



## REGIONAL DISTRICT OF CENTRAL KOOTENAY

# FAQ

## BALFOUR WATER SYSTEM UPGRADES & UNIVERSAL METERING PROJECT

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### General

#### Participating Area Approval Requirements

##### We had an Alternative Approval Process and it failed so why are we now going to referendum?

*“The alternative approval process was a method to gauge the community’s interest in borrowing the funds needed for this project,” said Ramona Faust, Area E Director. “The RDCK has heard from a number of people who are in favour of the project proceeding, so we feel it’s in the public’s best interest to undertake a referendum.”*

Participating area approval is required when a local government undertakes long term borrowing. The Alternative Approval Process (AAP) is sometimes referred to as a counter petition. Participating area approval is not achieved under an AAP if at least 10% of the eligible electors submit responses indicating that the Regional District Board may not proceed with the matter. Participating area approval is achieved through Assent Voting (referendum) if a majority (50% +1) of the eligible electors are in favour of the matter. An AAP is often used when there is not enough time to undertake Assent Voting. It is also a far less costly method of gauging the public’s opinion.

In the case of the Balfour water system borrowing, the original grant spending timeline did not allow enough time for Assent Voting. The grant providers have now extended the timeline for the Balfour project.

#### Universal Metering

##### Why does the project include metering?

Balfour has been subject to past Stage 2 and Stage 3 water conservation measures during extended periods of warm weather. At times the treated water storage reservoir has been nearly out of water, including water that could be used for fighting fires. We have had very good compliance with water conservation measures but metering will help reduce peak demands. A reduction in overall water demand will also result in a reduction in pump, filter, chemical and electrical operating costs.

### **Why don't we use the grant money to increase system capacity rather than implementing metering?**

Controlling water demand in Balfour is much more cost effective than increasing system capacity. In order to increase system capacity, the lake supply pump station would need to be upgraded or replaced, much of the raw water transmission line from the lake pump station to the treatment plant would have to be upgraded or replaced, the treatment plant would have to be twinned. This would cost millions of dollars more than metering.

Clean Water and Wastewater Grant funding would not have been provided for any capacity upgrades unless the water system could demonstrate and implement a water conservation plan.

### **If we are building a bigger reservoir, why do we need metering?**

Treated water storage reservoirs are typically sized based on operating requirements for one day plus fire storage. High water demand periods often last many days. Even an extremely large reservoir would eventually run out of water if the system capacity could not keep up with demand. Water conservation project elements in the application substantially increase the likelihood of success for the application.

### **Why don't you just fix the leaks instead of implementing metering?**

The Regional District does fix leaks in the system when they are detected. Significant leaks are fixed as soon as possible. Small leaks might be postponed based on weather and scheduling requirements, particularly if not during a high water demand period.

Small leaks can be hard to find if they are not visible. A small amount of undetected leakage is normal in water systems as leak detection work can be expensive and it is not cost effective to find all small leaks. Metering data can also help find leaks.

The replacement of old main lines as part of this project will also contribute to the elimination of leaks.

### **Is metering just a money grab?**

No, it is not the Regional District's intent to generate more revenue based on metering than would be otherwise planned based on a flat rate system. But it offers the opportunity for a fairer cost distribution amongst users.

### **What will my water rates be if metering is implemented?**

Metered water rates have not yet been established. There are many rate structure options available and the Regional District intends to consult with our Community Advisory Committee and customers before implementation. Metered rates can be set after we gain customer water usage data. Mock metered rate bills will be produced before switching to metered rates so that customers can better gauge what their water bills might be. The Regional District recognises that Balfour mainly consists of large rural lots, has sandy soils and has a significant increase in seasonal population.

## Can we proceed with the grant funded project without metering and are the grants dependant on the water meters?

The grant application submitted included universal metering. The Federal and Provincial grant providers have provided a time extension to complete the project but *the scope of work cannot be changed.*

As part of the Clean Water and Waste Water Fund grant application, we had to demonstrate a commitment to water demand management, development of a water conservation plan, and a long-term asset management plan.

