WELCOME

McLoughlin Point Rezoning

OPEN HOUSE

(upstairs in the auditorium)

Requirement for Wastewater Treatment

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- In 2000, the CRD developed its Core Area Liquid Waste Management Plan, which included screening, source control, and monitoring.
- In 2006, the Minister of the Environment, in accordance with section 24 (3)(a) of the *Environmental Management Act*, required the CRD to amend this plan to detail a fixed schedule for the provision of wastewater treatment.
- The Federal Government, on July 18, 2012, proclaimed *Wastewater Systems Effluent Regulations*, which require secondary wastewater treatment across Canada.
- The Core Area Wastewater Treatment Program will bring the CRD into compliance with Federal and Provincial regulations.

Site Description

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McLoughlin Point is a 1.4 ha area of privately owned waterfront land, located within the municipal boundaries of the Township of Esquimalt. The land currently consists of five legal parcels that will be consolidated as part of the permitting process.

The property is unique in that it is isolated from municipal roads by the Department of National Defense's (DND) "Macaulay Point/Work Point Barracks" lands, which comprise some 60 ha. The site is located at the southwest extremity of the DND lands.

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Site Context

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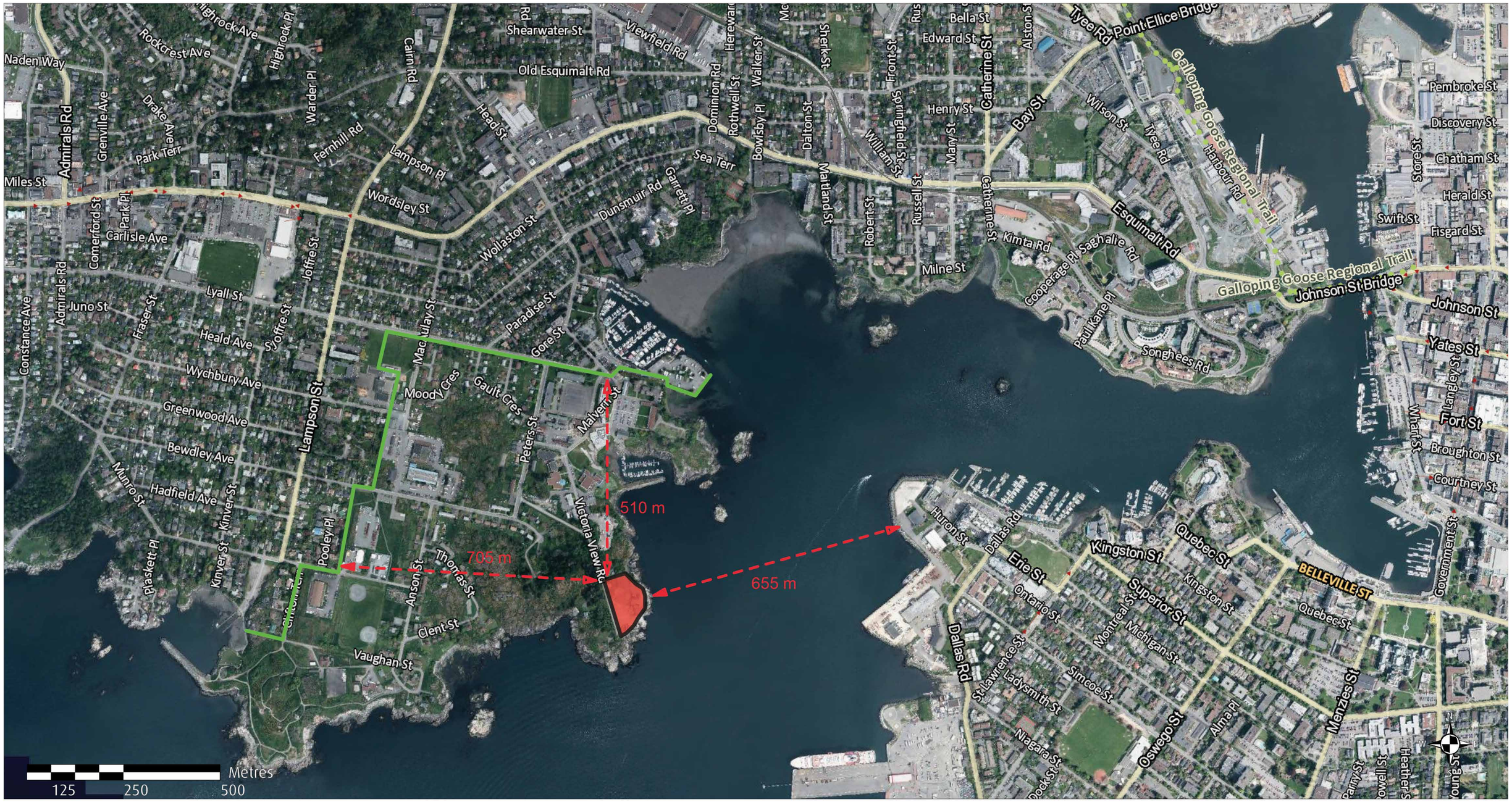

