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**TO:** CITY MANAGER **DATE:** 2014 January 22

**FROM:** DIRECTOR ENGINEERING

**SUBJECT:** CANADIAN PACIFIC TRAIN DERAILMENT - UPDATE ON ENVIRONMENTAL ASSESSMENT AND REMEDIATION

**PURPOSE:** To inform Council on the progress made by Canadian National Rail on environmental assessment and remediation arising from the train derailment and release of metallurgical coal into the receiving environment.

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**RECOMMENDATION:**

1. **THAT** a copy of this report be forwarded to the Environment Committee for information.

**REPORT**

**1.0 INTRODUCTION**

At the 2014 January 13 Council Meeting, Council passed a motion under New Business for a staff report regarding the train derailment with recommendations on how to avoid a similar situation in the future and further; that staff monitor the ongoing investigation and clean up.

The following report provides an update to Council on the progress made by Canadian National (CN) Rail on environmental assessment and remediation arising from the train derailment and release of metallurgical coal into the receiving environment. A separate report will be forthcoming to Council on the cause of the derailment and how similar situations can be avoided in future.

**2.0 CANADIAN PACIFIC TRAIN DERAILMENT – UPDATE ON ENVIRONMENTAL ASSESSMENT AND REMEDIATION**

On 2014 January 11, at approximately 10:58am, a Canadian Pacific (CP) train travelling westbound along the south track of CN rail line derailed near Government Road and Brighton Avenue in Burnaby (see [Attachment #1](#)). Based on the initial investigation by first responders, it was noted that all train cars were carrying metallurgical coal and there were no injuries to the train crew or any members of the public. While seven train cars had derailed to varying degree, three of these train cars had completely tipped onto its sides resulting in release of approximately

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40 tonnes of metallurgical coal along the embankment and into Silver Creek. Given that the railway lines belong to CN, the responsibility of clean-up resided with CN.

Following the incident, coal from the derailed cars and the embankment area was removed and placed onto a tarped section on the north side of the rail tracks next to Government Road. Vacuum trucks were subsequently used to remove the coal offsite. All of the train cars were removed from the site and the damaged embankment was repaired using large rocks. Staff has requested CN to provide information on the amount of coal recovered from the embankment.

Given the release of coal into Silver Creek, Burnaby Lake and Brunette River, CN retained Triton Environmental Limited to assist in the development of a work plan to:

- Collect geo-referenced coordinates to identify areas where coal has deposited in Silver Creek, Burnaby Lake and Brunette River;
- Characterize deposition areas based on particle size and thickness to assist in remediation planning; and
- Collect information on habitat characteristics in the channel (e.g., wetted width, channel width, substrate, and cover), and
- Collect any other relevant information to aid in the feasibility of practical solutions for the removal of coal accumulations.

The above work was initiated on 2014 January 16 and has now been completed. The data collected from the survey will be reviewed in the coming days by Triton Environmental and used to develop a draft response plan for recovery of coal from the waterways. According to CN, once a draft plan has been prepared, it will be submitted by CN to the Ministry of Environment for their comments and approval. Clean up of coal in the waterways will begin once CN receives Ministry approval of the recovery plan.

City staff has been closely monitoring the assessment phase. Based on the review of relevant information, staff has conveyed to the B.C. Ministry of Environment officials that the assessment and recovery plan must include:

- Options on methodologies to be used in recovering coal from Silver Creek , Burnaby Lake and the Brunette River;
- Details on mitigation measures which would be applied to reduce impacts to various species and life stages (salmon eggs, turtle hibernation, Nooksack Dace);
- Details on monitoring plan both during and post recovery of coal;
- Analysis of impact of fine coal particulates to downstream habitats; and
- Details on the quantity of coal released and recovered.

Staff will wait for the receipt of the draft recovery plan and will provide an update report to Council.

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### 3.0 CONCLUSION

Following the derailment of CP train near Government Road and Brighton Avenue on 2014 January 11, CN has completed remedial works within the rail corridor and removed coal along the embankment. CN has also completed initial assessment to characterize the distribution, magnitude, and nature of coal deposit in Silver Creek, Burnaby Lake and Brunette River. The data collected from the survey will be reviewed in the coming days by CN's consultant Triton Environmental and used to develop a draft response plan for recovery of coal from the waterways. Once a draft plan has been prepared, it will be submitted by CN to the B.C. Ministry of Environment for their comments and approval. Staff will continue to monitor the clean-up and provide an update report to Council.