## Is there a plan to not have them (meters) installed?

No. Low fire water storage levels can result in additional risk and could impact customer insurance premiums and could result in water supply disruptions. Water supply disruptions can also result in water quality health risks. Capacity upgrades will likely be very expensive and capacity upgrades are not likely to receive grant funding. Water demand management would be much more cost effective in Balfour than capacity upgrades.

## Why was Ymir awarded a Clean Water and Waste Water Fund grant for a new water storage reservoir without metering?

A water conservation program is a requirement of the grant program. Both Balfour and Ymir are currently Regional District WaterSmart program communities. Ymir does not have a water system capacity concern other than the current reservoir is too small and per parcel water demands are much lower than Balfour. Alternatively, Balfour has a documented water capacity concern with high per capita demand.

## Who will pay for water meter maintenance?

Water meters will be owned by the Regional District. The Balfour water system will pay for any maintenance costs unless the meter was damaged or tampered with by the property owner.

## Fire Hydrant Coverage and Customer Insurance

### Will all residents have access to fire hydrants?

Yes, in terms of improved fire fighting capabilities. Increased fire water storage, improved water line capacity and additional fire hydrants would benefit all Balfour customers.

Balfour currently has only one short section of water line with adequate capacity to support a fire rated fire hydrant. With the proposed water line upgrades, additional fire hydrants can be installed but these hydrants will not benefit all customers in terms of potential insurance premiums.

Customer insurance premiums are set by insurance providers and premiums might vary in-terms of what insurance providers consider adequate fire coverage. Many insurance providers subscribe to Fire Underwriters Survey for fire ratings. Balfour is currently considered a Fire Underwriters Survey

rated fire system based on one hydrant. When an application is made by a water purveyor for consideration of a fire rating, Fire Underwriters Survey only provides feedback as to whether or not the water system is considered fire rated or not. 30% of a potential customer's fire rating is based on the water system capabilities and 70% is based on the fire department's capabilities. But no details are provided to water purveyors by Fire Underwriters Survey regarding what rating was granted nor what distance from any fire hydrants is considered to be covered by the water system. Only subscribing insurance providers have access to this information.

Fire Underwriters Survey did establish water system design guidelines in 1999 that have been adopted by most of the water industry but Fire Underwriters Survey can provide partial ratings for water systems that do not meet all the design criteria.

## Development

### Are the proposed upgrades to support development?

***No, the planned upgrades to the water system will benefit current customers only.*** The existing reservoir is undersized for present requirements. The new reservoir will be larger and is sized based on existing system pumping and treatment capacities, and fire flow requirements. The system is currently operating at capacity and can only support a very small amount of development. Any large developments would require significant additional upgrades that will have to be funded by developers.

### Is there going to be an extension on the water system and if so who's paying for it? Any developers?

***No extension of the water system is planned*** under the current project to service areas not already being serviced. Use of the wording water system extension in public information may have been misleading. A water line replacement and extension is planned along the highway to the lower areas of Balfour. This water main will provide a second highway crossing to improve reliability, replace aging small diameter pipes and increase capacity to already serviced areas of Balfour. Additional capacity will accommodate installation of fire hydrants that should benefit insurance rates for a number of customers and improve water pressures during high water demands to some areas of Balfour.

### Future Development of 200 new hookups—who is going to pay for that?

A 2010 Norm Carruthers Consulting report identified a potential demand for 200 more (residential-equivalent) connections in Balfour. There are a number of undeveloped parcels of land on the north side of Balfour. These lands are included in the service establishment bylaw but do not have water servicing. A couple of inquiries were made at the time of RDCK water system conversion but no current development applications have been submitted to the RDCK.

