



Salt Spring Island Watershed Protection Authority

Regular Meeting Draft Agenda

Date of Meeting: Friday January 20th, 2017 10:00 am - 1:00 pm

Location: All Saints by the Sea, 110 Park Dr., Salt Spring Island, B.C.

1. CALL TO ORDER

2. APPROVAL OF AGENDA

3. MINUTES

- 3.1 Draft minutes of the November 25, 2016 Regular meeting of SSIWPA Steering Committee – for approval

4. BUSINESS ITEMS

- 4.1 “How do the parts of SSIWPA fit together?: A Terms of Reference refresher” - Planner J. Starke
- 4.2 **Chair’s report** - G. Grams
- 4.3 **St. Mary Lake water quality update** – NSSWD Board Representative (R. Stepaniuk)
- 4.4 **Cusheon Lake water quality update** – Beddis Water Commissioner (D. Hewitt)
- 4.5 **Coordinator’s report** – *attached*
- 4.6 **Technical Working Group update** – TWG Co-Chair (D. Hodgins)
- 4.7 **Conservation and Efficiency Working Group update** - CEWG Chair (S. Ungerson)
- 4.8 **Annual Report 2016 Final** - *attached*
- 4.9 **Election of SSIWPA Chair** - (Coordinator)
- (see next page)

4.10 Steering Committee Membership Discussion

Groundwater-based improvement districts / community well boards

4.11 Workplan Drafts - three items

4.11.1 **SSIWPA Draft Workplan 2017** - attached includes all items in both working group workplans, as related to IWM objectives

4.11.2 **TWG Workplan - 2017-18 Draft** for approval - attached

4.11.3 **CEWG Workplan Draft** for approval - attached

4.12 Comment on Islands Trust Water Specialist Position Draft Description - see attached

Request for each agency - comment on attached background from Chair Grams and pages 5 and 7 of the RFD

4.13 SSIWPA Outreach 2017 - draft plan attached for discussion

4.14 Correspondence

4.14.1 SSIWPA Chair's invitation to regional agrologist - attached

and reply - attached

4.14.2 Solid Waste Management Presentation Summary by CRD. 24-11-16 - attached

5. OTHER BUSINESS

5.1 Questions and Comments from Public

6. CLOSED MEETING RESOLUTION

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.

7. 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.

8. UPCOMING MEETING Friday, February 17, 2017 at 10:30 am
 @ School District 112 Rainbow Rd.

9. ADJOURNMENT



Salt Spring Island Watershed Protection Authority

Minutes of a Regular Meeting

- Date of Meeting:** Friday, November 25, 2016
Location: 112 Rainbow Road, School District 64 Boardroom Portable
 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
 Lorrie Hunt, Fernwood 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)
- Staff Present:** Shannon Cowan, Coordinator
 Justine Starke, Island Planner (North Pender Island) (via telephone conferencing)
- Technical Working Group Liaison:** Don Hodgins, Co-chair, SSIWPA Technical Working Group
- Conservation Working Group:** Sandra Ungerson, Chair, SSIWPA Conservation and Efficiency Working Group
- Media and Others Present:** 5 members of the public, 2 other members of the Conservation and Efficiency Working Group, CRD Alternate Darryl Martin, and Islands Trustee Peter Grove

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 10:33 a.m.

2. APPROVAL OF AGENDA

Agenda amendments were put forward for additions to item 4.11.1: a) Salt Spring Island Water Preservation Society letter dated November 21, 2016, and b) Island Health reply letter dated November 22, 2016.

By general consent, the agenda was adopted as amended.

3. MINUTES

3.1 Draft Minutes of the October 28, 2016 Salt Spring Island Watershed Protection Authority Regular Meeting

By general consent, the Salt Spring Island Watershed Protection Authority Minutes of October 28, 2016 were adopted as presented.

4. BUSINESS ITEMS

4.1 Chair's report

Chair Grams reported he has been working on the Annual Report 2016. In addition, he reported the development of a draft proposal containing information about a "Request for Decision" for a Senior Freshwater Specialist for the Trust Area (Temporary, 1 year). The final request does have Staff support at Islands Trust, and after final touches by Director of Local Planning Services, it will be submitted to Trust Council in early December, 2016. The proposed position would provide expertise and capacity to meet the increasing need to address the decline and overstress evidence in existing groundwater and surface water supplies.

4.2 St. Mary Lake Water Quality Update

Committee Member Stepaniuk reported that lake levels have come up. There has been one instance of microcystin reported in treated water by NSSWD. There are twice weekly sampling protocols for both raw and treated water.

4.3 Cusheon Lake Water Quality Update

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

- The algal bloom in Cusheon Lake was still present with sample Nov. 2 showing *Microcystis* spp. By Nov. 14th, the qualitative result showed "low" algal activity, and cyanotoxin tests on raw water samples have shown results below detection limit.
- Threat to drinking water in Cusheon Lake lasted 12 weeks, and is of great concern to those obtaining water from Cusheon Lake.
- The Secchi Disk measurement was as follows: Nov. 4, 3.7m; Nov. 15, 4.0m (more clear) and Nov. 24, 3.16m (less clear than previous two weeks). The recent rains and inflow volume are likely cause of rise in turbidity over last two weeks.
- The corrected Lake gauge measurements are as follows: Nov. 4, 1.696 m; Nov. 15 1.456m; and Nov. 24 1.47m.
- Rainfall quantities received at Gulf Island Secondary School: Nov 2016 – 106.2mm. Compare this with Nov. 2015 – 99mm and Nov. 2014 – 94.5mm.
- The lake continues to be mixed, and temperature of lake water on Nov. 24 was 9.2 degrees Celsius.
- Flow gauge measurement in Cusheon Creek on Nov. 23 was 0.436m. There was low flow from Tyler Brook and Stewart Road.
- On Nov.4 6:30 pm the flow in Cusheon Creek was 0.55m. The beaver dam was

on verge of letting go as a section of dam washing away on the North side. The next day Nov.5 12:05 pm the creek flow was 0.64m. Beaver dam washed out and nothing left but gravel. The dam washed down the creek sometime during the night. Logs, blocking the flow at the Far East end of the lake, were removed at approx.10:00 am. Algae in this area, was a sea of blue green and gray and needed to be flushed out and off the surface. There was a concern that the wind would blow it back to the west into main area of lake where the Beddis System Water intake is located. Permission was granted [from Islands Trustees] to do this work prior to removal of the logs. The Beddis water system did not need to have this further risk.

4.4 Coordinator's Report

The Coordinator's Report for the period reflects a series of activities. Coordinator Cowan reviewed the "in progress" actions and added detail about identifying (recently) the need for streamlining of the data-sharing among SSIWPA working groups, and water districts/small water system boards, as well as the provincial water budget study consultant (soon to become active on Phase 1 of that project). She reported assisting with deployment of rain gauges to Salt Spring Centre School, and other locations at private residences in an effort to spread out the precipitation monitoring and to assess variability across the island's micro-regions. All data collected by the five new rain gauges on Salt Spring Island will be available through Environment Canada weather monitoring database. These will not be formally connected to SSIWPA, but the results will positively impact SSIWPA investigations and priorities.

4.5 Technical Working Group report

Technical Working Group (TWG) Co-chair Hodgins presented TWG progress and the following items were highlighted:

- St. Mary Lake Water Quality:
 - Review of St. Mary Lake "additional" intensive sampling during overturn revealed that effort and expense was not justified. There may not be enough value in this management action.
 - The soil phosphorus pilot project sampling will begin December 3, 2016.
 - Technical working group member Beall is collaborating with Cusheon Lake Stewardship Committee and Beddis Water District Staff and Commissioners to develop a quality monitoring plan for Cusheon Lake, including possibility of funding applications to finance the work.
- Water Quantity:
 - The sustainable yield model for surface water St. Mary Lake is now complete
 - Impacts of climate change extremes on the model (above) has been pushed to early 2017.
 - Groundwater study workplan has been discussed within SSIWPA working groups, and the upcoming meeting with Golder Associates consultant for the Provincial water budget program (early December) will allow TWG to finalize this workplan, and determine resource sharing protocols.
 - Preliminary meeting of two TWG members with Trust Staff about

Geographical Information Systems work in the groundwater study proposal suggests that the resources are available to meet the projected needs. Specifics and timelines will be confirmed after the meeting with the provincial water budget consultant next week.

- Rain gauge expansion around the island is important and valuable to TWG. Outstanding variability for time scales and weekly data can be addressed by more rain monitoring points.

Chair Grams queried whether further intensive sampling of St. Mary Lake should be removed from the 2015 Integrated St. Mary Lake Management Plan. Discussion ensued about triggers that would suggest a need for elevated sampling (parameters, frequency, sample locations and depths, etc.).

By general consent, Salt Spring Island Watershed Protection Authority agreed that Coordinator Cowan will draft a revision to the 2015 St. Mary Lake Management Plan Action for more intensive sampling, to be submitted to the TWG and Steering Committee.

