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CORE AREA WASTEWATER TREATMENT PROJECT BOARD

Notice of a Meeting on **Tuesday, May 2, 2017 at 9:00 a.m.**

Boardroom, 6th floor, 625 Fisgard Street, Victoria, BC

Jane Bird (Chair)
David Howe

Don Fairbairn (Vice Chair)
Bob Lapham

Jim Burke
Colin Smith

Brenda Eaton

AGENDA

1. Approval of Agenda and Statement of No Conflict
2. Safety Minute
3. Approval of the April 4, 2017 Meeting Minutes
4. Report of the Chair
5. Presentations/Delegations
6. Project Board Business
 - 6.1. Staff Report for Information: Monthly Project Report – April 2017
 - 6.2. Staff Report for Information: 120-day Progress Update: Achievements and Priorities
 - 6.3. Staff Report: Approval to Proceed with Delegation of Authority Bylaw Amendment
7. Business arising from other Governments, including the CRD Board, CRD Committees and member Municipalities
 - 7.1. Matters arising from the April 12, 2017 meeting of the Core Area Liquid Waste Management Committee
 - 7.1.1. **Original Motion:** *That the Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board, that the Wastewater Treatment Project Quarterly Report - Reporting Period December 25, 2016 to March 24, 2017 be received for information.*

Amendment:
That future Wastewater Treatment Project Quarterly Reports include a section 11.3 that indicates stakeholder issues and responses from the Project Board.
 - 7.1.2. Additional Motion: That the CRD Board request that the Core Area Wastewater Treatment Project Board:

To ensure quorum, advise Denise Dionne 250.360.3192 if you are unable to attend.



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1. *Explore a Change Order with Harbour Resource Partners to ensure that enforceable performance Standards are in place upon completion of the McLoughlin Point waste-water treatment plant to ensure that odour levels do not to exceed 2 Odour Units.*
2. *Report back to the Core Area Liquid Waste Management Committee on the advisability and cost of reducing operating Noise levels when measured at the McLoughlin Point property line to 55 Decibels.*
3. *Continue and improve consultation with James Bay, Victoria West, Fairfield and Downtown residents on mitigation of construction and long-term impacts from conveyancing infrastructure, the McLoughlin Point waste-water treatment and the Clover Point Pump Station.*
4. *Closely monitor geotechnical issues along the Dallas Road waterfront and advise the Core Area Liquid Waste Management Committee of any issues that arise and solutions.*
5. *Explore a Green Shores certification for the Clover Point Pump Station*

7.2. Matters arising from the April 12, 2017 Integrated Resource Management Advisory Committee

7.2.1. Advanced Integrated Management Next Steps

7.2.2. Motion from the meeting: That the Integrated Resource Management Advisory Committee recommend to the Environmental Services Committee:

1. *That the Integrated Resource Management Work Plan as amended be submitted to the Minister of Environment by May 31, 2017; and*
2. *That this report be forwarded to the Core Area Liquid Waste Management Committee, the Saanich Peninsula Wastewater Commission and the Core Area Wastewater Treatment Project Board for information.*

7.3. City of Victoria Resolutions – April 13, 2017 Council Meeting

7.3.1. Resolution Regarding Green Shores Certification of Clover Point Pump Station:

THAT Council requests that the Core Area Wastewater Treatment Project Board: Seek Green Shores Certification of the Clover Point Pump Station, reflecting (a) proximity of the site to the marine shoreline; (b) opportunities for marine and terrestrial ecological restoration arising from several decades of use of the site and seabed for wastewater conveyancing, and (c) the mandate of the federal land grant to the City of Victoria emphasizing use of the land for parks and greenspace purpose .



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AND THAT Council directs staff to pursue Green Shores Certification in discussions with the CRD relating to design of the Clover Point Pump Station and associated works.

7.3.2. Resolution Regarding Mitigation of Impacts of McLoughlin Point Wastewater Treatment Plant:

BE IT RESOLVED THAT Council requests that the Core Area Wastewater Treatment Project Board:

- 1) Negotiate a Change Order with Harbour Resource Partners to ensure that enforceable Performance Standards are in place upon completion of the McLoughlin Point wastewater treatment plant to ensure that odour levels do not to exceed 2 Odour Units.*
- 2) Report back to the Core Area Liquid Waste Management Committee and the public on the advisability and cost of reducing operating Noise levels when measured at the McLoughlin Point property line to 55 Decibels.*
- 3) Continue and improve consultation with James Bay, Victoria West, Fairfield and Downtown residents on mitigation of construction and long-term impacts from conveyancing infrastructure, the McLoughlin Point wastewater treatment and the Clover Point Pump Station.*
- 4) Closely monitor geotechnical issues along the Dallas Road waterfront and advise the public and Core Area Liquid Waste Management Committee of any issues that arise and solutions.*

AND BE IT FURTHER RESOLVED THAT Council directs staff to forward this resolution to the Core Area Wastewater Treatment Project Board, the Capital Regional District Board and the Provincial Minister of Environment.

8. Correspondence

8.1. Correspondence received April 2017

9. New Business

10. **Motion to close the meeting in accordance with the *Community Charter, Part 4, Division 3, 90(1)(a)*** personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality; **(j)** information that is prohibited, or information that if it were presented in a document would be prohibited, from disclosure under section 21 of the *Freedom of Information and Protection of Privacy Act*; **(m)** a matter that, under another enactment, is such that the public may be excluded from the meeting.

11. **Adjournment**



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**Minutes of a Meeting of the Core Area Wastewater Treatment Project Board
Held Tuesday, April 4, 2017 in the Boardroom, 625 Fisgard Street, Victoria, BC**

Present: **Members:** J. Bird (Chair); D. Fairbairn (Vice Chair); B. Eaton; D. Howe; R. Lapham; C. Smith
CRD Staff: D. Clancy, Project Director; E. Scott, Deputy Project Director; N. Chan, Chief Financial Officer; A. Piotrowski, Manager, Finance; K. Quale, Communications Coordinator; D. Dionne (recorder)
Regrets: J. Burke
Also in Attendance: S. Singh, Bennett Jones LLP; N. Spooner, Kirk & Co.

The meeting was called to order at 9:05 a.m.

1. Approval of Agenda and Statement of No Conflict

The members stated they did not have a conflict of interest with any of the agenda items.

MOVED by D. Howe, **SECONDED** by B. Eaton,
That the agenda be approved as circulated.

CARRIED

2. Safety Minute

The Chair advised that, in line with the Project's commitment to safety, a Safety Minute will be prior to commencing all Project Board and other internal Project meetings. D. Clancy introduced D. Andrews, Construction Manager and Acting Safety Manager for the Project, who presented the Safety Minute on wildlife safety on the construction site.

D. Andrews noted that there are high visibility vests, hard hats, boots, safety glasses and gloves available for Project Board members and Capital Regional District (CRD) staff.

The Chair added that safety is a top priority and that the Project Board will be required to go through safety orientations for each construction site prior to any site visit.

3. Approval of the March 6, 2017 Meeting Minutes

MOVED by B. Eaton, **SECONDED** by B. Lapham,
That the minutes of the March 6, 2017 meeting be approved.

CARRIED

4. Report of the Chair

The Chair reported on the following items:

- Two Open Houses are scheduled; one on April 5 for Victoria residents and one on April 12 for Esquimalt residents. The open houses will have technical experts available to answer the public's questions about odour, noise, permitting, traffic management, detailed design and to ensure that the public has their questions answered and to obtain a better understanding of the Project.
- Staff confirmed that the open houses have been publicized to the communities via a mail out to residents, newspaper ads, social media, website, and emails to those residents wishing to be kept apprised.
- The Project Agreement with Harbour Resource Partners has been finalized.

- Funding agreements are finalized and in place and there is an ongoing responsibility to provide reports to the Senior Level Governments, as outlined in Item 6.4 of the Agenda.

5. Presentations/Delegations

There were none.

The Chair noted that the Project Board has regular monthly meetings on the first Tuesday of the month. Members of the public are welcome to attend the monthly meetings and provide feedback to the Project Board.

6. Project Board Business

6.1. Staff Report: Wastewater Treatment Project Quarterly Report – December 25, 2016 to March 24, 2017

D. Clancy spoke to the report noting that as it is the first Quarterly Report, the content of the future reports will expand as the Project progresses. He summarized the report through PowerPoint presentation and responded to questions from the Project Board.

The Project Board made the following requests:

- *Cost and Forecast, Table 2.* Provide a percentile relationship between where the Project was and where it intended to be.
- *Appendix 3.* Add a column of commitments instead of having the commitment presented elsewhere in the report.
- *Appendix 4.* Whether the common costs for the Wastewater Treatment Plant were distributed against the cost to date. D. Clancy advised they are. The Project Board requested that a footnote to note be added to future reports showing the common costs distribution.
- *Formatting.* Larger font on tables for ease of reading.
- *Risk & Key Issues.* Ta more fulsome table in future Quarterly reports.
- *Additional Information.* Adding a column for Mitigation, taking into account the mitigation processes in place.
- *Dashboard.* The dashboard be refined to be more informative to the reader.
- *Clarification.* The Project Team establish whether this is a view on current risks or overall risk management through the Project.

The Chair referenced the Communications and Engagement section noting that the Project has significant community interface and is committed to community engagement. The Chair noted that the community focus of the Project is reflected in the significant amount of the control budget that is allocated to community engagement. The Project Team are engaging with community associations directly involved with this project and are seeking input from them on the best way to communicate with them.

MOVED by C. Smith, **SECONDED** D. Fairbairn,
That the Project Board approve the following resolution:

Be it RESOLVED that:

1. The Wastewater Treatment Project Quarterly Report, for the reporting period December 25, 2016 to March 24, 2017, be approved.

2. The Wastewater Treatment Project Quarterly Report, for the reporting period December 25, 2016 to March 24, 2017, be forwarded to the Core Area Liquid Waste Management Committee and Capital Regional District Board for information.

CARRIED

6.2. Approval of the Project Charter for the Wastewater Treatment Project

The Project Board asked that the role of the new Stakeholder Engagement Manager be considered to include the responsibility of information flow internally, and would like to see a report on how that structure could work.

MOVED by B. Eaton, **SECONDED** by D. Howe,
That the Project Board approve the following resolution:

Be it RESOLVED that:

1. The Wastewater Treatment Project Charter, in the form included in the Project Board package, be approved.
2. The Wastewater Treatment Project Charter, in the form included in the Project Board package, be forwarded to the CALWMC and CRD Board for information.

CARRIED

6.3. Approval of the Wastewater Treatment Project Communications and Engagement Plan

E. Scott invited N. Spooner from Kirk & Co. to present the plan, noting that any updates to the plan and amendments to the Project Management Office (PMO) budget would be brought back to the Project Board for approval.

The Project Board made the following requests:

- The Project Team ensure that the key contact people for various issues is clear.
- Wording be added to the Purpose section noting that this Plan is a companion piece to an internal communications protocol already in place.

MOVED by C. Smith, **SECONDED** by D. Howe,
That the Project Board approve the following resolution:

Be it RESOLVED that:

1. The Communications and Engagement Plan for the Wastewater Treatment Project, in the form included in the Project Board package, be approved, subject to the addition of the wording in the Purpose section, noting that the Plan is a companion piece to the internal communications protocol in place.
2. The Communications and Engagement Plan for the Wastewater Treatment Project, in the form included in the Project Board package, be forwarded to the Core Area Liquid Waste Management Committee and Capital Regional District Board for information.

CARRIED

6.4. Government Funding Agreements Reporting Requirements

The Chair noted that all the funding agreements are executed and in the process of being posted to the website. E. Scott confirmed that staff are reviewing agreements for commercial information and obtaining the necessary consents prior to posting to the external website.

The Project Board requested that the report be updated to include the following wording, "In addition to the funding agreements, the Project Board has a reporting function to the CRD as a funding agency through the Terms of Reference as noted in Bylaw 4109."

MOVED by B. Lapham, **SECONDED** by D. Howe,
That the Project Board approve the following resolution:

Be it RESOLVED that:

The report, Government Funding Agreements Reporting Requirements, be received for information, with the addition of a description of the relationship between the Project and the CRD as a funding contributor and the related reporting requirements.

CARRIED

7. Correspondence

7.1. Correspondence received March 2017

MOVED by D. Fairbairn, **SECONDED** by B. Lapham,
That the correspondence be received for information.

CARRIED

8. New Business

There was none.

- MOVED** by D. Howe, **SECONDED** by B. Lapham,
9. **Motion to close the meeting in accordance with the Community Charter, Part 4, Division 3, 90(1)(a)** personal information about an identifiable individual who holds or is being considered for a position as an officer, employee and agent of the municipality or another position appointed by the municipality; **(m)** a matter that, under another enactment, is such that the public may be excluded from the meeting.

CARRIED

10. Adjournment – 10:54

On motion the meeting was adjourned at 10:54 a.m. and the Project Board moved into closed meeting.

CHAIR

RECORDER



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**REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF TUESDAY, MAY 2, 2017**

SUBJECT **Wastewater Treatment Project Monthly Report - April 2017**

ISSUE

The Core Area Wastewater Treatment Project Board (Project Board) is required, by its Terms of Reference, to provide the Capital Regional District (CRD) Board with monthly progress reports and a comprehensive quarterly report.

BACKGROUND

On May 25, 2016 the Regional Board of the CRD:

- i) Adopted by resolution the Core Area Wastewater Treatment Project Board Terms of Reference (Project Board Terms of Reference) for the purposes of establishing principles governing the Core Area Wastewater Treatment Project (the Wastewater Treatment Project or the WTP);
- ii) Established the Core Area Wastewater Treatment Project Board (Project Board) under Bylaw 4109 (the CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016) for the purposes of administering the Core Area Wastewater Treatment Project; and
- iii) Delegated certain of its powers, duties and functions to the Project Board under Bylaw 4110 (the CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016).

On September 14, 2016 the Regional Board of the CRD:

- i) Received the final report of the Project Board with respect to its recommendation for the CAWTP, dated September 7, 2016 (the Final Report); and
- ii) Approved the business case attached as Appendix 1 (the Business Case) to the Final Report.

The Business Case established the Core Area Wastewater Treatment Project control budget (the Control Budget) of \$765 million.

The CRD Core Area Wastewater Treatment Project Board Bylaw No. 1, 2016 requires, amongst other things: that the Project Board establish a Project Team that will provide the Project Board with a comprehensive quarterly report describing the status of the Wastewater Treatment Project and that specifically addresses the scope, budget and schedule of the Wastewater Treatment Project; and that the Project Board provide quarterly status reports to the CRD Board on the scope, budget and schedule of the Wastewater Treatment Project (WTP).

DISCUSSION

The Project Board received the first quarterly report at its April 4, 2017 meeting, and approved that the report be forwarded to the Core Area Liquid Waste Management Committee (CALWMC) and the CRD Board for information. The quarterly report covered activities in the reporting period

of December 25, 2016 to March 24, 2017 but reported financial information to the end of February 2017.

In order to align the activity and financial reporting for the WTP, the Project Team proposes that the next monthly report, for the month of April 2017, be received by the Project Board at its June 6, 2017 meeting. This would allow the next and subsequent monthly reports to cover activities and financial information for the same reporting period.

There has been extensive engagement activity over the month of April, which will be covered in April's monthly report. In the interim please find below a summary of engagement activities in April, as well as, attached as Appendix A, a summary of planning and engagement meetings over the period from October 2016 to April 2017.

In accordance with the Communications and Engagement Plan that was approved by the Project Board on April 4, 2017, the Project Team has continued to conduct communications and engagement activities.

Engagement activities in April included the following:

- Meeting with James Bay Neighbourhood Association;
- Meeting with Macaulay Elementary School;
- Meeting with James Bay Community School;
- Meeting with Vic West Community Association;
- Two Community Information meetings (300 plus attendees): publicized widely through mailed notices to residents, email, newspaper advertisements, and on the Project website, these meetings provided an opportunity for residents to learn more about the information that the Project Team has heard that the community is looking for and have their questions answered. Attached as Appendix B are the information boards that were displayed. In addition, 27 team members with expertise in a variety of areas were available to answer questions;
- Posting a Project Update Report (#1) to the Project website and having it available at the Community Information Meetings (Appendix C);
- Posting to the project website the answers to questions frequently-asked at the community meetings (Appendix D);
- Correspondence with James Bay Neighbourhood Association;
- Responses to e-mailed inquiries;
- Setting up the Project Public Information line;
- Posting a Project Update Report (#2) to the Project website and mailing it to 7,500 households in James Bay (Appendix E);
- Preparing Construction Notices for upcoming work;
- Developing Terms of Reference for Esquimalt Liaison Committee;
- Posting to the Project website Fact Sheets on Noise and Odour (Appendix F).

As construction plans are advanced and specific work schedules are finalized, the Project Team will be scheduling further meetings with stakeholders to provide information and hear concerns.

RECOMMENDATION

That the Core Area Wastewater Treatment Project Board approve the following resolution:

RESOLVED that:

1. This the Wastewater Treatment Project Monthly Report – April 2017, be received for information.
2. The Wastewater Treatment Project Monthly Report – April 2017 be forwarded to the Core Area Liquid Waste Management Committee and Capital Regional District Board for information, in lieu of the monthly report.



Elizabeth Scott, Deputy Project Director
Wastewater Treatment Project



Dave Clancy, Project Director
Wastewater Treatment Project
Concurrence

ES:dd

Attachments: 6

Appendix A: Wastewater Treatment Project: Planning and Engagement Meetings October 2016 to April 2017

Appendix B: April Community Information Meeting Boards

Appendix C: Project Update #1

Appendix D: FAQ from the Community Information Meetings

Appendix E: Project Update #2

Appendix F: Fact Sheets on Noise and Odour

Wastewater Treatment Project
Planning and Engagement Meetings
 October 2016 to April 2017

In addition to the meetings summarised below the Project Team has also conducted regular meetings with funding partners and First Nations.

	October 2016	November 2016	December 2016	January 2017	February 2017	March 2017	April 2017	Total Meetings
Municipal Permitting and Planning meetings	Township of Esquimalt Council (2) Township of Esquimalt Staff	Township of Esquimalt Council (2) Township of Esquimalt Staff (2)	Township of Esquimalt Staff	Township of Esquimalt Council (2) Design Review Committee Advisory Planning Commission	Township of Esquimalt Council (3) Design Review Committee (2)	Township of Esquimalt Staff		17
	City of Victoria Staff	City of Victoria Council (2) City of Victoria Staff		City of Victoria Council City of Victoria Staff	City of Victoria Council (2)	City of Victoria	City of Victoria Council City of Victoria Staff	10
	Electoral District of Juan de Fuca							1
	City of Colwood							1
	District of Saanich			District of Saanich Council		District of Saanich Staff	District of Saanich Staff	4
Community Engagement Meetings			James Bay Neighbourhood Association	James Bay Neighbourhood Association		James Bay Neighbourhood Association	James Bay Neighbourhood Association	4

Welcome



**Wastewater
Treatment Project**
Treated for a cleaner future



Artist rendering

Welcome to the Wastewater Treatment Project Community Information Meeting.

Construction is beginning in April 2017 on the McLoughlin Point Wastewater Treatment Plant and undersea pipe between McLoughlin Point and Ogden Point.

Our team is here to provide you with information and respond to your questions regarding construction activities at these locations. Information about other upcoming construction activities for the Wastewater Treatment Project will be available in the coming months.

Wastewater Treatment Project



Wastewater Treatment Project
Treated for a cleaner future

In September 2016, the CRD approved the Wastewater Treatment Project Board's proposal for wastewater treatment in the Core Area which would comply with the law and preserve senior government funding for sewage treatment.

The Wastewater Treatment Project consists of three main elements:

McLOUGHLIN POINT WASTEWATER TREATMENT PLANT

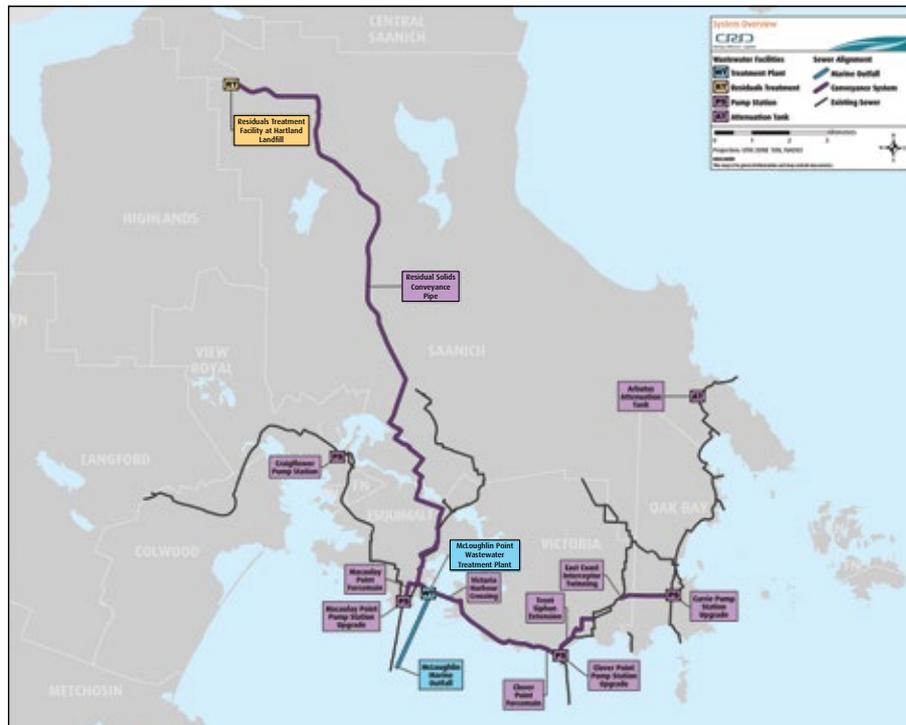
Located at McLoughlin Point, the treatment plant will provide tertiary treatment to the core area's wastewater.

RESIDUALS TREATMENT FACILITY

Residual solids from the wastewater treatment plant will be piped to Hartland Landfill, where they will be turned into what are known as "Class A" biosolids. These biosolids are a high quality by-product treated such that it is safe for further use.

CONVEYANCE SYSTEM

The conveyance system refers to the 'pumps and pipes' of the Wastewater Treatment Project. This system will carry wastewater from across the core area to the treatment plant, and send residual solids from the wastewater treatment plant to the Residuals Treatment Facility.



How We Got Here



**Wastewater
Treatment Project**
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The approved McLoughlin Point Wastewater Treatment Plant design is significantly revised from earlier plans to respond to the interests of the surrounding community:



It is further set back from the shoreline



It has extensive landscaping and a multi-level green roof irrigated with treated water



Refinements to the exterior of the wastewater treatment plant and landscaping address the Design Review Committee and other input as part of the development permit process



The plant will go beyond secondary treatment and include tertiary treatment, providing even better protection of the marine environment



Odour control systems will reduce odour emissions to a level not detectable by residents



Artist rendering

Project Funding and Approvals



**Wastewater
Treatment Project**
Treated for a cleaner future

Wastewater Treatment Project construction will begin in April 2017.

PROJECT FUNDING

The Wastewater Treatment Project costs \$765 million.
The project is funded by:

- **Government of Canada**
 - Up to \$120 million through the Building Canada Fund for the McLoughlin Point Wastewater Treatment Plant
 - Up to \$50 million through the Green Infrastructure Fund for the conveyance system
 - Up to \$41 million from P3 Canada for the Residuals Treatment Facility
- **Government of British Columbia**
 - Up to \$248 million for the three components of the project
- **The Capital Regional District**
 - Remaining \$306 million for the three project components; responsible for any additional costs.

LAND USE APPROVALS

- The Township of Esquimalt approved rezoning for the McLoughlin Point Wastewater Treatment Plant on February 20, 2017.
- The City of Victoria approved rezoning for the Clover Point Pump Station on February 23, 2017.



Artist rendering

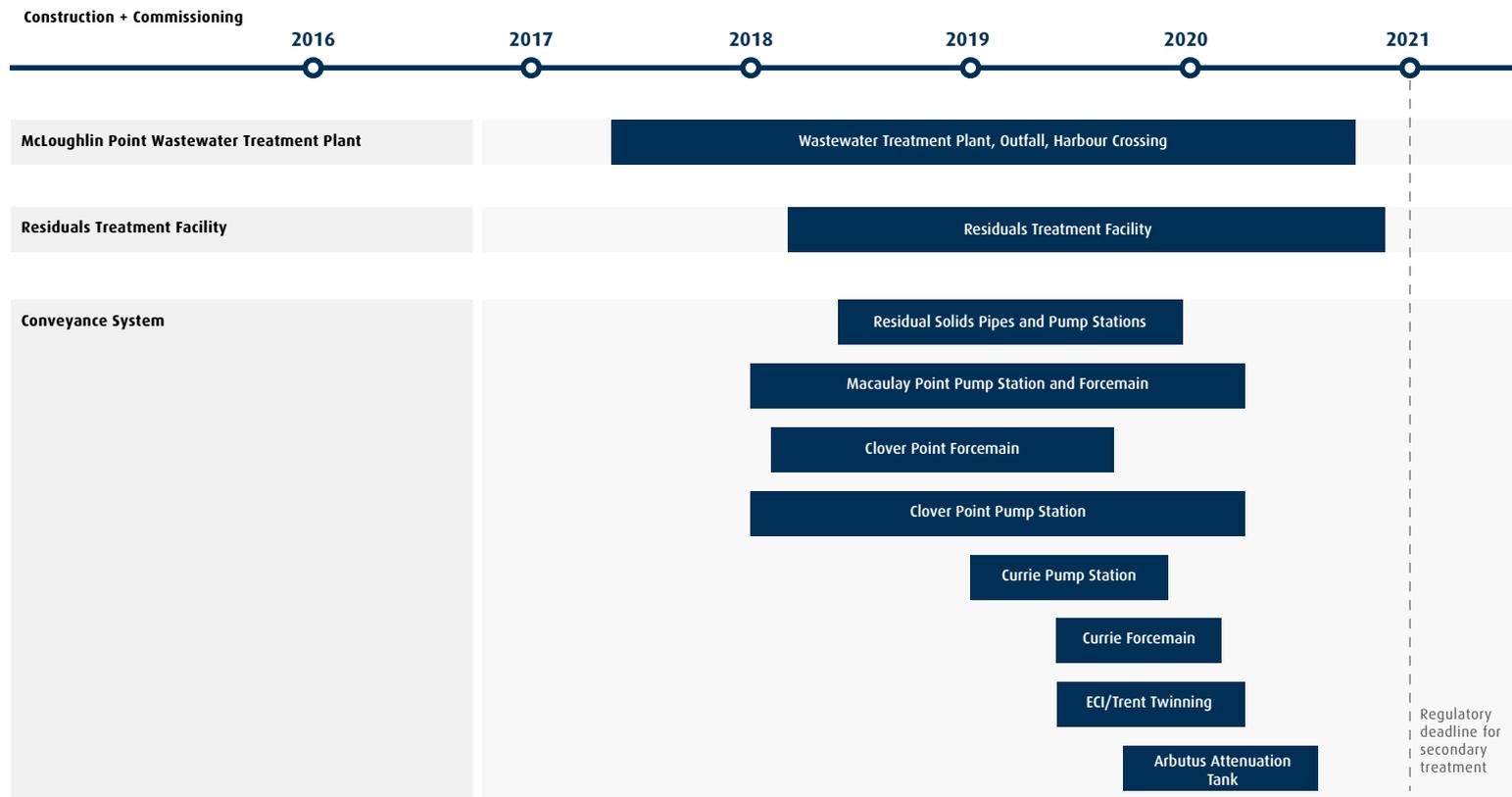
Project Schedule



Wastewater Treatment Project
Treated for a cleaner future

The Wastewater Treatment Project will be constructed through nine separate contracts, and construction will be staged to the end of 2020. Communications and engagement activities will take place in advance of project construction beginning in each area.

Wastewater Treatment Project Schedule*



* Schedule subject to updates as project planning progresses.

Ogden Point Construction



**Wastewater
Treatment Project**
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The McLoughlin Point Wastewater Treatment Plant includes construction of a cross-harbour undersea pipe from Ogden Point to McLoughlin Point.

This work will take just over a year to complete, and will take place from both sides of Victoria Harbour using a process called horizontal directional drilling.

Two drill locations will be used: one at McLoughlin Point, and the second at Ogden Point near the James Bay Anglers Boat Ramp.

Anticipated work hours are Monday to Friday from 7:00 a.m. to 7:00 p.m. and on Saturday from 10:00 a.m. to 7:00 p.m. The boat ramp will be open for use during construction.

OGDEN POINT CONSTRUCTION ACTIVITIES ANTICIPATED APRIL 2017 – JUNE 2018*

APRIL TO MAY 2017

Remove Anglers Hut

Set up work site

- Bring equipment and materials to the site; on average five trucks per day
- Build noise wall

JUNE 2017

Install casing

- Involves approximately two weeks of pile driving
- On average five trucks per day

JUNE 2017 TO JUNE 2018

Conduct horizontal directional drilling

- Involves equipment and generators for drilling operations
- On average five trucks per day

JUNE 2018

Assemble pipe on Niagara Street

- Deliver pipe segments
- Weld pipe together

Pull pipe through directional drill passage (24 hours per day for approximately four days)

* Construction schedules subject to updates based on construction operations. Project to provide regular updates on anticipated dates.

