



**MINUTES  
of the  
SSI WATERSHED PROTECTION ALLIANCE  
TECHNICAL WORKING GROUP (TWG) MEETING**

**Date of Meeting:** Wednesday February 6, 2018 10:00 – 12:00

**Location:** 108-121 McPhillips Ave., CRD Boardroom  
Salt Spring Island

**Members Present:** Fred Beall, Member at large  
Dale Green, Capital Regional District, Integrated Watershed  
(via web conferencing)  
Ian deBie, Co-Chair  
John Millson, TWG member at-large  
Jos Lussenburg, Member at-large  
Katsky Venter, Member at-large  
Sylvia Barroso, Water Protection, Hydrogeologist, Ministry of  
Forests, Lands, Natural Resource Operations and Rural Development  
Kevin Chipperfield, Member at-large (joined at 11:15 am)

**Regrets:** Julie-Ann Ishikawa, Ministry of Environment and Climate Strategy  
William Shulba, Islands Trust Senior Freshwater Specialist

**Staff Present:** Shannon Cowan, Coordinator, Recorder

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

1. The meeting was called to order at 10:05 am.
2. **By general consent**, the agenda was approved as presented, including the following late attachment (digital copy via sent via email, hard copies were circulated):
  - 4.4.3 “TWG Salt Spring Island-Wide Groundwater Common Risk Segment Mapping – RATIONALE” (Member John Millson)



3. **By general consent**, the SSIWPA Technical Working Group (TWG) adopted draft minutes of the Salt Spring Island Watershed Protection Alliance Technical Working Group meeting January 10, 2018.

4. **BUSINESS ITEMS**

4.1 Technical Working Group Terms of Reference (version amended January 19, 2018) were received for information.

**By general consent**, the SSIWPA TWG agreed to review the new Terms of Reference for it's working group after six months at it's September, 2018 meeting.

4.2 Election of TWG Chairperson for period February – September, 2018

There was a discussion of the relative merits of chairperson and alternate, or co-chairpersons. Some points were raised about a single point of contact, and accountability. Deputy chairperson could be arranged as needed, for periods the Chair may be away or unavailable for certain duties.

The current 2017 co-Chair Ian deBie removed himself from nominations, due to other commitments.

4.2.1 **By general consent**, the SSIWPA TWG agreed to conduct a nomination at this meeting for the role of a single chairperson for the period February – September, 2018.

Member Millson was nominated for the role of TWG Chair for 2018 by Member Lussenburg. Member deBie seconded the motion. After two more calls for nominations, there were no other nominations made.

**By general consent**, the SSIWPA Technical Working Group agreed that John Millson would serve as TWG Chairperson for February – September 2018, by acclamation.

**By general consent**, the SSIWPA TWG agreed to conduct the next 6 month Chairperson election at it's September, 2018 meeting.

4.2.2 Terms of service for TWG members renewed until January 2019 as outlined in the agenda package (2 are still pending renewal by SSIWPA Steering Committee). Coordinator pointed out that TWG Terms of Reference recommend that some TWG members have 2 year terms, but that steering committee had renewed all terms for a single year, at this time.



4.3 There were no steering committee requests at this time.

Coordinator provided an update on Steering Committee actions at a broad level – strategic planning for Integrated Freshwater Management Program objectives, workplan renewal for 2018 and associated project budget finalization.

Member Barroso and Coordinator provided an update on the timeline and expected deliverables of the Groundwater Aquifer and GW Budget project (Golder Assoc.). It was noted that Golder Associates will present the SSI Aquifer and GW Budget project results at the Canadian Water Resources Association Conference in May in Victoria.

**By general consent**, TWG agreed to request that Member Barroso will liaise with Golder Associates about a potential web conference with TWG before phase 2 project report is final.

A request was made to Member Barroso by the TWG working group for access to the Golder model, both the working Leapfrog model and a “GIS ready” export layer containing key well data (interpreted aquifer stratigraphic levels, fracture presence/frequency, etc.).

