



**Priority-Setting Special Meeting
April 2, 2019**

**Report
Including Special Meeting Minutes**

Submitted to SSIWPA Steering Committee

April 5, 2019

(Amended final version - October 22, 2019)

**By Facilitator-Coordinator,
Shannon Cowan, Ph.D.**



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SSIWPA Priority-Setting Special Meeting

April 2, 2019

Executive Summary

The Salt Spring Island Watershed Protection Alliance agreed to host a special meeting to discover, and to prioritize problems on Salt Spring Island related to water management and watershed protection. The meeting was held over 5 hours on April 2, 2019 and the intended outcome of the meeting was to generate a list of priority problems including key actions, some of which could be coordinated by SSIWPA in the near term (2019-2020). Sixty-three participants were invited from a wide range of local stakeholder organizations, including community water systems, water districts, bulk water providers, the agricultural community, and other local non-governmental organizations. Twenty-five participants attended the special meeting, including SSIWPA Steering Committee and Working Group members.

Four agencies from local and provincial government gave brief presentations highlighting their roles and responsibilities for water resource management on Salt Spring Island, and current water sustainability-related projects.

Those assembled participated in a brainstorming and sorting activity that considered existing problems set out by SSIWPA during the Strategic Planning process in 2018, as well as identifying new water sustainability-related problems. Each participant voted for important and urgent problems, important but not urgent problems and not important but urgent problems from among the 30+ problems that were generated by all groups.

Participants identified three top priority problems from the voting process: 1) Water availability and use is not known for all watersheds and groundwater neighbourhoods; 2) There is a need for clear guidelines, promotions and incentives for rainwater harvesting systems; and 3) Policies for proof of sufficient water lack clarity, harmonization and specifications for alternative sources.

Participants generated 12 possible actions (four per problem) that SSIWPA should consider as possible projects for coordination in the short term (2019-2020).



Salt Spring Island Watershed Protection Alliance

Notes of a Special Meeting

Date of Meeting: Tuesday, April 2, 2019

Location: Community Gospel Church, 147 Vesuvius Bay Road
Salt Spring Island

Members Present:

Doreen Hewitt, Beddis Water Service Area Commissioner;
Gary Holman, SSIWPA Co-Chair and Capital Regional District (CRD) Salt Spring Island Electoral Area Director;
Laura Patrick, Salt Spring Island Watershed Protection Alliance (SSIWPA) Co-Chair, Islands Trust Trustee;
Pat Lapcevic, Ministry of Forests, Lands and Natural Resource Operations (FLNR).

Staff Present:

Jaro Szczot, Ministry of Forests, Lands and Natural Resource Operations (FLNR);
Jason Youmans, Islands Trust Island Planner;
Karla Campbell, CRD Salt Spring Island Electoral Area General Manager;
Ron Stepaniuk, NSSWD General Manager;
Shannon Cowan, SSIWPA Coordinator;
William Shulba, Islands Trust Senior Freshwater Specialist.

Invited Guests and Partner Agency Representatives Present:

Andrew Sinclair, Platform Properties Ltd. "The Cottages" (Bullock Lake);
Carol Eyles, Fulford Water Service Commission, Chair;
Doug Pepper, Regional Agrologist, Ministry of Agriculture;
Hugh Greenwood, At-large local stakeholder, Geologist and Previous Water Council Board member;
Jason Griffin, Cedar Lane Water Service Commission, Chair;
Marshall Heinekey, NSSWD Board Representative;
Michael McAllister, North Salt Spring Waterworks District (NSSWD) Board Representative;
Nick Jones, Agricultural Alliance Board representative;
Rhonan Heitzmann, Salt Spring Water Company, Salt Spring Solutions (Affordable Housing) member;
Wayne Hewitt, Cusheon Lake Stewardship Committee.

SSIWPA Conservation and Efficiency Working Group Members Present:

Rob Kline, Member at-large;
Sandra Ungerson, Chair.

SSIWPA Technical Working Group Members Present:

Ian deBie, Member at-large;
John Millson, Chair;
Jos Lussenburg, Member at-large.

Regrets:

Chas Belknap, Salt Spring Affordable Housing Society;
 Elizabeth FitzZaland, Green City Builders;
 Ian Peace, SSIWPA Conservation and Efficiency Working Group Member at-large;
 John Sprague, At-large local stakeholder, Lake Chemistry, Previous SSIWPA Working Group member;
 Kathy Reimer, Island Stream and Salmon Enhancement Society, President;
 Kisae Peterson, Island Women Against Violence, Croftonbrook Housing Project Lead;
 Larry McIntyre, Reginald Hill Strata Small Water System Manager;
 Maxine Leichter (or alternate), Water Preservation Society;
 Peter Grove, Salt Spring Island Trustee, Islands Trust;
 Peter Wypkema, Cedars of Tuam Water Service Commission, Chair;
 Stefan Cermak, Regional Planning Manager, Islands Trust.

Proceedings:

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

1. Coordinator Cowan welcomed everyone in attendance at 9:35 a.m.
2. **By general consent**, the agenda was approved with the addition of 3.1.4: CRD Agency Responsibilities regarding water resources on Salt Spring Island.
- 3.1 Coordinator Cowan presented an overview of the Salt Spring Island Watershed Protection Alliance (SSIWPA) purpose, membership and coordinated projects and actions (completed, underway, ongoing and agency-only). Agency representatives gave short presentations about: i) their agency's jurisdictional boundaries regarding water protection and management on Salt Spring Island, ii) projects about freshwater that their agency is currently involved with on Salt Spring Island, and iii) their agency's perspective on the priority island-wide freshwater sustainability problems and the type of actions that SSIWPA could and should be coordinating.
 - 3.1.1 Pat Lapcevic presented what Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNR) does on Salt Spring Island with relation to water resources and watershed protection. A summary of this presentation included the following points: FLNR Water Protection department regulates water use through the Water Sustainability Act and related legislation, conducts monitoring (3 Provincial Observation Wells) and applied research studies, supports outreach / education activities (e.g. public presentations for private well owners), comments on local by-laws which have implications for water resources, participates in integrated water management forums such as SSIWPA, and supports Island Health with initiatives related to drinking water protection.
 - 3.1.2 Planner Youmans (Islands Trust) presented the Object of the Islands Trust, and Official Community Plan sections related to water resource protection. The presentation outlined some of the land use planning tools that this agency engages to preserve and to protect water resources, such as sections of the Land Use Bylaw, Development Permit Areas and zoning restrictions. The presentation concluded with two opportunities that Islands Trust has identified would be priority actions for SSIWPA coordination function: i) That SSIWPA consider advocating for a Water Sustainability Plan for Salt Spring Island as defined in the provincial Water

Sustainability Act and, ii) That SSIWPA coordinate the development of a Terms of Reference for Proof of Water when rezoning and other types of development applications are being considered. This could help ensure consistency within, and between agencies, when contemplating development that will be serviced through groundwater, rainwater catchment, greywater recycling, or some combination thereof.

