Cowichan Basin Water Management Plan

Draft Summary Status Report

March 2010

GOAL 1 - MAXIMIZE EFFICIENCY OF WATER USE (WATER CONSERVATION)

Overall Implementation Status: Slow

Comments: Province now requires local water metering as a condition for receiving infrastructure grants but could take a greater leadership role in water conservation as could local government. Analysis (demand management) study shows significant gains can be achieved through wise practices. (see Demand Management report).

Themes/Objectives	Progress To Date Green = Done Yellow = On track Tan = Slow Red= Little or none	Challenges/Opportunities
Water distribution system leak detection	Reactive not proactive. CVRD maintains some leak detection equipment.	Extent of leakage unclear. Can be significant for aging infrastructure.
Water metering –various actions	• Water metering for new construction on community systems is happening. • Lake Cowichan and Duncan pursuing major metering initiative. • No water metering of surface water licenses and wells.	Opportunities to chronicle accomplishments & benefits to date & use metering/pricing to incent conservation. Major opportunities for Water Act Modernization (WAM) re monitoring.
Fixtures –policy re new ones, incentives to replace old.	• Water saving fixtures are required by building code. • Retrofit incentives available to replace old fixtures	Opportunities to chronicle benefits.
Consistent volume based pricing mechanisms for water and sewer	Little progress to date.	Significant opportunities for volume based pricing incentives with completion of metering.
Comprehensive demand management program (e.g., landscaping, grey water, independent audits, education)	Some progress e.g., web sites and education but generally limited progress to date.	Need to identify benefits and barriers to achieving them.
Amend provincial water licensing policy/leg to encourage knowledge and conservation.	Little progress to date.	WAM offers major opportunity for public policy shifts.
Local government leadership with water conservation.	Progress re OCPs slower than anticipated and policy changes and tangible examples of leadership may be somewhat limited.	Major opportunities for local government to provide leadership. Requires cultural shift and proactive thinking.

GOAL 2 - MANAGE WATER SUPPLY TO MEET HUMAN NEEDS AND MINIMIZE IMPACTS OF LOW WATER LEVELS

Overall Implementation Status: Limited

Comments: Need to continue a science-based approach to assessing water supply issues. Need to assess impacts on lake shore residents to try to find win-wins and operate based on openness and fairness. A number of important water quality issues are included under this goal.

Objectives	Progress To Date Green = Done Yellow = On track Tan = Slow Red= Little or none	Challenges/Opportunities
Assess water mgmt in relation to climate change and demand	Original modelling needs updating.	UVic has expertise (Pacific Climate Impacts Consortium) and possible resources.
Investigate impact of storage water levels on shoreline properties and related implications.	CVRD LIDAR data collected for lakeshore analysis; analytical work to proceed in 2010	Need to do analysis of bathymetry re draw down impact as well.
Manage spring and summer water levels to reduce risk of low flows and minimize impacts on lakeside properties.	Catalyst awaiting results of Cowichan inflow and storage models being completed by a contractor and BC's River Forecast Centre (MoE).	Maximizing downstream benefits of existing infrastructure. Minimize negative impacts.
Increase weir height and install pumps	None	Requires assessment based on due diligence (see above). Engagement and support of stakeholders.
Link water withdrawals to licensed storage requirement.	None.	Increased costs associated with obtaining licenses. WAM issue.
Various actions to protect surface & ground water resources from contamination e.g. storm water management, sewage treatment, effluent management, dilution, boat pump outs, erosion & enforcement.	Little progress to date for a number of recommended actions.	Encourage leadership. Utilize education, policy, regulations, and enforcement to promote compliance.

GOAL 3 - ENSURE SUFFICIENT WATER IS AVAILABLE TO SUSTAIN AQUATIC AND RIPARIAN ECOSYSTEMS THROUGHOUT THE YEAR

Overall Implementation Status: Slow to limited - habitat improvement projects are a highlight.

Comments: Stream flows to support fish under this goal dependant on achieving Goal 2. May wish to broaden the title of this goal from a focus on water availability to protecting and enhancing aquatic and riparian ecosystems. Success is dependent on good planning, policy and regulation, clear expectations around wise practices and a commitment to compliance.

Themes/Objectives	Progress to Date Green = Done Yellow = On track Tan = Slow Red= Little or none	Challenges/Opportunities
Actions related to providing target flow volumes for fish sustainability during year and under different circumstances to support fish needs.	These actions can only be achieved when storage capacity or seasonal weather conditions permit (i.e., wet summers or adequate snowpacks).	Encourage watershed-wide thinking. Build knowledge and trust through commitment to best science, ongoing engagement and communications.
Approaches to maintain, enhance, and restore aquatic and riparian habitats e.g. inventory, land use policies/bylaws, improved forest practices, habitat protection/improvement, enforcement (includes Goal 2e).	• Ongoing progress re inventory, mapping, LIDAR and habitat improvement projects • Enforcement of existing habitat protection regulations weak	Leadership Build relationships with all sectors that influence or are influences by water supply and quality issues. Focus on win-wins Enforcement

GOAL 4 - REDUCE IMPACTS OF HIGH WATER LEVELS, RESPECTING THE IMPORTANCE OF WINTER FLOODS TO NATURAL SYSTEMS

Overall Implementation Status: Slow but lower watershed flood plain analysis is a solid foundational piece.

