Overview of the Regional Water Conservation Strategy

October 2017

REGIONAL DISTRICT
RDOS
OKANAGAN·SIMILKAMEEN

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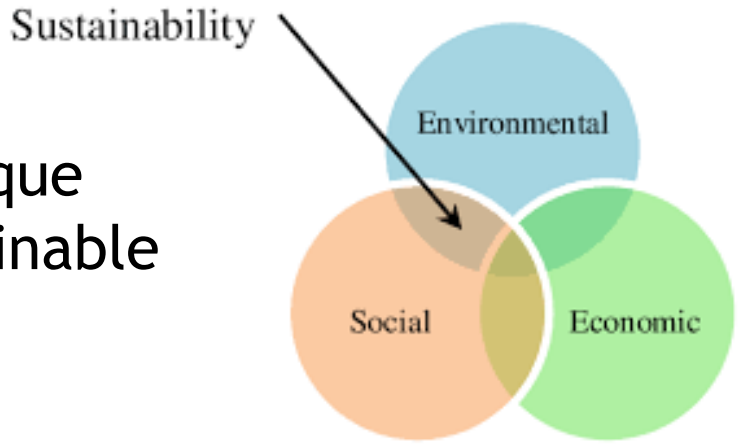
Project Objectives

1. To create a single strategy for improving water efficiency in all water systems owned and operated by the RDOS
2. To provide a resource to guide conservation efforts for small water systems in the region that are not owned or operated by the RDOS
3. To address recommendations from the 2017 performance audit of the RDOS water systems conducted by the Auditor General for Local Government of BC
4. To address objectives from the RDOS' 2017 Business Plan, 2015-19 Strategic Plan, 2017 Regional Growth Strategy

Why Conserve Water in the First Place?



The draft strategy highlights 25 unique benefits that amount to more sustainable water services for the long-term.

Here are just a few to consider:

- Economic benefits
  - Cost savings for the RDOS from reduced pumping and chemical use
  - Deferred, reduced, or avoided spending on new water system infrastructure
- Environmental benefits
  - Reduce impacts on aquatic ecosystems that share some of our water sources
  - Climate change mitigation through reduced energy use from less pumping
- Community benefits
  - Ensure sufficient supplies of water for current and future residents & businesses
  - Support objectives in the *Strategic Plan*, *Regional Growth Strategy* & recommendations in the *2017 Water Performance Audit*

