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## **WILDERNESS MOUNTAIN WATER SERVICE COMMISSION**

Notice of Meeting on **Tuesday, March 29, 2016 at 9 am**  
Main Conference Room, 479 Island Highway, Victoria, BC

Y. Shap (Chair)

Director M. Hicks

R. Hancock

C. Taylor

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### **AGENDA**

1. Approval of Agenda
2. Election of Chair
3. Adoption of Minutes of July 31, 2015
4. Adoption of Minutes of September 25, 2015
5. Wilderness Mountain Water Service 2016 Capital Project Update (staff report)
6. William Brook Reservoir and Dam / Transfer of Ownership (staff report)
7. Water Operations Report (March 2016) and Proposed 2016 Operating Budget Adjustments (staff report)
8. Water Quality Update (verbal report)
9. Review of Action List
10. New Business
11. Adjournment

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*To ensure quorum, advise Lorrie Siemens 250.360.3087 or [lsiemens@crd.bc.ca](mailto:lsiemens@crd.bc.ca) if you cannot attend.*



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**Minutes of a Meeting of the Wilderness Mountain Water Service Commission  
Held July 31, 2015 in the Main Conference Room, 479 Island Highway, Victoria, BC**

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**PRESENT:**    **Committee Members:** Y. Shap (C), C. Taylor, R. Hancock  
                  **Staff:** P. Sparanese, Senior Manager, Infrastructure Engineering and Operations; S. Mason, Manager, Water Engineering and Planning, T. Scaber, Manager, Water System Operations, C. Moch, Manager, Water Quality Operations, V. Deane, Manager, Water Treatment Operations, L. Siemens (recorder)  
**ABSENT:**     Director M. Hicks

The meeting was called to order at 9:37 am.

**1.     Approval of Agenda**

**MOVED** by R. Hancock, **SECONDED** by C. Taylor,  
That the agenda be approved as distributed.

**CARRIED**

**2.     Adoption of Minutes of March 31, 2015**

**MOVED** by R. Hancock, **SECONDED** by C. Taylor,  
That the minutes of March 31, 2015 be adopted as previously distributed.

**CARRIED**

**3.     Review of Action List**

The action list was reviewed and updated.

**4.     Strategic Asset Management Plan for Wilderness Mountain Water System**

The commission thanked staff for providing them with the draft SAMP.

P. Sparanese presented a written report. C. Moch spoke to the Water Quality section of the report.

**MOVED** by R. Hancock, **SECONDED** by C. Taylor that the Wilderness Mountain Water Service Commission receive the report for information.

**CARRIED**

**Capital Budget Implications**

Dam Safety Upgrades (William Brook Reservoir/lower) \$30,000 (2016)

- The commission advised that they will not make any recommendations until further negotiations are held between the CRD and the East Sooke Fire Department to

determine if it can be retained by others in order for fire protection for the East Sooke community in general.

**MOVED** by R. Hancock, **SECONDED** by C. Taylor that the Wilderness Mountain Water Service Commission direct staff to include "SCADA Upgrade, Phase 2, \$36,250 (2016)" to be included in the draft 2016 budget (five-year budget) for the commission's consideration at the upcoming budget meeting.

**CARRIED**

**MOVED** by R. Hancock, **SECONDED** by C Taylor that the Wilderness Mountain Water Service Commission approve "Undertake Improvement to Intake Pump \$2,500 (2016)" to be included in the draft 2016 budget (five-year budget) for the commission's consideration at the upcoming budget meeting.

**CARRIED**

**MOVED** by R. Hancock, **SECONDED** by C. Taylor that the Wilderness Mountain Water Service Commission approve "Chemical Metering Pump \$2,000 (2016)" to be included in the draft 2016 budget (five-year budget) for the commission's consideration at the upcoming budget meeting.

**CARRIED**

**MOVED** by R. Hancock, **SECONDED** by C. Taylor that the Wilderness Mountain Water Service Commission approve "Saddle and Tap at Upper End of Ambience Place (up to \$4,000)" to be included in the draft 2016 budget (five-year budget) for the commission's consideration at the upcoming budget meeting.

**CARRIED**

#### **Operating Budget Implications**

1. Annual Distribution System Flushing, \$5,000 per annum.
  - The commission requested that this item be revised.
2. Small Equipment Replacement, \$5,000 per annum.

The commission requested that purchases be made as needed and brought as capital requests as required.

**MOVED** by R. Hancock, **SECONDED** by C. Taylor,  
That the Wilderness Mountain Water Service Commission accept the report and draft SAMP and direct the CRD staff to revise the proposed operating and capital expenses in the draft 2016 budget (five-year budget) for the commissions consideration at the upcoming budget meeting.

**CARRIED**

## **5. Capital Project Update**

- SCADA Phase I is complete and has been implemented.
- Stairs have been constructed at Wilfred Dam (North) to provide safe access to dam crest.

**6. New Business**

The 2014 Annual General Meeting for the Wilderness Mountain Water Service Commission was scheduled for Monday, October 5, 2015 at 7 pm.

**7. Adjournment**

**MOVED** by R. Hancock, **SECONDED** by C. Taylor,  
That the meeting be adjourned at 11:21 am.

**CARRIED**



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**Minutes of a Meeting of the Wilderness Mountain Water Service Commission**  
**Held September 25, 2015 in the Main Conference Room, 479 Island Highway, Victoria, BC**

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**PRESENT:** **Committee Members:** Y. Shap (Chair), C. Taylor, Director M. Hicks, R. Hancock  
**Staff:** M. Cowley, Senior Manager, Infrastructure Engineering and Operations; P. Dayton, Senior Financial Analyst, S. Mason, Manager, Water Engineering and Planning, T. Scaber, Manager, Water System Operations, V. Deane, Manager, Water Treatment Operations, L. Siemens (recorder)

The meeting was called to order at 1 pm.

**1. Approval of Agenda**

The following items were added under New Business:

- Transfer of William Brook Dam and Reservoir to the East Sooke Fire Department
- Operations, Maintenance and Surveillance Manual and Emergency Preparedness Plan Draft Documents

**MOVED** by Director Hicks, **SECONDED** by R. Hancock,  
That the agenda be approved as amended.

**CARRIED**

**2. 2016 Operating and Capital Budget**

M. Cowley presented a written report and the 2016 Operating and Capital budget documents.

**MOVED** by R. Hancock, **SECONDED** by C. Taylor,  
That the Wilderness Mountain Water Service Commission direct staff to:

1. Reduce the proposed 2015 transfer to the Capital Reserve Fund from \$33,940 to \$12,940; and
2. Subject to confirmation by CRD Finance, carry the estimated surplus of \$21,000 forward from 2015 to 2016 as revenue and reduce the 2016 Parcel Tax to \$45,530 or \$577.35 per parcel.

