



Making a difference...together

JUAN DE FUCA WATER DISTRIBUTION COMMISSION
Notice of a Special Meeting on **Tuesday, September 20, 2016 at 12:00 pm**
Main Conference Room, 479 Island Highway, Victoria, BC

B. Gramigna
M. Hicks
G. Baird

J. Rogers
G. Logan
L. Szpak

K. Pearson
W. Sifert

AGENDA

1. Approval of Agenda
2. Adoption of Minutes of April 5, 2016
3. Chair's Remarks
4. Presentations/Delegations
 - No one has registered to speak
5. Bear Mountain Parkway Expansion – Water Infrastructure (Report #JWDC 2016-14)
6. Adjournment

To ensure a quorum, advise Margaret at 250.474.9606 if you or your alternate cannot attend.



Making a difference...together

**MINUTES OF A MEETING OF THE JUAN DE FUCA WATER DISTRIBUTION COMMISSION
Held Tuesday, April 5, 2016, Goldstream Conference Room, 479 Island Highway**

PRESENT: **Commissioners:** B. Gramigna, J. Rogers, M. Hicks, G. Logan, G. Baird, K. Pearson
Staff: T. Robbins, M. McCrank, M. Cowley, I. Sanders, S. Mason, M. Montague (Recorder)

1. APPROVAL OF AGENDA

MOVED by Commissioner Rogers and **SECONDED** by Commissioner Baird,
That the Juan de Fuca Water Distribution Commission approve the agenda.

CARRIED

2. ADOPTION OF MINUTES OF FEBRUARY 2, 2016

MOVED by Commissioner Rogers and **SECONDED** by Commissioner Logan,
That the Juan de Fuca Water Distribution Commission adopt the minutes of February 2, 2016 as distributed.

CARRIED

3. CHAIR'S REMARKS

The Chair made no remarks.

4. PRESENTATIONS/DELEGATIONS

There were no presentations/delegations.

5. SUMMARY OF RECOMMENDATIONS FROM OTHER WATER COMMISSIONS

MOVED by Commissioner Rogers and **SECONDED** by Commissioner Baird,
That the Juan de Fuca Water Distribution Commission receive the staff report for information.

CARRIED

6. CORRESPONDENCE

MOVED by Commissioner Rogers and **SECONDED** by Commissioner Baird
That the Juan de Fuca Water Distribution Commission receive the letter from the BC SPCA – Wild ARC.

CARRIED

7. PROPOSED PHASING OF JACKLING AND SOOKE ROAD WATERMAIN PROJECTS

I. Sander spoke to the report.

MOVED by Commissioner Pearson and **SECONDED** by Commissioner Logan,
That the Juan de Fuca Water Distribution Commission:

1. Approve the proposed re-phasing of budget items #2, 3, and 4 for the 600mm watermain replacement as defined in Table 2;
2. Approve the advancement of the 300mm AC main replacement on Jacklin Road with funding from come from Annual Provisional Item 27 – Distribution System Improvements; and
 - a. Direct CRD staff to negotiate a sole source contract with McElhanney Consulting Ltd. for the detailed design of water main improvements on Jacklin Road, and construction administration services for the water main works within the proposed Jacklin Road improvement area; and
 - b. Direct CRD staff to develop MOU for construction of the proposed water main works within the proposed Jacklin Road improvement area.

CARRIED

8. JUAN DE FUCA ANNUAL SMALL DIAMETER PIPE REPLACEMENT PROGRAM – 2015 SUMMARY AND 2016 PROJECT LIST

M. Cowley spoke to the report.

MOVED by Commissioner Baird and **SECONDED** by Commissioner Rogers,
That the Juan de Fuca Water Distribution Commission direct staff to execute the 2016 Annual Small Diameter Pipe Replacement Program Projects identified in this report with a total budget of \$1.07 million funded from \$235,000 in 2015 capital funding carried forward to 2016 and \$835,000 in approved 2016 capital funding.

