



CENTRAL COAST REGIONAL DISTRICT

BELLA COOLA COMMUNITY WATER SYSTEM UPDATE AND INFORMATION PACKAGE

January 2018

INTRODUCTION

We are pleased to be able to take this opportunity to share some important updates with Bella Coola Water System customers.

As many of you are aware, in 1997, with the assent of townsite property owners, the CCRD borrowed \$405,000 to fund the required 1/3 contribution for a new water distribution system. The other 2/3rds of the project was funded by the Federal and Provincial governments. This loan was amortized over 25 years and will be fully paid off by the year 2022. To fund loan repayment, an annual parcel tax was levied on property owners in the service area (with the exception of property owners who chose to commute the parcel tax through a one-time cash payment). Enough funds have now been accumulated to fund the remaining payments on the loan through 2022. This has effectively brought an end to the need for the parcel tax requisition to repay the loan. As a result, property owners in the water system service area will not see this parcel tax on their 2018 tax notice. Water tolls will also remain the same in 2018, as they have been for the past 20 years.

Over the past two years, staff have been working on progressing the CCRD's planning around Asset Management. Urban Systems was engaged to prepare an Asset Management Plan for the CCRD. Part of this planning process involved a condition assessment of major assets such as the Townsite Water System, the Bella Coola and Denny Island Airports and the Centennial Pool.

As part of the condition assessment, an inventory of the Townsite Water System infrastructure was

completed. The condition and expected remaining life of the various components was assessed.



The reason we undertake asset management planning is to help our organization to achieve sustainable service delivery into the future. It is considered prudent for this organization to be planning and accruing funds to replace broken or worn system components, as well as to plan for growth or accommodate for other changes such as climate or regulatory change.

As water system managers, when we do our long term financial planning, we ask the question: how much money do we have to set aside annually in order to be able to fund replacement of water system infrastructure as it becomes necessary? Unfortunately, there is no

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single "correct" answer to this question. Accurately predicting when infrastructure will need to be replaced is very difficult, if not impossible to do. The service life of an asset such as a pipe depends on many factors such as the materials it is constructed from, the properties of the soils that it is buried in, how it was installed and many, many other factors. For this reason lifespan estimates are generally based on "rule of thumb" values. Most rule of thumb lifespans applied by engineers are conservative (on the safe side). In reality many assets could actually last much longer (50% longer or possibly more) than these estimates. For this reason the average annual lifecycle investment (AALCI) required by the CCRD to fund water system renewal is presented as a range between a high of \$33,000 annually if a conservative rule of thumb lifespan is applied, down to \$20,000 if an optimistic assumption is made that assets will last 50% longer than the conservative estimate. If we assume the reservoir will not need to be replaced, this drops the bottom figure to \$14,500. The correct answer probably lies somewhere between these two values. By assuming the assets will last longer, the CCRD assumes more risk. It is at the discretion of the CCRD

board of directors to decide what level of funding they are comfortable with and to revisit those assumptions on a regular basis.

With the parcel tax requisition for loan repayment now ended, and no increase in water tolls over the last 20 years, it is time to begin the process of planning financially for asset replacement, potential regulatory change and operational change.

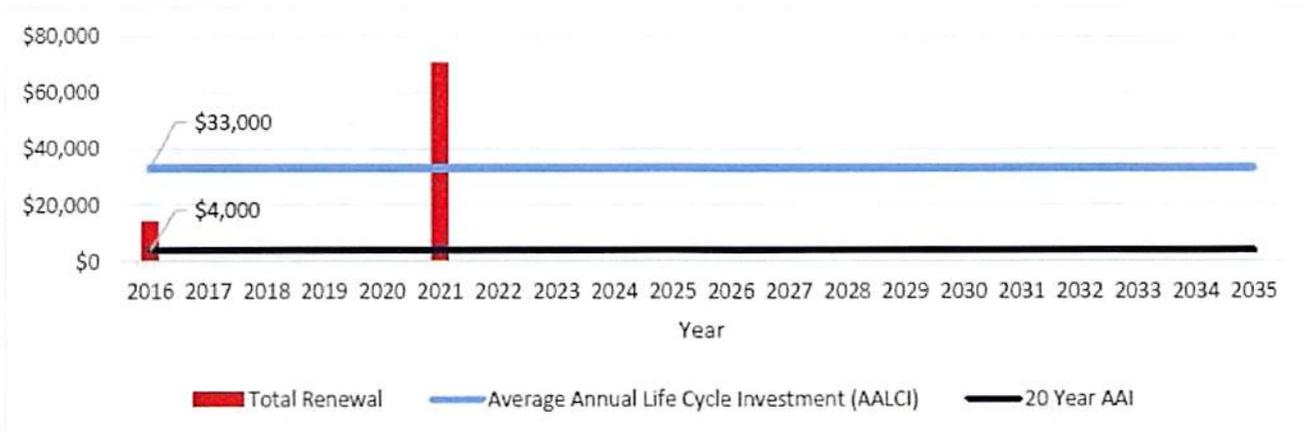
The water system is facing ever increasing operational costs. For example, the Nuxalk Nation has expressed a desire to see an increase to the amount CCRD pays for water supply. There has not been a rate increase in our agreement with the Nuxalk since 2007. A new increase has not yet been negotiated, but we must try and plan financially for this increase.

