

Water Conservation Challenge Lake Cowichan

Cowichan Watershed Board
August 2013



Cowichan Watershed Board

Established in 2010

- ▶ To provide leadership/direction for managing the Cowichan watershed – implement the *Cowichan Basin Water Management Plan* – engage community

Who?

CWB Members

Cowichan Tribes

- ▶ Calvin Swustus*
- ▶ Darin George

At Large

- ▶ Hon. David Anderson
- ▶ Mayor Ross Forrest
- ▶ Mayor Jon Lefebure
- ▶ Tim Kulchyski

B.C.

- ▶ Dr. Lorna Medd
- ▶ David Slade

* Co-chairs

CVRD

- ▶ Rob Hutchins*
- ▶ Lori Iannidinardo
- ▶ Ian Morrison

Canada

- ▶ Andy Thomson

Special Advisors

- ▶ Arvid Charlie
- ▶ Dr. Nicole Vaugeois
- ▶ Ted van der Gulik
- ▶ Dr. Rick Nordin
- ▶ Dr. Bruce Fraser
- ▶ Don Radford
- ▶ Oliver Brandes

The Water Management Plan

- ▶ Completed early 2007
- ▶ 6 Goals, 23 Objectives, 89 Actions



A partnership of
Cowichan Valley Regional District
BC Ministry of Environment
Fisheries and Oceans Canada
Catalyst Paper Corporation
Cowichan Tribes
Pacific Salmon Commission



March 2007

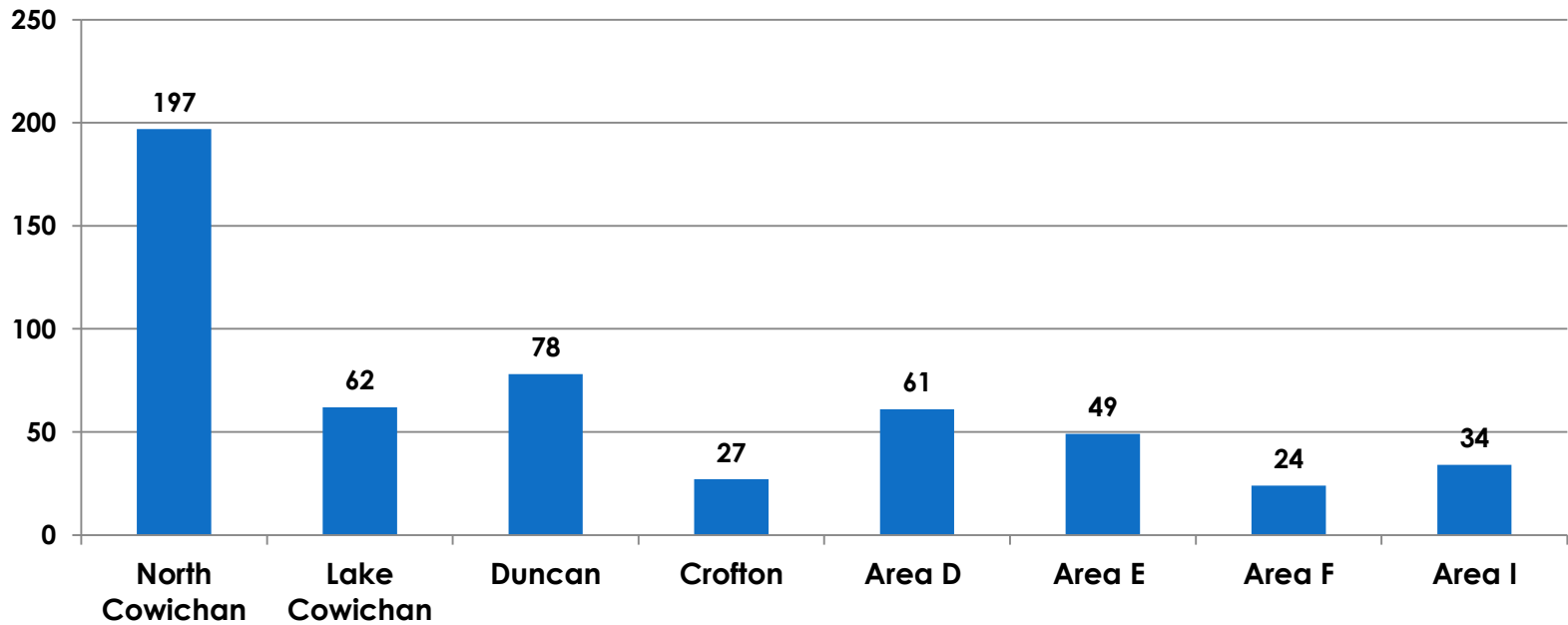
Cowichan Basin Water Management Plan, Goal 1

