Salt Spring Island Watershed Protection Authority

Minutes of a Regular Meeting

Date of Meeting:	**Friday, October 28, 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) Sarah Shugar, Recorder
Technical Working Group Liaison:	Don Hodgins, Co-chair, SSIWPA Technical Working Group
Media and Others Present:	6 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 10:31 a.m.

2. APPROVAL OF AGENDA

The following addition to the agenda was presented for consideration:
4.10.5 CRD Waste Management Update

By general consent, the agenda was adopted as amended.

3. MINUTES

3.1 Draft Minutes of the September 26, 2016 Salt Spring Island Watershed Protection Authority Regular Meeting

The following amendment to the minutes was presented for consideration:
7.10.1 replace “Watershed Stewardship Series” with “Water Sustainability Act”.

By general consent, the Salt Spring Island Watershed Protection Authority Minutes of September 26, 2016 were adopted as amended.

4. BUSINESS ITEMS

4.1 Chair’s report

Chair Grams reported he attended the inaugural meeting of the Conservation and Efficiency Working Group. He reported the Islands Trust Financial Planning Committee and Trust Council have agreed the administration charge of $12,000 would not be charged in the 2017/18 budget. The Salt Spring Island Local Trust Committee will consider whether to reduce SSIWPA’s 2017 tax requisition or maintain the tax requisition at $110,000. He also reported SSIWPA is seeking assistance in cataloguing the online library.

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

Committee Member Stepaniuk reported the level of St. May Lake is 40.34 metres. The North Salt Spring Waterworks District (NSSWD) has continued to conduct biweekly monitoring of the raw and treated water, following the toxin detected by the CRD, and no toxins have been detected by the NSSWD. The level four drought restrictions were lifted in October.

There was discussion regarding notification of ratepayers when toxins are detected. It was noted NSSWD is obligated to notify District ratepayers when a toxin is detected.

By general consent, the Salt Spring Island Watershed Protection Authority agreed to request Coordinator Cowan to follow up with Craig Nowakowski, Island Health Senior Environmental Health Officer and Christoph Moch, CRD Water Quality Operations Environmental Protection Manager regarding toxin-reporting procedures.

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 is in strong decline. Testing will continue for another two weeks even if the algae numbers remain low. The surface scum observed last week was very strong and the potential risk for toxins to be released into the water as the cells die and lyse is significant.
- On October 25, 2016 the Secchi Disk measurement was 3.9 metres.
- The corrected Lake gauge measurements are as follows: September 26 was 0.772 metres; September 30 was 0.746 metres; October 5 was 0.746 metres; October 7 was 0.77 metres; October 10 was 0.812 metres; October was 0.806 metres; October was 1.016 metres; October 18 was 1.103 metres; October 19

was 1.116 metres; October 20 was1.164 metres; October 25 was 1.298 metres.

- The lake level is higher than it was last year on Oct 26 2015 at 0.84 metres. This is a difference of 0.45 metres. In 2015, the current lake level was not reached until around November 18 and the secchi disk was 4.5 metres. Usually when the lake is at 1.298 m level the secchi measurement is higher and clarity is good. The lower reading on October 25 2016 is likely caused by the rain and increased runoff.
- Rainfall quantities received at Gulf Island Secondary School: October 2016 - 162 mm; October 2015 - 85.3 mm; October 2014 - 128.0. mm.
- The lake was mixed from top to bottom on October 16 with a temperature of 13 degrees from top to bottom. This could not be determined last year as the meter only had a 7-metre cable. The oxygen level was 7.75 mg /L.
- Flow gauge measurement in Cusheon Creek on October 25 was 0.29m. This is low. It is unclear whether the lake is flowing into Cusheon Creek.

4.4 Coordinator's Report

The Coordinator's Report for the period September 13, 2016 to October 21, 2016 was received for information and it was noted Coordinator Cowan attended a 'Key line water management' workshop at Bullock Lake Farm where the method for increasing soil water-holding capacity is being tested. (Workshop was funded by CRD and Growing Forward 2.)