CARRIED

9. JUAN DE FUCA FIVE-YEAR ACCELERATED FIRE UPGRADE PROGRAM – 2015 SUMMARY, 2016 PROJECT LIST, AND PROGRAM SUMMARY

M. Cowley spoke to the report.

MOVED by Commissioner Logan and **SECONDED** by Commissioner Hicks,
That the Juan de Fuca Water Distribution Commission direct staff to:

1. Execute the 2016 Five-Year Accelerated Fire Upgrade Program Project identified in this report with a total budget of \$2.98 million funded from \$1.10 million in 2012-2015 program funding carried forward to 2016 and \$1.88 million in approved 2016 program funding;
2. Execute a sole source contract with Associated Engineering to complete the Atkins Road Watermain design; and
3. Execute a MOU with City of Langford to reimburse them for separately itemized watermain works.

CARRIED

10. AWARD OF CONTRACT FOR SUPPLY OF PAVING SERVICES

M. McCrank spoke to the report.

MOVED by Commissioner Rogers and **SECONDED** by Commissioner Logan,
That the Juan de Fuca Water Distribution Commission approve the award of the contract for the supply of asphalt paving services to Capital City Paving Ltd., effective April 6, 2016 to December 31, 2016, based on the price per unit of measurement as submitted in the tender 2016-117.

CARRIED

11. KEMP LAKE WATER EXTENSION – GRANT APPLICATION UPDATE

T. Robbins provided an update on the Kemp Lake water extension grant application. He noted that three applications will be resubmitted and staff are preparing the next submission for Kemp Lake.

12 WATER WATCH

MOVED by Commissioner Logan and **SECONDED** by Commissioner Baird,
That the Juan de Fuca Water Distribution Commission receive the staff report for information.

CARRIED

13. NEW BUSINESS

There was no new business.

14. ADJOURNMENT

MOVED by Commissioner Logan and **SECONDED** by Commissioner Pearson,
That the meeting of the Juan de Fuca Water Distribution Commission be adjourned at 12:59 pm.

CARRIED

Chair

Secretary



**REPORT TO THE JUAN DE FUCA WATER DISTRIBUTION COMMISSION
SPECIAL MEETING OF TUESDAY, SEPTEMBER 20, 2016**

SUBJECT BEAR MOUNTAIN PARKWAY EXPANSION – WATER INFRASTRUCTURE

ISSUE

The City of Langford (Langford) is planning to construct, beginning in the fall of 2016, the Bear Mountain Parkway Extension from McCallum Road to Skirt Mountain Drive (see Attachment A) and has asked the Capital Regional District (CRD) to install water system works within the roadway prior to paving the new parkway road surface.

BACKGROUND

On April 18, 2016 Langford's council passed the "Bear Mountain Parkway Extension-Local Area Service Establishment Bylaw No. 1630" and "Loan Authorization Bylaw No. 1631". These Langford bylaws permit the construction and funding of the Bear Mountain Parkway Extension (BMPE) from McCallum Road to Skirt Mountain Drive (see **Attachment A**) and Langford has asked the CRD to install water system works within the roadway prior to paving the new parkway road surface.

The area covered in the BMPE has water infrastructure that is identified in the CRD 2011 Juan de Fuca Water Distribution Development Cost Charge (DCC) plan and consists of the following:

- Approximately 6.3 km of new supply and distribution mains ranging in size from 300 mm to 400 mm diameters, providing both domestic and fire flows
- A 3,100 cubic metre reservoir
- Two (2) pump stations
- Three (3) pressure reducing stations

Based on the budgets established for the above projects under the 2011 DCC plan, the value of the new work is estimated at approximately \$15 million (in 2011 dollars). All of the preceding items are eligible for DCC funding under the 2011 DCC plan however, under the plan, the works were anticipated for completion in 2021. To satisfy the Langford request, at a minimum, approximately 3.3 km of distribution main and all three (3) pressure reducing stations would need to be constructed in coordination with the BMPE project (Interim Plan). Then there is a need to secure an approach to design, construct and fund the balance of the works (Final Build-Out Plan). McElhanney Consulting is conducting a hydraulic analysis of the Interim Plan to confirm that the proposed design will perform as intended.

On June 1, 2016 Langford's council passed a resolution (see **Attachment B**) requesting that the Juan de Fuca Water Distribution Commission authorize design and construction for a significant amount of the above-noted water infrastructure be funded from the DCC Capital Reserve Fund.

