GREATER VANCOUVER WATER DISTRICT (GVWD)
BOARD OF DIRECTORS

REGULAR BOARD MEETING
Friday, July 31, 2020
9:00 A.M.
28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia

Membership and Votes

AGENDA

A. ADOPTION OF THE AGENDA

1. July 31, 2020 Regular Meeting Agenda
   That the GVWD Board adopt the agenda for its regular meeting scheduled for
   July 31, 2020 as circulated.

B. ADOPTION OF THE MINUTES

1. July 3, 2020 Regular Meeting Minutes
   That the GVWD Board adopt the minutes for its regular meeting held July 3, 2020 as
   circulated.

C. DELEGATIONS

D. INVITED PRESENTATIONS

E. CONSENT AGENDA
   Note: Directors may adopt in one motion all recommendations appearing on the Consent
   Agenda or, prior to the vote, request an item be removed from the Consent Agenda for debate
   or discussion, voting in opposition to a recommendation, or declaring a conflict of interest
   with an item.

1. WATER COMMITTEE REPORTS

1.1 Reintroduction of Coho Salmon Upstream of Coquitlam Dam
   That the GVWD Board approve the Fisheries and Oceans Canada request, supported
   by the Kwikwetlem First Nation, to annually transport up to 100 returning coho
   salmon adults and 40,000 juveniles upstream of Coquitlam Dam.

1 Note: Recommendation is shown under each item, where applicable. All Directors vote unless otherwise noted.

Greater Vancouver Water District
1.2 Award of Contract Resulting from Tender No. 20-032: Construction Services for Central Park Main No. 2 – Phase 1
That the GVWD Board:
   a) authorize award of a contract in the amount of $19,550,000.00 (exclusive of taxes) to Pedre Contractors Ltd. resulting from Tender No. 20-032: Construction Services for Central Park Main No. 2 - Phase 1, 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.

1.3 Award of Phase B, Detailed Design Services Resulting from Request for Proposal (RFP) No. 17-139: Consulting Engineering Services for Seymour Main No. 5 (North)
That the GVWD Board:
   a) approve the award of Phase B, Detailed Design Services for an amount of up to $2,781,638 (exclusive of taxes) to the Phase A consultant, AECOM Canada Ltd. (AECOM), for the Seymour Main No. 5 (North), 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.

F. ITEMS REMOVED FROM THE CONSENT AGENDA

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

I. OTHER BUSINESS

1. GVWD Board Committee Information Items and Delegation Summaries

J. BUSINESS ARISING FROM DELEGATIONS

K. RESOLUTION TO CLOSE MEETING
   Note: The Board 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.

L. RISE AND REPORT (Items Released from Closed Meeting)

M. ADJOURNMENT/CONCLUSION
That the GVWD Board adjourn/conclude its regular meeting of July 31, 2020.
GREATER VANCOUVER WATER DISTRICT
BOARD OF DIRECTORS

Minutes of the Regular Meeting of the Greater Vancouver Water District (GVWD) Board of Directors held at 11:10 a.m. on Friday, July 3, 2020 in the 28\textsuperscript{th} Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:

- Burnaby, Chair, Director Sav Dhaliwal
- North Vancouver City, Vice Chair Director Linda Buchanan*
- Anmore, Director John McEwen*
- Belcarra, Director Neil Belenkie *
- Burnaby, Director Pietro Calendino*
- Burnaby, Director Mike Hurley*
- Coquitlam, Director Craig Hodge*
- Coquitlam, Director Richard Stewart*
- Delta, Alternate Director Dylan Kruger* for George Harvie
- Delta, Director Bruce McDonald*
- Electoral Area A, Alternate Director Mike Feeley* for Jen McCutcheon
- Langley City, Director Val van den Broek*
- Langley Township, Director Jack Froese*
- Langley Township, Director Kim Richter*
- Maple Ridge, Director Mike Morden*
- New Westminster, Director Jonathan Coté*
- North Vancouver District, Director Lisa Muri*
- Pitt Meadows, Director Bill Dingwall*
- Port Coquitlam, Director Brad West*
- Richmond, Director Malcolm Brodie*
- Richmond, Director Harold Steves*
- Surrey, Director Linda Annis*
- Surrey, Director Doug Elford*
- Surrey, Director Laurie Guerra*
- Surrey, Director Doug McCallum*
- Surrey, Director Mandeep Nagra*
- Surrey, Director Allison Patton*
- Tsawwassen, Director Ken Baird*
- Vancouver, Director Adriane Carr*
- Vancouver, Director Melissa De Genova*
- Vancouver, Director Lisa Dominato*
- Vancouver, Alternate Director Pete Fry* for Kennedy Stewart
- Vancouver, Alternate Director Colleen Hardwick*
- Vancouver, Alternate Director Jean Swanson* for Christine Boyle
- Vancouver, Director Michael Wiebe*
- West Vancouver, Director Mary-Ann Booth*
- Commissioner Jerry W. Dobrovolny (Non-voting member)

