



Making a difference...together

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April 10, 2014

File: 0400-20

The Honourable Mary Polak  
Minister of Environment  
PO Box 9047 Stn Prov Govt  
Rm 247, Parliament Buildings  
Victoria, BC V8W 9E2

Dear Honourable Minister Polak:

### **CORE AREA LIQUID WASTE MANAGEMENT PLAN**

At its regular meeting on April 7, 2014 the Township of Esquimalt Council rejected the rezoning application made by the Capital Regional District (CRD) (Bylaw No. 2805), a process which began over fifteen months ago. Intensive negotiations over several months with Esquimalt resulted in the development of a revised bylaw and two agreements (Host Community Impact 5-Year Agreement and Community Impact Mitigation & Operating Agreement). This revised bylaw and the two agreements were the subject of four days of public hearings and the final rejection by Esquimalt council on April 7, 2014. Representatives from the Ministry of Community Sports and Cultural Development attended the negotiations as observers. The only two provisions that the CRD believes were unacceptable to Esquimalt in the revised Bylaw No. 2805 were the CRD's request to relax the restrictions on the building height, and the setback from the high water mark. As a result of Esquimalt's decision an impasse has been reached.

The practical effect of the impasse is that Esquimalt now has a zoning bylaw that allows a wastewater treatment plant use, but only on provision of an extensive list of amenities, some of which depend entirely on third party approval, and which was adopted over the strong objection of the CRD. In addition, Esquimalt Council has instructed their staff to prepare documentation for council to remove wastewater treatment as a permitted use on the McLoughlin site.

The legal effect of this bylaw currently in force is to place the CRD in the position of:

- 1) proceeding with the wastewater treatment project in defiance of the bylaw, in order to meet the contractual obligations of the CRD under the Contribution Agreement with the Province dated March 13, 2013, and under the approved Liquid Waste Management Plan; or
- 2) abandoning the wastewater treatment project, placing the CRD itself in jeopardy of being prosecuted under the *Environmental Management Act*, section 120(11), as well as the federal *Wastewater Systems Effluent Regulations* of the Federal government, and placing the directors, officers and employees of the CRD in personal jeopardy of prosecution under section 121(1) of the *Environmental Management Act*; or

- 3) abandoning the McLoughlin Point site and procurement process, which is at an advanced stage, and initiating a search for a new site for the wastewater treatment plant. If a suitable site was found, the CRD will have to conduct a new Environmental Impact Study, undertake a new public consultation process, apply for rezoning and seek an amendment to the Core Area Liquid Waste Management Plan. This process would take many years to complete, and would necessitate re-negotiation of the funding agreements with senior governments. With a multi-year delay and significant uncertainty about when such a process would conclude, critical dates in the agreements could not be met.

It is clear that the political process is unable to achieve an outcome within a reasonable time frame necessary for the project. The CRD believes that the Province must exercise its authority to resolve the political impasse.

Therefore, in order for the project to proceed in accordance with the Provincial directive and to comply with the Federal regulations, the CRD is requesting that the Provincial Cabinet issue an order under section 37(6) of the *Environmental Management Act* to suspend the operation of those provisions of the existing rezoning bylaw (as amended by Bylaw No. 2806) of the Township of Esquimalt, identified in Appendix A, that stand in the way of the CRD proceeding with the project under the approved Core Area Liquid Waste Management Plan. In the event that the Township takes steps to further restrict or limit the CRD proceeding with the project, the CRD requests that you issue an order under section 37(6) and declare a conflict under section 37(5) of the *Environmental Management Act* and set aside all applicable bylaws, permit requirements, and applicable components of the negotiated agreements

In support of our request we have attached the following information:

- Bylaw No. 2806 adopted by Esquimalt in July 2013, the rezoning bylaw proposed by the CRD (Bylaw No. 2805) and associated agreements (Attachments 1, 2, 3 and 4);
- A comparison of Bylaw No. 2806 and Bylaw No. 2805 (Attachment 5);
- An updated chronology of events since the initial rezoning application was submitted (Attachment 6);
- The request for additional information from Esquimalt following the first two sessions of the most recent public hearing on February 18, 19, and CRD's responses (Attachment 7);
- Section 55 and 63 of Esquimalt's Zoning Bylaw 1992, Bylaw No. 2050 (Attachment 8).

From these documents it is clear that the CRD has made significant efforts to address the concerns of Esquimalt as articulated in its Bylaw No. 2806. The CRD has accommodated all of the significant concerns, with the exception of the building height, setback requirements and any items that are outside of the CRD's legal mandate.

Based on the actual designs submitted by the three proponents, the maximum encroachment into the 7.5m setback area is less than 4% of the area. In order to accommodate process equipment such as odour control stacks, some relaxation of the height restrictions included in Bylaw No. 2806 is also being requested.

Without these minor concessions it will be necessary to redesign the facility to reduce its footprint and elevation. This will result in potentially a smaller plant capacity, bringing forward the need for additional capacity. It will also increase the depth of excavation on the site which will require removal and additional remediation of contaminated soils. This will increase the cost, the construction risk given the proximity to water front and sea level and will require pumping of the effluent into the outfall. The designs, which were received on February 28,

2014, will all have to be revised. All of these factors will result in delays to the Program and additional cost to core area taxpayers, as senior government funding is fixed.

As you are aware, the CRD has undertaken an exhaustive search for potential sites for the sewage treatment facilities. This search was undertaken by the Westland Resource Group (now Tera Environmental Consultants). Other sites were either not available or would result in significant additional costs of at least \$80 - \$100 million. In 2008, Esquimalt Council suggested McLoughlin Point as a suitable site for a wastewater treatment plant, and the CRD has proceeded in good faith that the site would be appropriately rezoned. The CRD has also studied the option of a distributed system with multiple plants throughout the core area and concluded that a distributed system would cost substantially more than what is currently proposed. This work was undertaken by Associated Engineering in 2009.

The CRD believes that after extensive and exhaustive studies and analysis it has developed a Program that will meet the needs of the core area municipalities and residents for several decades to come at the least cost to the taxpayers, while meeting the Provincial and Federal regulations. The CRD also believes that it has acted in good faith and has negotiated with Esquimalt an equitable series of agreements that include a revised Bylaw No. 2805 and two agreements (Host Community Impact 5-Year Agreement and Community Impact Mitigation & Operating Agreement). The Minister of Environment has approved the Core Area Liquid Waste Management Plan which identifies McLoughlin Point as the location of the treatment plant.

As time is of the essence, we request an urgent response to this request for a Cabinet Order to suspend the operation of those provisions of the existing Zoning Bylaw 1992 No. 2050 of the Township of Esquimalt, identified in Appendix A to allow this important project to proceed to construction. Should the Province be unwilling to suspend the operation of the existing bylaw, we request direction from the Province on how to move forward with the project, given the time and financial constraints facing the CRD.

Sincerely,

*original signed*

Alastair Bryson  
Chair, Capital Regional District Board

Attachments: 9

cc Honourable Minister Coralee Oakes, Ministry of Community, Sport and Cultural Development  
CRD Board Members  
Robert Lapham, CAO, CRD

Zoning Bylaw 1992, No. 2050 (as amended by Bylaw No. 2806) Section Number	Nature of Objection and CRD Proposed Action
55(2) Definitions of proximity of the WWTP to the community	Definitions of “Nearby Community”, “Immediate Community” and “Extended Community” are irrelevant given CRD’s actual proposed commitments.
55(2)(a)(i) to (v) Base Density provisions for floor area ratio, floor area, lot coverage, effluent discharge rate and plant capacity	Sections 55(2)(a)(i) to (iii) set unworkable size limitations and the WWTP as contemplated by the approved Liquid Waste Management Plan could not be built.  With respect to 55(2)(a)(iv) and (v), these restrictions are not properly matters of density of use and their inclusion would prevent the CRD from making proper and efficient use of the WWTP.  *see Note for CRD commitments regarding maximum floor area ratio, floor area and lot coverage.
55(2)(b)(i) to (v) Bonus Density – Level 1 increases floor area ratio, floor area, lot coverage, effluent discharge rate and plant capacity	See comments re: 55(2)(a).  These additional allowances are insufficient to construct the WWTP as contemplated by the approved Liquid Waste Management Plan
55(2)(b)(1) Delivery of all materials by boat or barge	CRD has committed to barging but only concrete and excavated materials to significantly reduce truck traffic through the Township
55(2)(b)(3) Traffic integration amenities, including speed bumps, speed cushions, speed readers with signage, enhanced boulevard curbing and landscaping and bike lanes in immediate community	CRD has committed to developing and implementing a traffic management plan in consultation with the Township.
55(2)(b)(4) Provision of a dedicated education and interpretive centre	*see Note - CRD cannot commit to a dedicated education and interpretive centre, but will provide a shared meeting room, interpretive and educational space.
55(2)(b)(5) Install high efficiency air filters in schools in the immediate community	This provision is outside the CRD’s jurisdiction, the CRD is unable to do this.

\*NOTE: The CRD nevertheless intends to fulfill related commitments set out in proposed Zoning Bylaw, 1992, No. 2050 Amending Bylaw 2013 No. 2805, the negotiated Host Community Impact 5-Year Agreement, the Community Impact Mitigation and Operating Agreement which reflect a commitment that the CRD considers achievable within the framework of the WWTP project.

Zoning Bylaw 1992, No. 2050 (as amended by Bylaw No. 2806) Section Number	Nature of Objection and CRD Proposed Action
<p>55(2)(b)(6)a</p> <p>Green building and design features including requirement for LEED Gold standard</p>	<p>Creates uncertainty as to the scope of the obligation in connection with a utility project of this nature where utility buildings are not typically the subject of LEED® standards and creates exposure to significantly increased costs to the project.</p> <p>*see Note</p> <p>CRD has committed to constructing administration buildings to LEED® standard, (but not obtain certification) including a green roof where appropriate.</p>
<p>55(2)(c)(i) to (v)</p> <p>Bonus Density - Level 2 increases floor area ratio, floor area, lot coverage, effluent discharge rate and plant capacity</p>	<p>See comments re: 55(2)(b)</p> <p>Increased allowances are insufficient to construct the WWTP as contemplated by the approved Waste Management Plan</p>
<p>55(2)(c)(1)</p> <p>Inclusion of Bonus Density - Level 1 conditions</p>	<p>Most conditions referred to for lower density level cannot be met as previously noted</p>
<p>55(2)(c)(2)</p> <p>Public Open space along the waterfront (no less than 1,000m<sup>2</sup>)</p>	<p>*see Note</p> <p>CRD has committed to public open space including an observation point and a walkway: however this site is unable to accommodate an area that will be greater than 1,000 m<sup>2</sup>.</p>
<p>55(2)(c)(4)</p> <p>Provision of a dedicated 50m<sup>2</sup> education and interpretive centre</p>	<p>See Note)</p> <p>As previously noted the CRD cannot commit to a dedicated education and interpretive centre, but will provide a shared meeting room, interpretive and educational space.</p>
<p>55(2)(c)(5)</p> <p>Install high efficiency filters in Nearby Community (includes immediate community)</p>	<p>As previously noted, this provision is outside the CRD's jurisdiction; therefore the CRD is unable to do this.</p>
<p>55(2)(c)(6)</p> <p>Green Building and Design features expanded to additional portions of the development</p>	<p>Creates uncertainty as to the scope of the obligation in connection with a utility project of this nature where utility buildings are not typically the subject of LEED® standards and creates exposure to significantly increased costs to the project.</p>

\*NOTE: The CRD nevertheless intends to fulfill related commitments set out in proposed Zoning Bylaw, 1992, No. 2050 Amending Bylaw 2013 No. 2805, the negotiated Host Community Impact 5-Year Agreement, the Community Impact Mitigation and Operating Agreement which reflect a commitment that the CRD considers achievable within the framework of the WWTP project.

Zoning Bylaw 1992, No. 2050 (as amended by Bylaw No. 2806) Section Number	Nature of Objection and CRD Proposed Action
	*see Note CRD has committed to constructing administration buildings to LEED® standard, (but not obtain certification) including a green roof where appropriate.
55(2)(c)(7) Upgrade to all pump stations in nearby community consistent with Craighflower Pump Station	*see Note There is one above ground pump station in the Township which is scheduled to be upgraded as part of the CRD's regular capital program. Underground pump stations will not be upgraded.
55(2)(d)(iv) and (v) Bonus Density - Level 3 increases floor area ratio, floor area, lot coverage, effluent discharge rate and plant capacity	See comment re: 55(2)(a)(iv) and (v) The CRD can meet the Floor Area Ratio, Floor Area and Lot Coverage requirements. The limitations on the rate of discharge and plant capacity restrict the CRD from optimizing plant capacity through technological advancements and process modifications.
55(2)(d)(1) Inclusion of Base Density and Bonus Density Level 1 and 2 conditions	As previously noted most conditions for lower density levels cannot be met.
55(2)(d)(2) Provision of picnic benches and 'tot' play lot	CRD has not agreed to provide a "tot park playlot" and "themed play equipment" at the wastewater treatment plant. The CRD has agreed to provide a public viewing area and walkway on the site.
55(2)(d)(3) Provision of dock and pedestrian ferry service	CRD has no service and hence no jurisdiction to operate a pedestrian ferry service which would require a public assent process to an establishing bylaw for a new service. The CRD has agreed to provide a public dock for access to the public walkway on completion of construction, subject to applicable approvals
55(2)(d)(4) Public walkway, including off-site to Westbay neighbourhood	Adjacent lands are owned by the Federal government; CRD has no power to expropriate land from the Federal government to provide amenity as described if the Federal government unable to cooperate. A request has been submitted to DND for public access to the site without success.  *see Note re: actual CRD commitments

\*NOTE: The CRD nevertheless intends to fulfill related commitments set out in proposed Zoning Bylaw, 1992, No. 2050 Amending Bylaw 2013 No. 2805, the negotiated Host Community Impact 5-Year Agreement, the Community Impact Mitigation and Operating Agreement which reflect a commitment that the CRD considers achievable within the framework of the WWTP project.

Zoning Bylaw 1992, No. 2050 (as amended by Bylaw No. 2806) Section Number	Nature of Objection and CRD Proposed Action
55(2)(d)(5) Additional traffic integration measures in the form of additional traffic calming and bike lanes on remaining streets between Lampson Road and Esquimalt Road.	*see Note As worded, unacceptable. The CRD commits to restoring all roads to equal or better.
55(2)(d)(6) Larger education and interpretive and 'Centre of Excellence'	See comment re: 55(2)(b)(4) As previously noted the CRD cannot commit to a dedicated education and interpretive centre, but will provide a shared meeting room, interpretive and educational space.
55(2)(d)(7) High efficiency air filters to schools in extended community	As previously noted, this provision is outside the CRD's jurisdiction, therefore the CRD is unable to do this
55(2)(d)(8) Extension of Green building and design features	See comment re: 55(2)(b)(6) CRD has committed to constructing administration buildings to LEED® standard, (but not obtain certification) including a green roof where appropriate.
55(2)(d)(9) Use of reclaimed water	*see Note CRD has water reuse for process purposes within the WWTP but not to a wetland.
55(2)(d)(11) Themed fire hydrants in immediate community	The CRD has not agreed to themed fire hydrants but will install hydrants as part of the water service upgrade.
55(2)(d)(12) Provision of underground conduit	The CRD has agreed to install conduit in all trench excavations in connection with the project. *see Note
55(2)(d)(14) Upgrade to all pump stations in Extended Community	As previously noted the CRD has agreed to upgrade the one above ground pump station (Lang Cove) to the Craigflower Pump Station standard as part of the regular CRD capital program *see Note

\*NOTE: The CRD nevertheless intends to fulfill related commitments set out in proposed Zoning Bylaw, 1992, No. 2050 Amending Bylaw 2013 No. 2805, the negotiated Host Community Impact 5-Year Agreement, the Community Impact Mitigation and Operating Agreement which reflect a commitment that the CRD considers achievable within the framework of the WWTP project.

<b>Zoning Bylaw 1992, No. 2050 (as amended by Bylaw No. 2806) Section Number</b>	<b>Nature of Objection and CRD Proposed Action</b>
55(2)(d)(15) Odour reduction and noise mitigation	The specification for the WWTP requires a performance standard of no detectable odour at the boundary of the facility.  *see Note
55(2)(d)(16) Transport of any products, byproducts, biosolids or other goods and commodities off site	This requirement is too broadly worded and unachievable.  *see Note - CRD has committed not to site biosolids recovery facility within the Township and to transport the residual solids by pipeline.
55(2)(d)(17) No odour causing and/or methane-producing facilities related to McLoughlin Point project within extended community	CRD has agreed not to locate biosolids recovery facility within the Township of Esquimalt. The WWTP is an odour causing facility but the CRD has committed to no detectable odour at the boundary of the facility.
55(2)(d)(18) Annual contribution of \$55,000 to Amenity Reserve Fund	There is no authority for a municipality to demand payment in cash  *see Note re: CRD commitment to provide \$55,000/year (indexed) compensation to Esquimalt for anticipated and additional costs created as a result of the location of the WWTP in Esquimalt.
55(2)(d)(19) Formation of community liaison committee	The CRD has agreed to form an ongoing liaison committee  *see Note
55(3) Floor Area	The proposals received by the CRD would not meet floor area limitations of 5% of the lot area.
55(5)(a) to (d) Building and Structure Height	The limitations on the building and structure height would severely limit the capacity of the WWTP that could be constructed on the site necessitating the construction of a second WWTP at substantial cost to local taxpayers  *see Note
55(6)(a), (b), (d) and (e) Siting Requirements including setbacks from the high water mark and lot lines	The CRD could not comply with these conditions and build a WWTP of the size approved in the Liquid Waste Management Plan necessitating a second plant at substantial cost to local tax payers.  *see Note

\*NOTE: The CRD nevertheless intends to fulfill related commitments set out in proposed Zoning Bylaw, 1992, No. 2050 Amending Bylaw 2013 No. 2805, the negotiated Host Community Impact 5-Year Agreement, the Community Impact Mitigation and Operating Agreement which reflect a commitment that the CRD considers achievable within the framework of the WWTP project.

Zoning Bylaw 1992, No. 2050 (as amended by Bylaw No. 2806) Section Number	Nature of Objection and CRD Proposed Action
55(7) Screening and Landscaping including a 4 m wide landscaped area of sufficient quantity and quality to completely obliterate any view of the wastewater treatment plant from the marine environment	It would be impossible for the CRD to comply with these conditions given the existing rock foreshore and the height of the landscaping that would be required to obliterate any view of the wastewater treatment plant.  *see Note
55(8) Off Street Parking	The CRD will provide 34 off street parking spaces.  *see Note
55(9)(b) and (c) Severability and Satisfaction including a cash equivalent to the cost of any provision dependent on third party approval	CRD considers a mandatory "cash payment in lieu of impossible amenities" to be beyond Esquimalt's authority. CRD has committed to provide equivalent onsite mitigation for all of its commitments.
63 Marine navigation	Insofar as it applies to Lot 1 and Lot 2, both of the Bed of Victoria Harbour, Esquimalt District, Plan VIP87823 this is worded in a manner that prohibits construction and use of these lots to fulfill the CRD's commitments under the CALWMP and under Bylaw No. 2805 and the ancillary agreements regarding the provision of a public walkway and other amenities.

\*NOTE: The CRD nevertheless intends to fulfill related commitments set out in proposed Zoning Bylaw, 1992, No. 2050 Amending Bylaw 2013 No. 2805, the negotiated Host Community Impact 5-Year Agreement, the Community Impact Mitigation and Operating Agreement which reflect a commitment that the CRD considers achievable within the framework of the WWTP project.

**CORPORATION OF THE TOWNSHIP OF ESQUIMALT**

**BYLAW NO. 2806**

A Bylaw to amend Bylaw No. 2050, cited as the  
"Zoning Bylaw, 1992, No. 2050"

THE MUNICIPAL COUNCIL OF THE TOWNSHIP OF ESQUIMALT, in open meeting assembled, enacts as follows:

1. This bylaw may be cited as the "*ZONING BYLAW, 1992, NO. 2050, AMENDMENT BYLAW [NO. 209], 2013, NO.2806*".

***Marine Zones***

2. That Bylaw No. 2050, cited as the "Zoning Bylaw, 1992, No. 2050" be amended by adding at the end of Section 63(1) the following as permitted uses in the Marine Navigation [M-4] Zone:

"(c) Wastewater treatment marine outfalls and related piping and accessory appurtenances under a provincially-approved Liquid Waste Management Plan;

(d) Boat Moorage Facility, abutting Lots A – E, Plan 35322

***McLoughlin Point Special Use [I-3] Zone***

3. That Bylaw No. 2050, cited as the "Zoning Bylaw, 1992, No. 2050" be amended as follows:
  - (1) by amending the title of Section 55 from "Bulk Petroleum Storage [I-3]" Zone to "**McLOUGHLIN POINT SPECIAL USE [I-3]**".
  - (2) by deleting the intent statement under that heading and replacing it with the following:

"The intent of this Zone is to accommodate either the historic bulk petroleum storage facility and related uses, or the Core Area Liquid Wastewater Treatment Plant, including potential accessory or additional commercial, high-tech industrial, recreational and educational uses, or any combination thereof to create a mixed use development. In 2013, the types of commercial uses were altered so as to promote a mixed-use development serving a clientele of all ages. Non-industrial uses are contingent on satisfaction of environmental and contaminated site requirements."
  - (3) by deleting Sections 55(1)(d), (e) and (f) so that the Adult Entertainment Use, Adult Motion Picture Studio and Adult Video Store uses are no longer permitted in this Zone.

- (4) by adding to Section 55(1) **Permitted Uses**, the following uses:  
 “(d) Wastewater Treatment Plant, which may include any or all of the following additional uses:  
 (i) Commercial Instruction and Education  
 (ii) Educational Interpretive Centre  
 (iii) Research Establishment  
 (iv) Business and Professional Office  
 (v) Marine Outfall  
 (vi) Accessory uses  
 (e) Business and Professional Office  
 (f) High technology uses  
 (g) Accessory Retail  
 (h) Hotel  
 (i) Entertainment and Theatre  
 (j) Boat Moorage Facility  
 (k) Park.”
- (5) by deleting the existing Section 55(2) **Conditions of Use** and inserting a new Section 55(2) entitled “**Density – Wastewater Treatment Plant**” with the following:

“(2) **Density – Wastewater Treatment Plant**

In this section:

“**Immediate Community**” means the upland area travelling from the subject property, west along the marine boundary to and including Macauley Point Park, north along Clifton Terrace and Lampson Street to Esquimalt Road, then east along Esquimalt Road to the Township’s municipal boundary, south along the municipal boundary then along the marine boundary back to the subject property;

“**Nearby Community**” means the area, upland and marine, within a 1.5 km radius of the subject property, including the Immediate Community; and

“**Extended Community**” means the upland areas within a 2.5 km radius of the subject property, and including the Nearby Community.

In accordance with the provisions of section 904 of the *Local Government Act*, density for the wastewater treatment plant is established by way of base density, for which no conditions apply, and bonus density on the provision or satisfaction of conditions identified below. For greater certainty, the regulations of this section do not apply to other uses in this Zone.

(a) **Base Density:**

- (i) The Floor Area Ratio shall not exceed 0.05;
- (ii) The Floor Area shall not exceed 675 m<sup>2</sup>, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Lot Coverage shall not exceed 15%;
- (iv) The authorized rate of discharge for effluent shall not exceed 57,000 m<sup>3</sup>/d;
- (v) Plant capacity not to exceed 15 ML/day ADWF.

**(b) Bonus Density – Level 1:**

- (i) The Floor Area Ratio shall not exceed 0.1;
- (ii) The Floor Area shall not exceed 1,350 m<sup>2</sup>, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Lot Coverage shall not exceed 30%;
- (iv) The authorized rate of discharge for effluent shall not exceed 115,000m<sup>3</sup>/d;
- (v) Plant capacity not to exceed 30 ML/day ADWF,

all on the provision or satisfaction of all of the following conditions:

- (1) The provision of materials and supplies for construction and operation of the uses, buildings and structures on the property by boat or barge in part to reduce the impact on the development on the Immediate Community, including through reduced trucking;
- (2) Pier, of sufficient size to fulfill previous condition.
- (3) Traffic integration amenities, in the form of traffic calming, speed bumps, speed cushions, speed readers with signage, enhanced boulevard curbing and landscaping and bike lanes on streets in the Immediate Community, as follows:
  - a. Streets within Department of National Defence's Work Point, if and as permitted by Government of Canada,
  - b. Township's streets adjacent to and within one block radius of all elementary schools, and
  - c. Township's Lyall Street from Lampson Street to Head Street and Head Street from Lampson Street to Dunsmuir Street,
 items (3)(b) and (3)(c) collectively of a value no less than \$950,000.
- (4) Education and Interpretive Centre: provision of a dedicated conference room on-site for students and the public to learn about wastewater treatment and management, made available at no charge for use by schools, government bodies, non-profit organizations and individuals as requested during normal hours of operation: Minimum 25 m<sup>2</sup> of floor area, either in main lobby or a separate room.
- (5) High efficiency air filter systems to improve air quality and odour reduction for schools within the Immediate Community.
- (6) Green Building and Design Features, as follows:
  - a. LEED® Gold standard, certified within one year of construction completion, or such longer period as required to address deficiencies provided initial review and report is within first year.
  - b. Development consistent with conditions identified in the document entitled "Design Guidelines – McLoughlin Point Wastewater Treatment Plant" prepared by CitySpaces Consulting Ltd. (Revised May 2013), a copy of which is attached to the Official Community Plan, in particular those that are not attainable through normal development permit authority.
- (7) Macaulay Point Pump station upgrade to standards of design, materials and quality of construction consistent with recent

Craigflower Pump Station project, with odour mitigation such that odour is not detectable by humans outside of building using industry best practices agreed to by the Township of Esquimalt, or odour detection level no greater than 5 odour units failing agreement on other best practices.

