



Islands Trust

**Salt Spring Island
Watershed Protection Authority
Regular Meeting Draft Agenda**

Date of Meeting: Friday March 18, 2016 10:30 am – 12:30 pm
Location: 145 Vesuvius Bay Rd., Salt Spring I., CRD PARC portable

1. CALL TO ORDER

2. APPROVAL OF AGENDA

3. MINUTES

- 3.1** Draft Minutes of the February 19, 2016 SSI Watershed Protection Authority Regular Meeting – *for approval*

4. CLOSED MEETING RESOLUTION

The Salt Spring Island Watershed Protection Authority closes this meeting to the public subject to Community Charter Section 90(1)a *for the receipt of personal information about identifiable individuals who are being considered for positions being appointed by the Authority.*

5. OPEN MEETING RESOLUTION

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

6. BUSINESS ITEMS

- 6.1** Chair's report (5)
- 6.2** St. Mary Lake water quality update – NSSWD Board Representative
- 6.3** Cusheon Lake water quality update – Doreen Hewitt
- 6.4** **Coordinator's report – attached for information**
- 6.5** Technical Working Group report – TWG Co-Chair (Don Hodgins)

- 6.6** **Workplan 2016** amended version – *attached for information*
- 6.7** **Test Survey Cusheon Watershed** - *preliminary results presented by Coordinator*
- 6.7.1 Revised Survey Questions – *attached for discussion*
- 6.8** **St. Mary Lake watershed residents mail out** - *draft attached for discussion*
- 6.9** **POLIS March 8, 2016 capacity-building workshop** – Coordinator
- 6.9.1 Coordinator's invited presentation notes – *attached for information*
- 6.10** **Correspondence**
- 6.10.1 Re: Review request by member of the public for SSIWPA review/response to two articles in 24 Feb 2016 Driftwood Newspaper – *attached*

6.10.2 - Technical Working Group new member announcement

7. **OTHER BUSINESS**

- 7.1 Questions and Comments from Public

8. **NEXT MEETING of the Steering Committee**

March 18, 2016 10:30 am - 12:30 pm – @ SD64 portable 112 Rainbow Rd., SSI

9. **ADJOURNMENT**



Salt Spring Island Watershed Protection Authority

Minutes of a Regular Meeting

Date of Meeting: Friday, February 19, 2016
Location: 145 Vesuvius Bay Road, CRD PARC portable
Salt Spring Island

Members Present: George Grams, Chair, Islands Trust Local Trustee
Shannon Cowan, Coordinator
Dale Green, Capital Regional District, Integrated Watershed (via telephone conferencing)
Doreen Hewitt, Beddis Water Service Area Commissioner
Lorrie Hunt, Fernwood Water Service Area Commissioner
Pat Lapcevic, Ministry of Forests, Lands and Natural Resources (via telephone conferencing)
Wayne McIntyre, Capital Regional District (CRD) Director
Jeff Thompson, North Salt Spring Waterworks District (NSSWD) Trustee

Staff Present: Stefan Cermak, Regional Planning Manager (RPM)
Sarah Shugar, Recorder

Technical Working Group Liaison: Don Hodgins, Chair, SSIWPA Technical Working Group

Media and Others Present: Ian deBie, SSIWPA Technical Working Group Member
3 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 10:30 a.m.

2. APPROVAL OF AGENDA

The following additional items were presented for consideration:
Item 7.4.2 TWG Request
Item 7.9.1 Cusheon Watershed Pilot Survey and Letter

By general consent, the agenda was adopted as amended.

3. MINUTES

3.1 Draft Minutes of the January 22, 2016 Salt Spring Island Watershed Protection Authority Regular Meeting

By general consent, the Salt Spring Island Watershed Protection Authority agreed that the Minutes of January 22, 2016 be amended by replacing “Doreen Hewitt, Cusheon Lake Stewardship Committee” with “Doreen Hewitt, Beddis Water Service Area Commissioner” and that the minutes be adopted, as amended.

4. CLOSED MEETING RESOLUTION

At 10:32 a.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 for the receipt of personal information about identifiable individuals who are being considered for positions being appointed by the Authority.

CARRIED

5. OPEN MEETING RESOLUTION

At 10:38 a.m., it was **MOVED** and **SECONDED** the Salt Spring Island Watershed Protection Authority re-opens this meeting to the public subject to Section 89 of the Community Charter.

CARRIED

6. RISE AND REPORT – None

D. Hodgins arrived at the meeting at 10:39 a.m.

P. Lapcevic arrived at the meeting at 10:41 a.m.

7. BUSINESS ITEMS

7.1 Chair’s Report

Chair Grams reported the Local Trust Committee and Executive Committee have been preparing for the next Trust Council scheduled March 22 – 24, 2016 on Hornby Island. He has been working with the Coordinator on the 2015 Annual Report and noted work on the SSIWPA website and related website costs of \$119.40 and \$14.95. The Saturna Island Local Trust Committee added Water Conservation to their top priority list and he has been collaborating with Islands Trust planners in Victoria regarding water conservation. Trustee Grams transferred the SSIWPA workplan to Fastrack Schedule 10, a project management application.

By general consent, the Salt Spring Island Watershed Protection Authority agreed to appoint Peter Grove as alternate Trustee.

7.2 St. Mary Lake Water Quality Update – North Salt Spring Waterworks District

Jeff Thompson reported the level of St. Mary Lake level is above the weir height and overflowing. North Salt Spring Waterworks District is currently in negotiations with lakeside property owners regarding the proposal to raise the weir.

7.3 Coordinator’s Report

Coordinator Cowan presented the Coordinator's Report for January 17, 2016 to February 12, 2016 and noted she would contact Islands Trust and North Salt Spring Waterworks District regarding the Water Demand and Supply Contract.

By general consent, the Salt Spring Island Watershed Protection Authority agreed to approve a \$350 expenditure for the purchase of Fastrack project management software.

By general consent, the Salt Spring Island Watershed Protection Authority agreed Coordinator Cowan would include an update regarding the Cusheon Watershed in the monthly Coordinator's Report.

7.4 Technical Working Group Report

Don Hodgins presented Technical Working Group (TWG) progress and the following highlights were presented:

- Current Activities:
 - Cusheon Lake – review of background technical material is underway and contact with the Cusheon Lake Stewardship Committee has been initiated;
 - St. Mary Lake – feasibility testing of soil samples for septic impacts (nutrients, other) - scope and cost underway / applicability to Cusheon Lake to be determined problem definition and scope of sediment core sampling (IWMP Management Action);
 - St. Mary Lake – IWMP Management Action P-removal for runoff – preliminary site visit complete;
 - TWG – developed 3W task list for management of activities / assignments, moving ahead with various tasks, developing procedure for identifying and capturing documents and web links of interest to TWG;
- St. Mary Lake Monitoring:
 - Runoff measurements continue, will be complete in February;
 - Rainfall – measurements continue, will be complete in February;
 - Septic – additional data collection, will be complete in February;
- Reporting:
 - SML 2014-15 Septic report by D. Hodgins, in preparation;
 - SML 2014-15 P-alga Trend Analysis by D. Hodgins for SSIWPA, ready for release;
- TWG – Administration:
 - Communications with the Steering Group – recommendation to extend regular monthly meetings to allow 20-30 minute for TWG to present;
 - Election of Chair and Co-Chair – D. Hodgins has been elected Chair of TWG, Ian deBie has been elected Co-Chair of TWG. D. Hodgins indicated he would remain chair for 6 months and I. deBie would be the lead contact for the Cusheon Watershed.

7.4.1 Terms of Reference

The Salt Spring Island Watershed Protection Authority Technical Working Group Terms of Reference amended January 29, 2016 was received for information.

7.4.2 TWG Request

By general consent, the Salt Spring Island Watershed Protection Authority agreed to extend their regular meetings by half hour (10:30 a.m. to 1:00 p.m.), on occasion, by request of TWG, to allow for presentations from the Technical Working Group.

7.5 Report on Supply Contract for LTC & SSIWPA

C. Leung arrived at the meeting via web conferencing at 10:48 a.m.

RPM Cermak presented an update regarding the supply contract for North Salt Spring Waterworks District and reported the final report would be presented to the Salt Spring Island Local Trust Committee in March 2016.

Clive Leung, Opus Dayton Knight presented a project progress update regarding the Water Conservation and Demand Management Plan.

There was discussion regarding the Water Conservation and Demand Management Plan update and the following items were noted:

- there may be opportunity for recovery of water from the Ganges Sewer outflow to Ganges Harbour;
- why has actual connection data been translated into existing equivalent permanent population?
- it would be helpful to have a break down of inside versus outside water consumption although the meter data cannot be used to determine inside versus outside water consumption;
- how was the demand volume calculated? NSSWD is obliged to provide 2500 litres per day per connection when the actual usage is 500-700 litres per day;
- base buildout cannot be based on per capita usage and will need to be based on obliged demand to be accurate.

