



Salt Spring Island Watershed Protection Alliance

TECHNICAL WORKING GROUP MEETING

1:00 – 3:00 pm Tuesday, June 8, 2021

VIA Web Conferencing

AGENDA

1. CALL TO ORDER

2. APPROVAL OF AGENDA

3. APPROVAL OF MINUTES

Draft Minutes of the Regular Meeting of the Salt Spring Island Watershed Protection Alliance Technical Working Group held April 6, 2021 - attached

4. BUSINESS ITEMS

4.1 SSIWPA Workplan Projects and TWG Actions

4.1.1 Public Education Materials

Groundwater brochure #1 – complete, distribution

Groundwater brochure #2 – planning

Rainwater System public messaging about permitting – fill gap not addressed clearly by the Non-Potable Rainwater Harvesting Best Practices Guide – see memo attached from Coordinator

4.1.2 Weston Lake Water Availability Study (CRD) – Member Green

4.1.3 Water System Data Survey Report [DRAFT 2] – For Review

4.2 Review Action List

4.3 Other Projects

4.3.1 Watershed Resiliency Mapping – Member Shulba

4.3.2 Transition Salt Spring – Ecological Research Network Video project – Member Millson

1. Video 1 “Our SSI Water - a delicate water balance?” – in development with youth/school groups
2. Video 2 “SSI Watershed Stewardship”

4.3.3 Southern Gulf Islands Groundwater Sustainability Strategy – Islands Trust – Member Shulba

4.3.4 Freshwater Catalogue Project – WPS – Chair Millson

1. FWC – update including focus areas, well sampling

5. OTHER BUSINESS

5.1 Report out to Steering Committee

5.2 Comments or questions from observers

6. MEETING SCHEDULE - TBD

Tuesday September 21, 2021 1:00 – 3:00 pm

Tuesday November 16, 2021 1:00 – 3:00 pm

7. ADJOURNMENT

TWG ACTION LIST

April 2021:

ACTION: William Shulba will bring maps to June TWG meeting for discussion of next pamphlet (for maps).

ACTION: Dale Green will report out on Land Cover Classification report by CRD. [July 2021 pending]

4.2.2 TWG agrees to recommend that SSIWPA-SC add SSI Watershed Ecosystem Resilience Mapping and potential for integration with Dr. Martin’s Land Priority Mapping. This timing is essential to aim towards in order to complete water budgets next fiscal before election in November of 2022 (including integration of mapping work and consideration of the WPS Freshwater Catalogue field data).

4.3 By general consent, it was agreed TWG will not undertake any formal recruitment of new members, but that any current members could keep in mind whether their contacts, networks may suggest a potential recruit, and bring that name to the TWG at a future date.

Report out to steering committee in TWG minutes of a regular meeting 2021-04-06:

- 5.2.1 By general consent**, the Technical Working Group agreed to recommend that the SSIWPA Steering Committee add Watershed Ecosystem Resilience Mapping and investigation of integration with Dr. Tara Martin’s Priority Mapping at UBC as a project on the 2021-22 SSIWPA Workplan. – **IN PROGRESS** – Dr. Martin’s update via Chair Millson this meeting.
- 5.2.2 By general consent** the Technical Working Group agreed to recommend that the Steering Committee consider directing its TWG to provide technical advisory to the Transition Salt Spring Ecological Research Network (ERN) “SSI Watershed Stewardship” Video Project that is currently in planning stages. – **IN PROGRESS - This has yet to come to Steering Committee explicitly in a TWG report.**
- 5.2.3 By general consent**, SSIWPA Technical Working Group elected John Millson as Chair for the twelve months January 1 – December 31, 2021.
- 5.2.4 By general consent**, the Technical Working Group agreed to remind SSIWPA-SC of the ongoing and expanded value of the Water Preservation Society’s Freshwater Catalogue. As supported by Dr. Diana Allen, the resulting community-based research results and datasets, including the recommended linkages between stream and groundwater chemistry made by Dr. Allen and her graduate student in 2020, are considered by experts to have significant value in the goals of many inter-connected research projects coordinated by SSIWPA and carried out by local government and by non-governmental organizations on Salt Spring Island. As well, it was noted that the Freshwater Catalogue also offers useful linkages with future elements of a potential SSI Groundwater Sustainability Plan or Strategy (either as a standalone project, or part of the SSIWPA SSI Watershed Plan)(phasing to be determined).