3.1.3 Ron Stepaniuk (North Salt Spring Waterworks District) presented the organization's mandate, mission, vision, strategic plan areas of focus, projects and efforts. The projects presented included: St. Mary Lake Dissolved Air Flotation (DAF) Plant, Maxwell Lake Treatment Plant, Maxwell Lake Water Availability Update (2020), Asset Management, Improved Communications, Organizational Capacity, Ongoing Discussion with CRD and Ministry of Municipal Affairs and Housing, Watershed Management. Mr. Stepaniuk presented a graphical representation of the annual bulk water withdrawals and metered consumption 2004-2017 for that District and a short discussion ensued.

3.1.4 Karla Campbell (CRD) presented an overview of the jurisdictional responsibilities of the Capital Regional District with regard to potable water system purveyance and integrated watershed management.

SSIWPA Co-Chair Holman indicated that the CRD Stormwater Protection Bylaw was expanded to include an integrated watersheds function, including groundwater protection.

SSIWPA Co-Chairs Holman and Patrick shared their hopes for the meeting.

Refreshments were served at 11:00 a.m.

3.2 The Coordinator facilitated an activity for all five groups of participants to do at their table groups. Each group generated a list of problems in **one** of the following categories:

1. Watershed and Aquifer Protection and Source Quality (2 groups)
2. Source Availability and Purveyance (2 groups)
3. End User Behaviour, Practices and Conservation (1 group)

This activity required group members to include any of the listed existing problems that SSIWPA had already identified (Appendix 1: Agenda Package, p.5) that their group considered to have merit.

3.2.1 Problems:

The groups refined their problem lists, reported their problem findings to the full plenary and hung problem list flipcharts in each category on the wall for the next step.

The Coordinator facilitated individuals in a prioritization of problems using coloured dots with different meanings. She outlined a worksheet (Appendix 2) that participants could use (optional) for a systematic approach to prioritizing. Individuals were instructed to read the list of all problems posted and then to assign dots according to general sense of importance and urgency. Individuals were each given 4 red dots (important and urgent problems), 6 blue dots (important, not urgent), and 6 yellow dots (not important, urgent).

Lunch was served at 12:50 pm.

3.2.2 Priority Problems:

During the working lunch period, group members used coloured dots to vote on importance (or impact to the ecosystem and the community) and the urgency (or time-sensitive nature) of many of the listed problems. Results of the dot voting were interpreted in the meeting by the coordinator after addition of dot totals. Some similar problems were compiled into a single dot voting category. Three problems were prioritized: those having 12 or more red votes. Top priority problems can be found in Table 1 on page 5. All problems and their priority rankings can be found in Table 2 on pages 5-7.

3.2.3 Possible Actions:

Participants convened into three new small groupings of their choice to discuss possible actions that could address three of the top priority problems that were identified in the previous step (Table 2). The groups were given the instruction to consider "appropriate scale" for actions; not task-level (e.g. not "Perform monthly data download"), nor very high-level (e.g. "Preserve hydrology of St. Mary Lake"). Groups brainstormed, noted refined actions on a flipchart, and reported out to the plenary. Two of the groups had time to also filter the possible actions according to three filtering criteria, namely "Is the action specific and relevant to the priority problem your group is considering?" Yes/No; "Does the action outcome benefit multiple agencies?" Yes/No; and, "Does the action require coordination to accomplish?" Yes/No.

Group results for possible actions to address priority problems are found in Table 3 on page 8. For those possible actions that groups did not filter, the coordinator added in different coloured text possible filter results to consider in future steps.

3.2.4 Next Steps were not discussed in the meeting. The coordinator agreed to package the day's results into a report and provide the report to the steering committee for its consideration.

4. The Coordinator acknowledged and thanked each participant for contributing time and energy constructively to this special meeting (workshop).

Co-Chairs Holman and Patrick thanked all participants for their contributions.

By general consent, the meeting was adjourned at 2:45 pm.

Appendices:

1. Recommended Next Steps resulting from compilation of results.
2. Salt Spring Island Watershed Protection Alliance Special Meeting Agenda Package 2019-04-02.
3. Worksheet #2 presented and offered for use in the meeting.

Laura Patrick, Co-Chair

CERTIFIED CORRECT:

Shannon Cowan, Recorder

Voting Colour Legend:

Red	Important and Urgent
Blue	Important, Not urgent
Yellow	Urgent, Less Important (less impactful)

Table 1. Top 3 Important and Urgent Priority Problems Related to Freshwater Sustainability and Watershed Protection on Salt Spring Island. Identified in SSIWPA Priority-Setting Workshop April 2, 2019.

Priority Problems	Red votes	Blue Votes	Yellow Votes
1. Water availability and use (demand) is unknown for all watersheds and groundwater neighbourhoods.	21	11	11
2. There is a need for clear guidelines, promotions and incentives for rainwater harvesting systems.	12	7	6
3. Policies for proof of water lack clarity, harmonization and specifications for alternative sources.	14	10	3

Table 2. All Problems Related to Freshwater Sustainability and Watershed Protection on Salt Spring Island. Identified in SSIWPA Priority-Setting Workshop April 2, 2019. Bold, italicized, blue problems form the top three priorities (Table 1). Blue regular font indicates next level priorities: problems with total votes > 9. Items delineated by dashed lines are considered a single problem with parts; total votes reflect all part votes.

Problems ¹	Red votes	Blue Votes	Yellow Votes	Total Votes
Supply and Demand / Availability and Use Problems				
<i>1. Water availability and use (demand) is unknown for all watersheds and groundwater neighbourhoods. Needs³:</i>				43
1a. to quantify the resource (volume, location, seasonality).	5	-	-	
(same)				
1b. safe supply (Cusheon, Weston, etc.)	2	3	-	
1b. to understand water use, actual, authorized/unauthorized, recorded/unrecorded, use types and timing island wide.	14	2	8	
- better water consumption data at the licence and water use level	-	1	3	
- consumption - unknown, uncertainty	-	-	-	
1c. current demand vs. potential demand	-	1	-	
1d. hydrological/environmental flow demands	-	4	-	

Table 2. Continued

Education and Alternative Source Use Problems				
2. A need for clear guidelines, promotions and incentives for rainwater harvesting systems.	9	5	3	25
(same)				
Lack of clear regulation/information for rainwater harvesting for potable use / multifamily potable	3	2	3	
4. Awareness of the need for seasonal water conservation for both local and visitors.	-	9	7	16
5. Need for education about the value of watershed protection and hydrological processes.		5	10	15
6. Need for a "WellSmart" program for existing and new well use (users).	8	1	4	13
7. Storage: Cost-Benefit Analysis (re: increasing droughts)	0	5	6	11
8. A need for clear guidelines, education and navigation through conservation practices (e.g. greywater and compost toilets)	1	3	3	7
9. Alternative sources: desalinization, rainwater collection	1	6	-	7
10. Unknown feasibility of alternative sources	1	6	-	7
Watershed Protection & Planning Problems				
3. Policies for proof of water lack clarity, harmonization and specifications for alternative sources. Needs³:				27
3a. Terms of reference: "Proof of Water"	9	2	2	
3b. New use requires new proof.	1	7	1	
3c. Site-specific testing. ⁴	4	1	-	
11. Watershed protection planning.	2	4	1	21
11a. Community-Aquifer Recharge Area Protection	7	1	0	
11b. Insufficient aquifer protection of the necessary hydrological processes to sustain high quality water through planning.	1	1	0	
11c. Watershed protection is insufficient to maintain source quality, and ecological biodiversity. ²	1	2	1	
12. Watersheds (and water source quality) at high risk of severe degradation from fire.	1	1	0	2
13. Prioritize watershed risk (based on risk and sustainability). ³	2	2	-	4
14. Lack of commitment to covenants (land protection).	0	3	3	6
15. Poor understanding of soil management piece related to water retention.	-	2	-	2

