

10 February 2017

Our File: 2243-16004-00 Task 3001

Engineering & Public Works The City of Nanaimo 455 Wallace Street Nanaimo, B.C. V9R 5J6

Attention: Mr. Michael Strain,

The City of Nanaimo – Cliff Street Utility Upgrades Response to City Council Questions

1.0 INTRODUCTION

McElhanney Consulting Services Ltd. (McElhanney) is pleased to provide this letter to the City of Nanaimo (the Client) regarding the Cliff Street Utility Upgrade Project (the Project), in Nanaimo, BC. This letter is the result of questions raised by Nanaimo City Council members regarding the Project during the December 5th, 2016 council meeting. As discussed, the questions posed were general in nature and in several instances we have made some assumptions regarding the question. Assumptions are highlighted within. The Project location is shown on *Figure 1*.

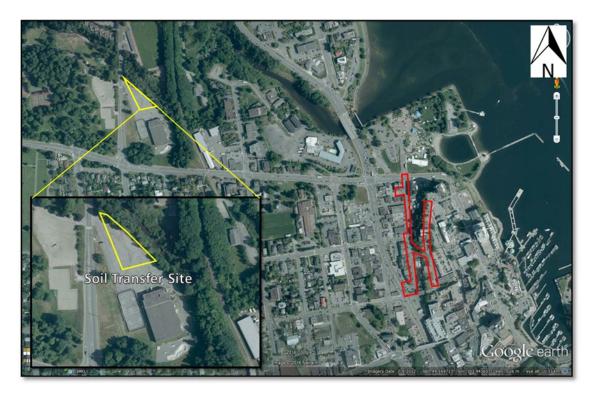


Figure 1 – The Project Site which includes the location of the Soil Transfer Site (yellow outline) at 106 Wall Street, and the Construction Site (red outline) on Cliff, Benson and Skinner Streets, Nanaimo, BC (Image courtesy of Google Earth).



2.0 NANAIMO CITY COUNCIL QUESTIONS

Questions posed by City Councillors during the December 5th, 2016 council meeting, as well as responses from McElhanney, are outlined below.

Question: Was the Relocation Schedule 7 standard met?

Response: Yes, Schedule 7 standards for Soil Relocation to Non-Agricultural Land were applied and adhered to.

Supporting Information: We assume that the question relates to the BC Contaminated Sites Regulation (CSR) Schedule 7 Standards. Schedule 7 has several subsections, in this instance the Site-specific conditions require "Schedule 7 - Soil Relocation to Non-Agricultural Land (Column II)" to be applied. Such an application is needed to determine soil disposal options. For all samples collected, laboratory chemistry was compared against this standard and soils were managed in accordance with the Environmental Management Act and its regulations. As determined by the soil chemistry, soils were disposed of at locations that were authorized to accept the material.

Question: Was 106 Wall Street on the registry to receive hazardous materials?

Response: 106 Wall Street is not a registered Site nor did it need to be to complete the project, as none of the soils encountered during the project were determined to be hazardous waste. The facilities used for disposal of soil from the Project are permitted Sites for this activity. The City filed information with BC MOE during the Project and the Cliff Street road right-of-way is now a registered Site, as contamination was discovered during excavation. None of the soils excavated during the Cliff Street Utility Upgrades were classified as hazardous waste as defined by the BC Hazardous Waste Regulation.

Supporting Information: A receiving Site is registered with the BC Ministry of Environment (MOE) if it is the generator and/or the final disposal facility for contaminated soils. The property at 106 Wall Street was not a generator or a final disposal site.

During the construction of the Project, contamination was determined to be present within the Cliff Street right-of-way. As a result, two Notifications of Independent Remediation (NIR) and associated Site Risk Classification Reports were prepared and submitted to the BC MOE on behalf of the City. These documents essentially identify the Cliff Street Right of Way as a "Registered Site". The NIRs were completed in accordance with Section 54(2) of the BC *Environmental Management Act*, Sections 57 (1.2) and (2) of the BC CSR and BC MOE *Protocol 12 for Contaminated Sites – Site Risk Classification, Reclassification and Reporting.* The Sites that received the contaminated soils are permitted to do so by third party contractors. An NIR is not necessary for these properties as the facilities confirmed that the analyses completed on the soils were acceptable with their facility's permits. Analytical results indicated that although contamination was present in concentrations exceeding applicable BC CSR standards, none of the excavated soils were classified as a hazardous waste. Should the City or any other party decide to search the BC MOE registered Site database in the future, Cliff Street will be identified as a "registered Site".



Question: Was there a site recovery assessment, or an approved site to move to?

Response: We assume that the question relates to a Soil Relocation Agreement (SRA) as a Site recovery assessment is not term related to the BC Contaminated Sites Regulation. An SRA was not required. All soils were disposed of at facilities that were authorized to accept the material.

Supporting Information: For this project there were significant space constraints within the project boundaries and road right of way, soils encountered were not always suitable for backfill within the utility trenches (from a geotechnical perspective) and due to the increased size of the new utilities and the need to install appropriate bedding, excess soils were generated. These soils were excavated and were transported to the Soil Transfer Site at 106 Wall Street for temporary stockpiling. Soil sampling was also completed at this location to allow for classification for due diligence purposes prior to off-Site disposal. This work was completed in consultation with the BC MOE, who recognized that stockpiling of soil on Cliff Street was not possible.

Due to the nature of Cliff Street, soil sampling was completed ahead of project construction. It was recognized by all parties that the soils in Cliff Street were variable in nature due to historic infilling and would be considered suspect, however not necessarily contaminated. As a result, an Environmental Management Plan was developed and implemented during construction for the Soil Transfer Site. This plan was used to provide the contractor with guidance on the management of the environmental aspects of the Site.

Question: Is there a Ministry letter of all clear?

Response: There is no Ministry letter of all clear.

Supporting Information: McElhanney understands that the Council member posing the question may be referring to a Letter of Comfort from the BC MOE. Letters of Comfort were issued by the BC MOE historically to provide the Site owner with some level of assurance that remediation completed on the property met the Ministry's requirements. Letters of Comfort were only issued prior to July 1, 1995.

It should be noted that local governments are not responsible for remediation within easements, highways, or utility right-of-ways that they own, unless they caused the contamination (i.e. a spill from a municipal vehicle or municipal equipment). This information is outlined in BC MOE Fact Sheet 8 on Contaminated Sites – Protecting Local Governments as Land Owners from Liability.

Question: Was the Biocell Ministry of Environment Protocol 15 standard met?

Response: BC MOE *Protocol 15 for Contaminated Sites – Soil Treatment Facility Design and Operation for Bioremediation of Hydrocarbon Contaminated Soil* was not applicable to the Project.

Supporting Information: Protocol 15 is intended for the design, operation and regulation of bioremediation soil treatment facilities. The Soil Transfer Site was only used as a temporary soil storage area, and no bioremediation or long-term storage of soil occurred as part of the Project. Contaminated soil was disposed of off-Site at provincially permitted facilities.



3.0 CLOSING

We trust this information is sufficient at this time. McElhanney appreciates the opportunity to provide environmental services to the City of Nanaimo. If you have any questions regarding the information within please do not hesitate to contact the undersigned.

Yours truly,

McELHANNEY CONSULTING, SERVICES LTD.

Prepared by

Becky MacInnis B.Sc., P.Ghem, P.Ag. Environmental Scientist AG

bmacinnis@mcelhanney.com

Cc Chris Pogson, P.Eng. - Branch Manager

Reviewed

Brian S. White, P.Eng.

Senior Environmental Engineer

bwhite@mcelhanney.com