There are two projects currently identified as priorities for the water system. The first is the location and survey of all shut-off valves. Many are currently buried in back allies and require a metal detector to locate and dig out. This can be very challenging when the ground is frozen and there are a few dozen buried pop cans along any given fence line. A recent late night

Asset Category	Replacement Value	Average of Expected Remaining Life	Infrastructure Deficit (Backlog)	20 Year Total	20 Year Average Annual Investment (AAI)	Average Annual Life Cycle Investment (AALCI)
Water System						
Linear						
Main	\$1,400,000	75%	\$0	\$0	\$0	\$20,000
Total	\$1,400,000	75%	\$0	\$0	\$0	\$20,000
Non-Linear						
Hydrant	\$105,000	73%	\$0	\$0	\$0	\$2,000
Reservoir	\$400,000	73%	\$0	\$0	\$0	\$5,500
Standpipe	\$8,000	20%	\$0	\$7,500	\$500	\$500
Gate Valve	\$65,000	20%	\$0	\$65,000	\$3,000	\$2,500
Blowoff	\$2,000	20%	\$0	\$2,000	\$500	\$500
Meter	\$15,000	0%	\$15,000	\$15,000	0	\$1,000
Building	65,000	73%	0	0	0	\$1,000
Total	\$660,000	39%	\$15,000	\$89,500	\$4,000	\$13,000
Total	\$2,060,000	59%	\$15,000	\$89,500	\$4,000	\$33,000

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Figure 5.1: Water System Capital Renewal Schedule



call-out to conduct an emergency shut-off to a residence emphasized the need to be able to quickly locate shut-off valves. Valves need to be located, mapped and properly marked/protected.

A second important project to undertake is a leak detection study. This is anticipated to cost approximately \$8000.00. Because the source of our water is from the wells located north of Tonquin Road, pumping costs are significant. Many water systems pay for water on a metered basis. CCRD pays on a lump sum basis. Recent meter readings provide evidence of significant leakage in the system. Identifying and fixing leaks will help keep everyone's costs down going forward.

CCRD is responsible for repairs on water mains, up to and including curb stop shut-off valves. Water system customers should be prepared to repair any leaks in the water line that runs between the curb stop shut-off and their home or business.

By sharing some of the financial challenges we are facing, the CCRD hopes to engage water system customers in a discussion around the following points:

1. How to best tackle the need to set aside a reserve of funds dedicated to asset replacement? Should this be done via parcel tax or should we institute a separate charge identified on the water toll invoice that is then credited to the asset replacement reserve fund for the water system?

2. How much risk are water system customers prepared to assume around the average expected remaining life of water system infrastructure?

3. Should we consider installation of water meters at every residence, and charge for water based on usage in order to achieve more equitable distribution of costs and encourage water conservation? Is it worth doing a feasibility study and comprehensive public consultation to assess the desire for a metered system?

The objective of this process is to work collaboratively with water system customers to update the existing Rates and Charges Bylaw No. 282 to ensure the CCRD is in position to meet the future financial needs of the water system and to provide sustainable service delivery.

We encourage water system users to give some thought to the above questions. Over the coming months, CCRD staff will work on a more formal engagement or survey process to try and gather as much feedback as possible to help us with our financial planning going forward.

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