**CARRIED**

**MOVED** by Director Hicks, **SECONDED** by R. Hancock,  
That the Wilderness Mountain Water Service Commission recommend that the Capital Regional District Board:

1. Approve the 2016 operating and capital budget for the Wilderness Mountain Water System as amended; and

2. Balance the 2015 estimated actual expense and revenue on the 2015 transfer to the capital fund.

**CARRIED**

### **3. New Business**

#### Draft OM&S and EPP Manual

S. Mason distributed draft copies of the Wilderness Mountain Operations, Maintenance and Surveillance Manual and Emergency Preparedness Plan. The committee was requested to provide input and comments to staff.

**MOVED** by R. Hancock, **SECONDED** by Director Hicks,  
That the draft Operations, Maintenance and Surveillance and Emergency Preparedness Plan be received for information and that input and comments be forwarded to CRD staff.

**CARRIED**

#### Transfer of William Brook Dam and Reservoir

Y. Shap advised that the East Sooke Fire and Emergency Response Service Commission agreed to the transfer of the William Brook Dam and Reservoir to their service.

Y. Shap will ask the land owner to contact the CRD to clarify conditions.

### **4. Adjournment**

The meeting was adjourned at 2:30 pm.



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**REPORT TO WILDERNESS MOUNTAIN WATER SERVICE COMMISSION  
MEETING OF TUESDAY, MARCH 29, 2016**

**SUBJECT**      **WILDERNESS MOUNTAIN WATER SERVICE 2016 CAPITAL PROJECT UPDATE**

**ISSUE**

To provide a status update on the Wilderness Mountain Water Service capital projects.

**BACKGROUND**

A number of projects that were initiated in 2015 were successfully completed and all of the 2016 capital projects have been initiated as per the approved Capital Plan in the 2016 budget. The total estimated cost to complete all the projects is projected to be within the total overall budget.

It should be noted that while capital projects are identified in a specific year as part of the annual budget approval process, projects can often span multiple budget years due to a number of reasons including the size and complexity of the project, weather conditions, specific work windows, etc. Most projects are not fully engaged until after the Capital Regional District (CRD) Board approves the final budget at its March meeting each year. The typical phases of a project include planning, design, construction, commissioning and close-out.

The table below summarizes the budget status of all the projects and a short description of status of each project is noted on the following page:

<b>Project Description (year)</b>	<b>Approved Project Budget</b>	<b>Approx. Expenses To-Date</b>	<b>Estimated Cost to Complete</b>	<b>Variance</b>
<b>Dam Safety Upgrades (Wilfred Reservoir) (2015)</b>	\$10,000	\$8,330	\$1,670	\$0
<b>SCADA Upgrade, Phase 1 (2015)</b>	\$26,250	\$22,200	\$0	\$4,050
<b>SCADA Upgrade, Phase 2 (2016)</b>	\$36,250	\$500	\$41,100	(\$5,350)
<b>SUB TOTAL SCADA Upgrades</b>	<b>\$62,500</b>	<b>\$22,700</b>	<b>\$41,100</b>	<b>(\$1,300)</b>
<b>Undertake Improvements to Intake Pump (2016)</b>	\$2,500	\$0	\$2,500	\$0
<b>Chemical Metering Pump (2016)</b>	\$2,000	\$0	\$2,000	\$0
<b>Install Flushing Appurtenances, Ambience Place (2016)</b>	\$4,000	\$500	\$0	\$3,500
<b>William Brook Reservoir Transfer Agreements (2016)</b>	\$2,500	\$0	\$2,500	\$0
<b>TOTAL</b>	<b>\$83,500</b>	<b>\$31,530</b>	<b>\$49,770</b>	<b>\$2,200</b>

### Dam Safety Upgrades (Wilfred Reservoir)

The following upgrades were identified in the 2015 capital plan for Wilfred Dam.

- (a) Construct stairs to provide safe access to dam crest (\$1,000);
- (b) Assess condition of outlet valve, determine valve type and fabricate handle (\$2,500);
- (c) Remove 4 alder trees near downstream face (\$2,500); and
- (d) Update Operation, Maintenance & Surveillance and Emergency Response Procedures (OMS & EPP) Manual for Wilfred Dam (\$4,000).

All of these projects were completed as follows: A set of wooden stairs were constructed to improve safety when accessing the dam. Due to the condition of the existing outlet valve it was deemed necessary to install a secondary 250mm dia. gate valve to provide a reliable means of controlling the release of water from the reservoir. New parts are being sourced and will be installed and then the gates can be tested. The four alder trees were successfully removed, and the draft OMS & EPP was presented to the commission on September 25, 2015 and finalized in December 2015.

### SCADA Upgrade, Phase 1 & 2

The 2016 capital budget description for this project is:

"In 2015 Phase 1 of the SCADA upgrade project was complete, it is proposed to complete Phase 2 of the SCADA program to enable the water treatment plant operators to obtain field information from onsite instrumentation and alarms."

This project was separated into two phases and includes the installation of various electronics to continuously monitor water storage levels, free and total chlorine analyser, intrusion alarms, including connection of all other instruments (water meter, turbidity meter, UV output to the RTU). This would enable the treatment plant operators to remotely troubleshoot anomalies detected through SCADA system and stop operation if disinfection is interrupted as well as be proactive by determining if low storage level is caused by pump failure or a leak in system by examination of water level pattern.

The SCADA Upgrade Phase 1 project was completed in 2015 and had a remaining budget of \$4,050.

Infrastructure Engineering (IE) staff have completed the preliminary review of Phase 2 of this project. The majority of required equipment is sourced from the US, and due to the higher exchange rate, it is estimated that the budget will need to be increased by \$5,350 to accommodate the increased costs. However, surplus funds from Phase 1 of this project and other completed capital project are available to offset the slight increase in cost for Phase 2.

### Undertake Improvements to Intake Pump

The 2016 capital budget description for this project is:

"The raw water supply pump at Wilfred Reservoir piping is fixed and it is proposed to install pipe fittings to allow the operators to remove and inspect the pump and motor with less difficulty."

Staff has initiated this project and will commence with confirming the pump specification after the SCADA Upgrades are complete.

Chemical Metering Pump

The 2016 capital budget description for this project is:

"The existing water treatment plant includes a chemical metering pump and these pumps are operated frequently and are critical for chemical dosing. It is proposed to purchase a spare pump to have on hand should the existing pump fail."

