



**MINUTES OF THE REGULAR MEETING OF THE
ENGLISHMAN RIVER WATER SERVICE (ERWS) MANAGEMENT BOARD
HELD ON FRIDAY MAY 16, 2014
IN THE PARKSVILLE FORUM**

Present:

Director J. Stanhope, Chair	Regional District of Nanaimo
Director G. Holme	Regional District of Nanaimo (alternate)
Mayor C. Burger	City of Parksville

Also in Attendance:

M. Donnelly	Regional District of Nanaimo
R. Alexander	Regional District of Nanaimo
G. St. Pierre	Regional District of Nanaimo
M. Squire	City of Parksville
S.Schultz	Recording Secretary

Regrets:

M. Lefebvre	City of Parksville
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CALL TO ORDER

Chair Stanhope called the meeting to order at 1:00PM.

DELEGATIONS

MINUTES

MOVED Director Holmes, SECONDED Director Burger, that the minutes from the regular meeting of the Englishman River Water Service Management Board held December 12, 2013, be adopted.

CARRIED

BUSINESS ARISING FROM THE MINUTES

COMMUNICATIONS/CORRESPONDENCE

REPORTS

Phase2 – Water Treatment pilot Testing and ASR Feasibility Analysis – Executive Summary Report: Associated Engineering (Verbal/Powerpoint Presentation)

M.Squire provided an introduction to the presentation stating that over the past several years there has been extensive technical work and investigations that have been carefully stepped through as due diligence as a water purveyor to give full attention to our future water supply requirements. These technical investigations all balance sustainable practices (being feasible, environmental and social).

K. Kohut noted that the twelve month monitoring program consisted of on-line analyzers, field measurements and Laboratory analysis. The turbidity of the water was monitored along with other parameters such as true colour, e.coli, nitrate, organic carbon, and alkalinity which was monitored during various turbidity events. The processes then piloted were; direct filtration, conventional treatment, dissolved air flotation (DAF), ballasted flocculation (ex: Actiflo®) and membranes. The project revealed that out of these processes only conventional treatment and membranes were viable options. It was then found that due to: hard to form settleable particles; slow reaction to turbidity spikes; poor settling in settling tanks; and high filter cleaning frequency.

a consistent water quality could not be produced therefore conventional treatment was not recommended. Membrane Filtration was found to be successful as pre-filtration a coagulant membrane and ultrafiltration produced a consistent turbidity < 0.01 NTU. The process used a coagulant needed for colour removal and were also successful in treating turbidity events. It was therefore recommended that treatment should consist of a process of pre-filtration, Coagulation (ACH), membrane ultrafiltration and chlorination.

D.Lowen presented the third element of the report which was Aquifer storage recovery (ASR). The ASR program objectives were to provide a water supply capacity to help meet peak demands for 3.5 months; produce the storage of 1,000,000 m³ needed, engage regulators consisting of VIHA, MOE and EAO; conduct cycle testing on one well to confirm ASR feasibility and lastly to refine cost estimated for ASR well field development. The recovered water was found to contain Arsenic and Manganese which would need to be addressed and the dissolution was mostly due to different levels of dissolved Oxygen and pH. Besides the the Arsenic and Manganese issue the groundwater quality at ASR-1 site was good and meets all drinking water standards. ASR-1 well site was feasible with 9 L/s (143 USgpm) capacity. Kaye Road area also has potential for up to 11 ASR wells. Preliminary assessment of Claudet Road wells monitored at 15 L/s concluded that an ASR well is feasible. Work remains to resolve recovered water quality issues. Target capacity for first stage – 69 L/s (6 ML/d) could be met with 7 wells in Claudet Road and Kaye Road areas as an ultimate goal of 15 ML/d is achievable. Estimated cost of 7 wells plus cycle testing came in at \$4.7 million. Recommendations were:

- to address the arsenic issue by short cycle flushes and observe arsenic concentration over time
- increase the volume of stored water “buffer zone”
- utilize temporary removal of arsenic and manganese treatment.
- construct an ASR well at the Claudet well site.
- do core-drilling for better determination of the aquifer geochemistry
- age date the aquifer water and wood fragments to better understand the local geologic history.

K.Kohut concluded the presentation noting that ASR is viable and presented conceptual design and site plans for a Water Treatment Plant and Intake including a conceptual design direct cost and cost analysis as they will be looking for most the cost effective process. Cycle testing will be done at Claudet Road and other sites near existing water infrastructure such as Kaye Road. Moving forward there would be steps to continue with preliminary design by looking into an ASR at Claudet Road, acquiring property and easements for water mains, assessing existing well inventory and continuing dialogue with approval agencies.

M. Squire in summary noted that over the last several years extensive technical work and investigations have been carefully stepped through as part of or due diligence as a water purveyor to give full attention to our future water supply requirements. These technical investigations all balance sustainable practices (being feasible, environmental and social). It is important to spend time and thoroughly research and investigate these items by small scale piloting projects before committing to the large scale full multi-million dollar capital infrastructure improvements. The Phase 2 technical documents are prepared to give ERWS staff guidance in implementing the proceeding with immediate planning needs, capital infrastructure works, budget preparation and potential land acquisition.

BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS

Mike Squire motioned that the Final Technical Report 1- Completion of Phase 2 Aquifer storage recovery testing program and Technical Report 2, Phase 2 – Water Treatment Pilot Testing and Aquifer Storage and recovery Feasibility Analysis be received.

MOVED Director Holmes, SECONDED Director Burger that the two reports be received.

CARRIED

NEW BUSINESS

OTHER

The Chair opened the floor to questions from the audience.

Charlie Stone, Parksville, BC

C. Stone questioned how much of what was just passed and voted on was in the presentation that was just given.

M. Squire responded that the presentation of the two reports was just a summary and that the full report will be hosted on the ERWS web page for public viewing.

C. Stone questioned that if water becomes too expensive consumers may reduce consumption. When will cost estimates be available?

M. Squire responded that the cost is the main focus from now to referendum in November. Ideas will be presented to phase in the cost to the public and an open house will be hosted regarding dates and costs in October 2014 at which point we will be looking to the public for consent with all the costs fully available and informed.

Trevor Wicks, Qualicum, BC

T. Wicks questioned if an estimate had been done on the cost of water? There is a cost of infrastructure but no comparison cost of water such as gravity feed and cost per cubic meter.

M. Squire responded that the cost of water collection for example the Arrowsmith Dam via direct pipeline was not financially or environmentally feasible. This is the most sustainable project for the future water requirements and fisheries purposes.

Charlie Stone, Parksville, BC

C. Stone Comment to the board: Costs would be lower if not using the Provincial high turbidity days average requirements as the comparison for treatment costs.

NEXT MEETING

The next meeting of the Englishman River Water Service Management Board will be on June 5th 2014.

ADJOURNMENT

The meeting was adjourned at 2:08PM.

MOVED Director Holme, SECONDED Director Burger that the meeting be adjourned.

CARRIED

J. Stanhope, CHAIRPERSON