Draft Minutes of the
Salt Spring Island Watershed Protection Alliance (SSIWPA)
TECHNICAL WORKING GROUP (TWG) MEETING

Date of Meeting: Tuesday, April 6, 2021, 1:00 – 3:00 pm
Location: via Zoom web conferencing

Members Present: Dale Green, Capital Regional District
John Millson, Chair
Ian deBie, Member at-large
Ian Peace, Member at-large
Robin Annschild, Member at-large
William Shulba, Islands Trust Senior Freshwater Specialist

Regrets: Jos Lussenburg, Member at-large
Tanya Schulz, Member at-large

Staff Present: Shannon Cowan, Coordinator, Recorder (via web conferencing)

Others Present: Landen Matechuk, M.Sc. Candidate, University of Victoria
Tara Martin, Ph.D., Forest and Conservation Sciences, University of BC
Sylvia Barroso, SSIWPA Member and Regional Hydrogeologist (FLNR)

DRAFT

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

1. The meeting was called to order at 1:08 pm.
2. The agenda was approved as presented with an adapted order.
3. **By general consent**, the draft minutes of the meeting of the Salt Spring Island Watershed Protection Alliance Technical Working Group held February 05, 2021 were approved.
4. **BUSINESS ITEMS**
 - 4.1 **SSIWPA Workplan Projects and TWG Actions**
 - 4.1.1 Groundwater Education Deliverables and TWG Recommendations to Steering Committee



The TWG agreed **by general consent** to a series of changes to the six panels presented in the draft brochure.

The following ideas were suggested for the groundwater resources web page:

- Include a map with all of the wells and groundwater regions
- What is a watershed? – some education about that
- Maps – wells on SSI, recharge, watersheds, groundwater regions.

It was suggested and generally agreed that the TWG would work with the coordinator in the next quarter to design one or two additional digital and print pamphlets (bi-fold) to educate the public about the impacts of saltwater intrusion, and other impacts to groundwater such as available through drastic maps.

ACTION: William Shulba will bring maps to June TWG meeting for discussion of next pamphlet (for maps).

4.1.2 Weston Lake Water Availability Study (CRD) – Member Green

Member Green reported that the Memorandum of Understanding is in process and the project is slated to begin shortly thereafter. Member Millson reported that the WPS Freshwater Catalogue data (data logger) for the two Weston Creek watershed sites (and in-field volunteer recordings) is available for study use.

4.1.3 Proof of Water at Time of Subdivision: brief update – Member Shulba

Member Shulba outlined some of the draft bylaw specifications. The bylaw includes a requirement for 12-hour pump tests, such that subdivision on wells that are not able to withstand 12-hour pump tests without over-withdrawal of the amount their well can sustain, will not be permitted. A variance may yet be requested by any applicant with subdivision requests of this nature.

The review provided by the TWG and the Province will be included in any future Official Community Plan review processes.

4.2 Southern Gulf Islands Groundwater Sustainability Strategy – Member Shulba

4.2.1 Update on the project



It was reported that in the *Southern Gulf Islands Groundwater Sustainability Strategy* report, a classification system was designed for water recharge potential and groundwater availability for each of the groundwater regions in the Southern Gulf Islands (SGI). 'Groundwater region' refers to a water management unit for provincial water authorizations that could eventually be used in the Water Sustainability Act for area-based water objectives regulations. Area-based water objectives can be undertaken under the WSA by a 'watershed protection organization'.

It was noted that:

- Agricultural Water Demand was a big issue in the determination of a water budget for each of the groundwater regions as delineated in the *SGI Groundwater Sustainability Strategy* report.
- TWG review for the draft report (June-July 2020) was implemented.
- The Galiano project is headed to community information meetings within the next 6 months. Others may be on a slower timeline.
- There is currently no Salt Spring Island Groundwater Sustainability Strategy project currently in scope for the Salt Spring Island Local Trust Committee.

Member Shulba also reported that SSI Local Trust Committee may consider a study intended to update SSI Groundwater Recharge Mapping with use of new methodology (3D model) which may also include Watershed Ecosystem Resilience Mapping that is currently under TWG recommendation to Steering Committee. It was noted that this timing for the above studies is essential to aim for, in order to complete water budgets next fiscal (with full integration of mapping work) for Salt Spring Island before election in November of 2022.

It was clarified that mapping at UBC by Dr. Martin's lab will be a useful work product but not for incorporation into the ongoing work of Local Trust Committee (groundwater region budgets, recharge mapping update). Conversely, when (or if) the recharge mapping update and ecosystem resilience mapping is completed by Islands Trust, those work products may contribute to Dr. Martin's priority lands map for SSI.