Staff have initiated this project and will commence with confirming the pump specification after the SCADA Upgrades are complete.

Install Flushing Appurtenances, Ambience Place

The 2016 capital budget description for this project is:

"Installation of a saddle and valve at the end of Ambience Place for flushing purposes and also act as an additional sampling port."

In February 2016, CRD Operations staff investigated the site and discovered/exposed an existing flush on Ambience Place. It was inspected and found to be in good working order. Therefore, a new flushing appurtenance is not necessary and this project can be cancelled. A portion of the surplus funds from this project can be allocated towards the Phase 2 SCADA Upgrade and all the overall capital project surplus be transferred back into the capital reserve fund.

William Brook Reservoir - Transfer Agreements

The 2016 capital budget description for this project is:

"Preparation of ownership transfer agreement for the William Brook reservoir (i.e. CRD staff effort, legal review, etc.)."

The East Sooke Volunteer Fire Department has passed a resolution confirming that they do not want to take the ownership, liabilities and costs of the William Brook Dam. Therefore, the transfer agreement will be put on hold until a new party confirms that they are interested in taking ownership of this asset.

**ALTERNATIVES**

**Alternative 1**

That the Wilderness Mountain Water Services Commission direct staff to:

1. Cancel the Ambience Place Flushing Appurtenances project;
2. Complete Phase 2 of the SCADA Upgrade and approve the use of surplus funds from other completed projects to complete Phase 2; and
3. Transfer any remaining surplus from the capital projects back into the capital reserve fund.

### **Alternative 2**

That the Wilderness Mountain Water Services Commission direct staff to:

1. Cancel the Ambience Place Flushing Appurtenances project;
2. Cancel the SCADA Upgrades Phase 2 project; and
3. Transfer any remaining surplus from the capital projects back into the capital reserve fund

### **IMPLICATIONS**

**Alternative 1** - The Ambience Place Flushing Appurtenances project is no longer required and can be cancelled. Continuing with the Phase 2 SCADA Upgrade will enable continuous monitoring of water levels, free and total chlorine, intrusion alarms, and connection of all other instruments (water meter, turbidity meter, UV output to the RTU). This will enable the treatment plant operators to remotely troubleshoot anomalies detected through SCADA system and stop operation if disinfection is interrupted as well as be proactive by determining if low storage level is caused by pump failure or a leak in system by examination of water level pattern. Overall, it is projected that total estimated cost to complete all the projects is within the total overall budget and any surplus funds can be transferred back into the capital reserve fund.

**Alternative 2** - The Ambience Place Flushing Appurtenances project is no longer required and can be cancelled. Cancelling the Phase 2 SCADA Upgrade will not allow continuous monitoring of the various instruments and require additional staff time to visit the site more regularly to check on the treatment plant process. This alternative could result in higher operational costs and/or additional call-outs for issues that could be addressed by monitoring the water disinfection facility remotely at the CRD Operations Centre. The surplus funds from cancelling the projects can be transferred back into the capital reserve fund.

### **CONCLUSION**

The 2015 capital projects were successfully completed, less the outstanding work on the dam outlet valve, and the 2016 projects have been initiated and are in progress except for the Ambience Place flushing project. The total estimated cost to complete all the projects is projected to be within the total overall budget.

### **RECOMMENDATION**

That the Wilderness Mountain Water Services Commission direct staff to:

1. Cancel the Ambience Place Flushing Appurtenances project;
2. Complete Phase 2 of the SCADA Upgrade and approve the use of surplus funds from other completed projects to complete Phase 2; and
3. Transfer any remaining surplus from the capital projects back into the capital reserve fund.

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Malcolm Cowley, P.Eng.  
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Concurrence

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## **REPORT TO WILDERNESS MOUNTAIN WATER SERVICE COMMISSION MEETING OF TUESDAY, MARCH 29, 2016**

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**SUBJECT**     **WILLIAM BROOK RESERVOIR AND DAM / TRANSFER OF OWNERSHIP**

### **ISSUE**

To update the Wilderness Mountain Water Service Commission of the activity and status of the 2016 capital budget item "William Brook Reservoir – Transfer Agreement" and inform the Commission of the dam safety obligations under the Dam Safety Regulation.

### **BACKGROUND**

At the Wilderness Mountain Water Service Commission (Commission) meeting of March 31, 2015, the Commission received a staff report (Dam Safety and Maintenance Strategy) which concluded that the William Brook reservoir was no longer required as a raw water source for the water service as the upper reservoir, Wilfred Reservoir, had sufficient capacity. Further, it was concluded that the service would continue to incur the dam safety maintenance costs and liability unless the dam was transferred in ownership to another party or the dam was decommissioned. The Commission adopted a recommendation "That the Wilderness Mountain Water Service Commission request that staff approach the East Sooke Fire Protection and Emergency Response Service Commission [ESFPERSC] to determine if there is a desire to take on ownership and operation of the William Brook dam and reservoir".

Further, the proposed 2016 Operating and Capital Budget presented to the Commission at its September 25, 2015 meeting included a capital expenditure entitled "William Brook Reservoir – Transfer Agreement \$2,500" which was described as "The William Brook reservoir was determined to be surplus to the needs of the water service and it is proposed to transfer the ownership and operation of the dam and reservoir to another party". This budget item would fund the CRD staff and legal effort to create a transfer agreement.

The Integrated Water Services department staff have discussed the proposed transfer with the CRD Planning & Protective Services (PPS) staff and further, prepared and delivered two memorandums (dated May 15, 2015 and July 22, 2015 – attached). Ultimately, at their February 15, 2016 meeting, the ESFPERSC resolved that "the East Sooke Volunteer Fire Department does not take ownership, liabilities and costs of the William Brook Dam." A copy of the meeting minutes are attached.

Until such time that the William Brook reservoir and dam are transferred in ownership, the Wilderness water service will be responsible for funding the continued inspection, maintenance and liability in accordance with the Water Act and its related Dam Safety Regulation. If a transfer in ownership does not occur, then the maintenance and drainage work that were previously identified in the 2015 budget, (and outlined below), should be completed.

<b>Project/Year</b>	<b>Budget</b>
Clear spillway channel to allow unrestricted flow to spillway (2016)	\$3,000
Remove trees on dam crest to prevent root damage to dam structure (2016)	\$2,000
Remove trees on downstream slope of dam to prevent damage to structure (2016)	\$5,000
Study to determine best method to drain the reservoir in event of emergency (2016)	\$5,000
Installation of drain works on William Brook Reservoir (2016)	\$15,000
<b>TOTAL</b>	<b>\$30,000</b>

The commission requested staff to not carry over the above work into the 2016 budget since they had expected that the ESFPERSC would take on the asset and would fund the work.