4.6 Conservation and Efficiency Working Group Report

The working group has developed a framework to address it's mandate. The CEWG established six assumptions, with full allocation of St. Mary Lake and stressed water supplies in general among the top assumptions. The following action areas:

- Comparative analysis of the Salt Spring Island water districts
- Investigate feasibility of re-using reclaimed water (Ganges Harbour – sewage treatment output)
- Use of Development Permit Areas as an effective deployment mechanism
- Compile list of techniques and technology for water conservation and efficiency (compare current zoning and bylaws to identify opportunities and barriers to implementation of technologies)
- Education system – involvement of youth in water conservation strategies and public education. Member Ken Lee is inspired to motivate this sector as a unit.
- Cost:benefit analysis of sticking with existing technology versus establishing more low-impact technologies

Member McIntyre mentioned that the reclaimed sewer water is currently being used to clean equipment at Burgoyne Bay. Member Hunt suggested that an example in Wellbury Bay of the use of condensation as an alternative water supply could be investigated.

Action 4.6: Member Hunt agreed to share information about the dew collecting example with the Conservation and Efficiency Working Group (CEWG).

Chair Grams suggested that CEWG could share list of incentives early with Steering Committee, as a potential for a funding application proposal.

4.7 Update on Local Trust Committee OPUS Project Extension

Planner Starke reported the revision of Terms of reference to meet substantial change

of direction that has been suggested by the TWG. The timeline for Local Trust Committee's revision to the OPUS project extension is January, 2017. Planner Starke agreed to circulate the revised Project Charter (Staff Report), which includes updates to SSIWPA's work program. The document that will be circulated outlines how Planner Starke will interact with the SSIWPA - CEWG work program.

4.8 Annual Report Draft

The annual report draft was presented in hard copy, and was sent electronically to committee members in advance of the meeting. Chair Grams reviewed the following features of the draft report: There was 100% completion for four of the six annual major goals. Progress has had to accommodate the new Integrated Water Management Program, which was added mid-way through the year. Coordinated approaches to the completion of this Integrated Water Management Program, will continue to rely on increased inter-agency cooperation, which was suggested to be one of the major accomplishments of the SSIWPA work during the current year.

There was discussion about the first listed action of the CEWG on page 7 of the draft report, to clarify the purpose. A suggestion was raised that the draft report should clarify the "year end date". The fiscal year-end timelines were discussed for each of the agencies.

By general consent, the Salt Spring Island Watershed Protection Authority agreed that the next annual report for SSIWPA will be completed in early April 2018 to meet the completion of the financial year of each SSIWPA agency.

4.9 Sustainable Yield Analysis for St. Mary Lake

TWG Member Dr. Don Hodgins presented a worked example for the surface water yield model for St. Mary Lake. The mathematical, longer description of this work will be presented on December 13, 2016 at the public meeting of the TWG. Some clarifying questions were asked from the meeting participants, with answers from Dr. Hodgins. A discussion ensued about risk management, and licensing practices at the provincial level, as well as the new "Water Sustainability Planning" process under the British Columbia Water Sustainability Act.

4.10 Announcements and Events

4.10.1 Meeting Schedule for SSIWPA Steering Committee 2017

By general consent, it was agreed that the Salt Spring Island Watershed Protection Authority Steering Committee members would each review the attached proposed meeting schedule for 2017, and inform the Coordinator of any conflicts or concerns.

4.10.2 The item was received for information.

4.11 Correspondence

4.11.1 Lake presence of cyanotoxin notification to the public. Three items of correspondence in the agenda package and two additional items of correspondence (Island Health letter to SSIWPA dated November 22, 2016 and the Salt Spring Island Water Preservation Society

letter dated Nov. 21, 2016) were received for information and discussion.

Member Stepaniuk agreed to report back to SSIWPA Steering Committee about the results of a meeting among Island Health staff with water purveyor staff regarding public notification about cyanotoxin presence.

4.11.2 A letter from Mr. W. Hewitt dated November 3, 2016 to SSIWPA re: Errors in Nov. 2 2016 Driftwood newspaper article about cyanotobacteria was received for information.

4.11.3 A letter from a member of the public regarding a possible Health Canada water quality guideline review that TWG may undertake was received for information.

By general consent, it was agreed that SSIWPA Coordinator will pass on this letter to Technical Working Group as an optional piece of information, which is not related to the TWG's local issues workplan.

4.11.4 A letter from a member of the public re: St. Mary Lake cleanup

By general consent, it was agreed that SSIWPA Coordinator would contact Dale Johnson (Ministry of Transportation and Infrastructure) to pass on the letter from the member of the public regarding garbage cleanup along the roadways adjacent to St. Mary Lake.

5. OTHER BUSINESS

5.1 Questions and Comments from Public

A member of the public commented that SSIWPA member agencies are doing a fabulous job of picking up the pieces in a process that is perhaps not functioning fully to inform all of the members of the community and visitors to the watersheds who may be impacted by health results of algal blooms. This member urged SSIWPA to consider playing a more coordinating role in public health issues related to water quality issues, and to consider revisiting this at the next meeting of Steering Committee.

Q: If a licensee does not use a water license for 3 years can it be removed? Member Lapcevic replied that the license can be cancelled if it is not used beneficially for three years.

Member Lapcevic agreed to get more clarification from the authorizations department at FLNRO about what that might look like.

Q: Is the FLNRO looking at individuals drawing from a surface resource without a license? A: There have been surveys about unlicensed use, and will follow up where feasible. The FLNRO will follow up if there has been a complaint.

Q (Directed at TWG member's presentation): Would you please characterize the level of precaution for the presented tool/model? A (Dr. Hodgins): The decision about risk involves setting the criteria in advance: Are you interested in ecological health, or merely a physical criterion (ie. How much water is available to physically remove?)?

Further discussion emphasised aspects of decision-making processes and water quantity planning. It was suggested by more than one steering committee

member that a “water quantity” watershed management plan, including consultation with island residents, is needed to consider all of the criteria that are involved in risk assessment.

One member of the public asked whether over-licensing indicates “stress” in a resource, such as a drinking water lake. A: No. The license amount is not necessarily the same as the level at which stress could be measured.

One member of the public asked whether hard copies could be provided for all addenda (items not in the agenda package) to the members of the public who attend the meeting.

Q: Might there be overlap between the proposed freshwater specialist position and the Kerr Wood Leidal hydrology reviews that Member Stepaniuk stated that NSSWD is planning to complete? A: Peer review is essential, and the freshwater specialist would provide this capacity, not only on this island, but the entire Trust area.

Q: How are cyanotoxins currently tested for by NSSWD? A: Member Stepaniuk described the physical removal of the current treatment plant, and the chemical addition that has been successful, to date (higher than usual dose of Chlorine).

It was suggested that the sustainable yield model (which was presented for St. Mary Lake) should consider the calculations from the last ten years, instead of the last 35 years, to reduce the skew and to better represent the effects of climate change that are currently being experienced in the system.

6. NEXT MEETING

The next regular meeting is scheduled for Friday, January 20, 2017, 10:30 a.m. to 12:30 p.m. at the School District 64 Boardroom Portable, 112 Rainbow Road.

7. ADJOURNMENT

By general consent the meeting adjourned at 12:38 p.m.

George Grams, Chair

CERTIFIED CORRECT:

Shannon Cowan, Recorder



Coordinator's Report

Nov 19, 2016 – January 14, 2017

Meeting Admin:

- communications re: Dec 2 meeting with Province, SSIWPA and Golder about SSI water budget
- facilitated Dec 2 meeting
- TWG agenda for Dec 13th meeting
- facilitated and recorded Dec 13th meeting
- agenda January 20 meeting of steering cttee
- meeting with FLNRO steering member and TWG member
- coordination of agenda and meeting with Royal Roads students (planner Starke, CEWG member)
- meeting venue bookings for January – June
- steering committee member communications

Project Management/Facilitation:

General

- annual report – financial statement calculations and addition to report draft for Chair
- annual report 2016 revisions and final updates, upload to website
- workplan 2016 updates
- roles and responsibilities of working groups, terms of reference amendments, consultation with Planner and Chair on group function
- invited new steering committee member BC MAL agrologist and processed reply

Integrated Water Management Program:

SSIWPA Workplan:

- six drafts of 2017-18 workplan items/timeline/details from IWM project charter objectives and tasks, and working group member input, for review by steering

Budget:

- communicated with CRD to confirm fiscal cycle

Cusheon Watershed Project

- workplan development for TWG

St Mary Lake Integrated Management Action Plan Action Implementation:

- Best Management Practices list (action item from Plan, still in progress)

Conservation and Efficiency Working Group development coordination

- workplan development over several meetings, phone calls, hours of work
- provided group members with specific reports (access to online sources) and relevant background information for group tasks (ongoing)
- outreach to invite new member to apply
- forwarded new member application
- attend informal meetings (2) for assistance and coordination

Technical Working Group Projects Coordination:

- assist coordinate Water Budget Kickoff meeting with ENV-FLNRO-TWG-Consultant
- assist develop data sharing agreement drafts with community water systems
- review group member draft data analysis and monitoring proposals
- invite and coordinate terms of service review for TWG members by steering (January)
- TWG workplan development, review and edits by members, forward fifth draft to steering committee for approval in January

Outreach:

Public Presentations/Conferences and Media

- media response to Driftwood Reporter re: SSIWPA and cyanobacteria/algal blooms in dw lakes

Outreach and Educational Event Planning and Coordination:

- drafted outreach plan 2017

- created poster and press release and advertising (Community Exchange, Driftwood, Facebook) for January 18 2017 WSA groundwater licensing SSIWPA event
- invitation to other community groups for outreach water topic collaborations
 - Community Energy Group (joint public info session possible late 2017)
 - Island Natural Growers (not part of Seedy Weekend this year)
 - Agricultural Alliance - WSA licensing event (Item 7.10 Sept 26, 2016)
 - Rainwater Harvesting Tour – tentatively October, 2017
 - Item 7.10 Sept 26, 2016 completed. (Chamber of Commerce)

Watermark newsletter

- Edited and coordinated November edition
- Edited and coordinated January edition
- Communications with article contributors
- Connected with CRD’s Katy Pearson – newsletter/publicity of water-related sustainability events (co-advertising between newsletters)

Coordinator Action Items – IN PROGRESS:

Item 7.4 September 26, 2016: Coordinator to formally approach community wells/water groups for data-sharing request.