4.2.2 Parameters for TWG recommendation to SSIWPA



Refer to Action 5.1.2 in list here below (*from TWG Minutes 2021-02-05*). By general consent, TWG agreed to change: 5.1.2 to read: **TWG agrees to recommend that SSIWPA-SC add SSI Watershed Ecosystem Resilience Mapping and potential for integration with Dr. Martin's Land Priority Mapping. This timing is essential to aim towards in order to complete water budgets next fiscal before election in November of 2022 (including integration of mapping work and consideration of the WPS Freshwater Catalogue field data).**

4.3 Technical Working Group Membership

By general consent, it was agreed TWG will not undertake any formal recruitment of new members, but that any current members could keep in mind whether their contacts, networks may suggest a potential recruit, and bring that name to the TWG at a future date.

The following disciplines were previously agreed by TWG to be useful for this working group:

- Limnology
- Aquatic Biology
- Soil science
- Environmental Restoration
- Environmental Science
- Watershed Hydrology
- Groundwater Science
- Geoscience
- Biogeography
- Environmental Instrumentation Technology
- Geographical Information Systems
- Drinking Water Science and Operations
- Watershed management
- Forestry
- Chemistry
- Toxicology
- Water resources Engineering
- Civil Engineering
- Mathematics
- Environmental Engineering



4.4 Meeting Schedule

ACTION: Would all **members of the Technical Working Group** please send to Shannon at your earliest convenience a list of times and days of the week that you are not available, or alternatively your “not available timeslots” or calendar for the following timeframes weekdays ending by 5:30pm: May 24 through June 4 inclusive, September 8 – 17, November 1 – 12.

4.5 Freshwater Catalogue

See 4.2.2 above – timing of integration of data from this project with proposed mapping study results was discussed.

5. OTHER BUSINESS

5.1 Report out to Steering Committee

- 5.1.1 By general consent,** the Technical Working Group agreed to recommend that the SSIWPA Steering Committee add Watershed Ecosystem Resilience Mapping and potential for integration with Dr. Martin’s Land Priority Mapping as a project on the 2021-22 SSIWPA Workplan.
- 5.1.2 By general consent,** SSIWPA Technical Working Group elected John Millson as Chair for the twelve months January 1 – December 31, 2021.
- 5.1.3 By general consent** the Technical Working Group agreed to recommend that the Steering Committee consider directing its TWG to provide technical advisory to a Transition Salt Spring Ecological Research Network (ERN) “SSI Watershed Stewardship” Video Project that is currently in planning stages.
- 5.1.4 By general consent,** the Technical Working Group agreed to remind SSIWPA-SC of the ongoing and expanded value of the Water Preservation Society’s Freshwater Catalogue. As supported by Dr. Diana Allen, the resulting community-based research results and datasets, including the recommended linkages between stream and groundwater chemistry made by Dr. Allen and her graduate student in 2020, are considered by experts to have significant value in the goals of many inter-connected research projects coordinated by SSIWPA and carried out by local government and by non-governmental organizations on Salt Spring Island. As well, it was noted that the Freshwater Catalogue also offers useful linkages with future elements of a potential SSI Groundwater Sustainability Plan or Strategy (either as a standalone project, or part of the SSIWPA SSI Watershed Plan)(phasing to be determined).



6. MEETING SCHEDULE

TBD. Would all members of the Technical Working Group please send to Shannon at your earliest convenience a list of times and days of the week that you are not available, or alternatively your “not available timeslots” or calendar for the following timeframes weekdays ending by 5:30pm: May 24 through June 4 inclusive, September 8 – 17, November 1 – 12.

7. The meeting was adjourned at 3:10 pm.

John Millson, Chair

CERTIFIED CORRECT:

Shannon Cowan, Recorder

DRAFT



**Salt Spring Island Watershed Protection Alliance
Public Education to Clarify Rainwater System Permitting on Salt Spring Island**

**Coordinator's Memo
Presented to the TECHNICAL WORKING GROUP**

1:00 – 3:00 pm Tuesday, June 9, 2021

VIA Web Conferencing

Preamble:

SSIWPA has agreed that "Potable Rainwater Systems Design Guide for Professionals" should be an item for further coordination on the current workplan. In the month of April, 2021, SSIWPA coordinator consulted on the need for such a project with the CRD Building Department senior building inspectors, and with two Salt Spring-based professionals involved with installation (and design and installation) of rainwater systems. It was determined that there is no need for such a design guide, because professionals who design rainwater systems are already at the forefront of the Canadian Standards Association Rainwater Codes, the Building Codes, the Plumbing Codes and more. What was determined to be needed, instead, is much more within the SSIWPA coordination purview, namely a public education campaign to ensure that islanders are aware there is no requirement for a building permit for any outdoor rainwater system for non-potable uses. Here below are the pertinent points.