**(c) Bonus Density – Level 2:**

- (i) The Floor Area Ratio shall not exceed 0.25;
- (ii) The Floor Area shall not exceed 3,000 m<sup>2</sup>, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Lot Coverage shall not exceed 55%;
- (iv) The authorized rate of discharge for effluent shall not exceed 287,500m<sup>3</sup>/d;
- (v) Plant capacity not to exceed 70 ML/day ADWF,

all on the provision or satisfaction of all of the following conditions:

- (1) Each condition as identified in previous Bonus Density levels.
- (2) Public open space along waterfront (no less than 1,000 m<sup>2</sup>).
- (3) Public Art on public open space of a value no less than \$100,000, visible and oriented both to passing boats and floatplanes, respecting and exploiting the subject property's prominent position of entrance to the Victoria Harbour.
- (4) Education and Interpretive Centre – additional 25 m<sup>2</sup> of floor area for total of 50 m<sup>2</sup>.
- (5) High efficiency air filter systems to improve air quality and odour reduction for schools within the Nearby Community.
- (6) Extension of Green Building and Design Features to additional portions of development.
- (7) Upgrade all pump stations within the Nearby Community to standards of design, materials and quality of construction, consistent with recent Craigflower Pump Station project, with odour mitigation such that odour is not detectable by humans outside of building using industry best practices agreed to by the Township of Esquimalt, or odour detection level no greater than 5 odour units failing agreement on other best practices.

**(d) Bonus Density – Level 3:**

- (i) The Floor Area Ratio shall not exceed 0.35;
- (ii) The Floor Area shall not exceed 4,500 m<sup>2</sup>, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Lot Coverage shall not exceed 75%;
- (iv) The authorized rate of discharge for effluent shall not exceed 379,100m<sup>3</sup>/d;
- (v) Plant capacity not to exceed 108 ML/day ADWF,

all on the provision or satisfaction of all of the following conditions:

- (1) Each condition as identified in previous Bonus Density levels.
- (2) The provision of public open space improvements of a value no less than \$75,000, including picnic benches and "tot" park playlot with appropriately themed play equipment and safety features given proximity to open water.

- (3) Pier or dock, of sufficient size to fulfill previous condition, including with provision of harbour tugboat pedestrian ferry service, either by property owner or through contract with existing operator.
- (4) Public Walkway: Design of building and development of site to incorporate public accessible trails, and off-site construction of trail connection to West Bay Neighbourhood.
- (5) Additional traffic integration amenities, in the form of additional traffic calming and bike lanes on all remaining streets between Lampson Road and Esquimalt Road and subject property, to standards of design, materials and quality of construction comparable to Bonus Density – Level 1 Condition 3.
- (6) Education and Interpretive Centre – additional 25 m<sup>2</sup> of floor area for total of 75 m<sup>2</sup>, including portion for a "Center of Excellence" to educate, promote and facilitate energy technology or other industries focussed on utilizing the wind and wave energy at the subject property.
- (7) High efficiency air filter systems to improve air quality and odour reduction for schools within the Extended Community.
- (8) Extension of Green Building and Design Features to additional portions of development.
- (9) Integration of reclaimed water into the design of the buildings, including a rooftop wetland and landscaped feature.
- (10) Heritage Interpretative Signage, recognizing the historic uses on the subject property and process to transition to current uses (Minimum 5 signs for stations along a walkway in public open space area).
- (11) Consistently designed and themed upgrades to the fire hydrants and support equipment parts in the Immediate Community, to coincide with waterworks upgrades necessary for the treatment facility, such hydrants and other necessary above-ground components being distinct from the rest of the Township, unique to the proponent, including recognition of provision by the proponent further to this bylaw.
- (12) Provision of underground conduit and other appurtenances to facilitate undergrounding of all utilities, including electrical infrastructure upgrades, so as to minimize impacts on surrounding community.
- (13) Reinstatement of all roads (including but not limited to paved areas, sidewalks, boulevards) affected by establishment of wastewater treatment plant of this density of use, to a condition equal to or better than existed before to construction.
- (14) Upgrade all pump stations within the Extended Community to standards of design, materials and quality of construction, consistent with recent Craigflower Pump Station project, with odour mitigation such that odour is not detectable by humans outside of building using industry best practices agreed to by the Township of Esquimalt, or odour detection level no greater than 5 odour units failing agreement on other best practices.
- (15) Odour-reducing and noise mitigation measures that are within the top 10 percentile of comparable facilities developed in previous five (5) years in major waterfront cities in North America and

Europe, such that odour is not detectable by humans outside of building using industry best practices agreed to by the Township of Esquimalt, or odour detection level no greater than 5 odour units failing agreement on other best practices.

- (16) Facility design to ensure that any products, byproducts, biosolids or other goods and commodities be transported off-site only by means of piping or marine access, thereby reducing negative transportation impacts on the Immediate Community.
- (17) That no odour-causing and/or methane-producing (of any level) facilities related to the use of the subject property be located off-site within the Extended Community, except for pipes, outfalls, pumping stations and accessory appurtenances.
- (18) Annual contribution of \$55,000 to McLoughlin Point Amenity Reserve Fund.
- (19) Ongoing liaison committee formed with representatives from Township, local schools, health authority, DND officials community groups and other interested parties (all as available and as interested), along with operators on subject property, with meeting space provided on subject property at no cost at least once/monthly, including to review satisfaction of above conditions and ongoing operations.

- (6) by adding to Section 55(4) **Lot Coverage**, the following:

"This section does not apply to uses under Section 55(1)(d) through (k)."

- (7) by reformatting the existing sentence Section 55(5) **Building and Structure Height** to be paragraph (a), and adding the following:

"(b) Height of Principal Building may be increased by 5 metres (to 15 m maximum) for uses under Section 55(1)(d) [*wastewater treatment plant*] if combined in a mixed-use development with uses under subsections 55(1)(e) through (j).

(c) Height of Principal Building may be increased by 5 metres (to 15 m maximum) for uses under Section 55(1)(h) [*hotel*] when such hotel includes convention facilities and if combined in a mixed-use development with other uses under subsections 55(1)(e) through (j).

(d) Notwithstanding anything to the contrary in this section, the maximum height of a building or structure located within 20 m of the high water mark is 5.0 m."

- (8) by adding to Section 55(6) **Siting Requirements**, the following:

"(d) No Building shall be located within 7.5 metres of the High Water Mark.

(e) For the purposes of this Zone, where there is no abutting highway, the private road from which the property gains access shall be considered the Front Lot Line."

(9) by adding to Section 55(7) **Screening and Landscaping**, the following:

"(c) For the wastewater treatment plant use:

- (i) A minimum 4.0 m wide landscaped buffer shall be located within the setback from the High Water Mark. The landscaping shall be of sufficient quality and quantity as to completely obliterate any view of a wastewater treatment plant building and tanks from the marine environment.
- (ii) Except for places of entrance and egress to the site, a minimum 2.5 m wide landscaped buffer shall be located in the front and all side setbacks."

(10) by adding to Section 55(8) **Off Street Parking**, the following:

"In addition, the number of spaces required shall include:

Liquid Waste Management Plant                      1 space / 132 m<sup>2</sup>"

(11) by adding a new Section 55(9) entitled **Severability and Satisfaction**, as follows:

"(9) **Severability and Satisfaction**

(a) In addition to Section 5 of this Bylaw, and for greater certainty for this Zone, should any measure of density, associated condition or amenity be held to be invalid by the decision of any Court of competent jurisdiction, that measure of density, condition or amenity may be severed without affecting the validity of the density-bonusing scheme and other measures of density, conditions or amenities.

(b) Where a condition requires the approval or permission of an authority beyond the control of the property owner, then the condition shall be interpreted as requiring the property owner's best efforts to secure such permission, including identification of this Bylaw requirement with the initial request, satisfaction of conditions imposed by the third party and appeal if the request/application is initially rejected (including by enlisting the support of the Township). For example:

- (i) Bonus Density Level 1 Condition 2, and Level 3 Condition 3 each require permission from the Government of Canada given jurisdiction over navigable waters;
- (ii) Bonus Density Level 1 Condition 3(a) and Level 3 Condition 4 each require permission of the Government of Canada, Department of National Defence, given the adjacent DND Lands; and
- (iii) Bonus Density Level 1 Condition 5, Level 2 Condition 5 and Level 3 Condition 7 each require permission of the affected school(s) and School District No. 61.

(c) Where a condition is severed, or best efforts under this provision have not resulted in the necessary third-party approval, then the condition shall be deemed satisfied on the provision of all of the following:

- (i) Court Order of severance or written evidence of third-party rejection, including denial of appeal as applicable;

- (ii) independent appraisal estimating the cost of the provision of the amenity or satisfaction of the condition, should the condition may have been satisfied; and
- (iii) a cash contribution equivalent to the cost of the provision of the amenity or satisfaction of the condition, from the property owner to the Township for the McLoughlin Point Amenity Reserve Fund, such monies to be used for replacement amenities or conditions that are consistent with governing authority, including further enhancements or additions to remaining amenities or conditions.”

READ a first time by the Municipal Council on the 24<sup>th</sup> day of June, 2013.

READ a second time by the Municipal Council on the 24<sup>th</sup> day of June, 2013.

A Public Hearing was held pursuant to Sections 890 and 892 of the *Local Government Act* on the 8<sup>th</sup> and 9<sup>th</sup> days of July, 2013.

READ a third time by the Municipal Council on the \_\_\_\_ day of \_\_\_\_\_, 2013.

**ADOPTED** by the Municipal Council on the \_\_\_\_ day of \_\_\_\_\_, 2013.

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BARBARA DESJARDINS  
MAYOR

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ANJA NURVO  
CORPORATE OFFICER

**CORPORATION OF THE TOWNSHIP OF ESQUIMALT**

**BYLAW NO. 2805**

A Bylaw to amend Bylaw No. 2050, cited as the  
"Zoning Bylaw, 1992, No. 2050"

THE MUNICIPAL COUNCIL OF THE TOWNSHIP OF ESQUIMALT, in  
open meeting assembled, enacts as follows:

1. This bylaw may be cited as the "ZONING BYLAW, 1992, NO. 2050, AMENDMENT BYLAW [NO. 2], 2013, NO. 2805".

**McLoughlin Point Special Use [I -3] Zone**

2. That Bylaw No. 2050, cited as the Zoning Bylaw, 1992, No. 2050 be amended as follows:

- (1) By amending Section 30.1 to read as follows:

"(2) The prohibition in Section 30.1(1) shall not apply to those lands in the McLoughlin Point Special Use [I-3] Zone."

- (2) By replacing the following words and figures "Bulk Petroleum Storage I - 3" in Section 31 – Zone Designations of PART 5 Zoning Districts with:

"McLoughlin Point Special Use [I – 3]"

- (3) By amending Section 55 to read as follows:

"McLoughlin Point Special Use [I-3]"

The intent of this zone is to accommodate the Core Area Liquid Wastewater Treatment Plant, including potential accessory or additional commercial, high tech industrial, recreational and educational uses, or any combination thereof to create a mixed use development".

- (4) By amending the uses permitted under Section 55 (1) to the following:

- (1) **Permitted Uses**

The following Uses are permitted:

- (a) Wastewater Treatment Plant, including, without limitation, any or all of the following additional uses:
  - (i) Educational and Interpretive Centre
  - (ii) Commercial Instruction and Education
  - (iii) Research Establishment
  - (iv) Business and Professional Office
  - (v) Marine Outfall
  - (vi) Sewage Pumping Facility

- (vii) Accessory Uses
- (b) Business and Professional Office
- (c) High technology uses
- (d) Accessory Retail
- (e) Entertainment and Theatre
- (f) Hotel
- (g) Assembly Use
- (h) Boat Moorage Facility
- (i) Park
- (j) Accessory Uses

- (5) By deleting existing Section 55 (2) Density – Wastewater Treatment Plant, and replacing it with the following Section 55 (2):

**“(2) Density – Wastewater Treatment Plant**

In accordance with the provisions of section 904 of the *Local Government Act*, density for the Wastewater Treatment Plant Use is established by way of base density, for which no conditions apply, and bonus density on the provision or satisfaction of the conditions identified below. For greater certainty, the regulations of this section do not apply to other uses in this zone and the calculation of Floor Area Ratio and Floor Area shall not include any wastewater tank.

**(a) Base Density:**

- (i) the Floor Area Ratio shall not exceed 0.15;
- (ii) the Floor Area shall not exceed 675m<sup>2</sup>, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Site Coverage shall not exceed 15%;

**(b) Bonus Density:**

- (i) the Floor Area Ratio shall not exceed 0.35;
- (ii) the Floor Area shall not exceed 4,500m<sup>2</sup>, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Site Coverage shall not exceed 75%;

all on the provision or satisfaction of all of the conditions set out in section 55(2)(c).

**(c) Bonus Density Conditions**

The following conditions are applicable to the bonus density under section 55(2)(b):

- (i) **Design Guidelines:**

Development consistent with conditions identified in the document entitled "Design Guidelines – McLoughlin Point Wastewater Treatment Plant" prepared by CitySpaces Consulting Ltd. (Revised May 2013), (called the "Design Document") a copy of which is attached to Official Community Plan Bylaw 2006, Bylaw No. 2646 as Schedule H;

- (ii) **Road Upgrades:**  
Reinstatement of all roads (including but not limited to paved areas, sidewalks, boulevards) affected by establishment of a Wastewater Treatment Plant described in the Design Document to a condition equal to or better than that which existed before construction;
- (iii) **Lyll Street Enhancement:**  
An upgraded pathway and bikeway system along Lyll Street, having a value of up to \$950,000, including upgrades and connection to the West Bay Walkway via the trailhead located at 537 Head Street;
- (iv) **Education and Interpretive Centre:**  
Provision of a meeting room and interpretive space on-site having a minimum floor area of 75 m<sup>2</sup>, to be available for students and the public to learn about wastewater treatment and management, made available at no charge to and for use by schools, government bodies, non-profit organizations and individuals as requested during normal hours of operation;
- (v) **Public Access and Public Walkway:**  
Design of building and development of site to incorporate public pedestrian walkway secured through a statutory right of way of 2.25 metres average width and in any event not more than 3 metres nor less than 1.5 metres in width at any point along the waterfront in favour of Esquimalt for and on behalf of the public to the respective boundaries of the property to permit future public walkway connection to West Bay if access through abutting Department of National Defence lands is permitted;
- (vi) **Boat Moorage:**
  - (A) Temporary boat moorage, or other similar facility of sufficient size to permit the removal of excavated material and the provision of concrete and aggregate during the excavation and major

concrete phase of the Wastewater Treatment Plant by barge or other marine transport; and

- (B) A dock or other similar watercraft landing structure to permit emergency and employee access to the site and at least seasonal public use secured by a statutory right of way in favour of Esquimalt for and on behalf of the public.

(vii) **Public Open Space:**

Public open space on the site to include a public observation point connected to the public pedestrian walkway;

(viii) **Public Art:**

Public art on the site having a value of \$100,000.00 to include heritage interpretive signage;

(ix) **Public Open Space Improvements:**

At least 3 benches to be installed in public open space referred to in paragraph (vii); and

(x) **CRD Facilities Visual Upgrade**

Aesthetic improvements to the exterior of the Macaulay Point Pump Station to a standard of quality and finish at least equivalent to the Craigflower Pump Station, the Currie Road Pump Station and the Trent Road Pump Station, recognizing the prominent location of the Macaulay Pump Station in an important waterfront park.”

- (6) By deleting Section 55 (4) – **Lot Coverage**, and replacing it with the following:

“(4) **Site Coverage**

- (a) For the purposes of this Section 55, “Site Coverage” means the figure obtained using the sum of the areas of Building footprints, including covered wastewater tanks not located within a Building, measured from the outside of exterior walls, expressed as a percentage of the total area of all parcels in the McLoughlin Point Special Use [I-3] Zone covered by a Building;
- (b) For certainty, Site Coverage shall not include any surface parking area, seawall or pedestrian walkway or other paved public open space.

- (7) By replacing Section 55 (5) – **Building and Structure Height**, with the following:

“(5) **Building and Structure Height**

- (a) For the purposes of this I-3 Zone, Height shall be measured from the Grade at seven (7.0) metres above the High Water Mark as such is determined as of January 1, 2014 (or earlier). For clarity, the purpose of this unique interpretation provision is to allow for sufficient tsunami protection for the proposed development in this Zone.
- (b) On the portion of the lands in the I-3 Zone within the area measured inland 20 metres from the High Water Mark (the "Low Height Area"), in the case of use of land as a Wastewater Treatment Plant and uses accessory to a Wastewater Treatment Plant:
- (i) No Building or Structure shall exceed a Height of 12.0 metres, but only up to a maximum of 35% coverage within the Low Height Area and the length of such a Building or Structure in the Low Height Area shall not exceed 35% of the length of the shoreline measured at the High Water Mark;
  - (ii) No Building or Structure shall exceed a Height of 5.0 metres for the remaining 65% coverage of the Low Height Area.
- (c) On the remaining portion of the lands in the I-3 Zone, no Building or Structure shall exceed a Height of 12.0 metres except that the maximum Height of a Building may be 15 metres provided that:
- (i) not more than 15% of the total area of the lands in the I-3 Zone is covered by a Building that exceeds 12.0 metres in Height; and
  - (ii) the sole purpose for exceeding 12.0 metres is to accommodate mechanical equipment or one odour control tower associated with the treatment of sewage.
- (d) In the case of a use of land other than a Wastewater Treatment Plant:
- (i) no Building or Structure shall exceed a Height of 10 metres;
  - (ii) the Height of a Principal Building may be increased by 5 metres (to 15 m maximum) for uses under section 55(1)(f) [*hotel*] when such hotel includes convention facilities and if combined in a mixed-use development with one or more other uses under subsections 55(1)(b) through (h)."

- (8) By replacing Section 55 (6) – **Siting Requirements**, with the following:

“(6) **Siting Requirements**

No setbacks are required except as follows:

- (a) In the case of use of land as a Wastewater Treatment Plant and uses accessory to a Wastewater Treatment Plant, Buildings shall be set back an average of 7.5 metres from the High Water Mark provided that an encroachment into this Setback is permissible to no more than 2.0 metres from the High Water Mark but only on satisfaction of all of the following conditions:
- (i) such encroachment shall be no greater than 10% of the site area contained within the area of the entire 7.5 metre Setback;
  - (ii) for every square metre that a building encroaches into the Setback area, an equal area of extra open space associated with that building is set back behind the 7.5 metre Setback;
  - (iii) that no part of the Building encroaching within the 7.5 metre Setback is taller than 10.5 metres in Height; and
  - (iv) such encroachment does not prevent the establishment of a public pedestrian walkway, as identified in this zone.
- (b) For certainty, paragraph (a) Setback does not apply to the seawall, public walkway or public open space, other landscaping or hard exterior surface areas such as parking or similar structures.
- (c) In the case of a use of land other than a use referred to in paragraph (a), no Building shall be located within 7.5 metres of the High Water Mark.
- (d) In all cases, no building shall be located within 4.5 m of the most northerly lot line, between the water and Victoria View Road.”
- (9) By replacing Section 55 (7) – **Screening and Landscaping**, with the following:

“(7) **Screening and Landscaping**

Screening and landscaping shall be provided generally in accordance with the locations and standards shown in the Design Guidelines, provided that at least 20% of the total area used to calculate Site Coverage is left in its natural state, hard or soft landscaping (including pedestrian walkway and other public open space) or covered with a green roof.”

- (10) By replacing Section 55 (8) – **Off-Street Parking**, with the following:

“(8) **Off-Street Parking**

Notwithstanding the Township’s Parking Bylaws, as amended from time to time, the total number of off-street parking stalls required in this zone is 34.”

- (11) By inserting a new section 55(9) – **Development Permit Guidelines**, as follows:

“(9) **Development Permit Guidelines**

In the case of a development permit issued for a Building for a Wastewater Treatment Plant use that encroaches to a point less than 5 metres from the High Water Mark the following additional guideline may be considered in addition to the guidelines referred to in section 9.5.6 of the Official Community Plan:

- (a) building design and finish and site design should establish a strong architectural and functional relationship between the Building façade and the public pedestrian walkway through one or more of architectural, creative, artistic or other similar elements intended to provide enhanced visual interest for users of the pedestrian walkway,

- (12) By renumbering Section 55 (9) – **Severability and Satisfaction**, and replacing it with the following as Section 55(10) – **Severability**:

“(10) **Severability**

In addition to Section 5 of this Bylaw, and for greater certainty for this Zone, should any measure of density, associated condition or amenity be held to be invalid by a decision of a Court of competent jurisdiction, that measure of density, condition or amenity may be severed without affecting the validity of the density-bonusing scheme and other measures of density, conditions or amenities.”

- (13) By adding a new section 55 (11) – **Satisfaction**, as follows:

“(11) **Satisfaction**

- (a) For certainty, in the case of a condition under Section 55 (2), land may be developed and used for a Wastewater Treatment Plant even where all conditions have not been fulfilled or completed provided the property owner is proceeding with a reasonable plan to design, construct and install the amenities in accordance with the construction and proposed use of the Wastewater Treatment Plant, and such has been secured by agreement with the Township.

- (b) The Public Access and Public Walkway and Public Open Space referred to in Section 55 (2) shall be subject to the outcome of any environmental assessment process to be undertaken separately from the environmental assessment required in connection with the Wastewater Treatment Plant which may require the public walkway to be modified or relocated, but not eliminated entirely, to avoid impact on the inter-tidal zone.”

**Lot 1 & 2 Plan VIP87823 Rezoned from M-4 to I-3**

3. That Bylaw no. 2050, cited as the “Zoning Bylaw, 1992, No. 2050” be amended by:

- (1) changing the zoning destination of each of the following parcels, shown shaded in red on the plan attached as Schedule “A” to this bylaw, from Marine Navigation [M-4] Zone to McLoughlin Point Special Use [I-3] Zone:
  - (a) Lot 1 of the bed of Victoria Harbour Esquimalt District Plan VIP87823 PID 029-168-970
  - (b) Lot 2 of the bed of Victoria Harbour Esquimalt District Plan VIP87823 PID 029-168-988
- (2) changing Schedule “A” Zoning Map, attached to and forming part of Zoning Bylaw, 1992, No. 2050 to show the changes in zoning classification effected by this bylaw.

READ a first time by the Municipal Council on the 24<sup>th</sup> day of June, 2013.

READ a second time by the Municipal Council on the 24<sup>th</sup> day of June, 2013.

A Public Hearing was held pursuant to Sections 890 and 892 of the *Local Government Act* on the 8<sup>th</sup> and 9<sup>th</sup> day of July, 2013.

READ a second time as amended on the      day of                      , 2013.

A Public Hearing was held pursuant to Sections 890 and 892 of the *Local Government Act* on the      day of                      , 2013.

READ a third time by the Municipal Council on the      day of                      , 2013.

**ADOPTED** by the Municipal Council on the      day of                      , 2013.

“DRAFT”

“DRAFT”

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BARBARA DESJARDINS  
MAYOR

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ANJA NURVO  
CORPORATE OFFICER

**SCHEDULE "A" TO BYLAW NO. 2805  
LANDS REZONED FROM M-4 TO I-3**

PLAN VIP87823

Deposited in the Land Title Office at  
Victoria, B.C.  
this \_\_\_\_\_ day of \_\_\_\_\_, 2013

Registrar

SCALE 1 500



The intended plot size of this plan is 432 mm x 614 mm  
by 560 mm in height (C size) when printed at a  
scale of 1:500

Integrated Survey Area #35, Esquimalt Municipality, NAN08X(C)SR5  
Cadastral Bookings are derived from observations between  
Control Monuments BSM0114 & BSM0163.  
This Plan Shows Ground Level measured Distances  
Prior to Completion of I-3/I-4. Co-ordinate  
Accuracy by Combined Factor 0.9996117

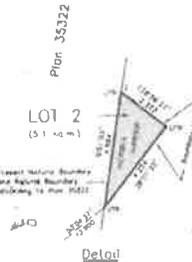
**Legend**

- Denotes Standard Van Post (Type 2) Found
- Denotes Land Plug (Type 3) Placed
- ⊙ Denotes Control Monument Found
- Denotes Monument Found
- ||||| Denotes Unstable To Post

This Plan was within the  
Coastal Regional District

Traverse Table of  
Natural Boundary

Line	Bearing	Distance
a-b	35°55'20"	6.650
b-c	33°21'45"	7.108
c-d	23°26'35"	5.819
d-e	142°10'25"	6.360
e-f	169°18'40"	0.915
f-g	289°28'52"	2.811
Σ	304°31'	4.894



In Witness Whereof I, the Surveyor, have hereunto set my hand and the seal of my office at Victoria, B.C., this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

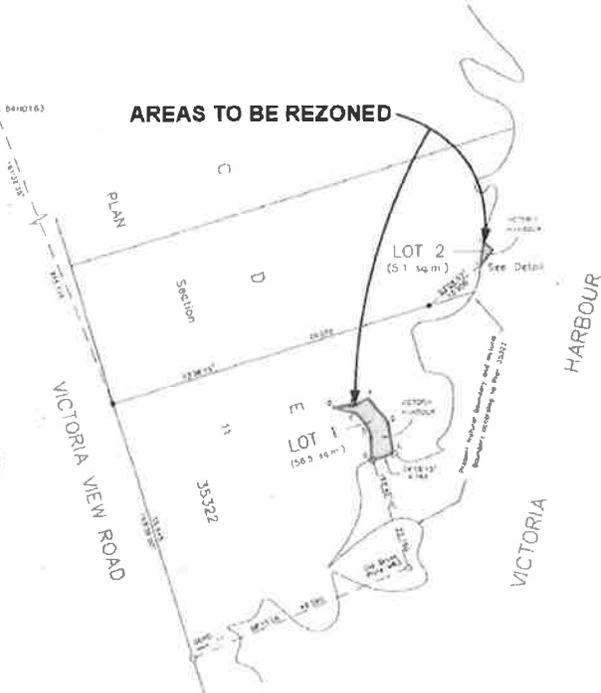
**Robert Prud'homme**  
Surrealist Property Services  
Suite 520, 920 Pender Street  
Victoria, B.C. V8C 2A8  
250.688.1111

John Motherwell & Associates  
B.C. Land Surveyors  
Victoria, B.C.  
File 06-88

I, John L. Motherwell, a British Columbia Land Surveyor  
of Victoria, in British Columbia, certify that I was present  
at and personally supervised the survey represented by  
this plan and that the survey and plan are correct.  
The survey was completed on the 30th day of Nov. 2012.  
The plan was completed and checked and the checklist  
filed under ECP 8143710, on the 3rd day of Dec. 2012.