Ogden Point Noise Mitigation



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Noise wall at Ogden Point Work Site

The City of Victoria construction noise bylaw is 85 dBA. Noise mitigation will reduce construction noise below the bylaw level.

- 5-metre high acoustic sound barrier (noise wall)
- Constructed in advance of casing installation and drilling operations
- Noise mitigation will result in 75 dBA at the midpoint of Dallas Road, below the 85 dBA noise bylaw
- The project team is working with the contractor to consider other noise mitigation measures to further reduce noise at the Ogden Point work site. These could include enclosures around specific pieces of equipment, or other structures which may require additional approvals.



Street view



Aerial view

McLoughlin Point Construction



**Wastewater
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The McLoughlin Point Wastewater Treatment Plant construction and commissioning will take place from spring 2017 to fall 2020.

Construction at McLoughlin Point will look similar to any large urban construction site. Construction works include: site preparation; horizontal directional drilling to construct the cross-harbour undersea pipe from Ogden Point to McLoughlin Point; pouring concrete foundations; exterior building construction and mechanical and electrical work inside the building.

Anticipated work hours are Monday to Friday from 7:00 a.m. to 7:00 p.m. and on Saturday from 9:00 a.m. to 6:00 p.m.

MCLOUGHLIN POINT CONSTRUCTION ACTIVITIES ANTICIPATED APRIL 2017 – FALL 2020*

APRIL/MAY 2017

Set up construction laydown area

- Heavy equipment and personnel preparing the site

MAY 2017 TO AUG 2017

Site preparation (excavation/blasting)

- On average 30 trucks per day hauling excavated material
- Blasting activities will be periodically scheduled and communicated to immediate neighbours; blasting schedule will be posted to project website weekly

JUNE 2017 TO JUNE 2018

Conduct horizontal directional drilling

- On average five trucks per day

AUG 2017 TO FALL 2018

Pouring concrete

- On average 15 trucks per day with more for large pours

SPRING 2018 TO FALL 2019

Plant construction

- On average 10 trucks per day

FALL 2019 TO FALL 2020

Plant commissioning

** Construction schedules subject to updates based on construction operations. Project to provide regular updates on anticipated dates.*

McLoughlin Point Construction and Staging Areas



Wastewater Treatment Project
Treated for a cleaner future

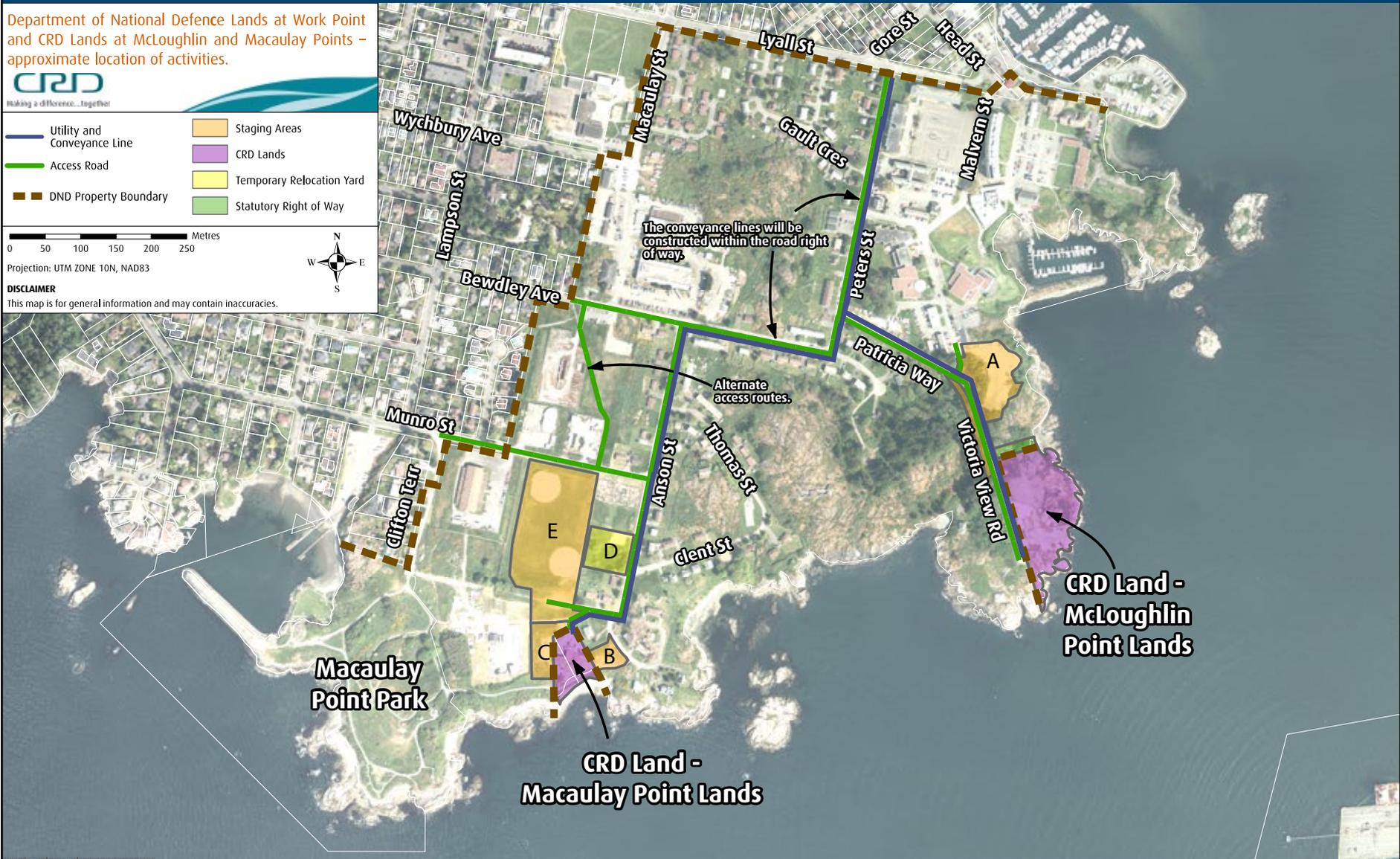
Department of National Defence Lands at Work Point and CRD Lands at McLoughlin and Macaulay Points – approximate location of activities.

Utility and Conveyance Line	Staging Areas
Access Road	CRD Lands
DND Property Boundary	Temporary Relocation Yard
	Statutory Right of Way

0 50 100 150 200 250 Metres

Projection: UTM ZONE 10N, NAD83

DISCLAIMER
This map is for general information and may contain inaccuracies.



Operational Noise



**Wastewater
Treatment Project**
Treated for a cleaner future

Per the Township of Esquimalt's Zoning Bylaw, operational noise from the McLoughlin Point Wastewater Treatment Plant will not exceed 60 decibels (dBA) at the plant's property line. This means predicted noise levels in James Bay, the closest location to the treatment plant in Victoria, will not exceed 35 dBA. This is 5 dBA below the most stringent limit in the City of Victoria's noise bylaw.

Noise Model

- Noise levels at the locations shown on this map were calculated by assuming a "worst-case scenario" of 60 dBA everywhere along the property line. However, actual noise emissions from the treatment plant may result in lower noise levels.
- This noise model considers all sound propagation to occur under downwind or temperature inversion conditions (worst-case conditions).

Noise Levels for Common Sounds/Environments

NOISE / ENVIRONMENT	APPROXIMATE SOUND LEVEL (dBA)
Threshold of hearing	0
Just audible	10
Nighttime background noise, urban residential area	35
City of Victoria Noise Bylaw – most stringent limit	40
Township of Esquimalt Zoning Bylaw	60
Busy office	60
On sidewalk by passing car	70
On sidewalk by passing bus	80



Predicted noise from McLoughlin Point Wastewater Treatment Plant. The noise model was generated with the state-of-the-art acoustical modelling software CadnaA which performs sound propagation calculations according to the widely used international standard ISO 9613-2:1996.

Odour Control



**Wastewater
Treatment Project**
Treated for a cleaner future

State-of-the-Art Odour Control

The McLoughlin Point Wastewater Treatment Plant design includes state-of-the-art odour control. While the maximum allowable odour is 5 odour units (OU) at the property line, modelling based on the current design shows odour during operations will be approximately 2 OU at the McLoughlin Point Wastewater Treatment Plant property line.

The plant will have one of the highest levels of odour capture and treatment in the industry:

- All treatment processing tanks are covered
- All air is captured and treated

An odour control monitoring system will ensure requirements are met or exceeded. Back-up odour control equipment and back-up power generators will be installed, reducing the possibility of odour escaping the facility if there is an equipment failure.

The McLoughlin Point Wastewater Treatment Plant will achieve the following:

- No detectable odour in the surrounding community
- State-of-the-art odour control
- 24-hour odour control monitoring system
- Detailed procedures for responding to odour issues, in the unlikely event that one occurs. The public will be able to call a CRD phone line and report any odour issues 24 hours a day, once the plant is in operation.

What is an Odour Unit (OU)?

- An odour unit is a standard measure used to describe the amount of odour present in one cubic metre of neutral air.
- Odour is not discernible at 5 OU or less.
- A typical residential neighbourhood has a background odour of 7 to 20 OU which may include:
 - Grass
 - Plants
 - Mulch
 - Marine environment

Odour Control



Wastewater
Treatment Project
Treated for a cleaner future

The McLoughlin Point Wastewater Treatment Plant has been designed so there will be no detectable odour by residents.

While the maximum allowable odour is 5 OU at the property line, modelling based on the current design shows odour during operations will be approximately 2 OU at the McLoughlin Point Wastewater Treatment Plant property line and dissipates quickly as it moves away from the plant.



Odour from McLoughlin Point Wastewater Treatment Plant. Odour model based on the worst-case wind conditions over the last five years, based on regional meteorological data.

Odour Control



**Wastewater
Treatment Project**
Treated for a cleaner future

Odour Control at other Wastewater Treatment Plants

KELOWNA, BC WASTEWATER TREATMENT PLANT

- Kelowna Plant is in a residential neighbourhood
- Homes are within 20 metres of plant; Okanagan College is adjacent to the site
- 5 OU used for design limit
- Secondary treatment processing tanks are uncovered; by comparison, all McLoughlin Point Plant treatment processing tanks are covered
- No odour complaints



VERNON, BC WASTEWATER TREATMENT PLANT

- Vernon Plant is in a residential neighbourhood
- Homes are situated at the plant's fence line
- 5 OU used for design limit
- Single stage odour treatment; by comparison, the McLoughlin Point Plant will have two stage odour treatment
- Secondary treatment processing tanks are uncovered; by comparison, all McLoughlin Point Plant treatment processing tanks are covered
- No odour complaints



Draft Traffic Management Plan Map – Esquimalt



Wastewater Treatment Project
Treated for a cleaner future

Harbour Resource Partners (HRP), the contractor that is building the McLoughlin Point Wastewater Treatment Plant, has developed a Draft Traffic Management Plan to ensure that all project vendors and suppliers follow designated traffic routes.

The draft plan was developed using the following guidelines:

- Public safety for motorists, cyclists and pedestrians
- Impacts on local community
- Bylaw compliance

To develop the draft plan, HRP defined the type and flow of construction traffic and then options were evaluated for each type of construction traffic.

The draft Traffic Management Plan has been reviewed by staff from the Township of Esquimalt and will also consider input from communities. The plan is subject to approval by the Township of Esquimalt before it is implemented.



Draft Traffic Management Plan Map – Victoria (Ogden Point Construction)



**Wastewater
Treatment Project**
Treated for a cleaner future

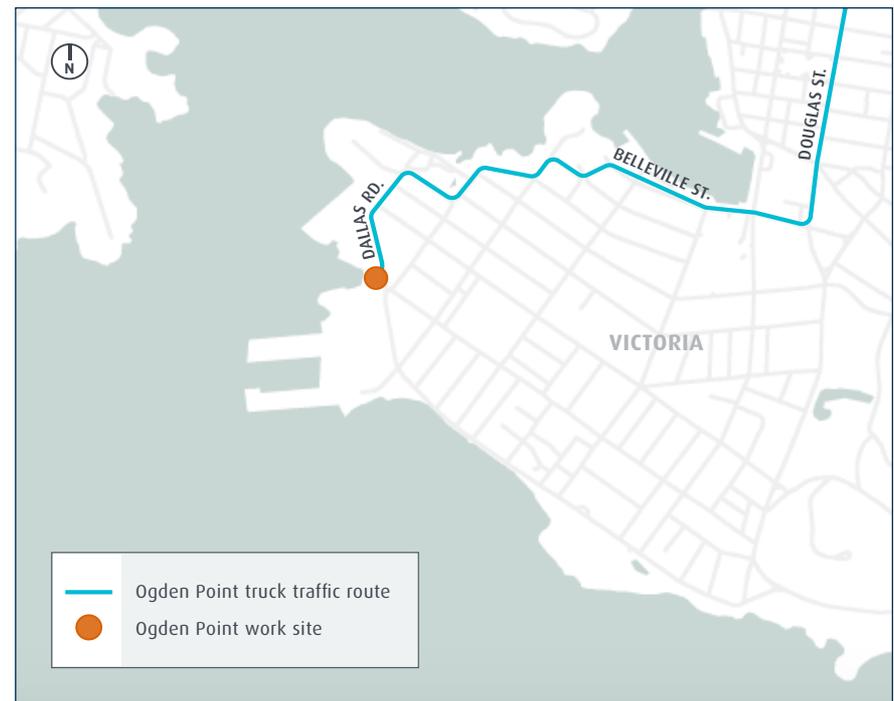
Harbour Resource Partners (HRP), the contractor that is building the McLoughlin Point Wastewater Treatment Plant, has developed a Draft Traffic Management Plan to ensure that all project vendors and suppliers follow designated traffic routes.

The draft plan was developed using the following guidelines:

- Public safety for motorists, cyclists and pedestrians
- Impacts on local community
- Bylaw compliance

This draft Traffic Management Plan addresses the construction at Ogden Point for the horizontal directional drilling. An updated Traffic Management Plan will be developed and brought to the community in advance of the pipe assembly on Niagara Street.

This draft Traffic Management Plan will be reviewed by staff from the City of Victoria, and will also consider input from communities, before it is implemented.



Upcoming Construction Activities



**Wastewater
Treatment Project**
Treated for a cleaner future

While construction is beginning at Ogden Point and McLoughlin Point in April, project planning is underway and construction schedules are being developed for the other project components.

Communications and engagement activities will continue to keep residents and stakeholders informed of project plans, progress and construction information, and to receive and respond to questions and concerns raised by the community.

A liaison committee in Esquimalt will provide a forum for the discussion of issues relating to construction and operation of the McLoughlin Point Wastewater Treatment Plant.

HIGH LEVEL SCHEDULE OF UPCOMING COMMUNITY ENGAGEMENT

APRIL 2017

Victoria & Esquimalt

McLoughlin Point Wastewater Treatment Plant: Ogden Point and McLoughlin Point construction

FALL 2017

Victoria

Public realm improvements for James Bay (the Project Team will support the City of Victoria in its engagement process)

Clover Point Pump Station and public realm improvements

- Presentation to James Bay Neighbourhood Association (on Dallas Road conveyance route) at 50% design finalization

- Presentation to Fairfield Gonzales Community Association (on Clover Point Pump Station and Dallas Road Conveyance route) at 50% design finalization
- Presentation to the City Council at a public meeting at 50% stage

Construction mitigation measures along Dallas Road and Niagara Street

Esquimalt

Macaulay Point Pump Station and Forcemain construction

EARLY 2018

Saanich

Residuals Treatment Facility, pipes and pump stations construction

Communications and Engagement



**Wastewater
Treatment Project**
Treated for a cleaner future

The Wastewater Treatment Project Team will engage with residents through construction to ensure that the community is fully informed on the progress of the Project.

THE COMMUNICATIONS AND ENGAGEMENT PROGRAM INCLUDES:

- Regular project updates
- Outreach: community associations, businesses, schools, day cares, recreational groups, transportation providers, tourism groups and other organizations
- Community/neighbourhood/stakeholder meetings
- Communications tools include: website, project information phone line, email, social media, community updates, construction notifications, traffic media updates, door-to-door advisories (where appropriate)

HOW TO CONTACT THE PROJECT:

Website: wastewaterproject.ca

Email: wastewater@crd.bc.ca

Phone: Available May 1, 2017



Artist rendering

Community Meeting Notification



Wastewater Treatment Project
Treated for a cleaner future

MEETING NOTICE



Wastewater Treatment Project
Community Information Meetings: April 5, and April 12, 2017
Construction at Ogden Point and Minto Point

The Wastewater Treatment Project will provide tertiary treatment for wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the District of Saanich. Below:

Victoria:

- **Victoria residents:** Victoria, Saanich, Oak Bay, Saanich District
- **Esquimalt residents:** Esquimalt, Esquimalt District, Saanich District
- **Saanich residents:** Saanich District, Saanich District, Saanich District

The project will be completed in two phases. The first phase of construction will be the Ogden Point Wastewater Treatment Plant and the Minto Point Wastewater Treatment Plant. The second phase of construction will be the Saanich Wastewater Treatment Plant.

You are invited to learn more about the Wastewater Treatment Project and upcoming construction in your area by attending a drop-in Community Information Meeting on:

Victoria:
Date: Wednesday, April 5, 2017
Time: 5:00 to 8:00 pm
Location: Hotel Grand Pacific, Vancouver Island Ballroom
Address: 463 Belleville Street, Victoria

Esquimalt:
Date: Wednesday, April 12, 2017
Time: 5:00 to 8:00 pm
Location: Esquimalt Convention Centre, Esquimalt Branch
Address: 227 Adelaide Road, Esquimalt

For more information, please visit www.wastewaterproject.ca or email wastewater@crd.ca. Additional information and community engagement about future phases of construction will be posted to the website in the coming months.



Posted on the Wastewater Treatment Project website on March 28, 2017

wastewaterproject.ca



Home delivery via Canada Post

- 7,383 residents in James Bay
- 9,985 residents in Esquimalt



Emails to stakeholder groups and residents who signed up for project updates

NEWSPAPER AD



Wastewater Treatment Project

Wastewater Treatment Project
Community Information Meetings: April 5 and April 12, 2017
Construction at Ogden Point and Minto Point

The Wastewater Treatment Project will provide tertiary treatment for wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the District of Saanich. Below:

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For more information, please visit www.wastewaterproject.ca or email wastewater@crd.ca. Additional information and community engagement about future phases of construction will be posted to the website in the coming months.



Victoria Times Colonist
March 25, 2017

Victoria News
March 24 and March 29, 2017

CAPITAL REGIONAL DISTRICT TWITTER



March 29, 2017

April 4, 2017

April 11, 2017



Wastewater Treatment Project Overview

The Wastewater Treatment Project will provide tertiary treatment for wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the Esquimalt and Songhees Nations.

With funding, approvals and permitting in place, Wastewater Treatment Project construction will begin this spring to meet the end of 2020 delivery deadline, comply with the law and meet our commitments to senior governments. The Wastewater Treatment Project consists of three main elements:

McLoughlin Point Wastewater Treatment Plant

Located at McLoughlin Point in Esquimalt, the treatment plant will provide tertiary treatment to the core area's wastewater.

Residuals Treatment Facility

Residual solids from the wastewater treatment plant will be piped to a Residual Treatment Facility Hartland Landfill, where they will be turned into what are known as "Class A" biosolids. These biosolids are a high quality by-product treated such that it is safe for further use.

Conveyance System

The conveyance system refers to the 'pumps and pipes' of the Wastewater Treatment Project. This system will carry wastewater from across the core area to the treatment plant, and residual solids to the Residuals Treatment Facility at Hartland Landfill.

PROJECT FUNDING

The Wastewater Treatment Project costs \$765 million and is being funded by:

Government of Canada

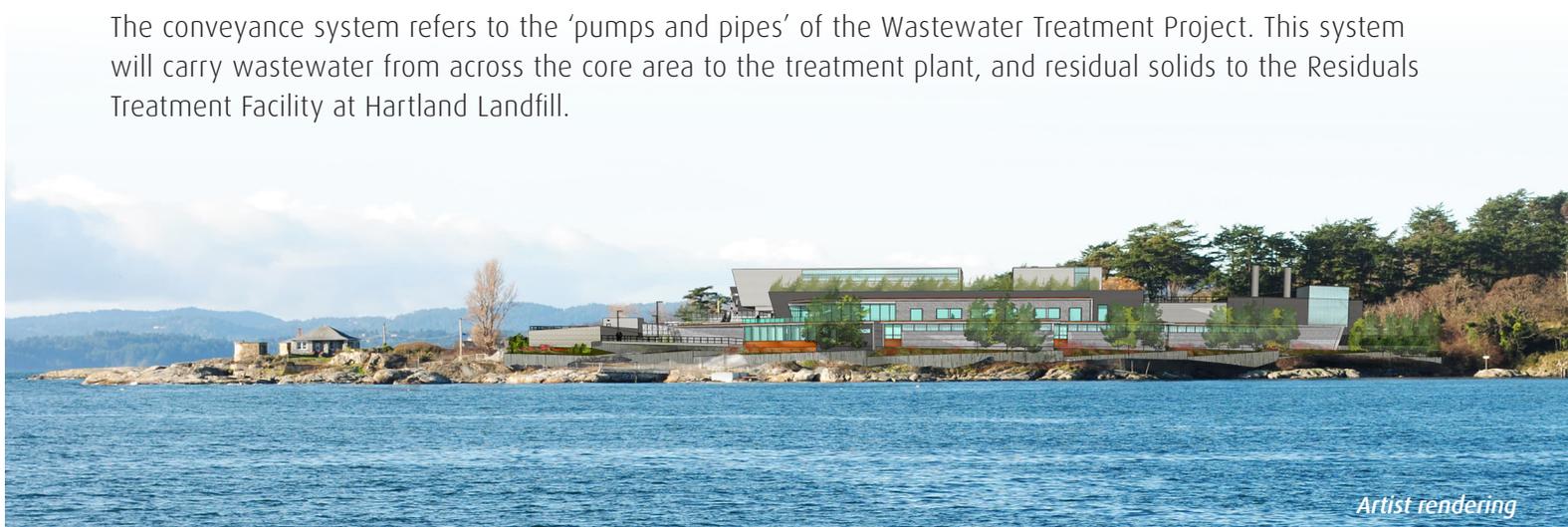
- Up to \$120 million through the Building Canada Fund for the McLoughlin Point Wastewater Treatment Plant
- Up to \$50 million through the Green Infrastructure Fund for the conveyance system
- Up to \$41 million from P3 Canada for the Residuals Treatment Facility

Government of British Columbia

- Up to \$248 million for the three components of the project

The Capital Regional District

- Remaining \$306 million for the three project components; responsible for any additional costs



Artist rendering

How We Got Here

The approved McLoughlin Point Wastewater Treatment Plant design is significantly revised from earlier plans to respond to the interests of the surrounding community:



It is further set back from the shoreline



It has extensive landscaping and a multi-level green roof irrigated with treated water



Refinements to the exterior of the wastewater treatment plant and landscaping address the Design Review Committee and other input as part of the development permit process



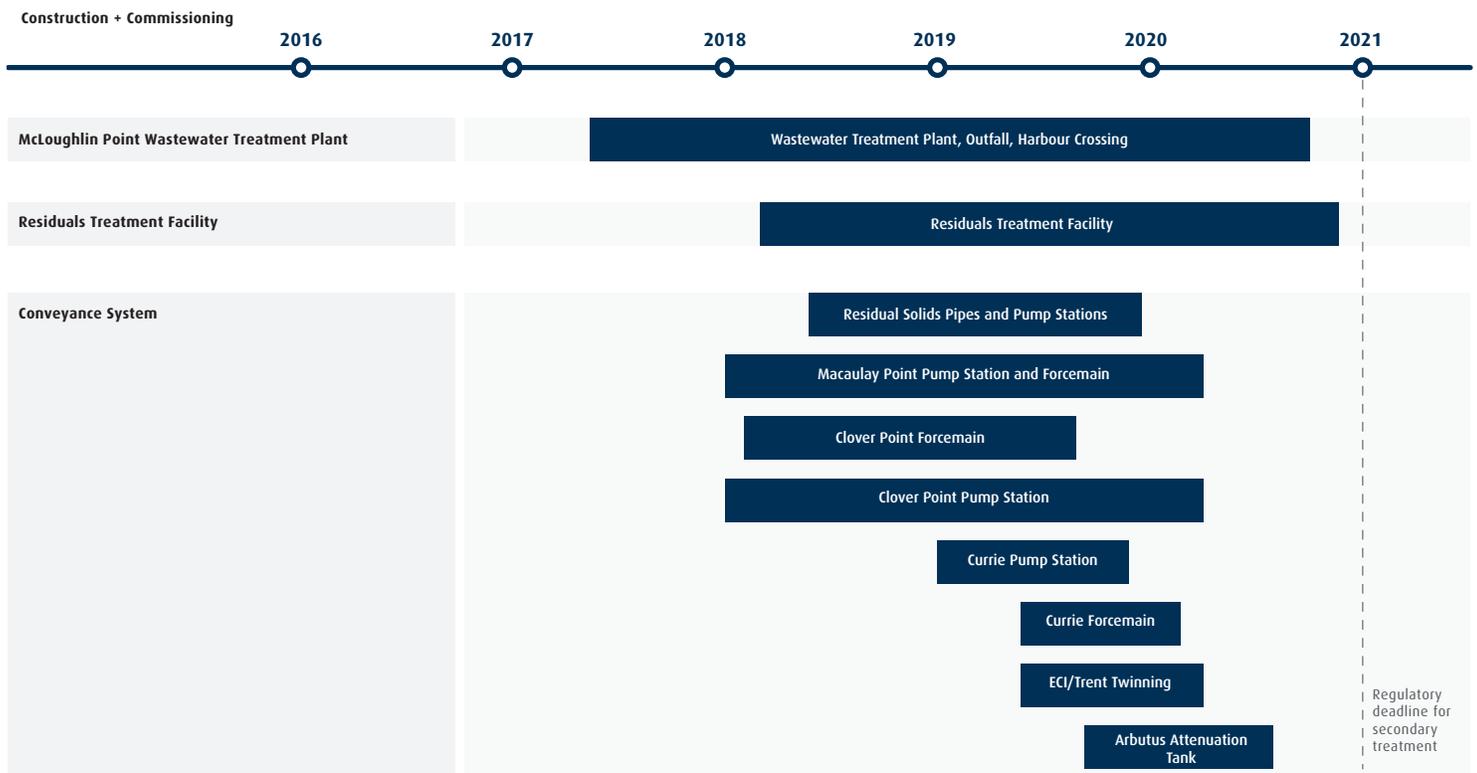
The plant will go beyond secondary treatment and include tertiary treatment, providing even better protection of the marine environment



Odour control systems will reduce odour emissions to a level not detectable by residents

Wastewater Treatment Project Schedule*

The Wastewater Treatment Project will be constructed through nine separate contracts, and construction will be staged to the end of 2020. Communications and engagement activities will take place in advance of project construction beginning in each area.



* Schedule subject to updates as project planning progresses.



Odour Control: McLoughlin Point Wastewater Treatment Plant

The McLoughlin Point Wastewater Treatment Plant has been designed so there will be no detectable odour by residents. Modelling shows odour will be approximately 2 OU at the plant's property line.

The plant will have one of the highest levels of odour capture and treatment in the industry:

- All treatment processing tanks are covered
- All air is captured and treated

A 24-hour odour control monitoring system will ensure requirements are met or exceeded. Back-up odour control equipment and back-up power generators will be installed, reducing the possibility of odour escaping the facility if there is an equipment failure.

There will be detailed procedures for responding to odour issues, in the unlikely event that one occurs. The public will be able to call a CRD phone line and report any odour issues 24 hours a day, once the plant is in operation.

What is an Odour Unit (OU)?

- An odour unit is a standard measure used to describe the amount of odour present in one cubic metre of neutral air.
- Odour is not discernible at 5 OU or less.
- A typical residential neighbourhood has a background odour of 7 to 20 OU which may include:
 - Grass
 - Mulch
 - Plants
 - Marine environment

Noise During Operations: McLoughlin Point Wastewater Treatment Plant

Per the Township of Esquimalt's Zoning Bylaw, operational noise from the McLoughlin Point Wastewater Treatment Plant will not exceed 60 decibels (dBA) at the plant's property line. This means predicted noise levels in James Bay, the closest location to the treatment plant in Victoria, will not exceed 35 dBA. This is 5 dBA below the most stringent limit in the City of Victoria's noise bylaw.

The Wastewater Treatment Project Team will engage with residents through construction to ensure that the community is fully informed on the progress of the Project.