Since the transfer in ownership may now not occur in 2016, staff have re-evaluated the above projects and propose that the first three tasks (totalling \$10,000) be completed utilizing an anticipated surplus in the 2016 operating budget. It is further recommended that the drain study be included as a new capital project for 2017 and the installation of the drain work be scheduled for 2018 should the ownership of the dam not be transferred by then. In the meantime, CRD Operations will create a standard operating procedure to obtain and mobilize temporary pump(s) in order to drain the reservoir in an emergency event.

Since the ESFPERSC has concluded that it won't take on ownership, it is understood that the commission and the Electoral Area Director will pursue other potential owners. If no one wants to take on the ownership, then the Commission may also want to consider decommissioning the dam to avoid ongoing inspection and maintenance costs. This issue could be included in the same study in 2017 for the drain work. In order to identify the logistics and costs of dam decommissioning.

## **ALTERNATIVES**

### **Alternative 1**

That the Wilderness Mountain Water Service Commission direct CRD staff to:

1. Complete the dam safety work (clear the spillway and remove trees at a budget of \$10,000) as part of the 2016 operating budget work;
2. Prepare a standard operating procedure to mobilize pump(s) in the event that the reservoir has to be drained;
3. Include in the five-year capital plan an expenditure of \$5,000 in 2017 to study a drain and/or decommissioning of the dam, and an expenditure of \$15,000 in 2018 to install a drain; and
4. Retain the existing \$2,500 capital budget item pending the outcome of a potential owner to take on the ownership of the William Brook Reservoir and dam.

### **Alternative 2**

That the Wilderness Mountain Water Service Commission receive this report for information.

## **IMPLICATIONS**

Alternative 1 - by funding and completing the dam safety maintenance work, the service will reduce the risk and liability related to the performance of the dam and meet the obligations under the Dam Safety Regulation. An initial assessment of the 2016 operating budget is that the maintenance expenditure of up to \$10,000 could be funded from the operating budget. Including the drain study as a capital project in 2017 and the installation of the drain work in 2018, again demonstrates that we are meeting our obligations and provides additional time for the Commission to find another potential owner of the asset. Meanwhile, staff will prepare a standard operating procedure to mobilize pump(s) in the event of an emergency that would require that the reservoir be drained. Retaining the \$2,500 capital budget to prepare a transfer agreement still provides for that opportunity to transfer the asset to a new potential owner.

Alternative 2 - by receiving the report for information and not taking action related to the maintenance and operation of the dam, the water service carries the related risk, liability and potential action by the Dam Safety regulators.

## **CONCLUSION**

In conclusion, the ESFPERSC has resolved that it won't take on the ownership, liabilities and costs of the William Brook Dam, and therefore, another potential owner will have to be identified and consulted to take on ownership. Until such time a new owner is confirmed, the dam safety maintenance work should be completed. The study in 2017 can provide information to the Commission with respect to installing a drain or to decommission the dam all together.

## **RECOMMENDATION**

That the Wilderness Mountain Water Service Commission direct CRD staff to:

1. Complete the dam safety work (clear the spillway and remove trees at a budget of \$10,000) as part of the 2016 operating budget work;
2. Prepare a standard operating procedure to mobilize pump(s) in the event that the reservoir has to be drained;
3. Include in the five-year capital plan an expenditure of \$5,000 in 2017 to study a drain and/or decommissioning of the dam, and an expenditure of \$15,000 in 2018 to install a drain; and
4. Retain the existing \$2,500 capital budget item pending the outcome of a potential owner to take on the ownership of the William Brook Reservoir and dam.

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Concurrence

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Attachments:

1. WMWS Staff Report of March 31, 2015
2. WMWS Minutes of March 31, 2015
3. Memos of May 15, 2015 and July 22, 2015
4. Minutes of the February 15, 2016 ESFPERSC meeting



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**REPORT TO WILDERNESS MOUNTAIN WATER SERVICE COMMISSION  
MEETING OF TUESDAY, MARCH 31, 2015**

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**SUBJECT     DAM SAFETY AND MAINTENANCE STRATEGY**

**ISSUE**

To review the dam safety and maintenance issues related to the Wilderness Mountain Water Service Area (WMWSA) and more specifically to review the need for William Brook Reservoir as a raw water supply for the water service.

**BACKGROUND**

At the Wilderness Mountain Water Service Commission (commission) meeting of October 7, 2014, the commission requested that the Capital Regional District (CRD) staff develop a strategy for proposed dam safety upgrades particularly for the William Brook reservoir (lower reservoir) as identified in the five-year capital plan as presented. It was proposed to complete dam safety improvements on the upper reservoir for a total of \$10,000 which was approved by the Commission and the proposed dam safety improvement for \$30,000 in 2016 be reviewed and determine if the WMWSA should maintain ownership of the dam, transfer ownership or decommission the dam altogether.

The lower reservoir was built in the late 1970's or early 1980's as the sole water source for the Wilderness Mountain (Mount Matheson Estates) development and it is located on private property (5250 Mount Matheson Road). At that time, the lower reservoir serviced the customers/lots that comprised phase one of the residential development. Wilfred Brook reservoir (upper reservoir) was later constructed at a higher elevation and became the primary water source for the Wilderness Mountain Water Service Area (WMWSA) and the lower reservoir was disconnected from the water system.

The WMWSA has three dams, one at the lower reservoir and two at the upper reservoir. In accordance with the Dam Safety Regulation of the British Columbia Water Act, the CRD is obligated to operate the dams in a safe manner. This includes, but not limited to, completing routine inspections and maintenance tasks, regulatory reporting, preparation and maintenance of Operation, Maintenance and Surveillance manuals, and Emergency Preparedness Procedures manuals, and potentially periodic dam safety reviews/studies based on the consequence of failure rating. Minor maintenance is typically funded by the operating budget and major expenditures are included in the capital budget.

**Review of Water Supply for Wilderness Mountain**

The annual water consumption since the water treatment plant project was completed in 2012 is recorded, but the volumes recorded are not accurate due to changes of equipment related to the construction. A conservative estimate of the annual total demand is less than 20,000 cubic metres including an estimate for infilling of vacant residential lots within the service area.

Further, the water service area has relied on the upper reservoir as the sole source of raw water since the CRD took on ownership and operation of the system.