Helpful Background Information

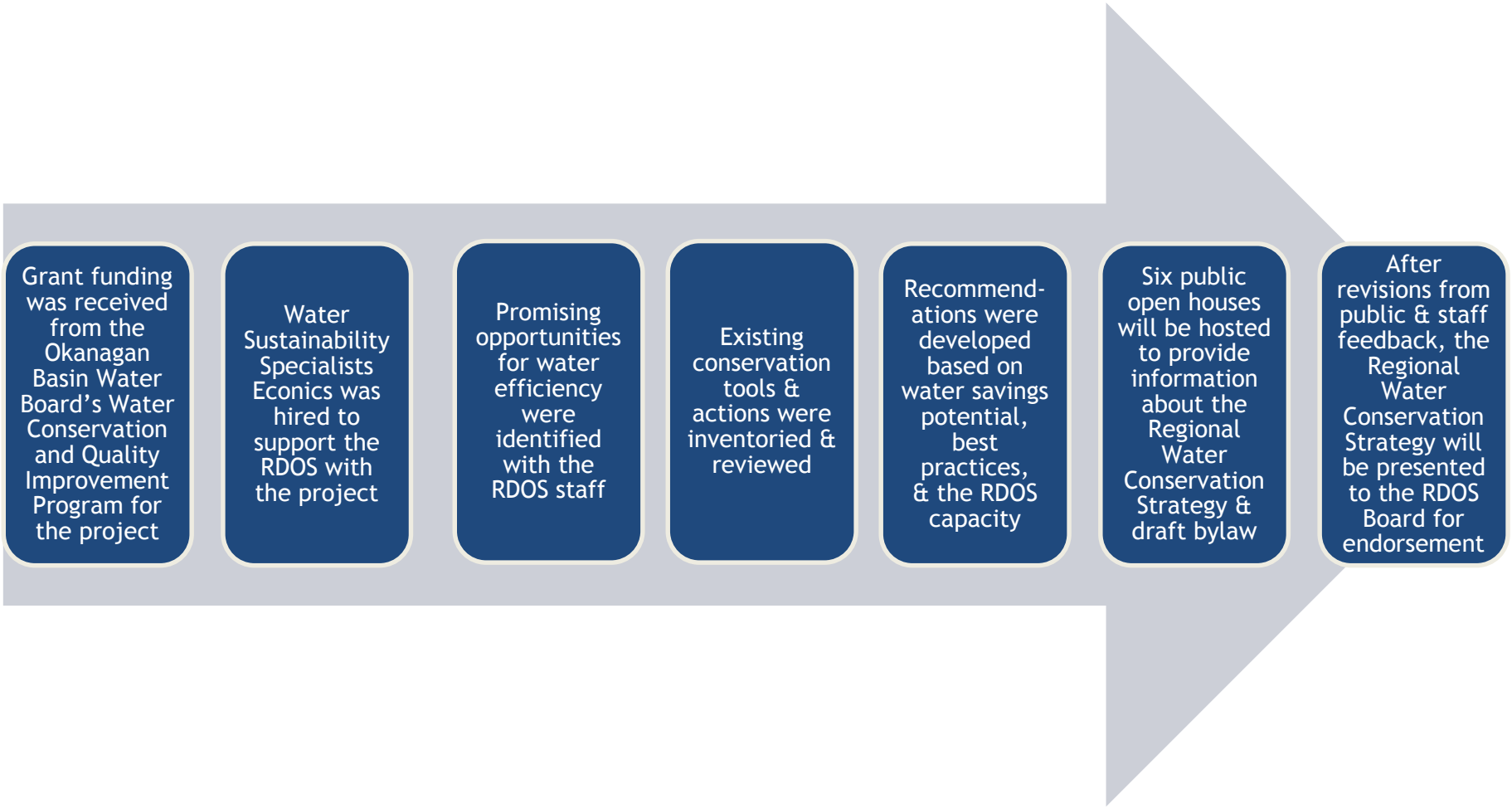
- The RDOS's water customers are residential, commercial (a small number), and agricultural.
- Due to the limited use of water meters in many of these systems, there is limited data available to compare water use with other communities, or to evaluate how much may be lost to leakage.
- One of the recommendations from a recent audit of the RDOS water systems was to improve the availability of data about water availability and use. Many recommendations in the draft strategy will help achieve this.
- Based on the data available, per capita water use in West Bench, Olalla, and Naramata appears to be quite high relative to BC averages (2-5 times higher).
- It is also clear that customers in all systems use a lot more water in the summer (4-5 times as much as in other seasons!). This puts a lot of pressure on infrastructure and on water supplies at a time when precipitation is limited.

RDOS is the owner and operator of 8 water systems:

Faulder
Naramata
Olalla
Gallagher
Lake
Loose Bay
Sun Valley
Willowbrook
West Bench

RDOS also operates the Sage Mesa water system.

Project Approach



The draft strategy has recommendations that use all five E's of water demand management.
The most effective conservation programs rely on a range of these approaches to achieve more efficient use by all water users.

What is the RDOS Currently Doing to Encourage Water Conservation?

- Over 20 tools & strategies have or are being used by the RDOS.
- Using the 5 'E' categories identified on the previous page, these include:
  - Engineering: West Bench, part of Naramata & Olalla, and most commercial facilities serviced by the RDOS have meters to measure use
  - Enforcement: outdoor water-use restrictions are used in the summer months to try to reduce discretionary water use when supplies are limited
  - Encouragement: incentives include rain barrel and compost give-aways
  - Education: classroom presentations, leak-detection mail-outs, water efficiency tips in print (brochures) and online (RDOS website).
- Most current activities fall into the education category.
- In fact, lots of education and outreach is being done at very little cost! Thanks to Zoe (see the next page).
- To achieve more meaningful improvements in water efficiency across all water systems it operates, the RDOS should increase the use of strategies that fall into the other 4 'E' categories.

Congratulations Zoe!

The RDOS's Public Works Project Coordinator Zoe Kirk recently won a national award for her conservation work from Water Canada!

This strategy will build on the excellent work Zoe is already doing to help residents, businesses, and farmers use their water more efficiently.

