

This presentation premiered at WaterSmart Innovations

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Protecting the Okanagan Watershed; Moving from Research to Regulations

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Imagine....

- A watershed recognized as being the most arid in Canada
- Residents who use more than twice the daily national average of per person water use



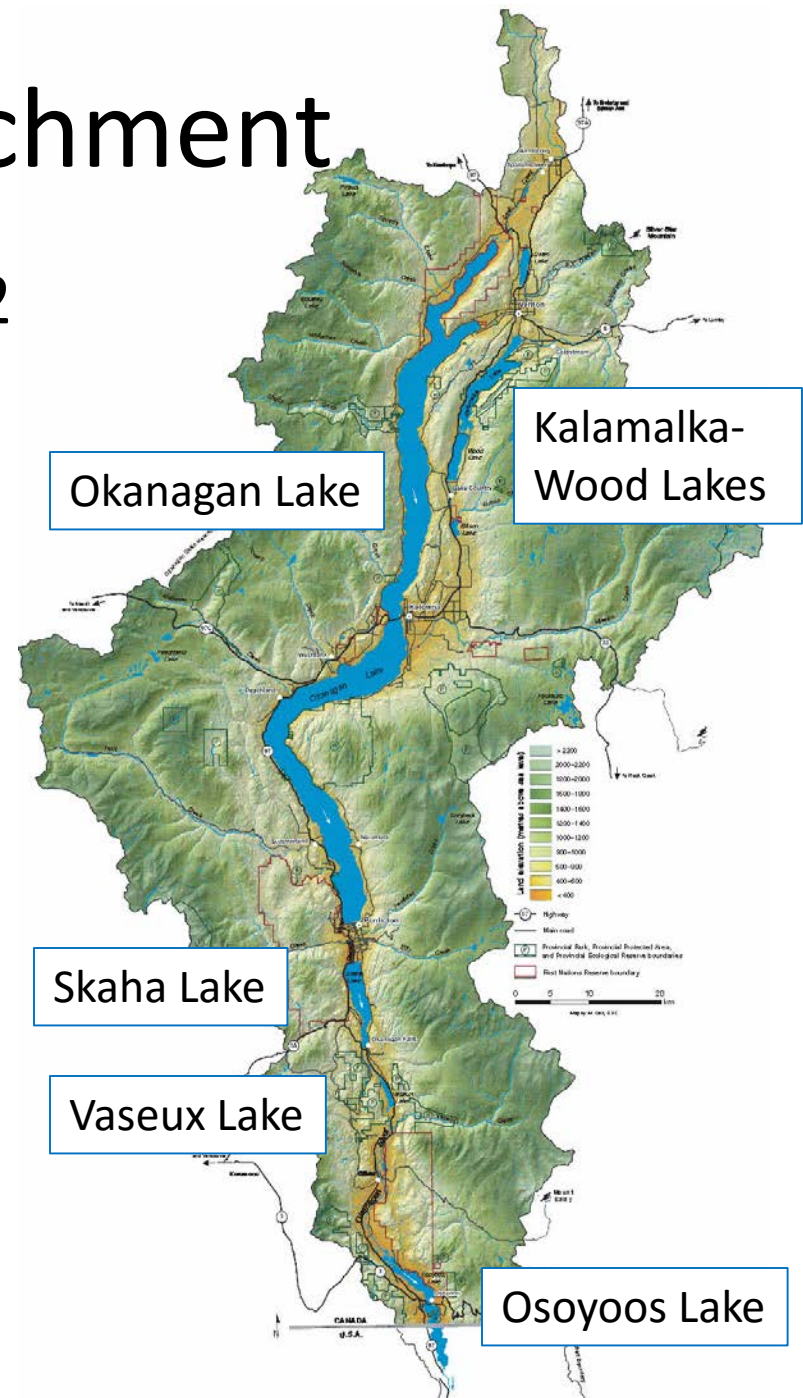
The illusion of abundance....



Okanagan Lake

Okanagan Basin catchment

- Catchment of over 6000 km²
- 200 km (124 miles) long
- 5 main lakes
- 101 known water purveyors
- 400,000+ people
- 4,000 active water licenses (for surface water extraction)



Our water balance is off...