Table 2. Continued

16. No watershed sustainability plan. (island-wide)	1	1	2	4
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17. Lack of agriculture participation in watershed and water quality protection.	1	2	1	4
Other Regulation and Enforcement Problems				
18. Building permit process should include storage and conservation.	2	-	7	9
19. Drilling authorizations.	2	1	5	8
20. Lack of clearcutting management on private land.	2	5	-	7
21. Poor control of fertilizers, pesticides and other deleterious substances.	-	-	6	6
22. Fragmented jurisdiction of water (is) a major roadblock to sustainability.	-	-	5	5
23. Regulations are poorly enforced.	1	4	-	5
24. Overlicensed - fair distribution constraints. (inequity for overproduction/overwithdrawn)	1	-	-	1
25. Limits on consumption needed (gw). ³	-	1	-	1
26. No mechanism to resolve development pressure conflicts. (to sustain watershed and protection water quality)	-	1	1	2
27. Poor understanding of freshwater management enforcement at watershed scale.	1	1	-	2
28. Barriers (red tape) and confusion about watershed protection practices.	-	-	2	2
29. No protection for grandfathered water licences.	-	-	1	1
30. Short and long term advocacy - inform and educate agencies with jurisdiction. ³	-	-	-	0
Data Stewardship and Management Problems				
31. Need to create protocols for useful data gathering to support BC and federal data practices. ³ Qualified data gathering commitments.	1	4	1	6
32. Government demonstrates a lack of urgency to share information and data for protection, prevention and sustainability.	-	-	3	3
33. Need a clear data-sharing policy with provincial departments. ³	-	1	-	1

¹ Table 2 content is workshop phrasing. Italics indicate a summary of multiple similar results, re-phrased into the form of a problem statement.

² Watershed sustainability sufficient for protection and source quality, and ecological biodiversity was re-phrased/clarified as: "Watershed protection is insufficient to maintain source quality and ecological biodiversity". This is a higher level problem.

³ These statements are possible actions that were generated during the problem phase.

⁴ There is lack of regulation requiring comprehensive site-specific testing for proof of water: adequate flow and non-interference with neighbouring wells; Financing also a problem because of the prohibitive cost for single - and even multi-family developments to carry out such testing. (Clarified by D. Hodgins, participant.)

Table 3. Possible Actions to Address Priority Problems (see Table 1); Identified in SSIWPA Priority-Setting Workshop April 2, 2019.

		Filter Criteria - Relevancy to SSIWPA		
Priority Problem 1:	Water availability and use (demand) is unknown for all watersheds and groundwater neighbourhoods.	Specific, Relevant?	Multi-Agency benefit?	Coordination required?
1-1	Quantify supply and demand for the following lake sources: Cusheon, Weston, Bullock and Stowell. (Model and/or empirical evidence.)	Y	Y	Y
1-2	Determine consumption from all surface and groundwater sources. (Survey)	Y	Y	Y
1-3	Delineate well catchment areas, hydraulic conductivity and supply capability <i>for groundwater sources.</i>	Y	?	?
1-4	Meter non-domestic wells and non-domestic surface water <i>withdrawals.</i>	Y	Y	?
Priority Problem 2:	There is a need for clear guidelines, promotions and incentives for rainwater harvesting systems.	Specific, Relevant?	Multi-Agency benefit?	Coordination required?
2-1	Develop and implement incentives for rainwater harvesting.	Y	Y	Y
2-2	Create a "User Guide for Residential Rainwater Harvesting", including topics as follows: Non-potable, Potable, CSA Standards, Island Health Guidelines, New BC Building Code Requirements, System Maintenance Guide, New Construction and Retrofits	Y	Y	Y
2-3	Develop and deliver education about rainwater harvesting, including: workshops for professionals, workshops for user types (e.g. residential, agricultural, etc.).	Y	Y	Y
2-4	Conduct advocacy and assembly of agencies (ie. CRD Building Department, Island Health) re: Building Code, multi-family, Islands Trust Policy 4.4.2.	Y	Y	Y
Priority Problem 3:	Policies for proof of water lack clarity, harmonization and specifications for alternative sources.	Specific, Relevant?	Multi-Agency benefit?	Coordination required?
3-1	Amend Salt Spring Island Official Community Plan to strengthen policies about alternative servicing; include required quantities, impact on neighbouring wells.	Y	Y	?
3-2	Amend Land Use Bylaw (355) to require specific quantities and demonstrate non-impact on adjacent properties and ecosystems/surface water elements. (*Make prescriptive.)	Y	Y	?
3-3	Amend Building Code to meet Land Use Bylaw requirement for proof of water.	Y	Y	?
3-4	Develop and implement a Terms of Reference for proof of water <i>(that specifies alternative source equivalents and serves to harmonize applicable regulations.)</i>	Y	Y	Y

Participants who developed possible actions for problem 2 filtered those actions according to criteria indicated. Green filter responses were added as coordinator suggestions; they were not generated in the meeting.



Next Steps Suggestions for SSIWPA re: Priority-Setting Meeting April 2, 2019

Results

The following observations were made by the Coordinator after the special meeting:

- Meeting results tables 1, 2, 3 contain problems and proposed actions that relate to one or more Framework Objectives (see below, this page).
- Some problems and proposed actions from the meeting have not been proposed in earlier SSIWPA process.
- The problems and proposed actions resulting from special meeting 2019-04-02 do show some overlap with filtered SSIWPA draft workplan 2018-19 Tasks (Figure 1 in Wei, 2018; SSIWPA Strategic Subcommittee meeting notes 2018-07-16).
- When SSIWPA Strategic Subcommittee followed Next Steps from the Wei, 2018 report (July and August, 2018 subcommittee meetings), participants used the two-step filtering method to determine which workplan projects and tasks met filters for coordination feasibility, as well as related to Framework Objectives. The determination of lead agency commitments and priority watersheds/neighbourhoods did not occur as the final step in that process, and remains the Recommended Next Steps from the current SSIWPA Special Meeting 2019-04-02 results (next page).