Distance to site from nearest municipal residence

DND/municipal boundary

CITY SPACES

Previous Use

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- The site has been zoned for industrial use, and until recently was actively used as an oil storage facility for many years (zoned I-3 – Bulk Petroleum Storage).
- Historic photos show how extensively the site was used for industrial activities, including docking facilities.

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Why McLoughlin Point

Zoning Rationale

Making a difference...together

- The site is favourably located relative to the population it will serve.
- The site is at the same elevation as two main pumping facilities (Macaulay Point and Clover Point) that will collect untreated wastewater & deliver it to the site.
- The waterfront site will allow for relatively easy construction of an outfall.
- McLoughlin Point is a heavily disturbed brownfield site.
- No other uses/activities will be displaced to accommodate treatment plant.
- The site is industrially zoned. The Township's OCP Land Use Map designates the site for *industrial use*.
- McLoughlin Point is private land adjacent to DND – the nearest DND residence is about 70 m away & the nearest Township residence is 500+ m from the site.
- The site is physically buffered from other uses, is visible from few Township vantage points, & has no legal road access.

Why McLoughlin Point

Zoning Rationale

Making a difference...together

- There are limited view impacts on Esquimalt.
- Viewpoints from Ogden Point & Shoal Point shoreline are both within the City of Victoria & both are waterfront industrial sites.
- The facility is a potential future heat recovery source for community use.

View from Ogden Point Pier

View from Shoal Point

CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Proposed OCP and Zoning Amendments

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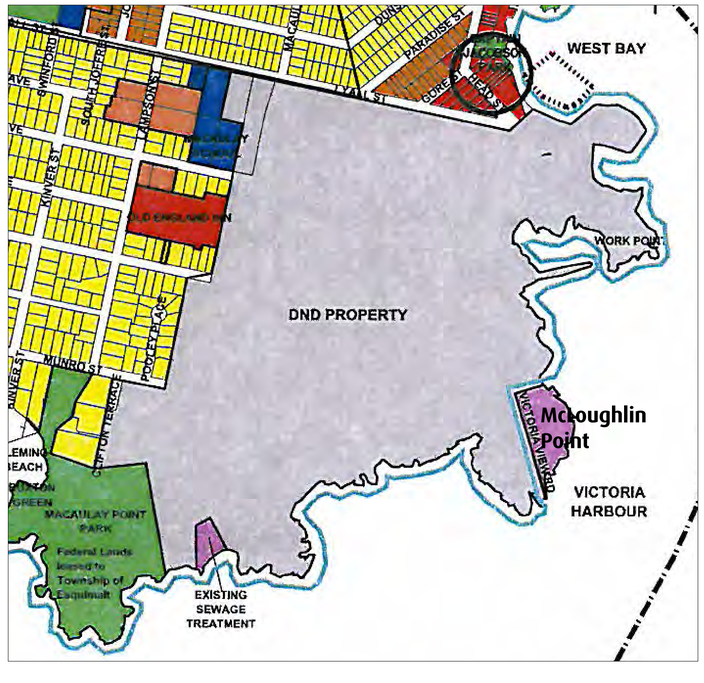
Official Community Plan Amendment

The application will require an Official Community Plan (OCP) amendment to address the requirements of Section 877 (1) (f) of the Local Government Act, which states that an OCP must include "statements and map designations for the area covered by the plan respecting the following: (f) the approximate location and type of present and proposed public facilitates including ... waste treatment and disposal sites."

