

## METRO VANCOUVER REGIONAL DISTRICT WATER COMMITTEE

### REGULAR MEETING

Thursday, September 9, 2021

9:00 am

28<sup>th</sup> Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia

### REVISED AGENDA<sup>1</sup>

#### 1. ADOPTION OF THE AGENDA

##### 1.1 September 9, 2021 Regular Meeting Agenda

That the Water Committee adopt the agenda for its regular meeting scheduled for September 9, 2021 as circulated.

#### 2. ADOPTION OF THE MINUTES

<b>Revised</b>	<b>2.1 July 15, 2021 Regular Meeting Minutes</b>	<i>pg. 4</i>
	That the Water Committee adopt the minutes of its regular meeting held July 15, 2021 as circulated.	

#### 3. DELEGATIONS

#### 4. INVITED PRESENTATIONS

#### 5. REPORTS FROM COMMITTEE OR STAFF

##### 5.1 Coquitlam Sockeye Hatchery – Proposed BC Hydro Facility

*pg. 10*

That the GVWD Board receive for information the report dated August 18, 2021 titled “Coquitlam Sockeye Hatchery – Proposed BC Hydro Facility”.

##### 5.2 Award of Contract Resulting from Request for Proposal (RFP) No. 21-063: Supply and Delivery of Steel Pipe for 2021 Water Services Construction Projects

*pg. 13*

That the GVWD Board:

- a) approve the award of a contract in the amount of up to \$16,973,012.00 (exclusive of taxes) to Northwest Pipe Company resulting from Request for Proposal (RFP) No. 21-063: Supply and Delivery of Steel Pipe for 2021 Water Services Construction Projects, subject to final review by the Commissioner; and

<sup>1</sup> Note: Recommendation is shown under each item, where applicable.

- b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied the award should proceed.

**5.3 Award of Contract Resulting from Request for Proposal (RFP) No. 20-354: Annacis Water Supply Tunnel - Construction** *pg. 17*

That the GVWD Board:

- a) approve the award of a contract in an amount of up to \$287,842,000 (exclusive of taxes) to Traylor-Aecon General Partnership resulting from Request for Proposal (RFP) No. 20-354: Annacis Water Supply Tunnel – Construction, subject to final review by the Commissioner; and
- b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

**5.4 Water Infrastructure Projects – Progress Update** *pg. 22*

That the Water Committee receive for information the report dated August 31, 2021, titled “Water Infrastructure Projects – Progress Update”.

**5.5 Manager’s Report** *pg. 27*

That the Water Committee receive for information the report dated September 1, 2021 titled “Manager’s Report”.

**6. INFORMATION ITEMS**

**7. OTHER BUSINESS**

**8. BUSINESS ARISING FROM DELEGATIONS**

**9. RESOLUTION TO CLOSE MEETING**

*Note: The Committee must state by resolution the basis under section 90 of the Community Charter on which the meeting is being closed. If a member wishes to add an item, the basis must be included below.*

That the Water Committee close its regular meeting scheduled for September 9, 2021 pursuant to the *Community Charter* provisions, Section 90 (1) (f) as follows:

- “90 (1) A part of the meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
- (f) litigation or potential litigation affecting the regional district.”

**10. ADJOURNMENT/CONCLUSION**

That the Water Committee adjourn/conclude its regular meeting of September 9, 2021.

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Membership:

Brodie, Malcolm (C) – Richmond  
Elford, Doug (VC) – Surrey  
Asmundson, Brent – Coquitlam  
Baird, Ken - Tsawwassen First Nation  
Bell, Don - North Vancouver City

Bligh, Rebecca – Vancouver  
Clark, Carolina – Belcarra  
Dingwall, Bill - Pitt Meadows  
Guichon, Alicia - Delta

Keithley, Joe – Burnaby  
Martin, Gayle - Langley City  
Svendsen, Ryan - Maple Ridge  
Vagramov, Rob - Port Moody

**METRO VANCOUVER REGIONAL DISTRICT  
WATER COMMITTEE**

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Water Committee held at 9:02 a.m. on Thursday, July 15, 2021 in the 28<sup>th</sup> Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia.

**MEMBERS PRESENT:**

Chair, Mayor Malcolm Brodie\*, Richmond  
 Vice Chair, Councillor Doug Elford\*, Surrey  
 Councillor Brent Asmundson, Coquitlam  
 Chief Ken Baird\*, Tsawwassen (arrived at 9:05 a.m.)  
 Councillor Don Bell\*, North Vancouver City  
 Councillor Rebecca Bligh\*, Vancouver  
 Councillor Carolina Clark\*, Belcarra  
 Mayor Bill Dingwall\*, Pitt Meadows (departed at 10:30 a.m.)  
 Councillor Alicia Guichon\*, Delta  
 Councillor Joe Keithley\*, Burnaby  
 Councillor Gayle Martin\*, Langley City  
 Councillor Ryan Svendsen\*, Maple Ridge (departed at 10:07 a.m.)  
 Mayor Rob Vagramov\*, Port Moody (arrived at 9:03 a.m.)

**MEMBERS ABSENT:**

None.

**STAFF PRESENT:**

Marilyn Towill, General Manager, Water Services  
 Jerry W. Dobrovolny, Chief Administrative Officer  
 Lauren Cichon, Legislative Services Coordinator, Board and Information Services

**1. ADOPTION OF THE AGENDA**

**1.1 July 15, 2021 Regular Meeting Agenda**

**It was MOVED and SECONDED**

That the Water Committee:

- a) vary the order of the agenda to consider Item 5.4 Regional Water Conservation Impacts on Capital Planning prior to Item 5.7 Residential Water Metering – Overview of Local Experience; and
- b) adopt the agenda as amended.

**CARRIED**

\*denotes electronic meeting participation as authorized by Section 3.6.2 of the *Procedure Bylaw*

9:03 a.m. Mayor Vagramov arrived to the meeting.

**2. ADOPTION OF THE MINUTES**

**2.1 June 10, 2021 Regular Meeting Minutes**

**It was MOVED and SECONDED**

That the Water Committee adopt the minutes of its regular meeting held June 10, 2021 as circulated.

**CARRIED**

**3. DELEGATIONS**

No items presented.

**4. INVITED PRESENTATIONS**

No items presented.

**5. REPORTS FROM COMMITTEE OR STAFF**

**5.1 Draft Water Services 2022 – 2026 Capital Plan**

Report dated June 25, 2021, from Marilyn Towill, General Manager, Water Services, presenting the Water Committee with the draft Water Services 2022 – 2026 Capital Plan for comments.

9:05 a.m. Chief Baird arrived to the meeting.

Members were provided a presentation on the draft Water Services 2022 – 2026 Capital Plan highlighting customer levels of service objectives, capital plan drivers and expenditures, key projects and changes, highest value, risk and consequence projects, and next steps.

Presentation material titled “Draft Water Services 2022 – 2026 Capital Plan” is retained with the July 15, 2021 agenda.

**Request of Staff**

Staff was requested to distribute a copy of the July 15, 2021 presentation titled “Draft Water Services 2022 – 2026 Capital Plan” to the Water Committee.

**It was MOVED and SECONDED**

That the Water Committee receive for information the report dated June 25, 2021, titled “Draft Water Services 2022 – 2026 Capital Plan”.

**CARRIED**

**5.2 Water Services Capital Program Expenditure Update to April 30, 2021**

Report dated June 14, 2021 from Goran Oljaca, Director, Engineering and Construction, Water Services, providing the status of the Water Services capital

program and financial performance for the 2021 fiscal year to April 30, 2021 for the Committee's information.

**It was MOVED and SECONDED**

That the Water Committee receive for information the report dated June 14, 2021, titled "Water Services Capital Program Expenditure Update to April 30, 2021".