Reduce Water Demand

- Maximize efficiency of water use by:
 - Improvements to water infrastructure
 - Demand management of all sectors
 - Local government leadership
 - Water smart land use

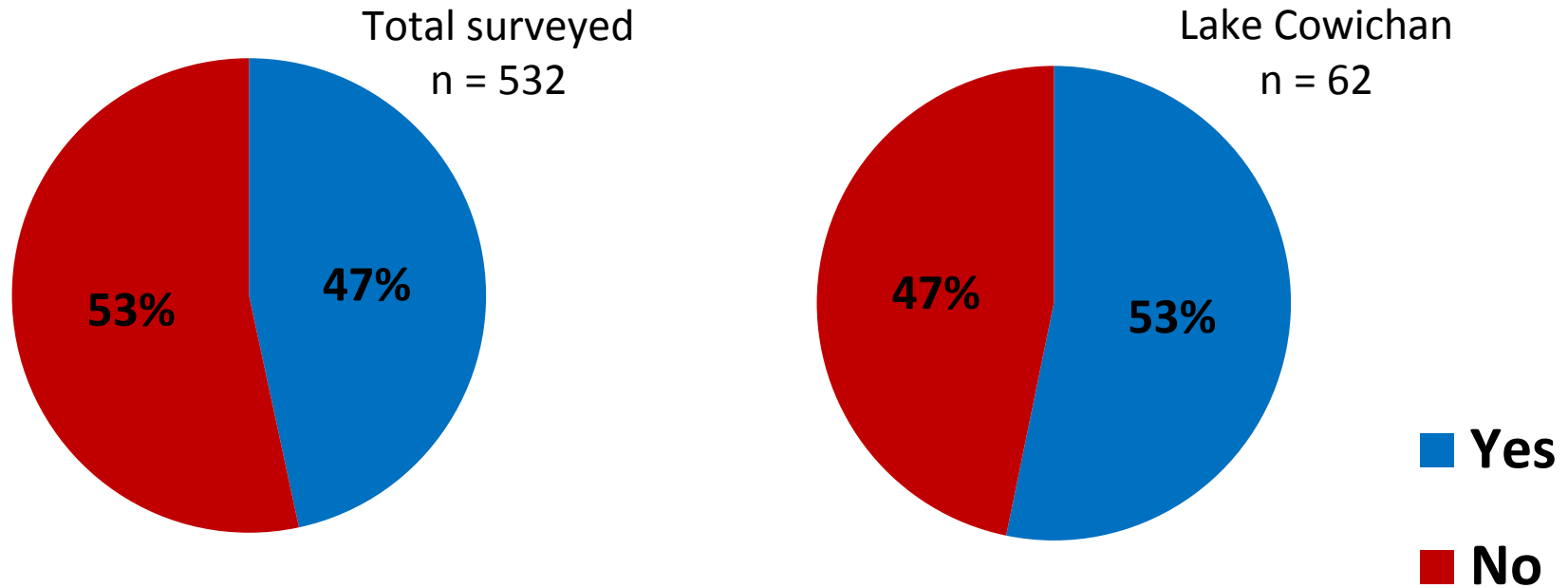
CWB survey August 2011

Assessed local water and water conservation knowledge



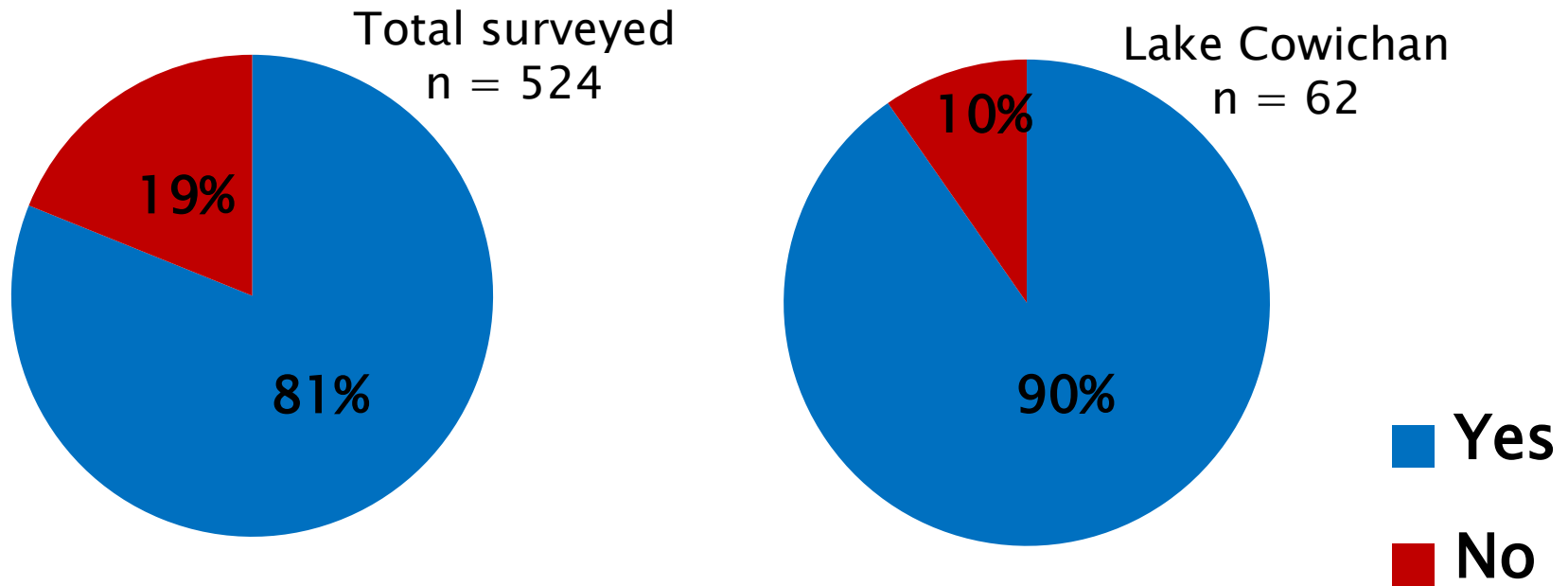
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Water Knowledge – Source