Item 7.7.2 Sept 26, 2016: Funding competition applications

Publication protocol revision

Terms of reference revisions for working groups

Who does what with water – chart for outreach (revisions in process)

Website:

SSIWPA reports – move to home page from library to make more accessible

SSIWPA
Annual Report - 2016





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Purpose of Report

The purpose of this report is to:

1. communicate an overview of the SSIWPA goals for year 2016;
2. report progress made towards their achievement;
3. provide a financial summary for 2016;
4. outline SSIWPA's major initiatives for 2017.



About SSIWPA

“SSIWPA aims 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’s water sources.”

Member agencies

Islands Trust
Capital Regional District
Ministry of Forests Lands and Natural Resources
North Salt Spring Waterworks District
Highland and Fernwood Water Commission
Beddis Water Commission



**The North Salt Spring
Waterworks**
flowing fresh and clean



Formed of member agencies from local, regional and provincial governments¹, SSIWPA is a leader in collaborative watershed governance in the province of British Columbia. SSIWPA serves as a forum for the sharing of information between agencies responsible for related but distinct areas of watershed management. Collectively, SSIWPA formulates and recommends policies and strategies for watershed management, and engages multiple stakeholders for evidence-based decision-making that takes the breadth of local values into account, within an ecosystem health context.

SSIWPA’s Steering Committee meets monthly, and forms the main coordinating body of SSIWPA.

SSIWPA’s multidisciplinary Technical Working Group is comprised of members-at-large, working together with government scientists, whose areas of expertise lie in the various fields of science related to water and watershed health (for example limnology, hydrogeology and geology, engineering, water chemistry, forest sciences, soil sciences, zoology, etc.).

The Steering Committee also relies on input from the Conservation and Efficiency Working Group (CEWG) and from public advisory committees, that provide a perspective on locally-relevant community values and information with regard to proposed policies and planning and implementation in watershed management actions.

2016 Goals and Accomplishments

The SSIWPA workplan for 2016 was prepared and issued towards the end of 2015 and identified the following major goals, the majority of which have been accomplished. Those items outstanding should be completed early in 2017.

In addition to the foregoing, in May 2016 the SSIWPA steering committee initiated a major new program, the preparation of an integrated water management program (IWMP) for Salt Spring Island. The purpose of the program is:

‘to ensure a sustainable supply of fresh water for human use, and to protect against over-demand and degradation of the resource and the natural systems that depend on it.’

| | Goal | Progress | Notes |
|---|--|----------|--|
| 1 | Secure funding for year 2015-16 | 100% | |
| 2 | Progress the SSI LTC/ SSIWPA project to supply limits and demand criteria within NSSWD area of service | 50% | Dialogue with SSI LTC ongoing |
| 3 | To continue to participate and initiate outreach education programs | 100% | Water Fair; Fall Fair; Watershed Stewardship Presentations; support for restoration project at 2 lakeshores; SSIWPA technical report presentations. |
| 4 | To complete the outstanding actions related to St Mary Lake management program | 95% | Support for lake riparian restoration (with local stewardship groups). Best management practices outreach; water use data surveys. |
| 5 | To undertake a peer review of the Cusheon Lake watershed management plan | 100% | Cusheon Lake Management Plan review completed. Development of coordinated Cusheon Lake Monitoring ensues as part of Integrated Water Management Program for SSI. |
| 6 | Establishment of a conservation and efficiency working group | 100% | First meeting convened Oct 2016 |

2016 Workplan

SSIWPA prepared a detailed workplan for 2016, shown on page 6. For the most part the targets set in that workplan have been accomplished, with the exception of the Cusheon Lake management plan which has been put on hold to allow prioritization of the Integrated Water Management Program SSIWPA introduced in May 2016.

The Integrated Water Management Program was introduced by SSIWPA in May 2016. In the intervening months, SSIWPA has been working internally and with other agencies to develop the program.

Further information the program is provided on page 7 and on [SSIWPA's website](#).

Links to some of the reports prepared by SSIWPA's technical working group during 2016 are provided below:

[Trophic Interactions and Algae in St Mary Lake](#)

[Septic Load to St Mary Lake](#)

[Drought Analysis for Salt Spring Island - Nov 2015](#)

[Algal Abundance and Phosphorus Analysis St Mary Lake](#)

[External Phosphorus Load to St Mary Lake](#)

A full list of SSIWPA and third party publications can be found on the [SSIWPA library website](#).

2017 Workplan

“To Focus on the Integrated Water Management Program”

The principal focus up to and through 2017 for all three of SSIWPA's committees will be to advance the integrated water management plan.

The Integrated Watershed Management Program was initiated by SSIWPA in recognition of a concern that freshwater sources on Salt Spring Island are stressed and at or near the sustainable limits of their capacity.

Those concerns are mainly focused on the north end of the island where, for example, North Salt Spring Waterworks District (NSSWD), which supplies one of the most densely populated parts of the island including all of Ganges village, has introduced a moratorium on new water connections due to source capacity issues.

The IWM program addresses the need to:

- quantify the volume of freshwater available (in a renewable manner) for human use;
- measure and optimize the efficiency of potable water resource uses/demand;
- if necessary, adjust bylaws and regulations to limit further densification in areas where water quantity sensitivities exist to sustainable levels.

The following progress has been made with regards to the IWMP:

- Goals and objectives of the program have been defined;
- Major actions that are necessary to support the program have been identified;
- A conservation and efficiency working group has been assembled whose purpose and main objectives is to investigate and assess technologies, methods, best practices and/or policies to achieve the following:
 1. Reduction in potable water use in all economic/residential sectors of the SSI economy;
 2. Feasible uses of alternative water sources, which may include rainwater catchment, grey water recycling, wastewater re-use, desalination, other;
 3. Increased efficiency of water use in areas such as agriculture, gardening, markets, food service, other;
 4. Feasible incentives for water use efficiency;
 5. Identify barriers and challenges to implementation related to the regulatory environment (i.e. building code, health authority approvals, etc.); suggest possible solutions.

SSIWPA's three committees are currently preparing detailed action plans which will be published in the form of an integrated project schedule that will record the collective targets for 2017, and the targets established for each committee.

Financial Summary

SSIWPA's core funding of \$110,500 was provided by Salt Spring Island taxpayers in the form of a special property tax requisition raised through the Islands Trust. In addition, there were nearly \$43,000 in unspent funds from the 2014-15 SSIWPA special tax requisition that were re-allocated through the Local Trust Committee to a project titled "Water Conservation and Demand Management Plan for Salt Spring Island", which took a focus on the North Salt Spring Water District. Capital Regional District contributed \$21,400, some of which will be carried over unspent to the 2017 fiscal year. Finally, \$2500 of unspent funds from the Philip and Muriel Berman Foundation grant made through Vancouver Foundation to Islands Trust for SSIWPA project work in 2014 also remain as SSIWPA revenue in the 2016 financial statement. These funds have now been allocated by SSIWPA Steering Committee to be spent in early 2017 on an innovative pilot project to test the capacity to measure phosphorus in soil water from soil sampling rather than groundwater sampling from drilled wells.

SSIWPA would like to acknowledge the Islands Trust Council for approving the special tax requisition for 2016. It is grateful to Capital Regional District for the contributions to SSIWPA projects and programs: an annual portion of gas tax revenues and stormwater program revenues are allocated to SSIWPA for projects and for staff costs allowing for CRD representation in SSIWPA committees.

The invaluable contributions by volunteer members of the technical working group, the conservation and efficiency working group and also to some extent, the Steering Committee. These contributions go largely unreported, as they do not appear in financial statements. The SSIWPA and the Salt Spring public is indebted to these individuals for providing local knowledge and technical guidance towards the achievement of SSIWPA's many goals.