While the OCP map already identifies the site as *Industrial*, an amendment to the bylaw will be required to provide a statement, and a map designation for the site as a public facility used for wastewater treatment.

- DND Federal Land
- Industrial
- Commercial Mixed-Use
- Institutional
- Single & Two-Unit Residential
- Multi-Unit, Low-Rise Residential
- Parks & Open Space



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Proposed OCP and Zoning Amendments

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Zoning Amendment

A new industrial zone designation will be required, providing a site-specific zone to permit a regional wastewater treatment facility.

Zone Conditions	Description of Conditions
Permitted use	Liquid wastewater treatment facility, outfall, accessory office, laboratory, service, storage, and repair shops
Size of site	1.44 ha
Area of buildings *(excludes processing tanks & generators)*	4,500 m^2
Maximum height of buildings	15 m above existing average grade
FSR	0.35.1
Parking requirements	34 stalls
Site coverage	75%
Design guidelines	Part of the Zoning Amendment

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Procurement Process: Design Build

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- The facility will be constructed through a “design build” process, in which the design and construction services are provided by the same contractor.
- The successful proponent will be chosen, from a competitive proposal call, based on a comprehensive evaluation process.
- The selected contractor will create a building design that adheres to the Design Guidelines prepared by the CRD, in consultation with the Township of Esquimalt.

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Design Guidelines

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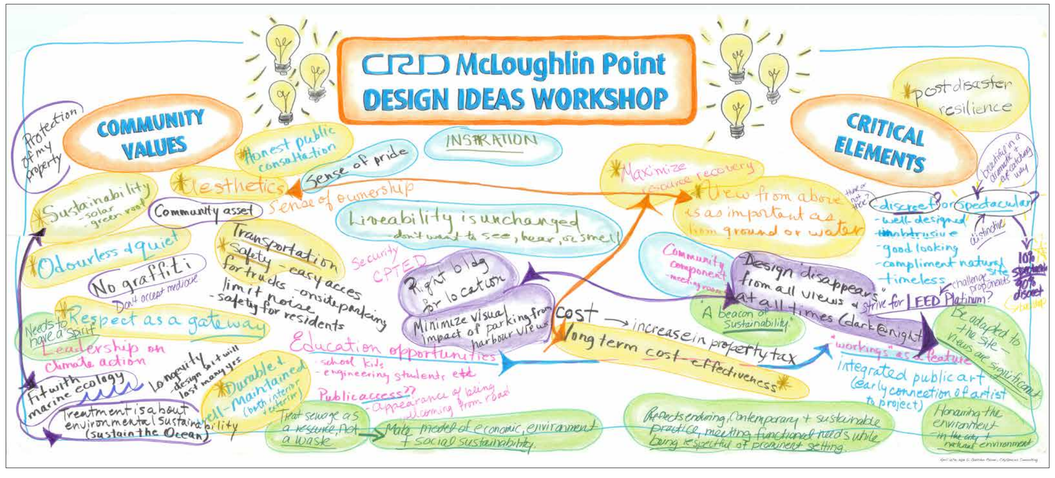
- The Design Guidelines provide the Township of Esquimalt with key design parameters for the facility and the site, as the basis for evaluating a future development permit application.
- The process for developing the Design Guidelines considered input from a workshop and open house attended by architects, landscape architects, Core Area Liquid Waste Management Committee representatives, and the public.
- These proposed Design Guidelines will be reviewed by Esquimalt's Design Review Committee.

Vision Statement

A design that reflects enduring and sustainable practices, and meets functional needs while being respectful of the prominent setting.



CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Design Guidelines

Guiding Principles

Making a difference...together

1. Sustainability

- The treatment system will support environmental, social and economic sustainability, and be considered part of CRD climate action initiatives.
- Wastewater should be treated as a resource and, wherever possible and practical, provide opportunities for resource recovery and reuse.
- The McLoughlin Point facility should meet, or exceed the CRD's and the Township of Esquimalt's policies on sustainability and building excellence.

2. Respect for the Site

- Respect the site as a gateway location.
- Respect the natural shoreline.
- Respect the site context, and respond to the site and its surroundings.

3. Plan for the Future

- Acknowledge and plan for major tsunami events, climate change effects, and earthquake/tsunami resiliency.
- Incorporate durable, long-lasting, & timeless materials, and design strategies.