MEMBERS ABSENT:

- Port Moody, Director Rob Vagramov

STAFF PRESENT:

- Janis Knaupp, Legislative Services Coordinator, Board and Information Services
- Chris Plagnol, Corporate Officer

*denotes electronic meeting participation as authorized by Section 3.6.2 of the Procedure Bylaw
A. ADOPTION OF THE AGENDA

1. July 3, 2020 Regular Meeting Agenda

    It was MOVED and SECONDED
    That the GVWD Board adopt the agenda for its regular meeting scheduled for
    July 3, 2020 as circulated.

    CARRIED

B. ADOPTION OF THE MINUTES

1. May 29, 2020 Regular Meeting Minutes
2. June 5, 2020 Joint Special Meeting Minutes

    It was MOVED and SECONDED
    That the GVWD Board adopt the minutes for its regular meeting held
    May 29, 2020, and the minutes for its joint special meeting of the MVRD,
    GVS&DD, GVWD and MVHC Boards held June 5, 2020 as circulated.

    CARRIED

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

E. CONSENT AGENDA

    It was MOVED and SECONDED
    That the GVWD Board adopt the recommendation in the following item presented in the
    July 3, 2020 GVWD Board Consent Agenda:

1.1 Award of Contract Resulting from Tender No. 20-021: Construction of Kennedy
    Newton Main 72nd to 63rd Avenue

    The item and recommendation referred to above is as follows:

1.1 Award of Contract Resulting from Tender No. 20-021: Construction of Kennedy
    Newton Main 72nd to 63rd Avenue

    Report dated June 9, 2020 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 Tender
    No. 20-021: Construction of Kennedy Newton Main 72nd to 63rd Avenue, and
    seeking the Board award the contract, in the amount of $18,860,000 (exclusive of
    Greater Vancouver Water District
taxes), to Pedre Contractors Ltd. to enable this phase of the Kennedy Newton Main project to proceed to completion.

Recommendation:
That the GVWD Board:
   a) approve the award of a contract in the amount of $18,860,000 (exclusive of taxes) to Pedre Contractors Ltd. resulting from Tender No. 20-021: Construction of Kennedy Newton Main 72nd to 63rd Avenue, 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.

Adopted on Consent

F. ITEMS REMOVED FROM THE CONSENT AGENDA
No items presented.

G. REPORTS NOT INCLUDED IN CONSENT AGENDA
No items presented.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN
No items presented.

I. OTHER BUSINESS
1. GVWD Board Committee Information Items and Delegation Summaries

It was MOVED and SECONDED
That the GVWD Board receive the “GVWD Board Committee Information Items and Delegation Summaries”, dated July 3, 2020, for information.

CARRIED

J. BUSINESS ARISING FROM DELEGATIONS
No items presented.

K. RESOLUTION TO CLOSE MEETING
No items presented.

L. RISE AND REPORT (Items Released from Closed Meeting)
No items presented.
M. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED
That the GVWD Board conclude its regular meeting of July 3, 2020.

CARRIED
(Time: 11:12 a.m.)

CERTIFIED CORRECT

_________________________  ________________________
Chris Plagnol, Corporate Officer       Sav Dhaliwal, Chair
To: Water Committee

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

Date: June 22, 2020

Meeting Date: July 16, 2020

Subject: Reintroduction of Coho Salmon Upstream of Coquitlam Dam

RECOMMENDATION
That the GVWD Board approve the Fisheries and Oceans Canada request, supported by the Kwikwetlem First Nation, to annually transport up to 100 returning coho salmon adults and 40,000 juveniles upstream of Coquitlam Dam.

