



**MINUTES OF THE REGULAR MEETING OF THE  
ENGLISHMAN RIVER WATER SERVICE (ERWS) MANAGEMENT BOARD  
HELD ON THURSDAY, NOVEMBER 13, 2014 AT 1:00 PM  
AT THE PARKSVILLE COMMUNITY CONFERENCE CENTER**

**Present:**

Director J. Stanhope, Chair	Regional District of Nanaimo
Director G. Holme	Regional District of Nanaimo
Chris Burger	City of Parksville
Councilor Marc Lefebvre	City of Parksville

**Also in Attendance:**

Paul Thorkelsson	Regional District of Nanaimo
Randy Alexander	Regional District of Nanaimo
Gerald St. Pierre	Regional District of Nanaimo
Fred Manson	City of Parksville
Mike Squire	City of Parksville
Rebecca Graves	Recording Secretary

**CALL TO ORDER**

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

**DELEGATIONS**

**MINUTES**

MOVED Director Holme, SECONDED Director Burger, that the minutes from the meeting of the Englishman River Water Services Management Board held May 16, 2014, be adopted.

CARRIED

MOVED Director Holme, SECONDED Director Burger, that the minutes from the meeting of the Englishman River Water Services Management Board held June 5, 2014, be adopted.

CARRIED

MOVED Director Holme, SECONDED Director Burger, that the minutes from the meeting of the Englishman River Water Services Management Board held June 24, 2014, be adopted.

CARRIED

**BUSINESS ARISING FROM THE MINUTES**

**COMMUNICATIONS/CORRESPONDENCE**

## REPORTS

### **ERWS Treatment Plant Expansion – Redefining Project Scope and Phasing Report and Executive Summary** (Presentation by Paul Wobma, CH2M Hill)

CH2M HILL presented an overview of the Phasing Options performed in conjunction with ERWS. Purpose of the Phasing Options was to consider re-scoping the project into phases to minimize impacts to the local residents and businesses (water rates) and development cost charges.

The preliminary design option has identified a 24 ML/d Water Treatment Plant (WTP) to be constructed by 2016. The capacity of the WTP is based on water demand projections that include a 25% safety factor. The design includes flexibility to expand as demand increases.

Water demands in the Parksville and Nanoose are increasing. The existing river intake capacity is limited to 12.2 ML/d. The existing ERWS wells have a maximum capacity of 11.8 ML/d. In addition, the aquifer is being accessed by wells outside of ERWS. It is anticipated that the number of wells accessing the aquifer will continue to increase. This will reduce the capacity of the aquifer over time and stresses the importance of reducing ERWS's reliance on groundwater.

Four options were reviewed, with selection of the best phasing option based on technical and cost criteria. The purpose of the options review was to determine if there is a better approach than the option identified in the Preliminary Design Report.

The four phasing options were based on a phased approach; Phase 1 to a capacity of 16 ML/d by 2016 (without an industry standard safety factor) to meet regulatory requirements and a budget of approximately \$20M; Phase 2 expansion to a capacity of 24 ML/d (to match the scope in the Preliminary Design Report) by 2026, based on existing demand. All options include maintaining the existing yield of 11.8 ML/d of the wells going forward (same as the Preliminary Design Report).

As part of the phasing options, the existing intake location was considered as a possible location. This location was considered not suitable due to the limited capacity of the existing intake and an unsuitable neighbourhood for a new facility.

Phasing Options 1 and 2 do not include any filtration and no factor of safety on future water demand projections.

Phasing Option 1: 16 ML/d of disinfection with corrosion control. Allows phase 1 infrastructure to be re-used as part of future expansion and results in improved operation of the distribution system by mixing groundwater and surface water at the reservoirs (rather than in the transmission mains). Negatively, this option does not meet Island Health requirements, limited to summer operation only, and would result in 1.5 years for adding filtration in the future.

Phasing Option 2: 16 ML/d of disinfection with corrosion control and chemical facility. Similar advantages to option 1 but defers most of the infrastructure to Phase 2. This results in 2.5 years for adding filtration in the future.

Phasing Options 3 and 4 include filtration and no factor of safety on future water demand projections. Filtration can be provided by smaller packaged filtration systems but these are only cost effective up to 16 ML/d. As such, an engineered filtration system is considered the most suitable option for ultimate build out.

Phasing Option 3: 16 ML/d of disinfection, 8 ML/d of filtration, and temporary partial transmission main routing. This option meets of Island health requirements, allows for year round operation, and provides a quick (5 month) expansion to increase to phase 2 capacity. Negatively, this option will result in higher costs for integrating phase 1 and 2, operational complexities related to blending, abandoning of the temporary transmission main on Martindale Rd., deferral of certain portion of the transmission mains, and 1.5 years to implement phase 2.

Phasing Option 4: 16 ML/d of disinfection, 8 ML/d of filtration, and all transmission mains. This option has the same advantages as option 3 but has a higher cost related to build out of the transmission mains.

The four options were evaluated based on the following primary criteria: water quality, technical considerations, social considerations, natural environmental considerations, and economic considerations. The options were evaluated against each criteria on a relative basis, resulting in a weighted score.

After evaluating the benefits and costs, Phasing Option 4 was identified as the best value for ERWS. All of the options evaluated had a higher cost than the options identified in the Preliminary Design Report. Therefore, the recommendation is to proceed with the option identified in the Preliminary Design Report.