By general consent, the Salt Spring Island Watershed Protection Authority agreed to forward the Water Conservation and Demand Management Plan Project Progress Update presentation to the Steering Committee and the Technical Working Group and comments to be sent to RPM Cermak by March 4, 2016.

C. Leung left the meeting at 11:30 a.m.

7.6 Workplan 2016

Coordinator Cowan presented the SSIWPA Workplan 2016-2017.

By general consent, the Salt Spring Island Watershed Protection Authority agreed Coordinator Cowan would draft a workplan using the TWG Fastrack software.

7.7 Budget 2016 Revision

Coordinator Cowan presented the SSIWPA Adopted Budget Period: April 1, 2016 to March 31, 2017.

By general consent, the Salt Spring Island Watershed Protection Authority agreed Coordinator Cowan would amend the budget to reflect the \$8,500 surplus would be a projected expenditure for Riparian/Biodiversity resulting in a zero balanced budget.

By general consent, the Salt Spring Island Watershed Protection Authority approved the Budget for the Period: April 1, 2016 to March 31, 2017, as amended.

D. Green presented the CRD budgeting for SSIWPA projects 2016-17 and noted there are unspent funds due to less sampling and the refund on the water quality instrument.

It was noted Coordinator Cowan would follow up regarding signage.

7.8 Draft Annual Report 2015

Coordinator Cowan presented the Draft SSIWPA 2015 Annual Report. There was discussion and the following items were noted:

- to add draft to workplan;
- to change Saltspring to Salt Spring.

By general consent, the Salt Spring Island Watershed Protection Authority approved the SSIWPA 2015 Annual Report, as amended.

7.9 Test Survey Cusheon Watershed

7.9.1 Cusheon Watershed Pilot Survey and Letter

Coordinator Cowan presented an update and noted the pilot survey was sent to the Cusheon Lake Stewardship Committee on February 18, 2016. The results will be coded and analyzed and presented to the TWG in March 2016.

7.10 Correspondence

7.10.1 POLIS Capacity Building Workshop

7.10.2 Bob Sandford

7.10.3 Island Health TWG term is completed as of Feb 1, 2016 – C. Laughlin

7.10.4 Response to follow up by SSIWPA re: Cusheon Plankton Analysis Funding Support Request from M. Squires (November, 2015)

7.10.5 Emails exchanged with Member of the Public re: SSIWPA or LTC advocacy for Groundwater Regulations in new Water Sustainability Act

7.10.6 Coordinator's response to query by Mayor of Kimberley B.C., via Partnerships for Water Sustainability in B.C.

The correspondence items were received for information.

8. OTHER BUSINESS

8.1 Questions and Comments from Public

One member of the public questioned (1) Why only imperial gallons were used as a measurement in the Water Conservation and Demand Management Plan? (2) Has the consultant included residents that are withdrawing water from St. Mary Lake without a permit?

One member of the public suggested the Water Conservation and Demand Management Plan reflect that there is no surplus of water in a drought year and the wet season and dry season should be calculated separately and expressed concern that the report did not consider the proposed raising of the weir and calculations based on that scenario.

By general consent, the Salt Spring Island Watershed Protection Authority agreed to request the consultant to provide metric conversions in addition to imperial gallons in the Water Conservation and Demand Management Plan.

8.2 SML Celebration

Coordinator Cowan reported a lakeside resident has offered her property as a location for the SML Celebration event and the proposed date is June 19, 2016.

8.3 2016 Water Fair

The 2016 Water Fair is scheduled on March 13, 2016 at the Gulf Islands Secondary School and the Rainwater Home Tour is scheduled on March 12, 2016.

9. NEXT MEETING

By general consent, the Salt Spring Island Watershed Protection Authority agreed to change the meeting location from School District #64 meeting room to the CRD PARC portable.

It was noted Coordinator Cowan would reserve the CRD PARC portable for the March TWG meeting.

The next meeting is scheduled Friday March 18, 2016 10:30 a.m. to 1:00 p.m. - CRD PARC portable, 145 Vesuvius Bay Road.

10. ADJOURNMENT

By general consent the meeting adjourned at 12:15 p.m.

George Grams, Chair

CERTIFIED CORRECT:

Sarah Shugar, Recorder

Coordinator's Report February 15, 2016 – March 11, 2016

ACTION ITEMS from meetings:

Item 8.1 Feb 19 2016 – ACTION: **By general consent**, the Salt Spring Island Watershed Protection Authority agreed to request the consultant to provide metric conversions in addition to imperial gallons in the Water Conservation and Demand Management Plan. **In process**

Item 7.6.2 Jan 22 2016 ACTION SSIWPA: By general consent, the Salt Spring Island Watershed Protection Authority agreed Coordinator Cowan will draft a letter to St. Mary Lake Watershed residents clarifying the work of each of SSIWPA's respective agencies in the watershed. **In process** – *letter circulated to relevant agencies for input, draft in agenda package March 18.*

Item 7.8 – Add “draft” to workplan in annual report 2015. Change “Saltspring” to “Salt Spring” for consistency. Annual Report 2015 approved as amended. **Completed.**

Item 7.7 Feb 19 2016 - follow up regarding signage by Coordinator Cowan (at SML public beach). **In process** – Expense quote made, and sign content drafted by coordinator. Chair Grams assisting with design. CRD-PARC office assisting with review and approval process.

Item 7.7 Feb 19 2016 – ACTION: amend the budget to reflect the \$8,500 surplus would be a projected expenditure for Riparian/Biodiversity resulting in a zero balanced budget. **Completed – forwarded to Islands Trust Administrators.**

Item 7.6 Feb 19 2016 – ACTION: Coordinator Cowan would draft a workplan using the TWG Fastrack software. **In process**, updating current agreed workplan draft.

Item 7.5 Feb 19 2016 – ACTION: forward the Water Conservation and Demand Management Plan Project Progress Update presentation to the Steering Committee and the Technical Working Group and comments to be sent to RPM Cermak by March 4, 2016. **Completed by TWG.**

Item 7.3 Feb 19 2016 – ACTION: include an update regarding the Cusheon Watershed in the monthly Coordinator's Report. **Completed.**

Outstanding Actions from past meetings:

to develop the coordination of a Development Information Package that would include RAR, construction bylaws and DPA 7 (Coordinator Cowan) – **in process by coordinator**

to request Capital Regional Director McIntyre to contact the Capital Regional Building Inspection office regarding a pollution barrier requirement for development in Riparian Areas. – **correspondence on this item Feb 11 2016**

Meetings administration completed this period:

- Cancelled old meeting venue bookings
- Bookings for 4 meeting dates at CRD portable through to June 2016 inclusive.
- May 9 TWG still at SD64.
- Closed minutes Jan 22 2016 – created adopted version and sent for signature copy to Trust staff
- Regular minutes Jan 22 2016 – created adopted version, with amendment, and sent for signature copy to Trust staff
- Posted regular minutes online
- Sent draft regular meeting minutes to SSIWPA Steering Feb 29
- Sent draft closed meeting minutes to SSIWPA chair and planner, Feb 29
- Created March 18 Agenda
- Created coordinator's report
- Reported on March 8 workshop topics

Project actions completed this period:

- Preparation of presentation at March 8 POLIS workshop
- Sent TWG the OPUS report again for review
- Scheduled TWG – CLSC meeting later in March for survey review and mgmt. plan review
- Workplan updated with “draft”, and circulated in agenda, on web in annual report
- Communications and supply acquisition and planning for Water fair
- Supervision of subcontractor for water fair design, signage, postering, site map, communications with booth vendors and sponsors

- Workplan drafted, approved at meeting Feb 19 as ongoing draft
- Annual Report and budget – reconciles three fiscal periods in 2015 finance report
- Internal correspondence with NSSWD staff member regarding letters to coordinator
- Survey created and finalized ; Survey pilot sent to 27 CLSC members on Feb 18
- Sign: Sign request from CRD-PARC, and the query about design standards
- Obtained SSIWPA license for Project Management software, downloaded demo software
- Communications about sign quote for manufacture, etc.
- Report by Squires online with a cover page acknowledging the province
- Report on Algal Blooms in SML by Hodgins into pdf, online
- Created new updated display materials
- Printed new display board materials. Laminated
- Attended Webinar about water in media –Canadian Freshwater Alliance
- Obtained further information from CWPAC applicant
- Admin: Updated SSIWPA budget – amended sent to Steering Feb 22
- Sign request to CRD PARC for SML IWMP
- Sign budget quotes obtained
- Sign content emails with CRD PARC board
- Survey edits Feb 29 from people in pilot