Recently obtained reports related to the water system from the Province of British Columbia indicate that the plan was to abandon the lower reservoir as development occurred and to fully rely on the upper reservoir (Bullock Baur report of April 3, 2000). Another Bullock Baur report of February 9, 1996 indicates that the upper reservoir "stores a total volume of approximately 55,000m<sup>3</sup>[cubic metres]". It is assumed that this volume is the gross storage volume and not practically available for water production due to the submarine terrain and vertical location of the raw water pump. The combined volume of the two reservoirs was noted as 80,000 cubic metres and therefore, the Williams Brook reservoir volume is assumed to be 25,000 cubic metres.

The CRD staff undertook a desktop exercise of quantifying the effective (useable) volume of water in Wilfred Reservoir and concluded that approximately 42,000 cubic metres is available, although raw water quality problems may arise as the reservoir is drawn down excessively. Even with increased future water demands there would be well in excess of one year's of storage for the service area, assuming no inflow from rainfall when starting with a full reservoir.

While the lower reservoir no longer serves as a potable water source for the Wilderness Mountain community, it does provide an alternate raw water source should the upper reservoir become unusable for some reason although the water would have to be treated to a higher level than the upper reservoir, due to known turbidity and manganese issues as identified in the Bullock Baur report of April 3, 2000. If the lower reservoir was used for a potable water source, a water treatment facility and pump station would need to be constructed at the reservoir. An additional underground water main would need to be installed to connect to the existing water supply system. An engineering study would be required prior to making these changes to the system.

## **ALTERNATIVES**

### **Alternative 1**

That the Wilderness Mountain Water Service Commission request that the CRD Staff canvass the local area to determine if there is a desire from another party to take on ownership and operation of the William Brook dam and reservoir from the Capital Regional District.

### **Alternative 2**

That the Wilderness Mountain Water Service Commission direct CRD staff to maintain ownership of the William Brook dam and reservoir for the benefit of the water service area customers as an alternative raw water supply for the future and/or for fire protection independent to the primary drinking water system.

### **Alternative 3**

That the Wilderness Mountain Water Service Commission direct CRD staff to prepare details to decommission the William Brook dam and reservoir and report back to the commission.

## **IMPLICATIONS**

**Alternative 1** - If a new owner were to be identified, the CRD could negotiate the transfer ownership of the dam assets and possibly the related portion of the water rights license (subject to approval by the Province of British Columbia which issues water licenses under the *BC Water Act*). The property owner where the dam is located should be included in the process. An agreement would be negotiated at a cost. If transfer of ownership is not achieved in 2015, CRD staff will recommend undertaking improvements in 2016 to address risk, liability and compliancy with the Dam Safety Regulations

**Alternative 2** - Should the Commission desire to maintain ownership of the dam and reservoir for the benefit of the water service area customers as an alternative raw water supply for the future and/or for fire protection then annual operating and capital budgets would require funding for dam safety and maintenance tasks and capital improvements would be required to make the water potable, if needed for domestic use.

**Alternative 3** - Should the Commission direct CRD staff to prepare details to decommission the dam, it is proposed that a \$2,000 budget be established from the capital reserve account for CRD staff effort to conduct a conceptual study to identify the work to remove the dam including environmental restoration.

If the dam was to be decommissioned then the WMWSA would cease to fund annual operating and capital expenditures related to dam safety and maintenance for the lower dam only.

## **CONCLUSION**

The WMWSA does not require William Brook reservoir as a raw water source as Wilfred Brook reservoir has sufficient capacity for existing and estimated future demand of the existing service area based on historical usage, even though the reservoir would be beneficial if the upper reservoir failed, the raw water from the lower reservoir would have to be treated and conveyed to the distribution system.

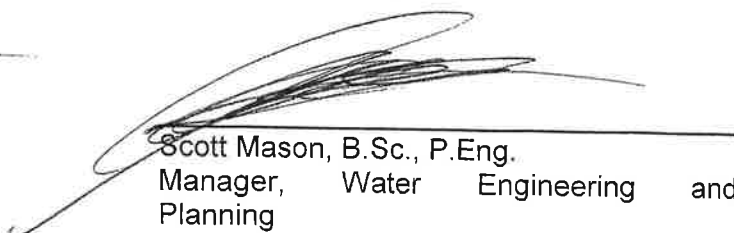
The WMWSA will continue to incur dam safety maintenance costs as well as downstream liability issues related to the William Brook dam unless the dam is transferred in ownership to another party or the dam is decommissioned.

## **RECOMMENDATION**

That the Wilderness Mountain Water Service Commission request that the CRD Staff canvass the local area to determine if there is a desire from another party to take on ownership and operation of the William Brook dam and reservoir from the Capital Regional District.



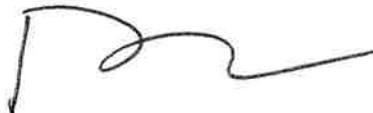
Fraser Hall, A.Sc.T.  
Engineering Technologist  
Infrastructure Planning



Scott Mason, B.Sc., P.Eng.  
Manager, Water Engineering and  
Planning  
Concurrence



Peter Sparanese, P. Eng.  
Senior Manager, Infrastructure Engineering  
and Operations  
Concurrence



~~FH~~ Ted Robbins, B.Sc., C.Tech.  
General Manager, Integrated Water Services  
Concurrence

FH/SM:ls



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**Minutes of a Meeting of the Wilderness Mountain Water Service Commission**  
**Held March 31, 2015 in the Main Conference Room, 479 Island Highway, Victoria, BC**

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**PRESENT:**    **Committee Members:** Y. Shap (Chair), C. Taylor, R. Hancock, Director M. Hicks  
                   **Staff:** P. Sparanese, Senior Manager, Infrastructure Engineering and Operations; P. Dayton, Senior Financial Analyst, S. Mason, Manager, Water Engineering and Planning, T. Scaber, Manager, Water System Operations, C. Moch, Manager, Water Quality Operations, V. Deane, Manager, Water Treatment Operations, L. Siemens (recorder)

**ABSENT:**     None

The meeting was called to order at 9:30 am.

**1.     Approval of Agenda**

**MOVED** by Director Hicks, **SECONDED** by R. Hancock,  
 That the agenda be approved as distributed.

**CARRIED**

**2.     Adoption of Minutes of June 18, 2013**

**MOVED** by Director Hicks, **SECONDED** by C. Taylor,  
 That the minutes of June 18, 2013 be adopted as previously distributed.

**CARRIED**

**3.     Adoption of Minutes of October 7, 2014**

**MOVED** by Director Hicks, **SECONDED** by C. Taylor,  
 That the minutes of October 7, 2014 be adopted as previously distributed.

**CARRIED**

**4.     Review of Action List**

The action list was reviewed and updated. The commission requested that information regarding voting at AGM's should be E-mailed to them prior to the next AGM.

