

Naramata Water Update

Informing the Community



December
2013

Background & Update on Feasibility of Twinning Watermains

In 2007, a major upgrade of Naramata's water system was completed with the construction of a new intake and pump station next to Wharf Park. Water from the station is pumped to the new ultraviolet and chlorination treatment plant located on McKay Road. Treated water is then pumped via the watermain distribution system to all users in the Naramata system. With this upgraded system, Naramata has a safe, reliable water supply.

Prior to construction of the new pump station and treatment plant, Naramata's water was supplied from intakes on Naramata Creek and Robinson Creek and two older lake intakes. The old system included chlorination at the intakes but many problems resulted in frequent boil water advisories and operating challenges.

In planning the upgrade, twinning the distribution system to service irrigation was considered. Twinning would involve installing a separate network of pipes that would supply untreated, gravity fed water to agricultural properties from Naramata and Robinson creeks. Pumped, treated water would then be supplied only for residential and other uses. To finance the twinning project, a capital fund was established; for which ratepayers have been contributing \$141 per property as part of their annual water billing.

In 2012, the Regional District contracted Urban Systems Ltd. to undertake a Capital Plan and Development Cost Charge study to aid in future development. The initial key conclusions developed from assessing our current infrastructure include:

- The replacement value of the entire water system is \$41.3 million (2012)
- The total 60 km of water mains represent \$23 million, or 57%, of the total asset value of the system. Many of the water mains have reached their life expectancy and a phased replacement program is underway.
- Significant capital expenditures are required for ongoing pipe replacement.

In order to properly finalize future capital plans, the feasibility of twinning the watermains was re-evaluated. The study has concluded the following:

- A conceptual plan outlined 7 phases of construction at a cost of \$20 million over a 45 year period.
- The estimated annual power savings would increase as more twinned watermains were installed but it would not be sufficient to offset the cost of construction and maintenance.
 - ◇ The estimated net present value (NPV) of the twinning project which takes into account the power savings and infrastructure costs would be **negative \$3,330,000** (i.e. it would be a losing venture)

Based on the above studies, the twinning project will be put on hold, pending a review of other irrigation system options. We have a twinning capital reserve

Some FAQs regarding the twinning project :

Q: What will happen to our water licences for the upland water sources if we cancel the twinning project?

A: We will retain our licenses until 2044 and plan on renewing them at that time.

Important Numbers

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Q: Is treated water acceptable for irrigation?

A: Farmers that have been asked have stated that they are very happy with the current treated water. They have issues with unfiltered creek water, which caused frequent problems and farm workers are not able to safely drink the water.

Q: What else can we do to save future pumping and treatment costs?

A: We have a number of initiatives to try to reduce water consumption, including our Water Ambassador Program, pilot metering project initiated in early 2013, and education of agricultural users on water saving methods such as drip lines.

Resident Contact Info....

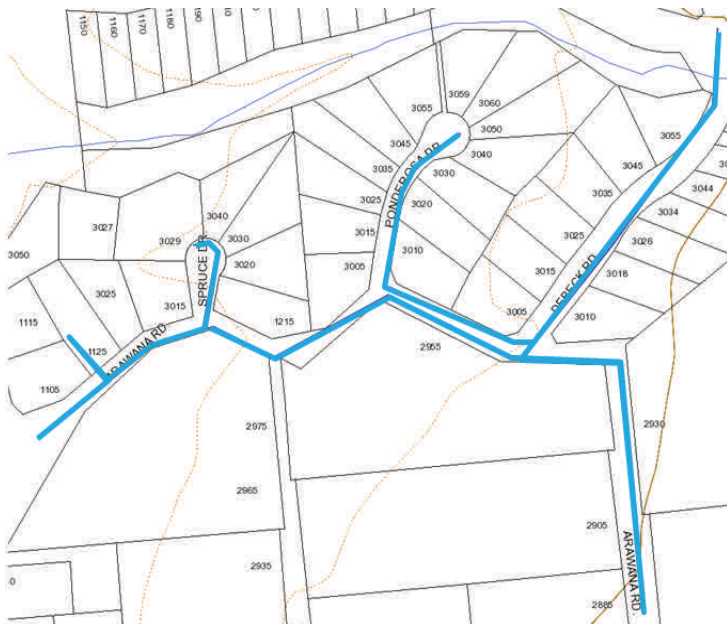
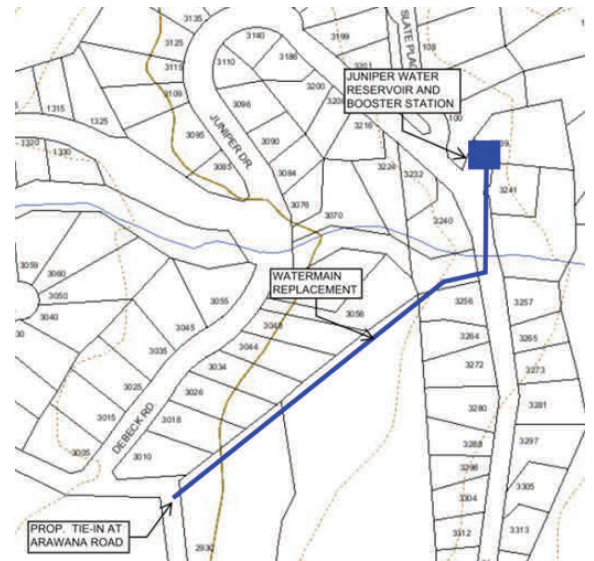
Public Works is compiling a new database of email addresses for water system users in Naramata. This will allow us to instantly send water advisories or other urgent information to the residents. If you would like to be included in this email list please send an email to jburton@rdos.bc.ca

Current Upgrade Projects

Juniper Reservoir Watermain Link

This project will replace approximately 280m of critical watermain that connects the Juniper Reservoir to the Arawana Road watermain. Water from the Juniper reservoir is subsequently pumped to the upper reservoirs. These three reservoirs provide water for a significant portion of the water system customers. We anticipate the total construction time to be about 4 weeks and will be completed before the end of March 2014.

Pipe bursting, a form of trenchless technology, will be used to replace this critical watermain as the location is difficult to completely access. The excavation will be minimized and all roadway and driveway access in the immediate area shall be maintained where feasible. Aplin & Martin will be the design consultant and PW Trenchless has been retained as our contractor to complete the trenchless construction.



Arawana Road Area Watermain Upgrades

The second upgrade project includes design and replacement of the original 1958 watermains located in the Arawana Road area, including Spruce Drive, Ponderosa Drive and Debeck Road to Juniper.

The Regional District has retained TRUE Consulting to provide the watermain design. Construction is expected to begin in the spring of 2014. The extent of construction will be confirmed once the design is complete and estimated costs are measured against the available budget.

Designers and surveyors have started working around the neighbourhood completing site surveys and gathering information for the design. As part of the design, new curb-stops, which are the water service connection valves, will be installed near property lines and connected up to existing services running to residences.

During construction, some landscaping will be disturbed and restored to current condition.