Outreach actions completed this period:

Represented SSIWPA on Feb 24 and Feb 27 at Artspring lake art and science and public action event
Laminated signs for rainwater tour locations
Forwarded March 10 PICS event to all of SSIWPA
Drafted the SML sign content to direct design by Chair Grams
Communications with CRD PARC director Dan Ovington about standards for design and manufacture of sign to be posted on CRD-PARC public beach
Sign contractors contacted. TNT signs ready for content. Coordinator working on content standards with CRD – PARC board.
Prepared and delivered 10 minute presentation about SSIWPA projects and structure at the Capacity Building

Workshop March 8, 2016

Mailing list updated on our website

Published facebook public event page for Water Fair; cross-posted this to SSIWPA website and other facebook pages, and in the media (SS Exchange)

Posted Water Fair advertising and press releases in Island Tides (march 10), Exchange (March 4 article and advertising for a month) and Driftwood (March 2 and March 9 articles and photos)

Blog posts Feb 29, March 10 about water fair

Crisis management plan for water fair created and shared

Watermark March 11, 2016 created and sent

Activity	Management Action	Start Date	Finish Date	% Complete	Sept 15	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sept 16	Oct 16	Nov 16	Dec 16	Jan 17
1 Coordination, Funding, Admin		1/16/16	6/30/16	27%	THIS WORKPLAN IS DRAFT FOR DISCUSSION PURPOSES																
2 LCC/SSWPA project Conservation and Supply		2/1/16	5/31/16	0%																	
3 Governance/SSWPA HCTF for SML IWWP actions		1/1/16	3/4/16	0%																	
4 Custom survey and stewardship actions		1/1/16	3/31/16	100%																	
5 Budget CRO for 2016		1/1/16	3/31/16	100%																	
6 Tax Request on funding request for SSWPA		1/1/16	3/31/16	100%																	
7 Outreach and Watershed Stewardship		9/23/15	6/30/16	4%																	
8 Fall Fair		9/23/15	9/24/15	100%																	
9 Water Fair (incl. IWWP working action)		1/1/16	3/31/16	0%																	
10 MONDO		2/1/16	2/28/16	0%																	
11 SML - Three regional presentations scheduled by the SSWPA 2014-15 monitoring program. M. Squires		2/1/16	2/28/16	0%																	
12 SML Septic Final Presentation 2014-15. D. Hodgins		6/1/16	6/30/16	0%																	
13 SML Celebration at the lake		11/27/15	11/27/15	100%																	
14 Open house		2/29/16	2/29/16	93%																	
15 annual report		2/29/16	2/29/16	93%																	
16																					
17 St Marys Lake		9/23/15	10/31/16	7%																	
18 SSWPA IWWP Final and Printing		12/1/15	12/1/15	100%																	
19 Reporting RE/FBC, Bernhart Fdn, Pov Ministries		10/24/15	10/16/15	100%																	
20 Press Releases: DW, Van Island		9/24/15	10/16/15	100%																	
21 Public WVO sampling program presentation by Dr. Squires		10/24/15	10/24/15	100%																	
22 Stormwater monitoring TWG		10/26/15	3/31/16	0%																	
23 Septic: TWG		10/22/15	10/16/15	100%																	
24 Quality monitor: TWG, CRD, NISSWD		1/1/16	2/28/16	0%																	
25 BWP draft complete		2/1/16	4/29/16	0%																	
26 Survey - help to create BWHs brochure/education		10/4, 9, 13, 16	5/31/16	0%																	
27 HCTF Seed Grant May		3/1/16	5/31/16	0%																	
28 Workshops: March 13, another in Jul 2016		6/24/16	6/24/16	0%																	
29 Cowichan Trip Report (Sept 18)		9/28/15	10/24/15	100%																	
30 EFP Group workshop, SSWPA, David Tatham		10/4/15	10/4/15	100%																	
31 Sprague - CRD HCTF finding? May		3/1/16	10/31/16	0%																	
32 Committee meetings and coordination, event production																					
33 Kids for Creeks - Lake, Water Fair		9/23/15	10/24/15	100%																	
34 Septic - existing septic brochure education (final drafts, events)		9/23/15	9/23/15	100%																	
35 SML Survey - includes septic question		2/1/16	3/31/16	0%																	
36 Part of HCTF May grant		3/1/16	10/31/16	0%																	
37 Apply Grant HCTF for Maa 10, 16		2/2/16	2/29/16	0%																	
38 Evolution Grant applied in 2016 (implement 2017)		10/4, 15	3/31/16	0%																	
39 Keeping workshop: Halcyon Island		9/17/16	3/31/16	0%																	
40 POLIS Capacity Building Workshop		3/1/16	3/31/16	0%																	
41																					
42 TWG Reports		1/1/16	3/31/16	26%																	
43 Algae and phosphorus - Diagnostics		3/1/16	3/31/16	0%																	
44 Can Remediation alter algal blooms? M. Squires		1/1/16	12/31/16	100%																	
45																					
46 other...																					
47 Cushman Lake		9/18/15	1/31/17	5%																	
48 Review Cushman Management Plan 2007		1/23/15	12/31/16	0%																	
49 Identify Data Gaps in 2007 Plan		1/1/16	12/31/16	0%																	
50 Survey plot for BWHs and education info		11/23/15	12/31/16	0%																	
51 Creek monitoring liaison with independent scientists		9/23/15	12/31/17	0%																	
52 Custom public meeting, presentations to SSWPA		9/18/15	10/31/15	100%																	
53																					
54 Supply/Conservation		10/28/15	4/1/16	83%																	
55 SMOG problem identification, modelling project draft		10/28/15	4/1/16	0%																	
56 Steering committee expansion for groundwater expertise		11/9/15	3/31/16	0%																	



March, 2016

To: St. Mary Lake watershed residents,

This letter intends to clarify the current projects occurring in and about St. Mary Lake Watershed and to educate the public about all of them.

North Salt Spring Waterworks District

Project: Raising Duck Creek Weir (related weblink: <http://www.northsaltspringwaterworks.ca/st-mary-treatment-plant/raising-the-duck-creek-weir-on-st-mary-lake/>)

Summary: To secure an adequate and sustainable water supply for the District's ratepayers, which include nearly 50% of island residents, the hospital, schools, firehalls, parks, senior facilities and business core, the District intends to increase storage capacity on St. Mary Lake by raising the Duck Creek Weir by 30 cm (approximately 12") from 40.7 to 41.0m. A public (and individual) consultation and agreement process with lakeside property owners who will be directly affected by the project is currently underway. After completion of the consultation, and approval by the licensing Ministry, the final step of the project is to add 30cm of concrete to the top of the weir, effectively raising the lake level by 30cm.

Expected date of completion: late summer 2016

Contact: Ron Stepaniuk, ronstep@telus.net, 250-537-9902, North Salt Spring Waterworks District Manager

Islands Trust

Project: Water Conservation and Water Demand Management Plan for Salt Spring Island

Summary: On September 17, 2014, the North Salt Spring Waterworks District (NSSWD) announced postponement for consideration of applications requesting new water services from lots not already committed to through payment of Capital Expenditure Charge fees. The moratorium led the Local Trust Committee (LTC) to work with the Salt Spring Island Watershed Protection Authority and the NSSWD to seek options, within their authority, to address the seeming discrepancy between water supply and demand. Of note, the discrepancy is already shown in the Official Community Plan, which was last updated in 2008 in consultation with the NSSWD.

www.ssiwatersheds.ca

c/o SSI Islands Trust ~ 1-500- Lower Ganges Road, Salt Spring Island V8K 2N8
Coordinator Shannon Cowan ssiwpacoord@gmail.com 250-537-4847

DRAFT

In November 2015, the Local Trust Committee hired the services of OPUS DaytonKnight Consulting to develop a Water Conservation and Water Demand Management Plan for lots within the NSSWD. The main deliverables are to: 1) create an inventory of all of the known drinking water sources; 2) estimate water demand for full build-out of lands within the NSSWD based on a) consumption standards, b) actual metered data and c) current permitted uses in each zone; 3) recommend water conservation priorities, targets, measures and tools based on the study; and 4) recommend water demand measures the LTC could implement to reconcile water supply versus demand with priority given to densification of Ganges and the provision of affordable housing.

Date of expected completion and report publication: early April, 2016.

Contact: Stefan Cermak, scermak@islandstrust.bc.ca (Regional Planning Manager, Islands Trust Salt Spring Office 250-538-5608)

Salt Spring Island Watershed Protection Authority

Project: Implementation of the St. Mary Lake Integrated Watershed Management Plan 2015 (related weblinks: IWMP, see especially Table 6)

Summary: Management Actions described in the Plan, released in October 2015, are being implemented as follows below. If an action is in the plan and not mentioned here, it is either still in development, deferred, or not adopted by the SSIWPA for the 2016-17 workplan.