Financial Income Statement REVENUE/EXPENDITURES for the year ending December 31, 2016

| Revenue | YTD Actuals | Budget | Balance Remaining | % of Budget Spent YTD |
|--|---------------------|---------------------|--------------------|-----------------------|
| SSI LTA Special Property Tax Requisition | \$110,500.00 | 110,500.00 | 0.00 | 100% |
| Unspent Funds from 2014-15 Special Property Tax Requisition | 42980.93 | 42980.93 | | 100% |
| Philip and Muriel Berman Foundation - (allocated - TWG spend by March, 2017) | 2,500.00 | 2,500.00 | 0.00 | 100% |
| Capital Regional District (Stormwater operating budget and Gas Tax funds) | 21,400.00 | 21,400.00 | 0.00 | 100% |
| Total Revenue | \$177,380.93 | \$177,380.93 | \$ - | 100% |
| Expenses | | | | |
| SSIWPA Coordination | 85,051.16 | 85,000.00 | (51.16) | 100% |
| Meeting cost (3 committees, minute taking, room rental) | 3,292.10 | 5,500.00 | 2,207.90 | 60% |
| Community Events and Communications* | 8,949.04 | 13,000.00 | 4,050.96 | 69% |
| Administration Levy | 7,760.00 | 12,000.00 | 4,240.00 | 65% |
| Administration and SSIWPA rep time - CRD | 9,040.40 | 10,000.00 | 959.60 | 90% |
| LTC Conservation and Demand Management Study | 40,820.80 | 42,980.93 | 2,160.13 | 95% |
| Soil phosphorus pilot (TWG) | 0.00 | 2,500.00 | 2,500.00 | 0% |
| Sample analysis and shipping | 1,464.14 | 3,000.00 | 1,535.86 | 49% |
| Other SML actions budgeted by CRD | 0.00 | 3,400.00 | 3,400.00 | 0% |
| Total Expenses | \$156,377.64 | \$177,380.93 | \$21,003.29 | 88% |
| Total Surplus (Deficit) to date | \$21,003.29 | \$ - | | |

* includes subcontract for Water Fair co-coordination

| IWM Obj. | IWM Task | Major Objectives | Agency | Working Groups | Consultant | Timeline | Grant? | Notes |
|---|--------------|--|-------------------------|-----------------------|----------------|-------------------------|--------|---|
| 1 Renewable supply: quantity by source | | | | | | | | |
| Surface sources: | | | | | | | | |
| | 3.1.1.1 | supply source hydrology: SML | NSSWD | TWG | | TWG report under review | | analyze precip. and temp. data for current and future; drought and extreme values, choose and implement hydrological models (where not already reported) |
| | 3.1.1.1 | supply source hydrology: Maxwell lake watershed | NSSWD | TWG | | 2017 | | possibly Kerr-Wood Leidal |
| | 3.1.1.1 | supply source hydrology: Cusheon lake watershed | CRD, Beddis | TWG | | 2018 | | |
| | 3.1.1.1 | lake level and stream flow: compile existing data | FLNRO | TWG | Golder Ph 2 | 2017 | | Have: SML, Max. Ask district commissioners. SHARE with Golder. |
| | 3.1.1.5 | lake level and stream flow: gather new data | FLNRO, partner with CRD | TWG | Golder Ph 2 | Feb-Jul 2017 | REFBC? | To get: Blackburn/Cusheon, Weston, Stowell, Ford, Bullock and other non-lake surface flow to districts and users. TWG manage. Data by local contractor (environmental scientist); funding for equipment and data contract. Share with Golder for Ph 2. Outflow only May-Jul. |
| | 3.2.1 | water quality monitoring: drinking water lakes and inflows | CRD, NSSWD | TWG | | 2017 | | Cusheon: Beddis (R Waldick) and CRD. SML and MAX: NSSWD. To get: Weston. |
| n/a | 3.2.1, 3.2.2 | review water quality reports by agencies, watershed basis | ALL | TWG | | ongoing | | |
| 1 Groundwater sources: | | | | | | | | |
| | 3.1.1.2 | identify and map active wells | FLNRO | TWG to review | Golder Ph 1 | ✓ | | map product complete for Wells Database sites by FLNRO (DATA complete. ANAL to be done) Is this task continued to get other wells currently unregistered in the prov. Dbase?) |
| | 3.1.1.2 | well use monitoring program/survey | FLNRO | TWG to assist, review | | 2017 | REFBC? | indiv. well owners; incl. inactive wells (GPS); provide onsite inspections for well head protection, cross-reference and correlate to well records in the WELLS database,; student or contractor (LTC*) to do the work, FLNRO/MOE support for training |
| | 3.1.1.2 | compile existing supply data, and literature review: GW | FLNRO | COORD, TWG to review | Golder ph. 1/2 | 2017 | | Data acquisition and analysis of supply volumes and characteristics of source areas, by gw district. Parameters TBD (groundwater table in wells, etc.). Cedar Ln, Cedars of Tuam, Reginald hill, Maracaibo, Scott Pt, Swan Pt, High Hill, Mt Belcher, Erskine, Merchant Mews. |
| 2 Demand: Determine freshwater demand for human uses over time | | | | | | | | |
| | 3.1.2.1 | compile existing usage data: surface districts | FLNRO, Districts | COORD, TWG to review | ? | 2017 | | by watershed, multiple parameters (peak day distributions, high users, etc.). Have data: NSSWD (SML, MAX), FHWD. To get: Cusheon (Beddis), Fulford (Weston), Ford, Bullock, Stowell |
| | 3.1.2.1 | compile existing usage data: groundwater districts | FLNRO, Districts | COORD, TWG to review | ? | 2017 | | DEMAND data, by gw district. Parameters TBD (groundwater table in wells, etc.). |
| | 3.1.2.1 | new data collection: agricultural water use (gw, sfw) | BCMAL | COORD | | 2017 | | WU Survey Design MAL. SHARE SSIWPA, FLNRO, ENV, Golder. Agrologist Masselink. |

| IWM Obj. | IWM Task | Major Objectives | Agency | Working Groups | Consultant | Timeline | Grant? | Notes |
|----------------|----------|--|--|------------------|-------------|------------------------|--------|---|
| 1&2 | | SSI Water Budget - Sustainable Yields (Watershed/Aquifer) | | | | | | |
| | 3.1 | Sustainable yield analysis: SML | | TWG | | Feb-17 | | run sustainable yield models; compare consumption (obj 2) with renewable supply (obj 1) by watershed; assess uncertainty |
| | 3.1.2.1 | Correlate sfw usage data with land use/zoning data | | TWG | | after 3.1.2.1; in 2017 | | for community wells and gw recharge units/areas as defined by prioritization with FLNRO, Golder collab. SHARE with Golder. |
| | 3.1 | Sustainable yield analysis: Cusheon, then other districts | CRD & Districts - depends on watershed | | | summer 2017 - 2018 | | Cusheon, Weston, Stowell, Ford, Bullock |
| 1&2 | | Groundwater sources: | | | | | | |
| | 3.1.2.1 | Correlate gw usage data with land use/zoning data | Islands Trust | TWG to do | | late 2017 | | For community wells and gw recharge units/areas as defined by prioritization with FLNRO, Golder collab. SHARE with Golder. |
| | 3.1 | Aquifer yield: geospatial analysis | FLNRO | TWG to review | Golder Ph 1 | spring 2017 | | Conceptual geological model and groundwater model: by aquifer units from usage data and supply data for aquifers (uncertainty, sensitivity analysis, id areas of risk) |
| | 3.1 | Water budget and available groundwater analysis | FLNRO | TWG to review | Golder Ph2 | 2018 | | Analysis and characterization of GW and sfw budget (estimates of volumes and flows between sfw-gw). Reporting out to FLNRO, MOE, SSIWPA. |
| | 3.1 | Sustainable yield analysis: gw districts/aquifers | FLNRO | TWG | | after Golder Ph 2 | | model by alternative gw unit (if different from 'aquifer' unit outcome by Golder) |
| | 3.3, 3.4 | Risk assessment | FLNRO | TWG | Golder | 2018 | | from well use survey data combined with outputs by Golder; Assess differences between areas of the island, source type, and level of stress (salt intrusion, quantity, contam.) Cedar Ln, Cedars of Tuam, Reginald hill, Maracaibo, Scott Pt, Swan Pt, High Hill, Mt Belcher, Erskine, Merchant Mews. |
| | 3.3, 3.4 | Island-Wide water budget (start Water Sustainability Plan) | ALL | SSIWPA | | late 2018 | | Data from Golder, and from TWG and CEWG analyses. Conduct cost-benefit analysis and include risk assessment, etc. |
| A2.2 | | Assess state of technology for conservation and efficiency by water suppliers/delivery on SSI | | | | | | |
| | 4.1.1 | List and compare technologies and techniques for conservation and efficiency | Trust &/or CRD? | CEWG | | 2017 | | List, strengths and weaknesses of ea., barriers and opportunities to implementation |
| | 4.1.2 | Research and report on rain harvesting alternatives | Trust &/or CRD? | CEWG | | 03/2017 - 08/2017 | | feasibility cost:benefit at multiple scales, SSI-based barriers nad opportunities |
| | 4.1.2 | Research and report on reclaimed greywater recycling alternatives | Trust &/or CRD? | CEWG | ? | 2017 | REFBC? | feasibility cost:benefit for re-use of Ganges Harbour Treated Sewage as reclaimed (engineering study possible) |
| | 4.1.3 | Assess policies and incentives | Trust &/or CRD? | CEWG | | 2017 | | Not fully assigned yet. (existing on SSI, compared with other water-stressed communities) (DPAs, building code, tourism-driven, rates) |
| A2.1 | | Assess state of technology for conservation and efficiency by water consumers on SSI | | | | | | |
| | 4.1.3 | Explore specific incentives for conservation and potable demand management (reduction) | SSIWPA, SD64 | CEWG | | 2017 | | Exploratory example: Water Conservation Outreach in Elementary Schools - Ken L. Infrastructure and Curriculum (Rainwater Rebates, other incentives) |
| | 4.1.1 | Compare usage data different user types commercial/gw/surface | Trust &/or CRD? | CEWG | | 2017 | | Not yet assigned. Consumption data (peak day, drought/winter) |
| | 4.1.1 | Collect data and analyze impact of bottled water use on reduction of domestic use of other supplies | Trust &/or CRD? | CEWG | | 2017 | | Not yet assigned. (keep gw and surface sources distinct) |
| | | Peer review | FLNRO, Islands Trust | TWG, CEWG | | ongoing | | all of above output needs peer review within SSIWPA agencies |