EXECUTIVE SUMMARY
Coho salmon were extirpated from the Coquitlam Water Supply Area (WSA) approximately 105 years ago upon the Vancouver Power Company’s completion of the first large dam on the Coquitlam River. Kwikwetlem First Nation (KFN) has expressed that the reintroduction of salmon species above the dam is of significant cultural importance to their nation. In the interests of supporting the KFN cultural goals and salmon restoration, Fisheries and Oceans Canada (DFO), have proposed the reintroduction of a nominal number of coho salmon to habitat upstream of the Coquitlam Dam. There are no anticipated impacts to water quality or water utility operations and no financial implications from this request. Metro Vancouver has worked extensively on fisheries initiatives in the Capilano, Seymour and Coquitlam WSAs and staff are supportive of this current opportunity to support KFN’s cultural objectives to reintroduce coho salmon to the Coquitlam WSA in collaboration with DFO, and BC Hydro.

PURPOSE
This report is to advise the GVWD Board of a request from KFN and DFO to reintroduce coho salmon to waters upstream of Coquitlam Dam in the restricted access Coquitlam WSA that requires the approval of the Board.

BACKGROUND
Returning coho salmon have not had access to waters upstream of Coquitlam Dam for spawning and rearing habitat since the first large dam on the Coquitlam River was completed by the Vancouver Power Company in 1915. This fisheries reintroduction initiative is consistent with the 2019 – 2022 Board Strategic Plan goal to: “Work with First Nations and fisheries agencies in supporting the restoration of fish populations in the watersheds while maintaining the delivery of clean, safe drinking water.”

Adult coho salmon available for transport will be returning to the lower Coquitlam River in October 2020 and Board direction is required; this report is being brought forward at this time to meet 2020 fish transport timelines as outlined in the requests from DFO and KFN.
Watershed Fisheries Management

Historic and contemporary fisheries management activities vary between the Coquitlam, Seymour and Capilano WSAs. Natural fish migration was impeded by each of the three dams at these source reservoirs when construction was initially completed in 1915, 1927 and 1954 respectively. Each of the three WSAs have fish hatcheries located near the base of the dams. In Capilano, the hatchery is a large federally-operated facility whereas in Seymour and Coquitlam, relatively small hatcheries are operated by non-profit societies overseen by federal fisheries management personnel. The fisheries management considerations in each of the three WSAs are considerably different from each other and require site specific consideration. Returning adult coho salmon are currently transported upstream of the dams in Capilano and Seymour, but not in Coquitlam.

GVWD staff are actively involved in fisheries management both through directly conducting fisheries management activities as well as supporting fisheries agencies or societies. Staff have been actively involved with the Kwikwetlem Sockeye Restoration Program since 2004 which has been met with limited success due to constraints with that species; the reintroduction of coho to waters upstream of Coquitlam Dam is a comparatively achievable process.

KFN Cultural Significance

Salmon are an invaluable resource as a critical element of coastal indigenous cultural identity, spirituality and sustenance. The Kwikwetlem First Nation has depended on the Coquitlam River Watershed since time immemorial and were reliant on all species of Pacific Salmon which were once plentiful in the river. In the KFN’s traditional Halkomelem language, Kwikwetlem means “red fish up the river” after the red spawning colour of sockeye salmon. Due to construction of the Coquitlam Dam, urbanization of the lower watershed, poor marine survival and a host of other factors, salmon populations have steeply declined and KFN’s connectivity and reliance on Pacific Salmon has been eroded. The loss of salmon populations has had a tremendous impact on KFN culture and they have worked tirelessly over the last several decades to rebuild salmon populations in the Coquitlam River and to reintroduce salmon above the Coquitlam Dam.

DFO Request to Transport Coho Salmon Upstream of Coquitlam Dam

DFO is requesting Metro Vancouver support for the transport of coho salmon adults and juveniles (Attachment 1), as supported by KFN (Attachment 2), and BC Hydro. The Port Coquitlam and District Hunting and Fishing Club, who manage the Grist Goesen Memorial Hatchery located immediately downstream of Coquitlam Dam capture and raise several species of pacific salmon. The hatchery currently releases up to 20,000 juvenile coho into the Or Creek drainage which is accessed through the closed watershed, but does not connect to the reservoir. The hatchery would also be responsible for fish capture and transport of these additional adults and juveniles to on-drainage release locations along the lakeshore and in adjacent creeks.

This request is being made primarily to support KFN cultural objectives to see salmon species utilizing the full extent of available habitat in the Coquitlam River Watershed. As a secondary objective, fish able to successfully use natural habitat (vs. hatchery fish production) may improve the genetic diversity of the wild fish population making it more resilient to environmental stressors such as poor ocean feeding conditions and climate change. Through active participation as members of the Kwikwetlem Sockeye Restoration Program, staff are committed to ensure monitoring studies are
undertaken to determine the success of the fish transports and identify opportunities for improvement to the current limited outmigration option.