**CARRIED**

**5.3 Engagement Plan for Water DCC Program Implementation**

Report dated June 18, 2021, from Joe Sass, Deputy Chief Financial Officer/Director, Financial Planning and Operations, seeking GVWD Board approval to receive feedback and authorization for further engagement from the Water Committee on the proposed implementation of a water Development Cost Charge (DCC) program, and the proposed engagement plan which will solicit input on the DCC program implementation from relevant levels of government, First Nations, stakeholders, and the public.

Members discussed the importance of the consultation process, the proposed assist factor, and if there would be any exemptions for various affordable housing sites for water development cost charges.

**It was MOVED and SECONDED**

That the Water Committee refer the matter of the engagement plan for the Water Development Cost Charges (DCC) Program Implementation back to staff to further consider the assist factor, review options for affordable housing, and better define next steps in the engagement process.

**CARRIED**

**5.5 Award of Contract Resulting from Request for Proposal (RFP) No. 20-054: Construction of Douglas Road Main No. 2 – Still Creek Section – Microtunnel**

Report dated June 24, 2021, from Roy Moulder, Director, Purchasing and Risk Management, Financial Services, and Goran Oljaca, Director, Engineering and Construction, Water Services, advising the GVWD Board of the results of RFP No. 20-054: Construction of DRM2-SC - Microtunnel Section, and recommending the GVWD Board award the contract in the amount of \$13,495,049.00 (exclusive of taxes) to Ward & Burke Microtunnelling Ltd. to enable the DRM2-SC project to proceed to completion.

**It was MOVED and SECONDED**

That the GVWD Board:

- a) approve award of a contract in the amount of \$13,495.049.00 (exclusive of taxes) to Ward & Burke Microtunnelling Ltd. resulting from Request for Proposal (RFP) No. 20-054: Construction of Douglas Road Main No.2: Still Creek Section - Microtunnel, subject to final review by the Commissioner; and

- b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

**CARRIED**

**5.6 Coquitlam Lake Water Supply – Project Update**

Report dated June 22, 2021, from Bob Cheng, Project Manager, Coquitlam Water Supply, Project Delivery, providing an update on the Coquitlam Lake Water Supply (formerly Coquitlam Intake No. 2) project definition work, and seeking GVWD Board endorsement of Option 4 North Intake Smaller Initial Filtration to be carried forward through the Permitting and Regulatory Phase into Preliminary Design.

Members were provided a presentation and an update on the Coquitlam Lake Water Supply Project highlighting major water projects timeline, project history, regional water supply resources, project drivers, proposed intake, value engineering optimized project options, anticipated schedule, stage gate status, and next steps.

Presentation material titled “Coquitlam Lake Water Supply Project” is retained with the July 15, 2021 agenda.

10:07 a.m. Councillor Svendsen departed the meeting.

**It was MOVED and SECONDED**

That the GVWD Board endorse Option 4 North Intake Smaller Initial Filtration to be carried forward through Permitting and Regulatory Phase into Preliminary Design.

**CARRIED**

**Agenda Order Varied**

Pursuant to Item 1.1 of the agenda, the order of the agenda was varied to consider Item 5.4 at this point.

**5.4 Regional Water Conservation Impacts on Capital Planning**

Report dated June 23, 2021, from Lucas Pitts, Acting Director, Policy, Planning and Analysis, Water Services, providing information on the current water use statistics as well as predictions for future residential water use and their impacts on capital planning.

**It was MOVED and SECONDED**

That the Water Committee receive for information the report dated June 23, 2021, titled “Regional Water Conservation Impacts on Capital Planning”.

**CARRIED**

**Agenda Order Resumed**

The order of the agenda resumed with Item 5.7 being before the Committee.

**5.7 Residential Water Metering – Overview of Local Experience**

Report dated June 30, 2021, from Lucas Pitts, Acting Director, Policy, Planning and Analysis, Water Services, providing an update on select member jurisdictions' water metering efforts and the impacts of the metering implementation on their residential water consumption.

The Chair requested a copy of the report be circulated to all GVWD member jurisdictions.

**It was MOVED and SECONDED**

That the Water Committee:

- a) receive for information the report dated June 30, 2021, titled "Residential Water Metering – Overview of Local Experience"; and
- b) direct staff to circulate a copy of the report dated June 30, 2021, titled "Residential Water Metering – Overview of Local Experience", to all GVWD member jurisdictions.

**CARRIED**

**5.8 Manager's Report**

Report dated July 8, 2021, from Marilyn Towill, General Manager, Water Services, updating the Committee on the water supply for July 2021, Metro Vancouver's 2021 PNE activation, and the Committee Work Plan.

**It was MOVED and SECONDED**

That the Water Committee receive for information the report dated July 8, 2021 titled "Manager's Report".

**CARRIED**

**6. INFORMATION ITEMS**

No items presented.

**7. OTHER BUSINESS**

No items presented.

**8. BUSINESS ARISING FROM DELEGATIONS**

No items presented.

10:30 a.m. Mayor Dingwall departed the meeting.

**9. RESOLUTION TO CLOSE MEETING**

**It was MOVED and SECONDED**

That the Water Committee close its regular meeting scheduled for July 15, 2021 pursuant to the *Community Charter* provisions, Section 90 (1) (e), (i), and (m) as follows:

- "90 (1) A part of the meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

- (e) the acquisition, disposition or expropriation of land or improvements, if the board or committee considers that disclosure could reasonably be expected to harm the interests of the regional district;
- (i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose.” and
- (m) a matter that, under another enactment, is such that the public may be excluded from the meeting.”

**CARRIED**

**10. ADJOURNMENT/CONCLUSION**

**It was MOVED and SECONDED**

That the Water Committee adjourn its regular meeting of July 15, 2021.

**CARRIED**

(Time: 10:30 a.m.)

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Lauren Cichon,  
Legislative Services Coordinator

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Malcolm Brodie, Chair

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To: Water Committee

From: Jesse Montgomery, Division Manager, Environmental Management, Water Services

Date: August 18, 2021 Meeting Date: September 9, 2021

Subject: **Coquitlam Sockeye Hatchery – Proposed BC Hydro Facility**

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**RECOMMENDATION**

That the GVWD Board receive for information the report dated August 18, 2021 titled “Coquitlam Sockeye Hatchery – Proposed BC Hydro Facility”.

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**EXECUTIVE SUMMARY**

A sockeye salmon hatchery is planned for construction in the Coquitlam Watershed in 2021. The hatchery is funded by BC Hydro and will be located on their fee simple property on the west abutment of the Coquitlam Dam. Sockeye stocks are severely depleted in the Coquitlam River Watershed, primarily due to the loss of spawning and rearing habitat in Coquitlam Lake some 115 years ago upon completion of the first hydro-electric dam. GVWD has worked with the Kwikwetlem First Nation, to whom sockeye restoration represents a critical cultural restoration goal, and agency partners in support of sockeye recovery since 2004. The new hatchery will require a GVWD water connection; pumped from the raw water intake pipeline at the base of the Coquitlam Dam and an agreement for that supply will be coming to the Board in the future.

**PURPOSE**

BC Hydro is proposing to commence construction of a sockeye salmon hatchery on the west abutment of their Coquitlam River Dam within the GVWD managed Coquitlam Water Supply Area. This report is being brought to the GVWD Board to provide information on the proposed hatchery and associated implications for GVWD; including the GVWD water supply connection and associated agreement with BC Hydro.

**BACKGROUND**

BC Hydro is planning to begin construction of the sockeye hatchery as early as August 2021. The facility will be constructed on BC Hydro fee simple property, near the dam and above the GVWD intake pipeline which runs through the property. BC Hydro has requested a permanent water supply connection to the GVWD system to act as the primary water connection for the facility. Support of the GVWD Board for a formal water supply agreement to facilitate this connection is required. It is anticipated this agreement will come to the Board for approval in the future.

