



## **SSI WATERSHED PROTECTION AUTHORITY TECHNICAL WORKING GROUP MEETING**

10:00 am – 12:00 pm on Tuesday December 13, 2016  
**SD 64 meeting room, 112 Rainbow Road, Salt Spring I., B.C.**

### **AGENDA (*draft until approved*)**

#### **1. CALL TO ORDER**

#### **2. APPROVAL OF AGENDA**

#### **3. APPROVAL OF MINUTES**

Draft Minutes of the October 11, 2016 Watershed Protection Authority's Technical Working Group – **for approval**.

#### **4. BUSINESS ITEMS**

**4.1 Technical presentation** - Sustainable yield model for surface water resources, worked example for St. Mary Lake watershed and key results. (Don Hodgins)

**4.2 Research Program Updates**

**4.3 TWG Workplan** – new draft (*attachment pending*)

**4.4 Terms of Reference Amendment** – new draft (*attached*)

**4.5 Terms of Service for TWG members**

Short discussion. Please be welcome to submit your request to serve another term to the Steering Committee, with indication of preferred timeline (12 months, or 24 months). Deadline to submit: ~~January 10, 2017~~ December 16, 2016

**4.7 Meeting Dates 2017**



**4.8 Report out to Steering Committee**

**4.9 Correspondence and News**

**5. OTHER BUSINESS**

5.1 Comments or questions from observers

**6. NEXT MEETING –**

**January 31, 2017 (10 am -12 noon, @ School District)**



**DRAFT MINUTES  
of the  
SSI WATERSHED PROTECTION AUTHORITY  
TECHNICAL WORKING GROUP MEETING**  
3:45 pm – 5:45 pm on Tuesday October 11, 2016  
**Portlock Park Portable, 145 Vesuvius Bay Rd., SSI, BC.**

**Date of Meeting:** **Tuesday, October 11, 2016 3:45 pm – 5:45 pm**

**Location:** **145 Vesuvius Bay Road, CRD PARC portable  
Salt Spring Island**

**Members Present:** Fred Beall, Member at large  
Kevin Chipperfield, Member at large  
Ian deBie, Co-Chair  
Dale Green, Capital Regional District, Integrated Watershed  
(via telephone conferencing)  
John Harris, Member at large  
Don Hodgins, Co-Chair  
Jos Lussenburg, Member at large  
Katsky Venter, Member at large

**Regrets:** Sylvia Barroso, Ministry of Forests, Lands and Natural Resources  
Neil Goeller, Ministry of Forests, Lands and Natural Resources  
Julie-Ann Ishikawa, Ministry of Environment  
George Grams, Chair, Islands Trust Local Trustee

**Staff Present:** Shannon Cowan, Coordinator

**Media and Others None  
Present:**

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

- 1. CALL TO ORDER** – The meeting was called to order at 3:45pm.
- 2. AGENDA**



The item “Local Trust Committee Opus Study Extension Terms of Reference” was presented for consideration under 4.2.2.2. **By general consent**, the agenda was approved, as amended.

### 3. APPROVAL OF MINUTES

**By general consent**, Draft Minutes of the May 9, 2015 Watershed Protection Authority’s Technical Working Group were *approved*, as written.

### 4. BUSINESS ITEMS

**4.1** Action List Progress Update from May 9, 2016 TWG Meeting was received for information from the coordinator.

#### 4.2 Research Program Updates

##### 4.2.1 Water Quality:

4.2.1.1 A short presentation was given by Don Hodgins to highlight major findings in the draft paper “St. Mary Lake: Estimates of External Phosphorus Loads” that was presented to the Technical Working Group for review prior to publication. Final report will be loaded to SSIWPA website by end of the month.

4.2.1.2 **It was agreed by general consent** that TWG will report to Steering Committee that special turnover phosphorus monitoring in St. Mary Lake during 2016 period of lake turnover was not warranted, at this time.

4.2.1.3 SML Soil P monitoring to confirm septic P 2014-15 results will begin in November, 2016.

4.2.1.4 **It was agreed by general consent that Member Beall** will catalogue the nutrient loading, in-lake chemistry and hydrological data for Cusheon Lake, and will report back to TWG once he has developed an early draft monitoring proposal that is hypothesis-driven.  
(continued over page)



#### 4.2.2 **Water Quantity:**

4.2.2.1 Member Hodgins presented the data analysis and data collection that is currently in process for assessing surface hydrology and precipitation for the St. Mary Lake watershed.