Leon Gous  
DIRECTOR ENGINEERING

DD:jb

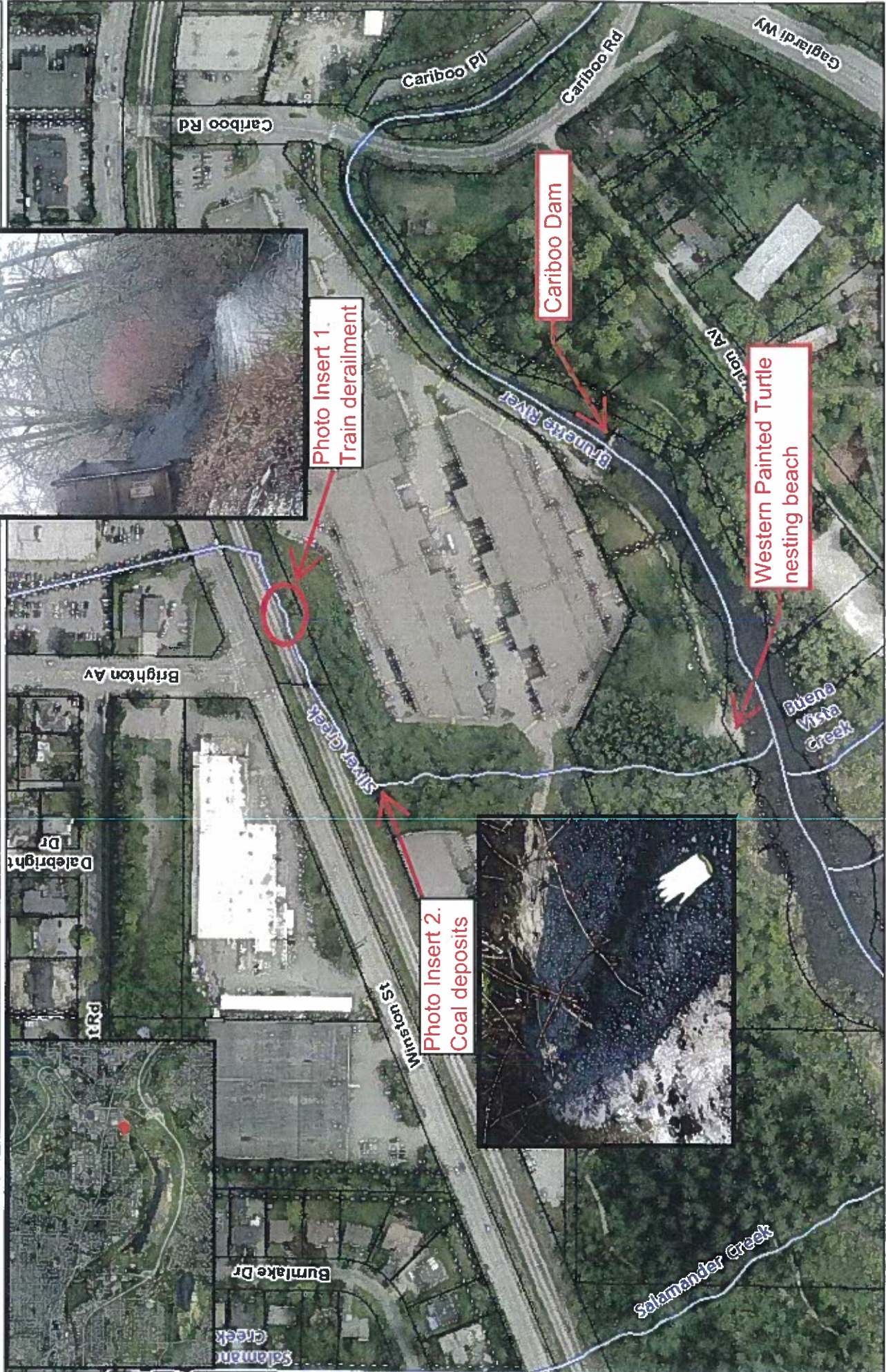
Attachment

Copied to: Fire Chief



ATTACHMENT 1: AREA MAP

1:3,284



The information has been gathered and assembled on the City of Burnaby's computer systems. Data provided herein is derived from a number of sources with varying levels of accuracy. The City of Burnaby disclaims all responsibility for the accuracy or completeness of information contained herein.