- 1) Stormwater Quality Monitoring - Lead Agency Capital Regional District partnering with SSIWPA Technical Working Group
Phase 1 End Date: April 2016; **Outcome:** final report to follow
Preliminary report November 2015 by D.O. Hodgins on behalf of Technical Working Group available at: http://library.ssiwatersheds.ca/?mdocs-posts=twg-report-st-mary-lk-runoff_dohodgins-september-2015.
Phase 2 - Pending interpretation of report.
- 2) Septic Nutrient Loading Verification Study – Lead Agency Capital Regional District partnering with SSIWPA Technical Working Group
End date: April 2016 **Outcome:** Final TWG report to be released.
- 3) Water Quality Monitoring – Lead Agency SSIWPA
Extra lake monitoring at fall overturn to confirm 2014 findings (this is in addition to regular monthly quality monitoring by NSSWD at specific sites and depths in the lake).
Start date postponed: October 2016, pending funding support for data collection and analysis.
Outcome: Final TWG Report comparing 2016 with 2014 lake water quality and nutrient concentration data.
- 4) Water Quality Best Management practices (BMPs) – Lead Agency SSIWPA
End Date: spring – summer 2016. **Outcome:** Web page created and reviewed.
- 5) **Public Survey about Water Quality and Quantity Improvement Activities** – Lead Agency SSIWPA
Please participate when this survey link is sent to the public in summer 2016!

DRAFT

For faster notification of the survey release, please sign up for the SSIWPA newsletter on our website: ssiwatersheds.ca in the bottom of the home page.

The action was expanded to be an island-wide survey, with emphasis on respondents residing in watersheds with drinking water lakes. This action also includes the action #11 in the plan, to do a baseline survey about septic pumping frequency, and to provide up to date education about septic system maintenance to septic system owners and users in the St. Mary lake watershed.

End Date: winter 2016. **Outcome:** Published results of survey. Use of survey findings to help guide SSIWPA and its member agencies, in development of educational programming, watershed management policy, and other relevant activities to the coordination and implementation of watershed management on Salt Spring Island.

- 6) Stewardship Workshops – Lead Agencies SSIWPA, CRD and Islands Trust
Dates of workshops: March 13, 2016 at Water Fair event, and TBA in Fall 2016.
Outcome: Independent formation of a St. Mary Lake Stewardship Committee, or Resident's Association to promote and assist with carrying out of some of the key workshop activities would be an added intended outcome of implementation of these workshops by SSIWPA member agencies for the public. Please give feedback on workshops at Water Fair and TBA workshops in Fall 2016.
- 7) Signage – Lead Agency SSIWPA, in partnership with CRD-PARC
End Date: May 2016 **Outcome:** water quality information signage installed at St. Mary Lake public beach.
- 8) Annual Water Fair – Lead agencies: SSIWPA, Water Council, and local retail sponsors and volunteers. (www.ssiwatercouncil.ca/fair)
Outcome: Event on March 12 and 13, 2016. To be repeated in 2017 in March, date TBA.
- 9) Youth Watershed Stewardship – Lead Agency – Other community groups and independent scientists working with the 'Kids for Creeks' program in School District 64 and other schools. **Outcome:** Stewardship learning and involvement across all ages, as demonstrated by student-led presentations at SSIWPA's Water Fair and other school events, as well as practice of best management practices in the watersheds.

Expected date of completion: to continue through 2017.

Contact: Coordinator Shannon Cowan (ssiwpacoord@gmail.com, 250-653-4867) or SSIWPA Chair George Grams (ssiwatersheds@icloud.com)

SSIWPA is a multi-stakeholder roundtable of government agency representatives and water district commissions whose main goal is to coordinate initiatives and actions for the protection of water quality and conservation of Salt Spring island water supplies, especially in those watersheds encompassing fresh water lakes. You can find much **more information about SSIWPA at: www.ssiwatersheds.ca.**

**Thank you for taking time to inform yourself of the different projects under way by several of the SSIWPA member agencies, and SSIWPA as a whole.
Please let us know if you have questions or comments!**

Salt Spring Island Watershed Protection Authority

Short presentation on formation, milestones and future goals

To: POLIS Capacity Building Workshop

By: SSIWPA Coordinator, Shannon Cowan

March 8, 2016

What?

Purpose of SSIWPA:

To cooperate on the development and implementation of policies and initiatives for improved raw water quality, and coordinated management of quantity of Salt Spring island water sources.

Why? And Where?

Salt Spring Island is currently not a municipality. It is an electoral district of the Capital Regional District and one of the Gulf Islands that is a member of the Islands Trust, which are both somewhat unique and rare systems of local government that overlap in certain aspects of watershed government and management.

To improve transparency and accountability, and due to some severe and prolonged toxic cyanobacterial algal blooms in St. Mary Lake, the SSI LTC voted in 2012 to re-structure watershed management and sought approval from Trust Council to establish an inter-governmental Steering Committee with the capacity to coordinate watershed management on Salt Spring Island.

Watersheds specs, and population on SSI:

An estimated 55% of the SSI community relies on surface water (lakes) for drinking water and the other 45% rely on groundwater from either individual property wells, or community shared wells administered by community water commissions. Some commissions are private water utility services (e.g. NSSWD which is one of the largest private utilities), and others are administered by CRD, with locals who sit on the commission in advisory roles.

There are 8 major freshwater lakes used as drinking water sources and 4 of them have both individual property-owner water withdrawal licenses, as well as licenses to water utilities and service areas who provide treatment and delivery services for raw lake water to residents on those systems.

Those water utility service areas draw from and manage four distinct watersheds. Except for one (Maxwell), the land in the watersheds is almost entirely privately-owned.

The four watersheds of interest are:

St. Mary lake (NSSWD and Fernwood-Highland Water District)
Maxwell lake (NSSWD)
Cusheon lake (Beddis Water District)
Weston lake (Fulford Water District)

And, because Salt Spring groundwater resources consist mainly of fractured bedrock, rather than large aquifers, health and supply in all of the watersheds and lakes also impact groundwater supply. SSIWPA is also concerned with coordinated study and management of the island's groundwater resources.

Other provincial ministries who uphold legislation related to aspects of watersheds have jurisdiction over aspects of watershed health on SSI, including:

- Ministry of Health
- Ministry of Environment
- Ministry of Forests, Lands and Natural Resource Operations
- Ministry of Community, Sport and Cultural Development (lakewater withdrawal licenses)
- Ministry of Transportation (ditches and road maintenance)
- Ministry of Agriculture and Lands (to a small extent)
- Federal Fisheries and Oceans Canada

Who?

Political organization of SSIWPA:

Steering Committee is the decision-making body, consisting of a representative of each member agency. Decisions are made by consensus. Steering Committee is administered by a full time Coordinator, whose contract is administered by Islands Trust, and whose duties include serving all agencies that comprise SSIWPA.

Member agencies:

Current SC: Islands Trust, CRD, FLNRO, Fernwood-Highland Water Service Area (CRD), North Salt Spring Water Service Area, and Beddis Water Service Area (CRD)

Past members 2013-2015: Ministry of Health, Island Health, Ministry of Environment

At any time, one or more technical working groups and public advisory committees may be formed to advise Steering Committee about scientific and community values, respectively. All working groups are chaired and administered by the SSIWPA Coordinator.

Current TWG member agencies: CRD Integrated Watersheds Program, Ministry of Environment (Groundwater Hydrology, Victoria), 7 members at large who are professional scientists

Past TWG member agencies: Island Health (Environmental Health Officer), and MOE (Provincial Water Quality Division, Nanaimo)

Areas of expertise: hydrogeology and geology, engineering, water chemistry, forest sciences, soil sciences, zoology, biology

SSIWPA Project Milestones and Future Goals:

Project: Main

Goals:

- To administer a coordination role for watershed management by local, regional and provincial government agencies, as well as meaningful public consultation and participation in watershed management planning and implementation by non-governmental groups and members of the public.
- To increase the workload capacity and scope of the Authority through sourcing grants and outside funds to supplement the tax requisition.

Milestones:

- Formation December 2012, research on correct organizational model by Islands Trust CAO Linda Adams
- June 2013 – unprecedented delegated powers awarded by Islands Trust Council to permit Local Trust Committee to undertake coordination role of the several agencies in regard to coordinated co-management of water, land use and other watershed resources.
- Nov 2013 – Sept 2015 Technical Advisory Committee established

- February 2015: Added groundwater and surface water quantity to the SSIWPA mission statement.
- Nov 2015: Technical Working Group membership changes (2 remain, 7 new)

Project: Watershed #1: St Mary Lake

Goals: To preserve and protect ecological functions of St. Mary Lake watershed that impact raw water quality, to maintain and enhance water-based recreation, to provide cost-effective and equitable solutions to water quality issues (such as cyanotoxins, algal blooms).