THE COMMUNICATIONS AND ENGAGEMENT PROGRAM INCLUDES:

- Regular project updates
- Outreach: community associations, businesses, schools, day cares, recreational groups, transportation providers, tourism groups and other organizations
- Community/neighbourhood/stakeholder meetings
- Communications tools include: website, project information phone line, email, social media, community updates, construction notifications, traffic media updates, door-to-door advisories (where appropriate)

HOW TO CONTACT THE PROJECT:

Website:
wastewaterproject.ca

Email:
wastewater@crd.bc.ca

Phone:
Available May 1, 2017



Construction is beginning this spring on the McLoughlin Point Wastewater Treatment Plant in Esquimalt and the cross-harbour undersea pipe between McLoughlin Point and Ogden Point. Construction will take place at Ogden Point to drill the undersea pipe; this will take just over a year to complete. Construction and commissioning of the Wastewater Treatment Plant at McLoughlin Point will take place from spring 2017 to fall 2020.

**OGDEN POINT CONSTRUCTION ACTIVITIES:
ANTICIPATED APRIL 2017 – JUNE 2018***

APRIL TO MAY 2017

Remove Anglers Hut

Set up work site

- Bring equipment and materials to the site; on average five trucks per day
- Build noise wall

JUNE 2017

Install casing

- Involves approximately two weeks of pile driving
- On average five trucks per day

JUNE 2017 TO JUNE 2018

Conduct horizontal directional drilling

- Involves equipment and generators for drilling operations
- On average five trucks per day

JUNE 2018

Assemble pipe on Niagara Street

- Deliver pipe segments
- Weld pipe together

Pull pipe through directional drill passage (24 hours per day for approximately four days)

**McLOUGHLIN POINT CONSTRUCTION
ACTIVITIES: ANTICIPATED APRIL 2017 –
FALL 2020***

APRIL/MAY 2017

Set up construction laydown area

- Heavy equipment and personnel preparing the site

MAY 2017 TO AUG 2017

Site preparation (excavation/blasting)

- On average 30 trucks per day hauling excavated material
- Blasting activities will be periodically scheduled and communicated to immediate neighbours; blasting schedule will be posted to project website weekly

JUNE 2017 TO JUNE 2018

Conduct horizontal directional drilling

- On average five trucks per day

AUG 2017 TO FALL 2018

Pouring concrete

- On average 15 trucks per day with more for large pours

SPRING 2018 TO FALL 2019

Plant construction

- On average 10 trucks per day

FALL 2019 TO FALL 2020

Plant commissioning

** Construction schedules subject to updates based on construction operations. Project to provide regular updates on anticipated dates.*

CRD Wastewater Treatment Project Website FAQ

Community Questions

This page will be updated regularly with the commonly asked questions we are hearing from members of the community about the Wastewater Treatment Project. If you have a question that is not covered, [let us know](#). We will endeavor to provide a response within 10 working days.

Noise

1. How loud will the noise be coming from the plant during operation and how will it impact Victoria?

As per the Township of Esquimalt's Zoning Bylaw, the operational noise level will not exceed 60 decibels (dBA) measured at the plant's property line. Predicted noise levels in James Bay, the closest location to the treatment plant in Victoria, will not exceed 35 dBA. This is 5 dBA below the most stringent limit in the City of Victoria's noise bylaw. You can find more information on our [Fact sheet on Operational Noise for the Wastewater Treatment Plant](#).

2. How will you ensure compliance with the noise limit requirements when the plant is fully operational?

The operating noise level will not exceed 60 decibels (dBA) measured at the plant's property line. The contractor will undertake a noise model at 60% design in order to demonstrate compliance. If determined at that time that the design will not meet the 60 dBA level then the contractor will make appropriate design changes/additions in order to ensure compliance.

Following commissioning, the plant will undergo a 90 day Acceptance Testing which includes testing of the noise levels to confirm conformance with the noise level guarantee.

3. How noisy will the construction be at Ogden Point. What are you doing to reduce it?

Construction at Ogden Point will take place over about a year, beginning in May 2017. We are building a 5-metre high noise wall around the Ogden Point work site. It will be in place before construction begins. This will reduce construction noise below the City of Victoria construction noise bylaw level.

In June there will be approximately two weeks of pile driving. After that, while there will be noise from generators and other equipment, noise levels will be reduced considerably, and we do not anticipate any vibration.

In addition to the noise wall, we're working with the contractor to consider other noise mitigation measures to further reduce noise at the work site. We have engaged noise consultants and they will be monitoring noise levels as part of construction. For more information you can review our [Noise Mitigation Fact Sheet](#).

**CRD Wastewater Treatment Project
Website FAQ**

Odour

4. Will I be able to smell anything from the McLoughlin Point Wastewater Treatment Plant when it is up and running?

No – there will be no detectable odour in the surrounding community. The plant includes a state-of-the-art odour control and a 24-hour odour control monitoring system. You can find more information in our [Odour Fact Sheet](#).

5. Why does your odour modeling indicate 2 Odour Units (OU) coming from the McLoughlin Point Wastewater Treatment Plant if it is being built to a design criteria of 5 OU?

The McLoughlin Point Wastewater Treatment Plant has been designed so there will be no detectable odour by residents. The maximum allowable odour is 5 OU at the property line, which is not detectable in the surrounding community. Modelling based on the current design shows odour during operations will be approximately 2 odour units at the property line and it dissipates quickly as it moves away from the plant.

Ogden Point Work, including Dallas Road and Niagara Street

6. What is happening at Ogden Point?

The McLoughlin Point Wastewater Treatment Plant includes construction of a cross-harbour undersea pipe from Ogden Point to McLoughlin Point. This work will take just over a year to complete, and will take place from both sides of Victoria Harbour using a process called horizontal directional drilling. Two drill locations will be used: one at McLoughlin Point, and the second at Ogden Point near the James Bay Anglers Boat Ramp. The work site will be contained, and access to the Angler's Boat Launch will be generally available during construction (there may be temporary, short-term closures). More information is available on the [Ogden Point Cross Harbour Forcemain](#) project page.

7. What are the traffic impacts to Dallas Road and Niagara Street due to the construction of the under harbour pipe at Ogden Point?

Ogden Point construction is anticipated to take just over a year to complete: from late April 2017 to July 2018. The majority of this work will take place within the fenced work site at Ogden Point. Site set up will start in May and is expected to take just over a month. This involves bringing equipment and materials to the site, which will result in about five truck trips per day.

After that, the traffic impacts will be limited, and mainly associated with construction workers getting to and from the site. There will be approximately five two-way truck trips daily to remove material from the site. The traffic impacts to Dallas Road and Niagara Street associated with the under harbour pipe are expected to occur during the final month of the work, which is anticipated to be June 2018.

**CRD Wastewater Treatment Project
Website FAQ**

8. What's happening on Niagara Street?

Impacts on Niagara Street will occur over about a month, anticipated in June 2018. Specifically:

- Niagara Street will be used to assemble the pipe that will be pulled through the directional drill passage between Ogden Point and McLoughlin Point.
- Assembling the pipe involves delivery of the pipe segments, and welding the pipe together. There is no digging required on Niagara Street.
- A portion of Niagara Street will be temporarily closed to general traffic for about a month while the pipe is assembled. We will do everything possible to ensure local traffic has continued access. Residents will have pedestrian access to their homes at all times.
- We will be coordinating with emergency services and there will be a first responder emergency services access plan in place. Emergency services will have access to all homes at all times.
- As this work will occur just over a year from now – in June 2018, the Project will arrange meetings with neighbours along Niagara Street in April 2018 to discuss details of the temporary impact and address residents' needs and concerns.

9. Will Dallas Road be affected by the pipe pull, as well as Niagara Street?

Yes, for a one week period, a portion of Dallas Road will be closed to traffic. This is anticipated to occur in June 2018 while the pipe is being 'pulled' along Niagara Street and through the directional drill passage at Ogden Point.

The exact timing of this part of the Project will be determined based on construction operations. An updated Traffic Management Plan will be developed well in advance of the pipe assembly on Niagara Street and discussed in advance with residents.

Construction of the pipe from Clover Point to Ogden Point (the Clover Point Forcemain)

10. When will construction along Dallas Road start? When will you give us more information about this construction?

The Wastewater Treatment Project is being constructed in phases. The first phase, construction of the McLoughlin Point Wastewater Treatment Plant and cross-harbour undersea pipe from Ogden Point to McLoughlin Point, will begin this spring. The construction sites will be confined to the Ogden Point area (near the existing James Bay boat launch – which will remain available) and to McLoughlin Point in Esquimalt.

Construction of the pipe from Ogden Point to Clover Point (the Clover Point Forcemain), will begin in early 2018. The Project Team is conducting field investigations which include geotechnical, environmental, archeological, civil and topographic surveys, to inform the final design and alignment of the pipe.

**CRD Wastewater Treatment Project
Website FAQ**

The 50% design of the pipe will be complete in the fall of 2017. At that time, the Project Team will present the alignment of the pipe, as well as the alignment of the cycle track, which will be built above it, to City Council at a public meeting and to the James Bay Neighbourhood Association and Fairfield Gonzales Community Association in a separate presentation.

More information about construction timing will be posted to this website when it is available.

11. Will construction on the pipe from Ogden Point to Clover Point (the Clover Point Forcemain) impact the bluffs along Dallas Road?

The proposed alignment of the pipe from Ogden Point to Clover Point (the Clover Point Forcemain) was developed in collaboration with City of Victoria planning staff and considered the bluffs, location of mature trees, sensitive vegetation, potential erosion, and traffic impacts. The Project Team will be conducting geotechnical, environmental, and archeological assessments, including civil and topographic surveys, to inform the final design and alignment of the pipe.

12. Will the construction cause erosion to the cliffs along Dallas Road?

There will be extensive engineering work completed prior to the start of construction to ensure that the alignment does not compromise the cliffs. A geotechnical site investigation will include a terrain hazard review and slope stability analysis. The final alignment of the pipe will consider existing utilities, mature trees, and potential erosion.

13. Will Dallas road be completely shut to traffic during construction of the pipe from Clover Point to Ogden Point (Clover Point Forcemain)?

No. The road will not be completely closed, but there will be temporary impacts to traffic flow along Dallas Road, as there is when any underground utility is being installed or replaced. We understand that this will have impacts on the community and we will work hard to ensure that our plans are mindful of the needs and concerns of the community. The development of traffic management plans is a high priority for the Project. The Project Team is working closely with municipal staff to ensure that traffic plans are informed by the people who have the best understanding of the local road networks and are coordinated with other development plans to ensure we are not over-burdening certain roads/routes. The Project Team is also reaching out to stakeholders to gather additional information regarding key traffic patterns and volumes that must be considered in our plans.

14. Will there be a vibration impact on nearby houses? Will vibration impact the recently constructed sea wall?

Construction of the pipe from Clover Point to Ogden Point (Clover Point Forcemain) involves digging a trench along Dallas Road, putting in a pipe, and then restoring the surface above. This is similar to work the CRD and City of Victoria do as part of regular operations to build and maintain the city's water and sewer infrastructure. We don't anticipate damage to properties as a result of this work. As of May 1,

**CRD Wastewater Treatment Project
Website FAQ**

there will be a public information phone line available for residents to call with questions or to report any concerns.

15. Will I be able to insure my property if I live close to the construction zone?

The construction should not impact an individual's ability to purchase insurance that would typically be purchased by a homeowner. As is the case with all CRD or municipal engineering activities, contractors are required to have insurance in place to protect against damage to third party property due to construction activities. Specifically, the contractor is required to conduct a pre-construction survey to document the pre-construction condition of properties, structures and buildings prior to construction. Any claims of damage from property owners would be forwarded to the contractor's insurance company.

16. Will there be blasting involved in the work on the pipe from Clover Point to Ogden Point (Clover Point Forcemain)?

We do not anticipate any blasting will be required for the work along Dallas Road. Construction of the pipe from Clover Point to Ogden Point (Clover Point Forcemain) involves digging a trench along Dallas Road; putting in a pipe; and then restoring the surface above.

There will be periodic blasting for construction of the McLoughlin Point Wastewater Treatment Plant, and there may be some blasting required at Clover Point for the Pump Station expansion depending on the final design. Blasting activities will be communicated in advance to immediate neighbours, and the anticipated blasting schedule will be posted to the Project website weekly, under [Construction Notices](#).

17. How deep will the pipe from Clover Point to Ogden Point (Clover Point Forcemain) be buried?

The pipe will be approximately 1.2 meters (4 feet) in diameter. The top of the pipe will be approximately 1.2 meters below ground. This may vary slightly along the route.

18. Why is the pipe from Clover Point to Ogden Point (Clover Point Forcemain) being built along Dallas Road rather than offshore?

The Project Team has looked at the offshore route that has been suggested and it is not feasible for a number of reasons:

- it would be significantly more costly than the land-based route;
- the pipe would be difficult to access for maintenance or repair;
- there could be significant environmental impacts from installation of a seabed pipe, including the potential for disturbing of contaminated materials on the seabed, and a pipe installed along the foreshore would have to be protected and anchored against wave action;
- the pipe would be subject to damage from cruise ships and other boats which are known to drop anchor in the area; and

**CRD Wastewater Treatment Project
Website FAQ**

- a full environmental impact assessment would be required which would take 18-24 months to complete. This means the Project would not be completed by the end of 2020, and we would not be complying with federal regulations to treat wastewater by the end of 2020.

This [technical memo](#) from the CRD's engineering firm outlines the reasons this route is not feasible.

Saanich**19. When will you be coming to speak to those of us in Saanich about the Residuals Treatment Facility?**

As we get closer to construction of the segment of the Project in Saanich, a communications and engagement program will ensure the surrounding communities have advance notice of construction activity. Broad outreach to stakeholders will include residents, businesses, schools, day cares, recreational groups, transportation providers, tourism groups and other organizations. Communications tools will include: a project information phone line, email, social media, website, community updates, construction notices, traffic media updates, door-to-door advisories where appropriate, and community information meetings.

20. When will more information be available about other components of the Project?

As we get closer to construction of other segments of the Project, a community and engagement program will ensure the surrounding communities have advance notice of construction activity. Broad outreach to stakeholders will include residents, businesses, schools, day cares, recreational groups, transportation providers, tourism groups and other organizations. Communications tools will include: a project information phone line, email, social media, website, community updates, construction notices, traffic media updates, door-to-door advisories where appropriate, and community information meetings.

- Up-to-date information materials about the [Wastewater Treatment Project](#)

Welcome to the Wastewater Treatment Project Newsletter

This newsletter will give you an overview of the Capital Regional District’s Wastewater Treatment Project, and let you know how you can stay informed or contact the Project. There is also lots of information on our website: wastewaterproject.ca

The Wastewater Treatment Project will provide tertiary treatment for wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the Esquimalt and Songhees First Nations.

The Project is approved and now entering the construction phase. The first phase of work will begin in May 2017 on the McLoughlin Point Wastewater Treatment Plant and the cross-harbour undersea pipe between Ogden Point and McLoughlin Point.

The Project consists of three main elements:

McLoughlin Point Wastewater Treatment Plant

Located at McLoughlin Point in Esquimalt, the treatment plant will provide tertiary treatment to the core area’s wastewater.

Residuals Treatment Facility

Residual solids from the wastewater treatment plant will be piped to a Residual Treatment Facility Hartland Landfill, where they will be turned into what are known as “Class A” biosolids. These biosolids are a high quality by-product treated such that it is safe for further use.

Conveyance System

The conveyance system refers to the ‘pumps and pipes’ of the Wastewater Treatment Project. This system will carry wastewater from across the core area to the treatment plant, and residual solids to the Residuals Treatment Facility at Hartland Landfill.

The Wastewater Treatment Project costs \$765 million and is being funded by the Government of Canada, Government of British Columbia and Capital Regional District.

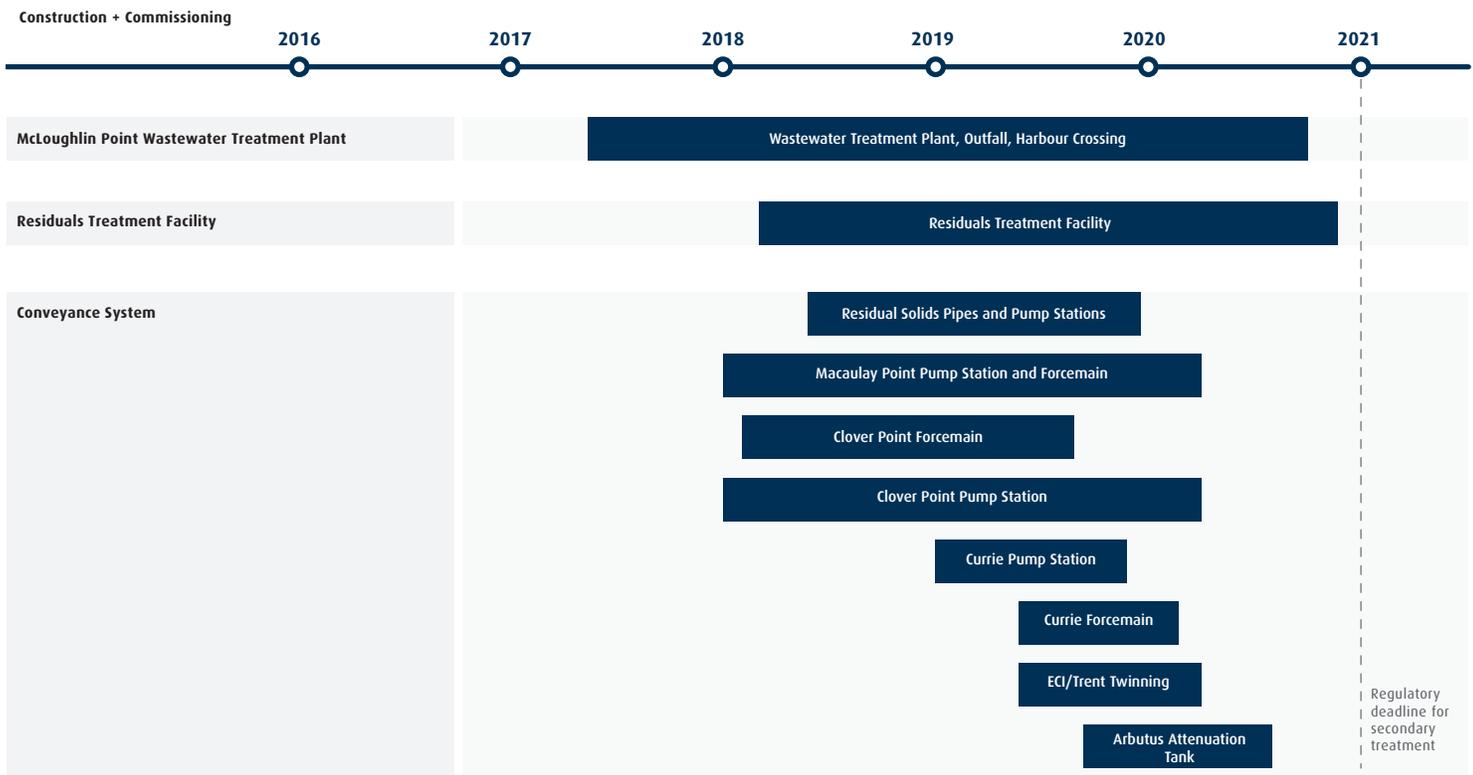




Wastewater Treatment Project Components and Schedule

This summary will give you a high-level view of what’s happening and when. The Wastewater Treatment Project will be constructed through nine separate contracts, and construction will be staged to the end of 2020. Communications and engagement activities will take place in advance of project construction beginning in each area.

Wastewater Treatment Project Schedule*



* Schedule subject to updates as project planning progresses.

Construction is beginning this spring on the McLoughlin Point Wastewater Treatment Plant in Esquimalt and the cross-harbour undersea pipe between McLoughlin Point and Ogden Point. Construction will take place at Ogden Point to drill the undersea pipe; this will take just over a year to complete. Construction and commissioning of the Wastewater Treatment Plant at McLoughlin Point will take place from April 2017 to fall 2020.

OGDEN POINT CONSTRUCTION ACTIVITIES: ANTICIPATED APRIL 2017 – JUNE 2018*

APRIL TO MAY 2017

Remove Anglers Hut

Set up work site

- Bring equipment and materials to the site; on average five trucks per day
- Build noise wall

JUNE 2017

Install casing

- Involves approximately two weeks of pile driving
- On average five trucks per day

JUNE 2017 TO JUNE 2018

Conduct horizontal directional drilling

- Involves equipment and generators for drilling operations
- On average five trucks per day

JUNE 2018

Assemble pipe on Niagara Street

- Deliver pipe segments
- Weld pipe together

Pull pipe through directional drill passage (24 hours per day for approximately four days)

McLOUGHLIN POINT CONSTRUCTION ACTIVITIES: ANTICIPATED APRIL 2017 – FALL 2020*

APRIL/MAY 2017

Set up construction laydown area

- Heavy equipment and personnel preparing the site

MAY 2017 TO AUG 2017

Site preparation (excavation/blasting)

- On average 30 trucks per day hauling excavated material
- Blasting activities will be periodically scheduled and communicated to immediate neighbours; blasting schedule will be posted to project website weekly

JUNE 2017 TO JUNE 2018

Conduct horizontal directional drilling

- On average five trucks per day

AUG 2017 TO FALL 2018

Pouring concrete

- On average 15 trucks per day with more for large pours

SPRING 2018 TO FALL 2019

Plant construction

- On average 10 trucks per day

FALL 2019 TO FALL 2020

Plant commissioning

** Construction schedules subject to updates based on construction operations. Project to provide regular updates on anticipated dates.*

Frequently Asked Questions about the Wastewater Treatment Project

Here are some questions we've heard from the community, and the answers. For more questions and answers, please check our "Community Questions" section on the Wastewater Treatment Project Website: wastewaterproject.ca

NOISE

How loud will the noise be coming from the plant during operation and how will it impact Victoria?

As per the Township of Esquimalt's Zoning Bylaw, the operational noise level will not exceed 60 decibels (dBA) measured at the plant's property line. Predicted noise levels in James Bay, the closest location to the treatment plant in Victoria, will not exceed 35 dBA. This is 5 dBA below the most stringent limit in the City of Victoria's noise bylaw.

How noisy will the construction be at Ogden Point. What are you doing to reduce it?

Construction at Ogden Point will take place over about a year, beginning in May 2017. We are building a 5-metre high noise wall around the Ogden Point work site. It will be in place before construction begins.

This will reduce construction noise below the City of Victoria construction noise bylaw level.

In June there will be approximately two weeks of pile driving. After that, while there will be noise from generators and other equipment, noise levels will be reduced considerably, and we do not anticipate any vibration.

In addition to the noise wall, we're working with the contractor to consider other noise mitigation measures to further reduce noise at the work site. We have engaged noise consultants and they will be monitoring noise levels during construction.

ODOUR

Will I be able to smell anything from the McLoughlin Point Wastewater Treatment Plant when it is up and running?

No – there will be no detectable odour in the surrounding community. The plant includes state-of-the-art odour control and a 24-hour odour control monitoring system.

OGDEN POINT/DALLAS ROAD CONSTRUCTION

When will construction along Dallas Road start? When will you give us more information about this construction?

The Wastewater Treatment Project is being constructed in phases. The first phase, construction of the McLoughlin Point Wastewater Treatment Plant and cross-harbour undersea pipe from Ogden Point to McLoughlin Point, will begin this spring. The construction sites will be confined to the Ogden Point area (near the existing James Bay boat launch – which will remain available) and to McLoughlin Point in Esquimalt.

Construction of the pipe from Ogden Point to Clover Point (the Clover Point Forcemain), will begin in early 2018. The Project Team is conducting field investigations which include geotechnical, environmental, archeological, civil and topographic surveys, to inform the final design and alignment of the pipe.

The 50% design of the pipe will be complete in the fall of 2017. At that time, the Project Team will present the alignment of the pipe, as well as the alignment of the cycle track, which will be built above it, to City Council at a public meeting and to the James Bay Neighbourhood Association and Fairfield Gonzales Community Association in a separate presentation.

Will construction on the pipe from Ogden Point to Clover Point (the Clover Point Forcemain) impact the bluffs along Dallas Road?

The proposed alignment of the pipe from Ogden Point to Clover Point (the Clover Point Forcemain) was developed in collaboration with City of Victoria planning staff and considered the bluffs, location of mature trees, sensitive vegetation, potential erosion, and traffic impacts. The Project Team will be conducting geotechnical, environmental, and archeological assessments, including civil and topographic surveys, to inform the final design and alignment of the pipe.

What are the traffic impacts to Dallas Road and Niagara Street due to the construction of the under harbour pipe at Ogden Point?

Ogden Point construction is anticipated to take just over a year to complete: from late April 2017 to July 2018. The majority of this work will take place within the fenced work site at the boat launch site next to Ogden Point. Site set up will start in May and is expected to take just over a month. This involves bringing equipment and materials to the site, which will result in about five truck trips per day.

After that, the traffic impacts will be limited, and mainly associated with construction workers getting to and from the site. There will be approximately five two-way truck trips daily to remove material from the site. The traffic impacts to Dallas Road and Niagara Street associated with assembling the under harbour pipe are expected to occur during the final month of the work, which is anticipated to be June 2018.

WHAT WILL HAPPEN ON NIAGARA STREET?

Many people have inquired about construction impacts for residents and businesses on Niagara Street. Niagara Street will be used to assemble the pipe that will be pulled through the drill passage between Ogden Point and McLoughlin Point. This work is expected to take place in June 2018 and it will take about a month to complete.

- Assembling the pipe involves delivery of the pipe segments, and welding the pipe together. **There is no digging required on Niagara Street.**
- A portion of Niagara Street will be temporarily closed to general traffic for about a month while the pipe is assembled. We will do everything possible to ensure local traffic has continued access. Residents will have pedestrian access to their homes at all times.
- The Project Team will coordinate with emergency services and there will be a first responder emergency services access plan in place. Emergency services will have access to all homes at all times.

As there have been many questions about this section of the work, we will be coming door-to-door on Niagara Street in the coming weeks to ensure that residents have the opportunity to get the correct information and ask questions.



Staying Up-to-Date on the Wastewater Treatment Project

The Project team is working to ensure residents know what work is planned, when it's expected to begin and end, how the construction activity may impact communities, and what we have planned to mitigate those impacts.

THANKS FOR COMING!

Thank you to the over 300 people who attended our two Community Information Meetings on April 5 (at the Grand Pacific Hotel) and April 12 (at the Royal Canadian Legion, Esquimalt Branch). If you weren't able to make it, meeting information can be found at: wastewaterproject.ca.

What is the Project doing to get the word out?

Since January the Project Team has held five community information open houses, six meetings with residents' associations (four with James Bay Neighbourhood Association, one with the Fairfield Gonzales Community Association and one with Victoria West Community Association), and met with Macaulay Elementary School and James Bay Community School. We are also creating an Esquimalt Liaison Committee and will be planning further community meetings as we move into other phases of the Project.

We've also created a new Project website where you can find everything you need to know about the project and a project information line that you can call to get information or to report a concern. You'll also find us on social media, email (if you sign up at a meeting or on the website to receive updates), and from time-to-time when we have construction updates, in your neighbourhood going door to door.

FOR MORE INFORMATION

Website:
wastewaterproject.ca

Email:
wastewater@crd.bc.ca

Phone: 1.844.815.6132
(as of May 1)



For More Information

Website: wastewaterproject.ca

Email: wastewater@crd.bc.ca

Project Information Line: 1.844.815.6132 (as of May 1)



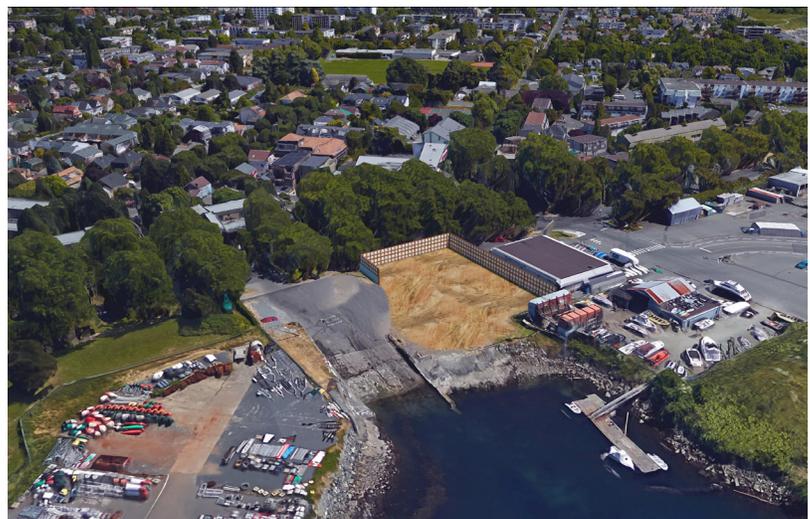
Ogden Point Noise Mitigation

The City of Victoria construction noise bylaw is 85 dBA. Noise mitigation will reduce construction noise below the bylaw level.

- 5-metre high acoustic sound barrier (noise wall)
- Constructed in advance of casing installation and drilling operations
- Noise mitigation will result in 75 dBA at the midpoint of Dallas Road, below the 85 dBA noise bylaw
- The project team is working with the contractor to consider other noise mitigation measures to further reduce noise at the Ogden Point work site. These could include enclosures around specific pieces of equipment, or other structures which may require additional approvals.