**COQUITLAM SOCKEYE RESTORATION**

GVWD has been working collaboratively with the Kwikwetlem First Nation, BC Hydro, Fisheries and Oceans Canada and other local partners in sockeye restoration since 2004. Prior to initial hydro-electric development on the Coquitlam River in the early 1900s, sockeye salmon runs in Coquitlam Lake were abundant and the centre of the Kwikwetlem First Nations culture and sustenance. Sockeye salmon utilize a lake ecosystem as part of their life cycle which was interrupted

by the loss of upstream and downstream fish passage at Coquitlam Lake. The current challenges of upstream and downstream fish passage and extremely poor marine survival conditions have led to few adult sockeye salmon returning to Coquitlam Dam. Despite overcoming challenges in obtaining stock from the resident kokanee (freshwater sockeye variant) population in the lake and raising 5,000 sockeye salmon that were released into the Coquitlam River in 2017, none returned to the Coquitlam Dam in 2019 for spawning. A sockeye hatchery at Coquitlam Dam is hoped to provide an opportunity to produce enough sockeye salmon juveniles to overcome currently extreme challenges in freshwater and marine habitat conditions. Achieving the ultimate goal of a self-sustaining sockeye salmon population will likely be quite challenging, but optimism for improved marine survival conditions and additional restoration measures over time are also part of the future goals of the multi-agency Kwikwetlem Sockeye Restoration Program.

### **Hatchery Water Supply**

GVWD has a raw water pipeline from the drinking water intake in Coquitlam Lake which runs through the site of the proposed sockeye hatchery. BC Hydro also has a waterline which runs to the site and currently provides water to an adult fish trap and adjacent fisheries enhancement area. The water temperature from the GVWD source is lower during the summer months and is the preferred source for fish health in the hatchery facility. Hatcheries require multiple sources of water for redundancy in the event of loss of supply or quality issues. For this reason, BC Hydro will also provide a permanent water supply connection from their area source.

GVWD has provided seasonal temporary water from its own allocations from Coquitlam Lake to BC Hydro infrastructure for various fisheries initiatives since 2008. One connection is to supplement a fish trap supply line when BC Hydro's line is out of service for annual maintenance, one is for a sockeye smolt rearing tub and another is to provide colder water to the adult fish trap during the summer. The new Coquitlam Sockeye Hatchery is anticipated to require a flow of approximately 14 litres per second and this, combined with the other seasonal water volumes required from GVWD for all fisheries initiatives will total less than 200 litres per second. The pending water supply agreement will consolidate all the water supply requests and form part of a long term arrangement. BC Hydro has agreed to make the appropriate adjustments in their downstream environmental flows to compensate for the agreed volume so there will be no impact to the drinking water supply storage.

### **ALTERNATIVES**

This is an information report. No alternatives are presented.

### **FINANCIAL IMPLICATIONS**

Engineering support and GVWD infrastructure modifications for water supply to the Coquitlam Sockeye Hatchery will be accommodated within approved Water Services program budget allocations.

### **OTHER IMPLICATIONS**

GVWD's fisheries contributions in the Coquitlam River Watershed are important to Pacific salmon restoration initiatives and continue to strengthen relationships with First Nations and agency partners.

## **CONCLUSION**

BC Hydro's proposed construction of a sockeye hatchery on the west abutment of their Coquitlam Dam is slated to commence as soon as August 2021. The proposed new hatchery will require permanent connection to an area GVWD raw water intake pipeline. An associated agreement between GVWD and BC Hydro to consolidate a long term water supply arrangement is anticipated to come to the Board for approval in the future. Water supply contributions to the new sockeye hatchery, in conjunction with various other smaller water connections currently in place, will not impact GVWD available water supply for downstream treatment and transmission to member jurisdictions.

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To: Water Committee

From: Roy Moulder, Director, Purchasing and Risk Management, Financial Services  
Goran Oljaca, Director, Engineering and Construction, Water Services

Date: July 26, 2021 Meeting Date: September 9, 2021

Subject: **Award of Contract Resulting from Request for Proposal (RFP) No. 21-063: Supply and Delivery of Steel Pipe for 2021 Water Services Construction Projects**

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**RECOMMENDATION**

That the GVWD Board:

- a) approve the award of a contract in the amount of up to \$16,973,012.00 (exclusive of taxes) to Northwest Pipe Company resulting from Request for Proposal (RFP) No. 21-063: Supply and Delivery of Steel Pipe for 2021 Water Services Construction Projects, subject to final review by the Commissioner; and
  - b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied the award should proceed.
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**EXECUTIVE SUMMARY**

Request for Proposal No. 21-063 was issued for the supply and delivery of steel pipe for the 2021 Water Services construction projects, and Northwest Pipe Company was the only pre-qualified supplier that submitted a proposal. Based on the evaluation of the proposal, it is recommended that the GVWD Board authorize the Commissioner and the Corporate Officer to award and execute the contract to Northwest Pipe Company in the amount of up to \$16,973,012.00 (exclusive of taxes). The provisional item related to storage for finished pipe will be applied only in the event that storage is required.

**PURPOSE**

This report is to advise the GVWD Board of the results of Request for Proposal (RFP) No. 21-063: Supply and Delivery of Steel Pipe for 2021 Water Services Construction Projects, and to recommend award of the contract in the amount of up to \$16,973,012.00 (exclusive of taxes) to Northwest Pipe Company.

**BACKGROUND**

Pursuant to the *GVWD Officers and Delegation Bylaw No. 247, 2014 (Bylaw)* and the *Procurement and Real Property Contracting Authority Policy (Policy)*, procurement contracts which exceed a value of \$5 million require the approval of the Board of Directors.

This report is being brought forward to the Water Committee to consider a recommendation to the GVWD Board to authorize the award of a contract for supply and delivery of steel pipe for the 2021 Water Services construction projects. This report is being brought forward at this time in order to maintain the respective project schedules, with construction of each project slated to begin in early 2022.

## PROJECT DESCRIPTION

As shown on the Attachment, the two (2) main projects included as contract items in RFP No. 21-063 for supply and delivery of steel pipe include:

- Central Park Main No. 2 - Phase 2
- Kennedy Newton Main - Phase 3

**Central Park Main No. 2 - Phase 2** section will be constructed in the City of Burnaby and consists of approximately 3.4 km of 1.2 m diameter steel water main between Maywood Street and Griffiths Avenue. This main is required to replace the aging Central Park Main No. 1, and to increase the capacity of supply to meet growing water demand in the area.

**Kennedy Newton Main - Phase 3** section will be constructed in the City of Surrey and consists of approximately 2.5 km of 1.8 m diameter water main between Kennedy Reservoir located at 90<sup>th</sup> Avenue and 84<sup>th</sup> Avenue. This main is required to meet growing water demand south of the Fraser River and increase water supply to the area served by the Kennedy and Newton Reservoirs.

As a result of Request for Qualifications (RFQ) No. 18-354: Supply and Delivery of Steel Pipe for Potable Water that was publically advertised on the Metro Vancouver and BC Bid websites, two (2) qualified firms were shortlisted and invited to respond to RFP No. 21-063. The RFP closed on June 11, 2021 and one proposal was received from Northwest Pipe Company. Northwest Pipe Company's proposal met all of the technical requirements and their prices are summarized below (exclusive of taxes).

Proponent	Contract Items	Provisional Items*	Total Cost (exclusive of taxes)
Northwest Pipe Company	\$16,960,142.00	\$12,870.00	\$16,973,012.00

*\* Represents 90 days of storage per pipe, for all six pipe categories combined.*

The contract value includes pricing for storage of finished pipe. However, this provisional item is only available to the contractor in the event storage becomes a requirement.

The proposal pricing is much higher than it has been in previous years' pipe supply contracts, mainly due to the significant escalation in steel market pricing; the American Metal Market index more than tripled in the past year, increasing from USD \$506 in June 2020 to USD \$1,655 in June 2021.

