



September 2, 2021

Mr. Adam Donnelly  
Beedie Development Group  
3030 Gilmore Diversion  
Burnaby, BC V5G 3B4  
Via email: [adam.donnelly@beedie.ca](mailto:adam.donnelly@beedie.ca)

Dear Mr. Donnelly:

**Re: Performance Verification Plan for Certificate of Compliance  
1168–1170 Derwent Way, Delta, BC  
Project No. 15063**

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 referenced as 1168–1170 Derwent Way, Delta, BC (the “Site”).

The PVP presents the principal risk management measures (i.e., the Schedule B key risk management controls) that apply and must remain in place at the Site to ensure that the Site CofC remains valid. The PVP was prepared in accordance with BC Ministry of Environment and Climate Change Strategy (ENV) guidance (BC ENV, 2021). The PVP was based on the findings of the Keystone Environmental (2021) report titled *Report of Findings – Human Health and Ecological Risk Assessment, 1168-1170 Derwent Way, Delta, BC*.

#### **DETERMINATION OF SITE TYPE**

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

- Contaminated soils must remain at depths of at least 1.0 metre below surface grade unless covered by pavement or building foundations.
- Site groundwater must not be used for drinking water purposes

This risk controls were put in place to prevent exposure to soil and groundwater contamination by human and terrestrial ecological receptors at the Site. The metes and bounds description of the soil contamination to which the risk control related to the soil contamination applies is presented in **Figure 1**.

Based on the risk control measures for the Site, the Site is considered to be a Type 2 site. A Type 2 site is one that meets risk-based standards under current and future uses through use of institutional or engineered risk controls, apart from the risk controls included for Type 1 sites<sup>1</sup>.

## REQUIRED ACTIONS TO IMPLEMENT THE REQUIRED RISK CONTROL

The following actions are required to implement the risk control:

- Mandatory notification provided to the Site owner/operator by the responsible person that soil contamination must remain beneath impervious surfaces such as pavement or building foundations, or by at least 1.0 m of compliant soil material within the area of concern shown in the attached metes and bounds **Figure 1**.
- Mandatory notification provided to the Site owner/operator by the responsible person that if the soil contamination identified in **Figure 1** is to be removed through excavation, a qualified environmental professional should be retained to characterize the material and advise on proper soil management and disposal.
- Mandatory notification provided to the Site owner/operator by the responsible person to keep and maintain records of risk control maintenance as these records may be submitted to BC ENV upon request in the future.
- Mandatory notification provided to the Site owner/operator by the responsible person that the Director must be notified if performance verification actions indicate that there is a failure of the risk control.

Records of risk control maintenance by the Site owner/operator should include the following:

- Scheduled construction activities that have occurred within the metes and bounds.
- Description and schedule of inspection and maintenance works conducted within the metes and bounds.
- Detailed specifications on any engineering work to be implemented within the metes and bounds.
- Quantity and quality of soil or waste managed or disposed of as part of the engineered works.
- Any identified failures in risk control performance along with the measures taken to restore the risk control.

Suitable forms of record documentation include inspection records, site photo documentation, engineering details, communication documents, and related information. This documentation should be recorded at least annually until site redevelopment is complete.

---

<sup>1</sup> Type 1 sites include those that have an institutional control for limiting the presence of future drinking water wells where the site is serviced by a treated municipal water supply and/or have an engineered control of a maintained and a paved cap covering soil contamination in a municipal roadway or sidewalk.

If periodic maintenance of sub-surface works (pipes, utilities etc.) occurs within the metes and bounds area, then inspection/maintenance records will be needed until maintenance is not required.

## **SUMMARY RATIONALE**

*Contaminated soils must remain at depths of at least 1.0 metre below surface grade unless covered by pavement or building foundations*

Soil contamination exceeding the CSR Schedule 3.1 commercial land use (CL) soil standards relevant to human and terrestrial ecological health are present in soils from depths ranging from 1.0 to 2.2 metres below ground surface (mbgs)<sup>2</sup>. The risk assessment assumed that the identified soil contamination would remain beneath a soil cap with a minimum thickness of 1.0 m and beneath the footprint of the future Site building to prevent potential unacceptable risks to humans and/or on-site terrestrial ecological receptors.