- Watershed area: 645 ha, lake surface area 182 ha, volume 16,000 dam³
- Outflow stream (Duck Creek) is salmon-bearing
- June 2014 – October 2015: REFBC Grant for SDM Process awarded
- July 2014 – July 2015 (And extension to spring 2016): SML Monitoring Program (enhanced water quality parameters, stormwater nutrient input and flow, septic nutrient input, plankton assessment) – see reports and public presentations list Appendix 1
- Sept 2014: Compass Resource Management appointed for SDM process
- November 2014 – October 2015: SDM Process for St. Mary Lake (multiple stakeholder voices as part of the process to design a strategy for improvement to respond to project objectives; inspire broad public support and engagement)
- SML Public Advisory Committee November 2014 – July 2015 (and reconvene as necessary for feedback on implementation and review of IWMP)
- October 2014 – current: Moratorium on new water connections within NSSWD (includes 2500 connections, and raw water sourced from both SML and Maxwell)
- Sept 2015 - riparian area restoration, and stewardship group research field trip with Lake Cowichan partners
- October 2015: SML IWMP publication and adoption

IWMP - Major findings:

- minimal septic phosphorus inputs,
- greater than estimated runoff from watershed P inputs,
- unclear P release from sediments at turnover but likely less than previously published values, no constant increase in P over time despite great fluctuations year to year, and seasonally

Planned Actions:

- Coordinated IWMP implementation November 2015 – spring 2017
- Review every 2-5 years, or as needed
- see IWMP actions and measures Appendix 2

Project: Watershed #2: Cusheon Lake (and Roberts Lake and Blackburn Lake)

Goals: To restore and protect sources of water in Cusheon Lake watershed (reduced algal bloom negative effects, reasonable treatment for potable water, improvement to fish and wildlife habitat; to reduce phosphorus loading annually from 117kg to 100kg)

Plan obj:

1. Define and map Cusheon's watershed, its land uses, creeks, wetlands and the status of riparian

vegetation.

2. Undertake a scientific analysis of the phosphorus sources in the watershed.

3. Reduce inputs of phosphorus from land management activities.

4. Reduce inputs of phosphorus from water management activities.

5. Monitor springtime concentrations of phosphorus.

Specs:

- watershed area = 1065 ha, 3 lakes and numerous feeder creeks and streams, C lake area = 26.9 ha
- outflow Cusheon Creek is salmon-bearing - increased stormwater flow from land development and climate change causes destructive peak flows that damage spawning beds; fish ladders built in 1990s; MOE covenant on the outflow stream and the stream between lakes 2-3 in the watershed.

Milestones:

- CW Community meeting September 2015 – science, technical and environmental groups such as the Salmon Enhancement Group (like a local streamkeepers) presented to SSIWPA to start the process of a review of the 2007 Management plan for this watershed.
- January – April 2016: TWG working on review and recommendations

Planned Actions:

Integrated Management Planning, multistakeholder process of review of existing plan and outcomes of last six years of actions.

Watershed survey to determine how residents use and treat groundwater and lake water, for potable and non-potable uses, as well as to determine the best management practices that are in place for land use and water resource conservation strategies in order to update and

implement the watershed management plan for the area. To test Outcomes of the last 6 years of action to meet 2007 Plan Objective 3 “reduce inputs of P from land mgmt. activities”.

Project #3: Island-wide supply and demand (ground and surface water) for human use (commercial, residential, agricultural, etc.)

Goals:

Document current groundwater knowledge and assess hydrological models as applied to both surface and groundwater.

Determine how to incorporate climate change into water quantity assessment and prediction.

Planned Actions:

- Same survey to go island-wide
- TWG study of provincial wells database and other sources

Media and Outreach milestones:

Fall Fair booth 2014

Fall Fair booth 2015

Earth Day 2014

Water Fair 2015 – World Water Day in March

Water Fair 2016 - World Water Day in March

St. Mary Lake Integrated Watershed management public participation – 8 public events
summer 2015

Gulf Islands Driftwood newspaper – an average of an article per month, or more, on activities, research, outreach, education, and water issues on the island since inception of SSIWPA.

Partnership of Water Sustainability in BC - January 2016 article

Funders:

Islands Trust

Capital Regional District

Island Health

BC Real Estate Foundation

Province of British Columbia

Philip and Muriel Berman Foundation via Vancouver Foundation

Other stakeholders

Conservation Interests and Non-Governmental Organizations

Salt Spring Island Conservancy promotes the protection of the sources of potable water on Salt Spring Island for the benefit of the general public through the preservation and restoration of watershed lands, by supporting scientific research into water resources and by providing public information on how to protect Salt Spring's potable water resources.

Salt Spring Island Stream and Salmon Enhancement Society has an interest in the protection of fish-bearing streams, riparian areas, wetlands and the removal of invasive species in riparian areas.

SSISSES has already conducted a salmonid enhancement project in Duck Creek, as well as wetland restoration surveys of other watercourses in SML watershed (Reimer, 2003).

Salt Spring Island Water Preservation Society is a non-profit organization founded in 1982 to protect Salt Spring Islands' drinking water sources. SSIWPS owns and manages a 110 hectare watershed preserve on the western slopes above St. Mary Lake, and thus is likely one of the largest land owners within the SML watershed.

Salt Spring Island Water Council is a forum for sharing information on the quantity and quality of Salt Spring's surface and groundwater resources, including research and education about potable water quality and supply issues and related programs.

More from Terms of Reference:

Guiding Principles

- To consider the interrelationships of the various values of the watershed towards maintaining a balance of the natural, cultural, social and economic values of the community;
 - to establish and respect the ecological limits of surface water and ground water watersheds;
 - to use a consensus-based decision-making model;
 - to ensure that all discussions and dialogue promote a proactive, respectful and cooperative approach towards all issues;
 - to respect each participant's commitment to professional associations or responsibilities to individual employers or self;
 - to consult and engage the community in stewardship initiatives;
 - to include all stakeholders that wish to be involved;
 - to operate in an open, transparent and accountable manner
- decisions made by SSIWPA are non-binding on any member agencies.

Aims and Objectives

- To develop and update Watershed Management Plans for Salt Spring Island with the purpose of improving source water quality and to manage quantity;

- to integrate policy development and implement strategies that will lead to the long-term health, protection and stewardship of fresh water resources;
- to remediate surface water quality and address root causes of watershed ecosystem decline;
- to determine sustainable water quantity limits to allow agencies to undertake integrated community planning that respects those limits
- to cooperate with other agencies and groups having jurisdiction or interests within the Salt Spring Island Local Trust Area watersheds;
- to draw on the expertise and experience of groups and individuals that have a history of working to protect and restore Salt Spring Island's water resources;
- to engage the community in consultation processes that enable consideration of proposed actions according to multiple values and objectives;
- to provide advice to other agencies or groups where appropriate;
- to support outreach and education that enhances and encourages watershed care and protection and to increase understanding of water science, stewardship and management activities;
- to seek funding for priority actions.

Scope and Geographical Areas

The capacity of SSIWPA and its ability to be effective is linked to time and resources. Initially, SSIWPA will focus its efforts on protection of the St. Mary Lake watershed and remediation of the raw water quality in St. Mary Lake. Details of the St. Mary Lake Watershed are attached in schedule A.

SSIWPA Research References for St. Mary Lake Monitoring 2014-15
Updated March 7, 2016

Please see library.ssiwatersheds.ca for many more references.

Hodgins, D.O. February 2016. DRAFT FOR DISCUSSION ONLY. "Assessment of Phosphorus Inputs to St. Mary Lake from Septic Systems". (When final, will replace next item).

Hodgins, D. O. 2015. (July) *Update on the assessment of phosphorus inputs to St. Mary Lake from septic systems. A report prepared for Salt Spring Island Watershed Protection Authority Technical Advisory Committee.* (Available at: <http://library.ssiwatersheds.ca/?mdocs-posts=septic-results-st-mary-lake-july-2015-summary>)

Hodgins, D.O. 2015. *Water Balance Analysis of St. Mary Lake, B.C. A report submitted to Salt Spring Island Watershed Protection Authority, October, 2015.* (<http://library.ssiwatersheds.ca/?mdocs-posts=water-balance-analysis-of-st-mary-lake-bc>)

Hodgins, D.O. 2015. Preliminary estimates for stormwater phosphorus loads to St. Mary Lake, British Columbia. *A report submitted to Salt Spring Island Watershed Protection Authority, November 2015.* (http://library.ssiwatersheds.ca/?mdocs-posts=twg-report-st-mary-lk-runoff_dohodgins-september-2015)

Sprague, J. B. 2015. *St. Mary Lake Dynamics. A report prepared for Salt Spring Island Watershed Protection Authority, August, 2015.* (http://library.ssiwatersheds.ca/?mdocs-posts=st-mary-lake-dynamics_jbsprague-august-2015)

Squires, M. and TAC colleagues. 2015. P-Internal Brief. "SSIWPA-TAC is at work to understand in-lake phosphorus sources". 6 Jan 2015.