*John L. Motherwell*  
B.C.L.S.

**AREAS TO BE REZONED**



Original

**COMMUNITY IMPACT MITIGATION & OPERATING AGREEMENT**

**THIS AGREEMENT** made this 8<sup>th</sup> day of April, 2014.

**BETWEEN:**

**CAPITAL REGIONAL DISTRICT**

625 Fisgard Street  
Victoria, B.C.  
V8W 1R7

(the "CRD")

OF THE FIRST PART

**AND:**

**THE CORPORATION OF THE TOWNSHIP OF ESQUIMALT**

1229 Esquimalt Road  
Victoria, B.C.  
V9A 3P1

(the "Township")

OF THE SECOND PART

**WHEREAS:**

- A. The CRD is required under its liquid waste management plan to construct and operate a facility to provide sewage treatment for the residents of the Township and the municipalities of Victoria, Saanich, Oak Bay, Colwood, View Royal and Langford (collectively the "**Core Area**") and the CRD has identified the following lands at McLoughlin Point as the site for the Waste Water Treatment Plant (the "**WWTP**");

P.I.D. 000-336-491 Lot A, Section 11, Esquimalt District, Plan 35322  
P.I.D. 000-336-505 Lot B, Section 11, Esquimalt District, Plan 35322  
P.I.D. 000-336-513 Lot C, Section 11, Esquimalt District, Plan 35322  
P.I.D. 000-336-521 Lot D, Section 11, Esquimalt District, Plan 35322  
P.I.D. 000-336-530 Lot E, Section 11, Esquimalt District, Plan 35322  
P.I.D. 029-168-970 Lot 1 of the Bed of Victoria Harbour, Esquimalt District, Plan VIP87823  
P.I.D. 029-168-988 Lot 2 of the Bed of Victoria Harbour, Esquimalt District, Plan VIP87823

(the "**Project Lands**")

- B. The Township has raised concerns as host community of the WWTP regarding the impacts on the community of the presence of the WWTP within its boundaries, including, without limitation:
- a. demand on municipal services,
  - b. annual fire and safety inspections,
  - c. utility inspections,

- d. inspections and repairs of road surfaces,
  - e. response to public inquiries and complaints, including with DND and Victoria residents
  - f. monitoring of operations and enforcement,
  - g. additional street cleaning,
  - h. additional liaison, including with DND;
  - i. additional wear and tear on recreational facilities, parks and other Esquimalt services;
  - j. additional economic development, tourism promotion, business recruitment and marketing required to overcome perceived negative influence of regional wastewater facility; ...
  - k. additional security, policing and enforcement services;
  - l. for other social, environmental, and economic impacts generally, (collectively the "**Impacts**")
- all caused by or contributed to by activity associated with the WWTP construction or operation and/or construction and installation of a district energy heat recovery system (the "**Heat Loop**");
- C. The CRD is mindful of those concerns and, in addition to undertaking certain actions under a host community impact agreement dated the 8<sup>th</sup> day of April, 2014, (the "**Host Community Impact 5-Year Agreement**") has agreed to the payment of an annual amount by way of a community impact mitigation fee and other measures of an operational nature under, and in accordance with, this Agreement;

**NOW THEREFORE THIS AGREEMENT WITNESSES** that in consideration of the premises and covenants contained in this Agreement and other good and valuable consideration, the CRD and the Township covenant and agree with each other as follows:

## **PART A – COMMUNITY IMPACT MITIGATION FEE**

### **1.0 Community Impact Mitigation Fee**

Subject to section 3 of this Agreement, the CRD shall pay the Township FIFTY-FIVE THOUSAND (\$55,000.00) DOLLARS per year as adjusted annually under section 2.0 (the "**Community Impact Fee**") to compensate the Township for the Impacts.

### **2.0 Change in CPI**

From 2015 and for the remainder of the Term, the amount of the fee payable under section 1 of this Agreement shall be changed to reflect the change in the Consumer Price Index for Victoria, British Columbia (all items) (the "CPI") for the previous year. If the change in the CPI is not known at the date of payment under section 4.2, the CRD may pay the amount paid the previous year and shall make any additional payment (or Esquimalt shall pay any refund where CPI has decreased) as required within 30 days of the change in CPI becoming known.

### **3.0 Exemption to Community Impact Fee**

If Esquimalt elects to assume ownership of the Heat Loop referred to in Section 3.0 of

the Host Community Impact 5-Year Agreement, the Community Impact Fee will not be payable and the obligations of the CRD to pay the Community Impact Fee under this Agreement shall thereafter be at an end following execution of the Transfer Agreement and upon the actual transfer of the constructed and operational Heat Loop infrastructure to the Township following execution of the Transfer Agreement referred to in section 3.10 of the Host Community Impact 5 Year Agreement. In the event of a transfer of the Heat Loop during a calendar year, the amount of the Community Impact Fee shall be pro-rated to represent that portion of the year prior to the transfer of the Heat Loop to Esquimalt.

#### **4.0 Invoice and Payment of Community Impact Fee**

- 4.1 The Township shall provide to the CRD as of the 31<sup>st</sup> day of December in each year an invoice for the sum of FIFTY-FIVE THOUSAND (\$55,000.00) DOLLARS (as adjusted annually under section 2.0) in relation to the impact on the Township of the WWTP for the previous calendar year.
- 4.2 The CRD shall cause the amount of the invoice to be paid to the Township on or before January 31 of the following year.
- 4.3 For greater certainty, the Township is not required to itemize or calculate the Impacts in any given year other than further to Section 2 of this Agreement, and there is no set-off or reduction other than further to Section 3 of this Agreement.

### **PART B – TERM**

#### **5.0 Term of Agreement**

- 5.1 The obligations of the CRD under this Agreement shall be from January 1, 2014 until such time as the WWTP is replaced or decommissioned.
- 5.2 For greater certainty, the first payment is due by April 30, 2014 in the full amount of FIFTY-FIVE THOUSAND (\$55,000.00) DOLLARS.
- 5.3 If the WWTP is replaced on the Project Lands, the parties shall in good faith negotiate a replacement agreement, and notwithstanding section 5.1, this Agreement shall remain in effect until replaced.

### **PART C – LIAISON COMMITTEE & OTHER OPERATING MATTERS**

#### **6.0 Liaison Committee**

- 6.1 To provide a forum for the discussion of issues relating to construction and operation of the WWTP and other related activities, the CRD shall establish and maintain a liaison committee (the "**Liaison Committee**") to include representatives from the Township, the West Bay Neighbourhood Association, the Lyall Street Neighbourhood Association, Department of National Defence, CRD and, until acceptance of the WWTP by the CRD, the CRD's WWTP contractor.

- 6.2 The Liaison Committee will meet within thirty (30) days of the CRD's WWTP Contractor commencing work on site and thereafter at times established in the first meeting, and at least twice annually while the WWTP is in operation.
- 6.3 At the first meeting of the Liaison Committee, the members shall elect a chair and vice chair.
- 6.4 The CRD shall not be considered to be in breach of this section if any person invited to participate in the Liaison Committee or to send representatives to the Liaison Committee fails to do so.

## **7.0 Biosolids Treatment Plant**

- 7.1 The CRD acknowledges and agrees that it will not make use of land situated within the Township for the purpose of a biosolids treatment facility or any other purpose associated with the treatment of biosolids or recovery of energy from biosolids.
- 7.2 The CRD further agrees to consult with the Township prior to establishing any use of property within the Township.
- 7.3 For clarity, the Township includes all lands owned by the federal crown including the Graving Dock and lands commonly referred to as the "DND lands" including but not limited to: Work Point, Macaulay Point, Buxton Green, Dockyards, Naden, and Naden North.

## **8.0 Odour**

If the WWTP emits odour in excess of 5 odour control units as measured at the boundary of the Project Lands, the CRD shall expeditiously and in good faith, use best efforts to investigate and remediate the source of the odour in order to reduce the odour to the agreed level.

## **PART D – DISPUTE RESOLUTION**

### **9.0 Dispute Resolution**

- 9.1 Where a matter in dispute arises under this Agreement, the Chief Administrative Officers shall meet promptly to attempt to resolve the dispute.
- 9.2 Where the Chief Administrative Officers are unable to resolve the dispute, then the matter may, with the concurrence of both the CRD and the Township, be submitted for mediation to a mediator appointed jointly by the parties.
- 9.3 If the matter cannot be resolved by mediation, or if the parties are unwilling to submit the matter to mediation, then the dispute shall be resolved by arbitration, by an arbitrator appointed jointly by the parties. The decision of the arbitrator shall be final and may include a requirement for specific performance of the provisions of this Agreement by one or both parties.

9.4 The parties shall share the costs of the mediation or arbitration equally.

9.5 If the parties are unable to agree on the selection of an arbitrator within thirty (30) days of the later of the meeting of the Chief Administrative Officers, or the failure of the mediation, then either party may, upon giving written notice to the other party, apply to the Ministry of Community, Sport and Cultural Development (or the Ministry then having responsibility for local government affairs) for dispute resolution by way of binding arbitration contemplated by Division 3 of Part 9 of the *Community Charter*.

## PART E – GENERAL PROVISIONS

### 10.0 General Provisions

(a) No Fettering of Discretion

Nothing in this Agreement shall be considered to fetter any statutory discretion of the Board of the CRD or the Council of the Township nor to impair or waive any power, right or authority of the CRD or the Township under the *Community Charter*, the *Local Government Act* or any other enactment as defined in the *Interpretation Act*.

(b) Capital Liabilities

Nothing in this Agreement shall be interpreted as imposing any obligation or liability of a capital nature on the CRD.

(c) Modification

No modification or amendment to this Agreement shall be binding unless executed in writing by both parties.

(d) Entire Agreement

This Agreement, along with the Host Community Impact 5-Year Agreement, constitute the entire agreement between the parties and supersede all previous discussions, negotiations, understandings, expectations, agreements of the parties, whether oral or written regarding the subject matter of these Agreements.

(e) No Assignment

This Agreement may not be assigned by either party, without the express written consent of the other party, which consent shall not be unreasonably withheld where the assignment is to another public authority.

(f) Applicable Law

This Agreement is to be construed in accordance with and governed by the laws applicable in the Province of British Columbia and in particular is subject to the jurisdiction of the Minister of Environment under the *Environmental Management Act*.

(g) Notice

It is hereby mutually agreed that any notice required to be given under this Agreement will be deemed to be sufficiently given:

- (a) to be delivered at the time of delivery; and
- (b) if mailed from any government post office in the Province of British Columbia by prepaid registered mail addressed as follows:

if to the CRD:           625 Fisgard Street  
Victoria, B.C.  
V8W 1R7

if to the Township:   1229 Esquimalt Road  
Victoria, B.C.  
V9A 3P1

Unless otherwise specified herein, any notice required to be given under this Agreement by any party will be deemed to have been given if mailed by prepaid registered mail, or sent by facsimile transmission, or delivered to the address of the other party set forth on the first page of this Agreement or at such other address as the other party may from time to time direct in writing, and any such notice will be deemed to have been received if mailed or faxed, 72 hours after the time of mailing or faxing and, if delivered, upon the date of delivery. If normal mail service or facsimile service is interrupted by strike, slow down, force majeure or other cause, then a notice sent by the impaired means of communication will not be deemed to be received until actually received, and the party sending the notice must utilize any other such services which have not been so interrupted or must deliver such notice in order to ensure prompt receipt thereof.

(h) Waiver

The waiver by a party of any failure on the part of the other party to perform in accordance with any of the terms or conditions of this Agreement is not to be construed as a waiver of any future or continuing failure, whether similar or dissimilar.

(i) Severability

Each article of this Agreement shall be severable. If any provision of this Agreement is held to be illegal or invalid by a Court of competent jurisdiction, the provision may be severed and the illegality or invalidity shall not affect the validity of the remainder of this Agreement.

(j) Interpretation

Wherever the singular or the masculine is used in this Agreement, this shall be deemed to include the plural, feminine or body politic or corporate as the context

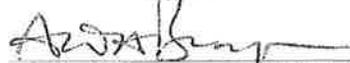
so requires.

(k) Counterparts

This Agreement may be executed in counterparts and when the counterparts have been executed by the parties, each originally executed counterpart, whether a facsimile,

**IN WITNESS WHEREOF** the parties hereto have executed this Agreement as of the day, month and year first above written.

**CAPITAL REGIONAL DISTRICT** by its )  
authorized signatories )

  
Name: ALASTAIR BRYSON, CHAIR )

  
Name: Sonia Santarossa )  
**Corporate Officer** )

**THE CORPORATION OF THE TOWNSHIP OF** )  
**ESQUIMALT** by its authorized signatories )

\_\_\_\_\_  
Name: )

\_\_\_\_\_  
Name: )

**HOST COMMUNITY IMPACT 5-YEAR AGREEMENT**

**THIS AGREEMENT** made this 8<sup>th</sup> day of April, 2014.

BETWEEN:

**CAPITAL REGIONAL DISTRICT**

625 Fisgard Street  
Victoria, B.C.  
V8W 1R7

(the "CRD")

OF THE FIRST PART

AND:

**THE CORPORATION OF THE TOWNSHIP OF ESQUIMALT**

1229 Esquimalt Road  
Victoria, B.C.  
V9A 3P1

(the "Township")

OF THE SECOND PART

**WHEREAS:**

- A. The CRD is required under its liquid waste management plan to construct and operate a facility to provide sewage treatment for the residents of the Township and the municipalities of Victoria, Saanich, Oak Bay, Colwood, View Royal and Langford (collectively the "**Core Area**") and the CRD has identified the following lands at McLoughlin Point as the site for the Waste Water Treatment Plant (the "WWTP"):

P.I.D. 000-336-491 Lot A, Section 11, Esquimalt District, Plan 35322

P.I.D. 000-336-505 Lot B, Section 11, Esquimalt District, Plan 35322

P.I.D. 000-336-513 Lot C, Section 11, Esquimalt District, Plan 35322

P.I.D. 000-336-521 Lot D, Section 11, Esquimalt District, Plan 35322

P.I.D. 000-336-530 Lot E, Section 11, Esquimalt District, Plan 35322

P.I.D. 029-168-970 Lot 1 of the Bed of Victoria Harbour, Esquimalt District, Plan VIP87823

P.I.D. 029-168-988 Lot 2 of the Bed of Victoria Harbour, Esquimalt District, Plan VIP87823

(the "**Project Lands**")

- B. The Township has raised concerns as host community of the WWTP regarding the direct impacts on the community of the presence of the WWTP within its boundaries. The Township has permitted the land use with both a base density and bonus density, the latter associated with the provision of amenities in accordance with section 904 of the *Local Government Act*;
- C. The CRD is mindful of those concerns and wishes to take reasonable measures to address such concerns;

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- D. In order to address the impacts and consequences that the Township may experience in hosting the WWTP, the parties have agreed to the terms and conditions of this host community impact agreement.
- E. The CRD also acknowledges the significance of municipal zoning processes and has advised the proponents "to ensure that its design for the Plant complies with the applicable zoning and related Township of Esquimalt requirements".
- F. The CRD is seeking an amendment to the Zoning Bylaw through the adoption of Zoning Bylaw, 1992, No. 2050, Amendment Bylaw [No. 208], 2013, No. 2805 (the "**Rezoning Bylaw**") which would incorporate a density bonusing framework under section 904 of the *Local Government Act* and the parties wish to address some additional issues relating to the amenities contemplated in the Zoning Bylaw in this Agreement .

**NOW THEREFORE THIS AGREEMENT WITNESSES** that in consideration of the premises and covenants contained in this Agreement and other good and valuable consideration, the CRD and the Township covenant and agree with each other as follows:

#### **1.0 Term**

This Agreement shall be for a period of five (5) years commencing on the calendar day following the date that the Rezoning Bylaw is adopted.

#### **2.0 Construction Method and Standards**

- 2.1 Recognizing that the construction phase of the WWTP will generate construction traffic, emissions associated with construction and noise in the Township, especially on adjacent residential neighbourhoods, the CRD agrees to do the following at its cost:

- (i) Use of Barges for Bringing Materials to the Site

The CRD shall amend the Request for Proposals dated the 12th day of July, 2013 entitled Capital Regional District – McLoughlin Point Wastewater Treatment Plant Project for the construction of the WWTP to require the successful proponent (the "WWTP Contractor") to construct temporary boat moorage, or other similar facility of sufficient size to permit the removal of excavated material and the provision of concrete and aggregate during the excavation and major concrete phase of the WWTP by barge or other marine transport, with the text of the addendum to the RFP to be substantially as set out in Schedule A attached to this Agreement (the "**Barging Requirements**").

- (ii) Traffic Management Plan

Despite the significant reduction in heavy vehicle traffic expected to be achieved by the Barging Requirements, the CRD shall cause the WWTP Contractor to work with the Township, and the Township shall work with the WWTP Contractor

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in good faith on the preparation of a traffic management plan (the "Traffic Management Plan") to apply to the transport through the Township of those materials and equipment that are not subject to the Barging Requirements taking into account issues of community concern regarding the frequency, times and type of heavy vehicle traffic. The Traffic Management Plan shall be subject to the approval of the Township, acting reasonably.

Without limiting the generality or scope of what the Traffic Management Plan may address, the Traffic Management Plan may:

- (A) specify the use of a staging area in proximity to the WWTP site to reduce truck parking on roadways waiting to make deliveries of materials;
- (B) retain implement supplementary crossing guards where appropriate; and
- (C) include other measures acceptable to the Township, as the CRD and the WWTP Contractor develop to address the trucking of materials through the Township that are not subject to the Barging Requirements and other traffic associated with the WWTP Project.

(iii) Monitoring and Reporting of Traffic

The CRD shall monitor and report monthly, or cause the WWTP Contractor, to monitor and report monthly to the Township and in particular shall identify:

- (a) the number and frequency of trips to the Project Lands by truck; and
- (b) the purpose of truck trips and identification of materials and equipment.

(iv) CRD Contact

The CRD shall provide to Esquimalt the name and contact details of a contact person for complaints regarding non-compliance with the Barging Requirements.

(v) Exception

In exceptional circumstances explained with the advance provision of notice from the CRD to the Township, the Township may agree to permit additional truck traffic.

(vi) Enforcement

The CRD has committed to vigilant enforcement of the Barging Requirements, including the full array of contractual penalties to the WWTP Contractor, which may be supplemented with bylaw enforcement either by the CRD or the Township. The parties however acknowledge that enforcement decisions remain at the discretion of the CRD Board and the Township Council. To evidence its commitment and in recognition that breaches of the Barging Requirements increase the negative effects on and costs to the Township (e.g. for enforcement,

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inspections, administration of complaints, additional wear and tear on roads, etc.), the CRD agrees to give due consideration to breaches of the Barging Requirements by the WWTP Contractor.

## 2.2 LEED® Standard for Operations and Maintenance Building

The CRD shall cause the operations and maintenance building of the WWTP to be constructed to the level of LEED® Gold standard.

## 2.3 Odour-Reducing Improvement

- (i) The CRD shall cause the WWTP to be designed and constructed to incorporate odour-reducing technology intended to result in odour levels that will not exceed five (5) odour control units as measured at the boundary of the Project Lands.
- (ii) The CRD will not accept the WWTP until the standard under paragraph 2.3(i) can be met.
- (iii) If, following commissioning, the WWTP emits odour in excess of 5 odour control units as measured at the boundary of the Project Lands, the CRD shall, expeditiously and in good faith, use best efforts to investigate and remediate the source of the odour in order to reduce odour to the agreed level.

## 2.4 Design Review Process

- (i) Recognizing the importance of the visual impact of the WWTP, and respecting the Development Permit requirements of the Township's Official Community Plan, the CRD agrees to involve the City of Victoria, along with the Township, in a collaborative design review process involving the three (3) shortlisted proponent teams relating to the exterior design and finish of the WWTP, with the intent that such discussions will result in concurrence among the CRD, the Township's staff and the City of Victoria. It is intended to hold the collaborative design review process during October and November 2013, in advance of the final submissions from the proponent teams.
- (ii) As the design review process will take place during the competitive RFP process, participants including those from the Township shall sign a confidentiality agreement prior to participating in the design review process. The parties acknowledge that such agreement cannot be applicable to the exercise of the Township's statutory powers in relation to the required development permit(s).
- (iii) The CRD recognizes that the Project Lands are designated a development permit area in accordance with the *Local Government Act* and therefore the final decision on design and permit issuance rests with the Township's Council (subject however to appeals, judicial review and the authority of the Minister of Environment under the *Environmental Management Act*). The CRD will bring forward the final design as part of its development permit application for

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consideration by Township Council, but is free to seek input from Council in advance.

## 2.5 Restoration of Road Surfaces

- (i) The CRD shall cause the road surfaces affected by the construction of the WWTP, as determined by the Township acting reasonably, to be reinstated (including but not limited to affected paved areas, sidewalks and boulevards) to a condition that reflects current conditions or better, including the installation of sidewalks and curbs.
- (ii) The CRD, the Township and the WWTP Contractor shall, without cost to the Township, conduct pre-construction and post-construction assessments of the conditions of road surfaces referred to in section 2.5(a).

## 3.0 Resource Recovery System

- 3.1 **Heat Loop:** The CRD shall construct or cause to be constructed a district energy system as generally described in Resource Recovery and Use Plan Technical Memorandum by Kerr Wood Leidal dated September 20, 2013 to connect the WWTP to the intersection of Admirals Road and Esquimalt Road (collectively "**Heat Loop**").
- 3.2 **Licence:** The Township grants a licence to the CRD for the construction of the Heat Loop within the Township's streets, such licence to be formalized in writing in the Township's customary form prior to the commencement of construction of the Heat Loop.
- 3.3 **Infrastructure Costs:** The CRD shall be responsible for all infrastructure costs associated with the construction of the Heat Loop to/from the intersection of Admirals Road and Esquimalt Road.
- 3.4 **Transfer of Title:** Upon completion, inspection and commissioning of the Heat Loop, the CRD shall transfer title to the Heat Loop and related appurtenances to the Township for consideration of \$10.00 and following such transfer the Township shall thereafter be responsible for the operation and maintenance of the Heat Loop and for the use and distribution of the heat.
- 3.5 **Condition Precedent:** Despite this Section, if the CRD has not received written notice from the Township that the Township has reviewed the operation and maintenance costs associated with the proposed Heat Loop and all other studies regarding the Heat Loop (collectively the "**Heat Loop Studies**") and has satisfied itself on or before a date that is nine (9) months from receipt of a revised analysis of the financial viability of the Heat Loop prepared by Kerr Wood Leidal that it wishes the Heat Loop to be constructed and transferred to the Township, the parties shall be under no further obligation to each other in relation to the Heat Loop, it being acknowledged and agreed that the notice under this section is a condition precedent to the obligations under this Section 3.0. The Township agrees that it shall

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expeditiously cause the review of the proposed Heat Loop Studies, with a view to determining whether it wishes to assume operational and financial responsibility for the operation and administration of the Heat Loop as a municipal service, and it may decide whether to proceed with acceptance of the Heat Loop or not, in its sole and unfettered discretion.

- 3.6 **Warranties:** At the time of transfer, the CRD shall assign the benefit of any warranties relating to the construction of the Heat Loop to the Township.
- 3.7 **Operation by the Township:** Following transfer of the Heat Loop to the Township, all subsequent costs associated with the operation and maintenance of the Heat Loop and the connection of individual parcels to the Heat Loop as shown substantially on Schedule "B" shall be borne by the Township.
- 3.8 **Heat Commitments:** The CRD commits to provide a sufficient amount of heat, or material for heat, in accordance with the assumptions and the equipment identified in the Heat Loop Studies to achieve the projected Heating Sales Revenues without exceeding the Operating and Maintenance costs so identified. The CRD agrees that there shall be no additional costs or charges imposed on the Township from the CRD or the operator of the WWTP, or the Project Lands generally, with respect to the provision of heat for the Heat Loop or otherwise in relation to the Heat Loop
- 3.9 **Other Users:** The parties acknowledge and agree that the WWTP will generate energy from the heat of its operations for use on the Project Lands. Provided that the heat delivered to the Township is sufficient to permit the Township to achieve the quantity of heat sufficient to achieve the projected heating sales revenues identified in the Heat Loop Studies, and provided the Township shall have exclusive rights to licence or sell the use of heat to the Department of National Defence Lands "DND"), the CRD may licence the use of heat to customers not within the boundaries of Esquimalt or DND.
- 3.10 **Transfer Agreement:** If the Township elects to accept the Heat Loop, the parties shall in good faith negotiate a transfer agreement for the transfer of title to that part of the Heat Loop required to permit the Township to operate a district energy utility within its boundaries and for the delivery of heat from the WWTP to the Township (the "Transfer Agreement").
- 3.11 **Reimbursement of Township Heat Loop Utility Costs:**
- (a) Notwithstanding section 3.5, if the Township elects to accept the Heat Loop the CRD shall, upon execution of the Transfer Agreement, allocate a budget of up to \$200,000 based on actual costs submitted by the Township for reimbursement in the construction budget relating to the Heat Loop to reimburse the Township's actual costs relating to:
- (i) its review of the Heat Loop Studies; and

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- (ii) the establishment of a municipal service or utility for the purpose of providing heat, including without limitation, actual costs of legal, accounting, engineering and information technology services associated with the establishment of a municipal service or utility for the operation of the Heat Loop;

whether such costs are incurred prior to or after execution of the Transfer Agreement.