Noise Wall – Street view



Noise Wall – Aerial view

The Wastewater Treatment Project will provide tertiary treatment for wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the Esquimalt and Songhees Nations. The Wastewater Treatment Project will be complete by the end of 2020, and consists of the McLoughlin Point Wastewater Treatment Plant, the Residuals Treatment Facility at Hartland Landfill, and the conveyance system that will carry wastewater from across the core area to the treatment plant, and residual solids to the Residuals Treatment Facility.



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**REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF TUESDAY, MAY 2, 2017**

SUBJECT **120-day Progress Update: Achievements and Priorities**

ISSUE

To present the progress made on the Wastewater Treatment Project in the Project Team's first 120 days (between December 2016 and March 2017), and to look ahead to the Project Team's priorities for the next 120 days.

BACKGROUND

On May 25, 2016 the Regional Board of the CRD:

- i) Adopted by resolution the Core Area Wastewater Treatment Project Board Terms of Reference (Project Board Terms of Reference) for the purposes of establishing principles governing the Core Area Wastewater Treatment Project (the Wastewater Treatment Project or the WTP);
- ii) Established the Core Area Wastewater Treatment Project Board (Project Board) under Bylaw 4109 (the CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016) for the purposes of administering the Core Area Wastewater Treatment Project; and
- iii) Delegated certain of its powers, duties and functions to the Project Board under Bylaw 4110 (the CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016).

On September 14, 2016 the Regional Board of the CRD:

- i) Received the final report of the Project Board with respect to its recommendation for the CAWTP, dated September 7, 2016 (the Final Report); and
- ii) Approved the business case attached as Appendix 1 (the Business Case) to the Final Report.

The Business Case established the CAWTP control budget (the Control Budget) of \$765 million.

In accordance with the CRD Core Area Wastewater Treatment Project Board Bylaw No. 1, 2016 the Project Board has appointed a Project Director to oversee all aspects of the Project.

The Project Board Terms of Reference include the requirement that the Project Director will lead a Project Team to plan, procure and implement the Project, and that the Project Director will prepare a Project Management Plan to guide the work.

DISCUSSION

The Project Board appointed a Project Director and Deputy Project Director in early December and late November 2016, respectively. The Project Director and Deputy Project Director are in the process of building a Project Team.

Attached as Appendix A, is a 120-day review and plan. The 120-day review covers the period between December 2016 and March 2017. All tasks outlined in the 120-day review have been

successfully-completed, with the exception of the development of the Project Management Plan and associated subsidiary plans that is ongoing.

The Project Team is developing the Project Management Plan (PMP) and supporting topic-specific plans. The topic-specific plans are at various stages of development. The Communications and Engagement Plan was finalized and approved by the Project Board at its April 4, 2017 meeting. The approach to risk and contingency management has been developed and reviewed, and other plans are in draft. The topic-specific plans will be finalized in priority order, with the safety, risk, construction, quality and environmental management plans identified as the priority plans to be completed next.

The 120-day plan covers the period from April to July 2017, and sets out the tasks that need to be completed as a priority during this period. The plan focuses on the development, implementation and integration aspects of the construction phase. Some of the key tasks to be carried out in this period include the: recruitment of key Project Team members (including the Wastewater Treatment Plant Project Manager, Quality Manager and Stakeholder Engagement Manager) and their integration into the team; the reallocation of the Control Budget; the completion of the integrated schedule and the development of the Project Management Plan and supporting topic-specific plans as outlined above.

The Project Team has successfully completed the development phase of the project and has transitioned to the construction phase of the Project. The next 120 days will be focused on construction and integration activities.

BUDGET IMPLICATIONS

The 120-day plan sets out the tasks that need to be completed as a priority during the period from April to July 2017. The plan will help the Project Team prioritize activities in order to procure and implement the Wastewater Treatment Project within the Control Budget.

RECOMMENDATION

That the Core Area Wastewater Treatment Project Board receive the 120-day review and plan for information.



Elizabeth Scott, Deputy Project Director
Wastewater Treatment Project



Dave Clancy, Project Director
Wastewater Treatment Project
CONCURRENCE

ES:dd

Attachments: Appendix A: 120 Day Review and 120 Day Plan



Report Card: 120 Day Review (December 2016 – March 2017)

The following tasks were prioritized in the first 120 days of the Project team being hired. With the exception of completing all of the project management plans (which is in progress), all activities have been successfully completed.

Task	Key Areas	Status
Project Team	<ul style="list-style-type: none"> Approved organizational structure with job descriptions for key hires Key Project leadership personnel hired: Project Director, Deputy Project Director, Construction Manager, Design Manager, Financial Manager Project Advisors retained: Procurement, Major Projects Advisor, Business Advisor, Communications and Engagement Advisor, Insurance Advisor, Rate-Setting Advisor, Due Diligence Panel members, Fairness Advisor, Conflict of Interest Adjudicator Established relationships with CRD: monthly co-ordination meetings and support/liaison roles 	Complete
Funding Agreements	Executed four funding agreements with Federal and Provincial Government	Complete
Land-Use, Land Interests, Permits and Approvals	<ul style="list-style-type: none"> Esquimalt rezoning, development permit and amenity agreements City of Victoria rezoning and licences DND, GVHA, Transport Canada licences 	Complete
WWTP Project Agreement	Executed Project Agreement with HRP	Complete
RTF Procurement	<ul style="list-style-type: none"> Issued RFQ; received and evaluated seven submissions; selected shortlist Issued RFP to three proponents with initial draft Project Agreement 	Complete
First Nations	Support Agreements entered into with the Esquimalt and Songhees Nations	Complete
Project Controls	<ul style="list-style-type: none"> Completed lessons learned Developed Project risk registers Developed work breakdown structure (WBS) Developed format for quarterly reports Developed integrated schedule (incorporation of final HRP contract schedule is underway) 	Complete Complete Complete Complete Complete
Project Management Plans	<ul style="list-style-type: none"> Communications and Engagement Plan approved Other Project Management Plans currently being developed. Plans are being completed as team members responsible for plans are hired 	Complete In progress
Communications and Engagement	<ul style="list-style-type: none"> Comprehensive stakeholder lists developed Communication protocols developed Six community/stakeholder meetings hosted and/or attended Website updated Public information materials developed; news releases and pre-construction notices 	Complete
Project Set-up Activities	<ul style="list-style-type: none"> Key activities required for functioning project office: renew lease and set-up office; IT and licensed project software (Prolog); Approved PMO budget 	Complete
Project Charter	Approved Project Charter, including establishment of KPIs	Complete
Municipal Technical Working Groups	<ul style="list-style-type: none"> Saanich kick-off meeting held Terms of Reference drafted 	Complete
Project Board Reporting	<ul style="list-style-type: none"> Keeping the Project Board informed of progress and gaining approval for initiation activities 	Ongoing

Look Ahead: 120 Day Plan (April – July 2017)

The Project has transitioned from planning to construction. The following priorities (not in priority order) are required to be completed in the next 120 days in order to continue the successful implementation of the Project.

Task	Key Areas	Target
1. Project Team Recruitment	<ul style="list-style-type: none"> Hire remaining key managers: WWTP Project Manager, Safety Manager, Quality Manager, Stakeholder Engagement Manager, Project Controls Manager, Regulatory and Environmental Manager Hire remaining Project Controls team either through seconded arrangement with Stantec or direct hire for term of project Execute/amend contracts with remaining project advisors: Technical Advisor, Communications and Engagement, Legal Advisor, Major Projects Advisor, Regulatory Advisor 	<p>June 30</p> <p>July 31</p> <p>May 31</p>
2. Project Team Integration	<p>Phased project chartering:</p> <ul style="list-style-type: none"> PD & DPD review and finalise Project Leadership Team accountabilities Project Leadership Team Project Team 	<p>April 30</p> <p>Mid-May</p> <p>May 31</p>
3. Project Controls	<p>Monthly and quarterly reporting requirements</p> <p>Quantification of retained risks and reallocation of control budget</p> <p>Resource-loaded project schedule (incorporating final HRP contract schedule)</p> <p>Phased implementation of Prolog</p>	<p>April 30</p> <p>April 30</p> <p>May 31</p> <p>July 31</p>
4. Project Management Plans	<p>Complete project management plans – ideally such that team members responsible for implementation have an opportunity to review before being finalised</p> <ul style="list-style-type: none"> Priority 1 Plans (includes risk, construction and safety management plans): Priority 2 plans (includes quality and environmental management plans) Remaining plans (includes project controls and procurement management plans) 	<p>May 31</p> <p>June 30/July 31</p>
5. Delegation of Authority	<p>Amend Delegation Bylaw for Project Director and Deputy Project Director</p>	<p>May 31</p>
6. Conveyance	<p>Progress conveyance design and procurement:</p> <ul style="list-style-type: none"> Clover Point Pump Station Clover Point Forcemain Macaulay Point Pump Station and Forcemain Residuals Treatment Pipeline and Pump Stations 	<p>Ongoing</p>
7. Residual Treatment Facility	<p>Progress procurement:</p> <ul style="list-style-type: none"> Conduct collaborative sessions and update initial draft Project Agreement; CRD's formal approval of Project Agreement specifications 	<p>Ongoing</p> <p>May 31</p>
8. Wastewater Treatment Plant	<p>Fulfil owner's role in construction phase</p>	<p>Ongoing</p>
9. CRD Integration	<p>CRD co-ordination through staff liaison and support positions (e.g. FN, properties) and monthly co-ordination meetings</p> <p>CRD collaboration through monthly strategic meetings with CRD leadership team members</p>	<p>Ongoing</p> <p>Ongoing</p>
10. Funding Partners	<p>Establish/maintain relationships and fulfil conditions</p>	<p>Ongoing</p>
11. First Nations	<ul style="list-style-type: none"> Fulfil conditions of Esquimalt and Songhees Nations Support Agreements Establish/maintain relationships with other First Nations 	<p>Ongoing</p>
12. Environmental Compliance	<ul style="list-style-type: none"> Establish/maintain relationships with regulatory staff Regulatory and Environmental Manager to review and confirm tracking sheet 	<p>Ongoing</p> <p>July 31</p>
13. Communications and Engagement	<ul style="list-style-type: none"> Establish mechanism for responding to phone enquiries Establish community committees with Esquimalt, Victoria and Saanich; Terms of Reference to be agreed 	<p>April 30</p> <p>May 31 / June 30 / July 31</p>
14. Municipal Technical Working Groups	<ul style="list-style-type: none"> Establish technical working groups with the Township of Saanich and the City of Victoria Working group Terms of Reference to be agreed 	<p>May 31</p> <p>June 30</p>



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**REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF TUESDAY, MAY 2, 2017**

SUBJECT **Approval to Proceed with Delegation of Authority Bylaw Amendment**

ISSUE

The Project Team is currently planning, procuring and implementing the Wastewater Treatment Project (WTP) within the delegation of powers, duties and functions specified in Bylaw 2864 (the Capital Regional District (CRD) Delegation Bylaw No. 1, 2001). The CRD Delegation Bylaw No. 1, 2001 provides for a very limited delegation that is not appropriate for a project of the WTP's size and scope.

The Project Team requires a greater delegation of power in order to efficiently plan, procure and implement the WTP and achieve the Project Board's goal of meeting or exceeding federal regulations for secondary treatment by December 31, 2020.

BACKGROUND

On May 25, 2016 the Regional Board of the CRD:

- i) Adopted by resolution the Core Area Wastewater Treatment Project Board Terms of Reference (Project Board Terms of Reference) for the purposes of establishing principles governing the Core Area Wastewater Treatment Project (the Wastewater Treatment Project or WTP);
- ii) Established the Core Area Wastewater Treatment Project Board (Project Board) under Bylaw 4109 (the CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016) for the purposes of administering the Core Area Wastewater Treatment Project; and
- iii) Delegated certain of its powers, duties and functions to the Project Board under Bylaw 4110 (the CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016).

On September 14, 2016 the Regional Board of the CRD:

- i) Received the final report of the Project Board with respect to its recommendation for the WTP, dated September 7, 2016 (the Final Report); and
- ii) Approved the business case attached as Appendix 1 (the Business Case) to the Final Report.

The Business Case established the WTP control budget (the Control Budget) of \$765 million.

The Project Board Terms of Reference:

- i) Outline the role of the Project Board, which include to select a Project Director to oversee all aspects of the Project;
- ii) State that the Project Director will lead a Project Team to plan, procure and implement the WTP; and
- iii) Include four goals for the Project Board, one of which is to meet or exceed federal regulations for secondary treatment by December 31, 2020.

The Project Board has selected and appointed a Project Director (Dave Clancy) and Deputy Project Director (Elizabeth Scott) who are in the process of building a Project Team. The Project Team is currently planning, procuring and implementing the WTP within the delegation of powers, duties and functions specified in Bylaw 2864 (the CRD Delegation Bylaw No. 1, 2001). The CRD Delegation Bylaw No. 1, 2001 includes the following signing authority limitations:

- i) for the Project Director: \$100,000, and
- ii) for all other staff, subject to the approval of the applicable General Manager and/or the General Manager Corporate Services, the lesser of \$50,000 or the amount listed on their approved signing authority form held by the Corporate Services department.

The CRD Delegation Bylaw No. 1, 2001 restricts the Project Board from delegating its authority further, and the limited delegation that it provides is not appropriate for a project of the WTP's size and scope.

DISCUSSION

The Project Team requires a greater delegation of power in order to efficiently plan, procure and implement the WTP and achieve the Project Board's goal of meeting or exceeding federal regulations for secondary treatment by December 31, 2020.

KPMG has carried out an exercise to review and benchmark the levels of signing authority on major projects of a similar complexity and monetary value to the WTP. Their findings are attached in Appendix A, with a recommendation regarding the appropriate level of authority. In summary, KPMG recommend that the levels of authority be increased as summarized in the following table.

	Authority to purchase individual contracts and services up to a value of:	Authority to agree individual contract changes and amendments up to a value of:
Project Director	\$3 million	\$2 million
Deputy Project Director	\$1.5 million	\$1 million

The proposed authority limits are subject to the value of the relevant contract/amendment being within the Control Budget, and with access to contingency and program reserve being governed by the Contingency and Program Reserve Procedure, which is attached as Appendix B. This procedure will be part of the Project Management Plan.

BUDGET IMPLICATIONS

The complexity of the WTP requires the Project Director to be able to resolve issues and enter into contracts on a timely basis. The current delegation level requires a substantial investment of time by both the Project Board and Project Team to ensure that this timing is met. As the Project proceeds, these demands will increase; subsequently, under the current arrangement so will the effort required by both the Project Board and Project Team. If the CRD Delegation Bylaw No. 1, 2001 is not amended there is a risk that critical contracts and services will not be entered into, or amended, quickly enough, therefore impacting the schedule and cost of the WTP.

**Core Area Wastewater Treatment Project Board – May 2, 2017
Approval to Proceed with Delegation of Authority Bylaw Amendment**

The greater delegation of authority proposed will allow the Project Director to make timely decisions and plan, procure and implement the WTP within the Control Budget.

RECOMMENDATION

That the Project Board approve the following resolution:

RESOLVED that:

1. The Project Board recommend that the Board of the Capital Regional District amend Bylaw 2864 (the CRD Delegation Bylaw No. 1, 2001) to provide for delegation limits as outlined in the following table.

	Authority to purchase individual contracts and services up to a value of:	Authority to agree individual contract changes and amendments up to a value of:
Project Director	\$3 million	\$2 million
Deputy Project Director	\$1.5 million	\$1 million

2. Approve the Contingency and Program Reserve Procedure, attached as Appendix B.



Elizabeth Scott, Deputy Project Director
Wastewater Treatment Project



Dave Clancy, Project Director
Wastewater Treatment Project
Concurrence

ES:dd

Attachments: 2

Appendix A: KPMG’s Recommendation re Delegation of Authority

Appendix B: Contingency and Program Reserve Procedure

February 2, 2017
 Attention: Elizabeth Scott
 Capital Regional District
 625 Fisgard Street
 Victoria, BC, V8W 1R7

Subject: CRD Core Area Wastewater Treatment Project (CAWTP) Delegation of Authority

Dear Ms. Scott,

KPMG has carried out an exercise to review and benchmark the levels of delegated authority on major projects of a similar complexity and monetary value to CAWTP. KPMG has been involved with a significant number of projects similar to CAWTP and has used these projects and other high profile projects to carry out the exercise. The levels of delegated authority on both public sector Crown Corporation projects and private sector projects (Owners contracts) have been reviewed to ensure a fair assessment.

The CAWTP involves complex procurement with a number of different contracts including Design-Bid-Build (DBB), Design-Build-Finance (DBF) and Design-Build-Finance-Operate-Maintain (DBFOM). The integration and commissioning of the three projects, Conveyance, Wastewater Treatment Plant and Residual Treatment Facility, increases the complexity of the project, as does the number of both internal and external Stakeholders and the speed of execution of the project. All of these factors have been taken into account.

The Capital Regional District Delegation Bylaw no. 1 2001 states that the Project Director and the Deputy Project Director have a delegated authority amount of \$100,000.00 and \$50,000.00 respectively. Based on the benchmarking described above, it is recommended that the current delegation of authority limits be increased to the following for the CAWTP.

	Authority to purchase contracts and services up to a value of:	Authority to agree contract changes and amendments up to a value of:
Project Director	\$3 million	\$2 million
Deputy Project Director	\$1.5 million	\$1 million
Project Manager	As per Delegation Bylaw No.1 (delegation level equivalent to Project Director)	As per Delegation Bylaw No.1 (delegation level equivalent to Project Director)

The proposed delegation of authority limits are subject to the value being within the CAWTP control budget. Access to contingency would be governed by Project Board-approved contingency protocols.

The proposed levels of delegated authority are based on KPMG's review of similar projects and are required to allow for the CAWTP Project Director, Deputy Project Director and Project Manager(s) to effectively and efficiently manage a project of such complexity with a compressed schedule.

A handwritten signature in black ink, appearing to read "Doug Ewing". The signature is stylized and cursive.

Yours truly,

Doug Ewing
Partner, KPMG LLP

Effective Date:	April 27, 2017	Page 1 of 7	Procedure Number:	CP900-PR-PC-RSK002	RCS5220
Title:	WTP Contingency and Program Reserve Procedure				
Project:	CP900 PMO				

1. Objectives

The purpose of this procedure is to ensure that Contingency and Program Reserve funds are appropriately allocated, managed, and ‘drawn down’ in order to address cost variances, changes and to manage risks.

2. Scope

- The Contingency and Program Reserve funds have been defined with reference to the approved Project scope, as detailed in the Wastewater Treatment Project Control Budget, and are available to address risks and cost variances that occur within the planned scope of work and to address changes to the plan within the approved Project scope.
- The scope of the Contingency and Program Reserve funds procedure covers the period from when Contingency has been allocated up until Project completion. The procedure describes how Contingency and Program Reserve funds will be allocated within WTP, how they will be managed and provide the drawdown curves that will be used for reference.

3. Definitions

- 3.1 WTP means the Core Area Wastewater Treatment Project or the “Project” in its entirety.
- 3.2 WWTP means McLoughlin Point Wastewater Treatment Plant.
- 3.3 RTF means Residuals Treatment Facility.
- 3.4 Conveyance System means the projects that make up the Conveyance System scope of work and include:
 - Residual Solids Pipes and Pump Stations
 - Macaulay Point Pump Station and Forcemain
 - Clover Forcemain
 - Clover Point Pump Station
 - Currie Pump Station
 - Currie Forcemain and ECI Trent Twinning
 - Arbutus Attenuation Tank
- 3.5 A Project component means one of the WWTP, RTF or Conveyance System, and the Project components means the WWTP, RTF and Conveyance System collectively.
- 3.6 Contingency means the Contingency allocation set out within the WTP Control Budget to address the identified risks and cost variances associated with the Project components. The Contingency allocations have been established with reference to the quantified risks identified within the WWTP, RTF and the Conveyance System Risk Registries.
- 3.7 Program Reserve means the WTP Program Reserve allocation as set out within the WTP Control Budget. The Program Reserve allocation has been established with reference to the WTP level risks identified within the WTP Risk Register. WTP level risks are broadly defined as events impacting the entirety of the WTP, or the interface between any of the Project components.
- 3.8 Contingency Management refers to how the Contingency is to be managed, allocated, and drawn down to address risks and costs variances.

Effective Date:	April 27, 2017	Page 2 of 7	Procedure Number:	CP900-PR-PC-RSK002	RCS5220
Title:	WTP Contingency and Program Reserve Procedure				
Project:	CP900 PMO				

3.9 Program Reserve Management refers to how the Program Reserve is to be managed and allocated within WTP.

4. Related Documentation

- WTP Control Budget
- Risk Management Plan
- WTP Risk Register
- Cost Management Procedure and Workflow
- Change Management Procedure and Workflow
- WTP Work Breakdown Structure (“WTP WBS”)
- Delegation of Authority Staff Report (for approval at Project Board meeting on 2nd May)
- Bylaw no. 4110

5. Responsibilities

5.1. Project Controls Manager

- Develops, maintains, and updates all Risk Registries.
- Develops the Contingency drawdown curves based on quantified risks and associated risk categories.
- Enter and track the Contingency and Program Reserve fund values into Prolog within the established WBS.
- Leads detailed risk assessment processes, including the quantification of risks and the budgeting of Contingency and Program Reserve funds.
- Tracks, reports, and monitors Contingency and Program Reserve as part of the WTP Control Budget and updates Contingency drawdown curves accordingly.
- Initiates the process to allocate unused Contingency funds to the Program Reserve fund, following the closure of a given risk or the completion of a Project component for Project Director’s approval.

5.2. Project Managers

- Recommends to the Project Director the release of Contingency funds as required.
- Recommends to the Project Director the release of Program Reserve funds if required.

5.3. Project Director (“PD”)¹

- The Project Director has overall responsibility for Contingency Management and for approving any changes to the plan within the approved Project scope.
- Recommends the initial Contingency and Program Reserve funds allocations to the Project Board for their approval.
- Manages and controls Contingency and Program Reserve.

¹ The Deputy Project Director has the same responsibilities as the Project Director with approval up to the level stated in the delegation of authority bylaw (no. 4110).

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Project:	CP900 PMO				

- Approves and manages the use of Contingency funds if within his delegated authority and makes recommendations to the Project Board if the value is outside of his level of delegated authority.
- If required, requests the re-allocation of Contingency between Project components to the Project Board for their approval.
- Seeks approval from the Project Board to allocate Program Reserve funds if required.

5.4. Project Board

- Approves the initial allocation of Contingency and Program Reserve.
- Approves the re-allocation of Contingency between Project components if required.
- Approves the allocation of Program Reserve.

6. Procedure

6.1. Develop the Project Contingency and Program Reserve funds.

- The Project Director, supported by the Project Controls Manager, is to establish the Contingency for each one of the Project components based on the identified risks.
- The Project Director, assisted by the Project Controls Manager, is to establish the Program Reserve for the Project based on WTP-level identified risks.
- The Project Director is to recommend Contingency and Program Reserve allocations to the Project Board for their approval.
- Project Controls Manager is to create Contingency drawdown curves based on the respective Project components schedules and the identified risk phase categories for reference.
- Project Board to approve the Contingency and Program Reserve amounts.

6.2. Enter the Contingency and Program Reserve fund values into Prolog and SAP within the established WBS.

- Contingency and Program Reserve fund allocations will be mirrored in both SAP and Prolog. There will be Contingency funds allocated to all Project components.

6.3. Contingency and Program Reserve approval authority.

- Table 1 and Figure 1 summarize the levels of authority required to approve the use and allocation of Contingency and Program Reserve funds.

Table 1: levels of authority required to approve allocation of Contingency and Program Reserve

Authority Level	Program Reserves	WTP Project Components Contingency
Project Board ("PB")	<ul style="list-style-type: none"> ▪ Approves allocation 	<ul style="list-style-type: none"> ▪ Approves allocation amount ▪ Approve redistribution of funds between Project components
Project Director ("PD")	<ul style="list-style-type: none"> ▪ Recommends allocation to PB 	<ul style="list-style-type: none"> ▪ Manages and controls Contingency within authorization limits

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	<ul style="list-style-type: none"> Manages use of allocated funds 	<ul style="list-style-type: none"> Recommends redistribution of Contingency funds between Project components to PB
Project Managers	<ul style="list-style-type: none"> Informs allocation requirements to PD 	<ul style="list-style-type: none"> Recommends release of Contingency funds

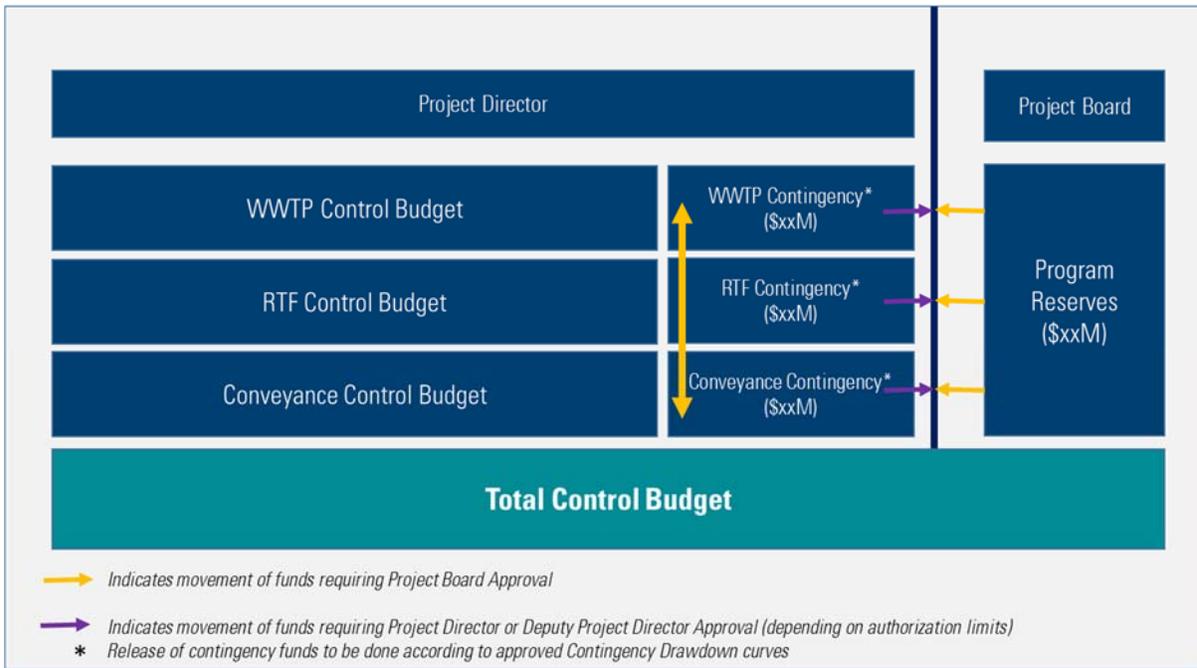


Figure 1- Allocation of Contingency and Program Reserve Funds

- 6.4. Execute the work and monitor Control Budget and Risk Registries.
 - Identified versus actual risks causing the need for Contingency should be reconciled and tracked as part of the monthly monitoring & control phase of the risk management process, led by the Project Controls Manager.
 - Communicate status of Contingency to the Project Team through planned vs. actual Contingency drawdown curves; curves are to be updated by the Project Controls Manager.
- 6.5. Contingency allocation (redistribution) as part of monthly review.
 - If additional Contingency has been identified as being required in any given Project component, subject to Project Board approval, allocation shall be moved from either one of the Project components or from the Program Reserve into the Project component that requires Contingency. This transfer of funds should be authorized through a Project Change Authorization Form and the Contingency drawdown curve will be updated by the Project Controls Manager.

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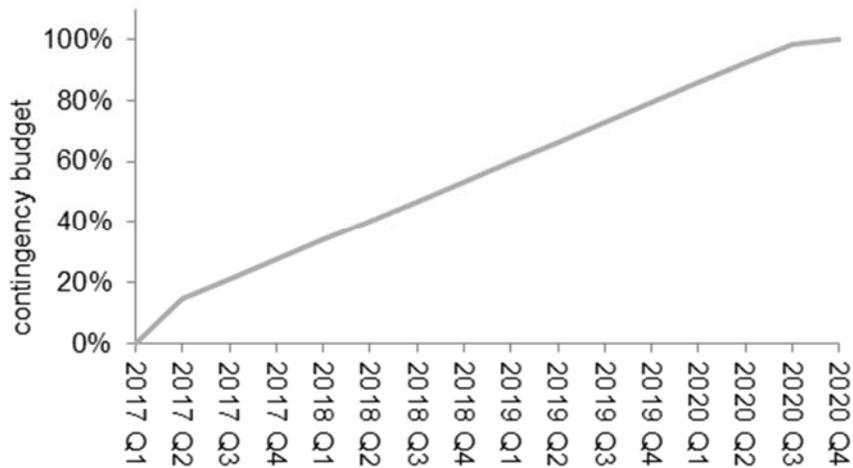
7. Attachments

7.1. Contingency drawdown curves.

- WWTP, RTF, and Conveyance System Contingencies drawdown curves have been developed for reference as depicted in figure 2 below and developed in accordance with 6.1. above.
- For the purpose of developing drawdown curves, risks and associated quantified risk costs have been aligned to a number of schedule related phase categories including: planning, procurement, construction and commissioning.