Squires, M. 2016. *Can biomanipulation reduce algal biomass in St. Mary Lake. An assessment of trophic levels & potential interactions in the context of physical, chemical and biological regimes in St. Mary Lake, Salt Spring Island, British Columbia. A report submitted to Salt Spring Island Watershed Protection Authority January 16, 2016.* SSIWPA acknowledges financial support from the province for this project. (http://library.ssiwatersheds.ca/?mdocs-posts=can-biomanipulation-reduce-algal-biomass-in-st-mary-lake_squires-2015)

Technical Advisory Committee to SSIWPA. *Field Study Proposal for St. Mary Lake Monitoring Program 2014-15.* Public Summary March 2014.

Technical Advisory Committee to SSIWPA. *Septic Load Estimate at St. Mary Lake.* Public Report of the SSIWPA TAC. August 2014.

SSIWPA Research References for St. Mary Lake Monitoring 2014-15 Updated March 7, 2016

Presentations:

Hodgins, D.O. "Update on phosphorus input to St. Mary Lake from Septic Systems: A Synopsis". Presentation given to the public, hosted by SSIWPA. July 7, 2015.

Squires, M. "St. Mary Lake: Three Common Perceptions Challenged by the SSI Watershed Protection Authority's 2014-15 Sampling Program". A public presentation hosted by SSIWPA, 7 October 2015. Presentation slides.

Other reports preceding (and replaced by) those listed in the top list:

Hodgins, D.O. "Update of Septic Loading to St. Mary Lake: A Summary Report." April 2014. A report of the SSIWPA TAC.

Previous research on St. Mary Lake watershed, before SSIWPA:

Nordin, R.N., C.J.P. McKean and W.J. Wiens. 1983. *St. Mary Lake Water Quality: 1979-1981*. Province of British Columbia, Ministry of Environment, Victoria, B.C. Report 120. [File 64.080302]

....

And others. Please see online library at library.ssiwatersheds.ca.

SSIWPA Research References for St. Mary Lake Monitoring 2014-15 Updated March 7, 2016

Related publications by researchers associated with SSIWPA that were not part of the TAC, or TWG publication agreements.

Hodgins, D.O. 2015. Drought Analysis and Implications for Salt Spring Island, British Columbia. November 21, 2015.

Squires, M. "St. Mary Lake: Three Common Perceptions Challenged by the SSI Watershed Protection Authority's 2014-15 Sampling Program: A synopsis of 2014-15 In-lake Studies at St. Mary Lake and Implications for Interpretation of the Long Term Phosphorus Record." October 7 2015.

Integrated Watershed Management Plan

Table 6. Management Actions and Implementation Measures

Action	Dates	Lead Agencies	Measure of Success
1 Stormwater Quality Monitoring Phase 1: Inventory	October 2015 - April 2016	SSIWPA CRD	P load in stormwater from major sources; identification of hotspots that exceed avg load
2 Verification of Septic Nutrients - SSIWPA TAC research study	November 2015 - Spring 2016	SSIWPA CRD	Verify evidence that septic load to groundwater entering lake from 3 representative septic fields is nil. Confirm that P does not reach the lake using dye tracer.
3 Water Quality Monitoring	October 2015 - April 2016	SSIWPA	Improve understanding of the amount of P loaded into the lake at overturn and of the re-complexation and sedimentation of P with Fe after overturn.
4 Water Quality Best Management Practices (BMPs)	Fall 2015 (deferred)	SSIWPA	Web page created and reviewed
5 Survey of Quality / Quantity Improvement Activities by St. Mary Lake Residents & Property Owners	Fall - Winter 2015 - 2016	SSIWPA	Public results of community action survey; Web page created and reviewed.
6 Watershed Stewardship Workshops [Shoreline stewardship, water quality and resiliency, others]	Fall - Winter 2015 - 2016	SSIWPA CRD Islands Trust	Feedback by community received for at least 2 workshops or field trips before Fall 2016. SML stewardship actions that relate to workshop(s) are evident.
7 Environmental Farm Plan (EFP) - Group Plan Island-wide workshop	Spring 2016	SSIWPA SSIA ARDCorp	A group of farmers in a watershed undertakes application for EFP to receive funding assistance from the program; BMPs related to runoff implemented within 3-5 years of application.
8 Install Water Quality Information Signage	Fall 2015 - Winter 2016	SSIWPA	Signage installed at SML public beach Signage Winter 2016access points; brochures disseminated
9 Island-wide Water Fair (annual)	Spring 2016	SSIWPA, WPS WC, local sponsors	>200 participants in second annual Water Fair.

Integrated Watershed Management Plan

Action	Dates	Lead Agencies	Measure of Success
10 Youth Watershed Stewardship Education [partner with existing programs]	2015-16 (ongoing)	SSIWPA WPS WC	Watershed expertise and coordination added to youth programs about watershed stewardship; more than 1000 youth/children reached.
11 Residential Septic Maintenance Education in SML [with existing materials]	Winter 2015 start	SSIWPA CRD	Baseline survey to establish septic pump out frequency in 2015 (follow-up in 3 years)
12 Biodiversity Inventory at SML	2016 - 17	SSIWPA CRD other local organizations	Create GIS habitat maps (focus on rare, endangered, invasive, including fish); management planning for invasives; measure community volunteers and engagement.
13 Watershed Stewardship Grant Writing Assistance	Fall 2015 ongoing	SSIWPA (in kind)	Grants received for water stewardship programs by SSI groups.
<i>The following actions or research will only be implemented pending necessity, funding and/or partnering with agencies outside of SSIWPA</i>			
14 SML Sediment Pore Water Profiling	1 year	SSIWPA (unconfirmed)	Confirmation that iron is major mechanism to sequester P in sediment; quantification of P sequestered within sediment over time.
15 Stormwater Quality Monitoring Phase 2: Design	2017 or later	CRD (unconfirmed)	Design of stormwater capital works; agreements for implementation of designs with landowners in place.
16 Subsidized Permaculture Water Management Program (Island-wide)	2016 or later contingent on SSIAA involvement	Unconfirmed	Landowners with potential for nutrient-rich runoff in watersheds implement keyline design on their properties
17 Farm Water Planning Toolkits – (SML Pilot)	2016 or later contingent on SSIAA involvement	Unconfirmed	Farm Water Management Program Pilot implemented (SML watershed properties only)

Letter from "Member of the Public" received February 27 2016

Hello George,

I write to you both as an LTC and SSIWPA member. Two items of note:

1. John Sprague's feb. 24 'In Depth' piece in the Driftwood : '**A Chance to Improve St. Mary's Lake**'. Find out why the aerators failed and if possible remedy the situation. The evidence provided by John deserve full critical public response, and coupled to it the question of who is responsible for paying the cost of operating aerators. I agree with John, it should not be the NSSWD.
2. BC Hydro's public notice, **Power Pole Test & Treat, Gulf Islands**, in the feb. 24 Driftwood. It notes that the wood preservatives used meet Health Canada requirements, and certified & licenced by the BC Ministry of Environment, and work is performed under Hydro's direction with Hydro's Pest Management Plan for Wood Structure Maintenance.

I request that Shannon review and report on that plan, Hydro's contracted management of its direction, the chemical composition of the preservatives to be used, and location of any poles within watersheds or riparian zones. Two years ago Hydro's contractor for right of way line clearance removed entire trees off private property which only required pruning. This happened near my residence and Hydro, 2 years later, agreed to compensate. In short, be aware, and Hydro too, be aware.

Response from SSIWPA Chair:

Thanks We'll include your correspondence in the next SSIWPA agenda package.

George Grams

6.10.2 Technical Working Group

New Member Announcement

Received by telephone

Tuesday March 15, 2016 from Steering Committee member Pat Lapcevic

Pat Lapcevic has asked a member of her team at Ministry of Forests Lands and Natural Resource Operations to join the SSIWPA TWG.

Sylvia Barroso has accepted the request. Sylvia is a hydrogeologist with 10 years experience in the Ministry and relevant work in the area.

Coordinator Cowan will correspond with Sylvia and arrange for her to join the next TWG informal meeting to meet other members. Coordinator Cowan with assistance from TWG Co-Chairs will bring Sylvia up to speed on the priority work items for TWG, with emphasis on items that Sylvia might be able to help with/review.