- (b) The CRD shall reimburse the costs incurred by the Township to a maximum of \$200,000 within 30 days of receipt of an invoice from the Township for such amounts.

#### **4.0 Water System Upgrades**

Recognizing that the WWTP will require the water service to be upgraded, the CRD agrees, as part of the water service upgrade, to provide fire hydrants and appurtenances as requested by the Township, to coincide with upgrades to the City of Victoria's water system located within the boundaries of the Township, as necessary for the proper operation of the WWTP.

#### **5.0 Conduits**

The CRD agrees that in connection with the excavation of highways in connection with construction of the WWTP, and the Heat Loop if accepted by the Township, the CRD shall install or cause to be installed a subsurface conduit to the standards of BC Hydro. It is acknowledged and agreed, however, that nothing in this Agreement obliges the CRD to install such underground wiring at the time of construction of the WWTP, the Heat Loop or otherwise.

#### **6.0 Additional Traffic Integration Improvements**

The CRD will, in good faith and in cooperation with the Township, design and install additional traffic calming and bicycle lane improvements on any streets between Lampson Road and Esquimalt Road and the Project Lands, which may include, as reasonably appropriate, speed bumps, speed cushions, enhanced boulevard curbing and landscaping, all at the sole cost of the CRD, and at the direction of the Township acting reasonably.

#### **7.0 Emergency and Public Seasonal Access**

- (a) In addition to the boat moorage identified in section 55(2)(c) of the Zoning Bylaw, the CRD shall construct a dock or other similar watercraft landing structure to permit emergency access and may include CRD employee access, and shall make reasonable efforts to provide for at least seasonal public use to be made of the dock, subject to Transport Canada approval, Department of Fisheries and Oceans Canada approval, and provided that the installation of a dock or similar facility does not trigger a requirement for an environmental impact assessment, other than in connection with the emergency and CRD employee access.

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- (b) If the CRD is unable to obtain the necessary approvals or if the dock or similar facility requires an environmental impact assessment, and the CRD does not elect, in its sole discretion, to carry out the environmental impact assessment (and any consequent remediation activities), then the CRD agrees that it shall, at its cost, construct, install or provide additional improvements, features or upgrades to finishes, or such other further amenities, determined by the CRD acting reasonably after consultation with the Township, having a value of not less than \$150,000 to one or more of the public walkway, public observation area, landscaping or other on-site amenities or features of the WWTP referred to in section 9.2 or 9.3 of this Agreement.

### **8.0 Building Permit Fees**

The CRD agrees that it will apply to the Township for a building permit for the WWTP and pay an amount equal to the building permit fees that would be payable to the Township calculated in accordance with the Township's Building Bylaw, subject to any applicable deductions or reductions that would apply to complex projects of the nature of the WWTP under the Township's Building Bylaw, or in circumstances to which section 290 of the *Local Government Act* applies.

### **9.0 Amenity Conditions**

The CRD acknowledges that the construction of the WWTP to a standard that permits the proper operation of the WWTP to meet the standards determined in the approved CRD liquid waste management plan will necessitate the CRD providing amenities under the Rezoning Bylaw.

With respect to the provision of those amenities, the parties agree as follows:

1. Lyall Street Enhancement: The CRD will work with the Township for the provision of the pathway and bikeway referred to in section 55(2)(c) of Rezoning Bylaw, along Lyall Street and Head Street to link West Bay to Admirals Road and having a value of approximately \$950,000 for the design and installation of the pathway and bikeway. The enhancement shall be of a design, materials and quality of construction and installation as directed by the Township acting reasonably, and shall be completed prior to the sooner of the commencement of WWTP operations or termination of this Agreement.
2. Public Access, Walkway and Open Space Improvements:
  - (a) The CRD will design and install a walkway system the length of the harbour side of the WWTP site and comprising a design that is consistent with the CRD Design Guidelines. A public observation deck will be installed at the end of the walkway. It is acknowledged and agreed that the improvements referred to in this section shall be subject to the outcome of any environmental assessment process to be undertaken separately from the environmental assessment required in connection with the WWTP. The CRD agrees that the value of the Open Space and Improvements will be at least \$75,000, and shall be completed prior to the sooner of the commencement of WWTP operations or termination of this Agreement.

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- (b) The statutory right of way referred to in section 55(2)(c) of the Zoning Bylaw shall be in a form acceptable to the Township, acting reasonably, under which the public will not have a right of access nor will the Township assume maintenance liability or operational responsibility unless or until the walkway to be provided under this section is connected to a public walkway providing public access from one or more boundaries of the Project Lands, or the Township elects to assume responsibility under subsection 2(c). The CRD shall make all reasonable efforts to ensure that the public walkway is 3 metres in width, and will only reduce the walkway to 1.5 metres in width where necessary because of physical constraints.
  - (c) Notwithstanding section 9.2(b), upon the establishment of seasonal public use of the dock contemplated by section 7.0, the Township may, in its unfettered discretion, by written notice to the CRD elect to assume full responsibility for the dock, pedestrian walkway and observation area upon the opening of the dock to public use.
  - (d) If the Township does not elect to assume responsibility for the dock, pedestrian walkway and observation area under paragraph (c), the CRD shall establish a regional park or regional trail at McLoughlin Point to include the dock, pedestrian walkway and observation area.
3. Public Art and Interpretive Signage Improvements: In satisfaction of section 55(2)(c)(vii) of the Zoning Bylaw, the CRD will provide a cash allowance of \$100,000 to provide for public art and historical interpretive signage that may be internally or externally displayed. The historical interpretive signage shall be of a design, materials and quality of construction and installation as directed by the Township acting reasonably, and shall be completed prior to the termination of this Agreement. The public art shall be determined following a process that includes approval of both the CRD and the Township.
  4. Macaulay Point Pump Station and Related Facilities: The CRD will improve the aesthetics and operations, in particular to reduce odour, of the Macaulay Pump Station within Township boundaries to a standard of quality and finish at least equivalent to the Craigflower Road, Currie Road and Trent Road Pump Stations, recognizing the prominent location of Macaulay in an important waterfront park. The CRD shall also make aesthetic improvements to the appearance of the Lang Cove pump station in consideration of the visibility of its location.
  5. The CRD will in good faith consider extending access to the meeting room and interpretive space on weekends and evenings when booked through the CRD for educational purposes.

#### **10.0 Satisfaction of Host Community Conditions**

The Township agrees that the satisfaction of the Host Community Conditions in Sections 2 to 9 inclusive of this Agreement and the payment of the amount under the Community Impact Mitigation & Operating Agreement will be full satisfaction of the Township's concerns relating to the WWTP.

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## 11.0 Dispute Resolution

Where a matter in dispute arises under this Agreement, the Chief Administrative Officers shall meet promptly to attempt to resolve the dispute.

Where the Chief Administrative Officers are unable to resolve the dispute, then the matter may, with the concurrence of both the CRD and the Township, be submitted for mediation to a mediator appointed jointly by the parties.

If the matter cannot be resolved by mediation, or if the parties are unwilling to submit the matter to mediation, then the dispute shall be resolved by arbitration, by an arbitrator appointed jointly by the parties. The decision of the arbitrator shall be final and may include a requirement for specific performance by one or both parties.

The parties shall share the costs of the mediation or arbitration equally.

If the parties are unable to agree on the selection of an arbitrator within thirty (30) days of the later of the meeting of the Chief Administrative Officers, or the failure of the mediation, then either party may, upon giving written notice to the other party, apply to the Ministry of Community, Sport and Cultural Development (or the Ministry then having responsibility for local government affairs) for dispute resolution by way of binding arbitration contemplated by Division 3 of Part 9 of the *Community Charter*.

## 12.0 General Provisions

### (a) No Fettering of Discretion

Nothing in this Agreement shall be considered to fetter any statutory discretion of the Board of the CRD or the Council of the Township nor to impair or waive any power, right or authority of the CRD or the Township under the *Community Charter*, the *Local Government Act* or any other enactment as defined in the *Interpretation Act*.

### (b) Modification

No modification or amendment to this Agreement shall be binding unless executed in writing by both parties.

### (c) Entire Agreement

This Agreement, along with the **Community Impact Mitigation & Operating Agreement**, constitutes the entire agreement between the parties and supersedes all previous discussions, negotiations, understandings, expectations, agreements of the parties, whether oral or written regarding the subject matter of these Agreements.

### (d) No Assignment

This Agreement may not be assigned by either party, without the express written consent of the other party, which consent shall not be unreasonably withheld where the

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assignment is to another public authority.

(e) Applicable Law

This Agreement is to be construed in accordance with and governed by the laws applicable in the Province of British Columbia and in particular is subject to the jurisdiction of the Minister of Environment under the *Environmental Management Act*.

(f) Notice

It is hereby mutually agreed that any notice required to be given under this Agreement will be deemed to be sufficiently given:

- (a) to be delivered at the time of delivery; and
- (b) if mailed from any government post office in the Province of British Columbia by prepaid registered mail addressed as follows:

if to the CRD:           625 Fisgard Street  
Victoria, B.C.  
V8W 1R7

if to the Township:   1229 Esquimalt Road  
Victoria, B.C.  
V9A 3P1

Unless otherwise specified herein, any notice required to be given under this Agreement by any party will be deemed to have been given if mailed by prepaid registered mail, or sent by facsimile transmission, or delivered to the address of the other party set forth on the first page of this Agreement or at such other address as the other party may from time to time direct in writing, and any such notice will be deemed to have been received if mailed or faxed, 72 hours after the time of mailing or faxing and, if delivered, upon the date of delivery. If normal mail service or facsimile service is interrupted by strike, slow down, force majeure or other cause, then a notice sent by the impaired means of communication will not be deemed to be received until actually received, and the party sending the notice must utilize any other such services which have not been so interrupted or must deliver such notice in order to ensure prompt receipt thereof.

(g) Waiver

The waiver by a party of any failure on the part of the other party to perform in accordance with any of the terms or conditions of this Agreement is not to be construed as a waiver of any future or continuing failure, whether similar or dissimilar.

(h) Severability

Each article of this Agreement shall be severable. If any provision of this Agreement is held to be illegal or invalid by a Court of competent jurisdiction, the provision may be

severed and the illegality or invalidity shall not affect the validity of the remainder of this Agreement.

(i) Interpretation

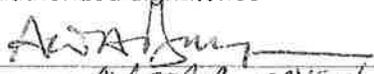
Wherever the singular or the masculine is used in this Agreement, this shall be deemed to include the plural, feminine or body politic or corporate as the context so requires.

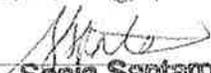
(j) Counterparts

This Agreement may be executed in counterparts and when the counterparts have been executed by the parties, each originally executed counterpart, whether a facsimile, photocopy or original, will be effective as if one original copy had been executed by the parties to this Agreement.

**IN WITNESS WHEREOF** the parties hereto have executed this Agreement as of the day, month and year first above written.

**CAPITAL REGIONAL DISTRICT** by its )  
authorized signatories )

  
Name: ALASTAIR BRYSON, CHAIR )

  
Name: Sonia Santarosea )  
Corporate Officer )

**THE CORPORATION OF THE TOWNSHIP OF** )  
**ESQUIMALT** by its authorized signatories )

\_\_\_\_\_) )  
Name: )

\_\_\_\_\_) )  
Name: )

## Schedule "A"

**Addendum to specify Barging in Schedule 5****Section 4.8(a) and 4.8 (b) Schedule 5 (Design and Construction Protocols)**

Sections 4.8(a) and 4.8(b) of Schedule 5 (Design and Construction Protocols) are deleted and replaced with the following:

**"4.8 Barging, Access Roads; Laydown and Staging Areas**

- (a) **Barging.** Project Co:
- (1) will use marine barging for the supply and transportation of materials and waste associated with excavation, backfill and concrete works on the Plant Site (including work associated with the Harbour Crossing and Outfall);
  - (2) may use the access roads to the Plant Site in connection with the initial mobilization and demobilization of construction equipment associated with excavation, backfill and concrete works on the Plant Site;
  - (3) may install a temporary concrete batch plant at the Plant Site (or adjacent DND laydown area) provided all concrete materials, including aggregates and cement, are barged to the Plant Site;
  - (4) will obtain all permits and approvals required for barging and any construction and operation of a temporary concrete batch plant; and
  - (5) will not undertake any construction, operations or other activities which affect the intertidal zone adjacent to the Plant Site.
- (b) **Access Roads.** Without limiting the barging obligations set out in section 4.8(a), Project Co will maintain the access roads to the Project Sites throughout Construction and restore such roads to their pre-existing condition or better following construction of the Facilities and as a condition of Acceptance. Project Co assumes the risk of the sufficiency of the access roads to provide access to the Project Sites for the performance of Construction, including the transportation and delivery of materials and equipment required for the performance of Construction."

Schedule "B"

HEAT LOOP



Current Bylaw 2806	Revised Bylaw 2805/Agreements or Contracts
Use of barges	Included
Temporary dock for barges	Included
Traffic management	Included (Traffic Management Plan)
Lyall Street Upgrades (\$950K)	Included
Education and Interpretive Centre	Included
High Efficiency filters in schools	Outside CRD jurisdiction but addressed by dust suppression during construction and reduced trucking with use of barges
Green building	LEED Gold for Admin. building
Design Guidelines	Designs are in compliance
Macaulay Pump Station Upgrade	Contract will require design to CRD standard (e.g. Craigflower Pump Station)

Current Bylaw 2806	Revised Bylaw 2805/Agreements or Contract
Public open space along water front	Walkway and view point included
Public art (\$100,000)	Included
Upgrade Esquimalt Pump Stations	Not included – above ground pump stations will be upgraded as part of ongoing CRD’s capital program
Public open space (\$75K)	Included, themed play-lot not included
Maximum Flow 108 MI/d	Not limited, maximize flow to minimize unit cost to taxpayers
Dock and pedestrian ferry service	Public dock included
Design to include public walkway	Included
Use of reclaimed water on site	Included
Heritage signage	Included

Current Bylaw 2806	Revised Bylaw 2805/Agreements or Contract
Themed hydrants	Not included, standard hydrants and water main upgrades included
Provision of conduits in trenches	Included
Reinstatement of roads affected by construction	Included
Odour mitigation	Included (5 OU at plant boundary)
No trucking of bi-products	Included
Liaison Committee	Included
Annual Payment of \$55,000	Included
Not included	New - \$200K to study DES
Not included (replaces annual payment if accepted by Esquimalt)	New - \$7.5 million for DES
Not Included	Two small parcels recently purchased by CRD. Total area 61.6 M <sup>2</sup> (0.4% of site area)

Current Bylaw 2806	Revised Bylaw 2805/Agreements or Contract
No structure within 20 m of HWM to be greater than 5 m – the Low Height Area (LHA)	No higher than 12 m up to 35% of LHA and no greater than 35% of length of shoreline at HWM
4 m wide landscaping within setback from HWM	Not feasible due to exposure and rock. Landscaping provided within tsunami wall area
Building height up to 15 m outside 20 m zone if combined with mixed use development	Max. height 12 m outside LHA except 15 m for up to 15% of area outside LHA
No building within 7.5 m of HWM	Encroachment of up to 10% of the 7.5 m setback area (actual <4%)
Lot coverage no more than 75%	Included
Floor Area Ratio not to exceed 0.35	Included
Floor area not to exceed 4500 m <sup>2</sup>	Included

April 10, 2014

The following is an updated chronology of events related to the rezoning application for McLoughlin Point Property.

1. Staff received direction from Core Area Liquid Waste Management Committee (CALWMC) on June 24, 2009, not to proceed with work beyond the planning phase the Program until a response was received from both governments regarding a funding commitment for the procurement and capital construction phase of the Program.
2. On August 25, 2010 Core Area Liquid Waste Management Plan Amendment No.8 approved by the Minister of Environment.
3. For the remainder of 2010, 2011 and into 2012 the CRD was engaged in negotiations to secure senior government funding for the Core Area Wastewater Treatment Program (Program).
4. In July 2012 the British Columbia, Infrastructure Canada and P3Canada formally announced funding for the Program.
5. Imperial Oil completed the clean-up of the McLoughlin site by the end of December 2012
6. The CRD submitted and Esquimalt accepted a rezoning application for McLoughlin Point in January 2013, prior to taking ownership of the property.
7. CRD conducted due diligence on geotechnical report on the site cleanup prior to purchasing the site in April 2013 to assess the risk of residual contamination in finalizing the purchase price for the property (note rezoning application commenced prior to ownership of the site).
8. In April 2013, a Design Charette and public consultation process was held, resulting in the augmentation of Design Guidelines.
9. The rezoning application was revised in June 2013 to include design guidelines resulting from consultation public process.
10. June 24, 2013 Bylaw No. 2804, amendment to the Official Community Plan, was introduced and given first and second reading.
11. June 24, 2013 Bylaw No. 2805, amendment to the Zoning Bylaw (CRD requested changes) given first and second reading and referred to public hearing.
12. June 24, 2013 Bylaw No. 2806 amendment to the Zoning Bylaw (Esquimalt's own bylaw) given first and second reading and referred to public hearing. The introduction of Bylaw No. 2806 at the Council meeting was first time the CRD was aware that Esquimalt was proposing an alternative bylaw. Public Hearing on the three bylaws were held on July 8 and 9, 2013.
13. On July 15, 2013 the Township of Esquimalt adopted Bylaw No. 2804 and Bylaw No. 2806. Bylaw No. 2806 approved the placement of a WWTP at the McLoughlin site. Bylaw No. 2806 includes various bonus density provisions which the CRD considers to be outside its jurisdiction and which would increase the construction and operating costs of the treatment plant. For example the bylaw restricted the height of the building to 5 m within the 20 m setback zone from the high water level and to 10 m outside the 20 m zone. The result would be greater excavation on site and pumping between treatment processes and the marine outfall rather than gravity flow. Bylaw No. 2805 was held in abeyance at 2<sup>nd</sup> reading.
14. In July 2013 Esquimalt and CRD met separately with the Minister of Community Sports and Cultural Development, and were encouraged, not directed, to negotiate a resolution to allow construction to proceed.

15. Between July – October staff from the CRD and Esquimalt reached agreement on a revised Bylaw No. 2805 that would accommodate construction of a gravity flow, 108 ML/day wastewater treatment plant, a Community Impact Mitigation and Operating Agreement, and a Host Community Impact 5-Year Agreement.
16. Staff from Esquimalt and the CRD agreed to support the agreement to their respective elected bodies.
17. Between September and December, the McLoughlin proponents met, in camera, three times with Esquimalt's Design Review Committee. At its meeting on December 3, 2013 the Design Review Committee confirmed that all three designs met the intent of the Design Guidelines, approved by Esquimalt. In the last meeting with each proponent members of the committee specifically stated that there should be flexibility within the height and setback requirements to accommodate an architecturally significant design.
18. The agreement was presented to the November 2013 CALWMC which did not approve the "agreement package" and requested information on the cost of barging and whether Esquimalt could be offered an amount of money in place of the barging requirements.
19. In December 11, 2013 supplementary information was provided to the CALWMC which essentially restored the agreement negotiated with Esquimalt in October 2013. On the recommendation of the CALWMC, the CRD Board approved the agreement on December 11, 2013.
20. The revised rezoning application submitted in December 20, 2013.
21. On January 6, 2014 Council received the revised application and referred it to the Esquimalt Advisory Planning Commission.
22. On January 8, 2014 Esquimalt staff discussed the revised application with the Design Review Committee, without the knowledge of the CRD. The CRD was informed by the Esquimalt Planning Director that the Design Review Committee were not in favour of a 7.5 m setback relaxation from the high water mark. This was contrary to previously having indicated a willingness to support concessions related to the height and setback requirements at the October 30 and December 3 meeting with the WWTP proponents. On January 14, 2014 Esquimalt Advisory Planning Commission acknowledged the changes that the CRD had made and were pleased that their previous concerns had been addressed. However, they voted to recommend that the Esquimalt Council reject the revised rezoning application. They agreed with the Esquimalt Planning Director that once the rezoning bylaw was accepted, the town would lose control of what could be placed within the boundaries of the relaxed 7.5 m setback restrictions.
23. On January 20 Esquimalt Council gave second reading to revised Bylaw No. 2805 and referred the bylaw to public hearing. In a presentation to Council, the CRD presented very minor encroachments into the 7.5 m setback area and agreed to lock the proposed footprints by each proponent by way of a Section 219 covenant.
24. The application was revised and resubmitted on January 30, 2014 to reduce the encroachment and coverage within the 7.5 m setback zone, to add a Section 219 covenant related to the encroachments and to include 2 small parcels purchased from Transport Canada.
25. A public hearing was held on February 18 and 19, 2014. As the hearings were restricted to ending at 10:00 pm with no extensions not all who wished to present were able to do so. Esquimalt did not announce when the date of the continuation of the public hearing would resume, indicating that they did not know when the room would be available.
26. At its Monday February 24, 2014 meeting, Esquimalt Council authorized reconvening the Public Hearing on March 20 and continue on March 22, 2014 if necessary, and, to write to the CRD a list of questions, the answers to which are to be provided in advance of the reconvened public hearing, to allow for consideration by the public.
27. The questions were e-mailed to the CAO after close of business on Friday, February 28.

28. CRD responded to the questions on March 11 and 14, 2014.
29. The public hearing was reconvened conducted on March 20 and 22, 2014. The hearing concluded on March 22, 2014.
30. Esquimalt Council voted to reject the rezoning at their meeting on Monday, April 7, 2014.



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Esquimalt BC V9A 3P1  
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FAX: 250-414-7111  
www.esquimalt.ca

February 28, 2014  
File: 3- VICT

Robert Lapham, Chief Administrative Officer  
Capital Regional District  
625 Fisgard Street  
Victoria, BC  
V8W 1R7

Dear Mr. Lapham:

**RE: Additional Information Required prior to the March 20, 2014 Resumption of the Public Hearing for Bylaw 2805**

Based on information presented at the public hearings for Bylaw 2805, the Township requires the submission of further information prior to the resumption of the public hearing on March 20, 2014.

Please note that we have sought to address this so that the consideration of the bylaws can be expedited in an appropriate context. It is regrettable that: the CRD was not prepared to proceed last Fall 2013 as the Township was; you submitted a dated Tsunami Report, with incorrect Executive Summary; and further that the CRD waited more than three (3) years after the 2010 Liquid Waste Management Plan Amendment No.8 before submitting its rezoning application for McLoughlin Point (and that it chose not to discuss the matter constructively before July 2013, and then only after direction from the Province). The Township has sought to resolve the issues in a constructive and open manner, and continuing in that vein it is incumbent to have a number of confusions, applicant oversights and miscommunications redressed. We request:

- 1) A third party review of all of the information that the Capital Regional District has submitted in support of the 6.0 m high Tsunami wall with the purpose of ascertaining whether or not the information provided and the analysis of such information represents an adequate consideration of the following parameters:
  - Existing site parameters;
  - Existing conditions of the surrounding ocean floor in relation to how it could affect the height of a Tsunami;
  - Whether or not sufficient scenarios have been analyzed to ascertain an appropriate height for the Tsunami wall;
  - Whether or not an appropriate measurement of risk has been considered in the analysis;
  - Whether or not the analysis of risk included an analysis of the probability of mortality;
  - Whether or not conducting a risk analysis of the probability of mortality is appropriate in this situation;
  - Whether or not the analysis submitted includes the latest information from the Province of British Columbia related to anticipated sea level rise;
  - Whether or not the analysis submitted included an appropriate timeline for the life of this project;
  - Potential impact of the liquidification of the seabed;
  - Potential impact of submarine landslides;

- The need to consider other scenarios in addition to the single scenario of a 9.0 magnitude earthquake along the Cascadia Subduction Zone;
  - The site specific behaviour of tsunami waves as they approach McLoughlin Point;
  - Whether or not the cumulative impacts of concurrent high tides, storm surges, and tsunami events have been appropriately calculated by the Capital Regional District;
  - Whether and how zoning bylaw regulations (such as grade, height, setbacks, including requested reduced setbacks) may be impacted and otherwise affect the analysis;
  - Any additional information that the approved third party believes should be included in the review.
- 2) A map showing the route or possible routes of the biosolids conveyance pipeline to the Hartland landfill.
  - 3) A map showing the route of the upgraded electrical transmission and distribution lines from the Esquimalt Substation to the proposed wastewater treatment plant including details of proposed voltage increases from existing, location of any new transformers, and the location of any new switching boxes.
  - 4) A map showing the route of the upgraded water transmission and distribution system from its entry into Esquimalt to the proposed wastewater treatment plant.
  - 5) Letter from the City of Victoria Water Works Department commenting on or otherwise relevant to the proposed alignment and upgrades to the water transmission and distribution system for the proposed Wastewater Treatment Plant.
  - 6) Letter from the BC Hydro commenting on or otherwise relevant to the proposed upgrade and alignment of the electrical transmission and distribution system associated with the proposed Wastewater Treatment Plant;
  - 7) Letter from the Provincial Ministry of Health commenting on or otherwise relevant to the evidence related to the propagation of antibiotic resistant bacteria in secondary wastewater treatment plants and based on this evidence they support the construction of a secondary wastewater treatment plant at McLoughlin Point.
  - 8) Letter from the Chief Public Health Officer for Island Health commenting on or otherwise related to the propagation of antibiotic resistant bacteria in secondary wastewater treatment plants and the construction of a secondary wastewater treatment plant at McLoughlin Point.
  - 9) From a third party, a detailed analysis of the costs associated with treatment storm water from Oak Bay and how these costs are paid for. The analysis must include a calculation related to how the volume of storm water from Oak Bay affects the size and capacity of the proposed Core Area Liquid Waste Management Plant at McLoughlin Point. The analysis is to also ascertain whether or not the treatment of storm water at McLoughlin Point is consistent with all of the Capital Regional District's policies and programs related to inflow and infiltration.
  - 10) From a third party, a detailed analysis of the potential implications on the design of the proposed sewage treatment plant if a treatment plant is built in Colwood now or in the near future, further to Colwood's request, instead of in 2030. The analysis to include the impacts of Langford having its sewage treated at the proposed Colwood plant.

