



# **Salt Spring Island Watershed Protection Authority**

## **Special Meeting Draft Agenda**

**Date of Meeting:** Tuesday November 15, 2016 10:00 am - 12:00 pm

**Location:** CRD PARC Boardroom 145 Vesuvius Bay Rd, Salt Spring I., B.C.

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

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

### **3. BUSINESS ITEMS**

3.1 Introductions - Coordinator

3.2 IWM program objectives - brief overview - Coordinator

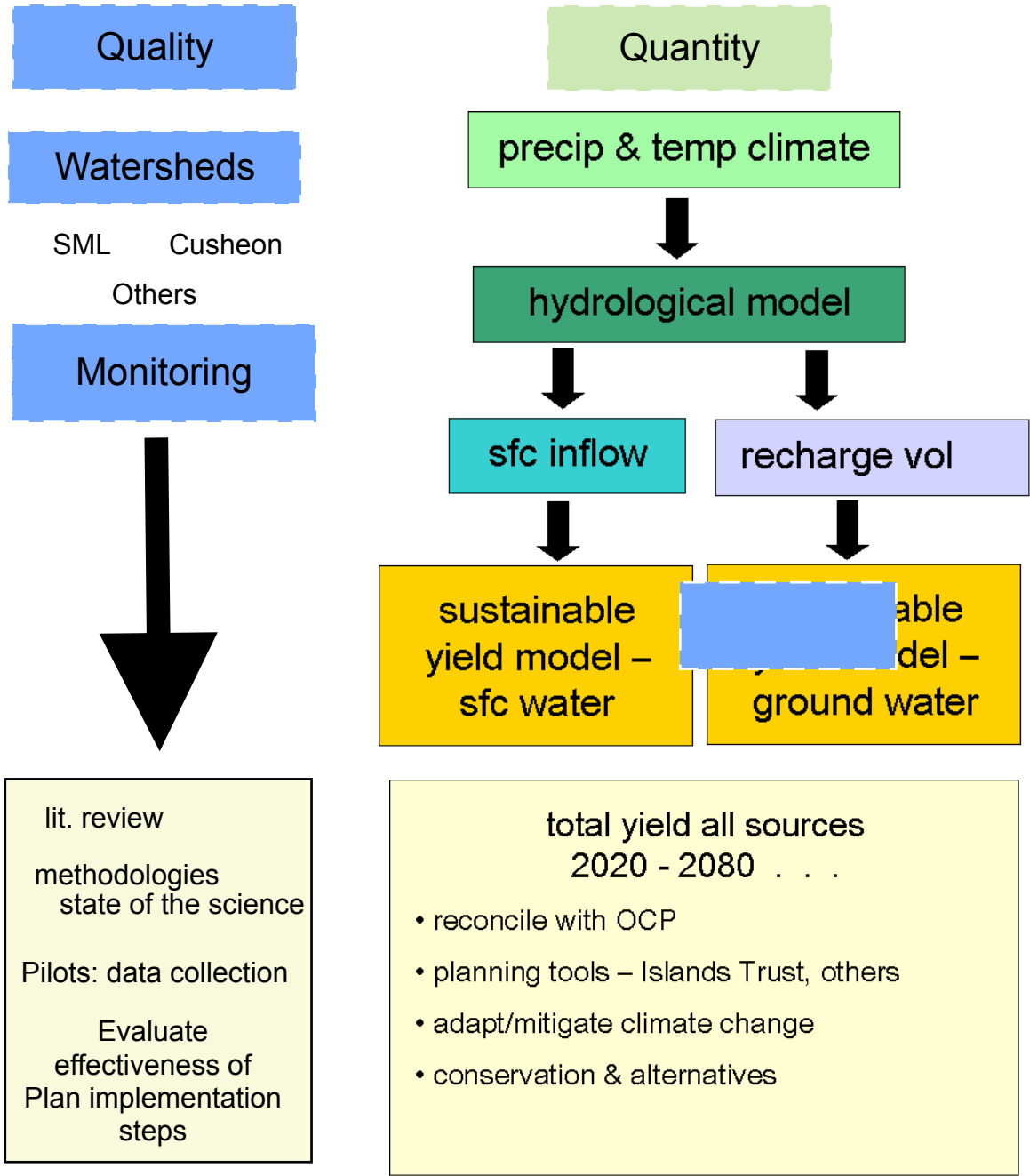
3.3 TWG Workplan

3.4 CEWG Workplan

3.5 Funding strategies (if time allows)

- Identify and discuss projects stemming from objectives in workplaces that are known at this point to require some funding support
- Review funding mechanisms