- Average of 312mm (12.3”) of precipitation; close to half as rainfall
- 80% is lost to ET before reaching the lakes
- Known withdrawals are at over 50% of precipitation inputs (based on historical inputs)
- Purveyors and licensees are not at their legal capacity
- Climate change = more rain, less snowpack
- Temperatures are rising particularly the “lows”
- International treaty for Osoyoos Lake

When inputs and outputs are not balanced...

Area and Capacity of Lake Mead: 2010 Calculations from Surface and Bathymetric data)

Location	Elevation (Feet)	Area (Acres)	Capacity (Acre-feet)
Maximum designed			
water-surface elevation	1229.0	159,866	29,686,054
Operational capacity	1219.6	152,828	28,229,730
Permanent crest spillway sill	1205.4	144,871	26,150,596
Lake level (Feb 2010)	1100.0	88,689	14,210,242
Intake tower, upper gates	1050.0	73,615	10,217,399
Lake level (Sept 2015)	1074.0		

National Park Service website

<http://www.nps.gov/lake/learn/nature/storage-capacity-of-lake-mead.htm>

Reservoir levels have continued to drop since 2000

Past and present

✓ Original Okanagan Basin Water Board formed in 1970, primarily to address high levels of phosphorous in Okanagan Lake (led to Eurasian milfoil)



Past and present

✓ OBWB Receives 3.5M annually and operates 3 programs;

- ✓ Eurasion Milfoil Control Program

- ✓ Sewerage Facilities Grant Program

- ✓ Water Management Program

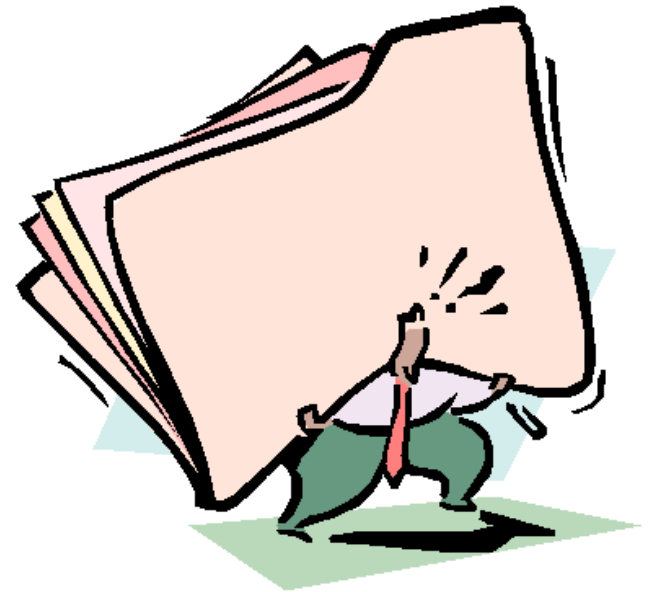
 - ✓ Administers Water Conservation and Quality Grants

 - ✓ Coordinates installation of groundwater monitoring wells

 - ✓ Research and information services

Current legislation

- ✓ Complicated and underutilized as a result
- ✓ Water management in BC is currently covered within 21 pieces of government legislation; 15 provincial, 6 federal
- ✓ Water conservation measures within the basin are primarily voluntary
- ✓ 2008 Living Water Smart; launched but stalled
- ✓ Groundwater licensing not in place
- ✓ The “Nestle” story highlights the ineffectuality of much of our new “Water Sustainability Act”



The future

- ✓ Evolution of the OBWB to the OBWA; Okanagan Basin Water Authority
- ✓ Reference the provincial governments Living Water Smart mandates
- ✓ Acknowledge the strengths and shortcomings of current situation



The future..Living Water Smart

- ✓ Refer to the 45 water related goals set out in 2008
- ✓ Incorporate key goals to align with province
 - ✓ Ground Water Protection
 - ✓ Infrastructure funding contingent on climate change adaptation component(s)
 - ✓ 50% of new water needs acquired through conservation



The future... forming the OBWA

- New Water Sustainability Act provides for increased powers to “Watershed Entities”
- Create a Watershed Management Plan
- Actionable Water Management Strategies



Actionable Strategies

- Groundwater monitoring
 - Local well registration bylaw and enforcement
- Lack of storage / infrastructure funding
- Irrigation specifications
- Unprotected water sources





Mission Hill Winery

Thank you