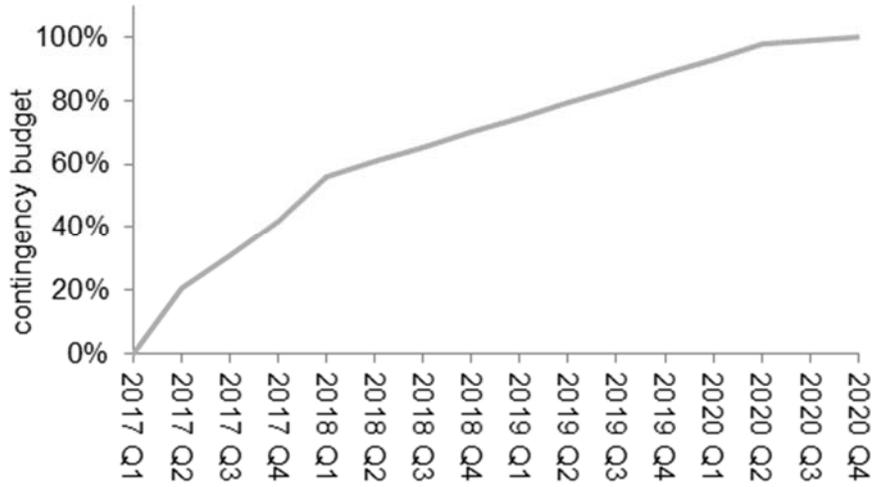
Figure 2- Contingency Drawdown Curves

Contingency Drawdown: WWTP

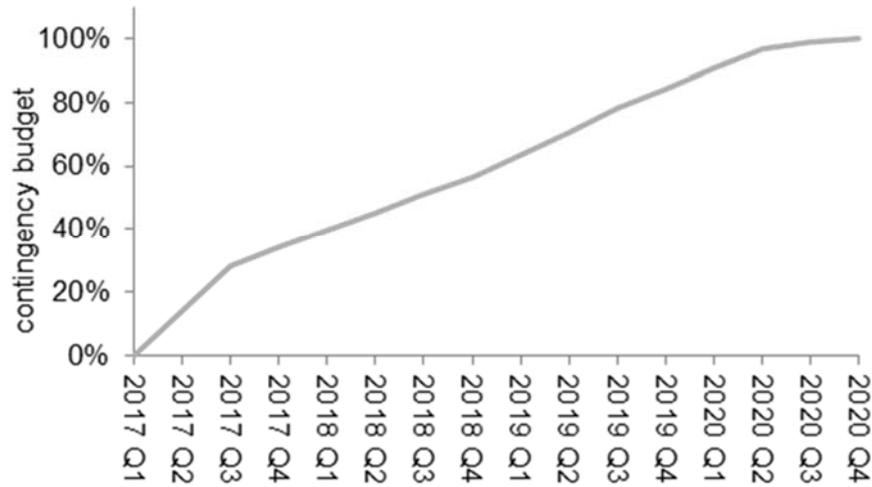


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Contingency Drawdown: RTF



Contingency Drawdown: Conveyance



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8. Appendices

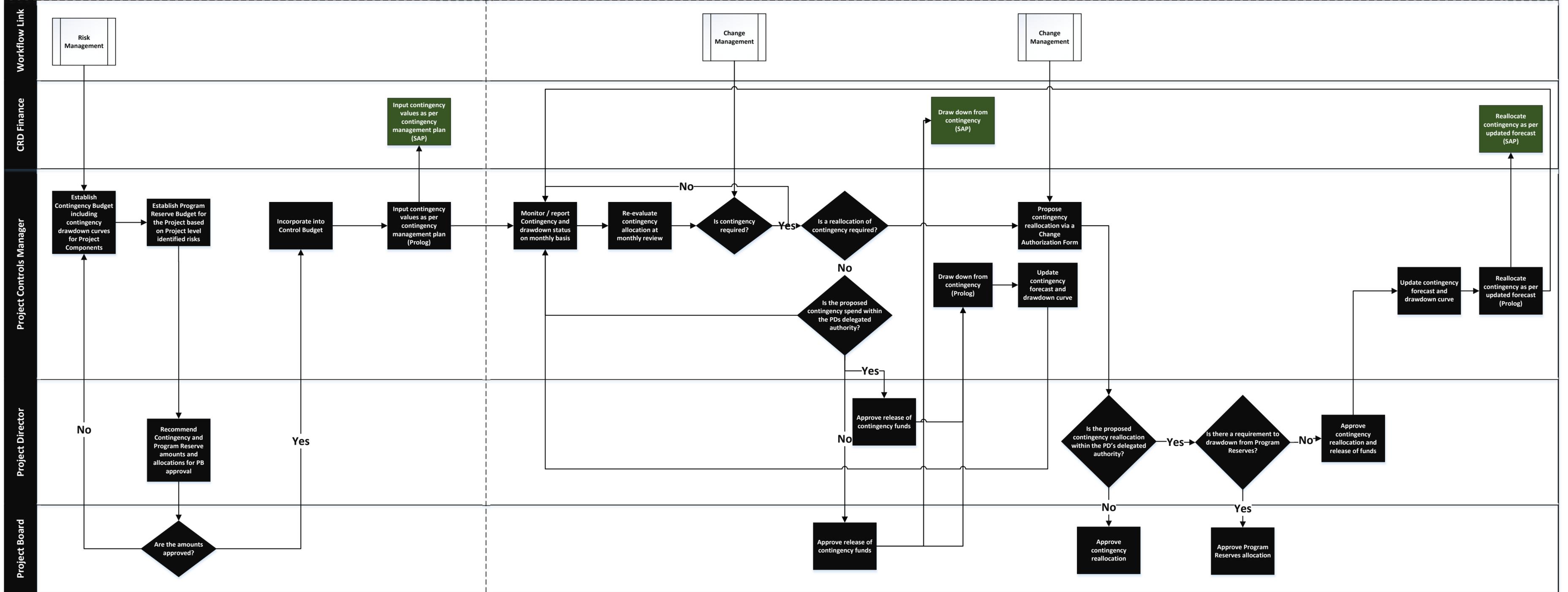
Contingency Management Workflow

9. Revisions

Revision Number	Description	Date Modified	Author
V1.0	Final Version	04/21/2017	PC

Initiation

Execution



**REPORT TO INTEGRATED RESOURCE MANAGEMENT ADVISORY COMMITTEE
MEETING OF WEDNESDAY, APRIL 12, 2017**

SUBJECT **Advanced Integrated Resource Management – Next Steps**

ISSUE

To present a summary of the results of the Request for Expressions of Interest for Advanced Integrated Resource Management and outline next steps.

BACKGROUND

At its February 8, 2017 meeting, the Capital Regional District (CRD) Board approved the Advanced Integrated Resource Management (IRM) Project – Request for Expressions of Interest (RFEOI) documentation and directed staff to proceed with issuing an RFEOI. The RFEOI is intended to explore the market interest in beneficially using locally available solid waste and liquid waste residual materials as feedstock for an IRM facility. The information gathered by the RFEOI process will help to initiate the requirement for assessing IRM options, as stipulated in Amendment No. 11 of the Core Area Liquid Waste Management Plan (CALWMP), outlined in Appendix A.

The CALWMP requires the CRD to submit, by May 31, 2017, a work plan that outlines the steps and schedule the CRD will implement to develop a definitive plan for the beneficial reuse of biosolids by June 30, 2019. The CRD is proposing that the CALWMP requirements be met by providing the province with a comprehensive Integrated Resource Management Work Plan (Appendix B).

The CRD received ten RFEOI submissions that propose a variety of IRM technologies, feedstocks and end uses. Appendix C presents an initial high-level assessment of the responses to the RFEOI, prepared by the CRD's independent IRM specialist, HDR Consultants.

The implementation of a full-scale IRM facility, potentially including a pilot project, will likely take about four years, with up to two years for the permitting process and another two years for construction and commissioning of an IRM facility. Development of an IRM facility in the CRD will be subject to significant policy implications and extensive legal, technical, environmental, consultation and notification requirements. In addition, the IRM project will require stringent regulatory approvals, which could include a waste discharge authorization, completion of an environmental impact study and issuance of an operational certificate. Staff will work closely with provincial Ministry of Environment staff to ensure the MOE is proactively engaged on issues that may impact the approval requirements and timelines for this project. Regardless, the best case approval scenario will still require short-term storage, at Hartland landfill, of Class A biosolids generated by the Residual Treatment Facility, starting January 2021.

The CRD's proactive IRM approach is consistent with the requirement by the Minister of Environment for a plan for the beneficial reuse of biosolids, as it integrates solid and liquid waste streams to maximize resource recovery and generate energy/revenue through combined processing of some or all of these materials. The Integrated Resource Management Work Plan outlines the steps required to address the regulatory, technical and policy implications that will allow for the development of a plan for the beneficial reuse of biosolids as part of an integrated

waste management solution. This work plan will be submitted to the Minister of Environment by May 31, 2017.

NEXT STEPS

- May 2017 – once approved by CRD Board, staff will submit the IRM Work Plan to the Province to fulfill the May 31, 2017 deadline under the CRD's Core Area Liquid Waste Management Plan
- June 2017 – staff will present a detailed evaluation and assessment of IRM options based on RFEOI submissions to the IRM Advisory Committee
- June 2017 – staff will present, as required by the CALWMP, a jurisdictional biosolids review and an assessment of the full spectrum of biosolids beneficial uses
- July 2017 – staff will present a draft IRM Project Plan to the IRM Advisory Committee for feedback prior to starting the IRM procurement process

ALTERNATIVES

Alternative 1

That the Integrated Resource Management Advisory Committee recommend to the Environmental Services Committee:

1. That the Integrated Resource Management Work Plan be submitted to the Minister of Environment by May 31, 2017; and
2. That this report be forwarded to the Core Area Liquid Waste Management Committee, the Saanich Peninsula Wastewater Commission and the Core Area Wastewater Treatment Project Board for information.

Alternative 2

That staff be directed to revise the Integrated Resource Management Work Plan for review by the Environmental Services Committee at its April 26, 2017 meeting.

ECONOMIC IMPLICATIONS

The range of estimated IRM technology costs will be summarized in the detailed RFEOI analysis, to be completed by HDR Consultants for the June 2017 IRM Advisory Committee meeting.

ENVIRONMENTAL IMPLICATIONS

Integrated resource management contributes to sustainability by maximizing beneficial reuse opportunities that recover resources from waste, generate energy, reduce greenhouse gas emissions, and extend the life of Hartland landfill.

The IRM technologies that end up being considered by the CRD will have to be assessed based on the environmental risk of potential contaminants contained in the various available feedstocks.

CORE AREA WASTEWATER TREATMENT IMPLICATIONS

The Core Area Wastewater Treatment Plant Residual Treatment Facility (RTF) procurement has been structured to ensure that up to 50% of raw residuals produced at the McLoughlin treatment plant can bypass the RTF. This contractual and operating flexibility supports the viability of IRM solutions that rely upon the incorporation of both raw residuals and Class A biosolids.

CONCLUSION

The Capital Regional District is working on an integrated resource management solution that integrates solid and liquid waste streams to maximize resource recovery and revenue generation through combined processing of some or all of these regional materials. The CRD received ten Request for Expressions of Interested submissions that propose a variety of IRM technologies, feedstocks and end uses. This report presents an initial assessment of the results of the Request for Expressions of Interest for an Advanced Integrated Resource Management Project.

RECOMMENDATION

That the Integrated Resource Management Advisory Committee recommend to the Environmental Services Committee:

1. That the Integrated Resource Management Work Plan be submitted to the Minister of Environment by May 31, 2017; and
2. That this report be forwarded to the Core Area Liquid Waste Management Committee, the Saanich Peninsula Wastewater Commission and the Core Area Wastewater Treatment Project Board for information.

Submitted by:	Russ Smith, Senior Manager, Environmental Resource Management
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

RS:ac

Attachments: Appendix A – Letter from Minister of Environment, November 18, 2016
Appendix B – Proposed Integrated Resource Management Work Plan
Appendix C – Initial Assessment of Responses to RFEOI – HDR Inc.



Reference: 305517

November 18, 2016

Jane Bird
 Chair, Core Area Wastewater Treatment Project Board
 Capital Regional District
 PO Box 1000, 625 Fisgard Street
 Victoria BC V8W 2S6

Dear Ms. Bird:

Thank you for your letter of November 17, 2016, regarding my conditional approval of Amendment No. 11 to the Core Area Liquid Waste Management Plan (CALWMP). As requested in your letter, I will clarify my conditional approval of Amendment No. 11 to the CALWMP and have also considered your request to modify my condition for Integrated Resource Management.

To address your concerns, I am revising my September 30, 2016, Conditional Approval of Amendment No. 11. This revised Conditional Approval of Amendment No.11 supersedes my September 30, 2016, decision.

To clarify, Amendment No. 11 includes, but is not limited to, the following:

1. A single 108 megalitre/day wastewater treatment plant located at McLoughlin Point within the Township of Esquimalt capable of tertiary treatment for flows up to 2 times Average Dry Weather Flow (ADWF) for the Core Area up to 2040. For flows that are greater than 2 times ADWF but not more than 3 times ADWF for the Clover Point catchment and up to 4 times ADWF for the Macaulay catchment, primary treatment will be guaranteed. Construction of the wastewater treatment plant will be completed by December 31, 2020.
2. Commitment to advance studies for a wastewater treatment proposal in Colwood, including up to \$2 million to complete the required technical studies and environmental impact assessments.
3. Conveyance of sewage sludge to the Hartland landfill for processing into Class A biosolids, as defined under the Organic Matter Recycling Regulation, for beneficial use and optimization for potential opportunities for integrated resource management.

...2

As a condition of my approval and in accordance with Section 24 (5) of the *Environmental Management Act*, I require the Capital Regional District (CRD) develop a definitive plan for the beneficial reuse of biosolids that does not incorporate multi-year storage of biosolids within a biocell. The Ministry of Environment understands that the plan may need to include short-term storage and/or management options as part of implementing the beneficial reuse plan, but the CRD is strongly encouraged to minimize the need for this. Further, I am amending the deadline for submission of the plan from December 31, 2017, to June 30, 2019, under the condition that the CRD submit, by May 31, 2017, a plan that outlines the procedural steps and schedule it will implement to achieve the definitive plan.

The CRD must ensure that the definitive plan for beneficial reuse of biosolids is supported by an assessment of the full spectrum of beneficial uses and integrated resource management options available for the proposed Class A biosolids produced at the Hartland Landfill, and incorporates a jurisdictional review of how similar-sized and larger municipalities within British Columbia, North America and further abroad, successfully and beneficially reuse biosolids. Ministry staff will assist as necessary and can share the ministry's jurisdictional review of how other similar-sized and larger municipalities reuse biosolids.

The beneficial reuse option selected for treated biosolids must meet the requirements for beneficial use specified in the Canadian Council of Ministers of the Environment *Canada-Wide Approach for the Management of Wastewater Biosolids* (October 11, 2012) and be based on scientific evidence. This definitive plan for the beneficial reuse of biosolids will replace the current proposal to use a biocell for storage.

Please continue to work with staff in the Environmental Protection Division of the Ministry of Environment to ensure that the proposed wastewater treatment facility is registered under the Municipal Wastewater Regulation prior to operation of the plant. Please also inform ministry staff of all beneficial uses of biosolids being considered, in order to ensure all necessary forms of authorization are obtained in advance of discharge.

Additionally, the CRD should continue to engage First Nations and the public on all aspects of the CALWMP.

Be advised that the ministry intends to publically post any reports or other documents received by the CRD on the ministry website related to this conditional approval, the CALWMP and this activity regulated under the *Environmental Management Act*.

Approval of Amendment No.11 to the CALWMP does not authorize entry upon, crossing over or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority shall rest with the local government. This amendment is approved pursuant to the provisions of the *Environmental Management Act*, which asserts it is an offence to discharge waste without proper authorization. It is also the regional district's responsibility to ensure that all activities conducted under this plan amendment are carried out with regard to the rights of third parties and comply with other applicable legislation that may be in force.

Sincerely,



Mary Polak
Minister

cc: Honourable Peter Fassbender, Minister of Community, Sport and Cultural Development
AJ Downie, Director, Environmental Protection Division, Ministry of Environment
Robert Lapham, Chief Administrative Officer, Capital Regional District
Larisa Hutcheson, Interim Project Director, Core Area Wastewater Treatment Project,
Capital Regional District
Sharon Singh, Associate, Bennett Jones Vancouver

PROPOSED INTEGRATED RESOURCE MANAGEMENT WORK PLAN

June 2017	<ul style="list-style-type: none"> • Core Area Liquid Waste Management Plan biosolids requirements: jurisdictional review, assessment of full spectrum of beneficial uses • Detailed review and assessment of Request for Expressions of Interest submissions
July 2017	<ul style="list-style-type: none"> • Draft Integrated Resource Management (IRM) Project Plan • Pre-Request for Qualifications (RFQ) consultation/scope definition for IRM facility
Q3 2017	<ul style="list-style-type: none"> • Review Draft IRM Project Plan with Ministry of Environment (MoE) staff for feedback and alignment • Issue Request for Pre-Qualifications (RFPQ) for IRM facility
Q4, 2017	<ul style="list-style-type: none"> • Review/evaluate results of IRM RFPQ and evaluate the feasibility of an integrated solution • Work with MoE staff to finalize IRM Project Plan (including a public consultation plan and timeline)
Q1, 2018	<ul style="list-style-type: none"> • Present full business case and identification of qualified vendors from IRM RFPQ process • Determine regulatory requirements for IRM pilot (if warranted) • Obtain permits for IRM pilot (if warranted)
Q1, 2018 up to Q1, 2019	<ul style="list-style-type: none"> • Conduct IRM pilot project (if warranted) • IRM Request for Proposals (RFP) scope definition and develop IRM RFP document • Secure IRM feedstock commitments/agreements • Confirm IRM resource reuse opportunities • CRD Board decision to proceed • Issue RFP for full-scale advanced IRM facility • Evaluation of IRM RFP submissions and negotiations with preferred bidder • Review of financing options • Determine regulatory approvals and environmental requirements for preferred IRM facility
2019/2020	<ul style="list-style-type: none"> • Permitting process for the long-term advanced IRM facility <ul style="list-style-type: none"> - legal - technical - environmental (EIS) - public consultation, as required • Design and engineering of long-term advanced IRM facility
June 30, 2019	<ul style="list-style-type: none"> • Submit definitive IRM Plan to the Minister of Environment
January 1, 2021	<ul style="list-style-type: none"> • Residual treatment facility starts operation and produces Class A biosolids • Short-term Class A biosolids storage, if required
2021 & 2022	<ul style="list-style-type: none"> • Construction and commissioning of long-term advanced IRM Facility
January 1, 2023	<ul style="list-style-type: none"> • IRM facility starts operation



Capital Regional District

Initial Assessment, Responses to RFEOI No. 16-1894

Advanced Integrated Resource Management (IRM)

1. Introduction

The Capital Regional District (CRD) issued RFEOI No. 16-1894 as a part of the CRD's exploration of waste management options. Specifically, the CRD desires to better understand the current market capabilities for an integrated waste management solution to manage residues from the Region's existing solid and future liquid waste management facilities. To explore market capabilities, the CRD determined that it would engage the market through an RFEOI and potentially through a subsequent procurement process.

Further the CRD wishes to explore the possibility of integrating solid and liquid waste management interests and maximize resource recovery through integrated processing of some or all of these materials and generate energy/revenue. Completion of the IRM RFEOI process is a critical step in the development of a more definitive IRM plan

2. Overview of RFEOI No. 16-1894

The RFEOI identified that the CRD is seeking a solution or solutions to manage some or all of the following materials:

1. 35,000 tonnes per year of biosolids;
2. 120,000 to 135,000 tonnes per year of general municipal refuse;
3. 8,000 to 12,500 tonnes per year of controlled waste (including screenings and sludge from existing wastewater plants);
4. 15,000 to 20,000 tonnes per year of source separated household organics (kitchen scraps and compostable paper, not including yard and garden wastes); and,
5. 15,000 to 18,000 tonnes per year of yard and garden wastes.

The potential outcome of the RFEOI process could include undertaking a pilot project or directly proceeding to development of a full-scale IRM facility capable at minimum of providing a beneficial reuse solution for the material streams as identified above. The RFEOI clearly indicated CRD is interested in identifying integrated options that present region-wide and/or sub-regional solutions.

Information requested in the RFEOI included:

1. General corporate information;
2. A technical overview of the processing technology;
3. Information regarding reference facilities;
4. Information regarding preferred contract terms, contract structure and allocation of responsibilities; and,
5. Information regarding the need for and interest in undertaking a pilot.

3. Review of RFEOI Responses

The RFEOI was issued on February 16, 2017 and closed on March 20th, 2017. Ten submissions were received. The initial review and assessment of these submissions indicates that:

1. Overall there was a good response to the RFEOI. A reasonable number of submissions were made. Submissions were generally complete and addressed the specific information that was requested.
2. The majority of the respondents are represented in Canada and/or have team members in Canada. This should be helpful during future procurement stages.
3. The majority of respondents proposed approaches capable of integrated resource management including most if not all of the identified CRD solid and liquid waste streams.
4. All of the respondents indicated that their technology was capable of managing the biosolids stream identified in the RFEOI although in some cases there was a lack of clarity as to how exactly it would be managed. In some cases the submissions indicated that they could manage biosolids or sewage sludge.
5. The diverse feedstock sources tend to attract different treatment technologies. Respondents generally focused on organic processes (aerobic/anaerobic) to process organic wastes (biosolids, food waste, yard/garden wastes, the organic fraction recovered from mixed solid waste) and mechanical/thermal processes (RDF, gasification) for mixed waste sources.
6. Reference projects of singular technologies tended to be relevant in terms of similar feedstock, while reference projects from multi-technology proposals tended to reflect only individual components and not the combined systems, as proposed.
7. The majority of respondents prefer that the CRD provide the site for the IRM facility. Many prefer that the CRD owns the IRM facility.
8. The type of business offerings in the submissions were quite varied. Many respondents are open to a variety of development models (DB, DBOM, DBOOT, etc.).
9. The majority of respondents reported their technology as being proven (operating at a commercial level) and do not recommend that the CRD undertake a pilot project. Those

respondents that did not put forward a proven technology, were more interested in, or recommended that the CRD undertake a pilot.

A detailed evaluation of the RFEOI submissions is currently underway, and will be used to support the detailed assessment of IRM options.



**Legislative and
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Legislative Services

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April 19, 2017

Capital Regional District
Core Area Wastewater Treatment Project
Attn: Jane Bird, Chair
625 Fisgard Street
Victoria, BC V8W 1R7

Dear Ms. Bird:

Re: Green Shores Certification of Clover Point Pump Station

I am writing to advise you that Victoria City Council passed the following resolution at the April 13, 2017 Council meeting:

THAT Council requests that the Core Area Waste-Water Treatment Project Board:

5. *Seek Green Shores Certification of the Clover Point Pump Station, reflecting (a) proximity of the site to the marine shoreline; (b) opportunities for marine and terrestrial ecological restoration arising from several decades of use of the site and seabed for waste-water conveyancing, and (c) the mandate of the federal land grant to the City of Victoria emphasizing use of the land for parks and greenspace purpose.*

AND THAT Council directs staff to pursue Green Shores certification in discussions with the CRD relating to design of the Clover Point Pump Station and associated works.

If you require further information concerning this matter, please contact the undersigned at 250.361.0346.

Yours truly,

Christine Havelka
Deputy City Clerk

:pjm



**Legislative and
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April 19, 2017

Capital Regional District
Core Area Wastewater Treatment Project
Attn: Jane Bird, Chair
625 Fisgard Street
Victoria, BC V8W 1R7

Dear Ms. Bird:

Re: Mitigation of Impacts of McLoughlin Point Waste-Water Treatment Plant

I am writing to advise you that Victoria City Council passed the following resolution at the April 13, 2017 Council meeting:

BE IT RESOLVED THAT Council requests that the Core Area Waste-Water Treatment Project Board:

- (1) Negotiate a Change Order with Harbour Resource Partners to ensure that enforceable Performance Standards are in place upon completion of the McLoughlin Point waste-water treatment plant to ensure that odour levels do not to exceed 2 Odour Units.*
- (2) Report back to the Core Area Liquid Waste Management Committee and the public on the advisability and cost of reducing operating Noise levels when measured at the McLoughlin Point property line to 55 Decibels.*
- (3) Continue and improve consultation with James Bay, Victoria West, Fairfield and Downtown residents on mitigation of construction and long-term impacts from conveyancing infrastructure, the McLoughlin Point waste-water treatment and the Clover Point Pump Station.*
- (4) Closely monitor geotechnical issues along the Dallas Road waterfront and advise the public and Core Area Liquid Waste Management Committee of any issues that arise and solutions.*

AND BE IT FURTHER RESOLVED THAT Council directs staff to forward this resolution to the Core Area Waste-Water Treatment Project Board, the Capital Regional District Board and the Provincial Minister of Environment.

If you require further information concerning this matter, please contact the undersigned at 250.361.0346.

Yours truly,

Christine Havelka
Deputy City Clerk
:pjm



Making a difference...together

Core Area Wastewater Treatment Project Board
Suite 510, 1675 Douglas Street
Victoria, BC, V8W 2G5

T: 250.360.3192
F: 250.360.3071
www.crd.bc.ca

ITEM 8.1

April 20, 2017

Via Email

File: 0220-20
Correspondence

Carole James, MLA
(Victoria - Beacon Hill)
Parliament Buildings
Victoria, BC V8V 1X4

RE: Constituents Concerns Regarding Odour and Noise Levels

Dear Ms. James,

I am writing in response to your letter dated April 3, 2017 in which you brought forward concerns from people living in the James Bay neighbourhood. I would first like to thank you for your letter and for your attendance at the April 5th Community Information Meeting. I enjoyed our conversation and hope that the answers we provided have reassured you that the Project Team is working hard to reduce impacts of construction on residents in the community. We also had a second meeting the following week, on April 12th, in Esquimalt. We are following up with a mail out to all residents next week. We also have the information from those meetings posted on our website (wastewaterproject.ca), including a recent Project Update and fact sheets.

To address the noise level during construction at Ogden Point we are building a 5-metre high noise wall around the worksite. In addition, we are working with the contractor to consider other noise mitigation measures to further reduce noise at the work site.

With regard to concerns about odour, the McLoughlin Point Wastewater Treatment Plant has been designed so that there will be no detectable odour by residents. While the maximum allowable odour is 5 Odour Units (OU) at the property line, modelling based on the current design shows odour during operations will be approximately 2 OU at the plant's property line and dissipates quickly as it moves away from the plant. State-of-the-art odour control systems are being used in the McLoughlin Plant; all treatment processing tanks will be covered, all air will be captured and treated, and a 24-hour odour control monitoring system will be in place.

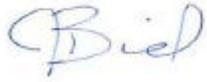
Odour and noise limits will also be in place at the Clover Point Pump Station, which has been operational since the mid-1970's. Noise during operation will remain within the limitations prescribed by the City of Victoria noise control bylaws. The odour control system will be designed to meet a requirement of 5 OU using the same technology that has been successfully used at the existing Clover Point Pump Station.

I understand that the Project Director, Dave Clancy, has been in touch with your office to arrange a meeting in May to discuss the project with you in more detail.

Carole James, MLA - April 20, 2017
Constituents Concerns Regarding Odour and Noise Levels

2

I appreciate your support of the project. The Project Team is committed to providing wastewater treatment that will set a new standard in British Columbia.



Jane Bird, Chair
Core Area Wastewater Treatment Project Board

cc: City of Victoria Mayor and Council

HC:dd

Carole James, MLA
(Victoria - Beacon Hill)
Parliament Buildings
Victoria, BC V8V 1X4

Community Office:
1084 Fort Street
Victoria, BC V8V 3K4
Telephone: 250 952-4211
Facsimile: 250 952-4586



**Province of
British Columbia**
Legislative Assembly



Carole James, MLA
(Victoria-Beacon Hill)

April 3, 2017

CRD Wastewater Project Board
625 Fisgard Street
Victoria, BC V8W 1R7

Dear Wastewater Project Board Members,

I'm writing to bring forward concerns that have been brought to my attention from a number of constituents living in the James Bay neighbourhood in my riding. My constituents are concerned about the disruption that will be caused by the expansion of the pump station at Clover Point, and the drilling and construction to connect this station with the wastewater treatment plant at McLoughlin Point in Esquimalt.

My constituents are specifically concerned about odour and noise levels from drilling and construction for this project.

I support wastewater treatment in Greater Victoria, and I understand the need the need to get construction finally underway. However, I can also understand the concerns in my community, and I support whatever mitigation strategies that can be put into place to minimize disruption to residents and visitors.