Coordinator provided a reminder of outstanding actions in the SSIWPA IFWM workplan that are up for confirmation by Steering Committee (SSIWPA-SC). As directed by SSIWPA-SC, TWG may receive potential requests for review/technical assistance in these areas in the coming months:

- Groundwater wells monitoring pilot project and related Groundwater inventory and field survey projects. (Lead William Shulba, co-lead Sylvia Barroso)
- Develop and implement a Cusheon Lake Quality Monitoring Project (P and other nutrients) carried over from IFWM Workplan 2017 (CRD)
- Stream and lake level/flow monitoring
  - o potentially SSIWPA-SC will coordinate streamflow monitoring for Cusheon lake and minor inflows,
  - o potentially SSIWPA-SC will coordinate level monitoring of other drinking water lakes by level logger,



- definitely Fulford Creek will have an automated station established this month (FLNR) with TWG member volunteer assistance for data downloads

#### 4.4 **2017-18 IFWM Workplan project updates:**

##### 4.4.1 Phosphorus assessment from soil analysis pilot project

Draft report was circulated in agenda package and hard copies were available in the meeting. This pilot was designed to determine soil p levels from a series of hand auger samples taken between a single septic field and St. Mary Lake.

Purpose of pilot: to assess the potential for it's cost-efficient use to determine nutrient leachate to lakes from septic. A method assessment project.

At this stage, pilot results were inconclusive as a test of the method, due to issues of replicability and low sampling frequency.

**Action 4.4:** Member Chipperfield will complete P Saturation Ratio calculation with help of Member Green who offered to assist.

**Action 4.4b:** Member Chipperfield to check reference levels (in non-septic influenced soils) from the literature and report back with next report version for TWG review.

##### 4.4.2 Groundwater project update

Member Barroso reported on progress, clarified data sources, monitoring site selection process.

**By general consent,** TWG agreed to take the following actions:

**Action 4.4.2:** TWG members to review monitoring site selection criteria (attached these minutes) and provide feedback to Member Barroso.

**Action 4.4.2b:** Member Barroso will discuss with GW Project Team the potential to invite participation in GW monitoring site selection from TWG members (Fred, John, Ian, Jos).

**Action 4.4.2c:** Shannon to coordinate meeting of GW project leaders with TWG members (listed above) if agreed by both project co-leaders.



#### 4.4.3 Scope of work proposal “TWG Salt Spring Island-Wide Groundwater Common Risk Segment Mapping – RATIONALE” – John Millson

The scope of work was presented by Member Millson and discussion ensued.

The following points were raised in the discussion:

The deliverables from the proposed scope of work would be: GIS layers, map, report

Member Barroso suggested waiting to end of Phase 2 Groundwater Budget project (May) to enable use of their categorization of high/medium/low aquifer stress areas.

Scope of work should show how this links to other existing GW projects SSIWPA is coordinating.

A lot of information is available in Data BC and GeoBC (publicly, online) already that may be suitable for the proposed scope of work for CRS mapping. Staff time at Islands Trust and FLNR may be more efficiently utilized after a thorough search of these databases, first, though these are read-only and difficult to interrogate/manipulate. The FLNRO proposed shared GIS for the TWG group will address the GIS base data requirements for any CRS mapping effort

The existing groundwater vulnerability mapping may originate from or more of these methods:

- DRASTIC-fm
- Modified DRASTIC to take fracture networks into account
- A saltwater intrusion method (physiological, topographical and well density)
- A coastal hazard method using LiDAR data combining effects of wave action and winter storms to determine a vulnerability rating for coastal areas. (used for climate change predictions)
- Vulnerability by presence/absence of confining layers within aquifer class system

**By general consent**, TWG agreed that there is a need for a project in the IFWM workplan that will deliver an island-wide “groundwater quantity” estimation at an area or neighbourhood scale.

**Action 4.4.3:** TWG Chair Millson will deliver TWG Update to SSIWPA-SC at



upcoming SC meeting, and will include “SSI Groundwater Common Risk Segment Mapping” memo to briefly explain rationale and suggested project scope.

4.5 No announcements or events or research notes were presented.

## 5 OTHER BUSINESS

5.1 Report out to Steering Committee – The Chair Millson will present the following at February monthly SSIWPA-SC meeting:

- Soil P Assessment draft was discussed, inconclusive results due to issues with replicability and some limitations of the method, final report next month.
- GW project progress was discussed. Involvement by TWG in site selection will be invited by project co-leads Shulba and Barroso at appropriate time in coming weeks.
- TWG received ToR, Terms of Service renewals and elected TWG Chairperson (Millson) for coming 6 months.

5.2 There were no observers.

6. The next meeting of TWG will be held on Wednesday April 11, 2018 10:00 – 12:00

7. The meeting was adjourned at 12:30 pm.

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John Millson, Chair

**CERTIFIED CORRECT:**

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Shannon Cowan, Recorder