**5.     Capital Reserve Account Status Update**

P. Sparanese presented a written report. The commission requested that the Strategic Asset Management Plan be presented to them at a future meeting to be held within two months time.

**MOVED** by Director Hicks, **SECONDED** by C. Taylor,  
 That the recommendation in the staff report be considered after the remaining staff reports on the agenda are presented.

**CARRIED**

**6. Cost Estimate for a Proposed Electrical Cable Connection for Portable Genset**

S. Mason presented a written report.

**MOVED** by Director Hicks, **SECONDED** by C. Taylor,  
That the Wilderness Mountain Water Service Commission receive the report for information and utilize the existing electrical connection at the water treatment plant should a genset be mobilized to site.

**CARRIED**

**7. Explore Options for Enhanced Alarm System for the Storage Tank at the Water Disinfection Facility**

V. Deane presented a written report.

**MOVED** by R. Hancock, **SECONDED** by Director Hicks,  
That the Wilderness Mountain Water Service Commission direct Capital Regional District staff to purchase and install the Partial SCADA system (Option 2) at a cost of up to \$26,250 plus applicable taxes initially with additional funding in the future to achieve Full SCADA status, with funding to be provided from the service's capital reserve fund subject to available funding.

**CARRIED**  
**Taylor Opposed**

**8. Dam Safety and Maintenance Strategy**

S. Mason presented a written report.

**MOVED** by R. Hancock, **SECONDED** by C. Taylor,  
That the Wilderness Mountain Water Service Commission request that staff approach the East Sooke Fire Protection and Emergency Response Service Commission to determine if there is a desire to take on ownership and operation of the William Brook dam and reservoir.

**CARRIED**

The commission resumed discussion on Item 5 – Capital Reserve Account Status Update.

**MOVED** by Director Hicks, **SECONDED** by R. Hancock,  
That the Wilderness Mountain Water Service Commission direct Capital Regional District staff to:

1. Carry the 2014 operating surplus of \$12,050 forward to 2015 as revenue and balance on Contingency; and
2. Transfer the uncommitted balance of \$101,198 in the water treatment plant capital project fund to the Capital Reserve Fund.

**CARRIED**

**9. New Business**

C. Moch presented a verbal water quality update. The update included:

- Explanation of the water sampling plan
- Water Quality staff now conducting all water sampling for Wilderness Mountain
- No water quality complaints received

T. Scaber presented a sample of "No Trespassing" signage for the water treatment plant property. The commission approved of signage to be posted on the water treatment plant building and the tank.

**10. Adjournment**

The meeting was adjourned at 12 pm.

## Memo

CRD

**TO:** Peter Ensor  
Acting Senior Manager, Protective Services

**FROM:** Peter Sparanese  
Senior Manager, Infrastructure Engineering and Operations

**DATE:** May 15, 2015

**FILE:** 0360-20  
Wilderness Mountain Water Service Commission

**SUBJECT:** **WILLIAM BROOK DAM AND RESERVOIR**

At its meeting of March 31, 2015, the Wilderness Mountain Water Service Commission (WMWSC), requested that Capital Regional District staff contact the East Sooke Fire Protection and Emergency Response Service Commission (ESFPERSC) to explore if there is a desire to take on ownership and operation of the William Brook dam and reservoir located at 3032 Mount Matheson Road for the benefit of fire protection for the community.

Based on a staff report from the CRD (attached), the WMWSC have deemed it surplus to the water service. The William Brook reservoir was initially used as the source of drinking water for earlier phases of the residential subdivision, but was later replaced by the Wilfred reservoir.

The WMWSC has reviewed options for the William Brook reservoir and concluded that transfer of ownership and operation of the assets to another party, such as the ESFPERSC would be in the best interest of the community.

We would appreciate if the ESFPERSC indicate if there is a desire to take on ownership and operation of the William Brook dam and reservoir as an asset for the greater benefit of the community. Should there be a desire, then further details will be provided and possibly a meeting to address any details or questions.

If you have any questions, please feel free to contact Scott Mason, Manager, Water Engineering and Planning at 250-474-9665 [smason@crd.bc.ca](mailto:smason@crd.bc.ca)

We look forward to hearing from you.



PS:ls

Attachment 1: Figure 1 – Map of the William Brook Dam and Reservoir

Attachment 2: CRD Staff Report "Dam Safety and Maintenance Strategy, March 31, 2015"

cc: George May, Chair, ESFPERSC  
Yale Shap, Chair, WMWSC  
M. Hicks, JDF Electoral Area Director



Figure 1 – Map of the William Brook dam and reservoir (indicated by star)

# Memo

The logo for the Capital Regional District (CRD) is located in the top right corner of the memo header. It consists of the letters "CRD" in a bold, sans-serif font, set against a dark, wavy background that resembles a stylized landscape or water.

**TO:** Peter Ensor  
Manager, Electoral Area Fire and Emergency Programs

**FROM:** Scott Mason  
Manager, Water Engineering and Planning

**DATE:** July 22, 2015

**FILE:** 5240-20  
William Brooks Dam

**SUBJECT: WILLIAM BROOK DAM AND RESERVOIR - WILDERNESS MOUNTAIN**

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Further to our memo of May 15, 2015, and your request for information regarding the estimated added cost to the East Sooke Fire Protection and Emergency Response Service Commission for maintaining the William Brook dam and reservoir and access to private property should it take on the responsibility we provide the following.

The Capital Regional District Integrated Water Services staff have identified capital improvements for the William Brook Dam and they are related to the removal of trees and brush at the spillway, dam crest and dam downstream slope, a study and installation of drainage works and updating of the Operation, Maintenance and Surveillance plan and the Emergency Preparedness plan. These improvements are estimated to cost \$30,000. William Brook dam is currently classified as "significant" in accordance with the Dam Safety Regulations of British Columbia and therefore, periodic dam safety reviews are not required.

An estimate of the annual operating costs is approximately \$5,000, which includes staff labour effort to conduct monthly and annual inspections and reporting, completion of ongoing minor maintenance (tree and brush clearing as required), annual review and revision to the operation and emergency plans if required, payment of the annual water use license, and allocations to other CRD department for internal services.

Regarding the issue of access to private property, we note that the CRD does have rights to own and operate the waterworks on the parcel at 5052 Mt. Matheson Road that were transferred to the CRD from the previous water system owner (PID 025-399-268/statutory right of way K72768, copy is attached). We recommend that you confirm with the CRD Property Management group to determine if those rights may extend to fire protection activities.

It should be noted that the reservoir was once used to supply water to the distribution system which we understand was terminated at the dam site and therefore, the pipe may still exist from the dam to the Mt. Matheson Road that could potentially be reinstated and used by the fire department.