Design Guidelines

Guiding Principles

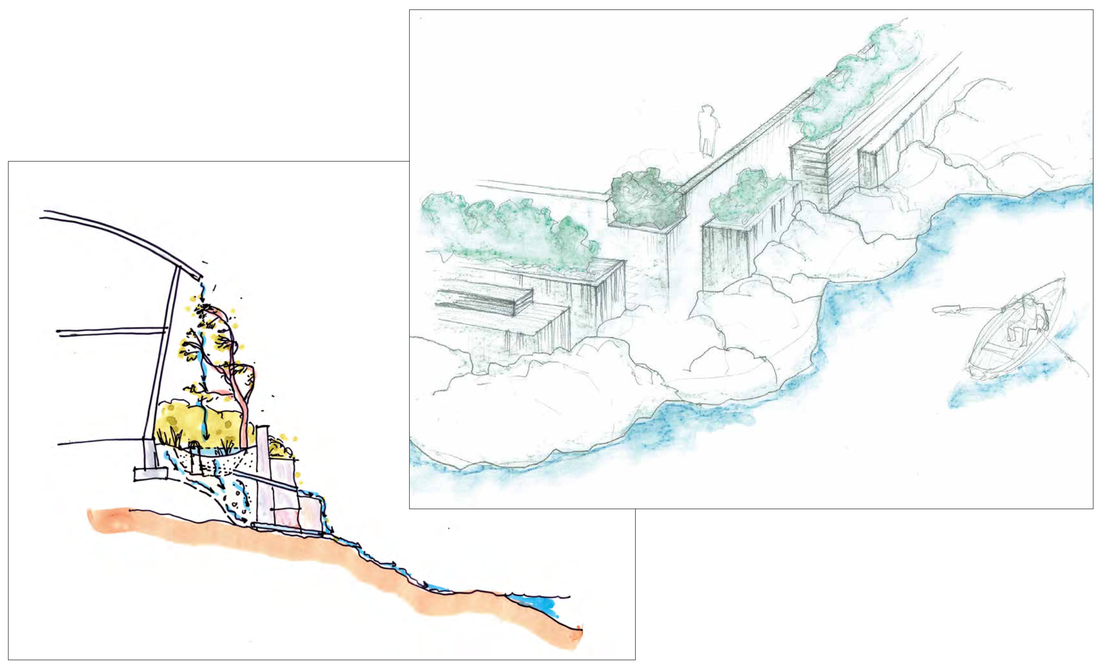
Making a difference...together

4. Livability

- Provide a design solution that meets, or exceeds, Township of Esquimalt and City of Victoria noise by-law requirements.
- Provide a design solution that restricts odours to a maximum of five (5) odour units, or less (not detectable by humans).
- Respect view impacts from all sides, and from above.

5. Sense of Pride

- Incorporate designs that ensure the highest standards of materials and workmanship, and are aesthetically pleasing.
- Incorporate public art into the design.



