

NNRA WATER REPORT SPRING 2012

DRAFT

1) BULK WATER SUPPLY – AWS AND ERWS (ARROWSMITH WATER SYSTEM AND ENGLISHMEN RIVER WATER SYSTEM)

There will be more definitive information available as this project progresses but for the moment the target inservice date is 2016 with the construction start in 2014. The project has it's own website at www.arrowsmithwaterservice.ca. The project information and maps give a comprehensive picture of the background and the ongoing elements. It is quite a large project and I will just include some highlights in this report. The ERWS relocates the Englishman River intake to the area under the bridge on the Island Highway. The water will be piped to the new water treatment plant to be located at the Parksville municipal yards behind the Parksville Industrial Park. The river location was a compromise to satisfy both VIHA and the Dept of Fisheries both of which must sign off on the project.

Currently Parksville has 74% of the project and the RDN has 26%. Within the RDN a portion (8% at one time) was slated for French Creek. However this is now in doubt and the participation of French Creek is undetermined at this point and the role if any of their service provider Epcor. If French Creek opts out of the project the RDN will still be required to participate at the 26% level providing the funding is approved. In this regard a referendum on the funding will be required in about two years.

The project is investigating underground aquifer water storage as part of the project and this is in the feasibility area at the moment and not officially adopted at this stage. A description of the areas being considered are on the web site as well as a conceptual idea of how it might work and other areas where it is being utilized.

The project is planned to be built in 2 phases with the first phase lasting until 2035. The water structures are up front and have to be done in total while only enough of the water treatment plant equipment to meet 2016 requirements is budgeted at this time. The flow initially is planned to be about 14000 cu m/day

but with capacity up to 29000 cu m/day (2035) and the cost for phase 1 is quoted at about \$37.5 million including a \$5 million aquifer storage capacity. The ultimate capacity in 2050 is seen as 46000 cu m/day. No participation from Qualicum is assumed. The cost for phase 2 is estimated at \$15 million for a total project cost of \$52.5 million.

Maximum water demand for Nanoose Bay in July is seen as 7600 cu m/day with groundwater supplies stated as 4800 cu m/day in 2016. Bulk water needs are seen as 2800 cu m/day (max). So 26% of 14000 supply in 2016 is 3640 cu m/day or 30% higher than projected demand.

Current water charts show July avg about 5300 cu m/day with the split being 75% from the wells and 25% from the bulk water. It is a markedly peaked distribution. The 2016 demand and contingency seems to be about 40% higher than current demand. The RDN engineering have been requested to check the apparent oversupply.

2) RED GAP WELLS AND WATER TREATMENT PLANT

The Water Treatment Plant (WTP) is under construction now at Red Gap across from the new fire station construction. The inservice date is roughly July of this year. The RDN have negotiated a permanent lease on the Red Gap wells with Island Timberlands. The wtp output is the treated output of the 4 Red Gap wells.

3) CLAUDET WELLFIELD

In order to use this well VIHA requires that the RDN remove the ammonia found in the well water. This water could be sent to the Red Gap WTP as one possible solution.. The RDN are monitoring now for ammonia in all their wells. However there is the possibility that the testing after the wtp goes inservice will show system ammonia low enough to get VIHA approval for the Claudet well based on dilution of the ammonia in the rest of the water supply.

4) WALLBROOK WELLFIELD

Two of the four wells drilled are too close to the farm boundary. VIHA require 30m and now most likely 60m of clearance. This issue is one for Fairwinds Corp and depends upon their expansion plans . Future construction will require more water and possibly the 2 wells will be sufficient along with the Claudet wellfield. Beyond 2016 the ERWS will be available. In between the needs will be negotiated and will determine how many new wells are required.

5) NEW PUMPHOUSE

A new pumphouse is required at Craig Bay area for the ERWS . It was also planned to combine this with the wallbrook output. The RDN will delay this for the moment and reconsider the overall size and requirements when the sizing is better known.

Prepared by John Hardman