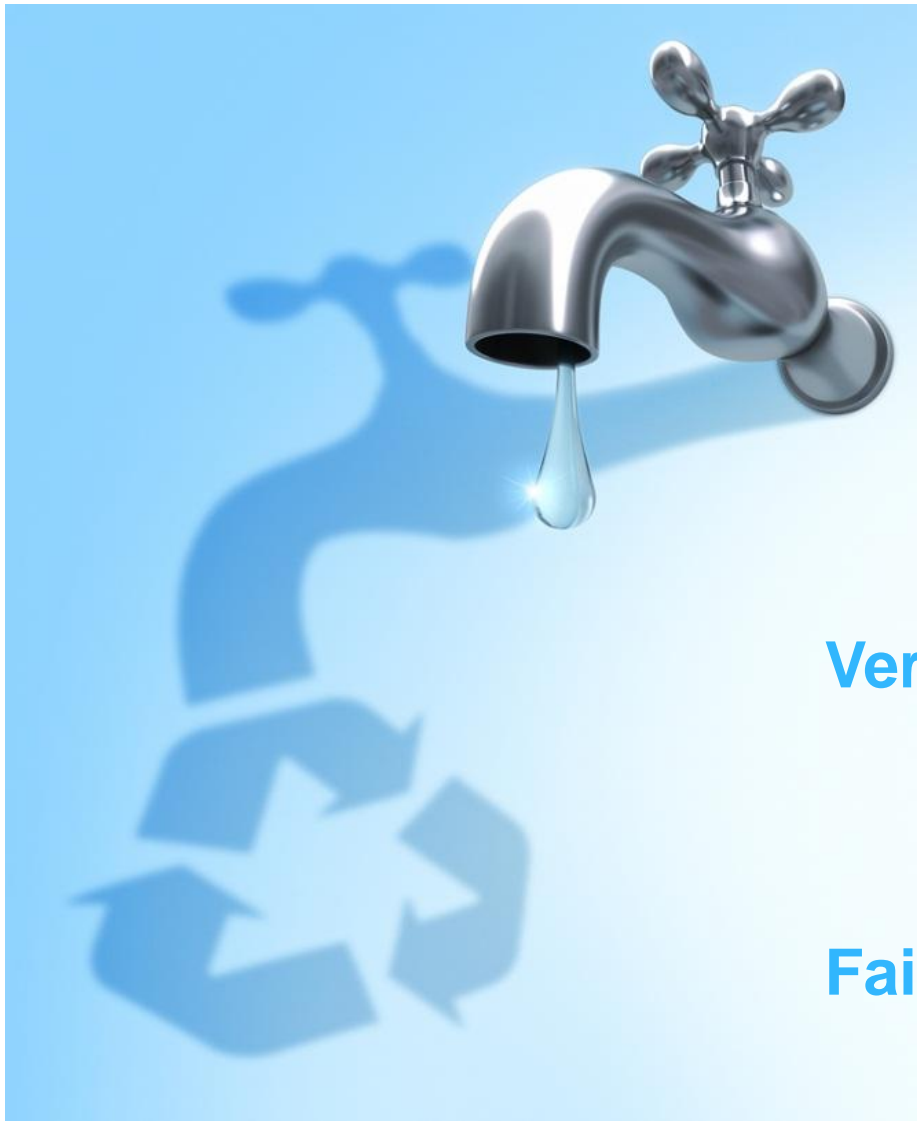


Some areas within the watershed knew more than others but over half of water users did not know where their water comes from.

Water Knowledge – Provider



People were better at knowing who provides their water.



Residents have good attitude regarding water conservation

Very Important

61% - Total Survey

47% - Lake Cowichan

Fairly Important

31% - Total Survey

32% - Lake Cowichan



But people need help:

- How to conserve water
- Incentives





Not aware of watering restrictions

31% - Total Survey

21% - Lake Cowichan

Did not know about toilet rebate program

42% - Total Survey

48% - Lake Cowichan

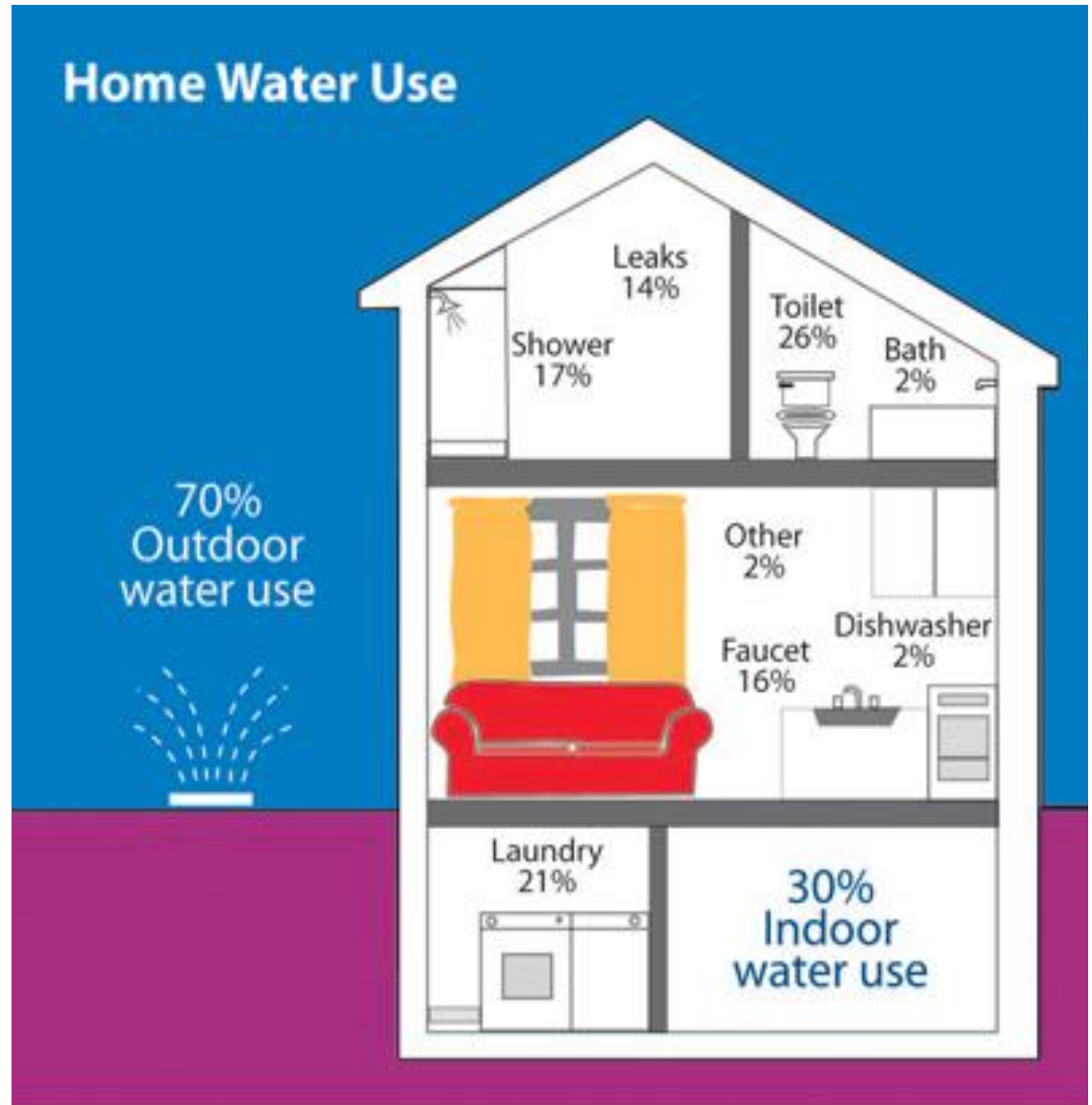


Where does the water go?

BC average:

353 litres/person/day

13% of water in Canada is unaccounted for

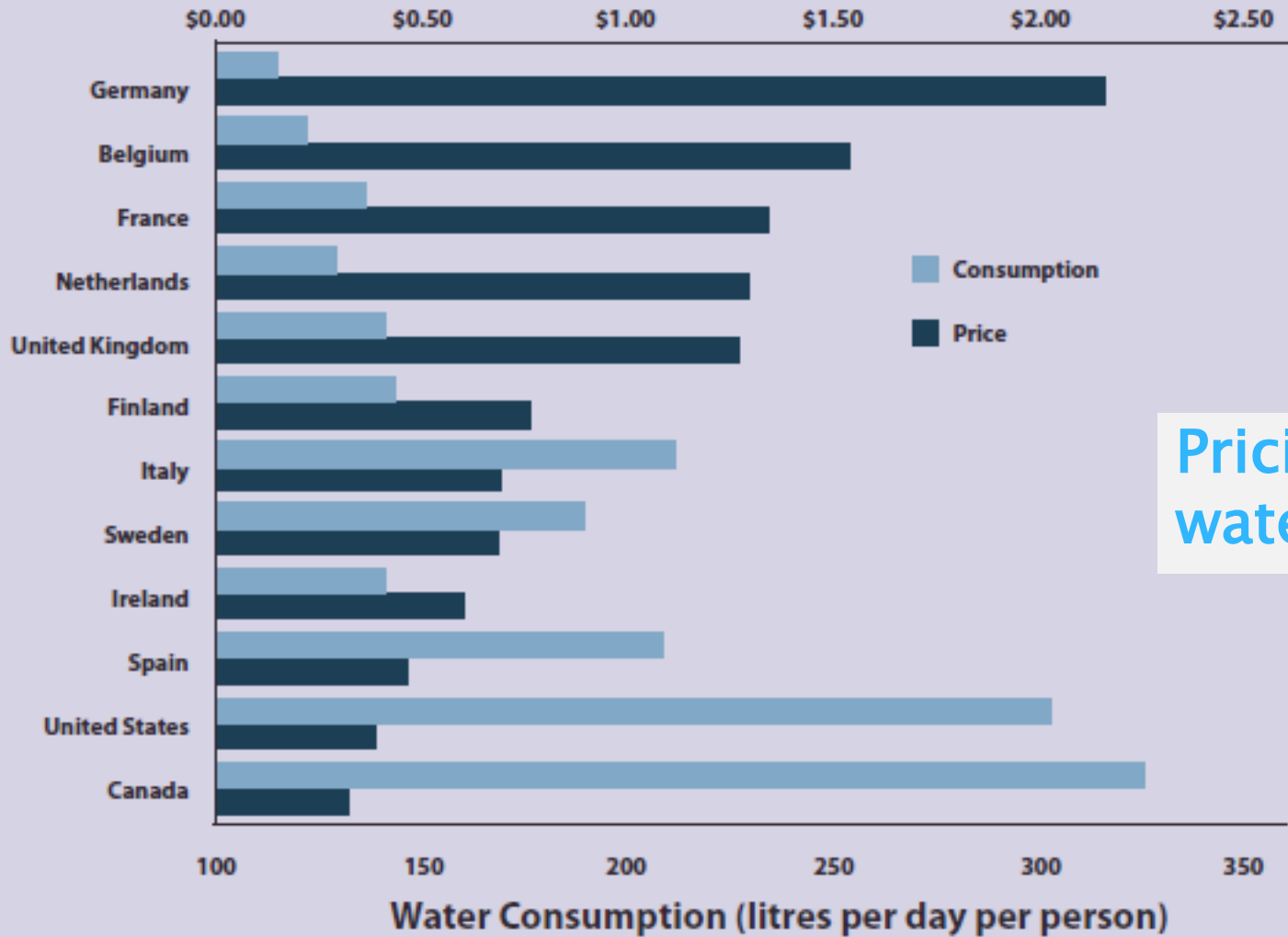




Current pricing is not affecting behaviour.



Water Pricing (purchasing power parity)



Pricing affects water demand

Water meters and tiered (inclined block rate) pricing are effective tools for water conservation.

Typical Canadian Household

- Unmetered – 467 L/p/d
- Metered – 266 L/p/d



Water Knowledge – Consumption

(requires verification)

Area	Provider (sample size)	Average Household Consumption L/Day	Minimum Household Consumption L/Day	Maximum Household Consumption L/Day	Average Annual Consumption L/Day/Person
Area D	Cherry Point (29)	973	125	2,241	423
Area D	Douglas Hill (88)	794	189	2,518	345
Area E	Dogwood Ridge (33)	734	247	3,033	294
Area I	Bald Mountain (7)	1,105	153	1,753	552
Area I	Youbou (286)	584	71	4,168	292
Crofton	North Cowichan (740)	666	85	5,401	289
South End MNC	North Cowichan (4,285)	1,047	60	114,097	455

2012 Water Rates

Area	Provider	Average Annual Cost	Min Annual Price	Max Charged 2012
Area F	Honeymoon Bay CVRD	\$576.00	\$576.00 **	\$576.00
Area F	Mesachie Lake CVRD	\$430.00	\$430.00 *	\$430.00
Area I	Youbou Water System CVRD	\$626.55	\$580.00 **	\$1,916.75
Area I	Bald Mountain Water System CVRD	\$733.63	\$674.00 *	\$961.59
Lake Cowichan	Town of Lake Cowichan	\$306.72	\$306.72	\$306.72