4.5 Technical Working Group report

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

- St. Mary Lake Water Quality:
  - The draft external P loading estimates for SML has been reviewed by the TWG and will be finalized and posted to the website next week.
  - The TWG considered the SML management action regarding the benefits of removing P from all of the ditches and creeks entering SML. The TWG has concluded that although external loading appears to be high, the ditches and creeks are not the drivers of P cycling in SML and perhaps the stimulation of algal blooms.
- Cusheon Lake:
  - The TWG is compiling data and contacting stakeholder groups for Cusheon Lake Watershed.
- Water Quantity:
  - TWG has been in contact with some of the community well systems to invite collaboration: sharing of well productivity data, and consumption rate data. These will be used to compare water consumption in water districts such as NSSWD that use surface water with community wells, and to assess areas most constrained by drought and/or groundwater contaminants. There is a question regarding whether community well system users are more conservative in water use. This action is also in order to identify wells that can serve as monitoring wells in the future.
  - The ministries (FLNRO and MOE) requested input from TWG members regarding the Request for Proposals to hire a consultant for the SSI Water Budget analysis project.

- Sustainable yield monitoring for surface sources has advanced.

4.6 Conservation and Efficiency Working Group report - none

4.7 Review of Water Quantity IWM Program - Agency Specific Items

D. Hodgins presented a TWG report dated September 2016 regarding the Strategic Plan Status for the Integrated Water Management Program. He reported the overall goal to estimate the total sustainable yield of all water sources on Salt Spring Island: (1) to reconcile the resource with the Official Community Plan; (2) to develop quantitative planning tools for Salt Spring Island and the Trust Area; (3) to develop a quantitative and qualitative plan regarding how to adapt to climate change (4) to what benefits can be achieved by conservation measures and potential alternative sources of water.
TWG Phase 1:

- Surface water sustainable yield:
  - Climate - Quantify the effect of drought extremes within climate change – led by D. Hodgins, to be addressed in 4-5 months UVIC/PCIC/MOE/FLNRO
  - Watershed consumption and production statistics – Sustainable yield model for surface water mathematical basis is complete led by D. Hodgins to be complete by the end of November 2016 / OPUS study
  - Watershed hydrology - Hydrological modeling - identify software that is applicable for Salt Spring Island and has characteristics (resolution and mechanisms) needed – led by F. Beall and D. Hodgins
  - Generalized risk analysis model
- Groundwater sustainable yield (utilization assessment and data assembly):
  - Identify known active wells – aquifer mapping geological approach – MOE/FLNRO study
  - Identify properties served by systems
  - Identify properties with no apparent service
  - Identify properties that must have wells
  - Calibrate zone/use with consumption – community well systems/OPUS
  - Add up total utilization – MOE/FLNRO study
  - Quantify uncertainty in estimates
  - Map areas of stress / non stressed supporting data

There was discussion and the following comments were noted:

- There was question regarding how would a large collection system impact the study. A: A large collection system would be treated as a surface water reservoir. If it is a small reservoir driven by precipitation it is a measure of balance. The generalized model that is being developed for the lakes applies equally to small reservoirs.
- Having a community reserve or introducing legislation regarding rainwater harvesting could address water collection.
- The CEWG will assess and analyze what other communities have done and consider a range of options. (omitted “new”)
- Water that is captured does not go into the groundwater system.
- There is risk in miscalculating the use of an aquifer.
- Geological location is a consideration for rainwater capture such as rain

collection close to the foreshore collects water that would be discharging into the ocean.
- There is a need to develop a timeline for achieving the tasks and prioritizing such as the NSSWD and salt-water intrusion. There may be the opportunity introduce early legislation while the study continues to unfold.
- Planner Starke is redefining the project charter for SSIWPA.

By general consent, the Salt Spring Island Watershed Protection Authority agreed Coordinator Cowan would schedule a Conservation and Efficiency Working Group meeting in the next two weeks with Planner Starke to consider the objectives.

4.8 Review of Local Trust Committee OPUS Project Extension Terms of Reference

The OPUS Project Extension Terms of Reference and the following comments were noted:
- NSSWD submitted comments directly to staff;
- CRD has submitted comments by email to SSIWPA;
- There could be overlap if Opus and CEWG are looking at consumption.