Following notification of Langford's resolution, CRD staff met with Langford staff on three occasions to discuss both the technical feasibility of advancing the works ahead of schedule and the availability of funds from the DCC Capital Reserve Fund. The results of these discussions are as follows:

DCC Funding Status

- There are limited DCC reserves available due to in-stream DCC projects, financial liabilities from previous projects where DCC reimbursement is owing under two DCC agreements and identified projects in the current DCC Plan that have been deferred to date.
 - Deferred DCC Projects and Project Financial Liabilities - The following is a summary of deferred projects and project financial liabilities from the 2011 DCC plan with proposed actions for the 2016 DCC program update:

Project Financial Liability:

1. McCallum Road Water Mains – installed by the City of Langford in 2013. Potential reimbursement from the DCC program is \$1,236,200. Reimbursement has not been claimed by the City of Langford.

Deferred Projects:

1. Walfred Pipe Upgrade – identified in 2011 with a budget of \$668,000. Deemed a low priority by the City of Langford and will be referenced as a low priority in the 2016 DCC update.
 2. Walfred Property Acquisition – identified in 2011 with a budget of \$500,000. Deemed a low priority by the City of Langford and will be referenced as a low priority in the 2016 DCC update.
 3. PRV Mountain Heights – identified in 2011 with a budget of \$119,700. Not deemed a priority in the 2016 DCC update as it is driven by development that is not currently occurring in this area of Sooke.
 4. Throupe Road – identified in 2011 with a budget of \$741,000. Not deemed a priority in the 2016 DCC update as the District of Sooke has no current commitment to construct Throupe Road. Also not required hydraulically until 2036.
 5. Millstream Road in Highlands – identified in 2011 with a budget of \$1,207,374. Deemed a high priority in the 2016 DCC update.
- Langford committed to review their financial liability claim for the McCallum pipe installation and the deferred projects that were in the DCC program.

Servicing Requirements – Interim Plan vs Final Build-Out Plan

- Langford, should DCC reserve funds be available, would like to have, as a minimum, a single fire main down from the existing Skirt Reservoir down to the McCallum intersection (see **Attachment A**). Langford would like the main to be active for the purposes of fire protection and limit future disturbance of the BMPE road surface.
- The single fire main is part of the ultimate build-out of the system, as it will serve as the future distribution main without further alteration.

- The CRD requires that the main be used only for fire protection as the existing DCC agreement with Ecoasis (Bear Mountain) reserves the current domestic supply capacity in the Skirt Reservoir.
- Having a single main at this time for fire purposes also reduces the need for interim fire requirements in pump station #6 on McCallum Road. While this benefits the developer building pump station #6, it also means that the redundant space being eliminated by not requiring fire pumps is a positive result for long term maintenance of the pump station.
- The CRD and Langford staff concurred that establishing a local service area (LSA) to fund the final build-out plan, which would include benefitting development properties along the Bear Mountain Parkway Extension, would benefit both Langford and the Juan de Fuca Water Distribution System as follows:
 - A LSA would allow the CRD to construct the water system in a planned, phased, cost and construction efficient manner without negatively affecting the DCC program.
 - The water system would also not be subjected to a piecemeal construction approach where multiple developers are installing infrastructure at different times, as is the current situation.
 - The LSA approach would not apply to the single fire main down the BMPE, as it is expected that there would be adequate funds to construct this main from the DCC Capital Reserve Fund.
 - The balance of the water system works for the BMPE could be funded by either a LSA or by developer front end agreements, but the LSA is the preferred route for both Langford and the CRD to allow the CRD to control the timing of completion and the funding of the works to ensure the system functions as planned hydraulically.
 - This approach does not affect the existing Ecoasis (Bear Mountain) DCC Agreement.
- Langford was in the process of tendering the BMPE project for the road construction and has since closed tenders. Pricing for a variety of water mains was included in the tender as provisional items. Specific pricing for the single fire main was not an individual item in the tender.
- Langford is currently using McElhanney Consulting as the engineer on the BMPE project and expect to award the construction to Windley Contracting.

On August 15, 2016 Langford Council passed a resolution (see **Attachment C**) that addressed financial liabilities and deferred projects in Langford and also supported the establishment of a LSA for the purpose of facilitating timely construction along the BMPE.