Staff contacted the lone non-responsive pre-qualified firm to determine the reason for not submitting a proposal. They advised that their Eastern US plants presently have significant backlog in production for their existing jobs well into 2022 and as such would not be able to meet the projected MV production and delivery schedules. Purchasing staff continue to actively pursue other known large diameter pipe suppliers to encourage them to bid on future opportunities, including reaching out to past suppliers as well as to those suppliers who traditionally do not bid on works outside of the United States. Solicitation of offshore bidders remains a possibility in the future if they are able to satisfy our pre-qualification criteria, meet the required technical specifications and remain commercially competitive.

## **ALTERNATIVES**

1. That the GVWD Board:
  - a) approve the award of a contract in the amount of up to \$16,973,012.00 (exclusive of taxes) to Northwest Pipe Company resulting from Request for Proposal (RFP) No. 21-063: Supply and Delivery of Steel Pipe for 2021 Water Services Construction Projects, subject to final review by the Commissioner; and
  - b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.
2. That the GVWD Board terminate RFP No. 21-063: Supply and Delivery of Steel Pipe for 2021 Water Services Construction Projects and direct staff to report back to the GVWD Board with options for an alternate course of action.

## **FINANCIAL IMPLICATIONS**

If the GVWD Board approves Alternative 1, a contract will be awarded to Northwest Pipe Company, in an amount of up to \$16,973,012.00 (exclusive of taxes), for the contract items. This amount is over the budgets allocated for pipe supply for the two (2) projects due to aforementioned escalation in steel prices. However, there is sufficient contingency within the projects' allocated budgets to accommodate the increase in prices.

The GVWD Board has the choice not to proceed with Alternative 1, but staff will need further direction in relation to steel pipe procurement for these projects. Alternative 2 may result in additional costs due to the fluctuation in steel prices and will lead to delays to the respective project schedules with impact to the development of additional capacity for long term growth and replacement of aging existing infrastructure.

## **CONCLUSION**

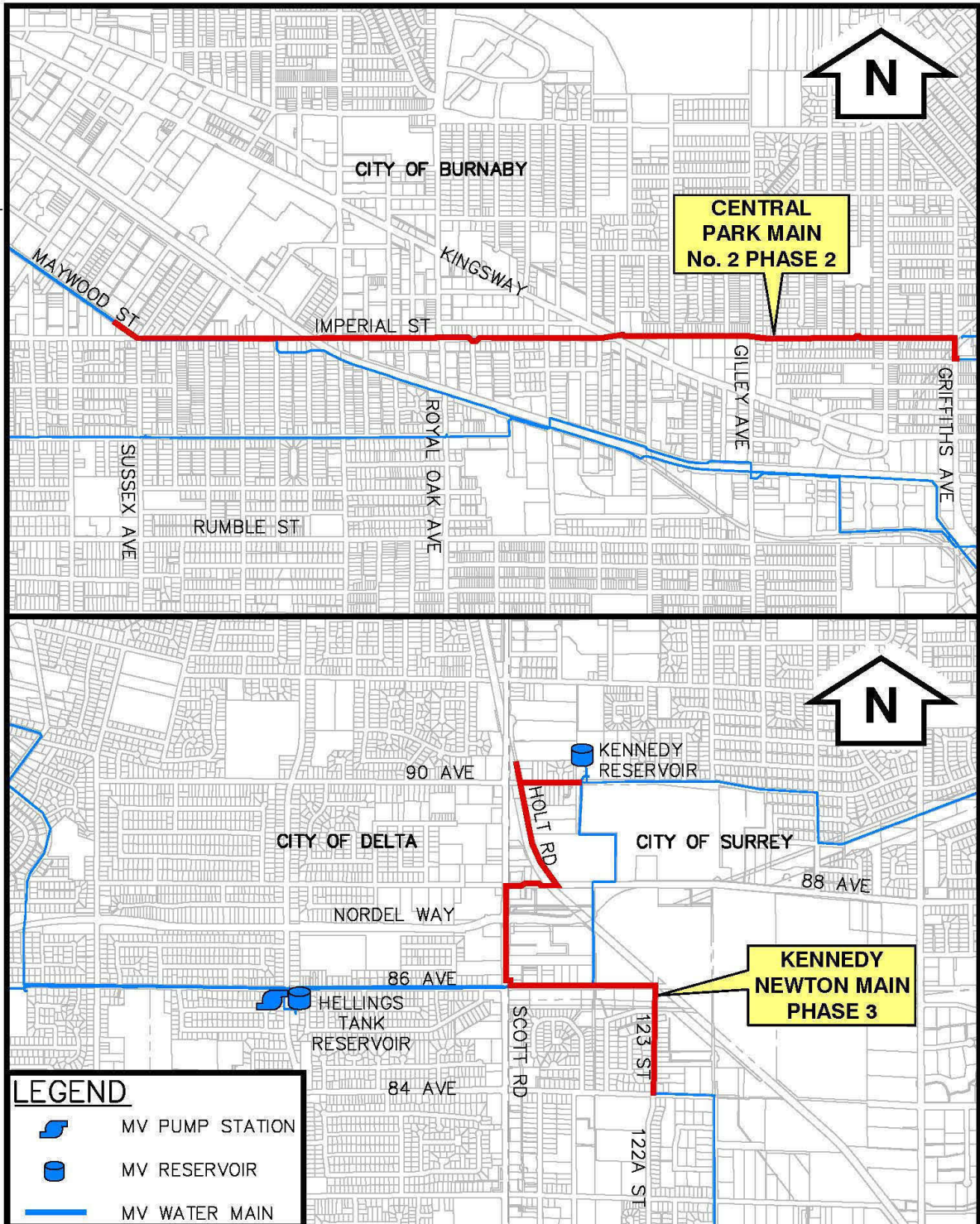
Request for Proposal No. 21-063 was issued for the supply and delivery of steel pipe for 2021 Water Services construction projects, and Northwest Pipe Company was the only pre-qualified supplier that submitted a proposal. Based on the evaluation of the proposal it is recommended that the GVWD Board authorize the Commissioner and the Corporate Officer to award and execute the contract to Northwest Pipe Company in the amount of up to \$16,973,012.00 (exclusive of taxes).

## **Attachment**

2021 Water Services Construction Contracts Locations Map

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AUG09- Portrait Report.DWG 240mm X 191mm Rev. 03-29-05



## GREATER VANCOUVER WATER DISTRICT

**SCALE:**  
0 500 1,000  
METRES

**2021 WATER SERVICES CONSTRUCTION CONTRACTS  
LOCATIONS MAP**

JM/07/21  
X-C-225A/W-3196

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To: Water Committee  
Finance and Intergovernment Committee

From: Roy Moulder, Director, Purchasing and Risk Management, Financial Services  
Murray Gant, Project Manager, PDE Tunnel Group A

Date: September 2, 2021 Meeting Dates: September 9, 2021 and October 13, 2021

Subject: **Award of Contract Resulting from Request for Proposal (RFP) No. 20-354: Annacis Water Supply Tunnel - Construction**

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### RECOMMENDATION

That the GVWD Board:

- a) approve the award of a contract in an amount of up to \$287,842,000 (exclusive of taxes) to Traylor-Aecon General Partnership resulting from Request for Proposal (RFP) No. 20-354: Annacis Water Supply Tunnel – Construction, subject to final review by the Commissioner; and
- b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

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### EXECUTIVE SUMMARY

The Annacis Water Supply Tunnel project (see Attachment) is part of Metro Vancouver's regional plan to upgrade and increase the capacity of the existing drinking water transmission system to meet future demand, to withstand a major earthquake, and to provide protection against river scour.