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Treatment Functions

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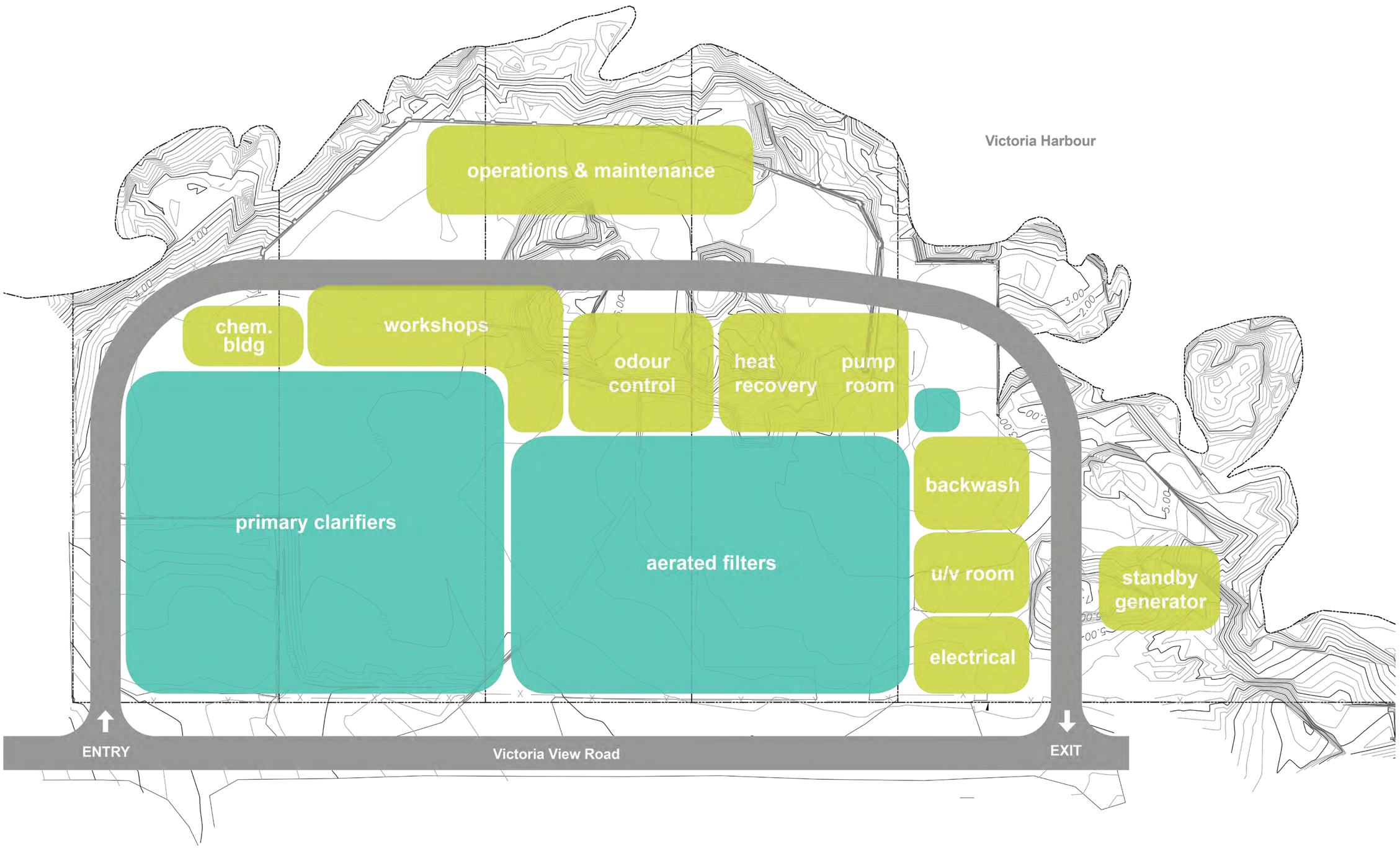

CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Landscape Plan

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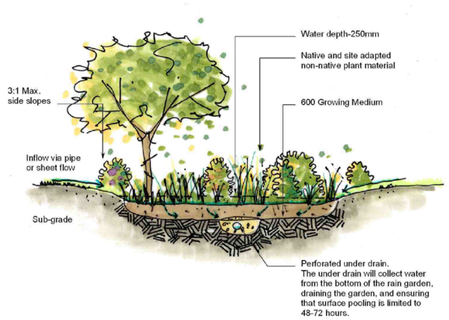
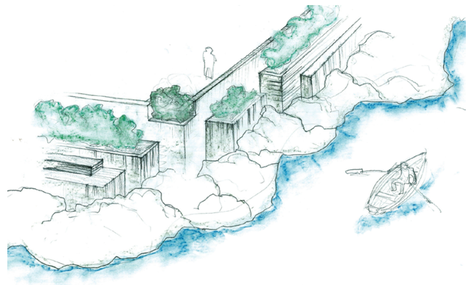
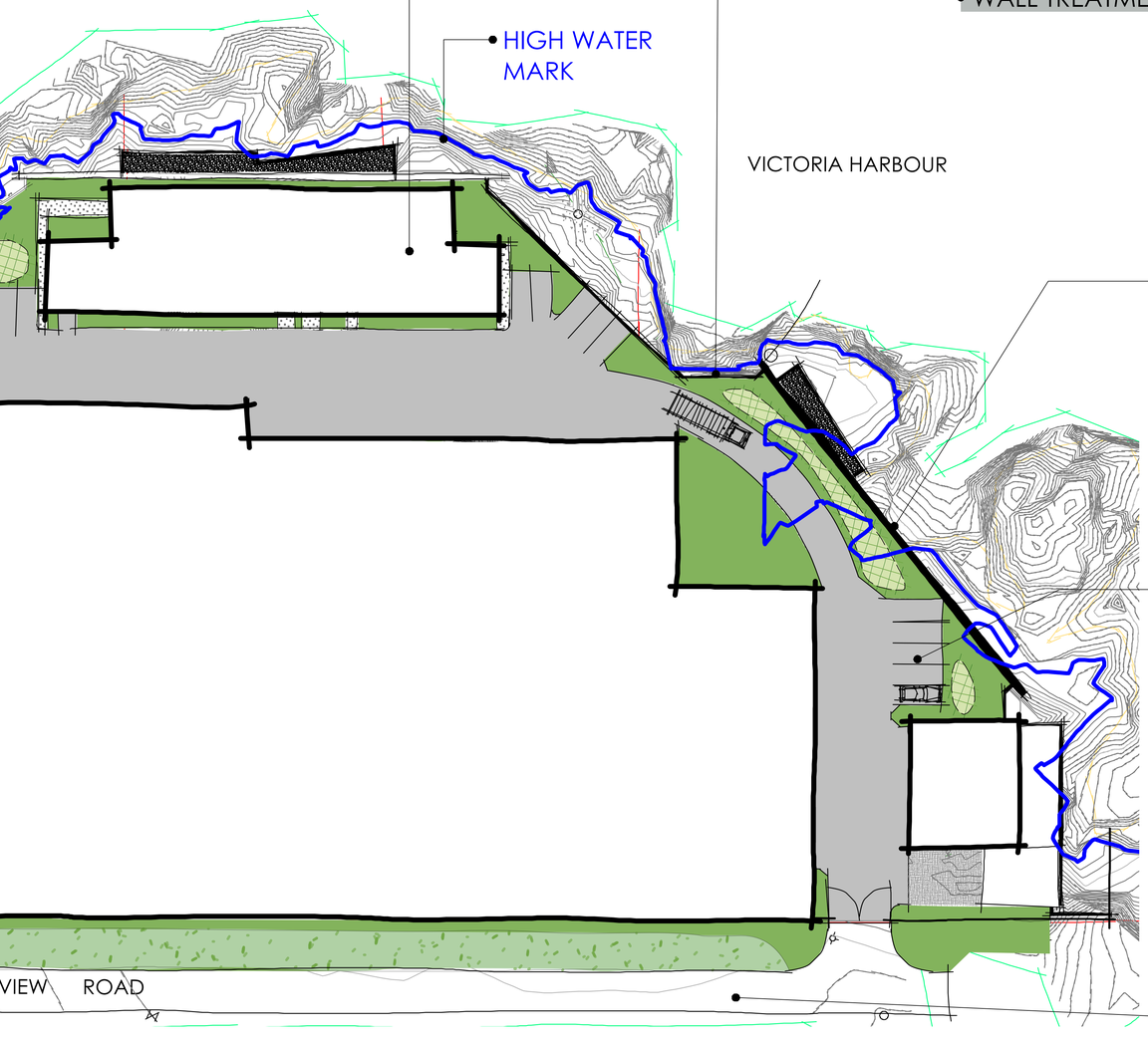


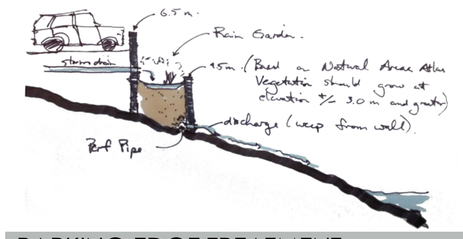
RAIN GARDEN

GREEN ROOF

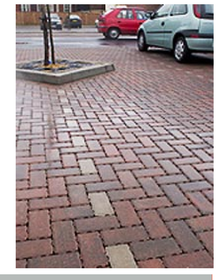


WALL TREATMENT



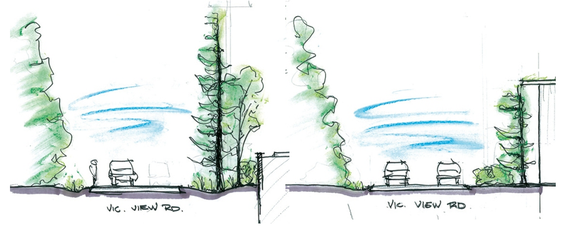


PARKING EDGE TREATMENT



PERMEABLE PAVING

Murdoch deGreeff INC
Landscape Planning & Design



VICTORIA VIEW RD. EDGE TREATMENT

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Risk Assessment

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Tsunami

A top wave height of 6.0 m is established for the design of the treatment plant, ancillary site structures & equipment. All post-disaster structures, and equipment will be built above this elevation, and/or be protected by a wall higher than the established top of wave height.