Water Bylaw 2470, requires the following:

#### 13. NEW SERVICING AND DEVELOPMENT

### 13.1 New Regional District Water Connections

- (5) *Owners are responsible for all costs associated with provision of the Regional District Water Connection including but not limited to:*
  - (a) *Water System assessment to confirm adequate capacity and pressures;*
  - (b) *Extension of Water Mains;*
  - (c) *Roadway and surface restoration costs.*
  
- (6) *Provision of a new Regional District Water Connection is not guaranteed by the Regional District and an Application may be rejected by the Manager for any reasonable reason, such as but not limited to, inadequate water pressures, inadequate capacity, Water System under boil water notice, geological hazards, unpaid water bills or taxes, zoning or development conditions, or if the connection is not economically feasible.*

The Balfour Water System does not have adequate capacity to service a significant amount of development and eventually even applications for single water connections might have to be rejected. It is anticipated that any larger developments would either have to pay for water system capacity upgrades or find an alternative water supply.

## Ongoing Infrastructure Upgrades

**When will the old water pipes (that more than likely contain lead) be removed from the old part of Balfour?**

**Are old asbestos pipes all going to be replaced? What is the timeline to do this work? It's my understanding that it has to be all done within one year; is that do-able?**

Existing water mains in Balfour are a mix of asbestos cement pipe, polyvinyl chloride pipe, high density polyethylene pipe and some smaller diameter galvanized iron pipe. These pipes are not believed to contain lead. Asbestos cement pipe is considered safe in terms of health as long as pipe particles are not air borne during repair activities. Galvanized pipe can have corrosion concerns and does contain zinc.

Water service lines to customers are typically copper pipe, polyethylene pipe and sometimes galvanized iron pipe. These pipes are not believed to contain lead but solder in the past used for copper pipe connections contained lead. Mechanical fittings are normally used by water purveyors for underground copper pipe and not soldered joints but whether or not any soldered joints exist in the Balfour water system is unknown. Older customer side copper pipe systems can be expected to have solder containing lead.

Brass commonly contained lead in the past. The water system is expected to have a number of brass fittings but the health risk is currently considered very low.

The Regional District has an asset management plan for Balfour that is used to help plan water system renewal schedules and costs. Some pipes will be replaced as part of the current proposed project and additional smaller phased water line renewal projects are planned beginning in 2020. Phasing provides the benefit of maximizing existing infrastructure life which should result in lower overall costs. The Balfour Water System cannot currently fund larger renewal projects without grant funding or financing. It is anticipated that the Regional District will make asset renewal grant applications in the future but the availability of grants cannot be guaranteed.

## Water Rates

### Why did my water rates go up even though the Alternative Approval Process was defeated?

The water system still has an existing large deficit and an infrastructure challenge.

The water system incurred a deficit of \$377,000 in 2011 that was associated with the water treatment plant construction. This deficit has since been paid down to \$233,600 at the expense of making only small contributions to financial reserves. The current financial plan includes paying off the remaining deficit through a 5 year loan that does not require Public Assent. The annual principal and interest cost of this financing is anticipated to be \$48,000. Contributions to reserves will remain very low until this loan is paid off. As a comparison, the annual cost of the proposed upgrade project's \$583,323 long-term financing is anticipated to be \$37,000. Further it is clear that substantial projects are required even if the referendum fails and reserves have to be developed to enable the water system to at least address the most urgent system needs.

### What will happen if the referendum is defeated? What is plan B?

If the proposed grant funded project does not proceed, all the proposed upgrades will still eventually be required. In particular, the current water storage reservoir is failing and is anticipated to cost \$1.42 million to replace (including contingency and engineering costs). Replacement of the reservoir alone without grant funding would result in very large rate increases. ***If the reservoir replacement were funded by a 5 year loan that does not require electoral assent, the Balfour Water parcel tax will increase by 421% from \$248 to \$1,292 per year. If the referendum fails, staff will recommend to the Board of Directors to immediately proceed with borrowing \$1.42 million dollars to replace the reservoir this year.***

**One item that I am concerned about is the cost to run and maintain the proposed system in man hours, these costs are with us forever and only go up every year.**

The Balfour Water System faces significant water demand, capacity, aging infrastructure and financial challenges. The Regional District has developed an asset management plan, an upgrade plan, water conservation measures and has submitted grant applications with the goal of rate stabilization. If the proposed project borrowing does not receive Electoral Assent then the planning process will need to be restarted and unfortunately rates will continue to increase.