The above has been required not only to redress matters raised at or in advance of Public Hearing, including the CRD's previous submission of a dated Tsunami Report, but also as an expeditious means of addressing the Township development approval information requirements under Development Application Procedures and Fees Bylaw No. 2791, 2012. That is, this letter should, at the minimum be considered a request for a Terms of Reference, but also expedites that request given the applicant's pressing deadlines, by identify particularly relevant information requirements. The Director considers that the information submitted to date with respect to the above-noted matters has been insufficient and/or requires independent review. Relevant excerpts of the Township bylaws include:

16. To the extent that the proposed activity or development can reasonably be expected to have an appreciable impact on any of the following matters, the Terms of Reference must include those matters in the scope of the information that is to be prepared:

- (a) the natural environment of the area affected including adjacent marine areas, surface drainage, ecosystems and biological diversity, with particular emphasis on areas of unusual environmental sensitivity and any rare plant or animal species;
- (b) local highways, fire protection systems, water supply systems, municipal solid waste disposal and recycling facilities, energy and communications utilities, and local parking facilities;
- (c) local school facilities; local, regional and provincial parks; hospitals and other health care services; local transportation services including public transit;
- (d) local commercial services and employment opportunities, but the question of market demand for the activity or development need not be dealt with when the application is for a development permit;
- (e) property tax revenues of the Township;
- (f) energy and water conservation;
- (g) natural hazards including tsunami hazards and the effects of sea level rise;
- (h) cultural heritage resources including resources of historical, archaeological, paleontological or architectural significance whether on land or underwater; and
- (i) aesthetic values including the appearance of the development and the effect of any artificial lighting proposed.

17. In addition to any matter listed in Section 16, the applicant may include in the Terms of Reference any matter on which the applicant considers information ought to be provided to the Township to permit a full understanding of the Impact of the proposed activity or development on the community. ...

26. For every matter within the scope of Section 16 that is included in the Terms of Reference, the applicant must

- (a) identify relevant baseline information and document the nature of the resource or other matter on which the proposed activity or development may have an impact;
- (b) identify and describe the potential and likely impacts of the activity or development including any cumulative effects when combined with other projects proposed or under development of which the Director has provided advice under Section 23;
- (c) evaluate the impacts in terms of their significance and the extent to which and how they might be mitigated; and
- (d) make recommendations as to conditions of approval that may be appropriate to ensure that undesirable impacts are minimized or avoided

all in accordance with generally accepted impact assessment methodology.

The applicant can request Council reconsider this matter in accordance with Part VI of the Development Application Procedures and Fees Bylaw No. 2791, 2012. In the interest of the expeditious consideration of rezoning Bylaw 2805, including its reduced setbacks, we trust you will accept the wisdom in providing this information in a timely manner.

Please do not hesitate to contact me if you have any questions.

Yours truly,

A handwritten signature in black ink that reads "Bill Brown". The signature is written in a cursive style with a long horizontal line underneath it.

Bill Brown  
Director of Development Services

cc. Laurie Hurst, Chief Administrative Officer, Township of Esquimalt,  
Mayor and Council, Township of Esquimalt,  
Albert Sweetnam, Program Director, Core Area Wastewater Treatment Program,  
Michael Peckham, Program Manager, Wastewater Treatment Plant Seaterra Program,



Making a difference...together  
March 03, 2014

Capital Regional District  
625 Fisgard Street, PO Box 1000  
Victoria, BC, Canada V8W 2S6

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F: 250.360.3234  
www.crd.bc.ca

0400-50

Mr. Bill Brown, MCIP  
Director of Development Services  
Township of Esquimalt  
City Province Postal Code

Dear Mr. Brown:

**Re: Request for Additional Information for the Public Hearing for Bylaw 2805**

Thank you for your letter dated February 28, 2014 requesting additional information in connection with the CRD's revised rezoning application for the McLoughlin Point property.

We note that your letter was received at 5:44pm on Friday after close of business for the week and too late for action to be taken until March 3, effectively one week after consideration of the resumption of the Public Hearing by Esquimalt Council. Given the scope of your request, the loss of a week is not conducive to providing a comprehensive response.

While we strongly object to the scope, and in some cases the relevance of the additional information requested at this stage in the rezoning process, we will respond to your request as expeditiously as possible and in advance of the March 20 resumption of the Public Hearing.

At that time we will also take the opportunity to present the CRD's perspective of the sequence of events since the approval of Amendment No. 8 in August 2010.

Yours truly,

A handwritten signature in black ink, appearing to read 'R. Lapham', written in a cursive style.

Robert Lapham, RPP, MCIP  
Chief Administrative Officer

cc: CRD Board Members  
Geoff Young, Chair, Core Area Liquid Waste Management Committee, CRD  
Albert Sweetnam, Program Director, Seaterra CRD  
Michael Peckham, Program Manager Wastewater Treatment, Seaterra CRD  
Laurie Hurst, CAO, Township of Esquimalt





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March 4, 2014

File: 0400-50  
5220-20

Township of Esquimalt  
1229 Esquimalt Rd,  
Esquimalt BC V9A 3P1

Attention: Bill Brown

**Request for additional information and the preparation of Terms of Reference in relation to the proposed amendment to the Esquimalt Zoning Bylaw relating to the McLoughlin Point Special Use Zone**

Further to your letter of February 28, 2014, as requested, the Capital Regional District (CRD) is providing the Terms of Reference for the additional information as follows:

1. Tsunami Wall Height

A third party review of all of the information that the CRD has submitted in support of the 6.1 m high tsunami wall with the purpose of ascertaining whether or not the information provided and the analysis of such information represents an adequate consideration of the following parameters:

- a) Existing site parameters;
- b) Existing conditions of the surrounding ocean floor in relation to how it could affect the height of a tsunami;
- c) Whether or not sufficient scenarios have been analyzed to ascertain an appropriate height for the Tsunami wall;
- d) Whether or not an appropriate measurement of risk has been considered in the analysis;
- e) Whether or not the analysis of risk included an analysis of the probability of mortality;
- f) Whether or not conducting a risk analysis of the probability of mortality is appropriate in this situation;
- g) Whether or not the analysis submitted includes the latest information from the Province of British Columbia related to anticipated sea level rise;
- h) Whether or not the analysis submitted included appropriate timeline for the life of this project;
- i) Potential impact of the liquefaction of the seabed;
- j) Potential impact of submarine landslides;
- k) The need to consider other scenarios in addition to the single scenario of a 9.0 magnitude earthquake along the Cascadia Subduction Zone;
- l) The site specific behaviour of tsunami waves as they approach McLoughlin Point;
- m) Whether or not the cumulative impacts of concurrent high tides, storm surges, and tsunami events have been appropriately calculated by the Capital Regional District;
- n) Whether and how zoning bylaw regulations (such as grade, height, setbacks, including requested reduced setbacks) may be impacted and otherwise affect the analysis;

- o) Any additional information that the approved third party believes should be included in the review.

Third Party review will be conducted by a firm or firms that have expertise in the analysis of tsunamis. Stantec will be excluded from the list of firms eligible to conduct this review because they prepared the report that details the safety factors utilized by the CRD.

2. A map showing the route or possible routes of the biosolids conveyance pipeline to Hartland landfill.
  - i. This map will detail the route of the pipeline within Esquimalt that is under discussion with Esquimalt staff.
3. A map showing the route of the upgraded electrical transmission and distribution lines from the Esquimalt Substation to the proposed wastewater treatment plant including details of proposed voltage increases from existing, location of any new transformers, and the location of any new switching boxes.
  - i. This map will be prepared based on the ongoing negotiations with BC Hydro and Esquimalt staff.
4. A map showing the route of the upgraded water transmission and distribution system from its entry into Esquimalt to the proposed wastewater treatment plant.
  - i. This map will be prepared based on the ongoing negotiations with the City of Victoria and Esquimalt staff.
5. A letter from the City of Victoria Water Works Department commenting on or otherwise relevant to the proposed alignment and upgrades to the water transmission and distribution system for the proposed Wastewater Treatment Plant.
6. A letter from the BC Hydro commenting on or otherwise relevant to the proposed upgrade and alignment of the electrical transmission and distribution system associated with the proposed Wastewater Treatment Plant.
7. A letter from the Provincial Ministry of Health commenting on or otherwise relevant to the evidence related to the propagation of antibiotic resistant bacteria in secondary wastewater treatment plants and based on this evidence they support the construction of a secondary wastewater treatment plant at McLoughlin Point.
8. A letter from the Chief Public Health Officer for Island Health commenting on or otherwise related to the propagation of antibiotic resistant bacteria in secondary wastewater treatment plants and the construction of a secondary wastewater treatment plant at McLoughlin Point.
9. From a third party, a detailed analysis of the costs associated with treatment of storm water from Oak Bay and how these costs are paid for. The analysis will include a calculation related to how the volume of storm water from Oak Bay affects the size and capacity of the proposed wastewater treatment plant at McLoughlin Point. The analysis is to also ascertain whether or not the treatment of storm water at McLoughlin Point is consistent with all of the CRD policies and programs related to inflow and infiltration.
10. From a third party, a detailed analysis of the potential implications on the design of the proposed sewage treatment plant if a treatment plant is built in Colwood now or in the near future, further to Colwood's request, instead of in 2030. The analysis to include the impacts of Langford having its sewage treated at the proposed Colwood plant.

The CRD is astonished and extremely disappointed that only now are we being advised that the information submitted in support of the application in January 2013—that was considered sufficient to enable Esquimalt to adopt Bylaw No. 2806 which actually rezoned the five principal CRD-owned legal parcels required for a wastewater treatment plant use, and further updated in December 2013 at Esquimalt's request—is being characterized as insufficient and/or requiring independent review. The CRD has had a rezoning application before Esquimalt for 13 months. At no time prior to now has the CRD been given any indication that there would be a request for a comprehensive 'Terms of Reference' added to the rezoning process, much less such a request long after the lands needed for the wastewater treatment plant have been the subject of a rezoning. Given the nature of the revisions to our original application that do not actually change the use of the five principal CRD-owned parcels, and extend that use to two extraordinarily small parcels to permit installation of a public walkway, the CRD is certainly of the view that the majority of the concerns now being raised could have been addressed following the previous public hearings last year. This delay will result in additional costs to taxpayers, not just in terms of costs of providing the information, but in the ongoing cost increases anticipated for the entire project.

Most of the information submitted to date has been prepared by third parties under contract with the CRD. While we will endeavour to obtain the information prior to the continuation of the Public Hearing, we are subject to receiving certain information from third parties not directly under our control.

This letter is intended to be responsive to your letter of February 28, 2014 and is the CRD's attempt to articulate what the CRD understands Esquimalt is seeking as the Terms of Reference referred to in the letter. If there is more information that Esquimalt is looking for in relation to its request for Terms of Reference, please advise immediately, with particulars, as your letter of February 28, which repeated sections of the bylaw, is not clear, and further delays are extremely prejudicial to the taxpayer.

At this point, while having every intention of meeting the information requests set out above, the CRD is reserving its right to request a reconsideration of this decision under Part VI of the Development Application Procedures and Fees Bylaw No. 2791, 2012, pending your response regarding any additional scope to satisfy your request for Terms of Reference in connection with this matter.

Yours truly,



Robert Lapham, RPP, MCIP  
Chief Administrative Officer

cc CRD Board Members  
Albert Sweetnam, Program Director, Seaterra CRD  
Michael Peckham, Program Manager Wastewater Treatment Seaterra CRD  
Laurie Hurst, CAO, Township of Esquimalt



Making a difference...together

March 11, 2014

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File 5220-20  
0400-50

Mr. Bill Brown  
Director of Development Services  
Township of Esquimalt  
1229 Esquimalt Road  
Victoria, BC V9A 3P1  
*Sent by email: bill.brown@esquimalt.ca*

Mr. Brown:

Thank you for your advice, as set out in your email to me of March 7, 2014 that the information provided for the Terms of Reference as outlined in my letter of March 4, 2014 is what is expected from the Capital Regional District (CRD) to respond to your request for Terms of Reference under Esquimalt's Development Approval Information Procedures and Fees Bylaw, as set out in your letter to me of February 28, 2014.

With reference to your letter of February 28, 2014, and as a follow up to our initial response on March 4, 2014, the CRD wishes to reiterate that it takes exception to your characterization of the process as a failure on the part of the CRD to proceed with the rezoning application in a timely manner. For your information we are attaching a chronology of events related to the rezoning application (Attachment 1). The CRD formally applied for rezoning of Lots A to E Plan 33522 to allow the wastewater treatment plant use and made a formal rezoning application in January 2013. On June 24, 2013 without the CRD, as property owner, having been given any advance notice of the content of the bylaw, nor having been consulted regarding the approach or much of the content of the bylaw, particularly as it related to the stipulations for "amenities", Bylaw No. 2806 was introduced and given first and second readings. This rezoning Bylaw No. 2806, which added wastewater treatment plant as a permitted use, was then the subject of a public hearing process and adopted by Esquimalt Council over a matter of 3 weeks despite the objections of the CRD. We note the Township of Esquimalt adopted Bylaw No. 2806 without the need for the information currently being requested.

The purpose of the current rezoning application is to request amendments to the height and setback regulations that are in Bylaw No. 2806, to extend the McLoughlin Point Special Use zone to include two extremely small parcels to enable the public walkway to be constructed, and to amend the density bonusing for amenities scheme for Esquimalt to host the wastewater treatment plant. As such, the CRD cannot help but be aware that the Township of Esquimalt is setting a different standard of information for the amendments to the existing zone as set out in Bylaw No. 2805 compared to its own Bylaw No. 2806. If the Township needed the requested information in order to make a decision on the revised rezoning application, this could have been provided at any time within the past year. It is also unclear why Esquimalt is not prepared to accept the information already provided without third party review even though most of the information requested has already been prepared by qualified third parties with extensive experience in their respective fields.

However, despite the above noted reservations we are providing the following response to your request for additional information:

**1. Implications of a Tsunami Wave on the McLoughlin Wastewater treatment Plant.**

We have referred your questions to our third party consultants who have reviewed how the CRD has used the information in the tsunami report, *Modelling of Potential Tsunami Inundation Limits and Run-Up*, and have concluded that the use is appropriate and conservative. They have confirmed that the CRD's use of the report for determining the height of the tsunami wall at McLoughlin Point is appropriate and have also confirmed that the 6.1 m high tsunami wall proposed by the CRD is adequate for the most probable maximum earthquake. In addition, AECOM and Applied Research International have provided commentary on the other concerns raised in your request for information, included as Attachment 2.

Comments have been made concerning the version of the tsunami report prepared by AECOM that was sent to Esquimalt at its request. The version that was sent was not the final report but the April 2013 version presented to the Planning, Transportation and Protective Services Committee, prior to the amendments to the Executive Summary by the consultant. The report was downloaded from the CRD website which unfortunately still had the April 2013 version posted. The June 2013 report did not change the technical analysis or conclusions of the report, only the Executive Summary was changed. The latest version of the report has since been provided to Esquimalt.

**2. A map showing the route or possible routes of the biosolids conveyance pipeline to Hartland landfill.**

The routing has been discussed in detail with Esquimalt Engineering staff and reflects their input. A map showing the route in Esquimalt and Victoria was officially submitted to Esquimalt on March 7, 2014 (Attachment 3). We have also attached a map showing the full route of the residual solids pipe from McLoughlin to Hartland landfill (Attachment 4). The pipeline route generally reflects the route shown in Amendment No. 8 to the Core Area Liquid Waste Management Plan (CALWMP) with adjustments to reflect the preferences from the Township of Esquimalt engineering staff within the boundary of the Township.

**3. A map showing the route of the upgraded electrical transmission and distribution lines from the Esquimalt Substation to the proposed wastewater treatment plant including details of proposed voltage increases from existing, location of any new transformers, and the location of any new switching boxes.**

Refer to the attached map (Attachment 5). The line voltage will be 12.5 kilo volts (KV). The routing was discussed in detail with Esquimalt Engineering staff and reflects their input with respect to buried versus overhead services.

**4. A map showing the route of the upgraded water transmission and distribution system from its entry into Esquimalt to the proposed wastewater treatment plant.**

Refer to the attached map (Attachment 6). This routing was discussed in detail with Esquimalt and City of Victoria Engineering staff.

5. **Letter from the City of Victoria Water Works Department commenting on or otherwise relevant to the proposed alignment and upgrades to the water transmission and distribution system for the proposed Wastewater Treatment Plant.**

Refer to the attached letter from the City of Victoria (Attachment 7).

6. **Letter from the BC Hydro commenting on or otherwise relevant to the proposed upgrade and alignment of the electrical transmission and distribution system associated with the proposed Wastewater Treatment Plant.**

Refer to the attached letter from BC Hydro (Attachment 8).

7. **Letter from the Provincial Ministry of Health commenting on or otherwise relevant to the evidence related to the propagation of antibiotic resistant bacteria in secondary wastewater treatment plants and based on this evidence they support the construction of a secondary wastewater treatment plant at McLoughlin Point.**

Refer to the attached letter from the Provincial Ministry of Health and the Chief Medical Health Officer (Attachment 9).

8. **Letter from the Chief Public Health Officer for Island Health commenting on or otherwise related to the propagation of antibiotic resistant bacteria in secondary wastewater treatment plants and the construction of a secondary wastewater treatment plant at McLoughlin Point.**

A joint response has been received from the Provincial Ministry of Health and the Chief Medical Health Officer (Attachment 9). Of particular significance are the following comments: Antibiotic resistant bacteria are becoming ubiquitous in all surface water environments going through urban and agricultural environments. Due to the 'widespread and largely unregulated use of antibiotics' in China, 'the likelihood of larger numbers of ABR in municipal wastewater in China is likely more prevalent than in North America.' Also 'any wastewater management program also needs to deal with source controls.' Finally, 'the expectation for the design of any modern municipal wastewater treatment plant should be that microbiological (as well as chemical risks be addressed and that the operation of the facility be monitored on an ongoing basis to confirm those outcomes as well as updated, if necessary, to reflect new knowledge of these issues as it becomes available.' The CRD already has a comprehensive source control program, has made provision of the addition of advanced oxidation to the wastewater treatment plant and ongoing monitoring will be part of the operating requirements of the plant.

9. **From a third party, a detailed analysis of the costs associated with treatment of storm water from Oak Bay and how these costs are paid for. The analysis must include a calculation related to how the volume of storm water from Oak Bay affects the size and capacity of the proposed Core Area Liquid Waste Management Plant at McLoughlin Point. The analysis is to also ascertain whether or not the treatment of storm water at McLoughlin Point is consistent with all of the Capital Regional District's policies and programs related to inflow and infiltration.**

Amendment No. 8 to the CALWMP, approved by the B.C. Minister of Environment on August 25, 2010, contains the following statement about plant capacity:

'At Clover Point, a pump station will divert up to three times ADWF via a forcemain to McLoughlin Point in Esquimalt for secondary treatment. This will reduce the total suspended solids load being discharged at Clover Point by about 99%. Any remaining wet weather flows at Clover Point will receive fine screening prior to discharging through the Clover Point Outfall. By 2030, flows above four times ADWF are expected to be eliminated.

At McLoughlin Point, the flows diverted from Clover Point will be added to the flows from the northwest trunk and given secondary treatment for flows up to two times ADWF. The flows treated at this location will have originated in Oak Bay, Saanich, Victoria, Esquimalt, Colwood, Langford and View Royal. Wet weather flows up to four times ADWF will be given primary treatment and any flows above this level will be screened until 2030, by which time such excess flows are expected to be eliminated.'

Simply put, the capacity of the McLoughlin Point Treatment plant is based on average dry weather flow (ADWF) i.e., flows recorded during the June to August period and not on storm water flows (Attachment 10). There is no capacity provided at the treatment plant for flows above four times ADWF.

The CRD engaged with participating municipalities on cost recovery options for the Seattera Program and it was agreed that operating costs would be allocated in proportion to current flows and capital costs (debt servicing) would be allocated on the basis of design capacity assigned to each municipality based on their requested capacity under the following allocation formula:

	ADWF	AAF Average Annual Flow
Operating ( based on current capacity)	80%	20%
Debt Servicing (based on design capacity)	70%	30%

Under the formula, municipalities with higher Inflow & Infiltration (I&I) flows, such as Oak Bay, will contribute more to the operating and debt servicing costs. As a result, Oak Bay residents will be paying the highest average cost per household. Oak Bay is committed to separating the combined sewers in the Uplands area and has commenced preliminary work. Other municipalities have also committed to reducing their I&I by 2030.

- 10. From a third party, a detailed analysis of the potential implications on the design of the proposed sewage treatment plant if a treatment plant is built in Colwood now or in the near future, further to Colwood's request, instead of in 2030. The analysis to include the impacts of Langford having its sewage treated at the proposed Colwood plant.**

The CRD is proceeding under the authority of the approved CALWMP Amendment No. 8, which includes Colwood. The CRD is legally obligated to implement the approved CALWMP until such time as an amendment is approved. An amendment to permit Colwood to build its own facility would be considered a major amendment to the CALWMP and require a full public process involving consultation and approval of the Minister of Environment.

While there is no guarantee that Colwood will be permitted to construct its own sewage treatment facility, we are providing the following information on the implications for the current Program if such approval was obtained. Colwood has requested a capacity of 4.1 megalitres per day (MI/d) ADWF at the McLoughlin Plant or 3.8% of its planned capacity. Should Colwood be permitted to opt out, the capacity at McLoughlin would not be reduced for the following reasons:

- Reducing the capacity by 3.8% will not reduce the cost of the McLoughlin Plant by an equivalent amount because at this capacity of plant there is not a linear relationship between capacity and cost. Cost savings would be minimal, if not non-existent.
- The cost of providing an additional 4.1MI/d capacity at a future plant will be greater than any possible cost savings to the planned plant at McLoughlin.
- Given that Colwood has no plans to service the majority of its population currently not connected to sanitary sewers, no new capacity will need to be provided until at least 2040 and with modifications to the treatment process at McLoughlin, potentially not until 2065.
- The withdrawal of Colwood would provide the remaining core area municipalities with an additional 4–5 years of capacity at the McLoughlin plant.

The financial implications for the remaining participants of Colwood's withdrawal as determined by a third party will be sent under separate cover by March 14.

As there is no resolution or indication from Langford Council expressing an interest in either having its sewage treated at the proposed Colwood plant or pulling out of the Seaterra Program, and given the significant analysis that would be required to assess the implications, the CRD is not prepared to undertake the work required to address this hypothetical possibility. I would note that in 2009 the estimated cost of a 16.6MI/d membrane bioreactor plant, the size that would be required to service Colwood and Langford, was estimated by Stantec/Brown and Caldwell to cost \$148 million in 2009 dollars.

The CRD has spent a significant amount of time and resources to address these latest requests from Esquimalt and have responded in a very timely manner. We trust that Esquimalt is satisfied with the completeness of the CRD application and can now finalize the public process in a timely and efficient manner.

Yours truly,



Robert Lapham, RPP, MCIP  
Chief Administrative Officer  
Capital Regional District

Attachments: 10

cc: CRD Board Members  
Executive Leadership Team, CRD  
Albert Sweetnam, Program Director, Seaterra Program, CRD  
Michael Peckham, Program Manager, Wastewater Treatment, Seaterra Program, CRD  
Laurie Hurst, CAO, Township of Esquimalt

March 11, 2014

The following is a chronology of events related to the rezoning application for McLoughlin Point Property.

1. Staff received direction from the CALWMC on June 24, 2009, not to proceed with work beyond the planning phase of the Program until a response was received from both governments regarding a funding commitment for the procurement and capital construction phase of the program.
2. On August 25, 2010 the Core Area Liquid Waste Management Plan Amendment No.8 was approved by the Minister of Environment
3. For the remainder of 2010, 2011 and into 2012 the CRD was engaged in negotiations to secure senior government funding for the Core area Wastewater Treatment Program (Program).
4. In July 2012 the British Columbia, Infrastructure Canada and P3Canada formally announced funding for the Program.
5. Imperial Oil completed the clean-up of the McLoughlin site by the end of December 2012
6. The CRD submitted and Esquimalt accepted a rezoning application for McLoughlin Point in January 2013, prior to CRD taking ownership of the property.
7. CRD conducted due diligence on the geotechnical report on the site cleanup prior to purchasing the site in April 2013.
8. In April 2013, a Design Charette and public consultation process was held, resulting in the augmentation of Design Guidelines
9. The rezoning application was revised in June 2013 to include design guidelines resulting from the public consultation process
10. On June 24, 2013 Bylaw 2804, amendment to the Official Community Plan, was introduced and given first and second reading
11. On June 24, 2013 Bylaw 2805, amendment to the Zoning Bylaw (CRD requested changes) was given first and second reading and referred to public hearing
12. On June 24, 2013 Bylaw 2806 amendment to the Zoning Bylaw (Esquimalt's own bylaw) was given first and second reading and referred to a public hearing.
13. A Public Hearing on the three bylaws was held on July 8 and 9, 2013
14. On July 15, 2013 the Township of Esquimalt adopted Bylaw 2804 and Bylaw 2806.
15. In July 2013 Esquimalt and CRD met separately with the Minister of Community Sports and Cultural Development – and were encouraged to negotiate a resolution to allow construction to proceed.
16. Between July – October staff from the CRD and Esquimalt reached agreement on a revised Bylaw 2805 that would accommodate construction of a gravity flow, 108 Ml/day wastewater treatment plant, a Community Impact Mitigation and Operating Agreement, and a Host Community Impact 5-Year Agreement.
17. Between September and December, the McLoughlin proponents met, in camera, three times with Esquimalt's Design Review Committee.
18. At its meeting on December 3, 2013 the Design Review Committee confirmed that all three designs met the intent of the Design Guidelines, approved by Esquimalt.