Financially, there is approximately \$4.15 million in the DCC Capital Reserve Fund, (estimated at 2016 year-end) that are available for use prior to accounting for financial liabilities and deferred projects. Given the City's resolution of August 15, 2016 and the reprioritization of deferred projects, there would be approximately \$4.2 million available for project funding. Because the DCC program has debt servicing obligations of approximately \$265,000 per year (from CRD Loan Authorization Bylaw No. 3164), the amount available for use should be reduced by at least \$600,000 to cover financial obligations and miscellaneous costs for a two year period should development slow down. This would result in available DCC Capital Reserve Funds of approximately \$3.6 million to fund Langford's request for a single fire main. Preliminary review of the tender pricing from Langford indicates this would be adequate funding for the interim plan.

Alternative 1

That the Juan de Fuca Water Distribution Commission recommends:

1. That the CRD Board amend the Juan de Fuca Water Distribution 2016-2020 Financial Plan to approve up to \$3.6 million in funding from the Juan de Fuca DCC Capital Reserve Fund for the Bear Mountain Parkway Extension Water Servicing - Interim Plan; and
2. That, in order to undertake the Bear Mountain Parkway Extension Water Servicing Interim Plan, the Commission:
 - a. Directs staff to prepare a consulting services contract to retain McElhanney Consulting Services Ltd. to provide design and construction phase services for the installation of approximately 3 km of fire main with appurtenances on the BMPE, and bring back the consulting services contract for Commission review prior to execution.
 - b. Directs staff to negotiate with Windley Contracting, based on the Langford BMPE provisional water main tender, to install approximately 3 km of fire main with appurtenances on the BMPE, and bring back the construction services contract for Commission review prior to execution.
3. Endorsement of the concept proposed for the Bear Mountain Parkway Extension Water Servicing Final Build-Out Plan and directs staff to bring back a report to the Commission outlining the technical, legal and financial feasibility and development requirements of a Local Service Area.

Alternative 2

That the Juan de Fuca Water Distribution Commission recommends an alternative approach to the Bear Mountain Parkway Extension Water Servicing Interim and Final Build-Out Plans and refers an approach back to staff.

IMPLICATIONS

Alternative 1:

1. Installation of the fire main in coordination with the BMPE construction will decrease costs of installation due to lower road reinstatement costs.
2. Installation of the fire main will decrease costs of Pump Station #6 due to the removal of interim fire pumps and associated operations and maintenance costs of the equipment.
3. Fire protection will be provided for approximately 3 km of the BMPE.
4. The Interim Water Servicing Plan allows for the construction and funding of the water works required to meet Langford's advanced schedule for the BMPE construction, while the Final Build-Out Water Servicing Plan concept allows for an approach to design, construct and fund the balance of the works.
5. The advanced completion of the water system works and the utilization of up to \$3.6 million in DCC Capital Reserve Funds will not allow for any other 'out of sequence' DCC projects to be funded from reserves until the fund is replenished through DCC contributions.
6. As this project was not previously in the departmental work plan, a reprioritization of departmental projects and resources will be necessary to meet the project schedule and deliverables.

Alternative 2:

1. An alternative approach could potentially result in increased project costs related to the installation of the fire main under the paved surface at a later date and costs associated with 'throw-away' equipment in pump stations that would be required as a result of the need to have the system perform hydraulically prior to full build-out.
2. Fire protection would only be provided along the BMPE as development proceeds between individual developers and their phasing.

CONCLUSION

Implementing the Interim Water Servicing Plan would result in a cost effective solution that best utilizes DCC funds and allows the BMPE water system to be developed with a planned approach that achieves the City of Langford's project objectives.

RECOMMENDATION

That the Juan de Fuca Water Distribution Commission recommends:

1. That the CRD Board amend the Juan de Fuca Water Distribution 2016-2020 Financial Plan to approve up to \$3.6 million in funding from the Juan de Fuca DCC Capital Reserve Fund for the Bear Mountain Parkway Extension Water Servicing - Interim Plan; and
2. That, in order to undertake the Bear Mountain Parkway Extension Water Servicing Interim Plan, the Commission:
 - a. Directs staff to prepare a consulting services contract to retain McElhanney Consulting Services Ltd. to provide design and construction phase services for the installation of approximately 3 km of fire main with appurtenances on the BMPE, and bring back the consulting services contract for Commission review prior to execution.
 - b. Directs staff to negotiate with Windley Contracting, based on the Langford BMPE provisional water main tender, to install approximately 3 km of fire main with appurtenances on the BMPE, and bring back the construction services contract for Commission review prior to execution.
3. Endorsement of the concept proposed for the Bear Mountain Parkway Extension Water Servicing Final Build-Out Plan and directs staff to bring back a report to the Commission outlining the technical, legal and financial feasibility and development requirements of a Local Service Area.