Coquitlam Lake Water Quality
Metro Vancouver regularly monitors water quality in the three main source reservoirs as part of the Limnology Program; limnology is the study of physical, chemical and biological attributes of lakes and reservoirs. Metro Vancouver is fortunate to naturally have exceptionally low nutrient concentrations in the source water, particularly in Coquitlam Lake. This means that it is an ideal source of drinking water and unable to support significant biological growth. At the base of the food chain, algae blooms can be problematic for water quality and are seen often in reservoirs with higher nutrient concentrations such as interior areas of British Columbia and in central and eastern North America. A primary concern for drinking water reservoir management is to keep nutrient levels low. Adult fish returning from the ocean carry a known amount of nutrients, namely phosphorus, in their body mass which is released into waterways after spawning. Phosphorous is the limiting growth factor for algae in the Metro Vancouver water supply.

Metro Vancouver has a consultant limnologist who reviews annual water quality data and provides reports and recommendations. A comprehensive water quality study was conducted for Coquitlam Lake sockeye recovery efforts in 2012 and concluded that 15,000 +/- 5,000 sockeye salmon adults transported into the reservoir would unlikely alter drinking water quality. Unfortunately, sockeye recovery efforts to date have not been successful with less than five fish per year returning for release due to poor marine survival. Additionally, there have been no documented water quality problems associated with the adult fish transport into the upper Capilano Watershed despite thousands of adult salmon and trout being transported annually into the watershed from 1954 to 1975 and 1997 to present.

Due to the differences in life cycle between coho and sockeye, MV’s reservoir limnology consultant was retained to conduct a water quality assessment specifically on the implications from transporting a limited number of adult coho upstream of Coquitlam Dam. This water quality review considered nine potential effects on reservoir water quality. These effects were based on the most conservative scenario, that all salmon biomass remains in the water; whereas, in reality, a large proportion of the biomass is transported and consumed into the forest by birds and mammals. Eight of nine potential negative effects on water quality were assessed as having a low probability of occurrence with a high level of confidence. The remaining potential effect (introduction of coliform flora) was assessed as having a moderate probability of occurrence with moderate confidence. This effect would be reduced to a low probability of having a detectable effect on drinking water quality, with high confidence, following water treatment. In regard to proposed adaptive management, water quality monitoring, the limnologist notes: “... risk to change in the high level of water quality [attributed to the adult fish transport] in the Coquitlam water supply is considered negligible (Perrin, 2020).”

ALTERNATIVES
1. That the GVWD Board approve the Fisheries and Oceans Canada request, supported by the Kwikwetlem First Nation, to annually transport up to 100 returning coho salmon adults and 40,000 juveniles upstream of Coquitlam Dam.
2. That the GVWD Board receive the report dated June 22, 2020, titled *Reintroduction of Coho Salmon Upstream of Coquitlam Dam* and provide alternate direction.

**FINANCIAL IMPLICATIONS**

If the Board approves Alternative 1, direct expenditures are not anticipated and staff time can be accommodated within the Watershed and Environmental Management Program budget.

Under Alternative 2, the Board may wish to provide alternate direction with respect to the request. Financial implications would be evaluated based on this direction.

**CONCLUSION**

Metro Vancouver has received a request from DFO, supported by KFN, to reintroduce coho salmon to the restricted access portion of the Coquitlam WSA. This request does not negatively impact Metro Vancouver drinking water operations and is an opportunity for collaboration and relationship building with DFO, KFN and BC Hydro. As a secondary benefit, this reintroduction of coho salmon to otherwise inaccessible habitat allows Metro Vancouver to further contribute to Pacific salmon restoration and conservation and is recommended by staff for Board approval.

**Attachments**

1. Fisheries and Oceans Canada Proposal for reintroduction of coho salmon upstream of Coquitlam Dam.
2. Kwikwetlem First Nation letter of support for reintroduction of coho salmon upstream of Coquitlam Dam.

**Reference**

2. *2019 – 2022 Board Strategic Plan*. 

39754817
October 18, 2019

Mr. Jesse Montgomery
Division Manager, Environmental Management
Water Services Department
Metro Vancouver
4730 Kingsway
Burnaby, BC
V8B 0B3

Dear Mr. Montgomery:

Subject: Transport of Adult Salmonids above Coquitlam Dam

With the support of the Kwikwetlem First Nation Council, Port Coquitlam and District Hunting & Fishing Club and the Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Fisheries and Oceans Canada (DFO) would like to propose a modification to the current approach to the management of Coho Salmon in the Coquitlam Watershed.