Water Sustainability Framework Objectives

GOALS:

SSIWPA Work Plan		Salt Spring Island Water Sustainability Framework			
		Watershed Protection		Freshwater Preservation	
Priority Objectives		Watershed Ecosystems	Aquifer Ecosystems	Surface Water Resources	Groundwater Resources
Theme					
Information Inventory and Data Stewardship	Objective A	Provide access to watershed and water use information for member agencies and the public			
Monitoring and Analysis	Objective B	Coordinate monitoring and analysis strategies to address how natural and anthropogenic changes will impact watershed hydrological function and water use for Salt Spring Island.			
Policy and Planning	Objective C	Develop tools to protect watershed hydrological function and preserve Salt Spring Island's limited water resources.			
Outreach and Education	Objective D	Communicate to alliance agencies and public the state of the Salt Spring Island's watersheds, water resource, and water use.			



Next Steps Suggestions for SSIWPA

re: Priority-Setting Meeting April 2, 2019

Suggested Next Steps

The following recommendations are for SSIWPA consideration:

1. Consider the results of this meeting in context of strategic process 2018.
2. Discuss and confirm priority problems before member agency staff perform more filtering or prioritization of project-level tasks. (Steering committee and staff advisory)
3. Hold agency-level discussions, to complete the following:
 - a. Determine the agency's jurisdiction and priorities from among the results of the SSIWPA special meeting 2019-04-02;
 - b. Apply the Do-Ability and Impact Ranking method (pages 14-16) to assess feasibility of the new projects/actions to achieve outcomes within the priority problems;
 - c. Indicate where their agency could take the lead or partner role for any of the suggested actions, and which ones;
 - d. Generate some project-level task lists for project/action as Lead;
 - e. Indicate which project-level tasks¹ would fall to the Lead, which to partner agencies, and which to SSIWPA coordinator or similar;
 - f. Indicate measurable outcomes for Action/Projects where Lead;
 - g. Indicate a timeframe and resource commitment for their agency with respect to each possible action/project they could lead, that SSIWPA may agree to coordinate.
4. Draft a Coordination Work Plan (based on results of step 3) for steering committee regular meeting discussion. (See example on page 17.)
5. List Other Actions and Other Problems that did not meet the coordination filtering criteria - for discussion about advocacy with member agencies and other organizations.
6. Review Coordination Work Plan and Other Actions 6 months from the SSIWPA meeting where they are discussed and adopted.

¹ Filter actions using Smart, Measurable, Achievable, Relevant, and Time-bound (S.M.A.R.T.); Filter SMART actions next by Scale, Coordination Required, and ability to provide Multiple Agency Benefits. Perform filtering for high level tasks within actions/projects once these are suggested by lead agency for each.

Step 1: Write priority problem and possible actions here. *NOTE* As described in 2019-04-02 Meeting Notes Table 3, the first proposed action may be too broad. Try breaking down by watershed before ranking doability and impact.

Step 2: Fill a Do-Ability Consequences Table and an Impact Consequences Table for each Action for that problem. Repeat for any other problems and actions being considered.

Step 3: Fill the Do-ability and Impact Action Diagram for each problem to **select SSIWPA COORDINATION action/projects that will have relatively high impact and will not be too hard to accomplish in the timeframe.** Consider advocacy to appropriate agency/cies for commitment and funding to conduct the very high impact, very hard-to-do actions for any priority problems.

Do-Ability Criteria Definitions	Easy (or low or short)	Medium	Hard
Action Cost Total	< \$5,000	\$5,001 - \$25,000	> \$25,000
Coordination Cost (portion of action cost)	< \$500	\$500 - \$3,000	> \$3,000
Time to complete	months	1-3 years	>3 years
Uncertainty in do-ability (Ability to achieve measurable outcome set out for Action)	all factors to complete are clear, uncertainty nil	some uncertainty, personnel or funding variables	funding or ability to complete is uncertain
Overall Do-Ability	# greens > 50% of rankings	# yellow > 50% or half green, half red	# red rankings

Impact Criteria Definitions	Low	Medium	High
Contributes to Framework Objectives	0-1 obj	2-3 obj	>3 obj
Ability to Impact Ecological Goals of SSIW/PA member agencies and local organizations	0-1 ecological goals impacted	2-3 ecological goals	>3 ecological goals
Ability to Impact Social/Community/Economic goals of local member agencies and organizations	0-1 social or economic goals impacted	2-3 economic or social goals	>3 economic or social goals
Success will contribute to >1 Member Agency or Local Organization's Goals (How many goals?)	0-1	2-3 organizations	>3 organizations
Possible Negative Side Effects	highly likely	some possible	none
Overall Impact	# greens > 50% of rankings	# yellow > 50% or half green, half red	# red rankings

EXAMPLE: Problem 1 Do-Ability Consequences Table

Do-Ability Criteria	Possible Action 1	Possible Action 2	Possible Action 3
Action Cost Total (example)	easy	easy	hard
Coordination Cost (example)	easy	med	hard
Time to complete (example)	short/easy	long	med
Uncertainty (example)	low/easy	med	med

Overall P1 Do-Ability Rating	Possible Action 1	Possible Action 2	Possible Action 3
Do-Ability of Actions for Prob 1 (Example)	Easy	Medium	Med to Hard

EXAMPLE: Problem 1 Impact Consequences Table

Impact Criteria	Possible Action 1	Possible Action 2	Possible Action 3
Contributes to Framework Obj.	low	low	high
Ability to Impact Ecological Goals of local member agencies and organizations	low	med	high
Ability to Impact Social/Community/Economic goals of local member agencies and organizations	low	low	med
Success will contribute to >1 Member Agency or Local Organization's Goals	short	long	med
Possible Negative Side Effects	low	med	med

Overall P1 Impact Ratings	Possible Action 1	Possible Action 2	Possible Action 3
Impact of Actions for Prob 1 (Example)	Low	Medium	High

RESULTS of example:

Action 1 is Low impact but Easy to Do.

Action 2 is Medium Impact and Medium Do-Ability **This is probably the one SSIWPA should select for its workplan, in this example.

Action 3 is High Impact but Hard to do and with some degree of uncertainty.