Submitted by:	Ian Jesney, P.Eng., Senior Manager, Infrastructure Engineering
Concurrence:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Service
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

IJ/TR:mm

Attachments:

A – Skirt Mountain DCC and LSA Works

B – Resolution from Langford Council Dated June 1, 2016

C – Letter from City of Langford re: South Skirt/Bear Mountain Water System

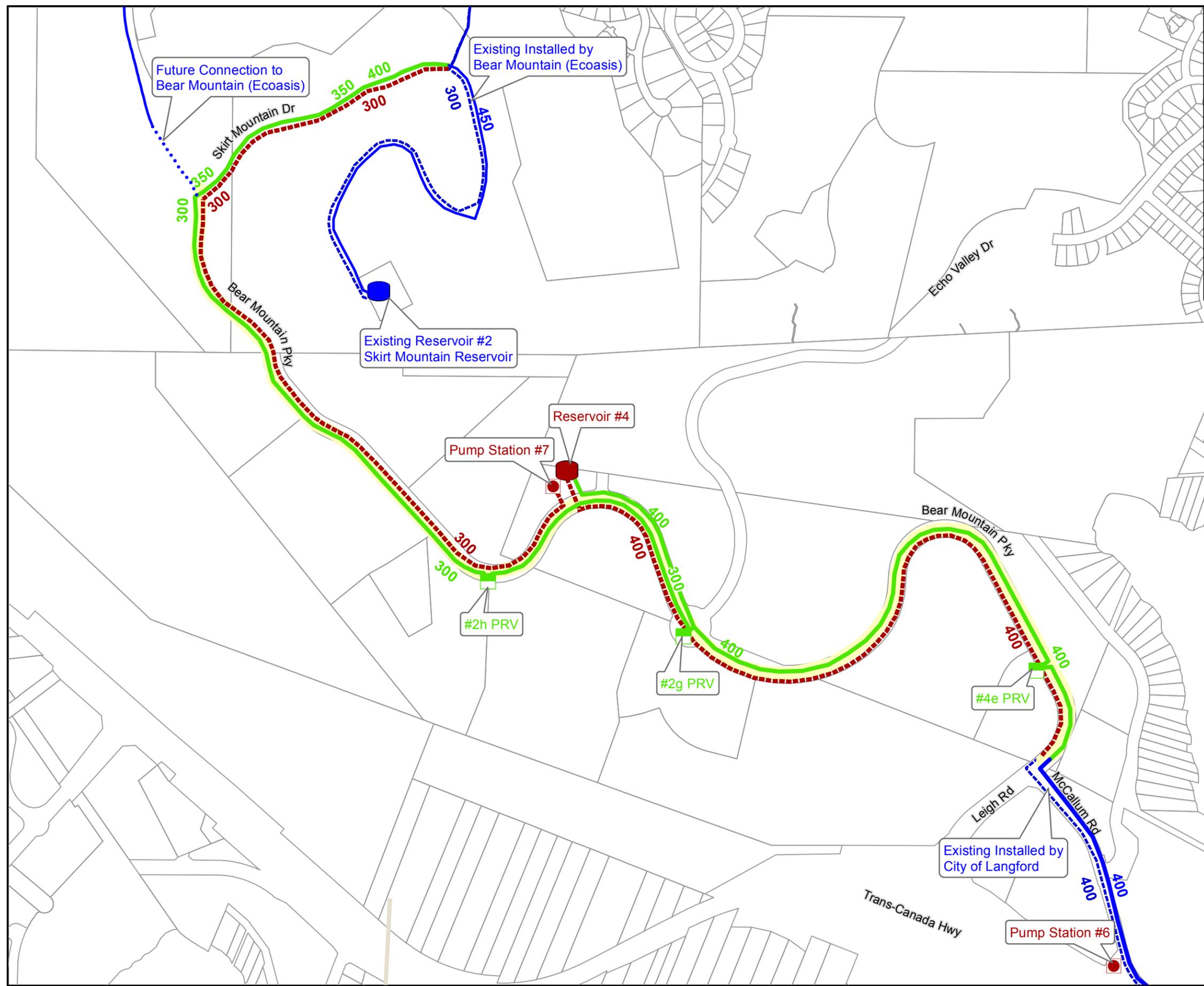
Skirt Mountain DCC and LSA Works

Attachment A



DISCLAIMER
Important This map is for general information purposes only. The Capital Regional District (CRD) makes no representations or warranties regarding the accuracy or completeness of this map or the suitability of the map for any purpose. **This map is not for navigation.** The CRD **will not be liable** for any damage, loss or injury resulting from the use of the map or information on the map and the map may be changed by the CRD at any time.
September 2016 | SkirtMountainDCC-LSA_AttachmentD_11x17.mxd | gis@crd.bc.ca

