A Soft Path Strategy for Salt Spring Island

A review of the POLIS Project Report
on an approach to water conservation
and demand side management

February 2010

Overview of Report: Executive Summary

- Advocates demand-side management to achieve "no new water" sources until 2026
- Avoid expanding sources -- save infrastructure costs, less ecological stress
- Uses spreadsheet scenarios setting selectable targets and working backwards to succeed.

Overview of Report: Executive Summary

- Short term: attitude changes, some water restrictions, better control of outdoor summer use, more use of low flow devices

- Medium Term: more restricted water use, widespread application of low flow fixtures and appliances to all new construction

- Long Term: significant changes to building code, extensive water re-use, significant rainwater collection & storage for all outdoor summer use

Purpose of the POLIS Report

- Set objectives for future water use limits
- Quantify overall water use, show breakdown of uses where conservation can be achieved
- Show the impacts of introducing changes in water use and introducing water-saving fixtures and devices to meet objectives
- Set out an initial plan of how to achieve conservation goals

The Soft Path Scenario Builder

What is it?

- A spreadsheet tool to help visualize where our water demands come from, where savings need to be made, and what impact different measures can have
- Provides choices in how to manage demand
- Provides some capacity to show the impact of measures on cost, energy use, and the environment

Setting up the Scenario

- Discussed what targets should be set for the future
- Looked at what sectors should be included if possible: water systems, agricultural users, private wells, institutional/commercial/industrial users (ICI)
- Findings: data could be obtained for water systems but not easily for separate breakdowns for overall agriculture, ICI, private well users.

Three scenarios selected

- 1. Business as usual (BAU) with water use growth following population prediction and new resources brought on line
- 2. No new water until 2026 based on 2006 use
- 3. A reduction of water use of 20% lower than 2006, by 2026

Scenario Results

Summary Table for Water Demand Targets in Community Systems

	Current 2006 (m3/d)	Scenario 1 BAU 2026 (m3/d)	Scenario 2 No New Water Until 2026 (m3/d)	Scenario 3 20% Reduction of 2006 levels (m3/d)
Equivalent Serviced Population	5,832	7,660	7,660	7,660
Peak Day Demand (PDD)	5,120	6,599	4,550	2,193
PDD Target Reduction		0%	31%	67%
Annual Average Day Demand (AADD)	2,586	3,451	2,586	2,018
AADD Target Reduction		0%	25%	41%

Getting from Here to There

- More than using water more efficiently
- Why use (drinking) water at all for some uses -- new sanitation methods, water re-use, rainwater, drought-resistant crops, change crop selection
- A blend of technology and policy
- Remove barriers: improve community awareness, develop urgency, political commitment

Implementation: All Sectors

- Commit to “preserve water for the next generation” in OCP or any planning documents
- Create a water demand co-ordinator position
- Implement Full-Cost and Volume-Based Pricing
- Plan for Sustainability Through “Wet Growth”

Future

Rainwater and Waste(d) Water as the Source

Specific Actions:

- Designers, builders and the CRD building inspector should work to make clients aware of the potential of designing for some degree of rainwater catchment
- Develop practical guidelines and specifications to assist homeowners in the proper installation of rainwater, greywater and black water collection systems and the installation of composting toilets
- Implement rebate and installation programmes to enable uptake of onsite rainwater catchment and greywater reuse for homeowners

Five-year Implementation

- Hire Co-ordinator: collect better data, develop detailed 5-year plan
- Continue toilet rebate program
- Education campaign
- Lobby suppliers for low flow fixtures only
- Hold rainwater harvesting (and storage) workshops
- Monitor and adapt plan
- More details in Appendix B of report

Recommended Actions

- Hold public presentation by POLIS
- Prepare pamphlet/note for advertising
- Put summary and survey in Driftwood
- Need to engage more than the already committed population
- Obtain information on jurisdiction, ability to provide rebates, levies, taxes, etc.
- Seek government partnership for shared funding