Strategy Recommendations

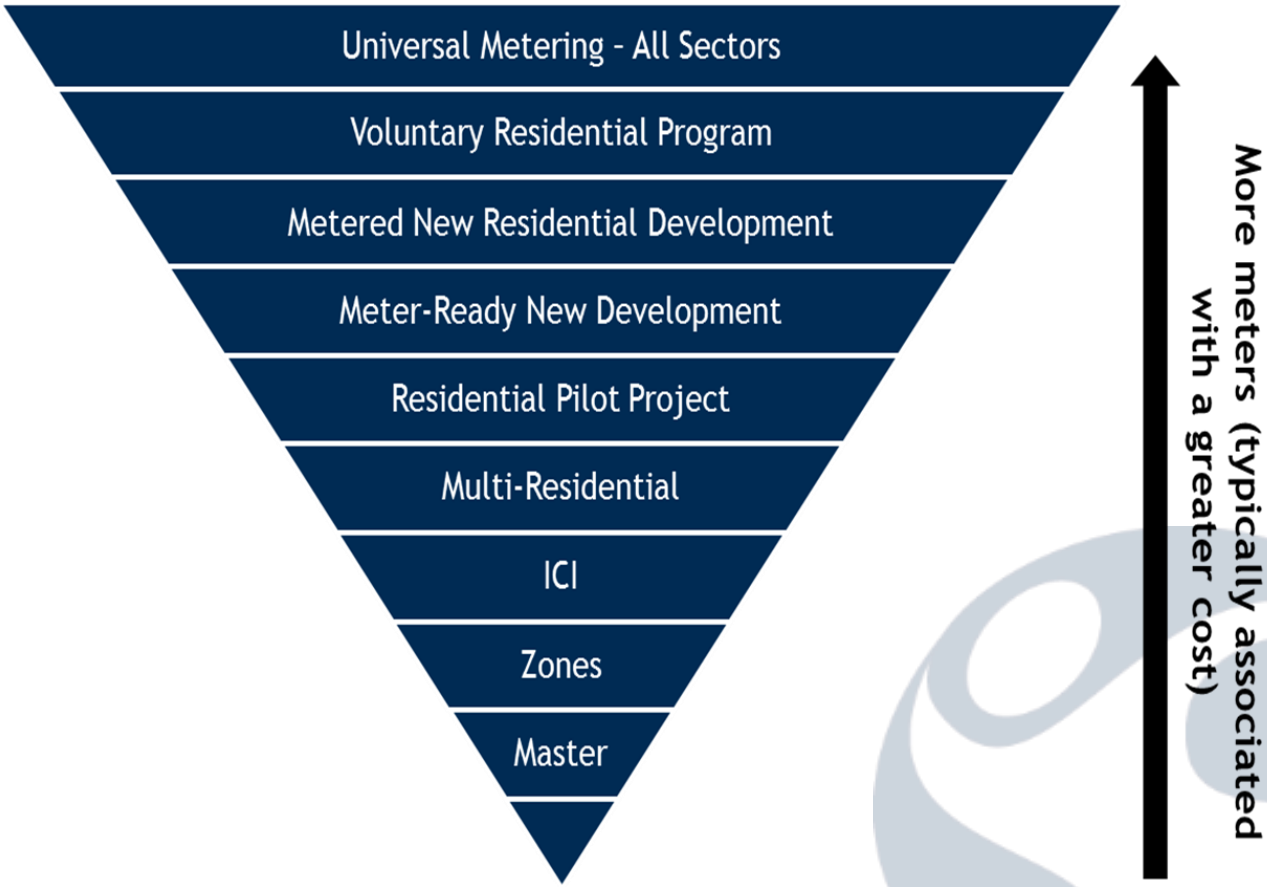
The recommendations section of the draft strategy is organized into the 6 themes identified below. Each theme consists of 2-4 specific actions, for a total of 18 recommended actions.

- Theme #1: Implement a Long-term Metering Strategy
- Theme #2: Enhance Non-revenue Water Management
- Theme #3: Leadership in Water Efficiency
- Theme #4: Improve Efficiency of Outdoor Residential Water Use
- Theme #5: Ensure Efficiency on Farm Properties
- Theme #6: Conservation Education & Outreach

#1: Implement a Long-term Metering Strategy

This theme is based on the principle that installing water meters is not an “all or nothing” proposition.

There is lots of value in gradual investments that expand the coverage of metering and the data available to help manage water services and ensure supplies are sufficient for community needs.



#1: Implement a Long-term Metering Strategy

Actions (4):

- Enable metering for all water connections through regulation *(planned in a forthcoming bylaw)*
- Require installation of meters and/or meter boxes at all new developments *(new)*
- Prioritize additional metering in areas mostly likely to reduce high demand and system losses like leaks *(new)*
- Transition metered users to volume-based pricing as soon as practicable to improve equity so those who use less water pay less *(planned)*

The italicized text after each action indicates whether the RDOS is already doing it *(existing)*, already planning to do it *(planned*), or if it is an enhancement of an existing activity *(enhance)*, or a brand new activity *(new)*.