### **4. ADJOURNMENT**

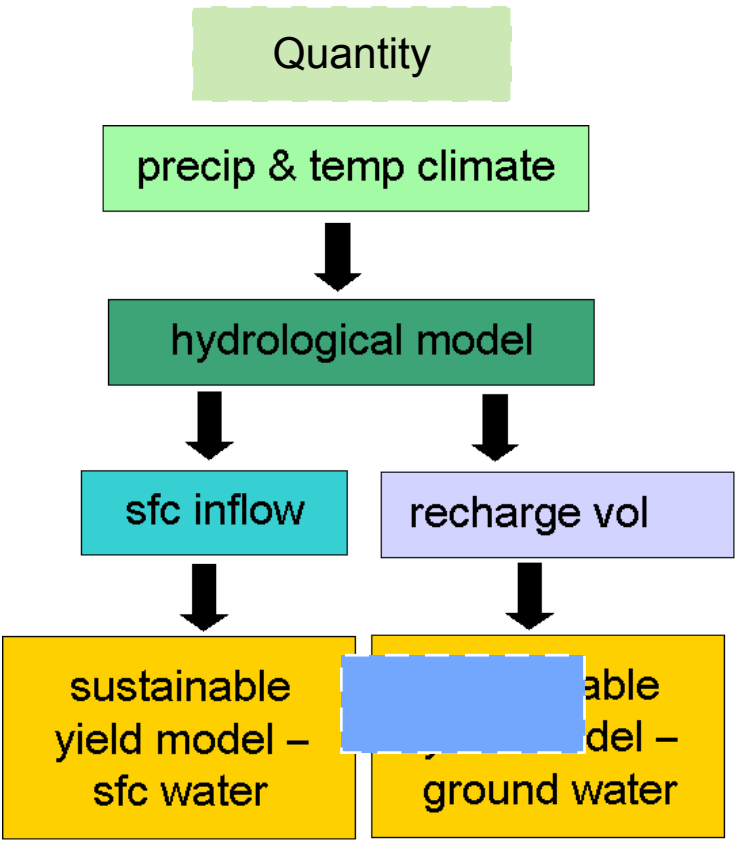


Quality

Watersheds

SML Cusheon  
Others

Monitoring



lit. review  
methodologies  
state of the science

Pilots: data collection

Evaluate  
effectiveness of  
Plan implementation  
steps

total yield all sources  
2020 - 2080 . . . .

- reconcile with OCP
- planning tools - Islands Trust, others
- adapt/mitigate climate change
- conservation & alternatives

## TASKS -Quantity

### Surface water – renewable yield analysis

1. Characterize climate (precipitation & temperature)
  - i. Time-series Analysis and statistics for  
(a) current conditions, and (b) future conditions
  - ii. Drought Extreme Value Analysis for  
(a) current conditions, and (b) future conditions.
  - iii. assessment of climate change impacts on above.
2. Determine hydrological modelling requirements & suitable models.
3. Implement hydrological model(s) – watershed basis. (*consultant?*)
4. Determine total surface water utilization
  - a. geospatial analysis – watershed level
  - b. compare utilization with renewable yield
  - c. assess and bound uncertainty
5. Implement/run sustainable yield model – watershed basis.

### Ground water – phase 1 (supply & utilization)

1. Identify/map active wells (GIS). (*consultant?*)
2. Correlate consumption with zoning/land use – wells\*, surface sources.
3. Relate consumption to production – wells\*, surface sources.
4. Identify/map areas of ground water stress and/or risk of contamination.
5. Determine total groundwater utilization
  - a. geospatial analysis – watershed and/or aquifer
  - b. compare utilization with renewable yield
  - c. assess and bound uncertainty
6. Identify priority areas for new data collection, data to be collected, cost and timeline.