A Request for Proposal No. 20-354: Annacis Water Supply Tunnel - Construction was issued on April 7, 2021, and proposals were received from the three proponents short-listed from the Request for Qualification process (RFQ No. 20-136). Based on the evaluation of proposals, it is recommended to award RFP No. 20-354 to Traylor-Aecon General Partnership in the amount of up to \$287,842,000 (exclusive of taxes).

### PURPOSE

This report is to advise the Water Committee and the Finance and Intergovernment Committee of the results of the Request for Proposal (RFP) No. 20-354: Annacis Water Supply Tunnel - Construction, and to recommend award of the contract in the amount of up to \$287,842,000 (exclusive of taxes) to Traylor-Aecon General Partnership.

### BACKGROUND

Pursuant to the GVWD *Officers and Delegation Bylaw No. 247, 2014 (Bylaw)* and the *Procurement and Real Property Contracting Authority Policy (Policy)*, procurement contracts that exceed a value of \$5 million require the approval of the GVWD Board of Directors.

This report is being brought forward to consider a recommendation to the GVWD Board to authorize award of a contract for the Construction of the Annacis Water Supply Tunnel.

## PROJECT DESCRIPTION

To meet the growing demand for drinking water in the region, Metro Vancouver is planning to construct a new water supply tunnel deep under the Fraser River between the City of New Westminster and the City of Surrey. The Annacis Water Supply Tunnel project (see Attachment) is part of Metro Vancouver's regional plan to upgrade and increase the capacity of the existing drinking water transmission system to meet future demand, to withstand a major earthquake, and to provide protection against river scour.

The new water supply tunnel will be approximately 4.5 m in diameter and 2.3 km long, and will be excavated deep under the river using a pressurized face Tunnel Boring Machine (TBM). The project also includes construction of two deep vertical shafts, an optional TBM safe haven, 2.6 m diameter welded steel water main inside the shafts and tunnel, and an underground valve chamber adjacent to each shaft to facilitate connection of the new water main to the existing water transmission system.

As a result of the Request for Qualifications (RFQ) No. 20-136 that was publicly advertised on Metro Vancouver's and BC Bid web sites, three (3) experienced contractors were shortlisted:

1. Fraser River Tunnel Partnership
2. McNally Kiewit General Partnership
3. Traylor-Aecon General Partnership

The shortlisted contractors were invited to respond to the RFP No. 20-354 issued on April 7, 2021. The RFP closed on June 24, 2021 and three (3) contractors submitted proposals, as shown in Table 1 below:

**Table 1: RFP No. 20-354 Proposal Submissions**

Proponent	Total Proposal Price (exclusive of taxes)
Traylor-Aecon General Partnership	\$287,842,000
McNally Kiewit General Partnership	\$325,019,500
Fraser River Tunnel Partnership	\$386,315,447

Proposals were evaluated based on 50% technical and 50% financial. The technical component of the proposals was evaluated by staff from the Project Delivery Department as well as staff from McMillen Jacobs Associates (the construction manager) and Hatch (the design consultant). The financial component was evaluated by staff from the Purchasing and Risk Management Division.

The proposal submitted by Traylor-Aecon General Partnership (TAGP) was identified as the highest ranked technical and lowest cost proposal. TAGP's proposal met the stated requirements of the RFP. The proposed staff are highly experienced and have successfully delivered previous tunneling projects for Metro Vancouver, including the Port Mann Water Supply Tunnel and Second Narrows Water Supply Tunnel. Both the Project Manager and the Construction Manager have extensive experience in soft ground tunneling and construction management. The proposal provides a

comprehensive mitigation plan to address project risks including tunneling through challenging and mixed ground conditions and high groundwater pressures, and the potential for encountering gas pockets along the tunnel alignment. TAGP proposes to use an Earth Pressure Balance TBM and elimination of Slurry Plant which reduce the overall proposal cost.

Following identification of the highest ranked proposal, negotiations ensued, as allowed for in the RFP: Clarifications were requested regarding the availability of key staff members, more detailed technical information on the tunneling methodology, clarification on some of the sub-contractors and suppliers, more detailed information on the approach for the shaft break-out and break-in methods, and a few questions on the schedule. The outcome of the negotiations was favourable and did not change the results of the proposal evaluations.

It is recommended to award RFP No. 20-354 to Traylor-Aecon General Partnership in the amount of up to \$287,842,000 (exclusive of taxes).

### **ALTERNATIVES**

1. That the GVWD Board:
  - a) approve the award of a contract in an amount of up to \$287,842,000 (exclusive of taxes) to Traylor-Aecon General Partnership resulting from Request for Proposal (RFP) No. 20-354: Annacis Water Supply Tunnel – Construction, subject to final review by the Commissioner; and
  - b) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied the award should proceed.
2. That the GVWD Board terminate RFP No. 20-354: Annacis Water Supply Tunnel – Construction, and direct staff to report back to the GVWD Board with options for an alternate course of action.

### **FINANCIAL IMPLICATIONS**

If the GVWD Board approve Alternative 1, a contract will be awarded to Traylor-Aecon General Partnership in the amount of up to \$287,842,000 (exclusive of taxes). The approved GVWD budget for construction can accommodate the proposed price.

The GVWD Board has the choice not to proceed with Alternative 1, but staff will need further direction in relation to the project. It will result in a delay to the project schedule and is anticipated to add additional costs to the overall project.

### **CONCLUSION**

A Request for Proposal (RFP) No. 20-354 was issued for the Annacis Water Supply Tunnel – Construction, and Traylor-Aecon General Partnership was identified as offering the highest scored and lowest price proposal.

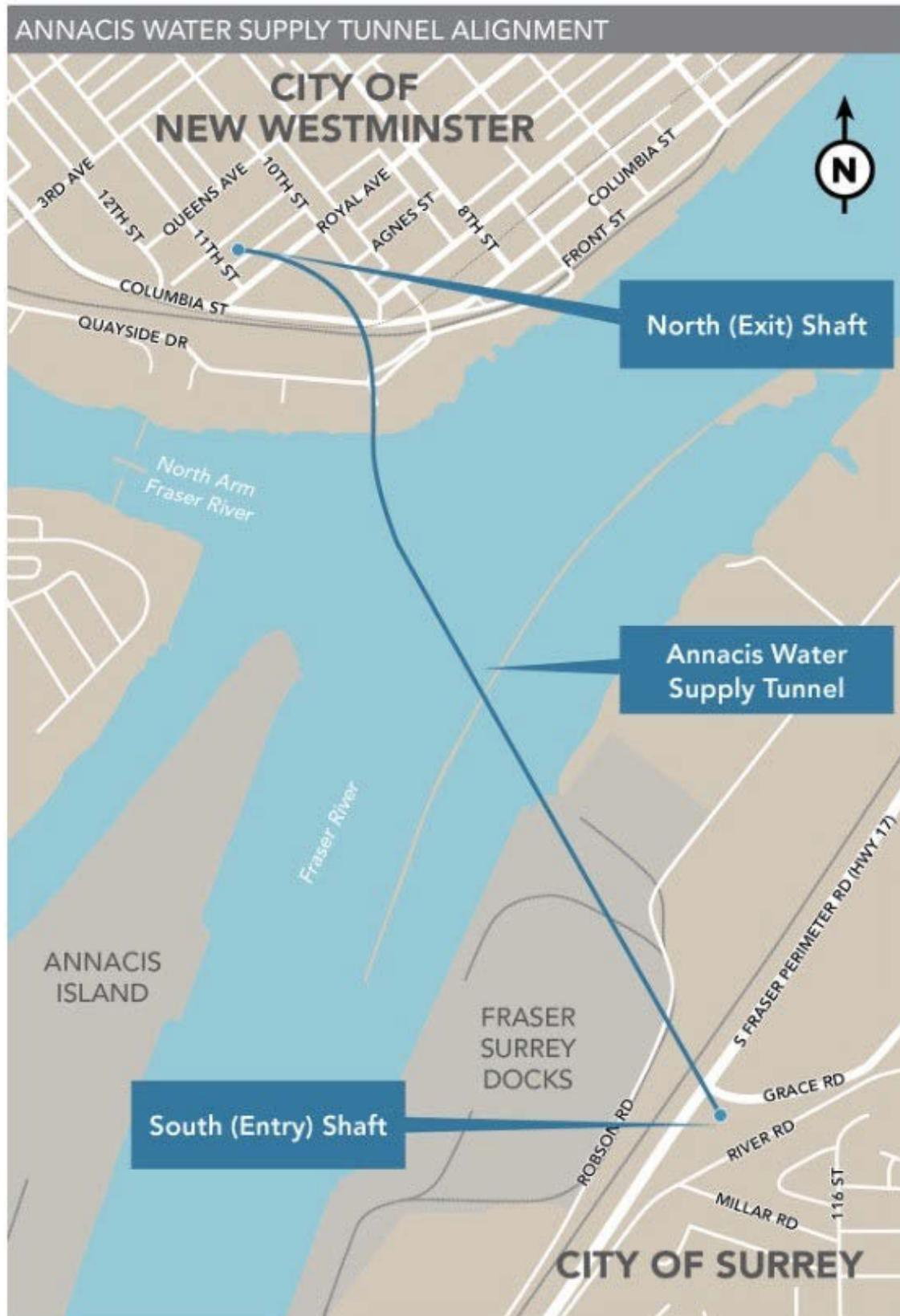
Based on the evaluation of the proposals in response to RFP No. 20-354: Annacis Water Supply Tunnel - Construction, it is recommended that the Board authorize the Commissioner and the Corporate