19. The agreements were presented to the November 2013 CALWMC which did not approve the "agreement package" and requested information on the cost of barging and whether Esquimalt could be offered an amount of money in place of the barging requirements.
20. In December, the CRD brought forward a need for amendments to the draft bylaw 2805 from what had been agreed to in principle between Esquimalt staff in October/November, in order to accommodate the designs of the proponents specifically, the encroachment into the 7.5m Setback area and additional height requirements in the Low Height Area.
21. In December 11, 2013 supplementary information was provided to the CALWMC which essentially restored the agreement negotiated with Esquimalt in October 2013. On the recommendation of the CALWMC, the CRD Board approved the agreement package on December 11, 2013.
22. The revised rezoning application was submitted in December 20<sup>th</sup>, 2013.
23. On January 6<sup>th</sup> Council received the revised application and referred it to the Esquimalt Advisory Planning Commission.
24. On January 8<sup>th</sup>, Esquimalt staff discussed the revised application with the Design Review Committee, without the knowledge of the CRD.
25. On January 14 the Esquimalt Advisory Planning Commission acknowledged the changes that the CRD had made and were pleased that their previous concerns had been addressed. However, they voted to recommend that the Esquimalt Council reject the revised rezoning application.
26. On January 20 Esquimalt Council gave second reading to revised Bylaw 2805 and referred the bylaw to a public hearing.
27. The application was revised and resubmitted on January 30, 2014 to reduce the encroachment and coverage within the 7.5m setback zone, to add a Section 219 covenant related to the encroachments and to include 2 small parcels purchased from Transport Canada.
28. Public hearings were held on February 18 and 19.
29. At its Monday February 24 meeting, Esquimalt Council authorized reconvening the Public Hearing on March 20 and continued on March 22 if necessary, and, to write to the CRD a list of questions, the answers to which are to be provided in advance of the reconvened public hearing, to allow for consideration by the public.
30. The questions were e-mailed to the CRD's CAO after close of business on Friday, February 28.
31. CRD staff responded to the questions posed on March 11, 2014.



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10 March, 2014

**Project No: 60242933 Task 800.1**

Mr. Mike Peckham  
CRD Seaterra Program  
510 - 1675 Douglas Street  
Victoria, BC V8W 2G5

Dear Mr. Peckham:

**Re: Review of CRD Determination of Tsunami Wall Elevation for Proposed McLoughlin Point Wastewater Treatment Plant**

The Capital Regional District (CRD) recently requested that AECOM, and its key subconsultant Dr. K. F. Cheung of Applied Research International (ARILLC), perform a review of the Tsunami wall height that will form part of the proposed McLoughlin Point wastewater treatment plant (wwtp). Specifically, we were asked to review and comment on the following:

- CRD's use of the results of our study and report "Modelling of Potential Tsunami Inundation Limits and Run-Up" as an input to the tsunami wall height determined by Stantec
- Use of the Cascadia Subduction Zone (CSZ) earthquake as the initiating action for the tsunami
- Use of a magnitude 9.0 CSZ earthquake event
- Use, and appropriateness, of adding contingency values for sea level rise and storm surge to the modelling results to determine the 6.1 m tsunami wall height.

In addition CRD also asked AECOM and ARILLC to provide some commentary, where possible, to assist the CRD in responding to a series of questions posed by the Township of Esquimalt following public meetings held regarding the Rezoning Application for the site that has been submitted by CRD.

Our response and commentary is attached. In summary, it is our opinion that the CRD has used our report findings relative to the McLoughlin Point site appropriately and that the CRD's addition of allowances for storm surge and sea level rise in determining the height of a proposed tsunami wall at the site is both acceptable and conservative over the expected life-time of the planned treatment plant.

Please contact the undersigned if you have any questions.

Sincerely,  
**AECOM Canada Ltd.**

Mike Brady P.Eng.  
Manager, Victoria Office  
mike.brady@aecom.com  
MB  
Encl

K. F. Cheung, Ph.D., P.E. (Hawaii)  
Principal, Applied Research International

## **Tsunami Hazards at McLoughlin Point Esquimalt, British Columbia**

McLoughlin Point is a headland at the entrance to Victoria Harbour near the eastern limit of the Strait of Juan de Fuca. The Modelling of Potential Tsunami Inundation Limits and Run-up project by AECOM undertook analysis of the Capital Regional District shoreline through a series of nested model grids with decreasing grid size so that results could be presented with increasing accuracy. For Victoria Harbour (and adjacent areas) the data used for development of the Digital Elevation Model (DEM) included LIDAR data from CRD, considered the most accurate of the topographic information that was available for inundation mapping, and bathymetric data obtained by CRD from Canadian Hydrographic Service, Pacific Region, which we understand is the best available.

The analysis of tsunami impacts for the Victoria Harbour area, including McLoughlin Point, used a grid size of 9 m x 9 m, the smallest used in this study. The required resolution for tsunami modelling is relative to the wavelength and the dimensions of land features. The 9-m grid used in the modelling work is more than sufficient to describe the shortest tsunami waves at the entrance of Victoria Harbour. The headland at McLoughlin Point measures approximately 200 m or over 20 grid cells across. The tsunami model can accurately describe wave transformation over the nearshore bathymetry and potential inundation on its shores. As a reference, the US National Tsunami Hazard Mitigation Program recommends a maximum grid size of 90 m for inundation mapping and the finest resolution used has been 9 m, the same as used for the Victoria Harbour area, including McLoughlin Point.

A Geological Survey of Canada study investigated historical and paleo-tsunamis from Pacific subduction zones as well as local crustal earthquakes and landslide sources and confirmed that Cascadia megathrust events dominate and define the tsunami hazard at the inner Pacific coasts of the Straits of Juan de Fuca and Georgia (Leonard et al., 2012; 2014). Kelsey et al. (2012) identified three new active faults at the northern end of the Cascadia subduction zone in the Bellingham forearc basin, but concluded that they are only capable of generating 6.0 - 6.5 moment magnitude earthquakes. Tsunami waves generated by these earthquakes are very small, and their impact is most likely limited to the coastlines inside the Strait of Georgia. These findings corroborate an earlier study by the US National Oceanic and Atmospheric Administration that used a great Cascadia earthquake for tsunami inundation mapping along the shores of Bellingham, Anacortes, and Whidbey Island, Washington (Venturato et al., 2004).

The Cascadia subduction zone extends 1,100 km from northern California to British Columbia. Paleoseismic studies of tsunami deposits, tree rings, and coastal subsidence have identified seven great earthquakes that ruptured the entire subduction zone during the last 3,500 years (Darienzo et al., 1994; Atwater and Hemphill-Haley, 1997; Clague, 1997; and Goldfinger et al., 2003). These earthquakes have typical moment magnitude of 9.0 and recurrence intervals of 300 to 700 years. The current US National Seismic Hazard Maps assigns occurrence probabilities of 0.2, 0.6, and 0.2 for great Cascadia earthquakes of magnitude 8.8, 9.0, and 9.2 with a 500-year return period. First Nations oral histories, Japanese written records, and proxy data indicate the most recent event occurred in 1700 (Jacoby et al., 1997; Ludwin et al., 2005; Satake et al., 1996). Satake et al. (2003) inferred a magnitude 9.0 Cascadia earthquake from numerical modelling of the tsunami across the Pacific to reproduce the recorded tsunami inundation in Japan. A 2010 USGS workshop evaluated the sediment layer data of Goldfinger et al. (2010) to constrain the recurrence parameters of great Cascadia earthquakes for the update of the US National Seismic Hazard Maps in 2014 and reached a consensus on magnitude 9.0 for rupture of the entire Cascadia subduction zone with average recurrence time of 500-600 years (Frankel, 2011). The published technical information indicates that the most likely 1-in-500 year event will have magnitude 9.0. Three hundred and fourteen years have elapsed since the last great Cascadia earthquake. Given the current convergence rate, such an earthquake will likely reach magnitude 9.0 in another 200 years; other 500-year earthquake events could occur in less than 200 years but their magnitude would be lower than 9.0.

The AECOM study utilized the tsunami model NEOWAVE developed by Yamazaki et al. (2009, 2011) in a joint effort between the University of Hawaii and the University of Alaska. The model meets all the requirements specified by the US National Oceanic and Atmospheric Administration for tsunami inundation mapping as documented in National Tsunami Hazard Mitigation Program (2012), and most

## Tsunami Hazards at McLoughlin Point Esquimalt, British Columbia

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importantly, won the 2009 Benchmark Challenge sponsored by the US National Science Foundation by out-performing 10 tsunami models developed in the US and Europe. NEOWAVE is the official model for tsunami inundation mapping in Hawaii, American Samoa, the US Gulf Coasts, Puerto Rico and is distributed by UNESCO to government agencies around the world for tsunami hazard assessment. NEOWAVE describes the complete cycle of tsunami evolution that includes generation at the source, propagation across the ocean, and inundation at coastlines under the constraint of the DEM as in the real world. With high resolution topography and bathymetry in the Greater Victoria area, the tsunami waves were modelled to a high degree of accuracy with full consideration of their behaviors as they approach McLoughlin Point.

The AECOM report established a Tsunami Hazard Line (THL) for all of the CRD. For the McLoughlin Point site the THL elevation has been set at 4.0 m, based upon:

- 0.7 m of Higher High Water Mean Tide, which corresponds to the US terminology of mean higher high water that is recommended by the National Tsunami Hazard Mitigation Program as the starting water level for tsunami modelling,
- 1.8 m of tsunami wave amplitude from a magnitude 9.0 Cascadia earthquake,
- less than 0.2 m of subsidence from the earthquake rupture, and
- a margin of 1.3 m based on a factor for public safety of 1.5.

It can also be stated that the 1.3 m of safety margin in the tsunami runup can accommodate an earthquake with magnitude of up to 9.2, which is considered by the US National Seismic Hazard Maps as the probable maximum value for the Cascadia subduction zone.

The proposed tsunami wall at McLoughlin Point has a design height of 6.1 m, which the CRD has determined based upon the following:

- 4.0 m of tsunami runup, as identified by the AECOM report for the McLoughlin Point site
- 1.0 m of storm tide, adopted by Stantec based on recommendations of 0.5 to 1.0 m from Institute of Ocean Sciences (IOS), March 2011
- 1.0 m of long-term sea-level rise, representing the sea level rise forecast by the year 2100 as adopted by the recent BC Ministry of Environment/Climate Change Adaptation Guidelines for Sea Dikes and Coastal Flood Hazard Land Uses, January 27, 2011 and
- 0.1-m correction from the mean sea level to the geodetic datum.

This estimate is based on a linear combination of water levels and hydrodynamic processes that is reasonably valid and accurate as long as the site landforms are not overwhelmed by waves – as is the case for McLoughlin Point due to its natural ground elevations. The AECOM model study confirmed that adjustment of the starting water level by up to 2 m results in less than 5% modification of the computed tsunami amplitude. In this case the addition of the two one-metre increments to the modelling results is an acceptable approach for determination of the tsunami wall height. The 6.1-m tsunami wall will therefore suffice a probable maximum tsunami from a magnitude 9.2 Cascadia earthquake occurring during a storm tide together with 100 years of sea level rise. It should be noted that the coincidence or combination of these three extreme events has a low probability or likelihood within the expected life of the facility.

Regarding the 1.0 m value for storm surge referred to above, it should be noted that the Coastal Floodplain Mapping – Guidelines and Specifications prepared for the BC Ministry of Forests, Lands and Natural Resource Operations in June 2011 provides values for Suggested Deep Water Storm Surge for Coastal Floodplain Mapping for the entire BC coastline. For "Other highly developed areas such as: Squamish, Victoria, etc." the Suggested Design Storm Surge due to a 1:500 year storm is 1.3 m. As noted above, the concurrence of extreme events has a low likelihood which would be reduced even further if one was to consider both the 1:500 year CSZ earthquake and a 1:500 year storm occurring at the same time. Therefore, the use of a 1.0 m storm surge (rather than 1.3 m) while also using the

**Tsunami Hazards at McLoughlin Point  
Esquimalt, British Columbia**

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tsunami wave generated by a 1:500 year CSZ earthquake to determine the elevation of the tsunami wall for McLoughlin Point wwtp appears to be sufficiently conservative.

The CRD has indicated that the proposed life of the wastewater treatment plant at the McLoughlin site is 75 years. During this time span the prediction for sea level rise is less than the one metre that has been allowed by CRD and any 500-year earthquake that could occur would have magnitude less than 9.0, resulting in a lesser tsunami wave amplitude than determined in the tsunami modelling investigation. Therefore it would be expected that the determination of a 6.1 m tsunami wall height would be considered to be conservative during the treatment plant's assessed lifetime so that a further assessment of risks should not be needed.

The foregoing concludes that the determination of a 6.1 m tsunami wall height for the McLoughlin Point site appears reasonable and appropriate. Provided that the designer-builder of the proposed treatment plant will build a suitably strong and resilient tsunami wall to protect the site, we would anticipate that the treatment plant, its equipment and its staff would be protected from harm in the event of a tsunami during its lifetime. As such we do not foresee that a risk of mortality analysis would be necessary relative to the site and its proposed development. Similarly, we understand that the CRD has proposed a rezoning bylaw that incorporates a definition of Grade that is intended to "allow for sufficient tsunami protection for the proposed development" and a number of siting requirements, including setbacks. It would seem to be appropriate that the zoning bylaw requirements are developed in conjunction with the knowledge that a tsunami wall at 6.1 m elevation is planned to be constructed to protect the site, the plant, its equipment and its staff.

The determination of the tsunami wall height does not include any analysis or discussion related to potential impacts of liquefaction of the seabed or of submarine landslides. The Geological Survey of Canada study by Leonard et al. (2012, 2014) included an extensive review of actual and potential tsunami sources from landslides and liquefaction on the Canadian coastline. They identified a number of sources on the coasts inside the Strait of Georgia, but none along the Strait of Juan de Fuca that can impact the McLoughlin site. The absence of historical and geological evidence of tsunamis generated by landslides and liquefaction does not rule out their occurrence in the future, but does imply the rarity of such events and explain their omission in the analysis. The use of a great Cascadia event as the critical scenario near the eastern limit of the Strait of Juan de Fuca is supported by the Geological Survey of Canada study by Leonard et al. (2012, 2014) as well as the NOAA study by Venturato et al. (2004).

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March 6, 2014

RRC 0400-50

Jeff Miller, P. Eng  
Director of Engineering and Public Works  
Township of Esquimalt  
1229 Esquimalt Road  
Esquimalt, BC V9A 3P1

Dear Mr. Miller,

**RESIDUAL SOLIDS CONVEYANCE PIPE ALIGNMENT ON TOWNSHIP OF ESQUIMALT ROADS**

Further to the February 18 and March 5, 2014 meetings that Capital Regional District (CRD) staff had with Township of Esquimalt (Esquimalt) staff, we are writing this letter to confirm CRD's preferred conveyance pipe alignment in Esquimalt. The attached drawing identifies the proposed route which is located entirely within existing road right-of-ways. The route was identified by working together with Esquimalt staff to utilize a common corridor with BC Hydro and the proposed district energy system, and to minimize: rock blasting, arterial roads impacts, utility conflicts and avoid a railway crossing. Consistent with past practices, we request that Esquimalt Engineering review the proposed alignment to ensure that there are no engineering conflicts and to identify other capital plan works that we can coordinate with Esquimalt to minimize impacts to residents and commuters.

As discussed, the Seaterra Program is developing a public engagement process to address questions and concerns about the project. We have contacted local Community Associations and will arrange a meeting with them for next week. From there, we will look to work with them to develop Information Meetings and/or Open Houses for their communities. We anticipate these would occur in April 2014.

The Seaterra Program will continue to follow Esquimalt guidelines as the scope of work is further defined including review of the alignment within each road right-of-way so that we can better determine the restoration requirements. As you know, the CRD's policy for restoration is to restore to an "as good or better" standard and given that the proposed pipe diameter is only 200 mm, the trench width will be quite small and installation should be completed in an expeditious manner.

Thank you for your attention to this matter. Please call or email me if you have any questions require additional information.

Sincerely,



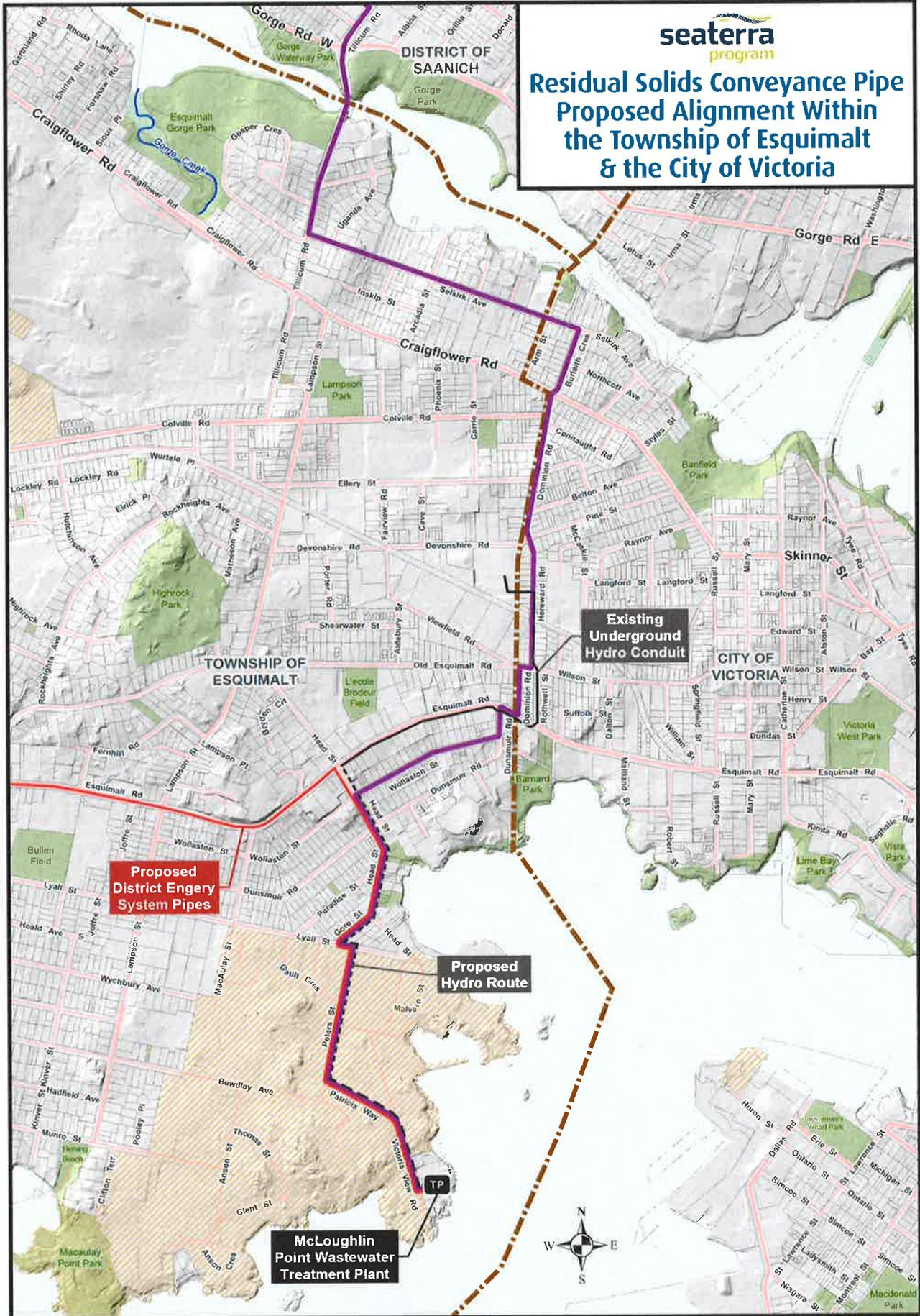
Malcolm Cowley, P.Eng  
Project Manager  
Conveyance Infrastructure  
Seaterra Program

Attachment: Residual Solids Conveyance Pipe Proposed Alignment Map in Esquimalt and Victoria

cc: Laurie Hurst, Esquimalt Chief Administrative Officer  
Bob Lapham, Capital Regional District Chief Administrative Officer  
Albert Sweetnam, Seaterra Program Director



# Residual Solids Conveyance Pipe Proposed Alignment Within the Township of Esquimalt & the City of Victoria



**CRD**  
Making a Difference Together

0 50 100 200 300 Metres

Projection: UTM ZONE 10N NAD 83

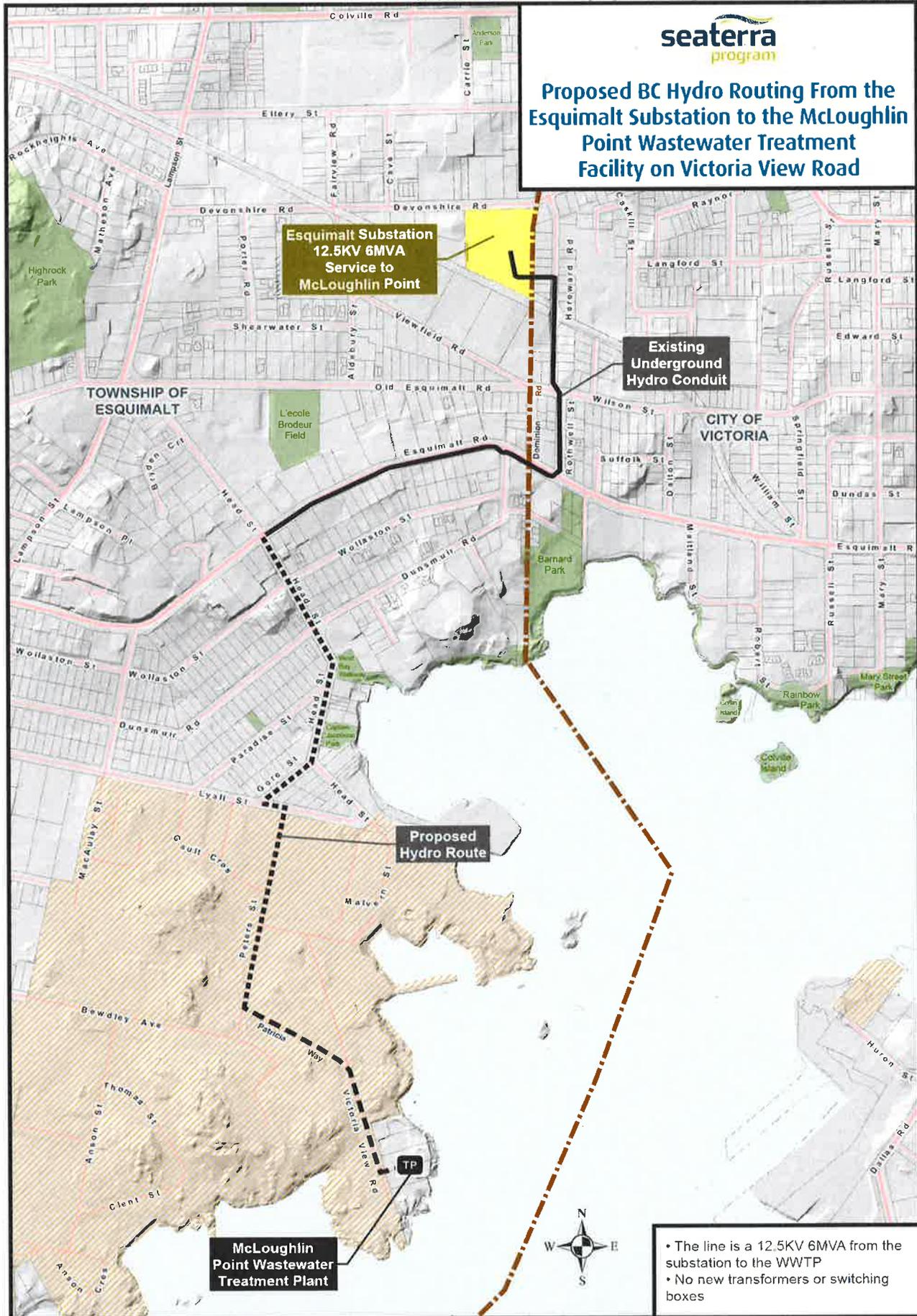
Important: This map is for general information purposes only. The Capital Regional District (CRD) makes no representations or warranties regarding the accuracy or completeness of this map or the suitability of the map for any purpose. This map is not for resale. The CRD will not be liable for any damage, loss or injury resulting from the use of this map or a derivative of the map that is not authorized by the CRD at any time.