*Data-sharing by memoranda of agreement between agency/organization acting as source of data, and SSIWPA steering committee, working group members, SSIWPA agencies, notably FLNRO, Islands Trust, CRD and any private water district member agencies. Also implies sharing data with contract consulting firms (Golder Associates, Waterline, OPUS, Kerr-Wood Leidal, etc.), and other ministries i.e. Ministry of Health, Ministry of Agriculture and Lands.

| SSIWPA TWG 2017-18 Workplan (Draft in Progress) | | | | | | |
|--|-----------------------------|------------------------------------|----------------------------------|---------------|--------------------------------------|---|
| January 14 2017 Ver.3 | | | | | | |
| Step | Complete by | Who | | | Where | Notes |
| | | Member | Agency | Consultant | | |
| Supply: surface sources | | | | | | |
| Sustainable yield analysis | | | | | | |
| Watershed water budget modelling: supply hydrology and utilization/licensed demand comparison. | 02/2017 | | FLNRO | | on a watershed basis | Method: Characterize climate (precip. and temp) for current and future conditions. Assess and implement hydrological models where data not available. Collect or estimate utilization data. Run sustainable yield model calculations. Assess uncertainty. Account for drought, predicted future climate. Report out by watershed to steering. |
| | 02/2017 | Don, Fred, Neil, Sylvia, Julie Ann | NSSWD, FLNRO | | SML | Report currently under review |
| | end 2017 | | NSSWD, FLNRO | | Maxwell | Kerr Wood Leidal contract by NSSWD to update hydrology only. TWG to run sustainable yield model calculations with data use agreement with NSSWD. |
| | early 2018 | | | | Cusheon (Blackburn and Roberts Lake) | |
| | TBD | | | | Weston Lake | |
| | TBD | | | | Ford Lake | |
| | TBD | | | | Bullock Lake | |
| | TBD | | | | Stowel Lake | |
| GIS data file creation to illustrate results | after report completion | GIS specialist | Islands Trust | | | |
| Lake level and stream flow | | | | | | |
| compile existing data | 3/2017 | Fred | CRD Beddis | | BB-Cusheon | |
| | done | | NSSWD, CRD FHWD | KWL | SML | completed in DH report under review by TWG, external. |
| | 2017 | | NSSWD | KWL | Maxwell | |
| | late 2017 | | Fulford District | | Weston Lake | |
| | TBD | | n/a | | Ford Lake | |
| | TBD | | n/a | | Bullock Lake | |
| | TBD | | n/a | | Stowel Lake | |
| new data collection: inventory flows, levels by priority area | TBD start as soon as funded | Fred | FLNRO, CRD | REF BC GRANT? | BB-Cusheon | Other priority areas TBD. HOW: i) spot measurements of flow (base early 2017), ii) monitor with staff gauge install/automated? Upper Blackburn; Fred technical lead; Hiring local contractor (staff person, environmental scientist); funding for equipment, contractor to do the work guided by Fred and TWG; determine when ephemerals dry up, etc. |
| Water Quality | | | | | | |
| water quality monitoring (lake, inflow streams) | start 2017 | Fred | CRD, FHWD, Beddis; NSSWD; other? | ? | SML, MAX, CW | SHARE. SML, MAX ongoing by NSSWD. New: CW monitoring (Ruth Waldick, Beddis Service Area, CRD) Weston? |
| review water quality data | ongoing | all | | | | to inform watershed management plans (devpt, implementation) |
| review/assess impacts of stewardship, BMPs | ongoing | all | | | | |

| SSIWPA TWG 2017-18 Workplan (Draft in Progress) | | | | | | |
|---|---------------------------|----------------------|---------------|---------------|--|---|
| Step | Complete by | Who | | | Where | Notes |
| | | Member | Agency | Consultant | | |
| Supply: Groundwater sources | | | | | | |
| Well data | | | | | | |
| review map product for existing wells dbase | early 2017 | GW team | FLNRO | Golder Ph 1 | | TWG to review map product from FLNRO and provide comment |
| assist write grant proposal for well monitoring / use survey project | 2017 | GW team | FLNRO | REF BC GRANT? | | If approved by Steering, TWG to assist with development of grant proposal. Project: identify monitoring wells with collab of indiv. well owners. Survey to add outstanding active and inactive wells into dBase (GPS);FLNRO to provide onsite inspections for well head protection, cross-reference and correlate to well records; student or contractor to do the work, FLNRO/MOE support for training |
| advise and assist with methods, data analysis for well monitoring, well use survey | TBD | GW team | FLNRO | | if grant recvd and project forward | assist in methods development for contractor; assist with focus groups, or survey tools, review monitoring data |
| compile supply data, and literature review: GW supplies | 2017 | COORD | FLNRO | Golder Ph 1 | Cedar Ln, Cedars of Tuam, Reginald hill, Maracaibo, Scott Pt, Swan Pt, High Hill, Mt Belcher, Erskine, M Mews. | (volume, gw table) |
| review supply volume data | 2018 | all | FLNRO | Golder Ph 1 | | Review supply volume data by Golder ph 1. TWG members to identify gaps for sustainable yield analysis where Golder has not completed to district scale (possibly to assist to fill gaps). to characterize source areas, by gw district. Parameters TBD (groundwater table in wells, etc.). |
| Demand: | | | | | | |
| Water usage data | | | | | | |
| compile existing usage data: surface districts | | COORD, TWG to review | LTC, SSIWPA | | | TWG to advise: info to collect, hypotheses to test. Datasets known: NSSWD (SML, MAX), FHWD. To access: Fulford district (WW). (linked to usage data step in gw areas also) |
| compile existing usage data: groundwater districts | | COORD, TWG to review | LTC, SSIWPA | | water districts, industrial users on wells | TWG to advise: info to collect, hypotheses to test Datasets known: Cedar Lane (CRD), Cedars of Tuam (CRD), ? |
| agricultural water use | | COORD | BCMAL | | watershed basis | SHARE. WU Survey Design MAL. SHARE SSIWPA, FLNRO, ENV, Golder. Derek Masselink. |
| Groundwater Sustainable Yield | | | | | | |
| Sustainable yield analysis | | | | | | |
| correlate water usage consumption data with land use/zoning data | 2017 | TWG | Islands Trust | share | | for community wells and gw recharge units/areas as defined by prioritization with FLNRO, Golder collab. SHARE with Golder. |
| aquifer yield: geospatial analysis | spring 2017 | TWG to review | FLNRO | Golder | | calculate inputs by unit from all data gathered, for modelling |
| risk assessment | 2018 | TWG | FLNRO | Golder | | from well use survey data combined with outputs by Golder, assess and bound uncertainty |
| Water budget and avail gw analysis, by aquifer | 2018 | TWG to review | FLNRO | Golder Ph 2 | | ph 2 of Golder work. |
| Sustainable yield model | after Golder ph 2 results | TWG | FLNRO | | | model by alternative gw unit (if different from 'aquifer' unit outcome by Golder) |
| Water Sustainability Plan (Island-Wide sustainable yield and alternatives, policies and incentives) | late 2018 | All | SSIWPA | ? | | Data from Golder, and from TWG and CEWG analyses. Take island-wide surface+gw lens for budget. Conduct cost-benefit analysis and include risk assessment, etc. |
| Assess new sources or alternatives | | | | | | |
| peer review CEWG output | 2017 as needed | TWG to review | | | | |