We trust that this information is helpful and please contact the undersigned once you have had a chance to review it.



SM/PS:ls

Attachment: Statuary Right of Way document K72768 & Land Title PID 025-399-268

cc: Peter Sparanese, Senior Manager, Infrastructure Engineering and Operations

## East Sooke Fire Protection and Emergency Response Service Commission

6071 East Sooke Road, East Sooke BC, V9Z1B2; 250 642-4411  
esvfd@shaw.ca

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### MINUTES OF THE COMMITTEE MEETING HELD MONDAY FEBRUARY 15, 2016

**Present:** Larry Oram, Armin Sielopp, John Carrieres, Sunny Mathieson, Carl Neilson, Axel Joosting(Recorder)

**Absent:** none

**Fire Dept:** Roger Beck (Fire Chief), Dave Bigelow, Deputy Fire Chief

**Public:** 8

The Chair called the meeting to order at 7:05 pm

#### 1. ADOPTION OF AGENDA

The following amendments to the agenda were proposed:

- Old Business
  - FOI
  - Expenditures New Hall Priority List
  - William Brook Dam
- New Business
  - South Property Line
  - Orientation

**Moved** by Armin Sielopp and seconded by Axel Joosting that the agenda as amended be adopted.

**CARRIED**

#### 2. ADOPTION OF MINUTES OF PREVIOUS MEETING

**Moved** by Axel Joosting and seconded by Sunny Mathieson that the minutes of January 18, 2016 be accepted.

**CARRIED**

#### 3. BUSINESS ARISING from the MINUTES: none.

#### 4. REPORTS

##### 1. Chair's Report

Larry Oram spoke to his report.

**Moved** by Armin Sielopp and seconded by Axel Joosting that the Chair's report

be adopted as presented. See Addendum 1.

**2. Fire Chief's Report**

Roger Beck spoke to his report. See Addendum 2.

**Moved** by Carl Neilson and seconded by Armin Sielopp that the the Fire Department remove the abandoned tank from the East Sooke Community Centre property.

**CARRIED**

**Moved** by Axel Joosting and seconded by Armin Sielopp that the Fire Chief's report be adopted as presented.

**CARRIED**

**3. Financial Report**

Sunny Mathieson spoke to her report. See Addendum 3.

PST of about \$34,000 on the new truck had not been charged against the ERF by Dec. 31 of 2015. Therefore the balance in the ERF at fiscal YE should be reduced from \$41,250 to \$7,250. (It doesn't affect our 2015 surplus.)

**Moved** by Armin Sielopp and seconded by Carl Neilson that the Financial report be adopted as presented.

**CARRIED**

**4. Communications Report**

Axel Joosting spoke to his report. See Addendum 4.

**Moved** by Axel Joosting that the draft prioritised list of necessary work to be done or items to be purchased be placed on the ESFC website under an appropriate main heading.

**NOT CARRIED**

**Moved** by Sunny Mathieson and seconded by John Carrieres that the Communications report be adopted as presented.

**CARRIED**

**5. East Sooke Community Hall Report**

Armin Sielopp spoke to his report. See Addendum 5.

**Moved** by Sunny Mathieson and seconded by Axel Joosting that the East Sooke Community Hall Report be adopted as presented.

**CARRIED**

**5. OLD BUSINESS**

**1. Expenditures New Hall Priority List**

Carl Neilson presented the priority list - Addendum 6

**Moved** by Sunny Mathieson and seconded by Axel Joosting that the Fire Department get proper quotes for the items in accordance with the CRD rules before decisions are confirmed on what will be purchased in 2016.

**CARRIED**

**2. William Brook Dam**

**Moved** by Armin Sielopp and seconded by Carl Neilson that the East Sooke Volunteer Fire Department **does not** take ownership, liabilities and costs of the William Brook Dam.

**CARRIED**

**3. Appreciation Dinner**

Larry Oram proposed that the date for the Appreciation Dinner be moved to a new date in April 2016.

**6. NEW BUSINESS**

**1. South Property Line**

There is a possibility that the south property line of the Community Hall is incorrectly fenced.

**Moved** by Armin Sielopp and seconded by Axel Joosting that the south property line of the Community Centre be surveyed with the cost to be shared with the Juan de Fuca Electoral Area Parks and Recreation of the CRD.

**CARRIED**

**2. Commissioners' Orientation**

A booklet outlining the Commissioners' responsibilities and functions was presented by Armin Sielopp to the commissioners.  
Armin Sielopp was thanked by the other Commissioners for producing the booklet.

**7. CLOSED MEETING**

Moved by Larry Oram and seconded by Axel Joosting that a closed meeting be held at 9:07pm.

**CARRIED**

**8. ADJOURNMENT of PUBLIC MEETING**

The public meeting was resumed after the closed meeting.  
The meeting was adjourned by the Chair at 10:01 pm.

**Next Committee meeting at the Community Centre: Monday March 21, 2016 at 7pm.**



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## **REPORT TO WILDERNESS MOUNTAIN WATER SERVICE COMMISSION MEETING OF TUESDAY, MARCH 29, 2016**

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### **SUBJECT     WATER OPERATIONS REPORT (MARCH 2016) AND PROPOSED 2016 OPERATING BUDGET ADJUSTMENTS**

#### **ISSUE**

The purpose of this report is to provide the Wilderness Mountain Water Service Commission general information regarding the significant operational activities carried out for the water service in the last period, to provide an outline of a proposed upgrade to the water quality testing program for the commissions' consideration and to obtain direction regarding dam safety work and the related expenditure.

#### **Operational and Maintenance Activities**

Since the last meeting, Infrastructure Operations staff attended to the regular operational and maintenance activities related to the water service. The list of activities below are intended to capture significant undertakings, capital project activities and unplanned emergency events.

- Both water storage tanks were cleaned (fall of 2015).
- The water distribution pipes were flushed employing unidirectional flushing techniques (winter 2016).
- Interior ladder was installed for the left (round) tank.
- All fire hydrants have been serviced.
- A water flush located at Ambience Way was discovered, inspected and found to be in good working order and therefore, negating the need to install a new flush at this location.
- A floating log was removed from the Wilfred reservoir that was a risk of blocking the spillway.

#### **Water Quality Testing Program Review**

The Wilderness Mountain water system currently has an annual budget of \$5,050 for the water quality monitoring program. This budget covers the activities of sample collection, analysis and reporting. In response to water quality concerns in the summers of 2014 and 2015, Capital Regional District (CRD) staff reviewed and revised the existing sampling plan to ensure that it meets the minimum regulatory requirements and also provides the community with meaningful information.