- Proposed Distribution Main (Paid by DCC)
- Proposed PRV (Paid by DCC)
- Proposed Supply Main (Paid by LSA)
- Proposed Tank (Paid by LSA)
- Proposed Pump Station (Paid by LSA)
- Existing Supply Main (Paid by DCC)
- Existing Distribution Main (Paid by DCC)
- Paving Extents





CITY OF LANGFORD

RESOLUTION

2. (a) CRD Integrated Water Development Cost Charge Review 2016 (Engineering)

MOVED BY: COUNCILLOR SZPAK
SECONDED: COUNCILLOR BLACKWELL

That Council resolve to send the following resolution regarding the 2016 CRD Integrated Water Development Cost Charge Review to the Juan de Fuca Water Distribution Board:

WHEREAS the 2011 Juan de Fuca Water Distribution Development Cost Charge Update projected completion of the North Langford (South Skirt) 336m HGL transmission/distribution and North Langford (South Skirt) 228/169m HGL systems by 2021;

AND WHEREAS an update of the 2011 DCC Report is in progress but will not be completed until later this year;

AND WHEREAS development of the South Skirt area has commenced;

AND WHEREAS City of Langford has awarded a contract for the design of the Bear Mountain Parkway for construction in 2016;

AND WHEREAS services will be most appropriately, efficiently and safely installed during the initial construction phase of the Parkway;

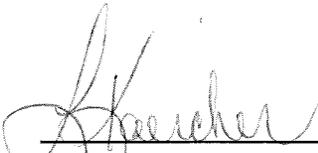
AND WHEREAS the DCC infrastructure is necessary to efficiently provide domestic service and fire protection early in the development of the South Skirt area;

THEREFORE, BE IT RESOLVED that the City of Langford requests:

1. That the Juan de Fuca Water Distribution Commission authorize construction of the Pump Station 6 (McCallum Road Pump Station) on acceptance of the design by the CRD, to be funded from the DCC Reserve;
2. That the Juan de Fuca Water Distribution Commission immediately authorize the design and construction of the transmission main and distribution main from the McCallum Road Pump Station to Tank 4 (228m HGL) in 2016;
3. That the Juan de Fuca Water Distribution Commission immediately authorize the design of Tank 4 and associated ancillary works with a view to tendering and constructing this early in 2017, to be funded from the DCC reserve and,

4. That the designs take into consideration the planning projections provided by the City of Langford's Planning Department to the Consultant updating the Development Cost Charge Report.

This is a certified resolution passed by the City of Langford at their Special Meeting of Council held on June 1st, 2016.

A handwritten signature in cursive script, appearing to read 'Lindy Kaercher', written in black ink. The signature is positioned above a solid horizontal line.

Lindy Kaercher
Deputy Clerk



2016/08/18

trobbsins@crd.bc.ca

Mr. Ted Robbins, GM
Integrated Water Services
Capital Regional District
625 Fisgard Street
Victoria, BC V8W 1R7

Dear Ted Robbins:

RE: South Skirt/Bear Mountain Water System

Please be advised at the Regular Council Meeting held on August 15th, 2016, Langford Council passed the following resolution:

“That Council advise the Juan de Fuca Water Distribution Commission that:

1. That the CRD has no liability associated with the McCallum Pipe; and
2. That the Walfred reservoir and pipe upgrades are not a priority for Langford; and
3. That priority for funding from the DCC reserve be given to developments that are proceeding, specifically the South Skirt Areas and Bear Mountain; and
4. That the City of Langford supports the CRD establishing of a local service area for the purpose of facilitating the timely construction of water distribution system within the South Skirt and Bear Mountain areas.”

If you have any further questions or concerns, please do not hesitate to contact this office.

Sincerely,

Jim Bowden
City Manager