D. Hodgins presented the TWG comments regarding the OPUS Project Extension Terms of Reference and presented the following recommendations:
1. The Terms of Reference should be more explicit, scope of work and methods be reviewed before going to contract, use outside expertise as needed;
2. Study focus – characteristics of consumption and demand; actions / incentives reduce consumption;
3. Emphasis on conservation – chapters 4 and 5;
4. Eliminate the comparison of supply with demand data not available, numbers used to date do not stand up, results are inconclusive.

By general consent, the Salt Spring Island Watershed Protection Authority agreed Coordinator Cowan would circulate the TWG comments regarding the OPUS Project Extension Terms of Reference to SSIWPA, and request comments be forwarded to Chair Grams.

4.9 Summary of Watersheds 2016! Experience

Coordinator Cowan reported she attended the Watersheds 2016! Conference on September 30 to October 1, 2016 at Simon Fraser University and presented an overview of the conference.

4.10 Announcements and Events

4.10.1 Sustainable Watershed Systems: Nature's Assets by Kim Stephens, Glen Brown and Brian Bedford

4.10.2 Composting Toilet and Grey water Regulations July 2016

4.10.3 Diana Allen's August 19,2016 Groundwater Recharge Talk on SSIWPA

Website

4.10.4 Federal Fisheries Conservation Partnerships Funding Competition Deadline December 9, 2016 - for information to local stewardship groups

4.10.5 CRD Waste Management Update

The CRD is hosting a Waste Management on Salt Spring Island event on November 24, 2016 4:00 p.m. to 6:00 p.m at the Lion's Hall. CRD senior staff and the chair of the environmental services committee will be in attendance.

4.11 Correspondence - none

5. OTHER BUSINESS

5.1 Questions and Comments from Public

Question and comment from one member of the public: (1) has the TWG reviewed the Water Council study regarding monitoring wells? D. Hodgins reported the TWG has not reviewed the study yet; (2) the links in the most recent Watermark newsletter did not work

Questions and comment from one member of the public: (1) what is the primary driver of external P in St. Mary Lake and how do you know it is correct? D. Hodgins reported it appears the internal processes of the lake itself are what stimulate the change in P. The variation of P within the lake is not correlated with P run-off. The timing is wrong and the order of magnitude is lower. (2) What level of hardship is reasonable to ask of consumers, as conservation is increasingly called upon as supply? (3) The most simple and efficient way of recovering rainwater in new construction is in the design of foundations of buildings.

One member of the public asked for clarification the information regarding the speed of aquifer recharge is "quick". P. Lapcevic reported Diana Allan's studies on the Gulf Islands over the past 10-15 years and FLNRO's observation wells confirm that overall the groundwater recharge is strictly from precipitation and not tapping into deep non-renewable aquifers. The recharge is occurring on an annual basis. The provincial study that MOE is leading is a two-year study; the first year is to look at the aquifers and will not address the second question until the second year.

One member of the public asked what kind of spatial resolution is MOE anticipating to achieve? P. Lapcevic reported in B.C. aquifers are delineated within an aquifer delineation system. It is difficult to answer quantitatively at this point as they do not have the resources to get to well or fracture scale. D. Hodgins reported the MOE study is a "big picture study" and the two studies are complimentary. The TWG phase one study will concentrate on identifying active wells and spatial delineation on a finer scale of where areas are stressed or not. The second and third phases of the TWG study address collecting new data from wells and existing properties to understand how the in homogeneities affect the

yields from wells.

Committee Member Hewitt expressed concern regarding the impact of bottled water use on community water systems.

By general consent, the Salt Spring Island Watershed Protection Authority agreed to refer impacts of bottled water use on community water systems to the CEWG for consideration.

A Water Sustainability Act Groundwater Licensing event is scheduled for November 8, 2016 in Duncan. Coordinator Cowan will circulate the information to committee members.

6. NEXT MEETING

The next regular meeting is scheduled for Friday, November 18, 2016, 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 12:14 p.m.

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George Grams, Chair

CERTIFIED CORRECT:

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Sarah Shugar, Recorder