| IWM Obj. | IWM Task | Major Objectives | Agency | Consultant/ Collaborator | Timeline | Grant? | Notes |
|---|----------|--|-----------------------------|-----------------------------|-------------------|--------|--|
| A2.2 | | Assess state of technology for conservation and efficiency by water suppliers/delivery on SSI | | | | | |
| | 4.1.1 | List and compare technologies and techniques for conservation and efficiency | Trust &/or CRD? | | end winter 2017 | | 1) Develop criteria for assessment - get SC approval; 2) Assess strengths and weaknesses of each technology or best practice as related to SSI situations (include desalination, greywater, rain harvesting, and others) 3) Identify and report on barriers and opportunities to implementation of each, under current zoning and building bylaws. Sandra. |
| | 4.1.2 | Research and report on rain harvesting alternatives | Trust &/or CRD? | RRU students | 03/2017 - 08/2017 | | assess for multiple scales (domestic, multi-family domestic, commercial, institutional, agricultural) - specific examples and calculations for SSI-based field eg. Sandra. |
| | 4.1.2 | Research and report on reclaimed greywater recycling alternatives | Trust &/or CRD? | ? | 2017 | REFBC? | assess feasibility and potential for re-use of Ganges Harbour Treated Sewage as reclaimed (poss. engineering study) Ian P. |
| | 4.1.3 | Assess policies and incentives | Trust &/or CRD? | | 2017 | | Not fully assigned. Ian P. - to analyse how Development Permit Areas could be deployed as mechanism for reclaimed water for certain uses on new builds (etc.) Analyse existing SSI bylaws/policies, compare with other water-stressed communities. (DPAs, building code, tourism-driven, rates) |
| A2.1 | | Assess state of technology for conservation and efficiency by water consumers on SSI | | | | | |
| | 4.1.3 | Explore specific incentives for conservation and potable demand management (reduction) | SSIWPA | SD64 | 2017 | | Exploratory example: Water Conservation Outreach in Elementary Schools - Ken L. Infrastructure and Curriculum (Rainwater Rebates, other incentives) |
| | 4.1.1 | Compare usage data different user types commercial/gw/surface | Trust &/or CRD? | | 2017 | | Not yet assigned. Consumption data (peak day, drought/winter) |
| | 4.1.1 | Collect data and analyze impact of bottled water use on reduction of domestic use of other supplies | Trust &/or CRD? | | 2017 | | Not yet assigned. (keep gw and surface sources distinct) |
| Peer review | | | FLNRO, Islands Trust | | ongoing | | all of above output needs peer review within SSIWPA agencies |
| <p>*Data-sharing by memoranda of agreement between agency/organization acting as source of data, and SSIWPA steering committee, working group members, SSIWPA agencies, notably FLNRO, Islands Trust, CRD and any private water district member agencies. Also implies sharing data with contract consulting firms (eg. Golder Associates, Waterline, OPUS, Kerr-Wood Leidal, etc.), and other ministries i.e. Ministry of Health, Ministry of Agriculture and Lands.</p> | | | | | | | |

Background and Request for Steering Committee to Provide Input into Islands Trust Freshwater Specialist Position

As I advised at the December steering committee meeting, the Islands Trust has approved the appointment of a freshwater specialist. Recruitment for that position is expected to begin immediately following approval of the budget for the year 2017 - 18 which will be presented to Council for approval in March 2017.

Although there is every expectation that the specialist will work with SSIWPA and its agencies, this is not a SSIWPA appointment and we have no ability to direct the work of the specialist. Notwithstanding and prior to the Islands Trust recruitment process beginning, it might be helpful to the Trust in developing and refining the skill set, duties and tasks of the specialist if SSIWPA offers its view on those issues.

Accordingly, SSIWPA Chair is seeking input from the steering committee representatives, with regard to the nature and range of qualities the freshwater specialist would ideally possess, and the preferred workplan items that would maximize benefit to the SSIWPA mandate of safeguarding watershed health from the perspective of water quality and quantity.

To assist Steering committee members in considering this subject, the RFD for the appointment that was approved by Trust Council last month is attached. Steering committee members are asked to bring the views of their agency to the January 20th committee meeting on the content and substance of this document, and to make constructive recommendations that might assist the Trust in developing and refining it.

Please note that SSIWPA has not been invited to do so but in my view it would be helpful to the Trust to provide input on the basis that comments are offered without expectation, in the full knowledge that the role of the freshwater specialist is Trust-wide, and that the primary purpose of the appointment is to serve the Trust rather than sister agencies.

(see next for RFD)

George Grams
Chair



REQUEST FOR DECISION

To: Trust Council

For the Meetings of: December 6, 2016

From: George Grams

Date Prepared: November 9, 2016

File No.: Freshwater

SUBJECT: SENIOR FRESHWATER SPECIALIST – TEMPORARY PROPOSAL

RECOMMENDATION: That Trust Council approve adding \$83,670 in the 2017-18 budget to fund a temporary, full-time Senior Freshwater Specialist position from June 1, 2017 to March 31, 2018.

CHIEF ADMINISTRATIVE OFFICER COMMENTS: This proposal seeks to advance an important issue for the Islands Trust. This above request from Trustee Grams provides resources to fulfil the Strategic Plan objective to “protect quality and quantity of water resources”.

IMPLICATIONS OF RECOMMENDATION

ORGANIZATIONAL: The position as proposed would report to the Director of Local Planning Services. Various internal procedures would require modification to include the duties of this new position.

FINANCIAL: This will require an \$83,670 increase in the 2017/18 budget, which could be covered by appropriation from surplus or by reductions in other spending.

POLICY: The addition of this position would have no impact on existing policy.

IMPLEMENTATION/COMMUNICATIONS: The temporary position would be hired through the normal Public Service Agency hiring process. Once a person is hired, senior staff will communicate to staff and trustees about the roles of the position. Further communications about the position’s activities will be developed by the Senior Freshwater Specialist in collaboration with communications staff.

PUBLIC IMPACT: The public may express concern with the addition of a new position to the Islands Trust given the potential for the Salt Spring Island municipal incorporation and any associated financial impacts. They may also give consideration to any potential increase in taxation that the proposed position represents. These concerns may be mitigated by the fact that freshwater issues are increasingly important to the public and that by focusing resources on freshwater resources, the Islands Trust is responding to citizen’s interests. In terms of the financial implications, the position is recommended to be a one year temporary position, with an option to extend for a second year if needs warrant, and as it could be funded on a surplus basis, there is no direct impact to current taxation levels.

BACKGROUND

In 2013 Trust Council recognized a need to better coordinate activities between various agencies in respect of fresh water resources on Salt Spring Island. At this time, Trust Council passed Bylaw 154, which delegates the authority for the purpose of preserving and protecting the quality and quantity of water resources within the Salt Spring Island Local Trust Area to the Salt Spring Island Local Trust Committee.

The attached Business case provides details on the rationale and need for the Senior Freshwater Specialist.

REPORT/DOCUMENT:

1. Senior Freshwater Specialist - Business Case for 2017/18
2. Proposed Senior Freshwater Specialist Job Description

KEY ISSUE(S)/CONCEPT(S):

- Lack of organizational capacity to respond to increasing demand and need for service in freshwater protection.

RELEVANT POLICY:

- [Islands Trust Policy Statement](#) Goal B, “to ensure that human activity and the scale, rate and type of development in the Trust Area are compatible with maintenance of the integrity of trust area ecosystems”.
- [Islands Trust Council’s 2014-2018 Strategic Plan](#)
- [Budget Process Policy](#) 6.3.i

DESIRED OUTCOME:

- Improved knowledge of freshwater issues in the Trust Area.
- Establishment of a system for tracking fresh water issues in the Trust Area.
- Improved collaboration and freshwater data sharing with other agencies.
- Ensuring development does not exceed capacity of fresh water supply.

RESPONSE OPTIONS

Recommended:

That Trust Council approve adding \$83,670 in the 2017-18 budget to fund a temporary, full-time Senior Freshwater Specialist position from June 1, 2017 to March 31, 2018..

Alternatives:

- Option 1 – Funding for a Consultant - Trust Council could allocate funds to hire a consultant with the appropriate expertise that would operate under a terms of reference, with clear deliverables. This would require significant manager support to oversee and manage the overall project.
- Option 2 – Increase Technical Scientific Funding - The Scientific Technical budget is currently \$15,000 annually. This amount could be increased with the additional funding being specifically used for expertise assistance with freshwater issues on the islands. Direction could be through each individual trust committee work program or via local planning committee or Executive Committee.

Prepared By: David Marlor/ November 9, 2016

Reviewed By/Date: George Grams / November 9, 2016

Russ Hotsenpiller, Chief Administrative Officer

BUSINESS CASE

Completion of this form initiates a request to the management team for allocation of budget funds. The form is to be completed and submitted at the start of the decision making process. The business case forms part of the Annual Budget Process (refer to Islands Trust Council Budget Process Policy 6.3.i).