As you are aware, the Coquitlam Dam has cut off access to tributaries for Coho and other salmon species that historically utilized spawning / rearing habitat in the upper Coquitlam watershed. In partnership with Port Coquitlam and District Hunting & Fishing club, DFO propose to transport adult salmon above the dam so that they can once again spawn and rear in this relatively wild habitat. The transport of adults to the upper watershed provides an opportunity to improve our wild salmon objectives in the Coquitlam watershed as well provide an opportunity to study their spawning survival and their ability to migrate out successfully. The upper Coquitlam River contains some of the most pristine salmonid habitat in this region, and is therefore an ideal candidate to re-establish wild salmonid stocks that will be more resilient to future stressors such as climate change. In addition to adult transfers, marked coho fry transplants could also be introduced and utilized to assist with the uncertainties around out migration challenges through the sluice tower.

The number of adult Coho proposed for transport is based on the carrying capacity of the watershed above the dam. A review of several applicable models and the expected number of Coho available for transport suggests that 100 adults would be a conservative and appropriate estimate of this capacity. We suggest that a 5 year trial period be
established, where 100 Coho are transported above the dam each year. Our preference is
to focus on transport of early (early fall) Coho since these runs were likely to have
historically migrated into the upper watershed. Given that these runs are very small, it is
unlikely that this quota will be realized in the trial period. We believe that it would be
ecologically appropriate to transport adults to the upper watershed immediately upon
capture so that they can mature and spawn in their natural habitat. This approach has been
discussed recently during a meeting of the Coquitlam River Watershed Roundtable, and
would support natural selection, reduce the potential for genetic effects of fish culture and
hatchery rearing, and be consistent with the objectives of DFO's *Biological Risk
Management Framework*. 

Research related to marine-derived nutrient loading in reservoirs has been conducted
primarily in the United States, but studies relevant to reservoir fish stocking have been
conducted in local watersheds. Currently, up to 7,500 adults are transported into the
upper Capilano watershed each year. A review of Metro Vancouver's *Water Quality
Control Annual Reports* for the Capilano watershed indicates that there is no evidence
that this stocking program has had any adverse impact on water quality. Furthermore, the
proposed Coquitlam reservoir stocking program represents a fraction of the Capilano
stocking program and therefore would not likely have any effect on the nutrient load of
the combined system.

In the Coquitlam River watershed, Bocking (LGL, 2003) assessed the feasibility of
restoring anadromous fish stocks above the dam and found no serious impediments. This
report suggested that a carrying capacity of 50,000 sockeye adults in the Coquitlam
reservoir would have little to no impact on water quality. Additionally, Perrin et al.
(2007) and Mavinic et al. (2012) investigated the possible consequences to water quality
through various pathways if a large sockeye run was re-introduced into the Coquitlam
reservoir. These reports concluded that the re-introduction of up to 15,000 sockeye adults
in Coquitlam reservoir would result in a low to negligible change in the water quality of
the reservoir.

Beyond locally gained insight into the issue, the overwhelming body of science finds that
salmon are a positive influence on overall watershed health. Specifically, Gross et al.
(1998) found that marine-derived nutrients from salmon carcasses in Redfish Lake
(Idaho) only contributed to a minor proportion of the phosphorous load in that lake,
largely due to low smolt-to-adult survival, high flushing rates, and export of phosphorous
by outmigrating smolts. These metrics would also apply to the Coquitlam reservoir
where there is a high turnover rate during the adult spawning period (November) that
would flush most of the nutrients out of the system. The adult population above the dam
will be low and controlled, and all descendants from these fish (coho smolts) will leave
the system after one year of growth. In addition, many studies (e.g., Cederholm, 1989)
have demonstrated that salmon carcasses are transported out of the aquatic environment
by predators and scavengers, then retained and utilized throughout the terrestrial
ecosystem. For example, bears can move carcasses hundreds of metres from the stream

.../3
before consumption, with much of the remaining carcass being assimilated into vegetation, invertebrate or vertebrate biomass.

An adult trap at the base of the dam is now used to capture sockeye so they can be transported above the Coquitlam dam. The vast majority of production in this system is only feasible due to enhancement-related interventions. We are hopeful you will agree with this proposal and allow coho salmon adults and fry to be transported above the Coquitlam dam.

Should you have any questions with respect to this matter, please do not hesitate to contact me at 604-666-8182.