- Preferred Route
- Proposed District Energy Pipes
- Existing BC Hydro Conduit
- - - Proposed Underground BC Hydro Route
- - - Proposed Overhead BC Hydro Route
- - - Municipal Boundary
- Major Road
- Minor Road
- Park
- ▨ DND Property
- Lot Boundary





## Proposed BC Hydro Routing From the Esquimalt Substation to the McLoughlin Point Wastewater Treatment Facility on Victoria View Road



**Esquimalt Substation  
12.5KV 6MVA  
Service to  
McLoughlin Point**

**Existing  
Underground  
Hydro Conduit**

**Proposed  
Hydro Route**

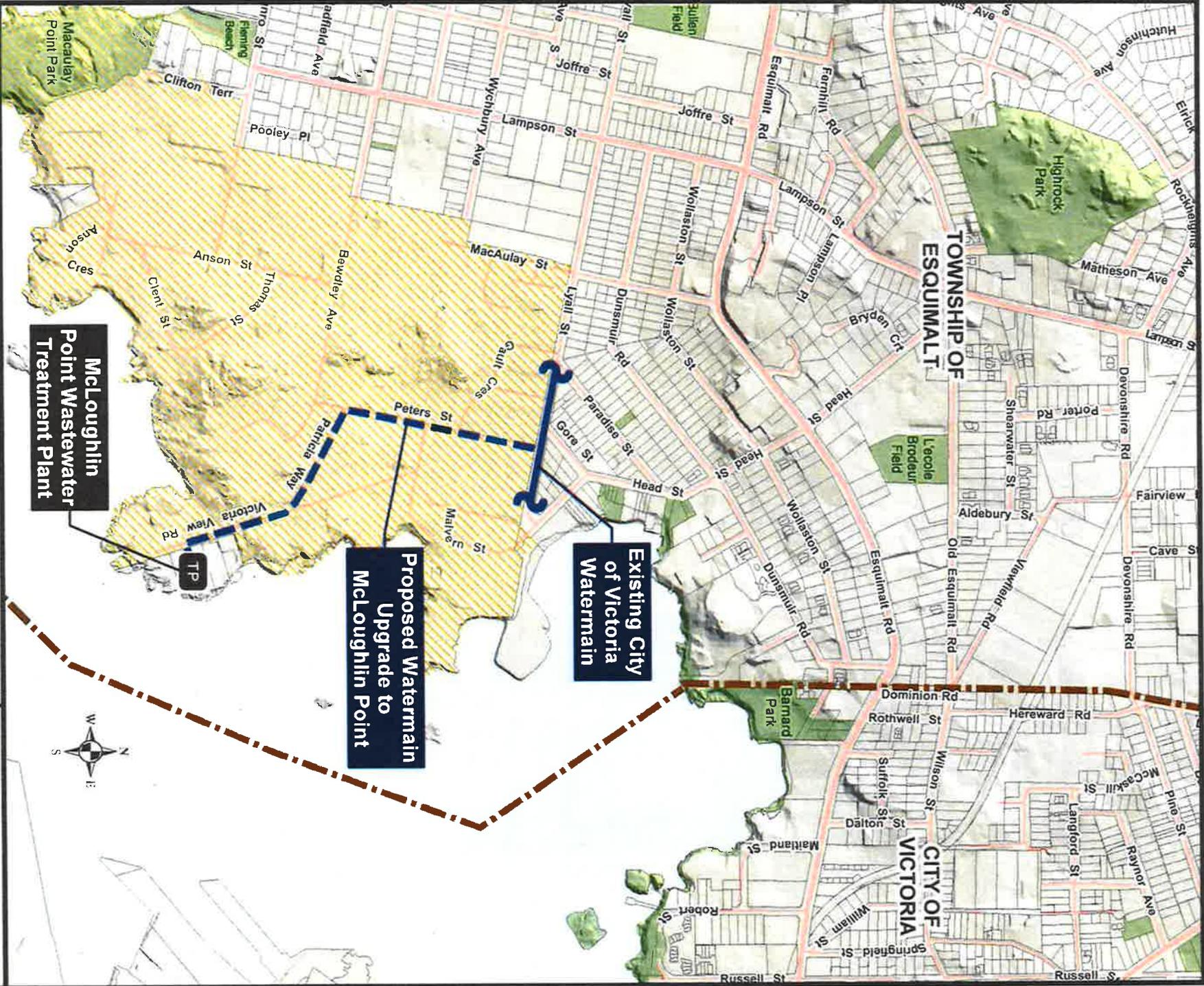
**McLoughlin  
Point Wastewater  
Treatment Plant**

- The line is a 12.5KV 6MVA from the substation to the WWTP
- No new transformers or switching boxes



- Existing BC Hydro Conduit
- Proposed Underground BC Hydro Route
- Proposed Overhead BC Hydro Route
- Municipal Boundary
- Major Road
- Minor Road
- Park
- DND Property
- Lot Boundary

Important: This map is for general information purposes only. The Capital Regional District (CRD) makes no representations or warranties regarding the accuracy or completeness of the map or the suitability of the map for any purpose. This map is not for navigation. The CRD will not be held liable for any damage, loss or injury resulting from the use of this map or any information on the map and the user may be held liable by the CRD at any time.



**McLoughlin Point Wastewater Treatment Plant**

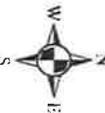
**Proposed Watermain Upgrade to McLoughlin Point**

**Existing City of Victoria Watermain**



- Existing Watermain
- Proposed Watermain
- Municipal Boundary
- Major Road
- Minor Road
- Park
- DND Property
- Lot Boundary

**Proposed Watermain Upgrades to McLoughlin Point**



SEATERRA PROGRAM

MAR 06 2014

Received



**Engineering and  
Public Works  
Department**

March 6, 2014

#1 Centennial Square

Victoria  
British Columbia  
V8W 1P6

Capital Regional District  
625 Fisgard Street  
Victoria, BC V8W 1R7

Tel (250) 361-0300  
Fax (250) 361-0311

**Attention:** Bob Lapham, CAO CRD

www.victoria.ca

**Re: Watermain Improvements for McLaughlin Sewage Treatment Plant**

We understand through discussions with Malcolm Cowley of Seaterra that some upgrades may be required to watermains that will supply water to the proposed treatment plant at McLaughlin Point.

The City of Victoria will work with Seaterra and their consultants to determine an appropriate design flow for the project and the required pipe sizes to meet the design flow. Pipes that are currently undersized, or which have reached the end of their design life will have to be replaced.

Yours truly,

Dwayne Kalynchuk, P.Eng.  
Director Engineering and Public Works

c. Albert Sweetnam, Seaterra  
Malcolm Cowley, Seaterra  
Jason Johnson, City Manager



FOR GENERATIONS

Mike Peckham, Project Manager  
Seaterra Program  
Capital Regional District  
510 – 1675 Douglas Street  
Victoria, BC, V8W 2G5

Dear Mike,

The Victoria CRD / Seaterra Program have approached BC Hydro to supply 6MVA to Victoria View Road to power the proposed Victoria Waste Water Treatment Plant – to be located on Victoria View Road, in Esquimalt BC by the end of summer of 2016. BC Hydro's preliminary plan is to supply a new 12.5kV distribution circuit (ESQ 12F424) from the Esquimalt Substation along the following route;

1. Underground using existing ducts down Hereward Rd and Rothwell St to Esquimalt Road.
2. Continue underground using existing ducts along Esquimalt Road to Head St
3. Underground along a new customer constructed ductbank along Head / Gore and Peters St (customer is planning to excavate along this route already).
4. Upgrade the existing overhead line along Patricia Way and Victoria View Road to customer site.

The Victoria Waste Water Treatment Plant distribution circuit (ESQ 12F424) will not supply customers until it goes overhead along DND lands where it will supply DND residences along Patricia Way and Victoria View Road. Therefore, there will be no transformers or switches utilized until the line goes overhead on DND lands.

Yours truly,

A handwritten signature in black ink, appearing to read "Rob Zeni". The signature is written in a cursive style and includes a small arrow pointing to the right at the end.

Rob Zeni, Interconnections Manager

## CRD EXECUTIVE OFFICE

*Received*

MAR 10 2014



Mr. Robert Lapham  
 Chief Administrative Officer  
 Capital Regional District  
 625 Fisgard Street  
 Victoria, BC  
 V8W 1R7

Chair  
 CAO  
 GM *all*  
 For action / resp. by A. Sweetnam  
 Corresp. for Board / Committee meeting  
 For Information Only  
 Copies to A. Sweetnam  
file - 0400-20  
5220-20

1005967

Dear Mr. Lapham:

The Provincial Ministry of Health and the Chief Medical Health Officer provide this joint response to Questions 7 and 8 in your letter of February 28, 2014 requesting commentary on the relevant evidence related to the propagation of antibiotic resistant bacteria (ARB) in secondary wastewater treatment plants. This is an area of emerging science, but we can provide the following commentary related to the matter based on recent findings in the last decade.

Antibiotic resistant bacteria are becoming ubiquitous in all surface water environments going through urban and agricultural environments. In most urban environments, antibiotics are released into municipal wastewater due to incomplete metabolism in humans, or due to disposal of unused antibiotics. This condition can cause the emergence of ARB which have been detected in both treated and untreated municipal wastewater. Data from other parts of the world has shown a higher proportion of antibiotic resistant bacteria contained in raw and treated wastewater relative to surface water.

A recent study in China suggested that one genetic marker of ARB showed proliferation in one wastewater plant even though the final effluent was chlorinated wastewater. However, the authors also note that the wastewater plant had an unusual sludge recycle configuration. China is well known for its widespread and largely unregulated use of antibiotics; with some reports of antimicrobial administration at rates of ten times than that in North America. Therefore, the likelihood of larger numbers of ABR in municipal wastewater in China is likely more prevalent than in North America.

In modern sewage treatment plants, the concentrations of some antibiotics and other pharmaceutical compounds can be reduced or eliminated. Microbiological risks in treated effluent can be reduced through disinfection to reduce the likelihood of the presence of ABR through the use of chlorine, ultraviolet radiation and/or ozone, with varying levels of effectiveness. Heat treatment can also reduce ABR risks in sewage sludge or effluent. In all cases, risks to human health are not only dependant on the presence of the pathogen, but the likelihood that someone will be exposed.

As an additional note, we know that antibiotics can save lives, but poor prescribing practices can lead to unnecessary risk of super-resistant infections in any event. This is why any wastewater management program also needs to deal with source controls, and to that end, the medical community is taking action to reduce the use of antibiotics, for example, guidelines established through the "Do Bugs Need Drugs" program. Education and outreach through public communication on the responsible disposal of prescription drugs should also be part of any wastewater management system.

In closing, the expectation for the design of any modern municipal wastewater treatment plant should be that microbiological (as well as chemical) risks be addressed and that the operation of the facility be monitored on an ongoing basis to confirm those outcomes as well as updated, if necessary, to reflect new knowledge of these issues as it becomes available. Thank you for the opportunity to respond to your questions.

Sincerely,



Richard S. Stanwick, MD, MSc, FRCPC, FAAP  
Chief Medical Health Officer

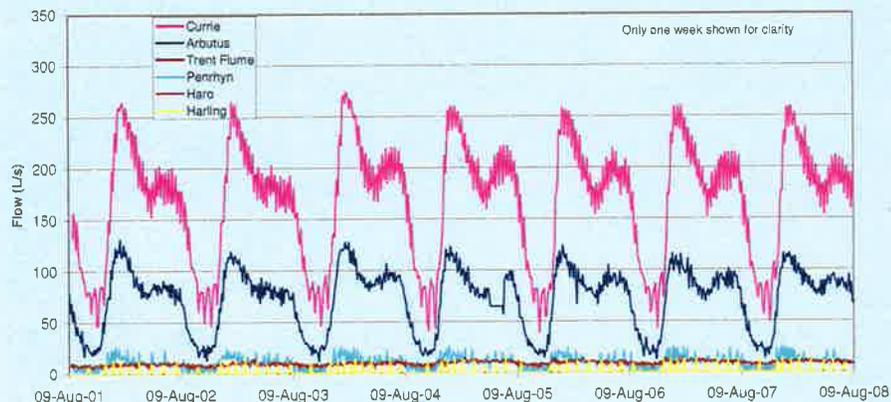
Yours truly,



Tim Lambert, Ph.D.  
Executive Director  
Health Protection Branch

Calculation of Domestic Discharge Rates (per person)			
Usage	Current	Target (Longterm)	Comments
Toilets	5 flushes/day @ 12 L/flush = 60 L	5 flushes/day @ 6L/flush = 30 L	Replace typical 12 L/flush toilets with 6 L/flush models
Clothes-Washer	.37 washes/day @ 155 L/wash = 55 L	.37 washes/day @ 50 L/wash = 19 L	Replace typical washing machine with CEE Tier 3 Washer
Baths/Showers	45 L/day	45 L/day	Low-flow difficult to enforce
Faucets	45 L/day	45 L/day	Low-flow difficult to enforce
Dishwasher	4 L/day	4 L/day	Small consumption
Leaks	16 L/day	16 L/day	Dripping faucets, leaking toilets, etc.
Total	225 L/PE/day	160 L/PE/day	Carry these values to lines 11 and 12 on page 7

**Calculation of Summer Groundwater (GW<sub>summer</sub>)**



GW<sub>summer</sub> is calculated as 85% of the minimum average nighttime flows during August 2009 of the following stations:

Average Minimum Nighttime Flow (L/s)		
	Currie	48.1 L/s
	Harlo	0.0 L/s
subtract	Arbutus	15.6 L/s
subtract	Trent Flume	1.3 L/s
subtract	Penrhyn	2.3 L/s
subtract	Haro	3.7 L/s
	Total	25.2 L/s
	X 85%	21.4 L/s

Carry forward to Line 21 on Page 7

**Notes Specific to this Municipality**

1. Humber and Rutland contain combined sanitary and stormwater systems.
2. Flow from UVIC land within Oak Bay is added to the District of Saanich.
3. Arbutus Flume data is corrected by multiplying a factor of 1.096 due to under reading.

## Flow Calculation Worksheet for Cost Sharing Analysis District of Oak Bay

The purpose of this document is to provide Core Area Municipalities with data and calculations useful for cost-sharing discussions. A separate document has been prepared for each municipality to assist them with decision making. Previous discussion papers that were prepared for design purposes required projections to 2065, and hence used a specially prepared document from CRD Planning (October 2008). However, for cost sharing discussions this document uses the Regional Growth Strategy (August 2003) and the Urban Futures Report (August 2009) for growth projections to 2030 only.

**This is Your Measured Average Dry Weather Flow (ADWF)**

CRD billing flow meters are used to calculate the Average Dry Weather Flow (ADWF) for your municipality. These are the same meters that are currently used to allocate operation and maintenance costs. To see how this value is calculated, refer to page 4

2009	2,161,184 m <sup>3</sup> /year
------	--------------------------------

Line 1 (carried from Page 4)  
Copied to Line 3 below

**This is Your Measured Average Annual Flow (AAF)**

CRD billing flow meters are used to calculate the Average Annual Flow (AAF) for your municipality. These are the same meters that are currently used to allocate operation and maintenance costs. To see how this values is calculated, refer to page 5

2009	2,805,120 m <sup>3</sup> /year
------	--------------------------------

Line 2 (carried from Page 5)  
Copied to Line 3 below

**How Do We Project these Flows into the Future?**

This methodology uses a generically applied, geographic spatial overlay process. Census data for 2006 is combined with landuse information determined from BC Assessments codes. From these two sources a residential population and "equivalent" population (representing industrial, commercial, and institutional sewage flow) are determined. The increase in flow from 2006 to 2015 and 2030 is then calculated (including the effects of future water conservation efforts). Growth rates from two population forecasts (the R.G.S. and U.F.R.) are used. To see how these values are calculated, refer to pages 6 and 7.

Year	ADWF (m <sup>3</sup> /year)		AAF* (m <sup>3</sup> /year)		Line
	R.G.S.	U.F.R.	R.G.S.	U.F.R.	
2009	2,161,184	2,161,184	2,805,120	2,805,120	Line 3
flow increase 2009 to 2015	-12,805	4,645	-12,805	4,645	Line 4
2015 subtotal	2,148,379	2,165,829	2,792,315	2,809,766	Line 5
10% flow contingency**	214,838	216,583	279,232	280,977	Line 6
2015 Total	2,363,217	2,382,412	3,071,547	3,090,742	Line 7
flow increase 2015 to 2030	-32,012	11,614	-32,012	11,614	Line 8
2030 subtotal	2,116,367	2,177,443	2,760,303	2,821,379	Line 9
10% flow contingency**	211,637	217,744	276,030	282,138	Line 10
2030 Total	2,328,003	2,395,187	3,036,334	3,103,517	Line 11

Note: \* AAF is variable and can increase or decrease depending on how "wet" the year was.  
\*\* a 10% flow contingency is applied to all municipalities to account for uncertainties with flow meters, water reduction and population equivalent estimates.

**Definitions and Acronyms**

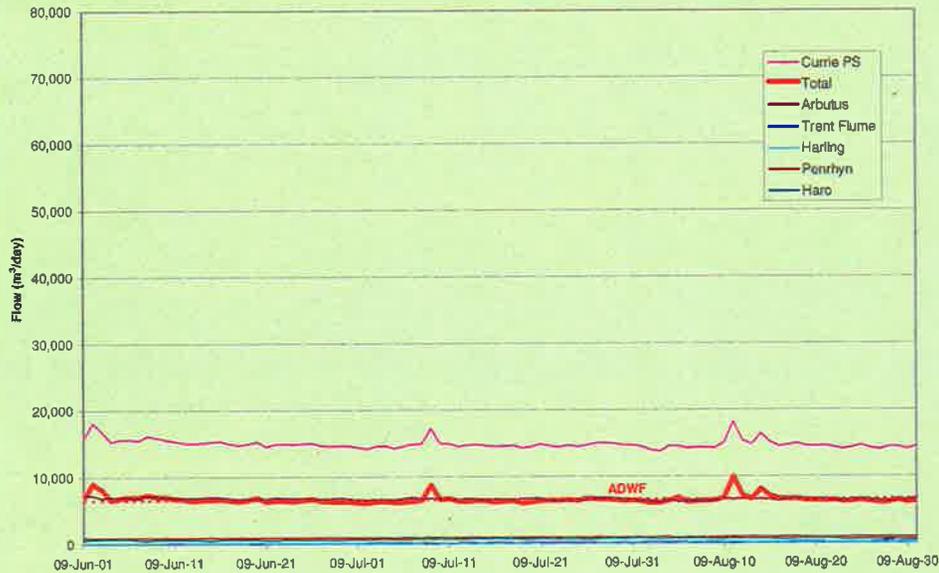
- R.G.S. - Regional Growth Strategy (August 2003)
- U.F.R. - Urban Futures Report (August 2009)
- GW<sub>summer</sub> - groundwater infiltration in the summer
- ha - hectare - unit of measure of land area
- PE - population equivalent - a virtual "person" representing flow from industrial, commercial, and institutional sewage
- L - litre - a unit of sewage volume (1,000 L = 1 m<sup>3</sup>)
- ICI - Industrial/Commercial/Institutional
- L/PE/day - litres per "population equivalent" per day - amount of sewage a person or ICI equivalent produces in a day
- ADF - average domestic flow - sewage flow generated by people and ICI processes only
- ADWF - average dry weather flow - calculated by adding a summer groundwater allowance to the ADF to yield the average total flow expected on a dry summer day
- AAF - average annual flow - the total amount of wastewater produced in a year including inflow & infiltration.

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Method 3 - Calculation of Residential and Equivalent Populations				Line #	What's This?
<b>Step 1 - 2006 Census Populations</b>					
2006 Census Population			17,928 people	1	The number of people in your municipality according to the 2006 census.
2006 Census Population inside CRD Sewered Area			17,928 people	2	
<b>Step 2 - Amount of Sewered Area Classified as:</b>					
Industrial	Commercial		Institutional		The amount of sewered area classified into 3 major landuse categories
1 ha	5 ha		6 ha	3	
<b>Step 3 - Industrial/Commercial/Institutional Population Equivalent Rates</b>					
	25 PE/ha	90 PE/ha	50 PE/ha	4	Commonly accepted rates used to convert ICI use to "equivalent" people Based on Greater Victoria sewer meters
<b>Step 4 - Industrial/Commercial/Institutional (ICI) Population Equivalents (PE)</b>					
Industrial	Commercial		Institutional		Line 3 x Line 4 = "equivalent" number of people used to estimate ICI flow
25 PE	450 PE		300 PE	5	
<b>Step 5 - Total Population and Equivalents (2006)</b>					
Residential			17,928 people		Line 2 + Line 5 = total number of people and ICI "equivalents" connected to CRD sewer system
Industrial			25 PE		
Commercial			450 PE		
Institutional			300 PE		
Total			18,703 PE	6	
<b>Step 6 - Growth Rates and Population Equivalents into the Future</b>					
	2009	2015	2030		Estimated growth rate and resulting population equivalent using R.G.S.
R.G.S.	0.11%	0.11%	0.11%	7	
	18,765	18,888	19,197	8	
	2009	2015	2030		Estimated growth rate and resulting population equivalent using U.F.R.
U.F.R.	0.38%	0.38%	0.38%	9	
	18,915	19,339	20,399	10	
<b>Step 7 - Water Use Reduction Rates Into the Future</b>					
Current Domestic Discharge Rate:			225 L/PE/day	11	See back page
Target Domestic Discharge Rate:			160 L/PE/day	12	See back page
<b>Step 8 - Water Reduction Efforts Acceptance Rate (per year)</b>					
	2009	2015	2030		Yearly acceptance rate of new fixtures for existing and new developments
Existing Development	0.75%	0.75%	0.75%	13	
New Development	100%	100%	100%	14	
<b>Step 9 - Calculation of Average Domestic Flow (ADF)</b>					
	2009	2015	2030		From Line 8
R.G.S. P.E.	18,765	18,888	19,197	15	
L/PE/day	224	221	213	16	
R.G.S. L/s	48.7	48.3	47.3	17	Resulting L/PE/day from Step 8
U.F.R. P.E.	18,915	19,339	20,399	18	Line 15 x Line 16
L/PE/day	224	220	210	19	From Line 10
U.F.R. L/s	49.1	49.2	49.6	20	Resulting L/PE/day from Step 8
					Line 18 x Line 19
<b>Step 10 - Average Summer Groundwater Infiltration (GWI<sub>summer</sub>)</b>					
Summer Groundwater Estimate			21.4 L/s	21	See Back Page
<b>Step 11 - Calculation of Average Dry Weather Flow (ADWF=ADF+GWI<sub>summer</sub>)</b>					
	2009	2015	2030		Line 17 + Line 21
R.G.S. L/s	70.2	69.8	68.8	22	
increase m <sup>3</sup> /year		-12,805	-32,012	23	
U.F.R. L/s	70.5	70.7	71.0	24	To Lines 4 + 6 on Page 1
increase m <sup>3</sup> /year		4,645	11,614	25	Line 20 + Line 21
					To Lines 4 + 6 on Page 1

**How is Average Dry Weather Flow (ADWF) Calculated?**

ADWF is calculated using the period from June 1 to August 31. The following graph shows the daily data for 2009.



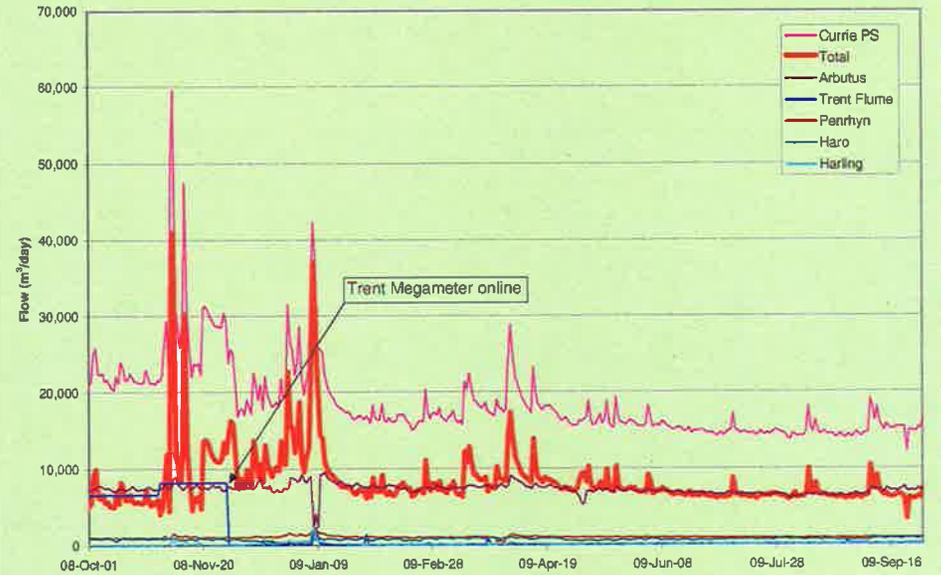
**Values for ADWF (2009)**

add	Currie	14,878 m <sup>3</sup> /day	
add	Harling	111 m <sup>3</sup> /day	
subtract	Arbutus	7,294 m <sup>3</sup> /day	
subtract	Trent Flume	161 m <sup>3</sup> /day	
subtract	Penrhyn	920 m <sup>3</sup> /day	
subtract	Haro	694 m <sup>3</sup> /day	
	<b>Total</b>	<b>5,921 m<sup>3</sup>/day</b>	
		<b>2,161,164 m<sup>3</sup>/year</b>	Carry this forward to Line 1 on Page 1

Notes: All of Oak Bay is metered. Humber and Rutland contain combined sanitary and stormwater systems. Arbutus Flume data is corrected by multiplying a factor of 1.096 due to under reading.