I am aware that construction and repair of sewers and other underground services are exempt from Victoria's municipal noise bylaw. This is understandable as construction and maintenance of this critical infrastructure cannot be unnecessarily hampered. However, for a project of this duration, size, and level of disruption, I believe some consideration should be made for the quality of life for those living and working in the area. Can you tell me if mitigation plans have been put in place to:

.../2

1. Limit the hours of work to minimize disruption and noise pollution for school children and those living and working in the neighbourhood;
2. Utilize quieter drilling and construction techniques; and
3. Manage odour and control emissions.

Construction needs to be done in a manner that minimizes noise, odour and other disruption for the people living, working, and visiting in James Bay. I will be attending the open house in our neighbourhood, but would appreciate receiving a reply regarding these specific concerns.

Sincerely,

A handwritten signature in cursive script that reads "Carole James". The signature is written in black ink on a white background.

Carole James, MLA

cc: City of Victoria Mayor and Council

From: cawtpb
To: ["sean.dyble@120west.com"](mailto:sean.dyble@120west.com)
Bcc: [Jennifer Grelson](#)
Subject: Wastewater Treatment Project
Date: Monday, April 24, 2017 10:54:00 AM

Dear Mr. Dyble

Please accept our apologies for the delay in responding. The Acting Chair of the CRD referred your email to us on Thursday last week.

You are correct in your understanding that the Court of Appeal determined in 2012 that local governments have no independent duty to consult with Aboriginal peoples of Canada. The Crown's duty to consult with and, where appropriate, accommodate, an Aboriginal group is triggered when the Crown has knowledge of the potential or actual existence of an Aboriginal right, and contemplates conduct that might adversely affect that right. Further, the Crown may delegate the procedural aspects of its duty to consult to project proponents, in this instance the CRD. The Crown's duty to consult was triggered as part of the permitting process for the Project.

The agreements with the Esquimalt and Songhees Nations also recognize their support and contribution to the project, including to the planning of the wastewater system. All costs associated with these Support Agreements are included in the Control Budget for the Project.

Sincerely

Jane Bird

Chair, Core Area Wastewater Treatment Project Board

Begin forwarded message:

From: <sean.dyble@120west.com>
Date: April 20, 2017 at 9:49:48 AM PDT
To: <crdchair@crd.bc.ca>
Subject: Contact Us - Submission

The following message was received through the form at '<https://crd.bc.ca/contact-us?r=acting-chair>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Your Email Address:
sean.dyble@120west.com

Message:
Good morning:

One month ago (March 21st), I submitted a letter/comment via this form to the CRD Board Chairperson. Since that time, I had not had the courtesy of a response (other than the automated one). I would appreciate knowing that my opinion is heard if not respected. Please tell me if you agree or disagree but please don't completely ignore me. I have re-attached my comment to you should you have the inclination to review it:

Message:

Good evening:

I read the report released by the CRD on March 7th regarding the waste water treatment plant and payments being made to the two First Nations "in recognition of the Crown's duty to consult...". I would like to point out that a local government is NOT the Crown and therefore has no duty to consult. While payments of this type may or may not be justified for other reasons, they cannot be justified by incorrect reasoning. A court case in BC in 2012 at the Court of Appeal determined, unanimously, that local governments (including regional districts) have no duty to consult with First Nations. The decision is available here: <http://www.courts.gov.bc.ca/jdb-txt/CA/12/03/2012BCCA0379.htm>

I encourage you to read it. I also encourage those who wrote the report and advised on it to read it as well.

I believe that any government has a duty to ensure that taxes are used to the maximum effect and that waste is kept to a minimum. Most, I am sure, would agree with me. In this case, I question the value proposition on high rent for vacant land (preparation site) and some of the other expenses. Was, for example, the requirement for storage and preparation space put out as a Request for Proposals?

I am very concerned that the CRD is misusing tax dollars at a time when tax increases are being proposed (gas tax which was denied by the Province, increase in property taxes to fund transit, etc.).

Sincerely,

Sean Dyble

Submitted at: 4/20/2017 9:49:48 AM

Submitted via: <https://crd.bc.ca/contact-us?r=acting-chair>

User Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko

User Host Address: 131.137.245.206

This message is intended only for the use of the individual or entity named above, and may contain information that is privileged, confidential or exempt from disclosure under applicable law. If you are not the intended recipient or their employee or agent responsible for receiving the message on their behalf your receipt of this message is in error and not meant to waive privilege in this message. Please notify us immediately, and delete the message and any attachments without reading the attachments. Any dissemination, distribution or copying of this communication by anyone other than the intended recipient is strictly prohibited. Thank you. Please consider the environment before printing this email.

From: [cawtpb](#)
To: [Thor Henrich](#)
Cc: [Terry Lake](#); [Mary Polak](#); [CRDBoard](#); mayorandcouncil@esquimalt.ca
Subject: Re: Concerns with CRD Sewage Treatment Plan
Date: Thursday, April 20, 2017 11:26:00 AM

Dear Mr. Henrich,

Thank you again for your letter dated March 31, 2017. In it you share your concerns regarding the Wastewater Treatment Project and how it is moving forward.

Federal law requires the region's wastewater undergo secondary treatment by December 31, 2020. If the wastewater is not treated by then, the region faces regulatory enforcement action. The Project Board reviewed 28 options for wastewater treatment and 21 options for the treatment of residual solids and chose the current plan as the best option for the region. The methodology and conclusions of the review of the options was the subject of a review by a Due Diligence Committee jointly appointed by the CRD and the Core Area Wastewater Treatment Project Board. Ultimately, the current plan was the basis for the Project Board's report to the CRD Board dated September 7, 2016, and for the Business Case that was approved by the CRD. The September 7, 2016 Project Board report, the Business Case, and the Due Diligence Panel Report are all available on the Project website at wastewaterproject.ca.

The CRD applied for approval from the Ministry of the Environment for the project outlined in the Business Case in the form of Amendment #11 to the Core Area Liquid Waste Management Plan (CALWMP). The CRD received approval from the Ministry of Environment for Amendment #11 of the Core Area Liquid Waste Management Plan in November 2016. This defines the Project that the Project Board is responsible for constructing by December 31, 2020, to meet the Federal requirements.

Funding agreements with senior levels of government have been finalized and the necessary zoning and land use approvals have been received. The planning and development phases of this project are now complete and we are entering the construction phase which will begin with the construction of the McLoughlin Point Wastewater Treatment Plant.

Sincerely,

Jane Bird

To: Janet Bird, The Project Board, Chair
 From: Thor Henrich

March 31, 2017

Dear Janet,

Thank you very much for your reply (March 15, 2017) to the concerns I raised (letter of February 20), about the proposed CRD STP (sewage treatment project). However, as the concerns I raised were not fully addressed I am very concerned that we are entering a Trumpian World where alternative facts and magical thinking predominate. I will try to make my points of concern as clear as possible. I again thank you for your indulgence and attention.

By signing contracts to begin building the pipelines and sewage treatment plant at McLaughlin Point, CRD directors will have begun a process which will not solve, but exacerbate many of the major issues regarding sewage in the CRD, and will force commitment to a flawed treatment process. Briefly stated, these unaddressed issues are:

1. **Questionable premises for taking action:** The federal regulations on sewage treatment, are subjective, assuming a one-size-fits-all, land (not ocean) based system, with artificial deadlines, and inadequate in today's world. There are cogent reasons for delaying the present treatment system until the year 2030. That these concerns were *not* even raised during the recent visit of Prime Minister Justin Trudeau was an opportunity missed, and which could have saved the CRD and the taxpayers hundreds of millions of dollars and needless wasted energy, resources, and time. In addition there were the bully tactics and threats of a tourism boycott from persons in Seattle*, and the 'Mr. Floatie' Campaign. Phobias regarding germs, chemicals, odours, and faeces, and Nimby-ism also contribute to public apprehensions. The CRD Board members themselves were cajoled and coerced by threats of fines and/or jail time to vote for only one option for the sewage treatment project (STP). *In the rush to judgment good science has been ignored*
2. **Inadequate knowledge, sampling, and treatment of chemical toxins and pathogens.** Proxy measurements such as BOD (biological oxygen demand), TSS (total suspended solids), ADWF (average dry water flow: nb. we here in the CRD *do* have substantial rainfall events) and DV (discharge volumes) give some understanding of the dynamics, but not the physical contents (ie. chemical and biological inputs or outputs) of the system. The truth is that we have only some understanding of the dangers of pathogens and heavy metals, and even less about which off the tens of thousands organic chemicals are *presumed* to be present in our sewage, but without good data of their concentrations or volumes. These enter as raw sewage and exit as effluent (treated sewage wastewater) back to the ocean and as slushy 'biosolids' at the Hartland Road Landfill. Pathogens such as fecal coliforms (*Escherischia coli*), Enterococci, Salmonella, viruses, etc. are presently showing resistance to antibiotics, as seen in hospital settings and retirement homes. Some heavy metals such as; lead, mercury, zinc, copper, arsenic, and chromium will be treated, but they will not magically vanish (Law of Conservation of Matter). There are thousands of organic chemicals such as: PCBs, PAHs, flame retardants, phthalates, phenols, pharmaceuticals, hormones, plastics, etc., many of which are known to disrupt and/or alter immunological responses, also endocrine, neurologic, motor, and other physiological pathways, and are already known to be toxic in very low concentrations. They are termed Persistent Organic Pollutants (POPs). Given that the majority of the tens of thousands of potential pollutants in Victoria's raw sewage have *not* been identified, the citizens within the

CRD are being put at risk. How can sewage sludge be properly treated if we have no idea of the identification or nature of the chemicals under treatment? The lax provincial government standards for treatment of noxious chemicals offer little protection against unscrupulous persons (eg. a government which knowingly permitted the dumping of highly toxic wastes into a rock quarry in the Shawningan Lake watershed; the Rule being 'Catch me if you can'). *We cannot afford this kind of complacency when designing a multimillion dollar sewage treatment plan for 350 thousand people.*

3. Major Human and Ecosystem Health Issues. Recent studies relating to the *toxicity, persistence, bioaccumulation and biomagnification* of organic chemicals in sewage, with their deleterious effects on humans: weakened immune systems, increased carcinogenicity, disruption of neurological, digestive, respiratory, metabolic, and other physiological pathways, have not been adequately addressed. The emerging issue of ESOCs (Chemicals Of Emerging concern), and specifically how they are to be treated have been noted, but not addressed. For example, plastics are beginning to be recognized for their their *toxicity* (health issues), *persistence* (essentially forever) and *bioaccumulation* (increase over time though biomagnification). Microbeads, microfibers, nurdles, plastic bags and wrappings, as well as larger slowly eroding plastic materials, are known to alter marine ecosystems, food webs, and the overall health of marine life. Birds, sea turtles, and marine mammals are starving to death from their plastic-occluded intestinal tracts, and filter-feeding invertebrates such as clams, oysters, etc) are absorbing plastics and other chemicals into their tissues, and end up as food on our tables, or eaten by top predators such as killer whales, eagles, and bears. The Great Northern Garbage Patch in the North Pacific is composed of a predominance of plastic junk. *ESOCs should be considered a priority in the sewage treatment plan, with plans for remediation.*

4. 'Class A Biosolids' problematic. The term 'biosolid' is an industry, not scientifically based one (need for scientific definitions of 'bio' and 'solid'). The CRD sewage treatment process is supposed to dewater, concentrate, and magically transform the original dilute sewage sludge into a 'biosolid'. CRD directors have been mandated to find a beneficial use for biosolids, while ignoring their more serious, deleterious side effects. Broadcasting biosolids 24/7 onto forest or agricultural landscapes is not a solution. Many studies by the EPA and elsewhere show that chemical residues from biosolids leach into the soil, changing the microbiota, which, as is the case in marine ecosystems, uptake and bioaccumulate throughout food webs, from mycorrhizal fungi in the soil, which connect to and sustain plant root systems - into grasses, crops, orchards, and forests, which move up the food chain to feed the grazers, such as deer, rabbits, wild birds, cattle, horses, and humans. The statement that 'There are no data to suggest that biosolids contain toxic substances' should be translated as 'There are no data' (either pro or con). After de-watering at Hartland, any toxic chemicals in the effluent wastewater will be piped back into the ocean from Hartland. As the identity, concentration, and volumes of the chemicals in the returning effluent are *not* known, accurate risk assessment is impossible. Neither can sewage sludge application onto landscapes as biosolids be considered in any way safe in the absence of the scientific facts. *Recycling them back into the environment, whether marine or terrestrial, is no solution and obviates the reasons for having a complex sewage treatment in the first place.*

5. Global Warming and Climate Change ignored. A multimillion dollar sewage treatment plant will require high inputs of energy, not only for construction, but for decades of maintenance, repair, and upgrading far into the future. The production of greenhouse gases such as carbon dioxide and methane from organic sludge is a major issue, from a global

warming perspective. Sea levels are already rising, along with GHGs such as carbon dioxide, methane, nitrous oxide, ozone, and other gases. Our oceans which produce roughly half of the all the oxygen we breathe comes from photosynthesis by tiny planktonic algae, are getting warmer and more acidic, threatening offshore fish nurseries, coral reefs, and calcium-based skeletons of invertebrates and marine fish. Already 'dead zones' depleted of oxygen and life have been found in locations close to metropolitan areas. Modern BOD studies have been amended to cBODs (biochemical oxygen demand) to include not only oxygen, but other related chemical measures of biological parameters. *Why are the major issues relating to global warming and climate change being ignored by the CRD in the sewage treatment process?*

6. Location, Location, and the 'Ick' Factor. Given that the new treatment plant at McLaughlin Point, near sea level, will become a permanent, visible landmark on the western side of the entrance to Victoria harbour, and opposite Ogden Point, where visiting cruise ships discharge thousands of visitors weekly during Victoria's tourist season, there is problem with the 'ick' factors: noxious odours, machine noises, and questionable aesthetics, as 108 Megalitres ADWH of raw sewage: water, faeces, urine, pathogens, grit, plastics, toxic chemicals, heavy metals, and organic chemicals etc. pour in daily, for primary, secondary, and tertiary treatment. People in neighbourhoods close by (James Bay and Esquimalt) are rightly concerned that their voices have not been heard. Additionally, many neighbourhoods within the CRD have old and deteriorating sewer and storm drains and pipes. During stormy events, stormwater with its

pollutants mix with sewage waters. This increased load will be added to the treatment plant at McLoughlin Point. *Why was the highly visible McLaughlin Site given chosen?*

nb. The issues around Hartland Road regarding its location, feasibility, functions, and costs have not been addressed here, as this site also has a significant number of unresolved issues.

7. Geohazards a Present and Growing Future Problem. Given that the three locations at Clover Point, McLaughlin Point, and Macaulay Point are close to sea level and the Leech River Fault, the probability for excessive damage from large earthquakes, a Megathrust Event (of increasing probability), or a damaging Tsunami, high tides, and stormy waters are greatly increased. Also issues relating to Sea Level Rise as glaciers and ice sheets melt at an accelerating rates worldwide, means that risk factors in the future will get worse, not better. From the plethora of other sewage sites suggested, *what was the scientific rationale for selecting the sewage treatment plant at McLaughlin Point, given its increased geohazards?*

8. CRD Directors Responsibilities Thwarted. Despite their best efforts to obtain accurate information, find answers to substantial problems, CRD directors have been stymied, cajoled, and threatened, to think only *inside* the box (ie. the single sewage treatment and location option). The work of credible marine scientists, action groups, and others have been ignored, in a process biased towards a preconceived result. In a functioning democracy, ideology should not suppress factual scientific information. I would expect that the protection of human and environmental health should be uppermost in the minds of the CRD Directors. It is especially egregious that the CRD directors have been mandated to find a 'beneficial' use for 'Class A Biosolids'. Biosolids may contain nitrogen, phosphorus, and potassium, possible nutrients for plants in the short term, but this ignores all the other potentially deleterious chemicals with those problematic properties of persistence, toxicity, and bioaccumulation. It would be unwise to broadcast these biosolids over the landscapes, or sell as 'safe' or 'organic' compost, and

promote farmed products such as vegetables, fruit, and root crops as 'organic', when they were grown in contaminated soil from biosolids. *Why has this been allowed to happen?*

9. The Big Financial Burden, Justice, and Accountability. At present, approximately 74 million dollars have been wasted on discussions, planning, and spinning wheels, with no tangible results. Now another \$765,000,000 will be spent on a the sewage plant at McLaughlin Point for primary, secondary, an tertiary treatment, and pipelines, and an unknown 'XXX' millions more for the facilities at Hartland Road. The annual costs of \$14.5 million will continue to be paid by taxpayers long into the foreseeable future. Unforeseen expenditures will undoubtedly accrue, as normally happens with megaprojects of this kind. Especially odious is a lavish \$20 million given to Esquimalt to financially persuade them to vote favourably to allow the treatment plant in their backyards, and the obscene \$20 thousand per month paid to the Project Board members, with no accountability or rationale given. Many homeowners in the CRD, who are already 'property rich' but 'income poor' will be faced with having to sell their homes, as they have to pay for the rising costs of the sewage treatment facilities, without their approval by referendum. *Wherein lies the justice, trust, and proper accountability with the people's money?*

10. The Precautionary Principle, to do no harm, to humans or the environment, should prevail. The idea of connectivity, that we are all linked together means that proper sewage treatment is a health and environmental problem shared by us all. As a signatory to the Paris Climate Agreement, Canada is already well behind its stated target reductions of GHGs, so why are we resorting to an old-fashiononed, costly, energy-wasting, greenhouse gas-producing, sewage treatment process? *We have the know-how, energy, means, and will to do much better.*

***Puget Sound compared to Victoria:** Given that Puget Sound, even with their many sewage treatment processing plants, produces manifold more industrial toxic chemicals, and in greater concentrations and volumes than Victoria, shifts culpability to them, not we of the CRD. The Laws of Gravity still obtain: Water flows downhill, from hilltops to watersheds to rivers to marine waters; and Simple Diffusion means that chemical pollutants move passively from areas of high concentration to low concentration, meaning that it is highly improbable that Victoria could ever pollute Puget Sound. The reverse is true: lying within the Strait of Juan De Fuca. Victoria *receives* the outgoing toxic sewage sludge from the waterways of Puget Sound.

Unresolved issues will only fester and create bigger problems for future generations. There are better alternatives to the present CRD Sewage Treatment Plan, which would mean involving dedicated people who are willing to seek reality-based, truly scientific solutions to the sewage issue.

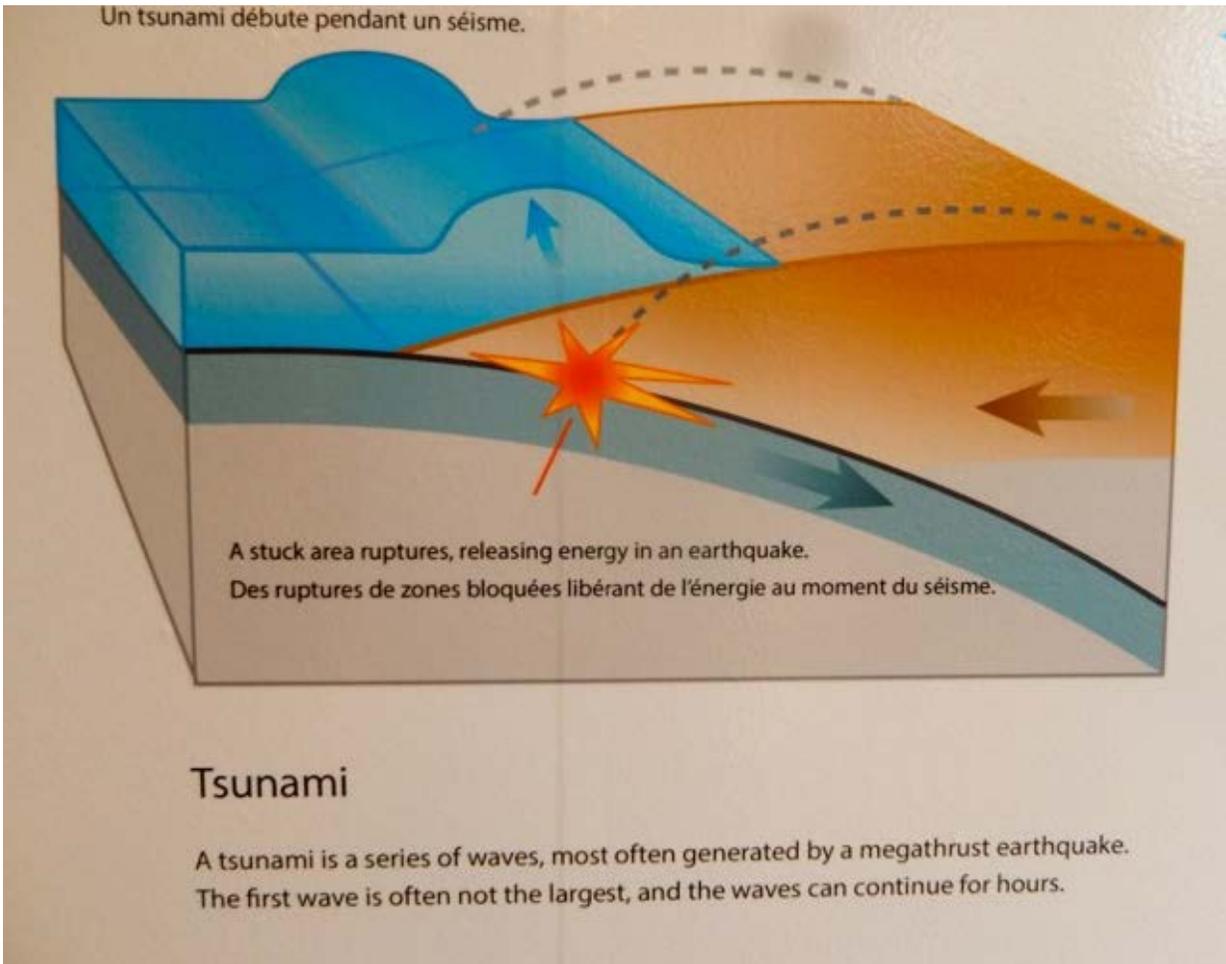
"To Sin by Silence, when we should Protest, makes Cowards out of Men." Rachael Carson

Thank you for your interest and attention,

Thor Henrich
1770 St. Ann Street
Victoria, B V8R 5V8
Tel: 250-592-2597
Email: thorhenrich16@gmail.com

cc. Hon. Mary Polak, Ministry of Environment
Hon. Terry Lake, Ministry of Health
CRD Board members
Esquimalt Council
Murray Rankin, MLA
Focus Magazine
Times-Colonist Newspaper

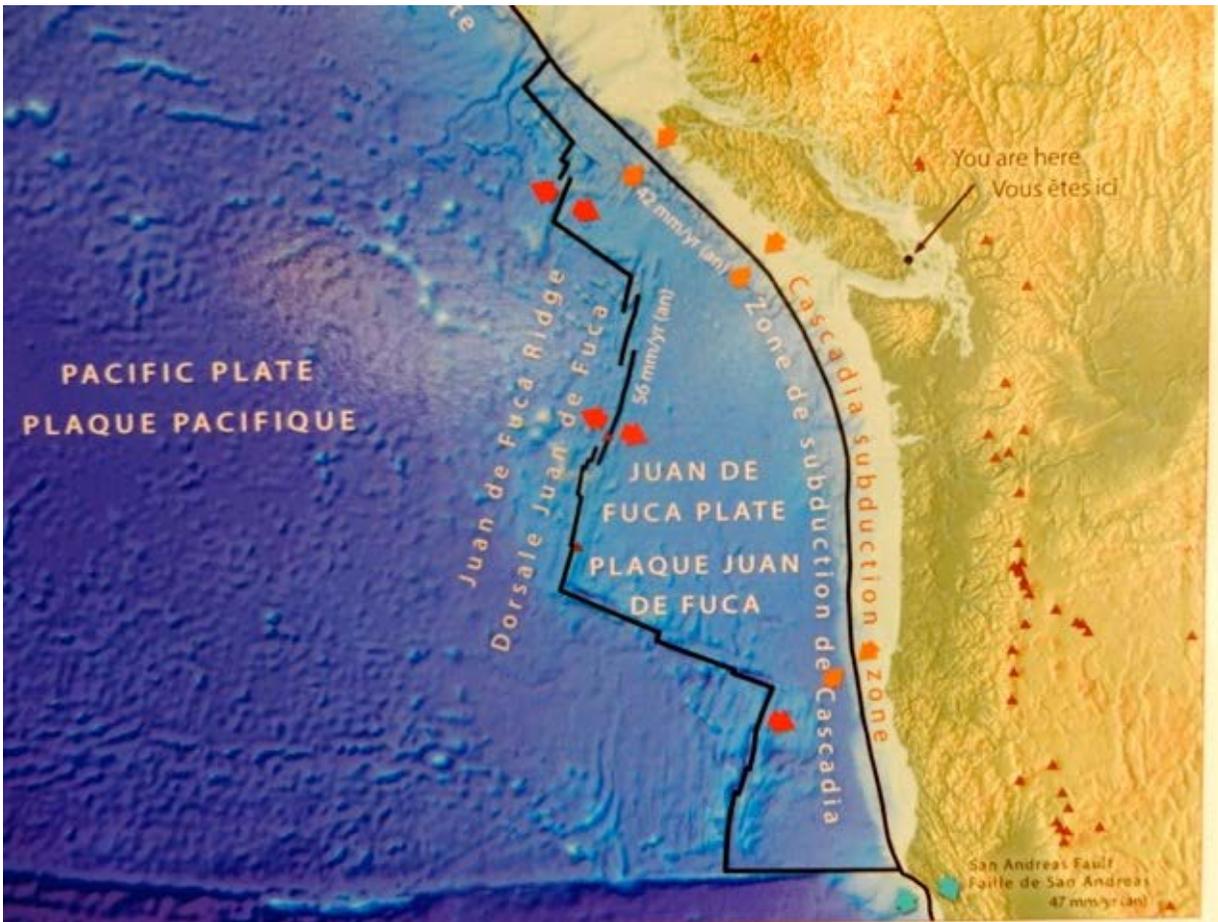
From: [Thor Henrich](#)
To: [cawtpb](#); [Mary Polak](#); [Terry Lake](#); [CRDBoard](#); esquimaltcouncil@esquimalt.ca
Subject: Re: Illustrations supporting Henrich letter regarding Rollout of CRD Sewage Treatment Plan
Date: Friday, March 31, 2017 8:52:23 PM



Megathrust Earthquake generates a series of tsunami waves



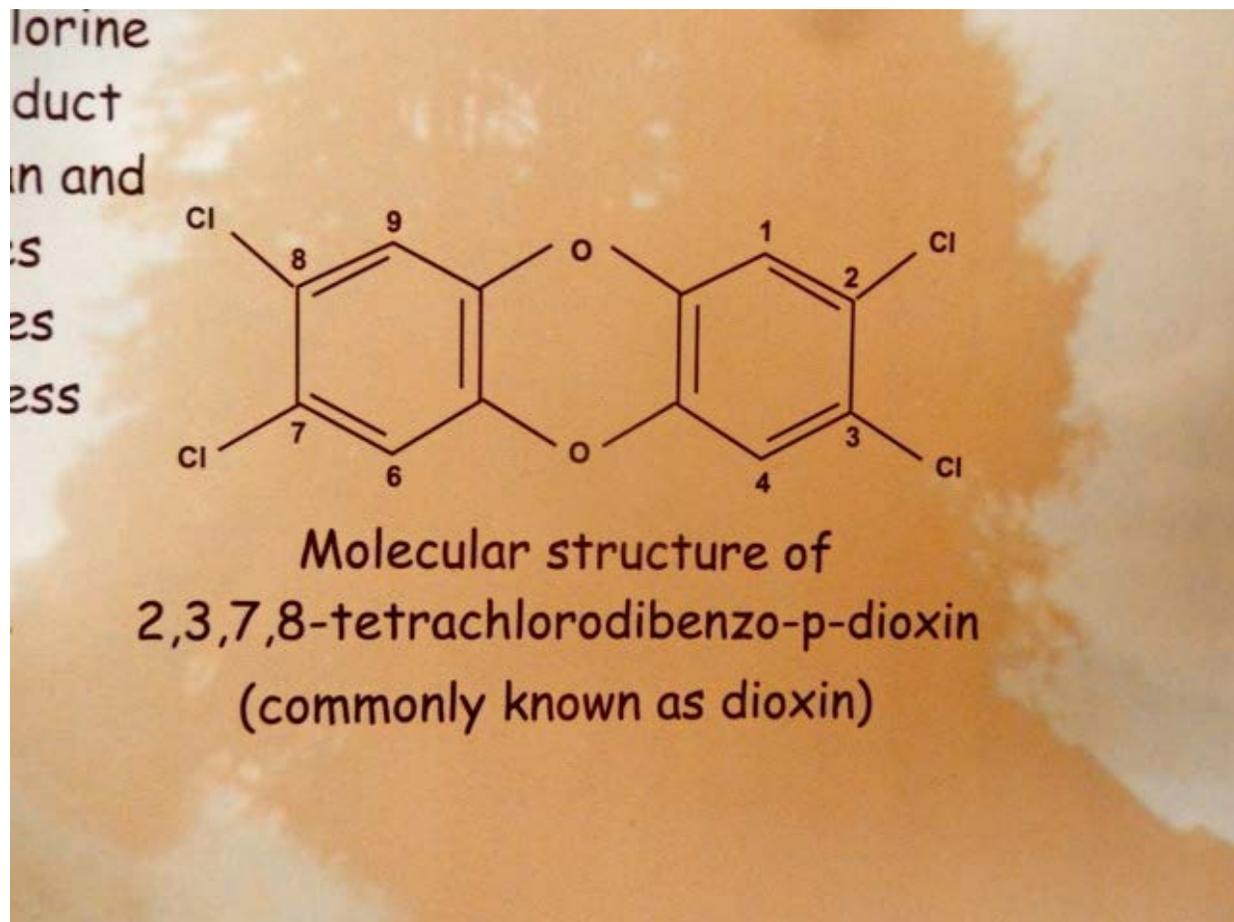
Can the CRD STP prevent this from happening?