TO BE COMPLETED BY INITIATOR

| | |
|---|---|
| <p>Initiated by: David Marlor, DLPS for Trustee Grams</p> | <p>Estimated Annual Budget Request: Year 1 – (June 1, 2017 to March 31, 2018) \$83,670 Year 2 – (April 1, 2018 to March 31, 2019) \$100,400, plus BCGEU negotiated increases.</p> |
| <p>Operational Unit: Local Planning Services</p> | <p>Fiscal Year Implications:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Temporary <input type="checkbox"/> One fiscal year: <input checked="" type="checkbox"/> Multi-year: June 1, 2016 to March 31, 2018 \$ ___ see above ___/per fiscal year <input type="checkbox"/> On-going |
| <p>Name of Request (<i>identify the problem, opportunity or need</i>):</p> <p>Senior Freshwater Specialist</p> <p>A critical threat to the ecosystems within the Trust area arises from the quantity of fresh water available to support those ecosystems, particularly during the spring and summer dry period.</p> <p>Development and densification inevitably mean that demand on ground and surface water supplies for human needs is increased, lessening the available supply for the sustenance of natural systems.</p> <p>Additionally, there is evidence from some trust areas that their ground and surface water quantities are in decline, and that the demands on ground and surface water sources are overstressed.</p> <p>The position would provide expertise and capacity to meet these needs.</p> | <p>Budget Source: Local Planning Services Program Budget.</p> |
| <p>Date request initiated: November 9, 2016</p> | <p>Date funding is required: April 1, 2017</p> |

1. OBJECTIVES

Islands Trust Policy Statement:

'To achieve its object, the Islands Trust must be an educator, coordinator, and initiator, guiding individuals, organizations and other agencies in support of the object. While the Islands Trust can provide the necessary leadership, responsibility for stewardship of the Trust Area rests with many. Individuals, other government agencies, organizations and the Province itself all have important roles to play. Cooperative actions are required of other agencies, organizations and individuals to ensure that activities are carried out in a manner that is sensitive to the needs of Trust Area ecosystems and island communities'.

Goal B of the Islands Trust Policy Statement is 'to ensure that human activity and the scale, rate and type of development in the Trust Area are compatible with maintenance of the integrity of trust area ecosystems'.

The proposed position would support Trust Council's strategic plan Objective "Protect quality and quantity of water resources".

2. BACKGROUND

This business case assumes that Trust Council does not want to decrease service in any other areas, while improving protection of the freshwater resources.

3. PROBLEM STATEMENT

As the agency responsible for preservation and protection of the trust area, and as the planning authority responsible for regulating development, local trust committees have an absolute need to factor into its land use assessment processes the sustainable limits of fresh water exploitation, and how those limits are likely to be affected by climate change. Currently only one trust area, Salt Spring Island, is undertaking work of this nature. That work needs to be extended to cover the whole Trust area and it needs to be intensified.

4. RESEARCH and CONSULTATION

This initiative has the support of the following agencies:

- Forest, Lands and Natural Resource Operations staff
- Salt Spring Island Watershed Protection Authority
- SSIWPA Technical Working Group
- Salt Spring Island Local Trust Committee

5. ALTERNATIVES CONSIDERED

Recommended:

Staffing of a temporary Senior Freshwater Specialist for one year, with an option to extend for a second year, reporting to Director of Local Planning Services.

Alternatives:

Option 1 – Funding for a Consultant

Trust Council could allocate funds to hire a consultant with the appropriate expertise that would operate under a terms of reference, with clear deliverables. This would require significant manager support to oversee and manage the overall project.

Option 2 – Increase Technical Scientific Funding

The Scientific Technical budget is currently \$15,000 annually. This amount could be increased with the additional funding being specifically used for expertise assistance with freshwater issues on the islands. Direction could be through each individual trust committee work program or via local planning committee or Executive Committee.

6. PROJECTED RESULTS/DELIVERABLES and RISKS

A full-time senior position (similar classification and educational requirements as Island Planners, Trust Fund Manager and Senior Policy Advisor and Senior Intergovernmental Policy Advisor) on a temporary basis June 2017 to March 31, 2018) that will attract a person with advanced education, expertise, leadership, training and skills in freshwater hydrology and intergovernmental skills.

In the first year, the position would:

- Prepare a map of freshwater demand for each local trust area – this would help local trust committees’ understand which geographical locations place highest on freshwater sources.
- Prepare a priority list for areas most urgently in need of ground trothing – this would identify priority areas where quantity and quality issues exist.
- Establish criteria for and develop a database* and devise an appropriate mapping protocol where the information gathered will be stored – this will provide a secure location to store and retrieve information on freshwater resources.
- Coordinate with other agencies to ensure data is in a compatible format – this will reduce duplication and enhance collaboration and co-management of freshwater resources.
- Assist other agencies with hydrological assessments, such as translating precipitation into recharge rates and quantities for the Trust Area – this will help local trust committees and communities to understand sustainable limits to the use of the freshwater resource.
- Provide linkages between Islands Trust and other agencies – this will enhance interagency communication.
- Align the work being undertaken with climate change forecasts – this will enhance climate change resilience and ensure that climate change is fully assimilated into the assessment process.
- Develop a systematic outreach policy for educating communities on fresh water issues – this will help educate communities on fresh water concerns.

* skill for actual database coding and development would use existing in-house resources

7. CRITICAL SUCCESS FACTORS

There are no known risks to creating this position, but the position’s success will depend on the support of the Trust Council, the management team enabling strong linkages to existing staff and on the supervision of the Local Planning Services Director to ensure the new staff work program addresses the highest priority tasks. The position would also require support from Geographic Information Systems, Computer Applications System Tecnologist and Communications Specialist to deliver some of the deliverables.

8. IMPLEMENTATION/CHANGE MANAGEMENT/COMMUNICATIONS

If the position is approved, the successful candidate will develop a communication strategy and change management strategy in cooperation with the Communications Specialist, the Executive Committee and other staff.

9. KEY PERFORMANCE INDICATORS

Performance indicators (success factors) would include:

- Mapping of areas with critical freshwater issue
- Quicker and easier access to information regarding freshwater in the Islands Trust Area

10. PURCHASING

If approved, the position would be recruited following the Public Service Agency recruitment guidelines. Recruitment would commence on April 1, 2017 with the intent to have the position filled by June 1, 2017.

11. RECOMMENDED DECISION

That the Islands Trust Council include \$83,670 in its proposed budget for 2016-17 to fund a full-time Senior Freshwater Specialist position from June 1, 2017 to March 31, 2018.

12. OTHER

The following cost is based on an Island Planner and Trust Area Senior Policy Advisor equivalent pay-scale (*note at time of writing, this is a placeholder estimate, representing a position that has similar expertise and education as an Island Planner and the Policy Advisor. Actual compensation will depend on PSA assessment and classification of the Job Profile*):

- 1 The monthly cost at a Grid 27 (Island Planner and Trust Area Senior Policy Advisor equivalent effective April 5, 2017) including benefits and a potential 6.6% temporary market adjustment, is \$8,365.
- 2 The annual cost at 1.0 FTE, including benefits, is \$100,400.
- 3 The cost in year 1 could be based on 10 months because hiring will not be complete until June = \$83,670 for 2017/18 fiscal year. If the position is continued, that would increase to \$100,400 plus BCGEU negotiated increases, for the 2018/19 fiscal.

Office space would need to be provided in one of the offices, likely Victoria.

Additional costs include travel expenses (which would be from the local planning services travel budget that may need adjusting) and for training opportunities. Island Planners each have approximately \$1200 annually to cover training requirements and a similar amount would be requested for the Senior Freshwater Specialist.

Trustee George Grams

Initiator

David Marlор, DLPS

Director

Russ Hotsenpiller, CAO

November 9, 2016

Date

November 9, 2016

Date

-

REVIEWED BY MANAGEMENT TEAM:

Date received:

Approved: YES NO

**DRAFT JOB PROFILE**

Current Position # _____

TITLE: SENIOR FRESHWATER SPECIALIST

MINISTRY: ISLANDS TRUST,
MIN OF COMMUNITY, SPORT & CULTURAL DEVELOPMENT

CLASSIFICATION: TO BE DETERMINED**WORK UNIT:** LOCAL PLANNING SERVICES**SUPERVISOR TITLE:** DIRECTOR, LOCAL PLANNING SERVICES**SUPERVISOR POSITION #:** _____**JOB OVERVIEW**

This is a temporary leadership position that ensures a focus on excellence development of professional reports in the area of Fresh water ecosystems, including groundwater and hydrology. The focus will be on freshwater issues and related outreach and engagement with government agencies. The Senior Freshwater Specialist provides senior advice to the elected officials for 13 local trust committees, the Executive Committee and Trust Council, the Chief Administrative Officer, Directors, Regional Planning Managers, Island Planners and other staff on a variety of freshwater issues and initiatives ensuring a high performance and informed approach. The position will require the Senior Freshwater Specialist to provide advice to elected officials, senior staff, planners and bylaw enforcement officers and assist in consultation with government agencies.

The position will report to the Director of Local Planning Services.