Officer to award and execute a contract to Traylor-Aecon General Partnership in the amount of up to \$287,842,000 (exclusive of taxes).

**Attachment**

Annacis Water Supply Tunnel Alignment

46855215



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To: Water Committee

From: Goran Oljaca, Director, Engineering and Construction, Water Services  
Bob Cheng, Acting Director, Major Projects, Project Delivery

Date: August 31, 2021 Meeting Date: September 9, 2021

Subject: **Water Infrastructure Projects – Progress Update**

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**RECOMMENDATION**

That the Water Committee receive for information the report dated August 31, 2021, titled “Water Infrastructure Projects – Progress Update”.

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**EXECUTIVE SUMMARY**

Metro Vancouver staff have successfully achieved significant project milestones on a number of Water Infrastructure Projects, which are key in meeting the goals identified in *The Board Strategic Plan 2019 to 2022* for the Water Services function. These projects significantly contribute to Metro Vancouver’s goals to secure additional long-term water supply capacity from the Coquitlam source and also ensure that the treatment, storage and distribution components of the water system are expanded, upgraded, strengthened and replaced to allow the continued supply of safe, clean drinking water to the region’s residents and businesses.

**PURPOSE**

To inform the Water Committee of significant milestones achieved on a number of Water Infrastructure Projects that have been recently completed or are underway, and how they contribute to meeting the key strategic directions set out in *The Board Strategic Plan 2019 to 2022*.

**BACKGROUND**

Metro Vancouver has comprehensive capital and operating programs for acquiring and maintaining supply as well as treating, testing and delivering water to local member jurisdictions. Metro Vancouver provides drinking water to the region through a vast network of dams/intakes, treatment plants, water mains, reservoirs, pump stations and chlorination stations.

*The Board Strategic Plan 2019 to 2022* identifies the Board’s regional near-term and long-term priorities and provides strategic directions in each of Metro Vancouver’s legislated areas of responsibility. For the Water Services and Project Delivery Departments, two of these strategic goals provide direction and priorities in the implementation of the Water Long Range Plan, specifically Managing our Drinking Water and Building Resilience. The systematic implementation of the projects on the Plan includes the project management and construction management with some support from the consulting and contracting communities. This supports financial sustainability and fosters collaboration and engagement as most of the projects require intensive liaison with affected communities, members, First Nations, utility companies and other orders of government to ensure success.

Water Services and Project Delivery staff have achieved significant project milestones on a number of Water Infrastructure Projects that contribute to meeting Metro Vancouver’s goals in the following five areas:

1. Infrastructure Maintenance;
2. Meeting Growth Demands;
3. Maintaining Water Quality;
4. Increasing Seismic Resilience; and
5. Improving Backup Power

### **INFRASTRUCTURE MAINTENANCE**

Infrastructure Maintenance is a component of the Water Services Department’s Long Range Plan and addresses the need for replacement or refurbishment of existing infrastructure to ensure that it continues to perform as required to meet service objectives. The following projects have recently achieved major project milestones in addressing this goal, including:

**Douglas Road Main No. 2** – This new water main will replace the existing Douglas Road Main No. 1 between North Burnaby and New Westminster that was built in the 1940’s. Construction of the 15-kilometer-long, 1,500 mm (60-inch) diameter water main began back in 2007 and a number of phases of the project have already been completed and are in service. The two remaining sections are the Vancouver Heights Section, which completed installation in early 2021 and is planned for commissioning this fall, and the Still Creek Section, which commenced construction this summer.

**Little Mountain and Kersland Reservoir Upgrades** – The maintenance to these reservoirs include roof repairs and concrete sealing as well as joint replacement. Both of these reservoirs are located in Queen Elizabeth Park and the work is being completed over the summer and into the fall in close collaboration with the Vancouver Parks Board. This work is required to ensure that water quality is maintained throughout the lifespan of the reservoirs.

### **MEETING GROWTH DEMANDS**

The Metro Vancouver region is growing and the increase in the number of residents living in the region has created an increased demand for drinking water. The following projects have recently achieved major project milestones in meeting this demand, including:

**Coquitlam Lake Water Supply Project** – The Coquitlam Lake Water Supply Project (CLWSP) includes a new water supply intake, water supply tunnel and water treatment facilities to approximately double the capacity of the Coquitlam water supply source. In early 2021, the North Intake Smaller Initial Filtration option was confirmed to be the preferred option. The Project Definition Phase for CLWSP is essentially complete and the project will be entering the permitting and regulatory phase in the last quarter of 2021.

**Jericho Reservoir** – The Jericho Reservoir is a key component of Metro Vancouver’s Langley-Surrey Water Supply Scheme. Located in the Township of Langley, the reservoir is planned to be constructed in two phases having a total combined storage volume of 39.1 ML. Phase 1, comprising of two cells with a combined total storage volume of 20.6 ML is substantially complete and is currently being put

in service. The project includes recreational facilities on the roof top, which are funded by the Township of Langley.

### **MAINTAINING WATER QUALITY**

To produce the region's world class drinking water, raw water is treated at the treatment plants for turbidity, bacterial re-growth, water-borne diseases and to control corrosion in the distribution and private systems. Notable recent projects to support this goal are:

**Coquitlam Ozone Generators Replacement** – Water from the Coquitlam Reservoir is pre-treated with ozone before it enters the Coquitlam UV Disinfection Plant. Ozone helps remove micro-organisms from the water, improves water quality and reduces disinfection by-products. Ozone also improves water clarity, which increases the efficiency of the subsequent ultraviolet disinfection process. The three Ozone Generator Reactors (OGRs) were originally installed in 1999. To replace aging equipment and to increase the ozone production capacity of the OGRs, the Power Supply Units for the OGRs are currently being upgraded with completion scheduled for late 2021.

**Coquitlam pH/Alkalinity** – As part of regional improvements, Metro Vancouver adjusted the pH of the water from the treatment plants to reduce corrosion levels throughout the region. In order to do this at Coquitlam Water Treatment Plant, the existing CO<sub>2</sub> system was upgraded and commissioned earlier this year. This involved installation of a new CO<sub>2</sub> storage tank as well as piping upgrades and system integration.