Best Regards,

Dave Nanson
Senior Biologist
Salmonid Enhancement Program
October 8, 2019

Metro Vancouver, Water Services
4730 Kingsway, 14th Floor
Burnaby, B. C. V5H 0C6

Attention: Mr. Jesse Montgomery, MSc, RPBio, NRP
Division Manager, Environmental Management

Dear Mr. Montgomery:

Re: Restoring Coho Salmon Run To Coquitlam Reservoir

This letter confirms that Kwikwetlem First Nation (KFN) supports the requests of Fisheries and Oceans Canada and Port Coquitlam & District Hunting & Fishing Club for Metro Vancouver approval for commencing restoration of the Coho salmon run to Coquitlam Reservoir this fall. This proposed restoration is in accord with KFN expectations as set out in our memo dated September 14, 2018 and in the copy of this memo which was distributed at the Kwikwetlem Salmon Restoration Program meeting on September 17, 2019.

Yours truly,

[Signature]
Chief Councillor Ed Hall,
Kwikwetlem First Nation

cc: Scott Ducharme, Fisheries & Oceans Canada
Alf Leake, BC Hydro
Norm Fletcher, Port Coquitlam & District Hunting & Fishing Club
Craig Orr, Environmental Adviser, KFN
To: Water Committee

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

Date: June 26, 2020  Meeting Date: July 16, 2020

Subject: Award of Contract Resulting from Tender No. 20-032: Construction Services for Central Park Main No. 2 – Phase 1

RECOMMENDATION
That the GVWD Board:

a) authorize award of a contract in the amount of $19,550,000.00 (exclusive of taxes) to Pedre Contractors Ltd. resulting from Tender No. 20-032: Construction Services for Central Park Main No. 2 - Phase 1, 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.

EXECUTIVE SUMMARY
Central Park Main No. 2 project is an infrastructure maintenance project in Metro Vancouver’s Capital Long Range Plan and is being constructed in three phases. Phase 1 of the project starts at the intersection of Elwell Street and Griffiths Drive and ends at 16th Street near 10th Avenue and consists of approximately 2,650 meters of 1,200 mm (48 inch) and 900 mm (36 inch) welded steel water main. Tender No. 20-032 was issued to six (6) prequalified bidders and closed on June 26, 2020. The bid from Pedre Contractors Ltd. was reviewed for completeness by staff from the Purchasing and Risk Management Division, and is identified as the lowest compliant bid. It is recommended to award Tender No. 20-032 to Pedre Contractors Ltd. in the amount of $19,550,000.00 (exclusive of taxes). The existing Central Park Main, which has been in service since 1931, is nearing the end of its service life. The proposed 7.0 km-long CPM2 will enhance system reliability and provide increased capacity to meet future water demands.

PURPOSE
This report is to advise the GVWD Board of the results of Tender No. 20-032: Construction Services for Central Park Main No. 2 - Phase 1 and to recommend award of the contract in the amount of $19,550,000.00 (exclusive of taxes) to Pedre Contractors Ltd. to enable this phase of the Central Park Main No. 2 project to proceed to completion.

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 GVWD Board of Directors.

This report is being brought forward to the Water Committee to consider a recommendation to the GVWD Board to award a contract for the construction of Phase 1 of the Central Park Main No. 2.
PROJECT DESCRIPTION
The existing Central Park Main, located in the City of Burnaby between Patterson Avenue (near Maywood Street) and 16th Street (near 10th Avenue), is being replaced with a new 1,200 mm (48-inch) and 900 mm (36-inch) diameter steel water main called Central Park Main No. 2 (CPM2). The existing Central Park Main, which has been in service since 1931, is nearing the end of its service life. The proposed 7.0 km-long CPM2 will enhance system reliability and provide increased capacity to meet future water demands.

As shown in the attachment to this report, Phase 1 of CPM2 is one of three project phases and consists of approximately 2.65 km of 1,200 mm (48-inch) and 900 mm (36-inch) diameter welded steel water main.

As a result of the Request for Qualifications (RFQ) No. 19-372, six (6) experienced contractors were shortlisted and invited to respond to Tender No. 20-032. The Tender closed on June 26, 2020 and all six (6) compliant bids were received and considered.