**How is Average Annual Flow (AAF) Calculated?**

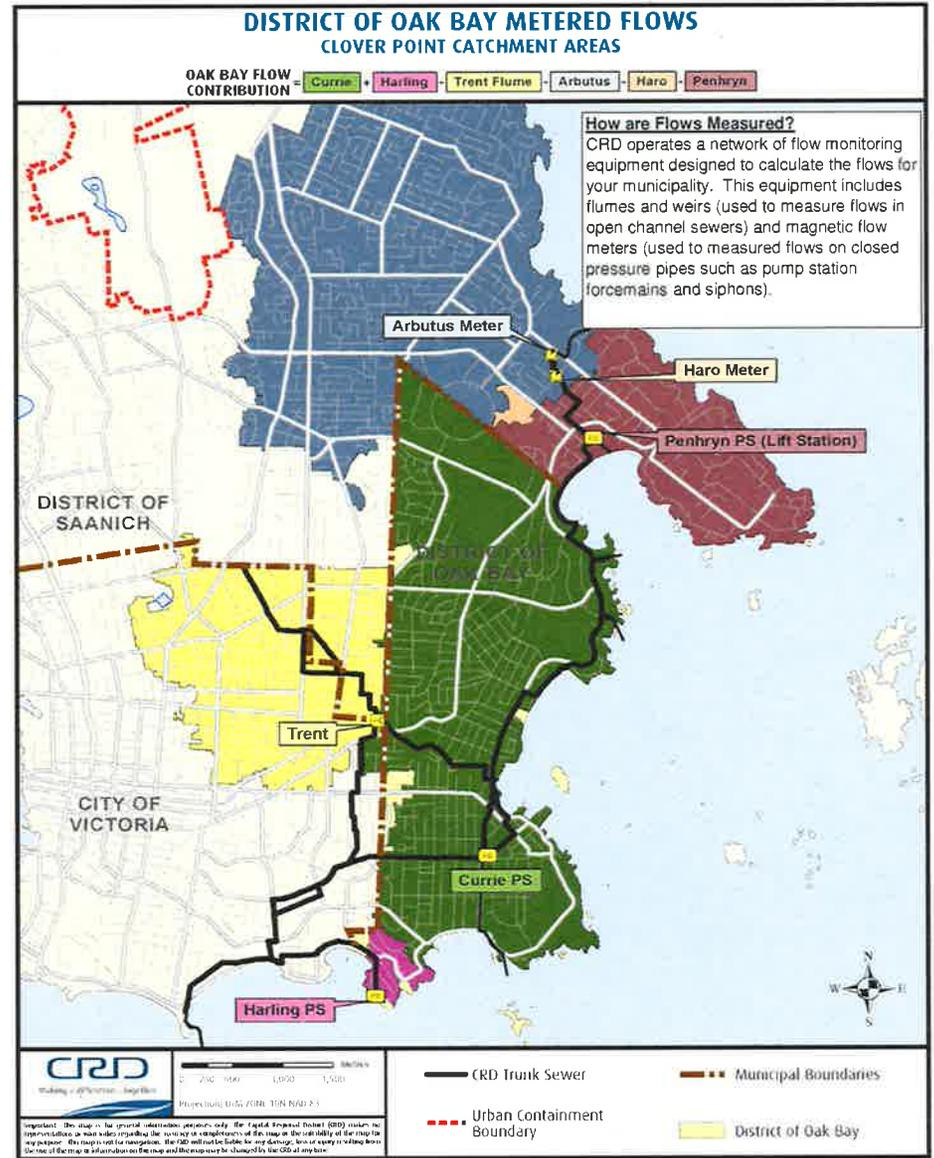
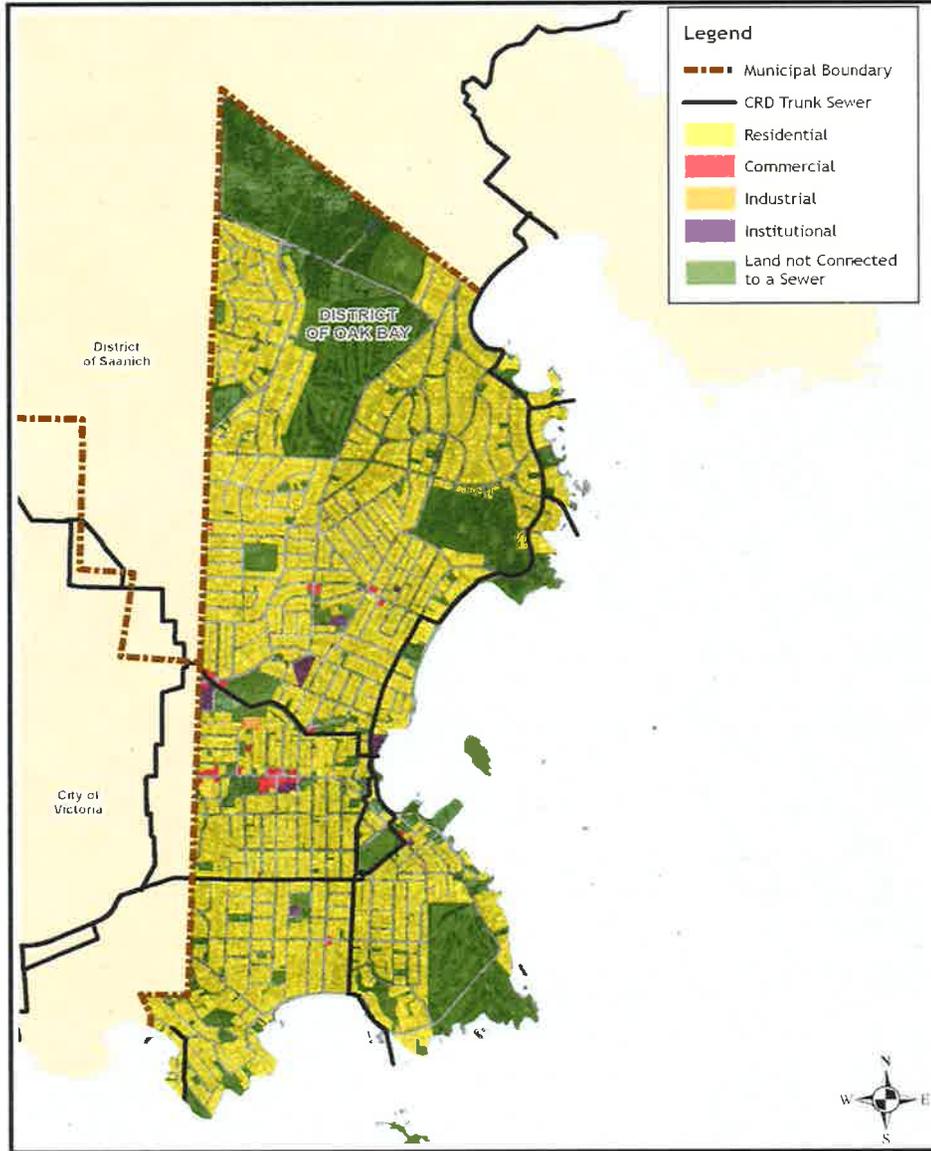
AAF is calculated using the period from October 1 to September 30. The following graph shows the daily data for 2009 (i.e. from October 1/2008 to September 30/2009)



**Values for AAF (2009)**

add	Currie	6,802,915 m <sup>3</sup> /year	
add	Harling	62,038 m <sup>3</sup> /year	
subtract	Arbutus	2,907,690 m <sup>3</sup> /year	
subtract	Trent Flume	499,872 m <sup>3</sup> /year	
subtract	Penrhyn	370,406 m <sup>3</sup> /year	
subtract	Haro	281,865 m <sup>3</sup> /year	
	<b>Total</b>	<b>2,805,120 m<sup>3</sup>/year</b>	Carry this forward to Line 2 on Page 1

Notes: All of Oak Bay is metered. Humber and Rutland contain combined sanitary and stormwater systems. Arbutus Flume data is corrected by multiplying a factor of 1.096 due to under reading.





Capital Regional District  
625 Fisgard Street, PO Box 1000  
Victoria, BC, Canada V8W 2S6

T: 250.360.3000  
F: 250.360.3234  
www.crd.bc.ca

March 14, 2014

5220-20  
0400-50

Mr. Bill Brown  
Director of Development Services  
Township of Esquimalt  
1229 Esquimalt Road  
Victoria, BC V9A 3P1

Mr. Brown:

This letter is a follow up to our letter of March 11, 2014 in which we referenced we would provide, under separate cover, the financial implications for Esquimalt of Colwood's withdrawal from the Core Area Wastewater Treatment Program, as determined by a third party. The letter of March 11 included draft Attachments 11 and 12, which were subject to third party review, as noted in the letter. We have now received a third party analysis from Victoria Consulting Network Ltd of the financial implications for Esquimalt, and the tables attached to this letter (Attachments 11 and 12) show the financial implications with and without Colwood's participation.

These attachments and confirmation from the CRD that they have been approved by a third party consultant complete our response to your letter of February 28, 2014. We reiterate our expectation that the public process can now be finalized in a timely and efficient manner.

Yours truly,

A handwritten signature in black ink, appearing to read 'R. Lapham', is written over a light grey background.

Robert Lapham, RPP, MCIP  
Chief Administrative Officer

Attachments: 2

cc: CRD Board Members  
Executive Leadership Team, CRD  
Albert Sweetnam, Program Director, Seaterra Program, CRD  
Michael Peckham, Program Manager, Wastewater Treatment, Seaterra Program, CRD  
Laurie Hurst, CAO, Township of Esquimalt

**Attachment 11 shows the Calculation of Cost Allocation Estimates with Colwood included**

Annual costs are in two parts: operating and debt servicing

Debt Servicing Assumes MFA borrowing of \$287.6 million over 25 years at an interest rate of 5.4%

**Estimated Annual Costs (\$ million)**

Operating	\$14.57
Debt Servicing	\$22.44
<b>Total</b>	<b>\$37.01</b>

**Allocation Formula**

	ADWF	AAF
Operating (based on current flows)	80%	20%
Debt Servicing (based on design capacity)	70%	30%

**Allocation of Annual Costs (\$ million)**

	Operating Cost		Debt Servicing Costs		Total Costs	
	2017	2030	2017	2030	2017	2030
Colwood	0.48	0.62	0.95	0.95	1.43	1.57
Esquimalt	1.01	0.96	1.48	1.48	2.50	2.44

### Cost per Population Equivalent and Cost per Connected Household

For ease of comparison costs per connected household are based on estimated costs per population equivalent multiplied by three - assuming three persons in a representative household.

The actual cost per household in any municipality will depend on the method of recovering costs (e.g. user fees vs taxation); the revenue base used (e.g. all properties or connected properties); and, the average household size in each community.

	Cost Per Population Equivalent		Cost Per Connected Household	
	2017	2030	2017	2030
Colwood	103	79	308	236
Esquimalt	103	93	309	279

**Attachment 12 shows the Calculation of Cost Allocation Estimates with Colwood removed**

Annual costs are in two parts: operating and debt servicing

Debt Servicing Assumes MFA borrowing of \$287.6 million over 25 years at an interest rate of 5.4%

**Estimated Annual Costs (\$ million)**

Operating	\$14.57
Debt Servicing	\$22.44
<b>Total</b>	<b>\$37.01</b>

**Allocation Formula**

	ADWF	AAF
Operating (based on current flows)	80%	20%
Debt Servicing (based on design capacity)	70%	30%

**Allocation of Annual Costs (\$ million)**

	Operating Cost		Debt Servicing Costs		Total Costs	
	2017	2030	2017	2030	2017	2030
Colwood	0.00	0.00	0.00	0.00	0.00	0.00
Esquimalt	1.05	0.99	1.53	1.53	2.58	2.52

**Cost per Population Equivalent and Cost per Connected Household**

For ease of comparison costs per connected household are based on estimated costs per population equivalent multiplied by three - assuming three persons in a representative household.

The actual cost per household in any municipality will depend on the method of recovering costs (e.g. user fees vs taxation); the revenue base used (e.g. all properties or connected properties); and, the average household size in each community.

	Cost Per Population Equivalent		Cost Per Connected Household	
	2017	2030	2017	2030
Colwood	0	0	0	0
Esquimalt	106	96	319	288

**55. McLOUGHLIN POINT SPECIAL USE [I-3]**

The intent of this Zone is to accommodate either the historic bulk petroleum storage facility and related uses, or the Core Area Liquid Wastewater Treatment Plant, including potential accessory or additional commercial, high-tech industrial, recreational and educational uses, or any combination thereof to create a mixed use development. In 2013, the types of commercial uses were altered so as to promote a mixed-use development serving a clientele of all ages. Non-industrial uses are contingent on satisfaction of environmental and contaminated site requirements.

**(1) Permitted Uses**

- (a) Bulk storage tanks
- (b) Accessory office
- (c) Accessory Residential, subject to Section 26
- (d) Wastewater Treatment Plant, which may include any or all of the following additional uses:
  - (i) Commercial Instruction and Education
  - (ii) Educational Interpretive Centre
  - (iii) Research Establishment
  - (iv) Business and Professional Office
  - (v) Marine Outfall
  - (vi) Accessory uses
- (e) Business and Professional Office
- (f) High technology uses
- (g) Accessory Retail
- (h) Hotel
- (i) Entertainment and Theatre
- (j) Boat Moorage Facility
- (k) Park

**(2) Density – Wastewater Treatment Plant**

In this section:

**“Immediate Community”** means the upland area travelling from the subject property, west along the marine boundary to and including Macauley Point Park, north along Clifton Terrace and Lampson Street to Esquimalt Road, then east along Esquimalt Road to the Township’s municipal boundary, south along the municipal boundary then along the marine boundary back to the subject property;

**“Nearby Community”** means the area, upland and marine, within a 1.5 kilometre radius of the subject property, including the Immediate Community; and

**“Extended Community”** means the upland areas within a 2.5 kilometre radius of the subject property, and including the Nearby Community.

In accordance with the provisions of Section 904 of the *Local Government Act*, density for the wastewater treatment plant is established by way of base density, for which no conditions apply, and bonus density on the provision or satisfaction of conditions identified below. For greater certainty, the regulations of this section do not apply to other uses in this Zone.

**(a) Base Density:**

- (i) The Floor Area Ratio shall not exceed 0.05;
- (ii) The Floor Area shall not exceed 675 square metres, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Lot Coverage shall not exceed 15%;
- (iv) The authorized rate of discharge for effluent shall not exceed 57,000 cubic metres per day;
- (v) Plant capacity not to exceed 15 million litres per day, Average Dry Weather Flow (ADWF);

**(b) Bonus Density – Level 1:**

- (i) The Floor Area Ratio shall not exceed 0.1;
- (ii) The Floor Area shall not exceed 1,350 square metres, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Lot Coverage shall not exceed 30%;
- (iv) The authorized rate of discharge for effluent shall not exceed 115,000 cubic metres per day;
- (v) Plant capacity not to exceed 30 million litres per day, Average Dry Weather Flow (ADWF);

all on the provision or satisfaction of all of the following conditions:

- (1) The provision of materials and supplies for construction and operation of the uses, buildings and structures on the property by boat or barge in part to reduce the impact on the development on the Immediate Community, including through reduced trucking;
- (2) Pier, of sufficient size to fulfill previous condition.
- (3) Traffic integration amenities, in the form of traffic calming, speed bumps, speed cushions, speed readers with signage, enhanced boulevard curbing and landscaping and bike lanes on streets in the Immediate Community, as follows:
  - a. Streets within Department of National Defence's Work Point, if and as permitted by Government of Canada,
  - b. Township's streets adjacent to and within one block radius of all elementary schools, and
  - c. Township's Lyall Street from Lampson Street to Head Street and Head Street from Lampson Street to Dunsmuir Street,
 items (3)(b) and (3)(c) collectively of a value no less than \$950,000.
- (4) Education and Interpretive Centre: provision of a dedicated conference room on-site for students and the public to learn about wastewater treatment and management, made available at no charge for use by schools, government bodies, non-profit organizations and individuals as requested during normal hours of operation: Minimum 25 square metres of floor area, either in main lobby or a separate room.

- (5) High efficiency air filter systems to improve air quality and odour reduction for schools within the Immediate Community.
- (6) Green Building and Design Features, as follows:
  - a. LEED® Gold standard, certified within one year of construction completion, or such longer period as required to address deficiencies provided initial review and report is within first year.
  - b. Development consistent with conditions identified in the document entitled "Design Guidelines – McLoughlin Point Wastewater Treatment Plant" prepared by CitySpaces Consulting Ltd. (Revised May 2013), a copy of which is attached to the Official Community Plan, in particular those that are not attainable through normal development permit authority.
- (7) Macaulay Point Pump station upgrade to standards of design, materials and quality of construction consistent with recent Craigflower Pump Station project, with odour mitigation such that odour is not detectable by humans outside of building using industry best practices agreed to by the Township of Esquimalt, or odour detection level no greater than five (5) odour units failing agreement on other best practices.

(c) **Bonus Density – Level 2:**

- (i) The Floor Area Ratio shall not exceed 0.25;
- (ii) The Floor Area shall not exceed 3,000 square metres, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Lot Coverage shall not exceed 55%;
- (iv) The authorized rate of discharge for effluent shall not exceed 287,500 cubic metres per day;
- (v) Plant capacity not to exceed 70 million litres per day, Average Dry Weather Flow (ADWF);

all on the provision or satisfaction of all of the following conditions:

- (1) Each condition as identified in previous Bonus Density levels.
- (2) Public open space along waterfront (no less than 1,000 square metres).
- (3) Public Art on public open space of a value no less than \$100,000, visible and oriented both to passing boats and floatplanes, respecting and exploiting the subject property's prominent position of entrance to the Victoria Harbour.
- (4) Education and Interpretive Centre – additional 25 square metres of floor area for total of 50 square metres.
- (5) High efficiency air filter systems to improve air quality and odour reduction for schools within the Nearby Community.
- (6) Extension of Green Building and Design Features to additional portions of development.
- (7) Upgrade all pump stations within the Nearby Community to standards of design, materials and quality of construction,

consistent with recent Craigflower Pump Station project, with odour mitigation such that odour is not detectable by humans outside of building using industry best practices agreed to by the Township of Esquimalt, or odour detection level no greater than five (5) odour units failing agreement on other best practices.

(d) **Bonus Density – Level 3:**

- (i) The Floor Area Ratio shall not exceed 0.35;
- (ii) The Floor Area shall not exceed 4,500 square metres, excluding processing tanks and generators completely enclosed within a Building;
- (iii) Lot Coverage shall not exceed 75%;
- (iv) The authorized rate of discharge for effluent shall not exceed 379,100 cubic metres per day
- (v) Plant capacity not to exceed 108 million litres per day, Average Dry Weather Flow (ADWF);

all on the provision or satisfaction of all of the following conditions:

- (1) Each condition as identified in previous Bonus Density levels.
- (2) The provision of public open space improvements of a value no less than \$75,000, including picnic benches and “tot” park playlot with appropriately themed play equipment and safety features given proximity to open water.
- (3) Pier or dock, of sufficient size to fulfill previous condition, including with provision of harbour tugboat pedestrian ferry service, either by property owner or through contract with existing operator.
- (4) Public Walkway: Design of building and development of site to incorporate public accessible trails, and off-site construction of trail connection to West Bay Neighbourhood.
- (5) Additional traffic integration amenities, in the form of additional traffic calming and bike lanes on all remaining streets between Lampson Road and Esquimalt Road and subject property, to standards of design, materials and quality of construction comparable to Bonus Density – Level 1 Condition 3.
- (6) Education and Interpretive Centre – additional 25 square metres of floor area for total of 75 square metres, including portion for a “Center of Excellence” to educate, promote and facilitate energy technology or other industries focussed on utilizing the wind and wave energy at the subject property.
- (7) High efficiency air filter systems to improve air quality and odour reduction for schools within the Extended Community.
- (8) Extension of Green Building and Design Features to additional portions of development.
- (9) Integration of reclaimed water into the design of the buildings, including a rooftop wetland and landscaped feature.
- (10) Heritage Interpretative Signage, recognizing the historic uses on the subject property and process to transition to

current uses (Minimum 5 signs for stations along a walkway in public open space area).

- (11) Consistently designed and themed upgrades to the fire hydrants and support equipment parts in the Immediate Community, to coincide with waterworks upgrades necessary for the treatment facility, such hydrants and other necessary above-ground components being distinct from the rest of the Township, unique to the proponent, including recognition of provision by the proponent further to this bylaw.
- (12) Provision of underground conduit and other appurtenances to facilitate undergrounding of all utilities, including electrical infrastructure upgrades, so as to minimize impacts on surrounding community.
- (13) Reinstatement of all roads (including but not limited to paved areas, sidewalks, boulevards) affected by establishment of wastewater treatment plant of this density of use, to a condition equal to or better than existed before to construction.
- (14) Upgrade all pump stations within the Extended Community to standards of design, materials and quality of construction, consistent with recent Craigflower Pump Station project, with odour mitigation such that odour is not detectable by humans outside of building using industry best practices agreed to by the Township of Esquimalt, or odour detection level no greater than five (5) odour units failing agreement on other best practices.
- (15) Odour-reducing and noise mitigation measures that are within the top 10 percentile of comparable facilities developed in previous five (5) years in major waterfront cities in North America and Europe, such that odour is not detectable by humans outside of building using industry best practices agreed to by the Township of Esquimalt, or odour detection level no greater than five (5) odour units failing agreement on other best practices.
- (16) Facility design to ensure that any products, byproducts, biosolids or other goods and commodities be transported off-site only by means of piping or marine access, thereby reducing negative transportation impacts on the Immediate Community.
- (17) That no odour-causing and/or methane-producing (of any level) facilities related to the use of the subject property be located off-site within the Extended Community, except for pipes, outfalls, pumping stations and accessory appurtenances.
- (18) Annual contribution of \$55,000 to McLoughlin Point Amenity Reserve Fund.
- (19) Ongoing liaison committee formed with representatives from Township, local schools, health authority, DND officials community groups and other interested parties (all as available and as interested), along with operators on subject property, with meeting space provided on subject property at

no cost at least once/monthly, including to review satisfaction of above conditions and ongoing operations.

(3) **Floor Area**

The Floor Area of accessory office and Accessory Building Use shall not exceed 5% of the Lot Area.

(4) **Lot Coverage**

All Principal Buildings, Accessory Buildings and Structures combined shall not cover more than 7% of the area of the Parcel. This section does not apply to uses under Section 55(1)(d) through (k).

(5) **Building and Structure Height**

- (a) No Building or Structure shall exceed a Height of 10 metres.
- (b) Height of Principal Building may be increased by 5 metres (to 15 metres maximum) for uses under Section 55(1)(d) [wastewater treatment plant] if combined in a mixed-use development with uses under subsections 55(1)(e) through (j).
- (c) Height of Principal Building may be increased by 5 metres (to 15 metres maximum) for uses under Section 55(1)(h) [hotel] when such hotel includes convention facilities and if combined in a mixed-use development with other uses under subsections 55(1)(e) through (j).
- (d) Notwithstanding anything to the contrary in this section, the maximum height of a building or structure located within 20 metres of the High Water Mark is 5.0 metres.

(6) **Siting Requirements**

- (a) No Building shall be located within 7.5 metres of a Lot Line that is shared with a Parcel zoned for residential Use.
- (b) Front Setback: No Building shall be located within 7.5 metres of the front Lot Line.
- (c) Exterior Side Setback: No Building shall be located within 4.5 metres of an Exterior Side Lot Line.
- (d) No Building shall be located within 7.5 metres of the High Water Mark.
- (e) For the purposes of this Zone, where there is no abutting highway, the private road from which the property gains access shall be considered the Front Lot Line.

(7) **Screening and Landscaping**

- (a) Screening and Landscaping shall be provided in accordance with Section 23.

- (b) Landscaping shall be provided along the entire Front Lot Line for a minimum width of 7.5 metres except for points of ingress and egress. In the case of a Corner Lot, the exterior Side Yard Setback of 4.5 metres shall be landscaped except for points of ingress and egress.
- (c) For the wastewater treatment plant use:
  - (i) A minimum 4.0 metre wide landscaped buffer shall be located within the setback from the High Water Mark. The landscaping shall be of sufficient quality and quantity as to completely obliterate any view of a wastewater treatment plant building and tanks from the marine environment.
  - (ii) Except for places of entrance and egress to the site, a minimum 2.5 metre wide landscaped buffer shall be located in the front and all side setbacks.

(8) **Off Street Parking**

Off street parking shall be provided in accordance with the requirements as specified in Parking Bylaw, 1992, No. 2011 (as amended). In addition, the number of spaces required shall include:

Liquid Waste Management Plant	1 space/132 square metres
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(9) **Severability and Satisfaction**

- (a) In addition to Section 5 of this Bylaw, and for greater certainty for this Zone, should any measure of density, associated condition or amenity be held to be invalid by the decision of any Court of competent jurisdiction, that measure of density, condition or amenity may be severed without affecting the validity of the density-bonusing scheme and other measures of density, conditions or amenities.
- (b) Where a condition requires the approval or permission of an authority beyond the control of the property owner, then the condition shall be interpreted as requiring the property owner's best efforts to secure such permission, including identification of this Bylaw requirement with the initial request, satisfaction of conditions imposed by the third party and appeal if the request/application is initially rejected (including by enlisting the support of the Township). For example:
  - (i) Bonus Density Level 1 Condition 2, and Level 3 Condition 3 each require permission from the Government of Canada given jurisdiction over navigable waters;
  - (ii) Bonus Density Level 1 Condition 3(a) and Level 3 Condition 4 each require permission of the Government of Canada, Department of National Defence, given the adjacent DND Lands; and
  - (iii) Bonus Density Level 1 Condition 5, Level 2 Condition 5 and Level 3 Condition 7 each require permission of the affected school(s) and School District No. 61.

- (c) Where a condition is severed, or best efforts under this provision have not resulted in the necessary third-party approval, then the condition shall be deemed satisfied on the provision of all of the following:
- (i) Court Order of severance or written evidence of third-party rejection, including denial of appeal as applicable;
  - (ii) independent appraisal estimating the cost of the provision of the amenity or satisfaction of the condition, should the condition may have been satisfied; and
  - (iii) a cash contribution equivalent to the cost of the provision of the amenity or satisfaction of the condition, from the property owner to the Township for the McLoughlin Point Amenity Reserve Fund, such monies to be used for replacement amenities or conditions that are consistent with governing authority, including further enhancements or additions to remaining amenities or conditions.

**63. MARINE NAVIGATION [M-4]**

The intent of this Zone is to accommodate the navigation of commercial and recreational boats.

**(1) Permitted Uses**

The following Uses and no others are permitted:

- (a) Navigation of boats
- (b) Navigational aids installed by the Authority Having Jurisdiction
- (c) Wastewater treatment marine outfalls and related piping and accessory appurtenances under a provincially-approved Liquid Waste Management Plan
- (d) Boat Moorage Facility, abutting Lots A-E, Plan 35322

**(2) Prohibited Uses**

- (a) Boat Moorage
- (b) Anchoring buoys
- (c) Permanent boat anchorage

**63.1 MARINE SMALL DOCK [M-5]**

The intent of this Zone is to accommodate small private docks on Water Lots adjacent to residential properties.

**(1) Permitted Uses**

The following Uses and no others are permitted:

- (a) Boat Moorage Facility for small pleasure boats

**(2) Prohibited Uses**

- (a) Commercial or industrial activity
- (b) Floating Homes and Floating Boat Shelters
- (c) Liveaboards
- (d) The mooring of more than two small boats
- (e) Accessory Buildings

**(3) Siting Requirements**

All Boat Moorage must be located within the boundaries of the Water Lot.

**(4) Maximum Size**

- (a) No section of a Boat Moorage ramp shall exceed a width of 1.5 metres.
- (b) The combined length of a Boat Moorage Facility (wharf, ramp, landing and dock), measured from the shoreline, shall not be more than 21 metres.
- (c) The area of a dock or float shall not be greater than 18.5 square metres in area.