Local Water Rates 2012

Area	Provider	Average Annual Cost	Min Annual Price	Max Charged 2012
Crofton	North Cowichan	\$471.64	\$458.00 *	\$1,257.75
South End MNC	North Cowichan	\$347.14	\$300.00 *	\$5,615.04
MNC	City of Duncan	\$255.50	\$255.50	\$255.50
Duncan	City of Duncan	\$175.50	\$175.50	\$175.50

2012 Water Rates

Area	Provider	Average Annual Cost	Min Annual Price	Max Charged 2012
Area D	Cherry Point Estates Local Service CVRD	\$1,035.38	\$875.00 *	\$1,687.50
Area D	Cowichan Bay Water District Improvement District	UNK	\$176.00 *additional levys unknown	UNK
Area D	Lambourne Estates Water Systems CVRD	\$468.00	\$468.00 *	\$468.00
Area D	Douglas Hill Water System CVRD	\$629.76	\$547.00 *	\$1,388.77
Area E	Dogwood Ridge Water System CVRD	\$1,080.05	\$1050.00 *	\$1,805.63
Area E	Eagle Heights Water System City of Duncan	\$255.50	\$255.50	\$255.50



Can we meet or beat Ladysmith's
L/person/day
for domestic water use?

Recommended Steps for Water Conservation

- ▶ 1. Have a plan
- ▶ 2. Get buy in
- ▶ 3. Metre up and charge by volume
- ▶ 4. Smart billing
- ▶ 5. Account for water use and use data to plan
- ▶ 6. Know your expenditures / costs
- ▶ 7. Seasonal surcharge
- ▶ 8. Holistic approach
- ▶ 9. Seek Senior Gov't support
- ▶ 10. Long-term view



Forward and Up

Thank you