Member Hodgins reported that work on a 'sustainable yield model for surface water' will be drafted and presented within 1-2 months.

4.2.2.2 The Ministry of Forest, Lands and Natural Resource Operations' Water Budget project request for proposals process was discussed. The interactions of project supervisors Barroso-Lapcevic-Rathfelder with SSIWPA and the TWG was received for information.

**4.3 ACTION: By general consent**, it was agreed the Coordinator would send a revised Terms of Reference Amendment – just the last page, by email for TWG comment.

#### 4.4 **TWG Workplan**

SSIWPA coordinator presented a draft list of grant opportunities, and related TWG project areas (IWM program) that could serve as a workplan for TWG. **It was agreed by general consent** that the Coordinator would circulate the draft list of projects and grant information for comments and edits by email.

#### 4.5 **Grants**

A Real Estate Foundation of BC grant application process was outlined by the coordinator. Discussion ensued.

#### 4.6 **Meeting Dates and Times**

**It was agreed by general consent** that TWG will meet in full every 2-3 months instead of quarterly. Members are expected to make efforts to attend as many TWG meetings as possible. Meeting schedule to be set for 2017 in upcoming December meeting.



**It was agreed by general consent** that TWG Co-Chairs will ensure that subcommittees arrange regular days and times for informal working meetings (ie. First Tuesday of the month, 1pm). Members u

**4.7 Report out to Steering Committee**

**It was agreed by general consent** that Co-Chairs will assemble a report to October 28, 2016 Steering Committee meeting from items minuted in this document, especially the item 4.2.1.2.

**4.8 Correspondence and News**

none

**5. OTHER BUSINESS**

5.1 No comments, no other business.

**6. NEXT MEETING –**

**to be scheduled**



## Salt Spring Island Watershed Protection Authority TECHNICAL WORKING GROUP TERMS OF REFERENCE

Adopted August 29, 2013

Amended March 3, 2014

Amended February 2, 2015

Amended September 14, 2015

Amended January 29, 2016

**Draft Proposed Amendments December 8, 2016**

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### Background

The Salt Spring Island Watershed Protection Authority (SSIWPA) was created in 2012 to provide a coordinated approach to watershed management and the protection of fresh water resources on Salt Spring Island. SSIWPA is comprised of agencies and government organizations with responsibility and authority for the use and management of the water and the watershed.

The Salt Spring Island Watershed Protection Authority identified the need for a Technical Working Group (TWG) to assist with the technical work of the SSIWPA, objectively assessing scientific research to date, identifying gaps in the information, and researching solutions. The SSIWPA is responsible for governing the process and making decisions about contracting, work planning, and milestones.

These Terms of Reference (ToR) outline the roles and responsibilities of the Technical Working Group for the Salt Spring Island Watershed Protection Authority.

Please refer to the Terms of Reference for the Salt Spring Island Watershed Protection Authority. The TWG ToR may be amended by the SSIWPA **Steering Committee (SC)** if required by changes to scope of work, membership, timeline, or other matters.

### Purpose

The purpose of the TWG is to provide balanced and science-based, technical advice to the SSIWPA, and through it, to its member agencies. The advice of the TAC is to be impartial and objective, drawing on collective expertise to identify watershed issues and to develop workable solutions that reflect the best available science, innovative technologies and consensus approaches.

### Mission

The TWG exists to provide science-based, technical advice about water and watershed science to the SSIWPA, and through it, to its member agencies. It aims to be a trusted source of scientific expertise and

[www.ssiwatersheds.ca](http://www.ssiwatersheds.ca)

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knowledge on Salt Spring Island for sustainable watershed management and source water quality and quantity assessment. As directed by SSIWPA Steering Committee, may be called on to generate and analyze scientific data, and/or to peer review existing technical information.