<table>
<thead>
<tr>
<th>Tenderer</th>
<th>Total Tender Price (exclusive of taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedre Contractors Ltd.</td>
<td>$19,550,000.00</td>
</tr>
<tr>
<td>Matcon Civil Constructors Inc.</td>
<td>$20,845,000.00</td>
</tr>
<tr>
<td>Clearway Construction Inc.</td>
<td>$21,607,640.00</td>
</tr>
<tr>
<td>JJM Construction Ltd.</td>
<td>$23,027,450.00</td>
</tr>
<tr>
<td>B&amp;B Contracting (2012) Ltd.</td>
<td>$25,966,600.00</td>
</tr>
<tr>
<td>Sandpiper Contracting LLP</td>
<td>$32,174,800.00</td>
</tr>
</tbody>
</table>

The bid from Pedre Contractors Ltd. was reviewed for completeness by staff from the Purchasing and Risk Management Division, and is identified as the lowest compliant bid.

ALTERNATIVES
1. That the GVWD Board:
   a) authorize award of a contract in the amount of $19,550,000.00 (exclusive of taxes) to Pedre Contractors Ltd. resulting from Tender No. 20-032: Construction Services for Central Park Main No. 2 - Phase 1, 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 Tender No. 20-032: Construction Services for Central Park Main No. 2 - Phase 1 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 Pedre Contractors Ltd. in the amount of $19,550,000.00 (exclusive of taxes) to complete the project work. This amount is
within the budget allocated for this project. The tender submitted by Pedre Contractors Ltd. is the lowest compliant bid.

The GVWD Board has the choice not to proceed with Alternative 1, but staff will need further direction in relation to the project. Alternative 2 will result in a delay to the project schedule and may impact future water supply to the Cities of Burnaby and New Westminster.

CONCLUSION
Tender No. 20-032 was issued for the Construction Services for Central Park Main No. 2 - Phase 1 and Pedre Contractors Ltd. was identified as offering the lowest compliant bid. Based on the evaluation of the tenders, it is recommended that the Board authorize the Commissioner and the Corporate Officer to award and execute the contract to Pedre Contractors Ltd. in the amount of $19,550,000.00(exclusive of taxes).

Attachment
Central Park Main No. 2 (Patterson Avenue to 10th Avenue) – Proposed Construction Phases

39772338
CENTRAL PARK MAIN No. 2
(PATTERSON AVENUE TO 10TH AVENUE)
PROPOSED CONSTRUCTION PHASES

Greater Vancouver Water District
To: Water Committee

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

Date: June 16, 2020  
Meeting Date: July 16, 2020

Subject: Award of Phase B, Detailed Design Services Resulting from Request for Proposal (RFP) No. 17-139: Consulting Engineering Services for Seymour Main No. 5 (North)

RECOMMENDATION
That the GVWD Board:

a) approve the award of Phase B, Detailed Design Services for an amount of up to $2,781,638 (exclusive of taxes) to the Phase A consultant, AECOM Canada Ltd. (AECOM), for the Seymour Main No. 5 (North), 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.

EXECUTIVE SUMMARY
Seymour Main No. 5 (North) is an infrastructure resilience project in Metro Vancouver’s Utility Long Range Plan. At its meeting held November 24, 2017, the GVWD Board approved the award of a contract to AECOM for Phase A, Preliminary Design Services. AECOM have successfully completed Phase A, Preliminary Design. Award of Phase B, Detailed Design Services, is now required to proceed with the detailed design of the project. The new water main will mitigate geotechnical and seismic vulnerabilities identified on the existing Seymour Main No. 2 along this corridor to ensure a reliable supply of water from the Seymour Reservoir to the Seymour Capilano Filtration Plant, improve hydraulic efficiency and provide additional transmission capacity for long term growth.

PURPOSE
This report is requesting GVWD Board approval to award Phase B – Detailed Design Services for the Seymour Main No. 5 (North) project in the amount of up to $2,781,638 (exclusive of taxes). Board approval to award the subsequent phase of work (Construction Services) will be sought at a later date.

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. Further, the Policy states that contracting authority for multi-phase contracts is determined based on the anticipated total value of the services to be provided over all phases.

At its meeting held November 24, 2017, the GVWD Board approved the award of a contract to AECOM for Phase A - Preliminary Design Services.
This report is being brought forward to the Water Committee to consider a recommendation to the GVWD Board to authorize award of Phase B, Detailed Design Services to the project consultant, AECOM, in order to continue with the engineering consulting services for the Seymour Main No. 5 (North) project.

