



Committee of the Whole Report

For the Meeting of August 3, 2017

To: Committee of the Whole **Date:** July 20, 2017
From: Fraser Work, Director of Engineering and Public Works
Subject: Laurel Point Park – Phase II Environmental Site Assessment

RECOMMENDATION

That Council direct staff to proceed with the next stage of environmental investigation at Laurel Point Park, including a detailed site investigation, risk assessment and remediation plan, using funds from the 2017 Financial Plan – Environmental Remediation capital budget.

EXECUTIVE SUMMARY

The City owns property at Laurel Point Park which is surrounded by Transport Canada land and the Laurel Point Inn property.

The City retained SLR Consulting Ltd. (SLR) to complete a Phase II Environmental Site Assessment (Phase II ESA) at the Laurel Point Park site located at 680 Montreal Street. Laurel Point Park is adjacent to a federal contaminated site known as the Middle Harbour Fill Site and the Laurel Point Inn. Investigations for the federal lands are complete and Transport Canada is currently completing a risk assessment and remediation plan.

The purpose of this Phase II ESA was to assess and document the subsurface environmental conditions at Laurel Point Park. This consisted of drilling sixteen boreholes, completing nine of these as monitoring wells to assess soil and groundwater quality at areas of potential environmental concern identified in earlier investigations. The field program was conducted between November 30, 2016 and January 19, 2017.

Based on the results of the Phase II investigation, the Laurel Point Park property is considered a contaminated site, because soil and groundwater quality has been impacted by historical industrial activities. The contamination identified includes metals and petroleum hydrocarbons entrained in the soil and groundwater. The contaminant concentrations exceed the applicable BC Contaminated Sites Regulations in soil and groundwater. SLR has advised the City that the contamination is located deep below the surface and is covered by topsoil and landscaping, and is not a risk to the public or City staff, if the soils are left undisturbed.

In order to quantify and locate the contaminants, staff recommend proceeding with the next phase of analysis, and complete a detailed site investigation to assess and delineate the extent of contamination and also assess soil vapour quality. The next phase of detailed investigation will provide site specific data to assess potential remedial options including risk assessment for long term management considerations. Based on the detailed site investigation, a more comprehensive

risk assessment will be conducted to assess any potential future risks to human and environmental health due to the contamination, and to understand how to best manage the soil and any contamination during the life of the site.

PURPOSE

The purpose of this report is to inform Council of the recently completed Phase II Environmental Assessment at Laurel Point Park and next steps in the examination of contaminants at this location.

BACKGROUND

The City owns property at Laurel Point Park, which is surrounded by Transport Canada land and the Laurel Point Inn property as shown in Attachment A: Site Plan.

SLR Consulting Ltd. (SLR) was retained by the City of Victoria to complete a Phase II Environmental Site Assessment (Phase II ESA) at the Laurel Point Park site located at 680 Montreal Street. Laurel Point Park is adjacent to a federal contaminated site (known as the Middle Harbour Fill Site) and the Laurel Point Inn. The purpose of this Phase II ESA was to assess and document the subsurface environmental conditions at Laurel Point Park.

The Phase II ESA consisted of drilling sixteen boreholes, completing nine of these as monitoring wells to assess soil and groundwater quality at areas of potential environmental concern identified in earlier investigations. The field program was conducted between November 30, 2016 and January 19, 2017.

Prior to 1885, Laurel Point Peninsula was used by First Nations as a place of burial. Laurel Point Park and surrounding areas are located in an area that was used traditionally by the Songhees First Nation. Since 1885, the Laurel Point Peninsula has had a series of owners and land uses most notably the British America Paint Co Ltd (BAPCO) paint manufacturing facility which may have resulted in potential environmental contamination. See Attachment B: for historic photos showing industrial use of lands. The area has been filled over the years and there is evidence of periodic infilling dating back as far as 1905. The last infilling event (1972-1978) followed the demolition of a former paint factory, as part of the construction of the existing park and seawall walkway.

The land surrounding the Laurel Point Peninsula was historically used for a variety of industrial activities, including machine shops, a coal wharf, boat building, Texaco Canada, and McColl - Frontenac Oil. A review conducted by SLR in 2008 concluded that based on the local topography and the inferred direction of groundwater flow, historical activities in these properties adjacent to the Laurel Point Peninsula were unlikely to have directly impacted the upland Middle Harbour Fill Site and the Laurel Point Park properties. However, discharges from surrounding properties may have introduced contaminants into the local marine environment and soil sediments in the vicinity of the Middle Harbour Fill Site and Laurel Point Park.

Site investigations for the adjacent federal contaminated Middle Harbour Fill Site lands are now complete. Transport Canada is now completing their own risk assessment and remediation planning, which is expected to be ongoing until 2019. Preliminary information from Transport Canada indicates that excavation work and off-site disposal of contaminated materials will be required.