**SCFP Dry Polymer System** – Polymer plays a vital role in the water treatment process at the Seymour Capilano Filtration Plant. Filter aid polymer (FAP) is injected to water following flocculation and prior to filtration. The polymer prevents the shearing forces in the filter from breaking the floc apart, improving the filtration process. Tenders closed recently for the replacement of the existing oil-emulsion based polymer system with a dry polymer system. This upgrade will eliminate quality issues, such as clogged screens, and will provide added benefits as the dry polymer is more robust, with a longer shelf life, easier transportation and cost savings. Construction is scheduled to commence in the fall of 2021.

### **INCREASING SEISMIC RESILIENCE**

The seismic risk to the region's critical drinking water infrastructure was first seriously recognized during the 1980's. In the early 1990's system lifeline studies, considering vulnerability and risk, were completed. While seismic considerations are included in all new project designs, existing water crossings, storage reservoirs and pump stations are also prioritized for assessment and potential upgrades or replacement. Recent project milestones in this ongoing program are:

**Sunnyside Reservoir Seismic Upgrade** – The seismic strengthening of Sunnyside Reservoir No.1 was completed early 2021. Apart from providing stiffening buttresses for the walls, the project also included a roof replacement and upgrading of the inlet/outlet structures and the electrical control system. This project was closely and successfully coordinated with Surrey staff to support upgrades of the Surrey water distribution system and mitigate impacts to the nearby Surrey park.

Pebble Hill Reservoir Units 1&2 Seismic Upgrade – The construction award for Pebble Hill Reservoir Unit No. 1 & 2 Seismic Upgrades, located in the City of Delta, was approved by the GVWD Board in May 2021. Unit No. 1 and Unit No. 2 were constructed in the 1970's and do not meet current seismic codes. The upgrade work involves construction of interior seismic force resisting systems, thickening of perimeter walls and footings, roof slab strengthening, repair of columns, joint sealant replacement and installation of rooftop sports facilities in close coordination with the City of Delta.

### **IMPROVING BACKUP POWER**

AWWA's policy statement on electric power reliability for public water supply utilities suggests that every utility should set uninterrupted service as a goal and recommends that utility operations should be reviewed for the likelihood and consequence of power outages and whether a system can survive for 72 hours without electrical power supply. Metro Vancouver considers backup power in the design of all new drinking water facilities and retrofits existing critical facilities with backup power. Recent achievements include:

Capilano Raw Water Pump Station Backup Power - The Backup Power Facility for the existing Capilano Raw Water Pump Station will provide approximately 8 MW of backup power to run up to four of the eight existing 2,000 HP pumps. A Development Permit was issued by the District of North Vancouver in July 2020, and the detailed design is nearing completion with most of the major equipment already procured. The Building Permit Application will be submitted in fall 2021 and the construction tender is expected to be issued at the end of 2021 with construction scheduled to start early summer 2022. The Backup Power Facility, together with a new Gate House, will be constructed in the Capilano Watershed, north of the Cleveland Dam parking lot.

Westburnco Pump Station and Barnston Maple Ridge Pump Station Backup Power – Backup Power for Westburnco Pump Station has reached 50% progress on detailed design and preliminary design of Barnston Maple Ridge Pump Station Backup Power is nearing completion with the identification of a potential site to locate the backup power facility.

### **ALTERNATIVES**

This is an information report. No alternatives are presented.

### **FINANCIAL IMPLICATIONS**

There are no financial implications.

### **CONCLUSION**

Metro Vancouver has a long history of providing safe, clean drinking water to the region. This includes comprehensive capital and operating programs for acquiring and maintaining supply as well as treating, testing and delivering water to local governments.

A number of Water Infrastructure Projects have recently achieved significant project milestones which are key in meeting the goals identified in *The Board Strategic Plan 2019 to 2022* for the Water Services function. These key projects significantly contribute to Metro Vancouver's goals to secure additional long-term water supply capacity from the Coquitlam source and also ensure that the treatment, storage and distribution components of the drinking water system are expanded,

upgraded, strengthened and replaced to allow the continued supply of safe, clean drinking water to the region's residents and businesses.

47145717

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To: Water Committee

From: Marilyn Towill, General Manager, Water Services

Date: September 1, 2021

Meeting Date: September 9, 2021

Subject: **Manager's Report**

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## RECOMMENDATION

That the Water Committee receive for information the report dated September 1, 2021 titled "Manager's Report".

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### 1. Update on Grouse Mountain Regional Park Court Decision – Bylaw 1177

As requested at the June Water Committee meeting further detail on the R. vs. Nixon and Newhook court proceeding and fines was compiled with input from MVRD Parks and MV Legal.

GVWD currently does not have a by-law in place to impose fines on individuals for removal of vegetation or for traveling off trails. As such, in this case MV Parks by-laws provided an effective method for prosecution of the two individuals involved. MV Parks bylaw fines are regulated by the Local Government Act which sets out a maximum value of \$10,000 per offence to the bylaws associated with this case. While civil charges that would allow increased fines were considered, mitigating factors to proceeding in that direction were identified including determining an accurate value for the damage caused. It was determined early on, that the precedent of a guilty verdict was of more value to elicit behaviour changes in the outdoor recreation community than any associated fines. As such, charges under the applicable bylaws were pursued and when the accused indicated they would offer a guilty plea to two bylaw infractions to avoid a costly trial MV was in agreement. It should be noted that the courts rarely impose maximum penalties for first time offenders and lower penalties are generally imposed in exchange for guilty pleas which are considered a "mitigating factor". As this was the situation here, MV Legal offered reduced fines as part of the agreement and these fines will be paid directly to MV Parks.

#### Agreement conditions:

- Guilty pleas
  - Mr. Nixon pled guilty to count 1, admitted to cutting between 10 and 15 trees, agreed to a \$5,000 penalty plus a 12-month probation order prohibiting him from entering the park.
  - Ms. Newhook pled guilty to count 6, admitted to travelling off designated trails which caused damage to the environment, agreed to a \$1,500 penalty plus a 12-month probation order prohibiting her from entering the park.
- Both parties agree to create a climbing association to help prevent similar offences.
- Both parties agree to remove or hide the climbing bolts they had installed.

In accordance with the conviction, the climbing community completed a delegation to the Parks Committee on June 16<sup>th</sup> to advocate for their sport on the North Shore. This delegation can be seen

in the recorded meeting footage. <http://www.metrovancouver.org/boards/webcast>. As well, seven media articles were printed or syndicated on the conviction including:

- North Shore News April 23 <https://www.nsnews.com/local-news/rock-climbers-banned-from-grouse-mountain-park-for-unsanctioned-trail-3658563>
- North Shore News (Editorial) April 28 <https://www.nsnews.com/opinion/editorial-outdoor-adventurers-take-notice-after-rock-climbers-fined-for-unsanctioned-trail-3671197>
- Georgia Straight May 11 <https://www.straight.com/news/two-mountaineers-fined-banned-from-grouse-mountain-for-cutting-down-limbing-trees-at-regional>

**Site of offence - Rocky outcrop with old growth alpine vegetation**



**Example of tree cutting**



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## 2. Water Supply Lands Western Hemlock Looper Moth Update

Watershed staff regularly monitor a number of common forest pests including Western Hemlock looper (Looper moth). Moth numbers dramatically increased during the 2019 trapping program and as such an aerial overview survey of the water supply lands was completed by MV staff, BA Blackwell (consultant) and the Provincial entomologist in August 2020. A number of forest health factors were assessed and while some drought stress and other minor forest pest and disease occurrences were noted, the most significant damage was attributed to a Looper moth outbreak. Pockets of moderate defoliation were present in all three watersheds, however the most severe damage was concentrated on the North Shore.