SSIWPA COORDINATION WORK PLAN _ DRAFT FOR DISCUSSION

Prob #	Problem	Action	Measure/Outcome	Agency (leader name)	Timeline (e.g. 2019-Q3 - 2020-Q1)
1	Water availability and use (demand) is unknown for all watersheds and groundwater neighbourhoods.	1-1			
		1-2			
		1-3			
2	There is a need for clear guidelines, promotions and incentives for rainwater harvesting systems.	2-1			
		2-2			
		2-3			
		2-4			
	Policies for proof of water lack clarity, harmonization and specifications for alternative sources.	3-1			
		3-2			
		3-3			



Salt Spring Island Watershed Protection Alliance

Special Meeting Agenda

Date of Meeting: Tuesday April 2, 2019

Time: 9:30 am - 2:30 pm

Location: 147 Vesuvius Bay Road, Salt Spring Island, British Columbia

Acronyms:

AGRI - Ministry of Agriculture

CEWG - SSIWPA Conservation and Efficiency Working Group

CRD - Capital Regional District

FLNRO - Ministry of Forests, Lands and Natural Resource Operations

NSSWD - North Salt Spring Waterworks District

MOE (ENV) - Ministry of Environment

SSIWPA - Salt Spring Island Watershed Protection Alliance

TWG - SSIWPA Technical Working Group

1. WELCOME

2. APPROVAL OF AGENDA

3. BUSINESS ITEMS

3.1 Agency Responsibilities and Current Actions re: Salt Spring Island Freshwater

3.1.1 Ministry of Forests, Lands, Natural Resource Operations and Rural Development - Member Lapcevic

3.1.2 Islands Trust - Planner Youmans

3.1.3 North Salt Spring Waterworks District - Representative

3.2 Facilitated Priority-setting Workshop - *see attached detailed agenda* **pp. 3-4**

3.2.1 Problem definition activity - *see attached worksheet including 4 pre-reading appendices and suggested readings list* **pp. 5-10**

3.2.2 Problem prioritization activity

3.2.3 Priority actions activity

3.2.4 Review output and propose SSIWPA Coordination Work Plan 2019-2020.

3.3 Next steps

4. ADJOURNMENT

Salt Spring Island Water Protection Alliance (SSIWPA) Priority-Setting Workshop

Tuesday April 2, 2019

*Community Gospel Chapel Sanctuary, 147 Vesuvius Bay Road, Salt Spring Island,
British Columbia*

Purpose: Identify and prioritize problems related to freshwater sustainability and watershed protection, and identify actions for SSIWPA.

Intended Outcomes:

- A prioritized list of problems (threats, challenges, opportunities) related to sustainable freshwater and watershed protection;
- A list of key actions to address priority problems that require coordination of the work of two or more agencies and can be substantially completed in 12-18 months;
- A list of education and awareness opportunities that require the coordination of the work of two or more agencies and can be substantially completed in 12-18 months.

Agenda:

Time	Description	Format	Purpose	Outcome
9:30-9:40 am	1. Welcome			
9:45-10:30 am	2. Agency Roles and Responsibilities	Plenary	One representative of each of the three core agencies gives a presentation with Q&A. Coordinator presents SSIWPA Purpose, Guiding principles.	Understanding: <ul style="list-style-type: none"> • jurisdictional distinctions, • existing priority projects • common purpose for SSI • suggested actions for SSIWPA
10:30-11:15 am	3. Problems	Small Groups	Review and identify problems.	Post problems on flipcharts. Report out to plenary the problems from each group (flipcharts).
	Health Break			
11:30 - 11:50 am	4. Prioritize Problems	Individuals	Prioritize (activity).	A list of top priority problems.
11:50 - 12:15 pm	5. Actions	Plenary	Review Actions on Worksheet 1 that relate to priority problems identified in item 4.	A first draft list of possible actions for each priority problem.
12:15 - 1:00 pm	Lunch Break			
1:00 - 1:40 pm	6. Additional Actions and Filtering	Small Groups	Brainstorm, discuss and record new action ideas for a single priority problem. All actions are welcome at this step. Filter actions to determine feasibility for SSIWPA to coordinate.	Report out a more thorough list of priority actions that have been filtered for relevancy to SSIWPA. Submit all actions and filtering worksheets for workshop report.
1:40- 2:00 pm	7. Actions for SSIWPA	Plenary	Review step 6 output. Discuss and record the actions for priority problems that could be coordinated through SSIWPA. Discuss actors/partners and timeline.	A refined, possible priority action list for SSIWPA to address priority problems.
2:00 - 2:30 pm	8. Next Steps	Plenary	Discuss next steps.	Follow-up actions, actors, timeline

Worksheet 1: Facts, Problems & Actions from SSIWPA Strategic Planning 2018

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Table 1. Facts Affecting Sustainable Potable Water and Freshwater Supply: A Summary¹

a. Salt Spring has limited surface water supplies. (E.g., moratorium of new connections, NSSWD)
b. Groundwater resources suffer depletion. (E.g., water wells going dry in summer; neighbouring water wells impacted by drawdowns)
c. Saltwater intrusion is becoming an issue in some near-shore areas of Salt Spring Island.
d. Climate change is likely to exacerbate supply issues to aquifers, freshwater bodies and ecosystems.
e. Much of the water entering Salt Spring I. (as precipitation) runs off November-April once fractured rock aquifers are recharged.
f. There is a lack of data on broad-scale and local-scale understanding of groundwater, and to a lesser extent surface water, resources.
g. Detailed understanding of local groundwater problems requires detailed data collection and interpretation, which is costly.
h. Regulations and regulators do not facilitate innovative approaches to watershed protection, water conservation and rainwater collection and use.

Table 2. Identified Problems

In no particular order or priority.

Problem or Issue	Sources and Facts
1. Need to use finite water supply in the most consistent, fair, equitable and sustainable way.	Strategic Planning Day Minutes 2018-06-12 (p. 3) - Table 1: a,b,d
2. Need to preserve hydrological processes through watershed protection planning.	Strategic Planning Day Minutes 2018-06-12 (p. 3) - Table 1: all
3. Development pressure is a concern for limited water supplies. e.g. Proposed Bylaw 512 "Affordable Rental Housing - Cottages"	Regular Minutes 2019-02-15 - Table 1: a,b,c,d,e,h
4. Minimize fire risk. <i>Water availability to address wildfires and structure fires may not be sufficient in areas of high risk due to climate or accessibility.</i>	Strategic Subcommittee Minutes 2018-08-22 - Table 1: a,d,f,h
5. Regulations about freshwater use are poorly enforced.	Strategic Subcommittee 2018-08-22 - Table 1: a,b,c,d,e,h
6. The lack of water conservation requirement in the B.C. Building Code is a disincentive to water use efficiency.	Strategic Planning Day Minutes 2018-06-12 (p. 3) - Table 1: h
7. CRD and Island Health use different criteria for assessing water sufficiency for developments.	H. Greenwood, 2019-03-12; CEWG Part II Draft Report; Table 1: h
8. Rainwater collection regulations <i>are lacking or not well understood.</i>	Regular Minutes 2019-02-15; Table 1: h

¹ High level problems were compiled from Official Community Plan and Aquifer Mapping and Monthly Groundwater Budget Analysis for Aquifers on Salt Spring Island by Golder Associates (Final Draft November 2018). Submitted by Acting Co-chair Laura Patrick, March 19, 2019.

Worksheet 1: Facts, Problems & Actions from SSIWPA Strategic Planning 2018

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Table 3. Identified Possible Actions

From SSIWPA records 2018-2019. Numbering follows Table 2.