## Objectives

The TWG's approach is to be science based. The following tasks are among its duties:

1. To assemble and collate existing information and data on causes of the deterioration of source water quality in general, and in Salt Spring Island Island's drinking water sources in particular.
2. To identify critical information gaps and fill them.
3. To assess priorities for watershed projects/programs.
4. To advise on the technical costs, benefits and timetables for water management/remediation projects.
5. To advise on stewardship practices to protect water quality, quantity and other interests, including seasonal flow or contamination issues.
6. To advise on technical aspects of existing or proposed water-related legislation and policies.
7. To integrate research that supports watershed management recommendations including:
  - a. Proposals to remediate surface water quality and address root causes of watershed ecosystem decline;
  - b. Assessing the needs of fisheries, wildlife and other environmental resources;
  - c. Helping to establish the ecological limits of surface water and ground water watersheds;
  - d. Emerging research on climate change impacts;
  - e. New technologies and approaches;
8. To assess the value of programs and other implementation tools that conserve or enhance water quality and supply.
9. To submit to SSIWPA as directed, position papers, briefing notes or verbal presentations.
10. To make its work and its recommendations available to SSIWPA and to the community by means of a digital online library, to be contained within the SSIWPA web site.
11. Changes to these Terms of Reference or to the TWG's scope of work, membership, timeline, or other matters may be made by SSIWPA as it considers appropriate.

## Scope and Geographical Areas

Initially, the work of the TWG will be to focus efforts on peer reviewing and updating the St. Mary Lake Watershed Management Plan, focusing on a robust assessment of actions that will serve to remediate the raw water and on the protection of the St. Mary Lake watershed. AS SSIWPA's focus is expanded to include other Salt Spring Island watersheds, the TWG's tasks will be adjusted accordingly. (Cusheon watershed focus begins September, 2015)

## Membership

SSIWPA TWG membership will be comprised of not more than nine members at any time. Membership will be determined by consensus of the SSIWPA, in consultation with each member organization.

Member appointed by SSIWPA will have experience or expertise in one or more of the following areas:

- Limnology
- Aquatic Biology

- Soil science
- Environmental Restoration
- Environmental Science
- Hydrology
- Chemistry
- Toxicology
- Watershed protection
- Water resources Engineering
- Civil Engineering
- Mathematics
- Environmental Engineering

Invitations will be extended, but not limited, to representatives from Environment Canada, Fisheries and Oceans Canada, Provincial Ministry of Environment, Ministry of Forest, Lands, and Natural Resource Operations, Capital Regional District, Vancouver Island Health Authority, North Salt Spring Waterworks District, Salt Spring Island resident experts, and academic institutions.

Four of the members shall be appointed to terms of twelve months and three of the members shall be appointed for terms of two years, as specified by SSIWPA at the time of appointment. Thereafter, membership is for a two-year term, with the possibility of renewal.

Members are to serve without remuneration.

## **Chair**

At the initial meeting of the TWG, and then every 3 to 6 months, as determined by general consensus of the TWG, a Chair of the committee will be elected. The chair may serve additional terms, up to a maximum of six consecutive years. The chair is to serve without remuneration.

The Role of the TWG Chair is to include:

1. Liaise with the SSIWPA Steering Committee Chair, Coordinator and TWG members to set agenda topics.
2. Ensure distribution of TWG meeting notes to TWG members through the SSIWPA Coordinator.
3. Liaise with SSIWPA Coordinator, SSIWPA Steering Committee, and Islands Trust to effectively facilitate and coordinate the TWG.
4. Provide TWG progress reports in SSIWPA meetings, with TWG approval of messaging content.

SSIWPA Coordinator will act as facilitator and recorder for formal TWG meetings, unless otherwise arranged and agreed to by both SSIWPA Steering Committee and TWG. TWG Chair and Coordinator may agree to work together to facilitate TWG meetings, to better allow the TWG Chair to participate in the discussions and technical proposals. The SSIWPA Coordinator assists TWG with its group process functions within and outside of TWG regular meetings, to the extent that coordination resources allow.

## **Guidelines for Decision-making**

Decision-making is by consensus. Consensus is defined as agreement by each member, and is achieved through an iterative process: a) proposal, b) clarification and discussion stage, c) proposal modification (with assistance by those suggesting change; as necessary), and finally, d) agreement by consensus, or withdrawal of proposal, by consensus.