Earthquake

Combination of solid rock base, & post-disaster higher safety factor design will mitigate seismic risk for expected seismic loads due to 9.0 earthquakes.

Fire Protection

Facility will be of Fire Resistive & Non-combustive construction, & have a Low Hazard Occupancy. An internal roadway, hydrants in the municipal road right-of-way, & non-restrictive access for emergency vehicles are all elements of design layout.

Chemical Storage

Chemicals used are largely inorganic, & will be stored in secured tanks with containment features. Drainage sumps will be used in off-loading locations to capture any accidental spillage.

CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Sustainability

Making a difference...together

Buildings

- The Operations & Controls building will be designed to a LEED® Gold standard.
- The design of the Operations & Controls building, and other site buildings, will incorporate green roof systems where appropriate.

Heat Recovery

Recovered heat will be used to supplement natural gas heating of on-site buildings. Provisions will be included for future expansion to generate heat for off-site users & additional carbon sequestration.

Stormwater Management

- Stormwater from the internal roadways and parking areas will be treated to remove 80% of TSS from a 6-month rain event prior to discharge.
- Treatment of roadway and parking run-off will come from a combination of rain gardens and bioswales adjacent to these areas, complete with raised overflow basins, and under drains connected to the storm drain system.

Sustainability

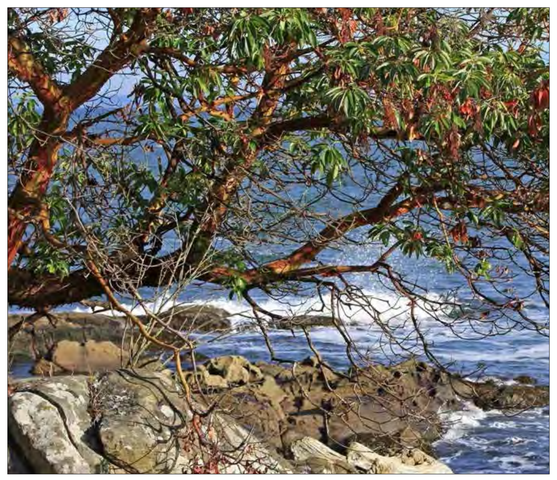
Making a difference...together

Lighting

- Light fixtures will provide the minimum lighting needed, and not exceed levels recommended by the *Illuminating Engineering Society for North America Recommended Practice Manual*.
- Light fixture shields will be used to reduce impacts on other properties, & when seen from designated viewpoints.
- All lighting will be directed downward, and not into the night sky.
- Energy efficient fixtures will be used, with a consistent colour for all lighting.

Landscaping

Landscaping will include pervious soils & vegetation to minimize any run-off increases caused by the facility. Native vegetation will also be used to reduce the need for irrigation.



CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Community Impacts and Mitigations

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Community Impact Assessment Summary

Community impact factors assessed include Quality of Life, Social, Operational, & Economic.

N = Negligible
L = Low
M = Moderate
H = High
\+ = Indicates a positive impact

	Level of Impact			
	CONSTRUCTION		OPERATION	
	Standard Practice	Enhanced Mitigation	Standard Practice	Enhanced Mitigation
QUALITY OF LIFE IMPACTS				
Noise, Vibration & Lighting	L	L	L	L to N
Odour			H	L to N
Visual Aesthetics	N		N	
Traffic – McLoughlin Point Facility	M to H	M to L	L	N
Traffic – Conveyance Pipeline	M to H	M to L		
SOCIAL IMPACTS				
Housing – Availability & Affordability	N		N	
Housing – Residential Property Values	N		N	
School – Student Enrolment	N		N	
School – Safety	M	L	L	L
FUNCTIONAL IMPACTS				
Disposal of Sludge		M	N	
Chemical Storage & Delivery			N	
Utilities – Sanitary Sewer			N	
Utilities – Water		L	N	
Utilities – Electrical & Communications		L	N	
Utilities – Natural Gas		N	N	
ECONOMIC IMPACTS				
Decreased Tax Revenue	na	na	M	L
Construction Employment	L+		N	

CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Community Impacts and Mitigations

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Noise & Odour

- Site preparation & construction will involve the use of heavy machinery, compressors, etc. These activities will comply with the applicable Township of Esquimalt bylaws for hours of work & noise levels.
- During facility operation, noise & vibration are unlikely to affect neighbouring residents & institutions. Sound attenuation will be installed to ensure decibel levels remain below 45 dB at the property lines.
- Odours will be restricted to a maximum of five (5) odour units, or less (not detectable by humans) with the use of ventilation air scrubbing of the enclosed facilities. Odour control systems will reduce odour emissions before discharge to the atmosphere through exhaust stacks that will be 6 metres above ground level.

Construction Period

- Estimated to be 3.5 years.

CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Community Impacts and Mitigations

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Traffic

- The most significant impacts will occur during the first 9 months of construction, while excavation & concrete pouring are completed.
- At peak construction, before mitigation measures, it is estimated 266 vehicles/day will access the site, with an average of 134/day.
- Mitigation measures include:
  - Investigating the use of barges for materials/equipment delivery.
  - The contractor, CRD, & Township establishing a liaison committee & communications' protocols.
  - Coordinating with Macaulay School staff & PAC, & implementing crossing guards.
  - Providing transit passes & off-site van pooling for construction workers
  - Prohibiting construction parking on nearby roadways.
- During operations, impacts will be minimal, with an estimated 3 delivery trucks/month & 12-14 staff vehicles/day.
- Mitigation measures include avoiding school zones during peak student pick-up/drop-off times, & working with the Township to confirm the most suitable truck routes.

CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Community Impacts and Mitigations

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Economic Impacts on Esquimalt

- Transfer of the land to the CRD makes the land not taxable. Based on 2012 taxes for the site ($94,172), about $56,500 will be lost from municipal revenues. This loss will be ongoing, and represents about one half of one percent of municipal revenues from property taxes.
- Building permit fees are expected to generate about $100,000 in a one-time payment.
- A Works & Services agreement with the Township will ensure repair and upgrade (to appropriate standards) of municipal infrastructure impacted by construction of the facility.

Other Benefits

- The facility will provide public art. The CRD & the Township will work together to confirm the process and requirements.

Community Impacts and Mitigations

Making a difference...together

Impact on Property Values

A real estate appraisal consultant has investigated the potential impact of the facility on residential property values.

When comparing paired sales and resales, before and after the installation of wastewater treatment and pumping facilities in other areas of the CRD, there appeared to be no market discount associated with any of the comparable identified properties.

The report concluded that "it is likely that the McLoughlin Point plant, if designed and operated according to specifications, will have negligible to no impact on real estate values".

CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Community Input Process

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Rezoning Application Consultation

The purpose of this open house is to provide information & receive feedback on the application. Additionally, meetings have been, or will be requested with:

- Esquimalt Residents Association
- Lyall Street Action Committee
- West Bay Residents Association
- Esquimalt Chamber of Commerce
- Base Commander & residents of DND

A public hearing is also part of the rezoning application process.

First Nations Engagement

- Consultation agreements signed with the CRD, the Province of BC, & the Songhees, Esquimalt & Beecher Bay First Nations, commit to ongoing consultation.
- Information sharing and feedback sessions were held regarding design, siting, and marine monitoring.

CORE AREA WASTEWATER TREATMENT PROGRAM | McLoughlin Point Rezoning

Community Input Process

Making a difference...together

Biosolids Energy Centre Location

Your comments about the location options for the Biosolids Energy Centre will be welcomed at upcoming public consultation meetings in June.

Check the CRD's website for dates, times and locations.

www.crd.bc.ca/wastewater/madeclear.htm

Pipe Routing Consultation

When the McLoughlin Point site is rezoned, & the Biosolids Energy Centre location is confirmed, the CRD will undertake a consultation process with the Esquimalt community, & the local neighbourhoods affected, to identify the best route in Esquimalt for pipes to the Biosolids Energy Centre, & any required mitigation measures, particularly during the construction process.

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View from Ogden Point

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View from Shoal Point

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View from Songhees Walkway Lookout

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