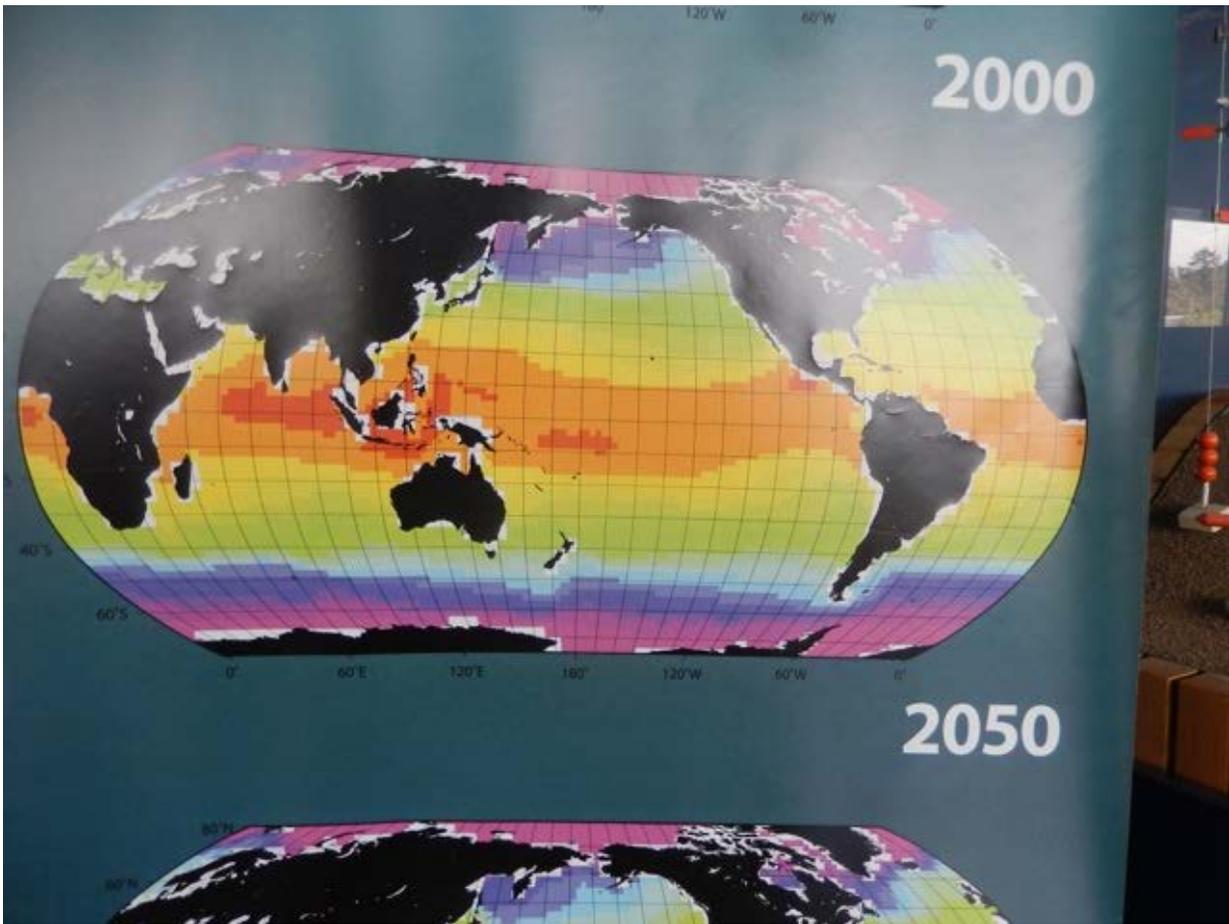
Spatial Relationship of Cascadia Subduction Zone to Victoria



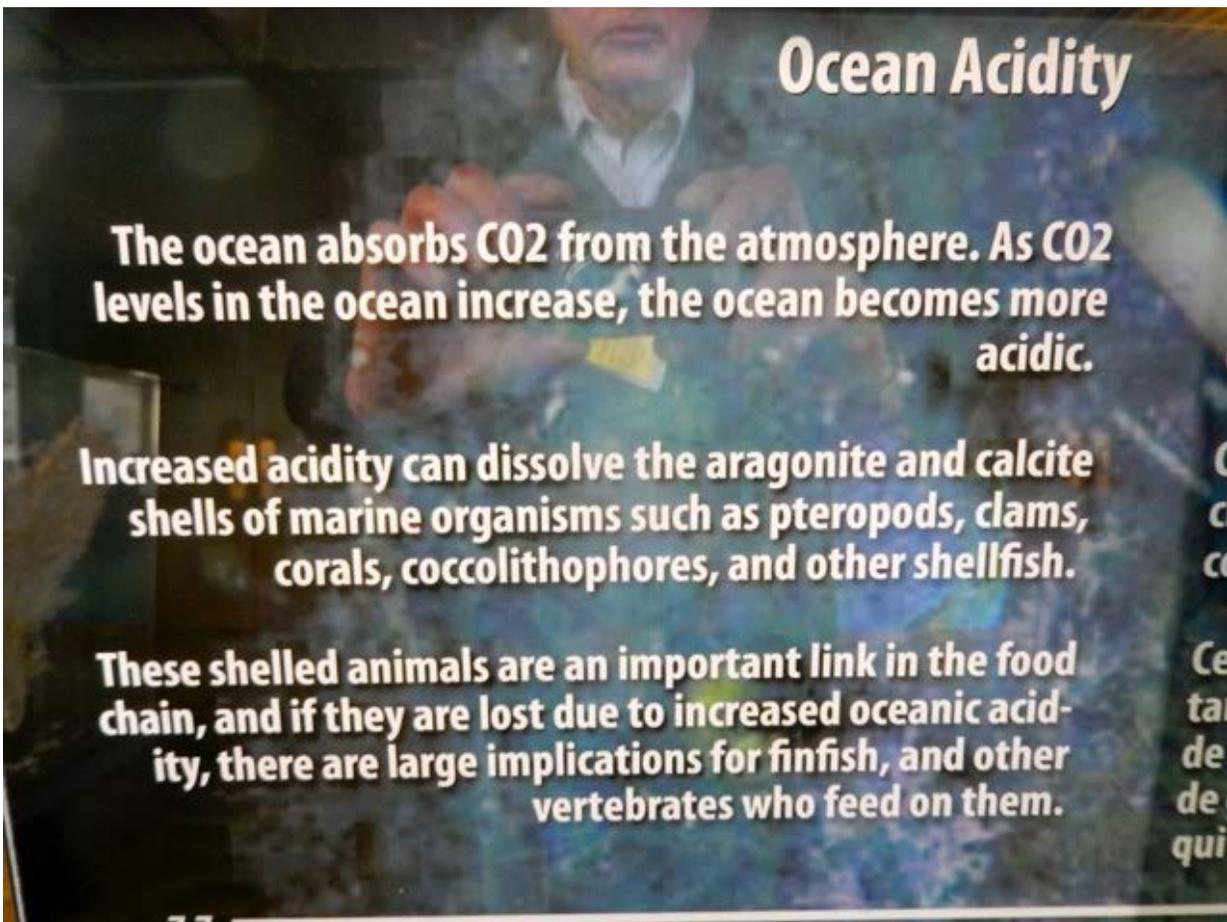
The Leech River Fault is very close to CRD STP



Molecular Structure of Dioxin



Sea Surface Temperature 2050

A person is shown from the chest up, pointing with their right hand towards a world map. The map is the background, showing various countries in different colors. The person is wearing a light-colored shirt and a dark jacket. The text is overlaid on the map in white, bold font.

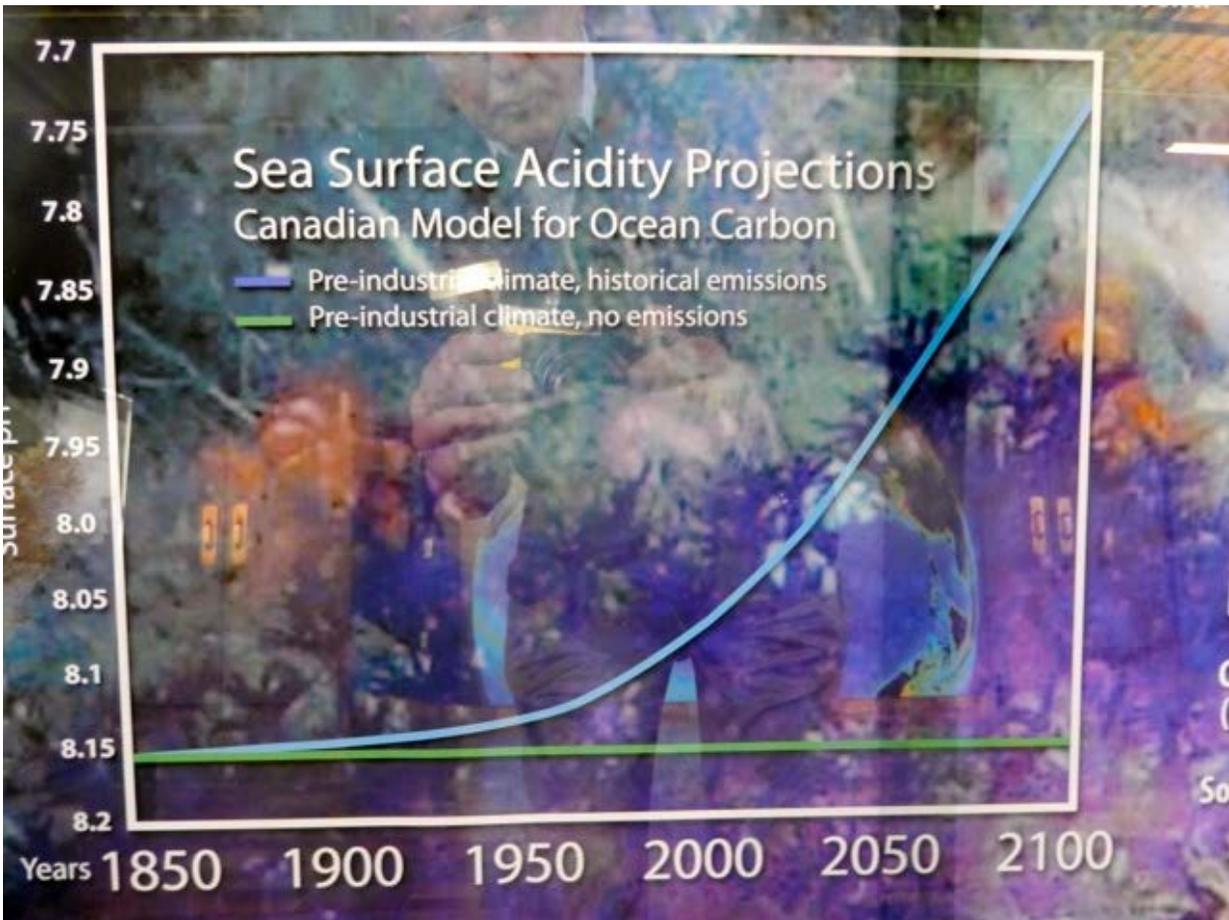
Ocean Acidity

The ocean absorbs CO₂ from the atmosphere. As CO₂ levels in the ocean increase, the ocean becomes more acidic.

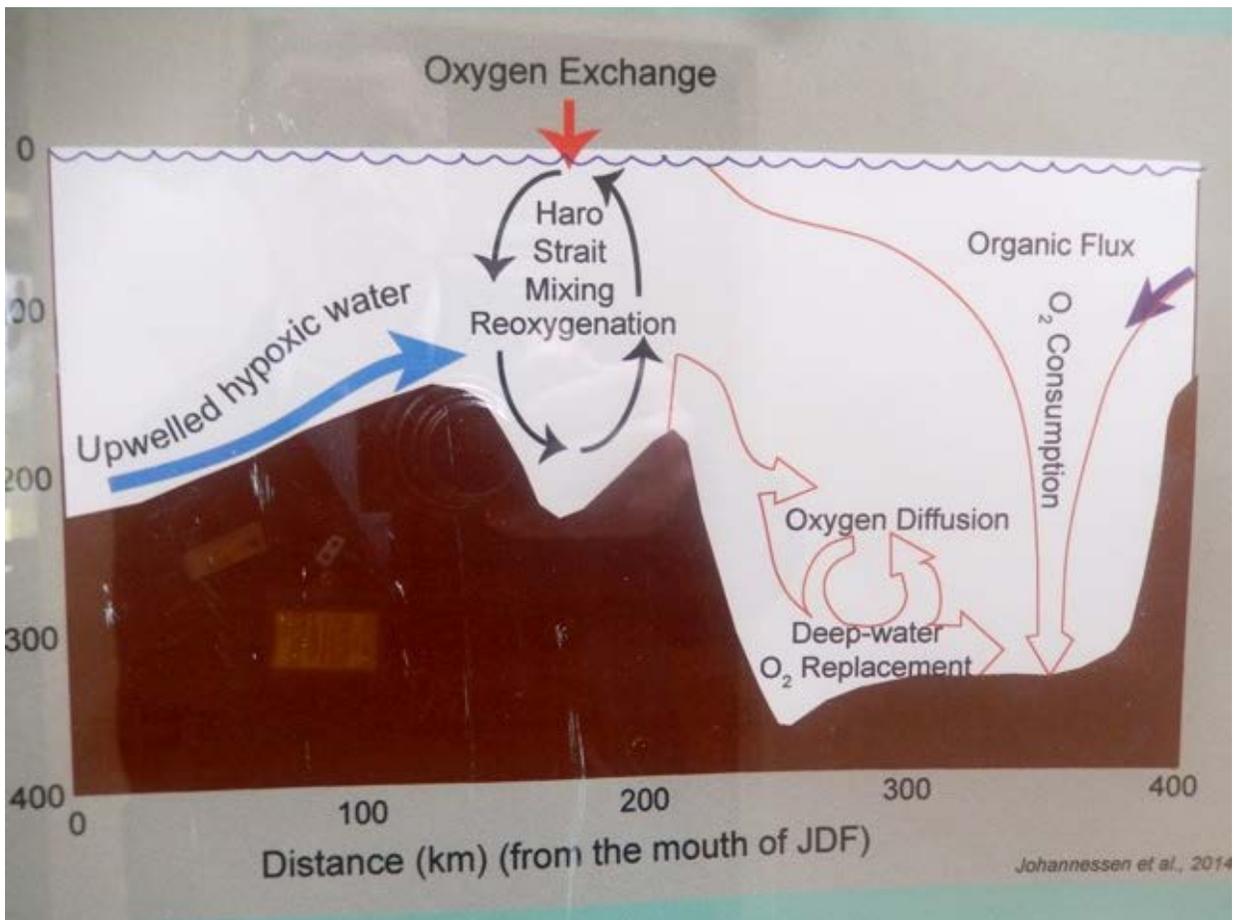
Increased acidity can dissolve the aragonite and calcite shells of marine organisms such as pteropods, clams, corals, coccolithophores, and other shellfish.

These shelled animals are an important link in the food chain, and if they are lost due to increased oceanic acidity, there are large implications for finfish, and other vertebrates who feed on them.

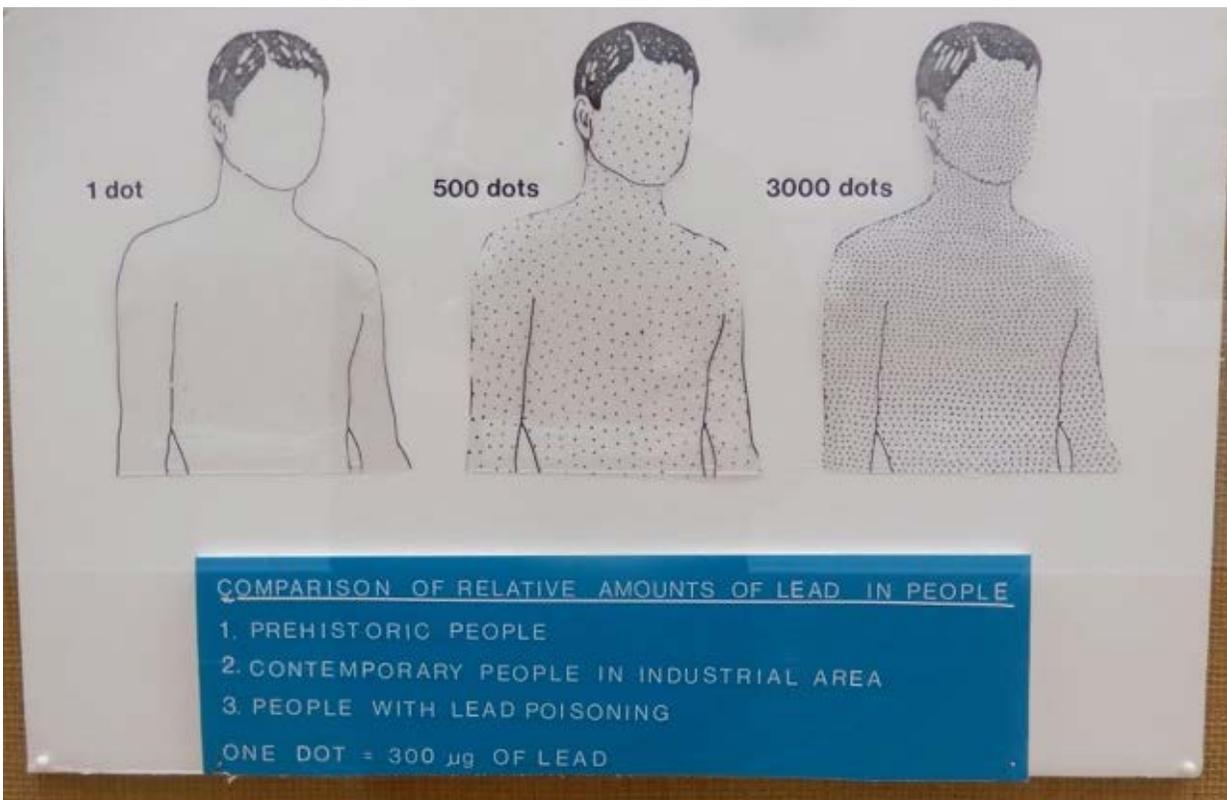
Ocean Acidification from carbon dioxide absorption



Sea Surface Acidity Projections



A natural oxygenation process in JDF



Comparison of Lead Levels in Humans

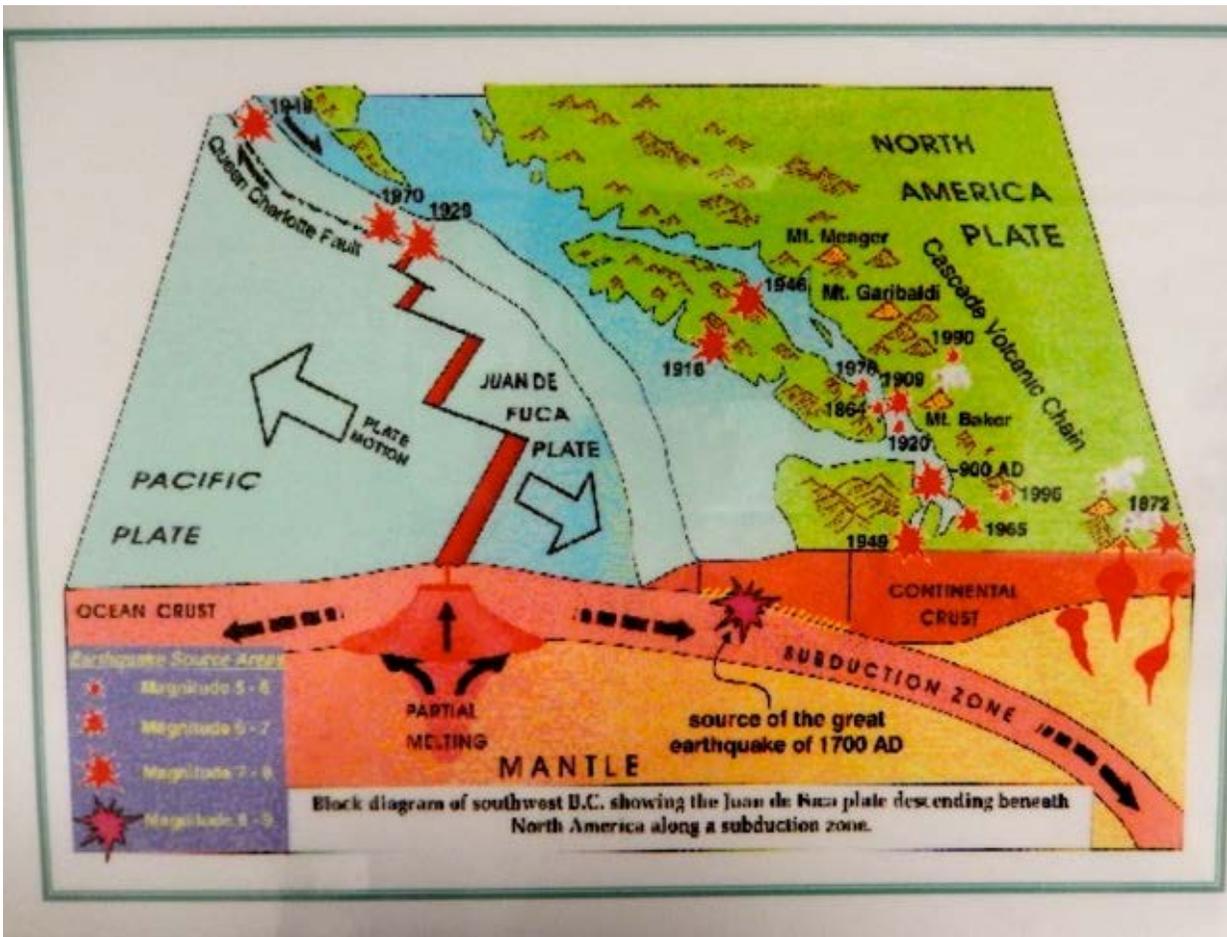
FUTURE is a 10-year PICES scientific initiative organized around 3 themes:

- *Anthropogenic Influences on Coastal Ecosystems* is focused on the effects of runoff, pollution, fishing, non-indigenous species, and habitat degradation.
- *Climate, Oceanographic Variability and Ecosystems* is focused on how ecosystems respond to natural and

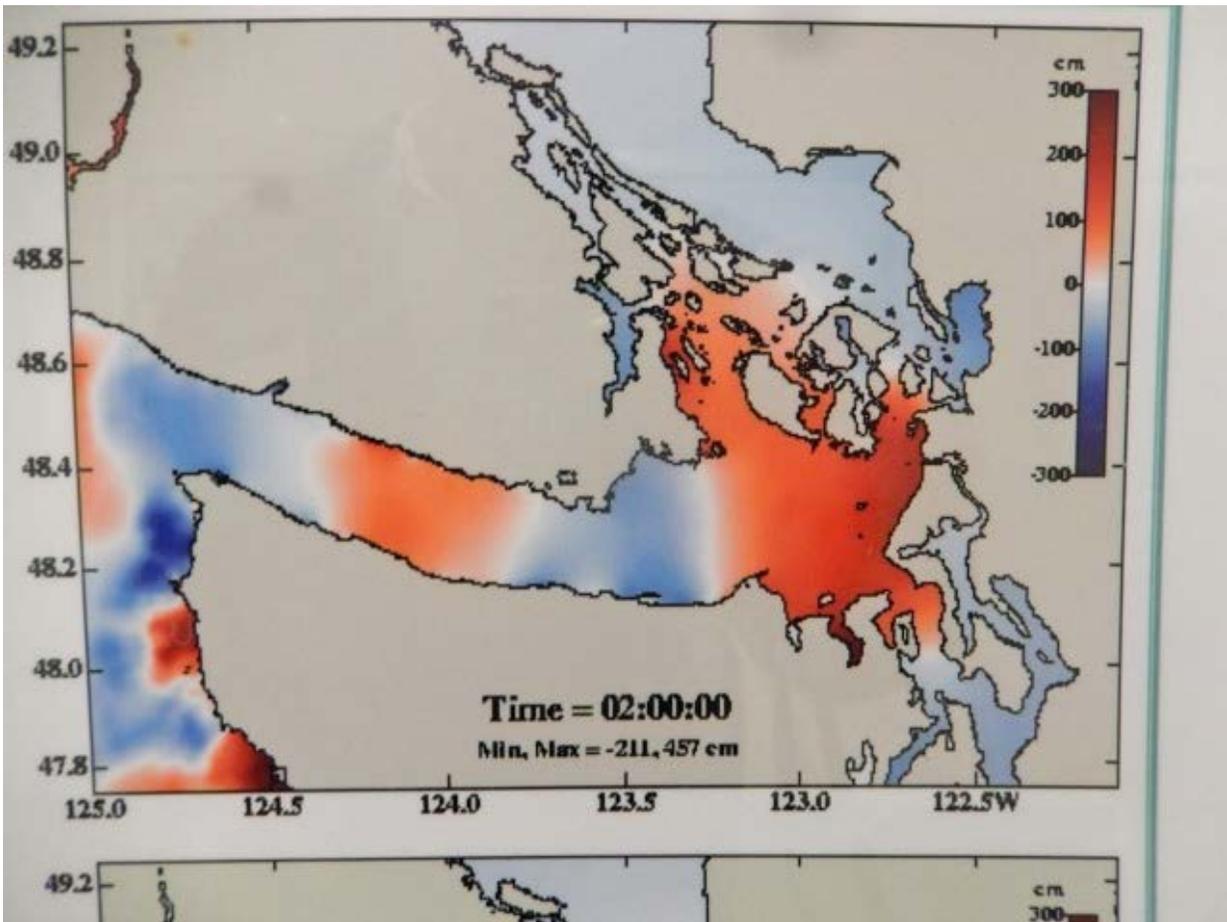
Anthropogenic Influences on Coastal Ecosystems



2011 Tundra cartoon



Major Earthquake locations at JDFR, including 1700 Megathrust



Tsunami waves in JDF Strait & entering Victoria & Guld Islands

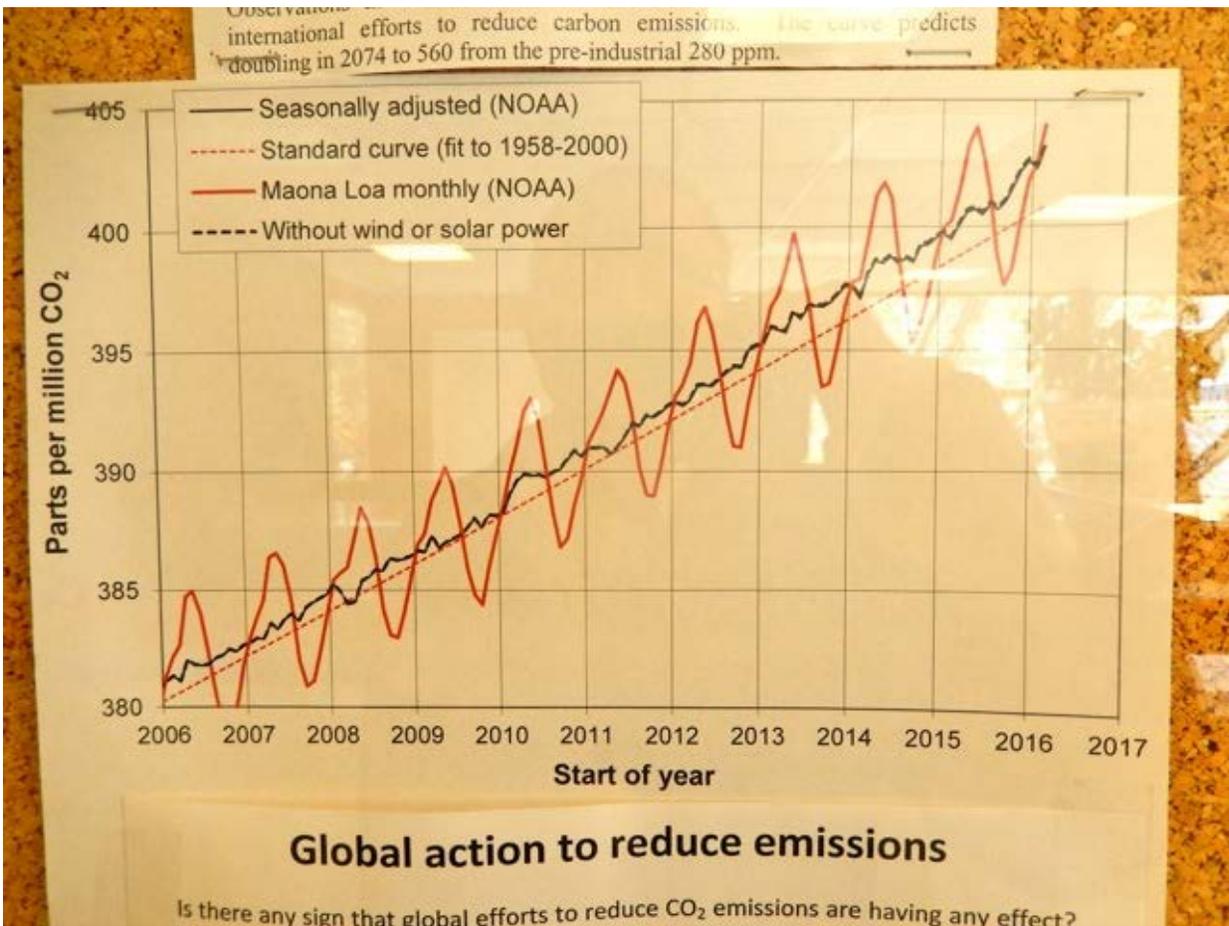
The plots above show snapshots of waves and currents inside Esquimalt (top row of panels) and Victoria (second row) Harbours at four different times, starting from 1 hour and 25 mins and ending at 2 hours and 25 minutes. The total duration of the numerical simulation was 12 hours and even after this relatively long time, the waves continue to arrive (albeit smaller in magnitude) from the entrance of Juan de Fuca Strait, or reflecting from other places in the strait. Depending on the earthquake scenario used, the maximum of simulated wave amplitude was between 4.1 and 4.5 m in Esquimalt Harbour and somewhat smaller in Victoria Harbour.