### PROJECT DESCRIPTION

As shown on the attachment, Seymour Main No. 5 (North) initially comprised of approximately 10.8 km of 2.3 m diameter pipe that would parallel the existing Seymour Main No. 2. Upon completion of Phase A, Preliminary Design, the investigation determined that only 8.8 km of 2.6 m diameter water main was required to meet the operational needs within the watershed from the Seymour Falls Dam to the north end of Rice Lake. The new water main will mitigate geotechnical and seismic vulnerabilities identified on the existing Seymour Main No. 2 along this corridor to ensure a reliable supply of water from the Seymour Reservoir to the Seymour Capilano Filtration Plant, improve hydraulic efficiency and provide additional transmission capacity for long term growth.

Request for Proposal No. 17-139 was issued for the engineering consulting services of Seymour Main No. 5 (North) project, and Phase A, Preliminary Design of the project was awarded to AECOM, the highest ranked proponent, in the amount of $2,496,402, and AECOM have successfully completed Phase A, Preliminary Design.

On March 10, 2020, AECOM provided a revised fee for Phase B, Detailed Design Services totalling $2,781,638 (exclusive of taxes) to reflect the changes to the scope of work for Phase B. Table 1 below presents a summary of the original proposal and the revised values submitted by AECOM following negotiations.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Original Proposal (exclusive of taxes)</th>
<th>Revised Proposal (exclusive of taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Effort (Hours)</td>
<td>Fees</td>
</tr>
<tr>
<td>Phase A</td>
<td>Preliminary Design</td>
<td>12,600</td>
<td>$2,496,402</td>
</tr>
<tr>
<td>Phase B</td>
<td>Detailed Design</td>
<td>18,400</td>
<td>$2,521,146</td>
</tr>
<tr>
<td>Phase C</td>
<td>Construction Services</td>
<td>20,800</td>
<td>$2,736,953</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>51,800</td>
<td>$7,754,501</td>
</tr>
</tbody>
</table>

*Phase C is a future award and therefore the original fee is being utilized until such time when negotiations are conducted.

The amount negotiated for Phase B is higher than the original proposal amount by $260,492 owing to additional scope of work for further geotechnical investigations required along the proposed route, a valve chamber at the Seymour Falls Dam, risk workshops to ensure the adequacy of design parameters, and applicable rate increase as per the commercial considerations of the contract.

It is intended that Phase B be awarded at this time and Phase C be awarded following subsequent negotiations, subject to satisfactory performance and completion of the work under Phase B, and after further authorization from the Board.
ALTERNATIVES

1. That the GVWD Board:
   a) approve the award of Phase B, Detailed Design Services for an amount of up to $2,781,638 (exclusive of taxes) to the Phase A consultant, AECOM Canada Ltd., for the Seymour Main No. 5 (North) Project, 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 the contract with AECOM Canada Ltd. resulting from Request for Proposal No. 17-139 Consulting Engineering Services of Seymour Main No. 5 (North), and direct staff to report back to the GVWD Board with options for an alternate course of action.

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, Detailed Design Services for the Seymour Main No. 5 (North) project, in the amount of $2,781,638 (exclusive of taxes), will be added through an amendment to the existing contract with AECOM. This amount is within the budget allocated for this phase of the project.

The GVWD Board has the choice not to proceed with Alternative 1, but staff will need further direction in relation to the project. Alternative 2 will result in delays to the project schedule that will impact the development and design of the solutions to address the reliability issues of the existing, aging infrastructure.

CONCLUSION

At its meeting held November 24, 2017, the GVWD Board approved the award of a contract to AECOM for Phase A – Preliminary Design Services. A contract was executed for Phase A, Preliminary Design with AECOM Canada Ltd. on December 5, 2017 with a total value of Phase A services being $2,496,402.00. AECOM have successfully completed Phase A, Preliminary Design. Award of Phase B, Detailed Design Services, is now required to proceed with design of the project.

It is recommended that the GVWD Board authorize the Commissioner and Corporate Officer to amend the contract with AECOM Canada Ltd. for Phase B, Detailed Design Services for the Seymour Main No. 5 (North) project in the amount of up to $2,781,638 (exclusive of taxes). Authorization from the Board to award subsequent phase of work will be sought at a later date.

Attachment
Seymour Main No. 5 – North – Route Plan

37457441
Greater Vancouver Water District
Board Meeting Date – Friday, July 31, 2020

This information item, listing recent information received by committee, is provided for the GVWD Board’s information. Please access a complete PDF package [here](#).

Water Committee – July 16, 2020

Delegation Summaries:
No delegations presented

Information Items:
5.1 Board Budget Workshop – Overview and Next Steps for Water Services
5.2 Water Services Capital Program Expenditure Update to April 30, 2020
5.4 GVWD Electrical Energy Use, Generation and Management