SSIWPA Monthly Meeting Addendum

Friday March 18, 2016

Item 6.7.1

Please see attached Survey Questions, as they have been revised.

Update on Item 7.7 from February 19, 2016: SML Sign **see attached draft sign design**

- simple, shortened, vivid language and readable messages

Purpose:

The sign educates the public about

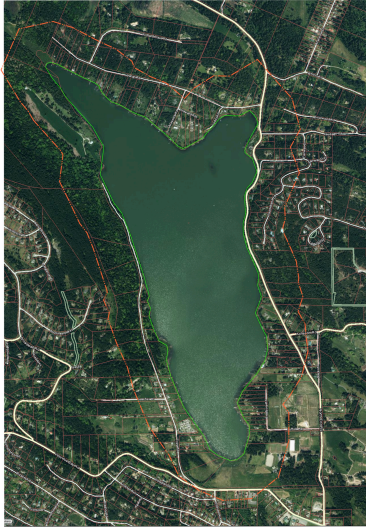
- what land and water is included in the SML watershed - graphic
- traditional Quwutsu'un name for the place "Tle Tlem Xaats'a" (means Salt Lake)
- common name for the lake and the place, identify this place as a culturally-important place, and largest lake in the Gulf Islands (important features: drinking water, recreation, environmental values as an ecological system encompassing humans and wildlife, aesthetic and spiritual values, and economic values)
- key ecological process in the lake that influences water quality (algal blooms) - summer and winter graphic adapted from M Squires
- what recreational and public behaviours are helpful

What this sign will not do:

- identify specific biological species of note (such as the thulie, or the aquatic reed plants (*Juncus* sp.) that were used traditionally and historically by First Nations as materials for weaving mats, or other native or invasive species of algae, plants, birds or other animals).
- offer evidence about the weir or ecological changes as a result of any potential weir height changes
- indicate specific watershed management policy or actions

Note: Map attached will replace the aerial photo of SML, in the final sign. Comments welcome.

Draft for Discussion



St. Mary Lake "Tle Tlem Xaat'sa"

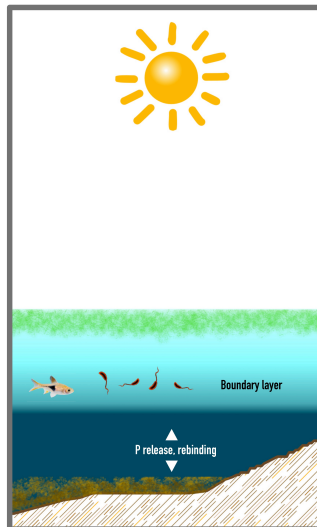
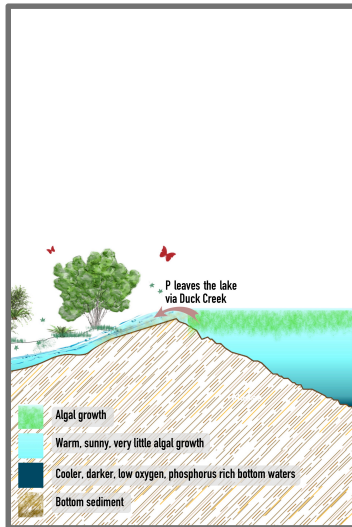
The largest freshwater lake in the Gulf Islands

The lake and its surrounding watershed landscape are connected: they act as a living sponge to filter, collect, store and recycle water and nutrients. It is home to a diverse abundance of plants, animals and microscopic life.

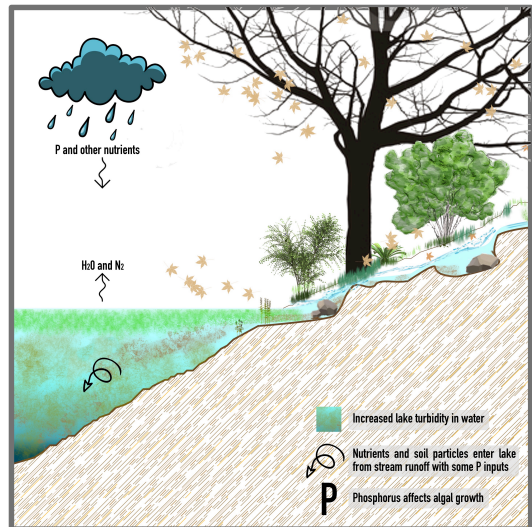
Historically, this watershed is a special place, revered by indigenous and colonial cultures alike. Today, it is the source of drinking water for many islanders and visitors, and a delicate ecosystem that deserves our respect and protection.

	
<p>Visitors:</p> 	
<p>Homeowners:</p> <p>Use rainwater for outdoor non-potable uses.</p> <p>Maintain/restore native plants, shrubs and trees in riparian zones (10-20m next to the shoreline).</p> <p>Restrict lawn to less sloped areas away from shore.</p> <p>Halt soil erosion into ditches and streams.</p> <p>Conduct regular septic system inspection and maintenance.</p>	   

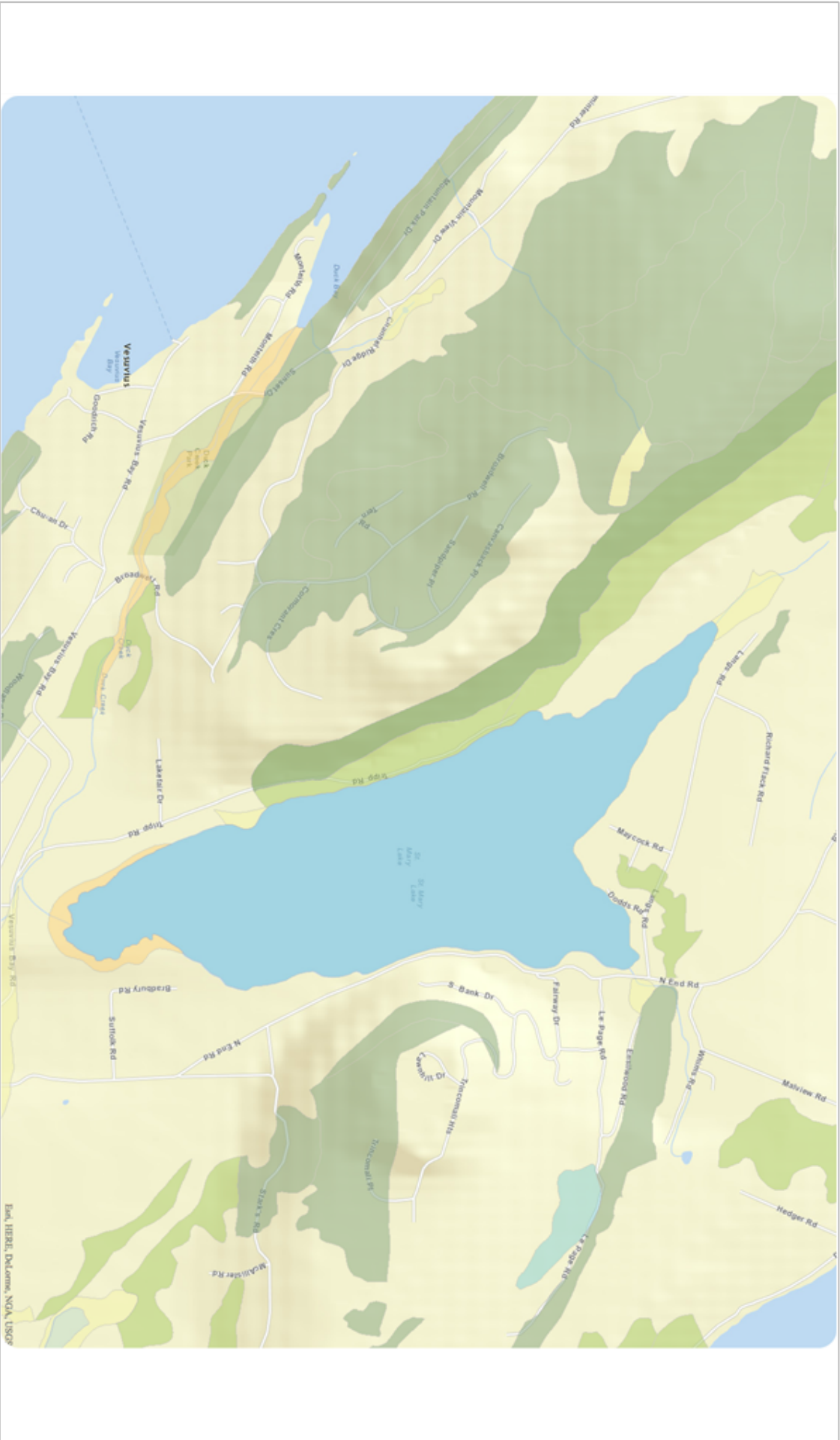
Summer - Clear Water Phase



Winter - Turbid Water Phase



Seasonal Nutrient Cycles Explained



MAPIT

Islands Trust
 Mapping Department
 250-405-5151
 mapit@islandstrust.bc.ca
<http://www.islandstrust.bc.ca>

Draft for Discussion

Print Date: 2016-03-05 13:04:38



Islands Trust

This product is for reference purposes and may not have been prepared for, or be suitable for legal, engineering, surveying or navigation purposes. Users interested in these applications should review or consult primary data and information sources.

