://www.crd.bc.ca/service/sewers-wastewater-septic/septic-systems/septic-system-resources>

<http://tiredofdealingwithdrips.com/blog/will-garbage-disposal-work-septic-tank/>

Maintenance Record Sheets - <https://www.crd.bc.ca/docs/default-source/septic-pdf/septic-savvy/septicsystemmaintenancelocationrecord.pdf?sfvrsn=2>

Septic and water conservation - <https://www.crd.bc.ca/docs/default-source/septic-pdf/septic-savvy/water-conservation.pdf?sfvrsn=2>

Workshops - <https://www.crd.bc.ca/service/sewers-wastewater-septic/septic-systems/septic-savvy-workshops>

FAQs about Septic: <https://www.crd.bc.ca/docs/default-source/septic-pdf/septicsavvyonsitefaqtype1.pdf?sfvrsn=2>

How to find your septic tank: [http://www.env.gov.bc.ca/wsd/plan\\_protect\\_sustain/groundwater/septic\\_tank.pdf](http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/septic_tank.pdf)

What Health Regulations apply to Septic Systems? <http://www2.gov.bc.ca/gov/topic.page?id=1B1F09DF74D24580BD6CC28AF4F30074>

Who can service Septic Systems? <http://www2.gov.bc.ca/gov/topic.page?id=25E8D42DFB1B42658FA91E40253E5CA7#authorized-persons>

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## CRD Septic Videos:

How Septic Systems Work:

<https://www.youtube.com/watch?v=1D6edKPsniM>

What can go wrong with your septic system?

<https://www.youtube.com/watch?v=sFcVH4H6Ge4>

Operating and Maintaining a Septic System<https://www.youtube.com/watch?v=7egqnL0PiPs>

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## Septic Regulations:

Management of Onsite Sewage Systems in the CRD. Bylaw 3478, 2007: <https://www.crd.bc.ca/about/document-library/Documents/bylaws/liquidwastesepagesewersourcecontrolandstormwater>

And Bylaw 3479:

<https://www.crd.bc.ca/docs/default-source/septic-pdf/onsite-sewage-systems-bylaw-crd-bylaw-no-3479.pdf?sfvrsn=6>

Septic Bylaw Information Page with FAQ:

<https://www.crd.bc.ca/service/sewers-wastewater-septic/septic-systems/certifying-septic-maintenance>

## **Stewardship: Habitat and Species Conservation**

[http://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/fish-fish-habitat/riparian-areas-regulations/rar\\_reveg\\_guidebk\\_sept6\\_2012\\_final.pdf](http://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/fish-fish-habitat/riparian-areas-regulations/rar_reveg_guidebk_sept6_2012_final.pdf)

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Fish Protection Act

[http://www.env.gov.bc.ca/habitat/fish\\_protection\\_act/act/documents/act-theact.html](http://www.env.gov.bc.ca/habitat/fish_protection_act/act/documents/act-theact.html)

Shoreline Stewardship Principles (from the Marine Shoreline Stewardship IT brochure): <http://www.islandstrust.bc.ca/media/232136/FINAL%20Sharing%20Our%20shorelines.pdf>

Green Shores for Homes:

<http://www.islandstrust.bc.ca/how-do-i/care-for-my-shoreline.aspx#sthash.aQkXmBhl.dpuf>

## **Other Freshwater Stewardship Groups, by Region:**

### **Capital Region**

Maltby Lake Stewardship Group: [www.maltbylake.com](http://www.maltbylake.com)

Peninsula Streams Society: <http://peninsulastreams.ca/>

Project on Ecological Governance University of Victoria: [www.polisproject.org](http://www.polisproject.org)

### **Lower Mainland**

Fraser Basin Council <http://www.fraserbasin.bc.ca/>

### **Okanagan-Similkameen**

Okanagan Water Board <http://www.obwb.ca/about-the-council/>

### **Northern British Columbia**

<http://www.bcwatertool.ca/info-sources/northeast-bc/>

### **Provincial**

<http://www.bcwatertool.ca/info-sources/>

### **Canada-wide**

Water Research Network: <http://www.cwn-rce.ca/>

Queen's University Water Research Centre: <http://www.waterresearchcentre.ca/>



Canadian Freshwater Alliance:  
<http://www.freshwateralliance.ca/>

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## International:

United Nations Conference on Water and Environment (1992): <http://www.wmo.int/pages/prog/hwrp/documents/english/icwedece.html>

World Water Day: <http://www.worldwaterday.org/>