There are two levels of Consensus, Full and Working:

- Full consensus – all representatives agree and support the decision;
- Working consensus – not all members support the decision, but all can agree to respect the decision. Those standing aside note their reasons for the record.

Where Consensus is not reached on the first go-round, issues/proposals may be tabled at subsequent meetings of the TWG, but no more than three times for a single proposal/issue. If Consensus cannot be achieved at the third tabling, a majority and a minority opinion statement will be recorded in writing in the meeting notes. Every effort will be made to explore, understand and accommodate the interests of dissenting viewpoints.

## Meetings

TWG will hold public meetings a minimum of four times per calendar year. TWG Chair will report monthly on TWG progress and current activities in SSIWPA monthly meetings, which are open to the public. Some or all of the TWG members may meet informally to discuss science and technical matters, but not to make decisions or recommendations to SSIWPA, as frequently as required, at a location mutually agreed to by TWG committee members.

## Notice of Meetings and Minutes

Notice of the date, time and location of all TWG meetings will be posted by the Coordinator to the TWG and SSIWPA Steering Committee Chair by email, and will be posted publicly on the SSIWPA website. Agendas and approved minutes will also be posted to the SSIWPA website under the TWG agendas and minutes page.

## Conduct

TWG members and observers will be expected to behave with due decorum. That is to say:

Meetings will be conducted with decorum, and generally follow Robert's Rules of Order as interpreted by the Chair and/or Facilitator;

Communications at all meetings will be respectful, considerate, honest, and issue-focused;

All viewpoints will be encouraged, respected, and considered;

Participants will make every effort to resolve issues at the table, and will avoid seeking alternative decisions outside this process;

Participants should have a common understanding of the mandate of SSIWPA and the TWG, and demonstrate mutual respect to other participants.

## Funding

It is anticipated that the representative agencies of the SSIWPA will contribute funding for a SSIWPA Coordinator, to work with the TWG, as well as the SSIWPA. As appropriate, the representative agencies will also provide additional funding in support of agreed to initiatives and in-kind administrative support like meeting rooms, communications, and secretarial services.

Other funding will be pursued opportunistically and as required.

It is anticipated that some of the work cited under "Objectives" will be accomplished by contractors.

## Conflict of Interest

TWG members must take a precautionary approach to ensure that issues of potential or perceived conflict of interest are clearly identified as part of the process.

## Publication Protocol (new draft version December 2016)

1. Raw data (from SSIWPA member agencies, from collaborators, and/or from any SSIWPA-TWG monitoring programs ) will be shared amongst all TWG members as they become available, as and if requested.
2. Raw data (SSIWPA-generated) will be logged and stored in hardcopy form and/or electronic form by the Program Manager, or working group members and will be delivered to SSIWPA Steering Committee at the end of the project, in the form of a deliverable for the specific SSIWPA monitoring program.
3. Raw data (generated by SSIWPA member agency or collaborating group or individual) will be stored in hardcopy and/or electronic form by the working group members who have permission to use it, and by the SSIWPA Coordinator (as backup and future reference only). If appropriate, some raw data will be marked sensitive/confidential (e.g. data pertaining to water consumption that is directly related to identifiable individuals or businesses), for SSIWPA use only. It will not be shared with outside groups or individuals, and will be accessed only in reference to a specific SSIWPA project, program or use, as designated by a written memorandum of agreement with the data-generating agency.
4. Data analysis results and working spreadsheets for SSIWPA projects are to be shared amongst working group members at the sole discretion of the person who created them. Once distributed, data contained in such spreadsheets may then be used by the recipients for SSIWPA project-related interpretation, analysis or scientific purposes.
5. Reports dealing with interpretation of the data for SSIWPA project-related purposes will (ideally) be written to acceptable scientific standard and will be authored by the person(s) who create them. Authorship can be worked out on a case-by-case basis.
6. Selection of subject matter and scope of such reports will be determined by the person(s) who write(s) the report, but will generally follow direction by SSIWPA Steering Committee in approved SSIWPA working group project workplans.
7. Reports created under 5 & 6 above may be distributed to working group members for information and/or request for comment, at the discretion of the author. Subject to correction or editing, such reports may be forwarded to the SSIWPA steering committee and published on the SSIWPA website with permission of the author.
8. Reports requested by SSIWPA steering committee, by consultants working for SSIWPA, or required as a deliverable of a SSIWPA monitoring program, will be authored by the person(s) preparing them, or will be considered working group-authored (if collaborative and agreed by all working group authors). Authorship will be worked out on a case-by-case basis in advance of report preparation and/or publication.
9. Copyright for authored reports will remain with the author(s).
10. Any raw data shared with SSIWPA or its' working groups will not be shared publicly without prior consent and written permission from the agency that generated the data.

