

Cowichan Watershed Board

Water Efficiency

Draft Target Backgrounder for Discussion by CWB

Target Focus

Cowichan Watershed residents use water wisely.

Possible Targets (subject to discussions with local governments)

- 15% reduction as first step in domestic water use reduction.
- Match Ladysmith's domestic usage of 263 litres per capita per day as a second step in domestic water use reduction by a negotiated date.

CBWMP Goals Supported

Goal # 1 of the Cowichan Basin Water Management Plan: Maximize Efficiency of Water Use.

Background

This document provides recommendations from the Technical Advisory Committee (TAC) regarding maximization water use efficiency by domestic water users. It also proposes that the Board meet with management of Catalyst paper by far the largest water use in the CVRD to discuss water savings opportunities and target setting by Catalyst. To achieve this, the TAC intends to meet with each community to assess water usage and to discuss plans for implementing water efficiency actions, and encourage local governments to adopt additional water measures and recommended targets.

The basic principles for water efficiency that recommended targets are based on are consistent a number of the principles outlined in the Canadian Council of Ministers of the Environment's Action Plan to Encourage Municipal Water Efficiency e.g.:

Leadership. All levels of government– federal, provincial and territorial and municipal– must show leadership in advancing water use efficiency, building on existing knowledge and technologies.

Partnership. Environment ministers cannot achieve the goals of this plan alone. In order to succeed, this plan requires the participation of other government departments, municipalities, and all Canadians.

Harmonization. There shall be consistent regulatory requirements relating to water use efficiency across Canada.

User pays on basis of volume. Consumers shall pay for water and wastewater services on the basis of measured actual use.

Full cost pricing. Municipalities shall move towards water and wastewater rate structures that reflect the full costs of delivery and treatment.

An informed public. The public shall be informed of the real costs of water use and the savings that can be achieved through water efficiency, and of actions they can take to reduce usage.

Hypothetical Targets for Domestic Water Use

Current Status General

Domestic water use and ability to determine levels of domestic water use varies throughout the CVRD. Both Ladysmith and North Cowichan have implemented an inclined block rate structure as the town is fully metered. The estimated per capita water consumption usage in Ladysmith is approximately 263 L/person/day which is well below the provincial (448 L/Person/Day) and national average (326 L/Person/Day). A small investment in time will be required to accurately determine usage for North Cowichan.

Town of Lake Cowichan

Current Status

The Town recently received approval of a Towns for Tomorrow grant to assist in completion of residential metering. Water use in the town is reported to be extremely high however a significant portion of that 'use' appears to be related older, leaky infrastructure. In addition to resulting in lower domestic use it is expected that installation of meters will help with the identification of leaks.

Hypothetical Targets and Target Dates - pending discussions/negotiation

1. Complete the installation of residential metering in 2011
2. Implement inclined block rate structure and determine residential usage (i.e. litres/person/day)
3. Reduce residential consumption by 15% by 2015.
4. Match Ladysmith's consumption by 2016 (263 L/day)

City of Duncan

Current Status

Approximately 75% of commercial water use is metered. Residential metering is minimal. The City of Duncan supplies domestic water to approximately 15,000 through 4,500 connections. The Cowichan Tribes and the District of North Cowichan obtain domestic supplies from the City of Duncan.

Hypothetical Targets and Target Dates - pending discussions/negotiation

1. Completion of commercial/institutional metering in 2011.
2. Residential metering and estimated residential per capita usage by 2013

3. Reduce residential consumption by 15% by 2016.
4. Match Ladysmith's consumption by 2017 (263 L/day).

Municipality of North Cowichan

Current Status

North Cowichan is quite advanced on the metering/billing front. It is metered and utility bills include a levy for sewage. Currently billing/usage data is not organized in a manner that allows for reporting on domestic use in litres/per capita per day format.

Hypothetical Target and Target Date -pending discussions/negotiation

1. Reduce residential consumption for currently metered utilities by 15% 2014.
2. Match Ladysmith's consumption by 2015 (263 L/day).

(North Cowichan has a number of systems –may be practical to discuss notion of different targets for different systems.)

CVRD

Current Status

The Regional District currently operates V metered systems within the watershed serving W households and X systems outside of the watershed serving Y households. The CVRD currently expects to meter Z utilities that it also operates and it is anticipated that it will acquire a number of other utilities over the next several years. The General Manager of engineering is very supportive of inclined rate block structures and has expressed strong support of this target setting exercise.

Hypothetical Targets and Target Dates -pending discussions/negotiation

For currently metered utilities

1. Reduce residential consumption for currently metered utilities by 15% 2014.
2. Match Ladysmith's consumption by 2015 (263 L/day).

For newly metered utilities

3. Match Ladysmith's consumption in fourth year after metering (263 L/day).

Public Education to Support Targets

Actions

1. July/August 2011 -Using Gas Tax Funding Hire 2 students for 4 weeks to conduct a door to door survey to determine:
 - Residents general knowledge drinking water sources;

- Characteristics of their personal water use;
- Measures that they take to conserve water if any;
- Perceived barriers to conserving water;
- Suggestions related to water conservation.

It is recommended that CWB, TAC, CVRD Board/staff or Municipal Council/staff members attempt to accompany the students for a half day to get a feel for residents' views.

2. September 2011 -Analyse findings from the survey and report to CWB, TAC, local governments and local media.
3. October 2011 -Utilize findings and other sources of information to develop a conservation strategy.
4. Develop materials for conservation strategy to role out with partners beginning the spring of 2012. (Should incorporate/build on existing initiatives and opportunities including, existing web initiatives, CVRD Environment Commission's 'don't be a waterhog' big idea to support logo/branding, use of earned media, inclusion of conservation messaging with utility bills etc.

Catalyst Paper

Catalyst is responsible for roughly 2/3 of the use of water from the Cowichan Watershed. Catalyst uses approximately 55 million cubic meters of water per year.

For 2011, Catalyst has an internal target for water consumption of 85 cubic meters of water per tonne of production and is currently operating below that target at 76.5 cm/tonne.

Since it is such a major water user the TAC recommends that a sub-committee of Watershed Board members meet with Catalyst to discuss opportunities for and barriers to water conservation for the company with the aim of establishing a stretch target.

Resource Requirements

- In some instances e.g. Duncan significant investments in infrastructure will be required.
- \$25,000 in Gas Tax funding is available to support public education related to water conservation in 2011.
- \$15,000 in additional support for public education in each of 2012 and 2013 was requested from General Priorities and Innovations Fund of Gas Tax.
- Efforts will be made to cost share initiatives with local governments.