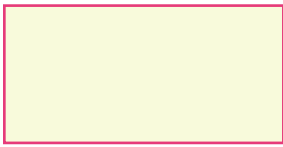
The Senior Freshwater Specialist takes the initiative to develop tools and methods, research and sophisticated knowledge of freshwater issues as follows:

KEY ACCOUNTABILITIES

- Provide professional and expert leadership, support guidance, education and orientation to local trust committees, Islands Trust senior staff and Island planners on all matters related to freshwater.
- Provides professional and expert policy advice to Trust Council, council committees, local trust committees, Trust Fund Board and staff on freshwater.
- Conducts research and assesses freshwater issues develops reference materials, tools and systems to document information on the issues and provides advice to elected officials, planners and senior management.
- Attends local trust committee meetings to present and provide advice on freshwater issues.
- Prepares and recommends strategies and priorities to local trust committees with respect to potential and emerging freshwater issues and conducts business case reviews, research and evaluation to ensure successful outcomes.
- Works with Regional Planning Managers, planners and other staff to identify and respond to freshwater issues, including undertaking advocacy in support of local trust committees Official Community Plan polices.

EDUCATION AND SKILLS

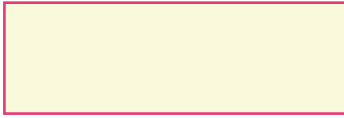
- A degree in hydrology or a related degree
- A minimum of five years' experience in hydrology
- Understanding of BC legislation on land use planning and governing fresh water is desired



SSIWPA Outreach Plan Draft - 2017

| Item | Date | Agency and Detail |
|--|---------------|--|
| Workshop Series: Water Licensing and Agriculture Workshop | January 18 | FLNRO, Coordinator Estimate \$50 plus Coord time (20 hours) |
| Cusheon Lake Road Street Party | April 30 | Coord, All. Speaker about road runoff impacts on lake ecosystem health and water quality, SSIWPA Booth. \$200, (10 hours) |
| 1 to 3 other Workshops in Series during 2017 Idea 1: Partner with Salmon Enhancement to assist with delivery of St. Mary Lake Riparian Restoration Workshop(s) (Subject to budget, date, topic and speaker agreement by Steering) | TBD spring | Coord, All. Co-publicize workshops. Bring in speaker from SSIWPA in conjunction? Est. \$400 - 1000 (depends on travel expenses, advertising costs) |
| Workshop idea 2: What is allowed on SSI? Greywater reclamation and composting toilets. | TBD | CRD Building Inspector and Ministry of Health |
| Workshop idea 3: Stream stewardship, erosion, alternative energy (microhydro) (Subject to agreement by Steering) | TBD | Ideas: 3 speakers together - FLNRO Darryl Slater (Stream authorizations), David Tattam for enviro farm planning/water quality; professional microhydro inverter installer/manufacturer |
| Workshop idea 4: How to grow food with less water: Permaculture Methods for Xeriscaping/Dry Gardening (Subject to agreement by Steering) | TBD | CRD composting workshop already scheduled. Could be joint? Michael Nickels or other Permaculture Local Teacher |
| Workshop idea 5: TBD and subject to agreement by Steering prior to publicity (may be related to integrated water management, low impact development, rainwater harvesting, or clarification on historical myths about water resources from past SSI reports) | TBD | CEWG member Sandra Ungerson |

| | | |
|--|-------------------|---|
| Fall Fair: Booth (together with Islands Trust?) | September 16 & 17 | Coordinator and SSIWPA members for booth staffing |
| Rainwater Harvesting Tour | October | Coordinator, Sharon Bywater |



December 6, 2016

Derek Masselink, M.Sc., P.Ag.
Agrologist, Ministry of Agriculture and Lands
5785 Duncan St., Duncan, B.C. V9L 3W6
Derek.Masselink@gov.bc.ca

Hello Derek,

The Salt Spring Island Watershed Protection Authority (SSIWPA) Steering Committee, would like to invite you to join this Steering Committee as a representative of the British Columbia Ministry of Agriculture.

The composition of the steering committee comes directly from the authority delegated to the SSI Local Trust Committee from Islands Trust Council. Authority for coordination is between the government of B.C., an improvement district, or a regional district. Steering Committee invites your participation as a governmental agency.

Please advise of acceptance at your earliest convenience. The upcoming meeting of the Steering Committee is January 20, 2017.


If you accept, the SSIWPA Coordinator Shannon Cowan will add you to Steering Committee communications. It may be that some agendas are more pertinent to your jurisdiction than others, and the Coordinator will aim to assist in communicating with you in advance of agendas for which your attendance may be of particular importance.

Sincerely,

George Grams, Chair
Salt Spring Island Watershed Protection Authority - ggrams@islandstrust.bc.ca

www.ssiwatersheds.ca

c/o SSI Islands Trust ~ 1-500- Lower Ganges Road, Salt Spring Island V8K 2N8
Coordinator Shannon Cowan ssiwpacoord@gmail.com 250-653-4867



Sent via email to SSIWPA Coordinator
Dated: 12/12/16
cc: George Grams, SSIWPA Chair
cc: Orlando Schmidt, Ministry of Agriculture

From: Derek Masselink, P.Ag. Regional Agrologist, Vancouver Island South, BC Min. of Agriculture

Shannon, thank you for the invitation to participate on SWPA. I will try to participate as much as my schedule allows.

Our Ministry has a particular interest in the SSI water budget project discussions – particularly as they relate to agriculture. As you know, we are exploring ways to contribute to the project to ensure a more better understanding and integration of our sector’s needs and interests.

Cheers!

Derek

Derek Masselink P.Ag. | Regional Agrologist, Vancouver Island South
BC Ministry of Agriculture | phone: 250-746-1212 | cell: 250-701-3466 | email:
derek.masselink@gov.bc.ca
www.gov.bc.ca/agriservicebc | 1-888-221-7141 | AgriServiceBC@gov.bc.ca

Dear Workshop Participant (and invitees):

Thank you for attending the Salt Spring Island waste management information sharing session on November 24, 2016. I have attached the presentation by Capital Regional District (CRD) staff for your information. The meeting was chaired by Director McIntyre who provided opening and closing remarks. No formal minutes were taken. A high level summary of the main topics of interest discussed and actions arising from the meeting is provided below.

Kitchen Scraps Ban

There was a lot of discussion about the kitchen scraps ban. Participants identified a desire for more education, including presentations in local schools, curriculum information, ads in the Driftwood, promotion of onsite digesters, and outreach displays at local stores.

The following links provide information about CRD programs:

School program resources: <https://www.crd.bc.ca/education/school-programs>

Kitchen scraps information: <https://www.crd.bc.ca/service/waste-recycling/kitchen-scraps>

Marika Smith of the Compost Education Centre provided information about onsite digesters and offered to host an information session on Salt Spring. Participants shared positive experiences about their onsite units. The Compost Centre also has plans for building your own backyard compost bins and can offer expertise in mid scale composting systems. Marika can be reached at info@compost.bc.ca or [250.386.9676](tel:250.386.9676).

Compost Education Centre information: <https://www.compost.bc.ca/>

Actions:

- CRD staff will undertake to provide more education on kitchen scraps on Salt Spring Island in 2017.
- Interested groups can contact the CRD or Compost Education Centre for presentations or displays.

Integrated Resource Management

Another lively topic of discussion was integrated resource management, including using biochar for soil remediation and as a strategy to mitigate climate change. There was a lot of interest in the planned CRD Request for Expression of Interest (RFEOI) for an integrated resource management project which will provide an opportunity to investigate a wide range of beneficial reuse opportunities for liquid and solid waste feedstocks. Participants expressed preference for local solutions and asked that the design of the RFEOI allow for scalability to encourage sub-regional application in smaller communities like Salt Spring. Any interested parties are encouraged to register on the CRD website to ensure they receive notification when the RFEOI is issued (<https://www.crd.bc.ca/about/contracts-rfps/register>).

CRD staff advised that the RFEOI is expected to be issued in the first quarter of 2017. The results will inform the scope for an innovative procurement process. Any future facility, regardless of technology, would require a number of environmental assessments and controls and be subject to the Ministry of Environment's permitting process which can take up to two years.

Actions:

- CRD staff will work to try and include a section in the RFEOI to determine the level of private sector interest to undertake scalable sub-regional solutions
- CRD staff will distribute results of RFEOI to information session participants and other interested stakeholders.

Solid Waste Management Planning Topics

Several participants pointed out the importance of reducing and reusing in the 5R resource management hierarchy. There was some discussion about establishing solid waste services on the island, such as providing garbage cans in public places to reduce illegal dumping. CRD staff advised that the development of the new Solid Waste Management Plan would be an excellent platform for

discussing and confirming local community values related to the 5R hierarchy. Plan development is currently on hold but expected to resume in 2017.

Action:

- CRD staff will consult with Salt Spring Island residents about local community values during the development of the new Solid Waste Management Plan.

At the end of the meeting, Director McIntyre invited Rob Grant, Executive Director of Salt Spring Island Community Services who run the recycling depot to make a brief presentation on future plans. Mr. Grant outlined potential social enterprises to reuse building materials and recover food from grocery stores to increase food security on the island.

Thank you for attending the information session and for your interest in waste and resource management in our region.

Regards... Russ

[\(see companion presentation slides as PDF file\)](#)

Russ Smith

Senior Manager, Environmental Resource Management

Capital Regional District

625 Fisgard St, PO BOX 1000,
Victoria, BC V8W 2S6

T. [250.360.3080](tel:250.360.3080) | F. [250.360.3047](tel:250.360.3047)