	Information Inventory and Data Stewardship
	Monitoring and Analysis
	Policy and Planning
	Outreach and Education

<i>Freshwater Preservation: Source Availability and End User Problems, Practices and Conservation</i>		
Problem or Issue	Actions Proposed or Underway and/or Other Suggested Actions	Action Source
3. Development pressure is a concern for limited water supplies.	<p>3a) Groundwater Preservation Project. <u>Underway</u></p> <p><i>Includes: coordination actions with local volunteers and contributors for site selection, data-sharing agreements, equipment installations, data management.</i></p>	Local Trust Committee Project Charter W. Shulba (+FLNR)
	<p>3b) Water Use Monitoring / Metering</p> <p>i) Scope and method to be determined at agency level (which licenses, selected priority areas).</p> <p><i>ii) Meter agricultural water use in key area (pilot) with financial incentive for alternative(not community) source use.</i></p>	Freshwater Sustainability Framework 2019-01-25 <i>Interpretation of Draft CEWG Report Part II</i>
	<p>3c) Model supply availability and demand</p> <p><i>ie. Water budgets on neighbourhood planning scale, not aquifer scale. Scope, method, any coordination needs would be in purview of lead agency.</i></p> <p>i) Carrying Capacity Analysis of Drinking Water Lakes (as prioritized, likely Cusheon and Weston Lakes).</p> <p>ii) Carrying Capacity Analysis of Groundwater Management Area (as prioritized).</p>	Freshwater Sustainability Framework 2019-01-25
<ul style="list-style-type: none"> • Does development pressure have a negative impact on renewable freshwater supplies? • Where? • How do we know? 	<p>3d) Measure Indicators of Sustainability</p> <p><i>i) Determine and assess indicators in priority areas:</i></p> <ul style="list-style-type: none"> • <i>e.g. Peak day demand exceeds supply. Y/N (requires GW level and lake level monitoring, also metering demand)</i> • <i>e.g. Measured GW level is >20% below average level for same date previous years.</i> • <i>e.g. Stream outflow is below 5 m³/s</i> <p><i>iii) Report on indicators and follow up with policy and other actions.</i></p>	

Original suggestions are in regular font. *Black italics: Coordinator's additions for problem clarity. Blue italics: Coordinator's compiled proposed actions from intra-agency and SSIWPA collaboration. Sources cited where possible.*

Worksheet 1: Facts, Problems & Actions from SSIWPA Strategic Planning 2018

SSIWPA Workshop April 2, 2019

<i>Table 3 cont'd.</i>		
<i>Freshwater Preservation: Source Availability and End User Problems, Practices and Conservation</i>		
Problem or Issue	Actions Proposed or Underway and/or Other Suggested Actions	Action Source
3. Development pressure is a concern for limited water supplies. Continued...	<i>3e) Review watershed protection policies</i> i) Review and update following policies: Well Capture Zones DPA 5; Lakes, Streams and Wetlands DPA 4; ii) Coordinate/assist in implementing new policies at local level	Freshwater Sustainability Framework 2019-01-25
	<i>3f) Outreach and education: see Problem 8 (below)</i> <i>Educate with goal of achieving behaviour modification re water conservation targets, best practices, etc. (+ measure effects).</i>	<i>Interpretation of Draft CEWG Report Part II</i>
	3g) Determine the carrying capacity of Salt Spring Island. <i>Too broad?</i>	Minutes 2019-02-15
3 sub. Proposed Bylaw 512 "Affordable Rental Housing - Cottages"	Not discussed to date. <i>E.g. Land Use Planning: Assess proposed R(f) lots for overlap with Moderate or High Risk of Salt Water Intrusion (Klassen et al., 2016), GW vulnerability (Liggett & Talwar, 2009), DPAs 4, 5, and 7.</i>	Regular Minutes 2019-02-15

<i>Watershed and Aquifer Protection and Source Quality Problems</i>		
Problem or Issue	Actions Proposed or Underway and/or Other Suggested Actions	Action Source
4. <i>Water availability to address wildfires and structure fires may not be sufficient in areas of high risk due to climate or accessibility.</i>	4. Minimize fire risk. Existing Policies: 4a). OCP suggests establishment of a Development Permit Area (DPA) for wildfire protection² ; it guides development away from known fire hazard zones. <ul style="list-style-type: none"> • OCP encourages rainwater catchment (could be more explicit). • Bylaw 355 - Subdivision requires daily groundwater availability from well be higher than household use but not explicitly for fire protection. • <i>Does SSI Fire have data from past years that is distinct from time series of Provincial Wildfire Risk data layers?</i> 	Official Community Plan https://www2.gov.bc.ca/gov/content/safety/wildfire-status/wildfire-situation/fire-danger
	4b) Watershed Ecosystem Mapping and Survey <i>Too broad? - Could also serve towards solution for other problem areas.</i>	Freshwater Sustainability Framework 2019-01-25
5. Regulations about freshwater use are poorly enforced.	Not discussed to date. <i>Agency-level issue? (see next page)</i>	Strategic Subcommittee 2018-08-22

² A.7.2.8 The Local Trust Committee will support efforts to reduce and mitigate wildfire hazards, including supporting Fire Smart education initiatives and will give consideration to designation of development permit areas for wildfire hazard. (Salt Spring Island Official Community Plan Bylaw 434, 2015, Vol. 1, Section A, Part A-7, 2.8.)

Worksheet 1: Facts, Problems & Actions from SSIWPA Strategic Planning 2018

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Table 3. Continued

<p><i>Table 1 f.</i> There is a lack of data on broad-scale and local-scale understanding of groundwater, and to a lesser extent surface water, resources.</p>	<p>Need to coordinate fundamental data management.</p> <p><i>Coordinating a data management system for existing data may be sufficient to enable analysis (depends on specific problem).</i></p>	<p>Strategic Planning Day Minutes 2018-06-12 (p. 3)</p>
	<p>f-i) Watershed Ecosystem Data Dashboard:</p> <ul style="list-style-type: none"> • Watershed Ecosystems base layer • Aquifer Ecosystems base layer • Hydrometric Data Inventory • Aquifer Inventory and Reclassification 	<p>Freshwater Sustainability Framework 2019-01-25</p>
	<p>f-ii) Water Use and Availability Data Dashboard:</p> <ul style="list-style-type: none"> • Surface water Use Inventory • Ground water Use Inventory <p><i>Note: Not enough data to warrant action yet? Needs to be linked to problem.</i></p>	<p>Freshwater Sustainability Framework 2019-01-25</p>

Freshwater Preservation: Source Availability and End User Problems, Practices and Conservation