Values of maximum water currents inside these two harbours are shown on the left. Occasionally these maximum speeds exceed 25 knots, though more typical maximum values approach 15 knots.

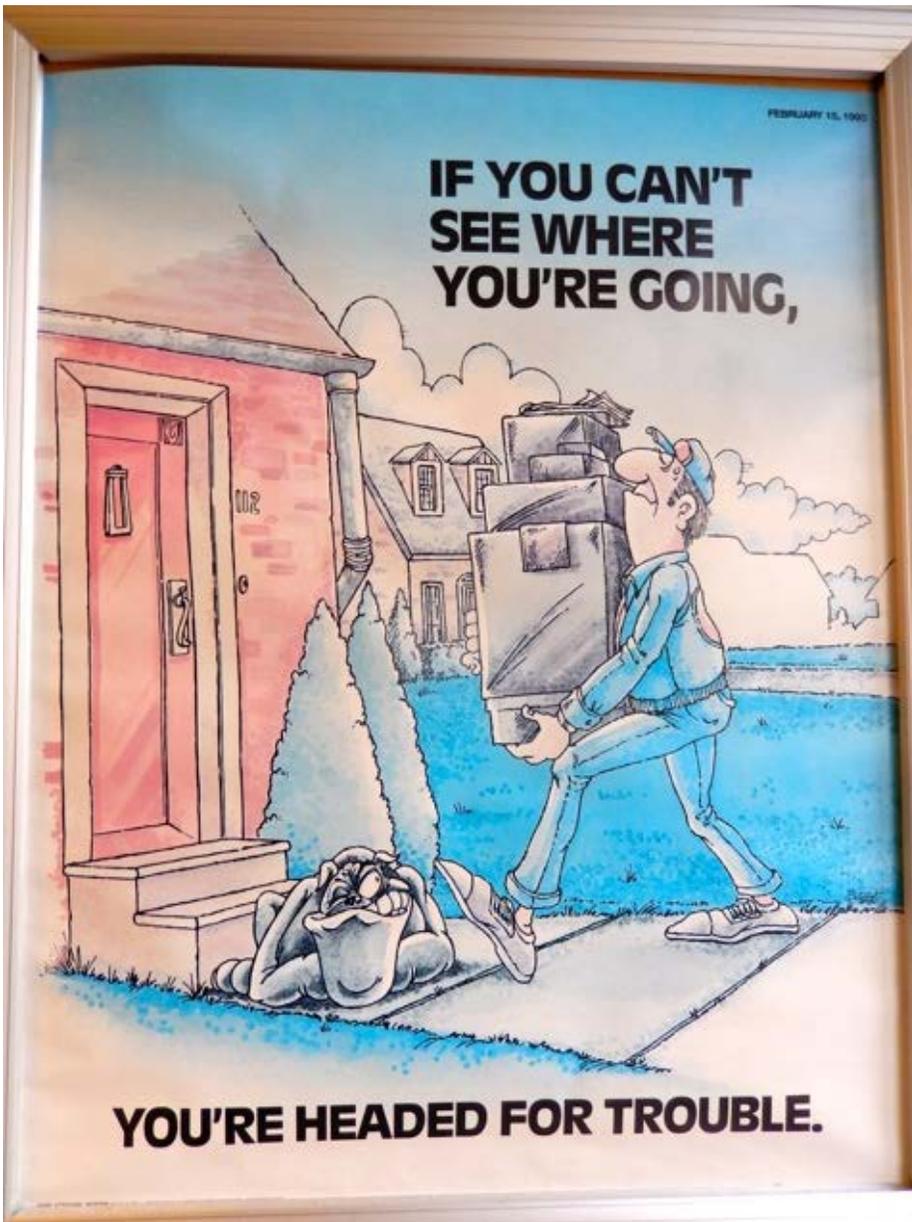
Evidence for 1700 Cascadia Earthquake



Trudeau Government NOT on track to reduce Global Warming



Several Sources, same overall trends

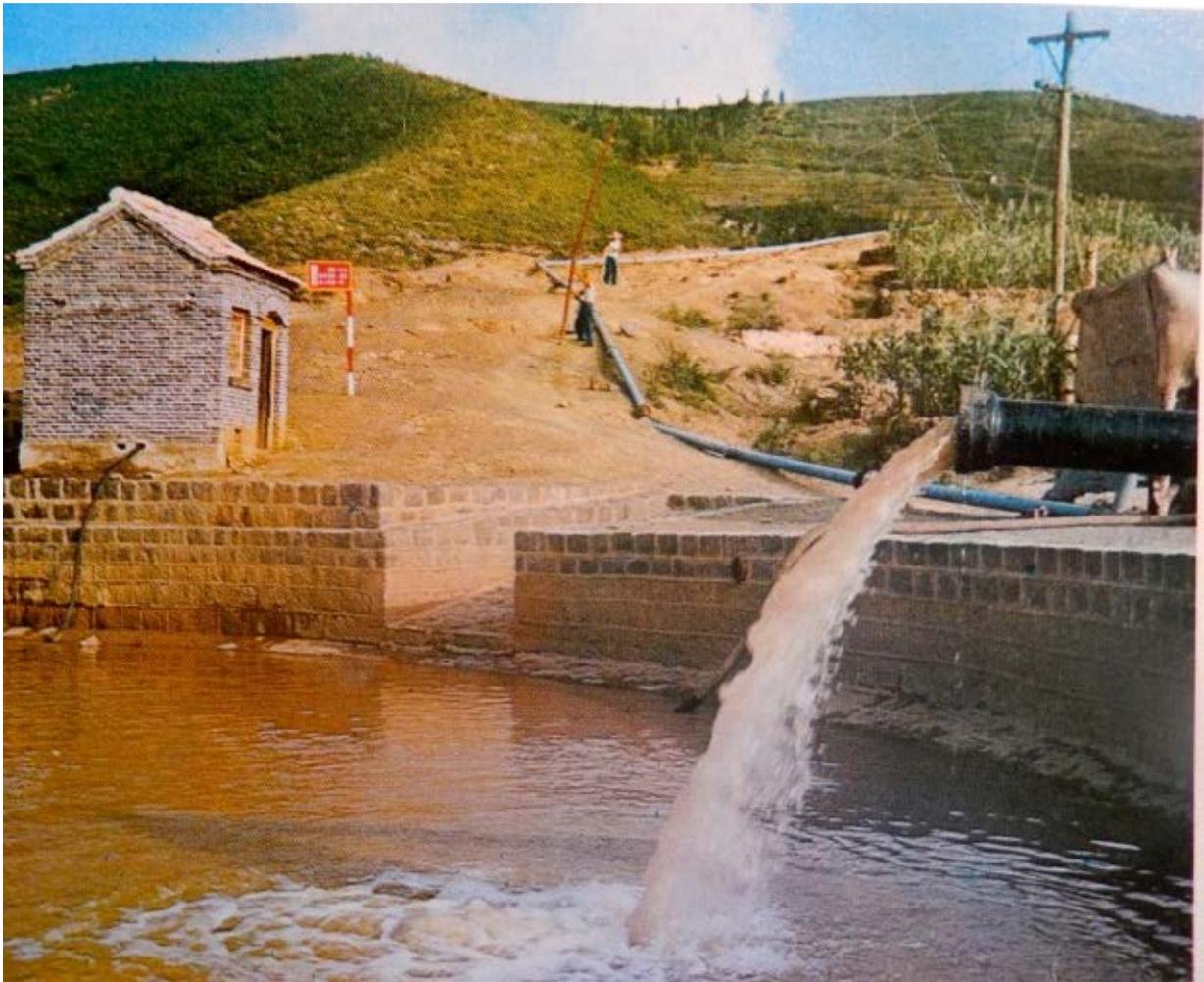


Trouble ahead if you can't see where you are going

From: [Thor Henrich](#)
To: [cawtpb](#); [Esquimalt Council](#); [CRDBoard](#); [Times Colonist](#); [Focus Magazine](#)
Subject: Re: IT'S A SAD DAY WHEN POLITICAL EXPEDIENCY TRUMPS SCIENTIFIC FACTS. A BILLION DOLLAR BAMBOOZLE IS IN THE WORKS. TIME FOR PRAYERS. THOR HENRICH
Date: Friday, April 07, 2017 5:25:11 PM



DSCN8601



DSCN8603



DSCN8605



DSCN8606



DSCN8607

From: [Wastewater](#)
To: [cawtpb](#)
Subject: FW: Wastewater Treatment Development and Animals
Date: Wednesday, April 26, 2017 12:01:18 PM
Attachments: [To the CRD Board and Wastewater Project Board.pdf](#)

From: Jordan Reichert [mailto:jordan@animalprotectionparty.ca]
Sent: Monday, April 24, 2017 8:47 AM
To: Wastewater <Wastewater@crd.bc.ca>
Subject: Wastewater Treatment Development and Animals

Dear Wastewater Project Team and Project Board Members.

I would like to submit to you a document that outlines some of the concerns myself and members of the communities effected by this project feel need to be addressed with the planning and development of the wastewater treatment project.

I appreciate the difficulty in the development and scope of this project and the need to meet the expectations of many interests. However, non-human animals are significant members of our communities whose interests need to be taken into account, even if they cannot speak them on their own behalf.

Thank you for your time and attention to this. Please do not hesitate to contact me if you have any questions.

Sincerely,
Jordan Reichert

Animal Protection Party of Canada
West Coast Campaign Officer, Victoria, B.C.



250-216-0562
www.animalprotectionparty.ca
www.animalalliance.ca



To the CRD Board and Wastewater Project Board,

It has recently been brought to my attention, the many concerns of residents in Victoria regarding the construction of the Wastewater treatment facility and its conveyances. Of particular concern has been the level of sound emittance from the project that has the potential to disrupt quality of life for residents in affected areas.

Of course, the concept of “residents” must be extended beyond an anthropocentric definition as a large number of marine, liminal, and domesticated non-human animals also call Victoria and the CRD their home. A state of the art Wastewater Treatment Facility has the potential to improve the conditions of the environment and society we all share. However, historically such projects have minimized or neglected the negative consequences on non-human animals, due to a lack of representation. That is why I write to you today, to make sure that their interests are also taken into consideration as the project continues to develop.

As is well scientifically documented and explained on websites such as [Discovery of Sound in the Sea](#) (DOSITS), anthropogenic sound can have a negative impact on the lives of marine mammals including behavioural changes, masking (inability to hear important sounds), hearing loss, and even stranding in some cases. Couple this with the fact that sound is louder underwater than in the air (it travels farther and five times faster in water), and the expected 12 hours a day drilling for 12-18 months could be catastrophic to marine life. Furthermore, the [National Center for Biotechnology](#) in the U.S. has stated that chronic exposure to noise levels above 55dB can significantly increase the likelihood of heart disease and stroke in people. It is my understanding that the proposed dB levels for the project are 75-85dB. Such chronic levels of noise underwater will only amplify the effects of this disturbance on marine animals who are more sensitive to sound as water conducts it around their entire bodies.

Furthermore, on land, we have a community in James Bay and throughout Victoria that is home to a wide variety of liminal animals such as racoons, birds, squirrels, deer, and domestic animals such as cats and dogs. As is well documented, humans hear only a [limited range of frequencies](#) compared to most other animals and sensitivity to noise can be more significant in other species. While it is possible for humans to escape the constant noise, many domestic animals in particular are often trapped in their homes and will have no relief from this potential distress. While there is limited research on the impact of chronic noise on non-human animals, I would highly recommend project managers investigate the possible negative effects this would have with certified professionals in the animal care field.

While there may be timelines and priorities that would have this project rushed to obtain the financial opportunities available to the CRD, it is necessary for due consideration to be given to the consequences of this project on both human and non-human animals. Neglecting concern for one over the other will only lead to an imbalanced socio-ecological compromise that will create unreasonable risk and hardship in our community.

I thank you for your time and consideration of these issues as raised.

Sincerely,

Jordan Reichert
Jordan Reichert

West Coast Campaign Officer, Animal Protection Party of Canada

James Bay Neighbourhood Association

jbna@vcn.bc.ca
Victoria, B.C., Canada

www.jbna.org

April 11th, 2017

CRD Core Area Liquid Wastewater Management Committee, and
Mayor and Council of the City of Victoria

Dear Mayors and Councilors,

This letter is to request that the CRD and City of Victoria conduct a Health Impact Assessment (HIA) with respect to the McLoughlin Point Wastewater Treatment Plant and related works.

We believe an assessment is important for both the proposed Wastewater Treatment Plant operations and for the Construction phase of the project:
Treatment Plant:

- There is a risk of longstanding **odour issue when the plant is completed.**
 - Plant specifications allow for odour and limits that exceed those in other jurisdictions in Canada, such as Vancouver's proposed North Shore facility, and plants in Alberta, Saskatchewan and in the U.S.
 - In addition to the concept of "sewage" odour, the over-riding concern is health impacts which may be associated with both short-term and long-term exposures to Hydrogen Sulphide (H₂S).
- There is a risk of longstanding **noise issues when the plant is completed.**
 - Proposed night-time noise limits of 60dBA exceed those recommended by the World Health Organization.
- There is a risk of health impacts associated with extreme noise levels expected to occur **during construction**, particularly the Pipe Drill from Camel Point (James Bay) to McLoughlin Point (Esquimalt).
 - There is a lengthy construction time line of 12-15 months during which there will be extensive noise generated by continuous drilling up to 12 hours a day for during weekdays and 8 hours on Saturdays. Even if the anticipated noise at 85 dBA is mitigated, in part, to a proposed 75dBA, noise at this level may have deleterious health impacts on local residents.

For your reference, we understand that HIAs have been done in Vancouver, for the George Massey Tunnel Replacement Project and/or the [Vancouver Coal Train Port project](#).

Thank you for considering this request. We look forward to receiving what we would expect to be a positive response.

Yours truly



Marg Gardiner
President, JBNA

Cc: Richard S. Stanwick, Chief Medical Health Officer, Island Health
Justine Semmens, President, VicWest Community Association

Attachment: *Four Types of Impact Assessment Used in Canada, Comparative Table, Sept. 2010*

Gap in Wastewater Treatment Project Considerations: the HIA

“To improve knowledge about the potential impact of a policy or programme, inform decision-makers and affected people, and facilitate adjustment of the proposed policy in order to mitigate the negative and maximize the positive impacts”

European Centre for Health Policy

<http://www.ncchpp.ca/docs/EvaluationImpactComparisonEN.pdf>

FOUR TYPES OF IMPACT ASSESSMENT USED IN CANADA

www.ncchpp.ca: National Collaborating Centre for Healthy Public Policy

COMPARATIVE TABLE | SEPTEMBER 2010

2 COMPARISON OF FOUR TYPES OF IMPACT ASSESSMENT USED IN CANADA				
	Health Impact Assessment (HIA)	Environmental Impact Assessment (EIA)	Strategic Environmental Assessment (SEA)	Risk Assessment (RA)
Definition	"... A combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population" (WHO, 1999, p.4).	"In general, environmental assessment is a process to predict the environmental effects of proposed initiatives before they are carried out" (Canadian Environmental Assessment Agency, 2010). "An integrated EIA, which combines health, social, economic, cultural and psychological well-being as well as the physical, biological and geochemical environments, provides a holistic understanding of the complex interrelationships between the human and natural environments that are key to health" (Kwiatkowski & Ooi, 2003, p.435).	"... A systematic, comprehensive process of evaluating the environmental effects of a proposed policy, plan or program and its alternatives" (Parks Canada, 2009a, p.1).	"The use of the factual base to define the health effects of exposure of individuals or populations to hazardous materials and situations" (Mindell & Joffe, 2003, p.109).
Level of Analysis	Policy, program or project	Project	Policy, program or plan	Substance / exposure

COMPARISON OF FOUR TYPES OF IMPACT ASSESSMENT USED IN CANADA (...)				
	Health Impact Assessment (HIA)	Environmental Impact Assessment (EIA)	Strategic Environmental Assessment (SEA)	Risk Assessment (RA)
Frameworks	<ul style="list-style-type: none"> - <i>Ottawa Charter for Health Promotion</i> (WHO, 1986); - Environmental Impact Assessment; - <i>Gothenburg Consensus Paper</i> (WHO, 1999); - <i>Strategies for Population Health: Investing in the Health of Canadians</i> (Federal, Provincial and Territorial Advisory Committee on Population Health, 1994). 	Toxicology, epidemiology, risk assessment, environmental science (Personal communication, July 22, 2010).	Toxicology, epidemiology, risk assessment, environmental science (Personal communication, July 22, 2010).	Toxicology and epidemiology.
Values	Democracy Equity Sustainable development Ethical use of evidence (WHO, 1999).	Integrity Utility Sustainability (United Nations University – UNU, 2009).	Sustainable development	Scientific rigour
Trigger, Legal Obligation or Cabinet Directive	Health / social concerns about proposed program, policy or project.	Biophysical concerns related to a proposed project.	Biophysical concerns related to a policy, program or project.	Concerns about the adverse effects / severity of exposure to a substance (Regens, Dietz, & Rycroft, 1983); request for registration of new substance or amendments to existing one (Saner, 2010).

From: [Marg Gardiner, JBNA](#)
To: [cawtpb; Wastewater](#)
Cc: [Kristin Quayle; Mayor \(Lisa helps\) Helps](#); [Ben Isitt](#); [Margaret Lucas \(Councillor\)](#); [Jeremy Loveday \(Councillor\)](#)
Subject: McLoughlin Point Odour: Attn Don Fairbairn
Date: Thursday, April 13, 2017 2:06:43 PM

To: Don Fairbairn
Vice-Chair

Fr: Marg Gardiner
President, JBNA

Re: Treatment Plant Odour

Thank you for clarifying this morning that the OU level schematic suggesting 9.4 OU at the east side of the McLoughlin site is from an outdated emissions study. We look forward to seeing the replacement study and to convey the report on to residents, who will undoubtedly be relieved.

However, your statement begs several questions, to which we would appreciate responses:

1. The emission study is part of the ***Core Area Liquid Waste Management Plan Amendment No. 11 submitted September 16, 2016 Technical Document***

a) Was Amendment No. 11 superseded prior to the CRD Core Waste Management Committee and City of Victoria considerations for the rezoning Public Hearings in Esquimalt and Victoria?

b) If there was a subsequent amendment or other technical document forwarded to the Management Committee and CoV prior to the rezonings, where can it be found?

(i) if such a document has been posted on-line, please provide the link and date it was posted.

(ii) please forward the "new" odour dispersion study, which forms the basis for the odour information sheet (April 2017) as presented at public meetings.

c) What document provides technical information regarding plant design changes to effect the different OU levels from the Amendment No. 11 submission on September 16 to the "new" emissions report?

Please forward the document or provide a link to said document.

2. At the JBNA-CRD Project Team meeting held April 4, I asked specifically if the odour dispersion modelling would be available at the April 5 meeting, and if the cost differences between a 5OU and 3OU and 1OU would be available. I was assured that the information would be available at the April 5 meeting. It was not available - the map on the information sheet provided at the meeting does not show vital contour lines (or any contour lines) and is not an emissions report. When the "technical specialist" was asked for the costing estimated to take emissions from a 5 to a 3 or to a 1OU level, he stated that they had never done any comparison costing.

3. As a "lesson learned" I would hope that the project team realises that residents expect precise technical information.

JBNA will facilitate communications as we have committed. I believe that we have proven capability in that regard. However, we shall also be insisting on technical discussions, and have been clear on that matter during the two meetings when we discussed roles and dialogue needs. This project and the impacts are all about technical performance measures and mitigation.

I look forward to receiving your response.

Regards,

Marg Gardiner

cc: CoV Mayor and Council
CRD Project Team
Justine Semmens
JBNA Board

From: cawtpb
To: ["Lisa Hoskins"](#)
Subject: RE: Wastewater Treatment Traffic Management Plan | Macaulay Elementary
Date: Monday, April 10, 2017 11:03:00 AM
Attachments: [Community Information Meetings April 5 and April 12 2017.pdf](#)

Dear Ms. Hoskins,

Thank you for your email following up on the Esquimalt Liaison Committee and the Traffic Management Plan.

I believe you and other members of the Ecole Macaulay Elementary School PAC met with members of the Project Team Wednesday April 5 regarding the Traffic Management Plan. I understand that it was a productive meeting and I hope you got many of the answers you were looking for at that time.

The Draft Traffic Management Plan will be finalized once the first round of input has been received. However, it is a "living document", which is to say that it will be updated continually as the project progresses. For example, if a road identified in the Traffic Management Plan is closed for any period of time or if another development impacts the routes identified, the Plan will be updated. Your memo which we received in February has been reviewed by Harbour Resource Partners, the contractor responsible for the Wastewater Treatment Plant construction.

The Esquimalt Liaison Committee will be in place and begin meeting within 30 days of the start of construction at the McLoughlin Point Wastewater Treatment Plant. As outlined in the agreement with the Township of Esquimalt, the Liaison Committee will include representatives from the Township, the West Bay Neighbourhood Association, the Lyall Street Neighbourhood Association, Department of National Defense, CRD, and Harbour Resource Partners.

In addition, the Project Team is holding a Community Information Meeting in Esquimalt to provide more information about the construction of the McLoughlin Point Wastewater Treatment Plant. The meeting will be on April 12 from 5 to 8 pm at the Esquimalt Branch of the Royal Canadian Legion at 622 Admirals Road. I have attached a Community Information Meeting Notice to this email for your information. If you think it is appropriate I hope you will share it with other PAC members.

Sincerely,
Jane Bird

From: Lisa Hoskins [mailto:ljprothe@yahoo.com]
Sent: Thursday, March 16, 2017 1:45 PM
To: cawtpb <cawtpb@crd.bc.ca>
Subject: Wastewater Treatment Traffic Management Plan | Macaulay Elementary

Hi Jane,

I am just following up with respect to the Traffic Management Plan now

that McLoughlin Point has been rezoned and the memo that I sent in February outlining the concerns about the traffic plan. I have attached memo again for you reference.

Do you know when there will be a liaison committee setup and when the Traffic Management plan will be finalized?

Sincerely,

Lisa Hoskins

From: cawtpb <cawtpb@crd.bc.ca>
To: "liprothe@yahoo.com" <liprothe@yahoo.com>
Sent: Thursday, February 9, 2017 8:28 AM
Subject: RE: Contact Us - Submission

Dear Ms. Hoskins,

Thank you for your letter regarding the Traffic Management Plan for the wastewater treatment plant at McLoughlin Point.

You can find the plan that was submitted to the Township of Esquimalt for their consideration at the council meeting on February 6 linked here: Appendix F McLoughlin Point Wastewater Treatment Plant - <https://esquimalt.ca.legistar.com/LegislationDetail.aspx?ID=7515&GUID=70ACC6CF-20F5-4574-9C1F-E02A07D2F97A&Options=&Search>. This Traffic Management Plan was submitted as a draft for discussion with council and is subject to further refinement.

The Project Team has committed to discussing this traffic management plan with schools in the area prior to construction of the wastewater treatment plant. We would be pleased to meet with the PAC and Principal of Ecole Macaulay Elementary School to review the traffic management plan in detail, and will be in touch with the school to set this up.

Thank you again for your email and we look forward to meeting with you again in the future.

Sincerely

Jane Bird

From: liprothe@yahoo.com [<mailto:liprothe@yahoo.com>]
Sent: Monday, January 30, 2017 12:58 PM
To: cawtpb <cawtpb@crd.bc.ca>
Subject: Contact Us - Submission

The following message was received through the form at '<https://www.crd.bc.ca/contact-us?r=wwproject-board>'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:
Lisa Hoskins

Your Email Address:

ljprothe@yahoo.com

Message:

Hello,

It was my understanding from the Esquimalt public meeting on Jan 23rd that there would be a Traffic Management Plan submitted to the Township by January 30, 2017. I was wondering if this was still the case and if so when this information will be made available to the public. I am one of the PAC Co-Chair at Macaulay Elementary School and we are interested to see the information provided so can ensure the safety of our students has been taken into account.

Thanks very much,

Lisa Hoskins

Submitted at:1/30/2017 12:57:34 PM

Submitted via:<https://www.crd.bc.ca/contact-us?r=wwproject-board>

User Agent:Mozilla/5.0 (Macintosh; Intel Mac OS X 10_12_2) AppleWebKit/537.36 (KHTML, like Gecko)

Chrome/55.0.2883.95 Safari/537.36

User Host Address:154.20.45.162

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From: cawtpb
To: ["ymartin@odotech.com"](mailto:ymartin@odotech.com)
Subject: RE: Contact Us - Submission
Date: Monday, April 10, 2017 11:04:00 AM

Dear Yves Martin,

Thank you for your email and your interest in the Wastewater Treatment Project. The Wastewater Treatment Project will be complete by the end of 2020, and consists of three main elements:

McLoughlin Point Wastewater Treatment Plant - Located at McLoughlin Point in Esquimalt, the treatment plant will provide tertiary treatment to the core area's wastewater.

Residuals Treatment Facility - Residual solids from the wastewater treatment plant will be piped to a Residual Treatment Facility Hartland Landfill, where they will be turned into what are known as "Class A" biosolids. These biosolids are a high quality by-product treated such that it is safe for further use.

Conveyance System - The conveyance system refers to the 'pumps and pipes' of the Wastewater Treatment Project. This system will carry wastewater from across the core area to the treatment plant, and residual solids to the Residuals Treatment Facility at Hartland Landfill.

The CRD is not directly undertaking construction activities but will be selecting contractors through competitive selection processes to construct the various components of the project. The CRD therefore doesn't have a direct need to engage odotech but the Project contractors may and I would encourage you to review the website for information on these contractors as they are selected. The first of these contracts was recently awarded to Harbour Resource Partners (HRP) who will be building the McLoughlin Point Wastewater Treatment Plant.

There is a competitive procurement process currently underway for the Residuals Treatment Facility. The Request for Qualifications period has closed and submissions are now under review. A shortlist of three qualified proponents will be invited to participate in the next stage of the competitive selection process, the Request for Proposals (RFP). Once the selection process is complete and a shortlist has been selected we will announce the beginning of the RFP process. We will announce the successful contractor once the RFP process is complete.

There will be a number of procurement process for the Conveyance system and as we select contractors through these processes we will announce them.

Sincerely,

Jane Bird

From: ymartin@odotech.com [mailto:ymartin@odotech.com]
Sent: Friday, March 10, 2017 7:44 AM
To: cawtpb <cawtpb@crd.bc.ca>

Subject: Contact Us - Submission

The following message was received through the form at 'https://www.crd.bc.ca/contact-us?r=wwproject-board'. Neither the name nor the e-mail address can be confirmed as accurate.

.....

Your Name:

Yves Martin

Your Email Address:

ymartin@odotech.com

Message:

Good morning: We can help with management of possible odor and dust nuisance issues with the new project. We have been doing this for 20 years in many countries. Clients in BC include Orgaworld and Vancouver WWTP. Call me for more details at 514-340-5250 (706) www.odotech.com

Submitted at: 3/10/2017 7:43:46 AM

Submitted via: <https://www.crd.bc.ca/contact-us?r=wwproject-board>

User Agent: Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/56.0.2924.87 Safari/537.36

User Host Address: 69.70.87.250