To conserve the monitoring budget in 2014, staff reduced the number of sampling stations by one (retaining the minimum number of monthly treated water samples required by law). A risk assessment and comparison to drinking water sampling plans for other CRD Local Service Area systems found three deficiencies:

1. This water system is the only CRD operated system that does not monitor algae in the source water. Some algae can cause taste and odour issues or cause filter clogging, but most importantly, some blue-green algae have the potential to produce cyanotoxins which can be harmful to human health when they exist in concentrations above the drinking water quality guideline level.
2. Testing for metals began in 2014 but was only done once per year. Quarterly monitoring of metals will yield a much more representative picture of how metals concentrations vary seasonally and over time.
3. There is no historic data for haloacetic acids, a by-product of the disinfection process, which can cause health effects from chronic exposure.

The sampling plan review yielded the following proposals for the Wilderness Mountain Water System.

Proposed Addition to Sampling Plan	Cost
Reinstate chlorine residual monitoring and bacteria sampling at the one sampling location removed for cost savings, due to its proximity to the end of the line on Cains Way	\$380
Add algae sampling monthly (in the winter months) and biweekly (in the summer months) to characterize the algae community in the reservoir and to monitor for potentially health-threatening blue-green algae blooms	\$2,100
Increase metals analysis of the raw water from once annually to quarterly -	\$220
Expand the disinfection by-products monitoring to include haloacetic acids (for which there is a Canadian Drinking Water Guideline Maximum Allowable Concentration) twice per year	\$280
Add a contingency of \$500 to be available for customer complaint or emergency sampling	\$500
<b>Total Cost</b>	<b>\$3,480</b>

The total annual costs for the proposed improvements to the Wilderness Mountain Water System water quality monitoring program are \$3,480.

### **Dam Safety Maintenance**

A staff report entitled *William Brook Reservoir and Dam / Transfer of Ownership* was prepared for presentation at the March 29, 2016 meeting, for the Commission's consideration and in doing so, the report discussed the issue and status of transferring the William Brook reservoir and dam assets to another party yet to be identified.

Until such time that another owner is confirmed, the water service will be required to operate and maintain the dam in accordance with the Dam Safety Regulation (Water Act). Therefore, it is proposed to complete the work as identified in the 2015 capital plan which generally included clearing of the spillway channel and tree removal at an estimated cost of \$10,000. Since this work was not approved (capital nor operating budgets) in anticipation that another owner complete the work, it is therefore, proposed that the funding for the work be obtained from the 2016 operating budget.

## **ALTERNATIVES**

The following alternatives are put forward to the Wilderness Mountain Water Service Commission for consideration with respect to the water quality testing program and the dam safety maintenance work:

### **Water Quality Testing Program Review**

#### **Alternative 1**

That the Wilderness Mountain Water Service Commission allocate \$3,480 from the existing 2016 operating labour budget to the water quality testing budget to complete the proposed additional water quality testing, beginning in 2016 and continuing thereafter.

#### **Alternative 2**

That the Wilderness Mountain Water Service Commission receive the proposal for upgrades to the water quality testing program and direct staff to budget for this testing in 2017.

#### **Alternative 3**

That the Wilderness Mountain Water Service Commission decline the proposal for upgrades to the water quality testing program.

### **Dam Safety Maintenance – William Brook Dam (lower)**

#### **Alternative 1**

That the Wilderness Mountain Water Service Commission direct staff to complete the dam safety work (clear spillway and remove trees at a budget of \$10,000) as part of the 2016 operating budget work.

#### **Alternative 2**

That the Wilderness Mountain Water Service Commission direct staff to defer the dam safety maintenance work.

## **IMPLICATIONS**

### **Water Quality Testing Program Review**

Alternative 1 – The additional sampling and monitoring will provide water quality data for the parameters noted above and will enhance the water quality information available for operational decision making to protect public health.

Note that it is staff's proposal to reallocate funds from the operations expenditures to the water quality testing expenditures so this should not have a negative effect on the overall budget for 2016.

Alternative 2 – Waiting until 2017 to complete the proposed additional water quality testing may increase the risk of a water quality issue going undetected in 2016.

Alternative 3 – Not completing the proposed additional water quality testing may increase the risk of a water quality issue going undetected.

### **Dam Safety Maintenance**

Alternative 1 – by completing the dam safety work, the risk of dam failure will be reduced and it would avoid the potential of the dam safety officer taking enforcement action.

Alternative 2 – by not completing the dam safety work, the risk of dam failure will remain and there would be potential for the dam safety officer to take enforcement action and order the work to be completed at which time a funding source would have to be identified.

### **CONCLUSION**

The operations staff attended to the regular operational and maintenance activities for the water service to March 29, 2016.

The proposed additions to the water quality sampling plan/program will reduce the risk of a water quality issues going undetected and as proposed, will not have a net increase on the overall 2016 operational budget and will be included in future operating budgets.

Due to the delay in transferring the William Brook reservoir and dam to another owner, it is proposed to complete the dam safety maintenance work (tree remove and drainage work) and fund this maintenance work from the existing 2016 operating budget, which will not have a net increase in the overall 2016 operating budget.

After reviewing the 2016 operating budget the proposed sampling and dam safety expenditures, noted herein, can be accomplished within the existing 2016 operating budget.

### **RECOMMENDATION**

That the Wilderness Mountain Water Service Commission:

1. Allocate \$3,480 from the existing 2016 operating labour budget to the water quality testing budget to complete the proposed additional water quality testing, beginning in 2016 and continuing thereafter; and,
2. Direct staff to complete the dam safety work (clear spillway and remove trees at a budget of \$10,000) as part of the 2016 operating budget work.

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Matthew McCrank, M.Sc., P.Eng  
Senior Manager, Infrastructure Operations

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Christoph Moch, P.Eng.  
Manager, Water Quality Operations

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Ted Robbins, B.Sc., C.Tech.  
General Manager, Integrated Water Services  
Concurrence

MMc/TS/SM:ls



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**WILDERNESS MOUNTAIN WATER SERVICE COMMISSION**

**ACTION LIST**

	<b>TASK</b>	<b>ACTION</b>	<b>STATUS</b>
<b>July 31, 2015</b>			
1.	Provide the commission with information on insurance coverage.	P. Sparanese	
<b>October 5, 2015 (AGM)</b>			
2.	Investigate tree behind old pump station and possible need for removal	T Scaber	
3.	Investigate removal of trees by BC Hydro on access road to the treatment plant.	M. Cowley	
4.	Advise Operations staff to secure the lock to the gate tightly after each use.	T. Scaber	