11. Published reports/ papers will acknowledge all contributions of data, financial support and expertise from others.
12. Scientific papers prepared under 5 & 6 above may be submitted for peer-reviewed publication without permission of SSIWPA, as long as all authors are in agreement. Such papers will acknowledge all contributions of data, financial support and expertise from others.

# Draft

### **Schedule A: Role of TWG 2013-15: St. Mary Lake Focus**

- In the short term, the TWG will be requested to assess the “Review of St. Mary Lake Restoration Options,” by Ken Ashley (2008) that was prepared for Deborah Epps (Ministry of Environment), and add consideration of any potentially viable solutions that may have been omitted. The TWG will be asked to undertake a cost-benefit analysis of each option, identifying and attempting to fill any information gaps that may exist.
    - Subject to funding, assistance from consultants may be required to assist with analyzing data and information that is beyond the capacity of the TWG as a committee of volunteers.
    - A major role for the TWG will be to participate in a structured decision-making process and evaluate the recommended options, with stakeholders, in a systematic and thorough way that builds consensus in the process. The final result will be a short list of peer reviewed, community generated actions that can be used to update the St. Mary Lake Watershed Management Plan and that the SSIWPA can seek to implement.
    - Other tasks may be assigned as the process unfolds and water quality issues in St. Mary Lake are better understood.
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### **Schedule B: Role of TWG: 2015+: Cusheon Lake Focus**

- In the short term, review and assess technical papers and other resources regarding the Cusheon Lake Watershed. Reports include:
    - “Apparent sources of P affecting Cusheon Lake Salt Spring Island, BC, by J. Sprague (2007). Available at <http://ssiwatersheds.ca/technical-and-other/>;
    - “Cusheon Watershed Management Plan” by Cusheon Watershed Management Plan Steering Committee, (2007). Available at: <http://www.islandstrust.bc.ca/ltc/ss/pdf/sscusheonlkwatershedplan.pdf>
  - Attendance to and consideration of scientific and community values/issues or concerns regarding the Cusheon watershed, as presented to the SSIWPA
  - The TWG will be asked to undertake a cost-benefit analysis of each option, identifying and attempting to fill any information gaps that may exist.
  - Subject to funding, assistance from consultants may be required to assist with analyzing data and information that is beyond the capacity of the TWG as a group of volunteers.
  - Other tasks may be assigned as the process unfolds and water quality issues in Cusheon Lake are better understood.
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### **Schedule C: See documents attached.**

*Integrated Water Management Program Charter (adopted August 19, 2016) and,  
TWG Workplan 2017 (to be approved January, 2017 by Steering Committee)*

Changes this version 7.0:

New Publication Protocol drafted to address data-sharing collaborations for IWM program.

Fourth para (Background section) – added “Steering Committee (SC)”

Schedule B - third bullet added “to”, sixth bullet changed committee to group,

Removed “the TWG will be requested to” in first line of Schedule B

Added Schedule C – suggested IWM workplan after Dec 2, 2016 Kickoff meeting between SSIWPA provincial member agencies and Golder associates for water budget study.

## TWG Proposed Meeting Schedule 2017

### **TWG Meeting Schedule 2017 - Tuesdays**

January 31, 2017 10am – 12pm – booked SD64

Feb 28, 2017 10am – 12pm – booked SD64

April 25, 2017 10am - 12pm – booked SD64

### ***More to be scheduled and booked.***

May 30, 2017 10am – 12pm not booked yet

September 12, 2017 10am – 12pm not booked yet

November 14, 2017 10am – 12pm not booked yet