As the identified contaminated soils are located at considerable depth, the soil contamination does not pose unacceptable risks to human health or the environment. Therefore, an immediate risk of exposure to the soil contamination by humans and terrestrial ecological receptors would not occur as long as the risk control does not become compromised. Furthermore, retaining a qualified environmental professional to advise on the proper soil management during excavation would mitigate future unacceptable risks to human health and the environment. Consequently, a contingency action plan is not proposed in this PVP.

*Site groundwater must not be used for drinking water purposes*

Groundwater contamination exceeding the CSR Schedule 3.2 standards for drinking water use is present at the Site. Groundwater is not currently used as a drinking water source at the Site, and it is expected that the Site will be connected to the municipal water supply in the future. The risk assessment assumed that groundwater drinking water wells would not be installed at the Site and that the future Site building would remain connected to the municipal potable water supply. For this reason, actions to implement this risk control, beyond listing the risk control on the Certificate of Compliance for the Site, is not prescribed herein.

## **CONCLUSION**

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

## **GENERAL LIMITATIONS**

The findings presented in this report are based upon the field work conducted by Keystone Environmental for Beedie Development Group. Keystone Environmental has prepared this document in good faith and has relied upon information provided by others. Keystone Environmental has assumed that the information provided by third parties is both complete and

---

<sup>2</sup> Includes pre-load material with a minimum thickness of 1.0 m that has been deposited across the Site.

accurate. This report 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 same locale at the time of the performance of the work.

This report has been prepared solely for the internal use of Beedie Development Group and for review by the BC Ministry of Environment and Climate Change Strategy pursuant to the agreement between Keystone Environmental Ltd. and Beedie Development Group. By using this report, Beedie Development Group and the BC Ministry of Environment and Climate Change Strategy 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.

Sincerely,

**Keystone Environmental Ltd.**

Kevin Hall, B.Sc., R.P.Bio.  
Risk Assessor

Adam Radlowski, M.Sc., R.P.Bio.  
Senior Environmental Risk Assessor

I:\15000-15099\15063\Phase 00105 HHERA\PVP\15063 210902 PVP.docx

**ATTACHMENTS:**

- References
- Metes and Bounds Figure

## REFERENCES

## REFERENCES

- BC ENV. (2021). BC Ministry of Environment and Climate Change Strategy. *Performance Verification Plans*. Retrieved August 27, 2021, from <https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/guidance-resources/performance-verification-plans>
- Keystone Environmental Ltd. (2021). *Report of Findings – Human Health and Ecological Risk Assessment, 1168-1170 Derwent Way, Delta, BC*. Burnaby, BC: Keystone Environmental Ltd. September 2021.

## METES AND BOUNDS FIGURE



**METES & BOUNDS OF ON-SITE CONTAMINATION:**

- STARTING AT THE NORTH CORNER OF LOT 136 DISTRICT LOT 351 GROUP 1 NEW WESTMINSTER DISTRICT PLAN 49063:
- THENCE 164° 57' 55" FOR 71.213 METRES; TO THE POINT OF COMMENCEMENT.
- THENCE 135° 52' 34" FOR 28.000 METRES;
- THENCE 226° 34' 50" FOR 58.050 METRES;
- THENCE 318° 20' 36" FOR 27.268 METRES;
- THENCE 45° 49' 56" FOR 56.871 METRES;

RETURNING TO THE POINT OF COMMENCEMENT.

**LEGEND**

--- SITE

— LOT LINES

— METES AND BOUNDS OF ON-SITE CONTAMINATION

**NOTES:**  
 1. THIS DRAWING IS FOR GENERAL INFORMATION ONLY.  
 LOT BOUNDARIES AND FEATURES ARE APPROXIMATE.



1168-1170 Derwent Way  
 Delta, BC

DESIGN	APPROVED
DRAWN AB	CHECKED
SCALE  SCALE: 1:2500(approx.)	

CLIENT Beebie Development Group	SHEET No. 1 of 1
<b>Metes and Bounds of On-Site Contamination</b>	PROJECT No. 15063-06
	REVISION No. 00
	DRAWING No. 21-15063-01

No.	DATE	DESCRIPTION	BY	APPROVED
00	7/08/21			
REVISIONS				