

October 8, 2015

BC Ministry of Transportation and Infrastructure Lower Mainland District c/o Jeffrey Moore, Provincial Approving Officer

Dear Sir:

Re: Performance Verification Plan for Certificate of Compliance at 8400 River Road, Delta, BC (Off-site) Keystone Environmental Project No. 12537-105

Keystone Environmental Ltd. (Keystone Environmental) has prepared this Performance Verification Plan (PVP) in support of an application for a risk-based Certificate of Compliance (CofC) for the property located adjacent to 8400 River Road, Delta, BC (herein referred to as "Off-site"), described by the following metes and bounds:

Metes and Bounds of Off-Site Contamination, Area #1

Starting at Area #1 Starting Point, of reference plan of statutory Right of Way over a portion of Parcel "G" (Plan in Absolute Fees Parcels Book 11/734/3038F), except:

Firstly: Part on Reference Plan 11347 and Road; Secondly: Parcel E Plan 22258; Thirdly: Part Subdivided by Plan 76221; Fourthly: parts dedicated road on Plan LMP 44472; Fifthly: Part dedicated road on Plan EPP119; District Lot 131, Group 2 New Westminster District:

Thence 65° 16' 25" for 16.243 metres; To the point of commencement. Thence 65° 16' 25" for 224.712 metres; Thence 173° 44' 08" for 64.768 metres; Thence 241° 17' 26" for 191.251 metres; Thence 325° 05' 50" for 75.913 metres; Returning to the point of commencement.

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Metes and Bounds of Off-Site Contamination, Area #2

Starting at Area #2 Starting Point, of reference plan of statutory Right of Way over a portion of Parcel "G" (Plan in Absolute Fees Parcels Book 11/734/3038F), except:

Firstly: Part on Reference Plan 11347 and Road; Secondly: Parcel E Plan 22258; Thirdly: Part Subdivided by Plan 76221; Fourthly: parts dedicated road on Plan LMP 44472; Fifthly: Part dedicated road on Plan EPP119; District Lot 131, Group 2 New Westminster District:

Thence 89° 30' 54" for 52.845 metres; To the point of commencement. Thence 89° 30' 54" for 109.156 metres; Thence 196° 40' 43" for 3.551 metres; Thence 229° 57' 31" for 6.605 metres; Thence 240° 01' 03" for 8.470 metres; Thence 249° 04' 53" for 22.335 metres; Thence 253° 34' 20" for 12.738 metres; Thence 260° 32' 22" for 10.454 metres; Thence 270° 06' 03" for 7.974 metres; Thence 275° 52' 39" for 6.192 metres; Thence 281° 45' 42" for 6.605 metres: Thence 289° 47' 18" for 11.390 metres; Thence 300° 03' 06" for 12.639 metres; Thence 313° 02' 32" for 8.945 metres; Thence 329° 14' 17" for 6.947 metres; Returning to the point of commencement.

The PVP presents the principal risk management measures (i.e., the Schedule B key risk management controls) that apply and must remain in place to ensure that the Site CofC remains valid. The PVP was prepared in accordance with BC Ministry of Environment (MOE) Administrative Guidance 14: Performance Verification Plans, Contingency Plans, and Operations and Maintenance Plans (MoE, 2014). The PVP was based on the findings of the Keystone Environmental report (2015) titled *Report of Findings – Human Health and Ecological Risk Assessment 8400 River Road, Delta, BC.*

DETERMINATION OF REMEDIATION TYPE

Based on the risk management measures for the Off-site, the Remediation Type applicable at the Site is considered to be Type 2 (Case 2). Remediation Type 2 Sites may require the use of engineering and institutional controls to mitigate/eliminate risks at the Site, but in the event that controls were either not implemented or were implemented but were rendered ineffective, there is a lack of imminent risks.



Under a Remediation Type 2 (Case 2) scenario, MOE (2014) indicates that a PVP is required and that an operations and maintenance plan may be required. A contingency plan is not required.

REQUIRED RISK CONTROLS

The principal risk controls which must be maintained at the Site include the following items:

• Groundwater must not be used as drinking water.

REQUIRED ACTIONS TO IMPLEMENT THE REQUIRED RISK CONTROLS

The following actions are required to implement the risk controls:

• Mandatory notification provided to the owner/operator of the Off-site that no drinking water wells are to be developed

Records of these actions should be maintained by the Site owner and submitted to the MOE if requested. Other reporting requirements for all performance verification records include the following:

- The Director must be notified promptly by the person(s) responsible for the Site if performance verification actions indicate that any of the required risk controls are not being met. The following information must be submitted to the Director with the notification, or as soon as practicable thereafter:
 - > The time period over which risk controls were not in place or implemented
 - The nature of the excursion(s)
 - > The temporary or permanent corrective measures implemented or to be implemented
 - An implementation schedule
 - Supporting documentation
- If requested by the Director, a report signed by an Approved Professional must be submitted for review to the Director and must include the following (as applicable):
 - > An evaluation of the performance of the institutional controls; and
 - Supporting documentation.

SUMMARY RATIONALE AND CONCLUSION

Groundwater contamination exceeding the CSR Schedule 6 drinking water standards is present. A drinking water use preclusion on groundwater within the off-Site area is needed to prevent human consumption and risk.



CONCLUSION

It is our opinion that the actions identified above are sufficient to ensure performance verification of the risk controls required for this Site.

GENERAL LIMITATIONS AND CONFIDENTIALITY

Findings presented in this report are based upon the Keystone Environmental (2015) Stage 1 Update and DSI and a site reconnaissance to identify and characterize ecological habitat at and near the Site. The Human Health and Ecological Risk Assessment was completed in a manner consistent with that level of care and skill normally exercised by other environmental professionals practicing under similar circumstances in the area at the time of the performance of the work.

This report has been prepared solely for the internal use of Darrahdi Holdings Ltd. and for review by the BC MOE, the Contaminated Sites Approved Professionals (CSAP) Society, and Mr. Scott Steer, R.P.Bio., pursuant to the agreement between Keystone Environmental Ltd. and Darrahdi Holdings Ltd. By using this report, Darrahdi Holdings Ltd., BC MOE, CSAP, and Mr. Steer agree that they will review and use the report in its entirety. Any use which other parties make of this report, or any reliance on or decisions made based on it, are the responsibility of such parties. Keystone Environmental Ltd. accepts no responsibility for damages, if any, suffered by other parties as a result of decisions made or actions based on this report.

If you should have any questions, please do not hesitate to contact the signatory below.

Sincerely,

Keystone Environmental Ltd.



Jennifer Trowell, M.ET., R.P.Bio. Risk Assessor

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ATTACHMENT:

References





REFERENCES



REFERENCES

- Keystone Environmental Ltd. (2015). Report of Findings Preliminary Site Investigation Stage 1 Update and Detailed Site Investigation, 8400 River Road River Road, Delta, BC. Burnaby, BC: Keystone Environmental Ltd. September 10, 2015
- Keystone Environmental Ltd. 2015 Report of Findings Human Health and Ecological Risk Assessment 8400 River Road, Delta, BC. Burnaby, BC: Keystone Environmental Ltd. September 10, 2015