Problem or Issue	Actions Proposed or Underway and/or Other Suggested Actions	Source
<p>6. The lack of water conservation requirement in the B.C. Building Code is a disincentive to water use efficiency.</p>	<p>6a) Require rain storage in new developments.</p> <p><i>i) Require rainwater storage for development of Single Family Dwellings or businesses in water-stressed areas. (CRD, Islands Trust, Island Health alignment for new policy.)</i></p> <p><i>ii) Identify and map water stressed areas for use at Building permit and Development permit stages. (Inter-agency staff project for coordination?)</i></p>	<p>Strategic Planning Day Minutes 2018-06-12 (p. 3)</p>
<p>7. CRD and Island Health use different criteria for assessing water sufficiency for developments.</p>	<p>7a) Align 'Water Sufficiency Assessment' process</p> <p><i>i) Coordinate an inter-agency study to make all permitting (new builds and renovations) reliant on the same proof of sufficient water requirements, such as:</i></p> <ul style="list-style-type: none"> - detailed engineering water plans for every development - non-potable (irrigation/agriculture) requirements distinct from potable requirements [ie. breakdown 1600 L/d per SFD] - <i>Could documentation for provincial licensing requirements of non-domestic or industrial uses (ie. multi-family dwellings) be used and aligned with local government permitting process?</i> - make allowances for double-plumbing (ie indoor greywater use) - for new groundwater source development, outline dry season pumping test requirements and evidence of non-interference - existing systems with sufficient water should be able to continue 	<p><i>Interpretation of Draft CEWG Report Part II - Recommendations</i></p> <p>Discussion Paper by H. Greenwood, 2019-03-12</p>

Original suggestions are in regular font. *Black italics: Coordinator's additions for problem clarity. Blue italics: Coordinator's compiled proposed actions from intra-agency and SSIWPA collaboration. Sources cited where possible.*

Worksheet 1: Facts, Problems & Actions from SSIWPA Strategic Planning 2018
SSIWPA Workshop April 2, 2019
Table 3. Continued

7. CRD and Island Health use different criteria for assessing water sufficiency for developments.	<i>See 3b) Water Use Monitoring/ Metering as related action for 7.</i>	<i>CEWG Report Part II</i>
<i>Freshwater Preservation: Source Availability and End User Problems, Practices and Conservation</i>		
Problem or Issue	Actions Proposed or Underway and/or Other Suggested Actions	Source
8. Rainwater collection regulations <i>are lacking or not well understood.</i>	8a) Coordinate development of "Use of Rainwater Terms of Reference" 8b) <i>Coordinate promotion and local use of existing Rainwater Harvesting Guidebook (Regional District of Nanaimo)</i> 8c) <i>Create a Salt Spring Island Rainwater Harvesting Guidebook.</i>	Framework 2019-01-25
	8d) Conservation targets. <i>i) Develop water conservation targets (ie % reduction potable use for defined areas and times) that cross jurisdictional boundaries.</i> <i>ii) Incentivize their attainment especially in local Salt Spring application of BC Building Code.</i>	
	8e) Incentivize. <i>Coordinate incentive programs, funding, promotion and assist with implementation:</i> <ul style="list-style-type: none"> • <i>Well water quality testing rebate</i> • <i>Wellhead upgrade rebate</i> • <i>Rainwater harvesting rebate</i> • <i>Low flow fixtures rebate</i> • <i>Irrigation upgrades and soil improvements (reduce runoff)</i> 	https://www.rdn.bc.ca/rdn-rebates
	8f) Rainwater Harvesting Education. <i>i) Create, publicize a "Guidebook for Development on Salt Spring Island". Build on RDN and CRD existing tools. Include:</i> <ul style="list-style-type: none"> • <i>water conservation targets,</i> • <i>best practices, existing policies, and</i> • <i>"green building" instructions.</i> <i>ii) Coordinate promotion and local use of SSI Rainwater Harvesting Guidebook or existing resource (Nanaimo).</i> <i>iii) Add water demand calculations to building permit application process. (CRD)</i>	https://www.rdn.bc.ca/rdn-rebates Draft CEWG Report Part II

Original suggestions are in regular font. *Black italics: Coordinator's additions for problem clarity. Blue italics: Coordinator's compiled proposed actions from intra-agency and SSIWPA collaboration. Sources cited where possible.*

Worksheet 1: Facts, Problems & Actions from SSIWPA Strategic Planning 2018

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Appendices:

1. **Appendix 1.** "SSIWPA Strategic Definitions and Background.pdf" - in package pages 11-14
2. **Appendix 2.** Wei, M. Salt Spring Island Watershed Protection Alliance Strategic Plan Meeting June 12, 2018 - Final Report. - "Final Report Strategic Work Plan Meeting June 12.pdf" - digital attachment for workshop attendees
3. **Appendix 3.** Greenwood, H. A Discussion Paper on the Management of Water Resources on Salt Spring Island. Submitted to SSIWPA via email March 12, 2019. - digital attachment for workshop attendees
4. **Appendix 4.** Sprague, J. A Memo to SSIWPA re: Priority Action. Submitted to SSIWPA via email March 15, 2019. - digital attachment for workshop attendees
5. **Appendix 5 - Draft.** Gorski, N.G. and J.P. Sacré. 2019. "Aquifer Mapping and Monthly Groundwater Budget Analysis for Aquifers on Salt Spring Island." Water Science Series WSS2019-01 (Draft 2019-03-20). Province of British Columbia, Victoria. - digital attachment for workshop attendees (not finalized, not for public circulation)

Other Suggested Readings:

1. Maas, C. and Porter-Bopp, S. 2010. A Soft Path Strategy for Salt Spring Island, B.C.: A Soft Path for Water Case Study. POLIS Discussion Paper 10-01, February 2010.
2. Capital Regional District. Watersheds: Overview. Available at: <https://www.crd.bc.ca/education/our-environment/watersheds/watershed-basics/watershed-water-flows>.
3. Hui, C. 2015. Carrying Capacity of the Environment. International Encyclopedia of the Social and Behavioural Sciences, 2nd Ed. Vol. 3: 155-160.
5. Klassen, J. and D. M. Allen. 2016. Risk of Saltwater Intrusion in Coastal Bedrock Aquifers: Gulf Islands, B.C. Thesis submitted to the Department of Earth Sciences, Simon Fraser University, British Columbia.
6. Liggett, J.E. and Talwar, S. 2009. Groundwater Vulnerability Assessments and Integrated Water Resource Management. Streamline Watershed Management Bulletin. Volume 13, No. 1, pp. 18-29.



Strategic Planning 2018-19 Key Definitions and Background
version 2019-02-20

The purpose of SSIWPA is to:

- Provide a framework for freshwater resources in the Salt Spring Island Local Trust Area to be managed in a manner that integrates and considers both human and ecosystem needs through integrated planning, policy development and recommendations for implementation by member agencies and organizations;
- Advise on policies of regional, local and provincial government organizations that are related to freshwater resources;
- Coordinate the implementation of those policies.

Vision (pre-2018)

A sustainable supply of freshwater for natural ecosystems and human uses that is protected from over-demand and degradation.

The vision implies:

- Understanding water needs for intact natural ecosystems;
- Renewability, "How can we ensure we are not using water storage faster than it is replenishing?";
- Understanding risks to the resource and systems that depend on that resource and risk-management measures;
- Understanding "water balance/availability on a watershed or neighbourhood unit scale".

Who: Water consumers, watershed ecosystem health monitors, agency staff who manage the resource or who develop and implement policies that assist in management of the resource, community members (incl. First Nations), elected decision-makers...