Recommendation:

Would TWG please provide technical advice to guide the development of appropriate education materials (digital news posts and their distribution by newsletter, other, possible rack card or pamphlet or new version of Rainwater Harvesting pamphlet circa winter 2020)?

Pertinent Points about Data Gaps for Public Education on Rainwater System Permitting on SSI:

1) Island Health approves/issues operating permits for 'water systems'. These are not inclusive of onsite water systems for use as irrigation or indoor use by a residential user/single family, under the Drinking Water Protection Act. Therefore, Island Health is not involved in permits, authorizations or inspections of onsite water storage and water quality for onsite water systems for use in and around single family dwellings (this includes rainwater and well water, in all forms of storage, treatment or use on a property that is a single owner, not with multiple connections classified as a "system"). Island Health is only involved in permits, authorizations or inspections

for onsite water storage/systems/water quality for multi-connection drinking water systems or for commercial kitchens.

SUMMARY MESSAGE FOR SSI PUBLIC: One may install storage for any-sized single-user onsite rainwater systems for non-potable use outside of the home without any permissions or costly approvals by the provincial health ministry because water quality for single-user systems is the sole responsibility of the owner under the Drinking Water Protection Act, not the Province.

2) *Island Health, as of September 2020, has the new *capacity* to approve multi-connection rainwater systems for potable use: <https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/guidance-rainwater-harvesting-for-potable-use.pdf>.

SUMMARY MESSAGE FOR SSI PUBLIC: Multi-connection rainwater systems for potable use may now form part of the proof of sufficient drinking water solution for multi-family dwellings and affordable housing, or new commercial developments on Salt Spring Island, as long as they follow the provincial guidance and achieve approval by Island Health.
(<https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/guidance-rainwater-harvesting-for-potable-use.pdf>)

3) CRD Building Office requires an Engineer's certification of design for any onsite water system that is bringing water from onsite storage **into the home** (whether for potable uses, or non-potable such as toilet flushing). The Engineer's / Qualified Professional's certification is required to issue a building permit for that onsite water system.

- This includes both water collected for potable use or for indoor non-potable use (toilets, or recycled treated greywater, if stored).
- If that water is for multi-connection indoor non-potable use OR for multi-connection indoor potable use, then Island Health and CRD Building Office are both required to inspect and approve.
- Island Health does not inspect onsite water systems for use by single connection users unless they are part of a commercial enterprise/restaurant.

SUMMARY MESSAGE FOR SSI PUBLIC: The permission required to design and to install rainwater or greywater storage system for single-user onsite rainwater systems for potable use inside of the home, or for non-potable use inside of the home (ie. toilet flushing) requires a design that has been certified by an engineer in order for the CRD Building Office to issue a building permit for that system.

4) The guideline (attached here) from CRD Building Inspection (Gutierrez) for Rainwater Storage Tank Design for Non-Potable Use is **not** generally well-known by Salt Spring public because it was not posted nor distributed once it was created.

The guideline attached here was confirmed to be known to Building Inspection (Victoria) but if homeowners are not approaching CRD's Building Office about rainwater system designs (unlikely if they don't require a permit), they are not necessarily being educated about this existing design that could assist a homeowner or resident to construct a safe onsite rainwater storage system up to 3,000 gal.

SUMMARY MESSAGE FOR SSI PUBLIC: SSIWPA (TWG to assist) to post and make available the guideline/construction diagram for 3,000 gal water storage tank. Include recommendation that professional plumbing, irrigation design consultation may be an asset to most rainwater system projects. Include recommendation that building office be consulted if the stored water will be used inside of the home/building for any purpose.

5) **SUMMARY MESSAGE FOR THE PUBLIC:** A development permit may be required by Islands Trust to install onsite rainwater storage systems for both non-potable or potable uses based on the site plan and lot line setbacks. This is separate from the fact that building permits are only required for potable rainwater storage systems, or for any onsite water storage entering the home. Consult with Islands Trust if you plan to install / build rainwater storage on your property.