#2: Enhance Non-Revenue Water Management

(This mostly means reducing leaks)

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- Conduct utility water audits on all major water systems to estimate leaks and losses *(new)*
- Develop and implement a system loss control program *(new)*
- Continue and expand the customer leak notification program (metered customers with unusual high consumption receive a package in the mail alerting them to the possibility of a leak and receive tips on how to find and fix them) *(continue)*

The italicized text after each action indicates whether the RDOS is already doing it *(existing)*, already planning to do it *(planned*), or if it is an enhancement of an existing activity *(enhance)*, or a brand new activity *(new)*.

#3: Demonstrate Leadership in Water Efficiency

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Actions (2):

- Water-efficient technology in the RDOS facilities *(enhance)*
- Best management practices in the RDOS-managed landscapes *(enhance)*

The italicized text after each action indicates whether the RDOS is already doing it *(existing)*, already planning to do it *(planned*), or if it is an enhancement of an existing activity *(enhance)*, or a brand new activity *(new)*.

#4: Improve Efficiency of Outdoor Residential Use

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Actions (4):

- Update and standardize outdoor watering regulations for all water systems *(new; addressed by forthcoming bylaw)*
- Prohibit wasteful use of water by regulation *(new; addressed by forthcoming bylaw)*
- Provide incentives for landscaping practices that reduce water use *(enhance)*
- Educate residents on fire-prevention methods that do not use water *(new)*

The italicized text after each action indicates whether the RDOS is already doing it *(existing)*, already planning to do it *(planned*), or if it is an enhancement of an existing activity *(enhance)*, or a brand new activity *(new)*.

#5: Ensure Efficiency on Farm Use Properties

#5: Ensure Efficiency on Farm Use Properties*

Actions (3):

- Prioritize metering and (after better understanding their water use) volume-based billing for Farm Use Parcels to improve equity so those who use less water pay less *(new)*
- Work with the Okanagan Basin Water Board (OBWB) on educational material to help agricultural users improve efficiency *(new)*
- Continue to promote best practices in farm irrigation *(enhance)*

** Farm Use parcels are defined as those within a water service area and classified as 'farm' by the British Columbia Assessment Authority.*

The italicized text after each action indicates whether the RDOS is already doing it *(existing)*, already planning to do it *(planned)*, or if it is an enhancement of an existing activity *(enhance)*, or a brand new activity *(new)*.

#6: Enhanced Water Conservation Education and Outreach

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Actions (2):

- Continue to promote the *Make Water Work!* Campaign in partnership with the Okanagan Basin Water Board (OBWB) and other regional agencies *(enhance)*
- Continue and enhance education and awareness efforts targeting residential, commercial, and farm users *(enhance)*

The italicized text after each action indicates whether the RDOS is already doing it *(existing)*, already planning to do it *(planned*), or if it is an enhancement of an existing activity *(enhance)*, or a brand new activity *(new)*.

Summary of Strategy Recommendations

#1 Implement a Long-term Metering Strategy	#2 Enhance Non-revenue Water Management	#3 Demonstrate Leadership in Water Efficiency	#4 Improve Efficiency of Outdoor Residential Use	#5 Ensure Efficiency on Farm Use Properties	#6 Enhanced Water Conservation Education and Outreach
Enable metering for all connections through regulation	Conduct utility water audits on all major water systems	Efficient technology in RDOS facilities	Update and standardize outdoor watering regulations	Prioritize metering and volume-based billing for Farm Use properties	Continue to promote the Make Water Work! Campaign in partnership with OBWB and other regional agencies
Require installation of meters and/or meter boxes at all new developments	Develop and implement a system loss control program	Best management practices in RDOS-managed landscapes	Prohibit wasteful use of water	Work with OBWB on educational material to help farm users improve efficiency	Continue and enhance education and awareness efforts targeting residential, commercial, and agricultural users
Prioritize additional metering in areas mostly likely to reduce demand and/or system losses	Continue and expand the customer leak notification program		Provide incentives for landscaping practices that reduce water use	Continue to promote best practices in farm irrigation	
Transition metered users to volume-based pricing as soon as practicable			Educate residents on non-consumptive fire-prevention methods		

Implementation Considerations

To effectively implement the strategy and improve the efficiency of water use in all water systems, the RDOS may need to:

- improve data availability and collection to monitor water use over time and to help and undertake regular reviews of program effectiveness;
- allocate a dedicated, annual program budget (and recognize it could pay for itself in terms of deferred infrastructure costs or reduced operations expenses); and,
- ensure sufficient staff capacity to commit to improved water efficiency over the long term.

We Welcome Your Feedback!

- Please consider answering the questions we've provided on the website by sending us an email, or send us your own questions or comments about the draft strategy: water2017@rdos.bc.ca

- We'll use any feedback received by **Friday, November 3** to help revise the draft strategy before it is presented to the RDOS Board

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