Salt Spring Island Freshwater Sustainability Framework Goals:
A. Provide access to water and watershed information for member agencies and the public.
B. Coordinate monitoring and analysis strategies to address how anthropogenic changes will impact watershed hydrological function and water use for Salt Spring Island.
C. Develop tools to protect watershed hydrological function and to preserve Salt Spring Island's limited water resources.
D. Communicate to Alliance agencies and the public the state of Salt Spring Island's watersheds, water resources and water use.



Strategic Planning 2018-19 Key Definitions and Background version 2019-02-20

Terminology / Glossary (alphabetical)

Action is a specific process of doing something, or "a piece of work to be done". Actions can be evaluated for their relevancy to achieve objectives, and to be S.M.A.R.T.

Carrying capacityⁱⁱ of a biological species is the maximum population size that the environment can sustain indefinitely without permanently impairing the productivity of the environment - i.e. the environment's maximal load. In other words, when demand is equal to supply the population size will reach a level of saturation beyond which the supply of the limiting resource will be degenerated or depleted.

Discussion: The definition is a biological one, and assumes a set "demand" per capita, and assumes that *all* food, habitat and water consumed by SSI's human population are generated within the bounds of the ecological system of the island. However, humans are not currently consuming, nor are they going to consume, any set exact "demand" amount per capita of a resource. Also, biotic (competition) and economic interactions are not taken into account in the biological definition. It could be said that SSI has already exceeded it's biological carrying capacity because more than 95% of food for the current human population is not generated by the resources within the ecological bounds of the island itself.

For the purposes of the present discussions, **sustainable water yield** on an island-scale may be more appropriate than carrying capacity of the island's human population.

It has also been suggested that developing **community sustainability indicators** may "...be a good participatory focus for discussing and grounding values-based and evidence-based community intentions, in a format that can help policy-makers know if they are going in the right direction. ..."iii

Goals are broad, general and achieving them may be difficult to measure. The over-arching goal of SSIWPA is the *purpose* statement: it serves to summarize the values and major aims or mandate of the Alliance. The Framework has four goals from which all Framework priorities, themes and projects flow.

Objectives are specific short term goals. Objectives and the actions to achieve them should be carefully worded so that they are S.M.A.R.T.

- They are *specific*. That is, they tell *how much* (e.g., 40%) of *what* is to be achieved (e.g., what behavior of whom or what outcome) *by when* (e.g., by 2020)?
- They are *measurable*. Information concerning the objective can be collected, detected, or obtained from records (at least potentially).



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- They are *achievable*. They are possible, and SSIWPA will be able to coordinate their achievement through innovative, creative, willing multi-stakeholder participation in setting and completing actions in a collaborative manner.
- They are *relevant* to the mission. SSIWPA has a clear understanding of how these objectives fit in with the overall vision and mission of the group.
- They are *time-bound*. SSIWPA has developed a timeline (a portion of which is made clear in the objectives) by which the coordination will be achieved.
- They are *challenging*. They stretch the group to set its aims on significant improvements that are important to members of the community.

Peak Water is the scarcity or growing constraints on freshwater resources planet-wide.

Of the world's estimated 1.34 billion km³ of water, 3.5% is fresh and 96.5% is salty. Changes to renewable freshwater supplies (ie. part of the water cycle) and non-renewable supplies (ie. perennially unavailable in glaciers, snow packs at elevation, or as deep inaccessible groundwater) as a result of climate change and anthropogenic stresses are real and increasing in severity leading to a concept of "peak" according to a Hubbert curve, which applies to any resource that can be harvested at a rate faster than the rate at which it can be replaced. Peak water indicates the point beyond which the renewability of the global freshwater resources will be considered to be irreconcilable.
(https://en.wikipedia.org/wiki/Peak_water)

Problem: An obstacle, threat or challenge that hinders the achievement of a particular goal or *purpose*.

Strategy. A strategy is the "how" to achieve a purpose or long term goal. It is more general than actions or tasks, and is focussed on a particular long term goal. The SSIWPA "Purpose" statement includes strategy in its mention of a Framework and other guiding principles by which it aims to cooperate in order to achieve sustainable management of the freshwater resources on Salt Spring Island.

Sustainable Yield - is the ecological yield that can be extracted without depletion (reducing the capacity for renewability of water in that system of storage). The volume required for ecological services to remain intact where water is being extracted for human use.

Note: This may be confused with Carrying Capacity.

Note: If demand on the system is equal to supply/available water, it is likely not sustainable to deplete the system to that extent. Especially where runoff and evaporation are high. After extraction, the percentage of water that is returned to the system and not "lost" depends on the type of extraction, type of use and other factors such as leakage, temperature, evaporation and evapotranspiration, and whether the water is transported out of the system bounds (ie. out of the watershed or aquifer region).

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Vision describes the future desired reality.

Water Balance is an equation that can be used to describe the flow of water into and out of a system. The system needs to be defined: e.g. a drainage basin or watershed, or it may be a column of soil.

$$P = R + E + \delta S$$

P - precipitation

R - streamflow

E - evapotranspiration

δS - change in storage

Work programme or work plan is a plan of tasks or actions designed to achieve mission/goals/objectives. It is specific, measurable, and contains timelines and named individuals / agencies responsible to carry out tasks appropriate to their jurisdiction and ability.

References cited:

ⁱ Hui, C. 2006. Carrying Capacity, Population Equilibrium and Environment's Maximal Load. *Ecological Modelling* 192: 317-320.

ⁱⁱ Hui, C. Carrying Capacity of the Environment. in *International Encyclopedia of the Social and Behavioural Sciences* 2nd Ed. 2015, pp. 155-160.

ⁱⁱⁱ S. Huston, personal communication to Islands Trust Local Trustees, February 10, 2019.



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Worksheet 2: Prioritization of Problems

Instructions:

1. Review the problems on Flipcharts around the room. Make sure they are numbered clearly.
2. If you think the problem is important to you, write number and briefly write the problem on this page.
3. Rank each of three prioritization criteria for that problem. Add the total numeric ranking to determine problem dot colour.
4. Place one coloured dot (or none) on the flipchart beside the title of the problem.

*Two red dots can be applied to a single Important and Urgent problem, if you see fit.

Criteria:

IMPORTANCE - ECOSYSTEM VALUE

Ask "If this problem were solved, would the result have high, moderate or low value to the ecosystem(s) it affects?"

IMPORTANCE - COMMUNITY and SOCIOECONOMIC VALUE

"If this problem were solved, would the result have high, moderate or low value to the community, social and economic systems it affects?"

URGENCY

High urgency problems present compounding or magnified impacts as time progresses;

Moderate urgency problems might get somewhat worse as time progresses, but time is a less important factor;

Low urgency problems will not worsen much as time progresses.

Prioritization Ranking: 3 = HIGH 2 = MODERATE 1 = LOW

Totals:

Total 7-9 = Red dot TOP PRIORITY - Important and Urgent (IU)

Total 5-7 = Blue dot - Important, Not Urgent (INU)

Total < 5 = Low impact but might be urgent = Yellow dot - Not Important Maybe Urgent (NIU)

