

NNRA WATER REPORT June 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 project 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. Both have their respective interests with VIHA largely setting water treatment requirements and Fisheries bargaining for habitat.

Currently Parksville has 74% of the project and the RDN has 26%. Qualicum Beach is not participating. 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. For example if French Creek turned down the project and area E accepted it then the above scenario would be in effect. If both turn it down then the project falls to Parksville which needs the water. The RDN is definitely concerned about the outcome.

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 is 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 planning concept is that construction is in 2 phases with the first phase lasting until 2035. The water civil and piping structures are up front costs and have to be done in total by 2016 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. 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 cu m/day supply in 2016 is 3640 cu m/day or 30% higher than projected demand.

Current water charts show the maximum July avg demand in a recent 5 year span at about 5400 cu m/day with the split being 75% from the wells and 25% from the bulk water on a monthly basis based upon RDN charts. It is a markedly peaked distribution. The 2016 demand and contingency overall seems to be about 40% higher than current demand. In general terms there is more than adequate supplies but the oversupply will drop considerably if French Creek opt in. Also there is no current growth in demand in Nanoose and the plans for Fairwinds to the degree they are realized constitute most of the anticipated growth in demand for 2016 and beyond.

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. There have been some glitches commissioning so now the inservice date is roughly August 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. The second well on the property can be placed in service as part of the Fairwinds Corp rezoning efforts in Fairwinds for instance.

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.

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