\*Start with community well systems, known stressed areas, high volume/commercial use wells

Quantity Outcomes/Deliverables:

Sustainable yield report – surface water

Sustainable yield report – groundwater

GIS database tools (compatible with inter-government systems of data management, and available to the public)

### Quality:

Review water quality data to inform watershed management plans

Develop water quality monitoring plan for Cusheon Lake (and inflows)

Develop and evaluate stewardship actions and Best Practices

<b>CEWG Workplan (Draft in Progress)</b> <b>Nov 9, 2016 proposed by Coordinator with input from Sandra Ungerson</b>
IWM objective and Working Group Goal: CEWG will develop and communicate feasible and workable solutions for water conservation and efficiency methods that reflect the best available science and innovative technologies, as well as the unique local values, opportunities and constraints on SSI.

**STEP 1) Analyze alternative supply options**

**How?**

i) Assess technologies and methods
ii) Assess Policies, Incentives and Best Practices that might support feasibility of alternative supply/supplies

<b>Some Alternatives Include:</b>	<b>Complete by</b>	<b>Who</b>
a) rainwater harvesting		Sandra
b) Ganges sewer recovery and re-use		Ian P.
c) greywater recovery and re-use		
d) desalination		
Others...		
<b>Some Incentives, areas of best practice include:</b>		
building code amendments		
tourism-driven policy		
graduated rates		

\*Coordinator will assist CEWG to perform an exhaustive brainstorm and prioritization exercise before finalizing priority alternatives, and related priority policies, incentives and best practices that the working group will investigate. Outcomes will include risk analysis.

**STEP 2) Assess state of the technology and best practices in existing water service and water use mechanisms on SSI**

**How?**

i) Inventory and prioritize areas of high usage and/or apparent system stress: business use, industrial, agricultural, domestic (multi-family use well)
ii) Evaluate technology and best practices* for conservation and efficiency at level of purveyor, delivery mode, consumer, post-consumer/recycling, environmental needs
iii) Perform risk analysis - What are costs:benefits of implementing alternatives

<b>Example of ii):</b>	<b>Complete by</b>	<b>Who</b>
Analyze use of fracking technology to enhance domestic well productivity		Ken

\* At future time in program, TWG utilization data can be used to confirm findings

Supplementary info  
CEWG draft workplan  
Nov 10, 2016

Conservation and Efficiency Working Group Purpose:

Investigate and assess technologies, methods, best practices and policies

With the Conservation and Efficiency Working Group Terms of Reference purpose and objectives the following topics are brought forward to be considered:

Technologies & Methods:

Rainwater harvesting

Greywater recovery

Runoff recovery

Wetlands/ Ecosystem Treatment systems and Natural Infrastructure

Zero Impact Construction (Carbon offsets/ water recovery/cradle to cradle design/self sustaining buildings)

Drought mitigation strategies

Agricultural Water Preservation Practices

Soil Moisture, Erosion and Sediment Control

Evaporation & evapotranspiration mitigation and recovery

Groundwater supply stabilization

Ecosystem Service Optimization

Water treatment technology not noted previously

Permeable surface management

Water recycling & reuse

Desalination

Sewage Management and nutrient recovery

Water Footprinting

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### Best Practices:

Land Management Practices

Agriculture Management Practices

Industrial & Commercial Water Consumption Practices

Landscaping/ Zero-scaping

Public Health

Process Innovation

Stormwater Management

Wetlands Management

Surface Water Management

Coastland Management

Urban Infrastructure

Applications and implications of Nano-technology

Water Treatment

Whole Water Cycle

Algae and water toxin management

### Policies:

Tourism driven water policy

Natural Resource Policies including implications on watersheds

Density Development Policy

Building Code amendments including green building technologies

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Plumbing Code amendments including green plumbing code

Non-Revenue Water Policy, Revenue water policy, Water Pricing

Water Pollution Policy

Invasive and vector species

Energy/Food/Water Nexus Policy

Wastewater

Water Conservation & Pricing

Drought Management Policy

These items will be considered in terms of the realities on Salt Spring Island considering conservation, feasibility, efficiency, barriers and opportunities