#### **Financial Feasibility Analysis of Reduced Project Scope Options (Fred Manson, CAO – City of Parksville)**

Fred Manson presented the report and stated that the optimal solution is the full project as described by Plan A, assuming grants are available. The plan meets all the requirements for capacity, treatment and distribution.

As grants decrease the financial risks of the pre-design increase, to the extent that eventually the phased options becomes the preferred option, they all offer a significantly reduced financial risk compared to that of the pre-design report preferred option, resulting from the debt requirements being spread over a longer time period.

As the financial impacts of the four Phased options are so similar, phased option 4 is recommended, assuming no grants, as it best meets the City's capacity, treatment and supply requirements. Overall recommendation is to wait to hear from the Federal/Provincial Government to see if the grants are available for the Pre-Design Report, the full project.

Marc Lefebvre questioned what the taxpayer would have to pay under Phase 4 option and how optimistic are we that we would get an extension by Island Health for the December 31, 2015 requirement?

Island Health have indicated to us that as long as we have a good plan going forward and meeting operating requirements they would consider an extension.

Chris Burger commented that the Plan we have presented is the optimal plan going forward. We have not been denied any funding requests to date. Chris Burger mentioned he had a conversation with Minister Duncan and that he commented that our request for third funding seemed reasonable but the Federal government can't provide funding until the Provincial government was ready with their intake process.

## **ADDENDUM**

### **ERWS Water Intake and Treatment Plant Phasing Options Report**

(Randy Alexander, GM – Regional Community & Utilities)

Randy Alexander reviewed the report and based on the results of the phasing options analysis the ERWS Management Board made recommendations.

MOVED Director Lefebvre, SECONDED Director Holme, that the CH2MHill presentation to the ERWS Board, dated November 13, 2014 be received.

CARRIED

MOVED Director Holmes, SECONDED Director Holme, that staff continue with project development based on the Predesign Report scope of work, subject to receiving significant government funding by May 31, 2015.

CARRIED

MOVED Director Holmes, SECONDED Director Holme, that in the event that government funding is not awarded by May 31, 2015, the ERWS Management Board approve the reduced scope phased Option 4 as outlined in the presentation prepared by CH2M Hill on November 13, 2014.

CARRIED

## **BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS**

### **NEW BUSINESS**

### **OTHER**

### **QUESTIONS**

The Chair opened the floor to questions and comments.

Rick Van Heuser asked why, when he had gone to the water department he was told they were not taking water out of the river? Mike Squire replied that at that time the intake was probably closed off for the winter.

Charlie Stone questioned if it would reduce cost if the membranes were bought at the beginning? Paul Wobma replied that that option was looked at.

Doug O'Brien asked for clarification on a budget cost slide that was presented.

Dwayne Round asked why the ASR was not mentioned in the presentation and what happened to the \$2.6 million grant from the government? Mike Squire commented that ASR is not part of CH2M project scope. ASR is a separate contract that Associated Engineering started and is now in second stage review with Koer's and Lowen Engineering. The grant money will be used up in the Claudet Road investigation program.

Peter Law asked if a public presentation could be done of Appendix D and Appendix J? Mike Squire commented that it was summarized when the Predesign Report was concluded. To have that presentation in full detail we are currently having a discussion with DFO.

Roy Plotniko questioned if it was 2008 that Island Health gave the directive for the water treatment plant? Mike Squire replied he thought it was 2009.

Doug O'Brien questioned of the \$40 million, how much has been allocated for the ASR project? Mike Squire replied that the report by Associated Engineering in 2011 showed \$2.6 million.

Charlie Stone asked how much would it cost to investigate only pulling water out of the river without filtration? Chris Burger replied that that is the concept of ASR to capture the water and store the water and those costs are mentioned in option 1.

Dwayne Round asked what happened to the arsenic contaminated water that came from the failed ASR experiments? Mike Squire replied that the ASR at Kaye road didn't fail but what we looked at was the feasibility to build a water main in that area. Arsenic is a natural mineral and the aquifer agitated the wells in that area.

Alex Kobelak inquired as to what stage the testing and sustainability of the aquifer system was at? Mike Squire replied that with the aquifer storage and recovery investigation we need to progress step by step and with any geotechnical or hydrogeology, it's a science that needs to be proven and it takes time. It has progressed to the point where the next phase of the investigation is to be closer to the water treatment facility. The next available area is Claudet road which is currently under investigation.

Leanne Salter asked for clarification if there is ammonia gas in the aquifer and if it is being pumped out at Claudet road? Mike Squire commented that nothing is being pumped out of Claudet road at this time and that ammonia gas is naturally occurring in that well.

Doug O'Brien questioned if there were more options for storage other than the ASR, such as upstream storage or even raising the dam? Mike Squire commented that even if the dam was raised it would not provide more storage. ASR is completely different than watershed storage as it is harvesting water when we have an abundant supply in the winter time. Reducing our peak summer demands on the Englishman River then there is more available water for fish.

Dwayne Round questioned the feasibility of putting a monitoring device on the wells at Martindale road? Mike Squire replied that the province has been asked to look at that area but have not received any word back to date.

## **ADJOURNMENT**

### **IN CAMERA**

MOVED Director Holme, SECONDED Director Lefebvre, that pursuant to Section 90, the meeting proceed to an In Camera meeting for discussions relating to Land Acquisitions.

### **NEXT MEETING**

## **ADJOURNMENT**

The meeting was adjourned at 2:20 PM.

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

CARRIED