This survey of Cusheon Watershed residents will serve as a pilot; later in 2016 to be island-wide

Purpose: The survey is intended to collect information about how residents use and treat groundwater and lake water (quantity, quality data). It also aims to determine which “Best Management Practices” regarding land use and water resource conservation are well understood (and in practice), and which require more public education and, possibly, legislative support. If the response rate is statistically significant, information gathered will assist the Cusheon Lake Stewardship Committee and the Salt Spring Island Watershed Protection Authority to estimate and take action on actual information gaps and needs in this particular watershed.

Survey responses are anonymous. You are not required to provide name or address or contact information, and your responses will not be attached in any way to you, personally. The results of the survey will not be used for enforcement of any bylaws.

Please answer the survey only once per household. Reliance upon these data to make decisions about watershed management actions requires the survey-makers to assume that you will please answer ALL of the survey questions that pertain to your situation.

If you own/rent more than one property in the watershed, please fill out a survey for each.

1. Please select the one that is most correct for your situation:

- I am the owner or co-owner of the property for which I am answering this survey, and I occupy the premises year-round.
- I am the owner or co-owner of the property for which I am answering this survey, and I occupy the premises part-time. If you select this answer, please note the number of weeks per year that you occupy the premises, on average.
- I am renting the property for which I am answering this survey.

2. How many people currently live in your household?

3. What is your source of drinking water? Check all that apply.

- A well (groundwater)
- Lakewater – direct, licensed to my property
- Beddis Water Service Area

Other (please specify)

4. If you personally treat your own drinking water, please check all that apply:

Potable water used in my household (cooking, drinking, dishwashing) is

- Filtered and treated with chlorine
- Filtered only (e.g. sand filter)
- Filtered and treated with UV light
- Filtered by reverse osmosis
- I only use community water (provided by Water District/Service Area)

Other (please specify)

5. Do you practise rainwater harvesting and use?

6. If you answered no, for question immediately above this one, do you plan to harvest rainwater next year?

7. Domestic use. Do you use untreated water for indoor non-potable uses (e.g. laundry, toilets)?

8. Domestic use. Do you use any untreated water (such as non-chlorinated) for outdoor non-potable uses? (e.g. garden or lawn watering, washing structures/vehicles)

9. Conservation in the home. Please check all that apply:

- we have a rainwater harvesting system for outdoor non-potable uses
- we have only low-flush toilet(s)
- we have only low-flow shower head(s)
- we have some/one low-flush, and some/one conventional volume toilets
- we use shower timer during droughts
- we re-use greywater for toilet flushing using a system built to Code

Other (please specify)

10. Non-domestic uses of water. Please check all that apply (click the drop down menu arrows to the right of the box below, then select none, one or more than one): I have....

If you clicked any of the above options, please indicate the type of business operation briefly in the comment box below (e.g. irrigation of hay, watering animals, cheese-making, etc.).

11. Daily non-domestic use: If you checked yes for any non-domestic uses above, please indicate the best approximation of your average daily water usage for all of the above combined that apply to your household. (Please do include seasonal variation when calculating annually to come up with a daily average over the year)

- Less than 4L/day (1.06 USGal/d), up to 1.5 m3/y (397 USGal/y)
- 4 - 200 L/d (1.1-52.83 USGal/d or 0.2 m3/d), 1.46 – 73 m3/y (386.75 -19285 USGal/y)
- 201-1000 L/d (0.2 – 1 m3/d, 52.83 – 264.17 USGal/d), 73.3 – 365 m3/y (19,647 – 96,422 USGal/y)
- More than 1000L/d (> 1m3/d.), >365 m3/y (> 96,423 USGal/y)

Other (please specify)

12. Do you have a government license for water removal from a lake or pond?

If so, what is the rate of removal on your license?

13. If you have a farm business operation, do you have Environmental Farm Plan status?

Policy and Land Use

14. Do you know your property's land use zoning classification?

Other (please specify)

15. Do you abide by the land use restrictions for your property's zoning?

16. If your property falls into Development Permit Area 7, do you follow riparian area regulations (Bylaw 480) (i.e. conservation practices within 30m of watercourses and ditches, and/or a making a successful qualifying development proposal for any development on land in that 30m zone).

17. Please check all that apply to describe your situation

- Part or all of my property is covered by or abuts land that is covered by Development Permit Area 7 (Riparian Areas) and I follow provisions in the Salt Spring Island Official Community Plan Bylaw 355 when applying any land-use, vegetation, water management, or building modifications to my property.
- Part or all of the land on my property falls into Development Permit Area 4 (Lakes, Streams, Wetlands) and I follow provisions in the Salt Spring Island Official Community Plan Bylaw 355 when applying any land-use, vegetation, water management, or building modifications to my property.
- I don't know whether any land on my property falls into DPA 7 or DPA 4, at this time.

18. Do you have a government license for water removal from a lake or pond?

- Yes
- No

If so, please indicate 1) maximum rate of removal (indicated in your license), 2) your average rate of removal on the same, and 3) whether it is for irrigation.

19. If you have streams, ponds or wetlands on your property, please indicate any of the following uses that apply:

- irrigation of gardens, hay or ground crops
- irrigation of animals
- water retention to assist with slowing and spreading runoff
- seasonally filling cisterns for domestic, non-potable uses
- natural environmental values such as wildlife habitat
- aesthetic purposes
- Other - Please specify, and include any commercial uses.

20. Do pond(s) dry up in the summer on your property?

Other (please specify)

21. Please check all that apply about stream(s) or water in ditches that cross your property:

- It/they fill a pond on my property.
- Surface water runs off the property.
- Water runs year-round.
- Water flows in winter wet season only.
- not applicable

Other (please specify)

22. Please select any of the following images that best illustrate the state of erosion on part(s) of your property.

- stream running with little erosion
- stream to lake erosion with no vegetation
- ditch water with eroded sediments visible
- pond or lakeshore with healthy vegetation

23. Septic wastewater treatment: Check all that apply.

- I know where my septic tank and field are located.
- I follow guidelines for septic tank maintenance (e.g. make observations, and professional inspection & pump out every 2-5 yrs).
- I have an effluent filter on my septic tank's discharge.
- My property is serviced by municipal wastewater treatment.

If you selected the last point, are you willing to give SSIWPA your postal code? If yes, please do so here.

Water Quality

24. Are you aware of activities that cause nutrients like phosphorus and nitrogen to enter surface waterways on or near your property (e.g. soil erosion, vegetation removal, movement of nutrients in rain or soil-water from human and animal waste)?

25. Are you aware that nutrient-loading of ditches, streams and lakes affects the presence of algal and cyanobacterial blooms, which can result in cyanotoxins that are detrimental to human and animal health?

26. Do you notice livestock watering at streams, ditches or lakes, or any other agricultural impacts on surface water and groundwater resources in your area?

Comment:

27. If applicable, how do you ensure that nutrients from any poultry or livestock manures and chemical fertilizers are kept from surface waterways in your area?

28. We acknowledge the property-owner's right to make decisions about cutting and use of trees and wood resources on their property. How do you manage your property to demonstrate that trees and shrubs are essential for soil stability, nutrient-retention and pollution reduction?

29. Do you have any of these invasive plants on your property or in nearby waterways? If yes, please contact Cusheon Lake Stewardship Committee for assistance with their removal.

- scotch broom invasive shrub
- Yellow flag iris invasive aquatic and wetland plant
- fragrant water lily - an invasive European version of the native water lily.

Other (please specify)

30. Summer droughts increase risk of wildfires. Do you carry out the following Fire Smart activities? Please select all that apply:

If you answered yes to any or all of the above, would you please comment about the location of FireSmart trimming or removal activities, with reference to any watercourses on your property?

31. If you would like to sign the answers you provided, please provide your information below. This is not a requirement, and is entirely optional.

Name

Company

Address

Address 2

City/Town

State/Province

ZIP/Postal Code

Country

Email Address

Phone Number

Thank you for your time and energy to complete the survey!

Shannon Cowan on behalf of Salt Spring Island Watershed Protection Authority (<http://ssiwatersheds.ca>)