ISSUES & ANALYSIS

The BC Ministry of Environment guidance on contaminated sites recommends a phased approach for environmental site assessment for subsurface contamination. The process is carried out in a phased approach with the results of each phase informing the scope of each subsequent investigation. There are three stages of phased investigations, for larger and more complex contaminated sites. The three phases introduce increasingly comprehensive information, leading to a risk assessment and remediation plan. This approach is being applied to the Laurel Point Park investigation, and are described below with estimated 'order of magnitude' costs to complete:

Preliminary Site Investigation – completed

Determining the risk of site contamination is the first stage and is referred to as a Preliminary Site Investigation (PSI), or a Phase 1 Environmental Site Assessment report.

Phase II Site Investigation – completed

The second stage of a preliminary site investigation enables the general location and degree of contamination to be determined.

Detailed Site Investigation - \$120k to \$150k

The detailed site investigation will identify and delineate which substances are causing, or threaten to cause, adverse effects on human health or the environment and provide information on their form and mobility in the environment. The investigation will also identify the specific areas, depths and degree of contamination of the site.

Risk Assessment - \$100 to 150k

The information from the detailed site investigation is used to develop a human health and ecological risk assessment. The risk assessment will assess potential risks to human health and the environment from the contamination and identify if the contamination can be managed in place or if controls need to be designed and implemented for the long term management of the site.

Remediation Plan - \$50k

Based on the results of the risk assessment a remediation plan is developed to remove high risk contaminants and/or develop risk-management controls for the long term management of the site.

Remediation - \$1M to \$5M

Subject to results of risk assessment and remediation plan.

Based on the results of the Phase II investigation, the Laurel Point Park property is considered a contaminated site because soil and groundwater contaminant concentrations exceed provincial standards, likely due to historical industrial activities at the site. The contamination identified includes metals and petroleum hydrocarbons entrained in soil and groundwater. The contaminant concentrations exceed the applicable BC Contaminated Sites Regulations in soil and groundwater.

SLR has advised that the contamination is located deep below the surface and is covered by topsoil and landscaping. As such, there is not inferred to be a current risk to park users and visitors. Additionally, City staff conducting landscaping maintenance such as cutting grass, raking, picking leaves and refuse should not encounter or be impacted by the contamination.

City staff have been advised that no digging and exposing of subsurface soils can take place within Laurel Point Park or the adjacent federal lands without having a worker exposure and management plan in place.

OPTIONS & IMPACTS

Staff recommend proceeding through the next phases of the investigation, and complete a detailed site investigation to assess and delineate the extent of contamination and assess soil vapour quality. The detailed site investigation will provide site specific data to assess potential remedial options, including long term risk management of the site. Based on the detailed site investigation a human health and ecological risk assessment will be conducted to assess potential risks to human health and the environment from the contamination and understand if the contamination can be managed in place or if controls need to be designed and implemented.

Option 1 – Proceed with detailed site investigation, risk assessment and development of the remediation plan – **Recommended**
Staff will proceed with the next steps of the phased approach.

Option 2 – Do not proceed with further investigations – **Not Recommended**
The City can consider postponing further investigations, however this is not recommended as remediation work on the adjacent federal lands is expected to proceed in 2018 and 2019. The City should consider timing any required remediation to coincide, where possible, with that work. As the previous investigations have determined the site is contaminated the City has a duty to proceed with determining the extent of contamination and undertaking a risk assessment.

2015 – 2018 Strategic Plan

The recommended option supports the David Foster Harbour Pathway Program and is consistent with Objective 8: Enhance and Steward Public Spaces, Green Spaces and Food Systems and Objective 9: Complete a Multi-Modal and Active Transportation Network.

Impacts to Financial Plan

The total estimated cost of approximately \$350,000 for the detailed site investigation (\$150,000), the risk assessment (\$150,000) and the remediation plan (\$50,000) is in the 2017 Financial Plan – Environmental Remediation capital budget. Costs to complete the remediation work will be determined after completion of the risk assessment and remediation plan and will be incorporated into a future Financial Plan for Council's consideration.

Official Community Plan Consistency Statement

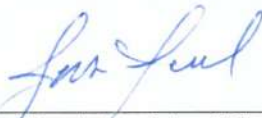
This works supports the David Foster Harbour Pathway Program and actions in the Official Community Plan under Goal 7: Transportation and Mobility (specifically 7B, 7.16.7), Goal 8 – Placemaking (specifically 8B, 8.14 and 8.16) and Environmental goals (10A & 10B).

CONCLUSIONS


The results of the recently completed Phase II investigation have concluded the Laurel Point Park property is considered a contaminated site, due to concentrations of metals and petroleum hydrocarbons in soil and groundwater. Based on the nature of the contamination, soil vapour quality has also likely been impacted. The contaminant concentrations exceed the applicable BC Contaminated Sites Regulations in soil and groundwater.

In order to quantify and locate the contaminants, it is recommended that a detailed site investigation is carried out to assess and delineate the extent of contamination and assess soil vapour quality. Following this investigation a risk assessment is recommended to understand if the contamination can be managed in place or if controls need to be designed and implemented.

Respectfully submitted,



Jas Paul, Assistant Director
Engineering



Fraser Work, Director
Engineering and Public Works

Report accepted and recommended by the City Manager: _____

Date:  _____
July 27, 2017

List of Attachments

Attachment A: Site Plan

Attachment B: Historic Photos