Coordinator's Comments: Opportunity to advocate for collaborative/integrated and innovative environmentally sensitive approaches to flood management. Requires cultural change – leadership is essential. Given recent flooding should be appetite for funding and bylaws/policies.

Themes/Objectives	Progress To Date Green = Done Yellow = On track Tan = Slow Red= Little or none	Challenges/Opportunities
Enforce 200 year flood level bylaws and flood proof at-risk structures, as practical.	Good progress on flood mapping and data analysis, however, slow progress on ensuring coordinated regulatory approaches, enforcement and flood proofing.	• 2009 flooding garnered widespread attention • Leadership • Enforcement • Funding
Coordinated Flood and Drainage Management Plan.	Floodplain analysis of lower Cowichan largely complete, including integrated plan, BUT does not include rainwater/storm water components	Linkages to Liquid Waste Water Management Plan Requires cooperative and integrated implementation
Maintain capacity of river channel to accommodate flows, bedload transport and debris (natural fluvial processes)	Appropriate recommendations included in integrated management plan for lower Cowichan.	Requires cooperative and integrated implementation. Economic viability is an issue. -Crown owns materials (gravel) on FN land.
Approaches for managing Somenos and Quamichan sub-basins.	Integrated management plan for the lower Cowichan and a crop selection study for area provide management recommendations.	Scarce resources Requires concerted collaborative effort
Implement low impact development bylaws, OCP policies etc. as approaches for storm water management.	Transition occurring slowly. Supporting bylaws required. BMPs currently under review. Water centric planning/training program for staff and outreach for developers positive. Municipalities doing a good job re OCPs.	Opportunity to provide information to political leaders to support proactive approaches.

GOAL 5 - EDUCATE, ENGAGE, AND EMPOWER CITIZENS IN WATER MANAGEMENT

Overall Implementation Status: Slow

Comments: Continued outreach to increase involvement and understanding of watershed issues is a fundamental and ongoing requirement. Development and implementation of a comprehensive communications and outreach plan essential and underway. To be credible over the long term it is also critical to obtain solid information about watershed conditions on which to build knowledge and base decisions.

Themes/Objectives	**Progress To Date** Green = Done Yellow = On track Tan = Slow Red= Little or none	**Challenges/** **Opportunities**
Foster basin thinking among all watershed users and ensure users understand/support water management initiatives thru outreach strategy, reflecting cultural values in decisions, educational initiatives, etc.	Coordinator working on communications and outreach plan; building on existing water stewardship communication's initiatives.	Obtaining ongoing, regular, earned media coverage. Watershed Board as ambassadors
Build trust among water users, managers, regulators, and residents through communication and involvement.	• CWB members representative of the interests of the citizens and region as a whole. • CWB will seek advice from the Cowichan Watershed Technical Working Committee, the Stewardship Round Table and other local groups. • Outreach a major component of communications plan.	Overcoming previous perceived bias of Plan. Open mindedness of lakeshore residents leadership Resources
Monitor water related conditions in the watershed and provide information to the public.	New infrastructure installed at Cowichan Lake (real time lake level gauge in 2009); other infrastructure funding applied for.	Lack of integrated data, analysis and reporting of water use.
Conduct and review research to support knowledgeable decision-making and water management.	Major knowledge gap re ground water. Province has begun some mapping and vulnerability assessments. No aquifer management guidelines. Major knowledge gap re potential climate change impacts and adaptation strategies for southern Vancouver Island.	Partner with senior governments and universities. Funding

GOAL 6 - CLEAR, ACCOUNTABLE, RESPONSIVE WATER MANAGEMENT DECISION PROCESSES AND GOVERNANCE STRUCTURES

Overall Status: Slow start but with commitment from partners -on track.

Comments: Establishment of CWB is a major step towards improving water governance and decision processes. Continued progress over next two years will be dependent on CWB's ability to influence water management decisions/decision makers and acquire funds to help implement Plan. WAM provides an opportunity for Cowichan to be recognized as a provincial pilot for local water governance.

Objectives	Progress To Date Green = Done Yellow = On track Tan = Slow Red= Little or none	Challenges/Opportunities
Establish and fund a watershed management advisory board (CBWAC, now CWB) that represents Basin-wide interests, maintains on-going dialogue among stakeholders, and builds trust and ownership among the participants and the public.	Cowichan Watershed Board established January 2010.	Building stakeholder trust and confidence re CWB
Support Cowichan Stewardship Round Table	• Living Rivers and CVRD are supporting with staff (co-chairs) and secretarial duties. • Stated CWB policy to seek advice from Cowichan Watershed Technical Advisory Committee, the Stewardship Round Table and other local stewardship groups/interests.	Longer term funding and support.
Ongoing funding.	• Initial support through partners including Living Rivers start up support (short term).	Demonstrate value that CWB provides to justify ongoing source of funds. Influence WAM policy to allow possible legislative authority re local governance and associated funding.
Ensure the costs of water management facilities and operations are shared fairly among responsible and benefiting parties.	Little progress as yet.	Requires shift in thinking re value of water/watershed.