A second aerial survey of the three watersheds was undertaken in July 2021 with the same participants to verify defoliation amounts. The results of the aerial survey and subsequent ground surveys estimated 3367 hectares of forest had been damaged during the 2020 season, 1800 of which was in Capilano Watershed. A total of 375 hectares, across all three watersheds, was considered to be severely defoliated with a high chance of mortality.

2021 marks the third year of the current looper moth outbreak and the early season survey also confirmed the peak of the outbreak has not yet passed. Looper caterpillars were active earlier than normal this year, potentially due to the unseasonably warm June weather. A third aerial survey is being planned for September to track the outbreak progression and refined defoliation estimates.

Water Services staff have worked closely with staff from MV Regional Parks, District of North Vancouver, District of West Vancouver and the Provincial entomologist to monitor and track the looper moth progression. The Provincial entomologist has assured us we are likely to see a population crash soon as we near the end of a typical 4-year cycle and has also assured us that although the damage looks bad, this outbreak is in the small to moderate scale. Staff have also sought advice from the Provincial Wildfire Service to assess the fire risk of the affected trees. The fire risk currently remains ranked as low to moderate, however this will be reassessed at regular intervals over the coming years to ensure adequate additional precautions are taken to prevent wildfire.

External experts have assisted in monitoring efforts, completed assessments and are developing recommendations for short and longer term actions to deal with this complex interface issue. Short term actions include hazard tree removal around critical infrastructure and increased fire preparedness, while medium to long actions include fuel removal along interface areas and investigating options for forest treatments and replanting to encourage increased stand diversity. MV Media Relations has also assisted in developing an issues brief, external webpage and a Twitter feed to help educate the public on the life cycle of the moth and some of the positive benefits that can be realized from natural forest pest cycles such as this.

More information on the life cycle of the looper moth can be found here

<http://www.metrovancouver.org/services/water/sources-supply/watersheds/Pages/default.aspx>

### 3. Development Cost Charge for Regional Water Infrastructure

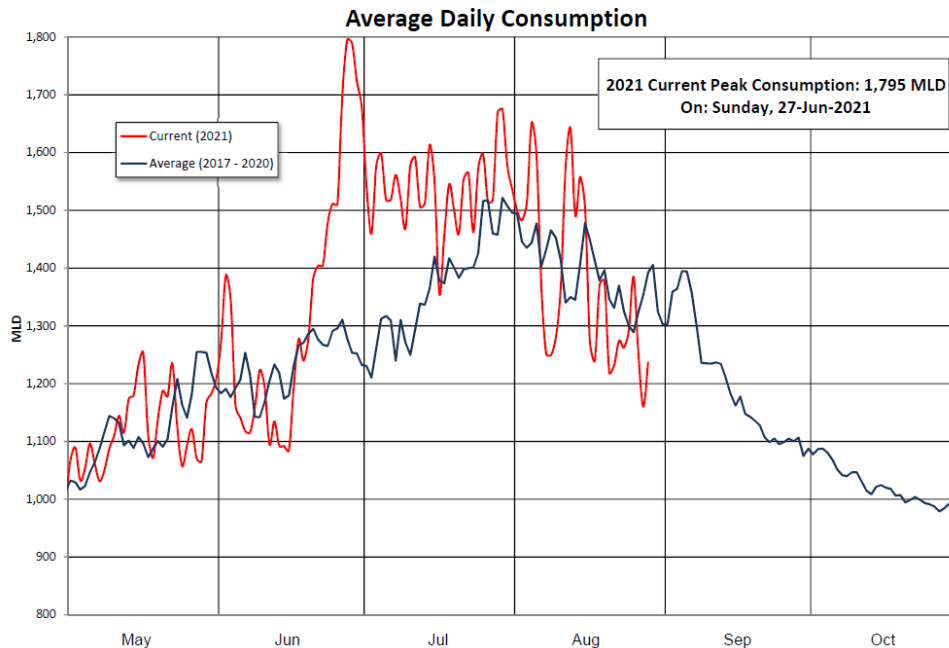
Subsequent to the July 15th, 2021 Water Committee meeting, Metro Vancouver staff have had additional discussions with the Province to emphasize the importance of the legislative change required to establish a development cost charge (DCC) for regional water infrastructure. This has included confirmation that necessary processes are underway and seeking clarification of provincial requirements, including reporting and scope of engagement with parties, especially First Nations.

Beginning in late 2020, engagement with First Nations commenced with written correspondence and meetings as requested, followed up with individual phone calls in June 2021. Metro Vancouver has invited the nine First Nations with land in the region to forums in September 2021 to discuss the proposed establishment of a water DCC and a proposed update to liquid waste DCC rates. These forums are in addition to other DCC engagement events this fall that are for the broader stakeholder community and public.

There will be a report coming to the October 2021 Water Committee meeting to report back in more detail on engagement to date, progress with the Province, and to follow up on direction received at the Water Committee's meeting of July 15, 2021 to provide further information on the financial aspects of the proposed DCC, including options for assist factors.

### 4. Summer Water Supply

The region experienced a record-breaking heat wave in June and weeks of subsequent hot and dry weather, which led to unusually high water demand. The season's highest daily demand was 1.8 billion litres on June 27 which was near the all-time high set in 2009. The figure below shows the spike in water demand during the heatwave and the subsequent high water use that continued through the summer.



This high water demand resulted in an unprecedented sustained water use of over 1.5 billion litres per day for 40 days (till end of August) as compared to an average of 14 days in the last 3 years.

With this summer's high water use in mind, the GVWD is updating the Drinking Water Conservation Plan and providing increased education and conservation tools. Sustained reduction in water use can potentially help defer the need for additional water supply and costly infrastructure projects while helping to reduce greenhouse gas emissions.

## **5. Work Plan**

### **Attachment**

Water Committee 2021 Work Plan

46615689

**Water Committee 2021  
Work Plan**

**Priorities**

<b>1st Quarter</b>	<b>Status</b>
Annual Energy Management Program Update	Complete
Capilano Hydropower Project Business Case Update	Complete
Corrosion Control Program – Copper Pipes Protection	Complete
Long Term Financial Plan	Pending
Residential Water Metering – Overview of Local Experience	Complete
Water Meter Replacement Program	Complete
Contract Approvals – Contracts > \$5 Million (as applicable)	Complete
Water Policies (as applicable)	Complete
<b>2nd Quarter</b>	
Coquitlam Lake Water Supply Project Update	Complete
Drinking Water Customer Information Guide	Complete
Drinking Water Management Plan Update	Complete
First Nation Engagement Updates	Complete
GVWD Water Quality Annual Report	Complete
Lawn Water Regulations Communication & Regional Water Conservation Campaign	Complete
Seymour Salmonid Society 2020 Annual Report	Complete
Status of GVWD Capital Expenditures	Complete
Water Services Wildfire Preparedness Update	Complete
Water Supply Update for Summer 2021	Complete
Water Use-by-Sector Report	Pending
Contract Approvals – Contracts > \$5 Million (as applicable)	Complete
Water Policies (as applicable)	Complete
<b>3rd Quarter</b>	
Annual Dam Safety Program Update	Complete
Status of GVWD Capital Expenditures	Complete
Quality Management System for Drinking Water Update	Pending
Contract Approvals – Contracts > \$5 Million (as applicable)	Pending
Water Policies (as applicable)	Pending
<b>4th Quarter</b>	
Annual Budget and 5-year Financial Plan – Water Services	Pending
Environmental Management Framework	Pending
Regional Water Conservation Campaign and Water Regulations Communications 2021	Pending
Regional Water Supply System Seismic Resiliency Study	Pending
Status of GVWD Capital Expenditures	Pending
Summer 2021 Water Supply Performance	Pending
Watershed Fisheries Initiatives Annual Update	Pending
Contract Approvals – Contracts > \$5 Million (as applicable)	Pending
Water Policies (as applicable)	Pending