



THURBER ENGINEERING LTD.

March 19, 2024

File No.: 35808

Ministry of Transportation and Infrastructure  
4C – 940 Blanshard Street  
PO Box 9850 Stn Prov Govt  
Victoria, BC V8W 9T5

Attention: Paul Savinkoff, P.Geo.

## **STEP A SCREENING SUMMARY HOLT CREEK BRIDGE NO. 10543 REPLACEMENT**

Dear Paul,

The Ministry of Transportation and Infrastructure (MOTI) provided a framework for identifying and characterizing potentially contaminated soil in its Technical Circular document T-03/20 dated August 4, 2020. In accordance with MOTI's document, Thurber completed a "Step A – Screening Summary" for the Holt Creek Bridge No. 10543 Replacement (the Project), shown on Figure 1 (Appendix A).

This summary was prepared for the exclusive use of MOTI, and Authorized Users as defined by contract 860CS5299. Any use which a third party makes of this report, or any reliance on decisions based on it are the responsibility of such third parties. Thurber accepts no responsibility for damage incurred by third parties as a result of decisions made or actions taken based on this report. It is a condition of this report that Thurber's performance of its professional services is subject to the attached Statement of Limitations and Conditions.

### **1. BACKGROUND**

The Project area consists of a 220 m long section of the Cowichan Valley Trail, approximately 7 km west of Duncan, BC. The Project area is comprised of a timber trestle bridge spanning 73 m and the approaching sections of Cowichan Valley Trail to the east and west of the bridge. We understand that the existing timber trestle will be removed to install a new bridge at the same alignment.

### **2. RECORDS REVIEWED**

The Project area was based on drawings entitled *Ministry of Transportation & Infrastructure Holt Creek Bridge No. 10543, Cowichan Valley Trail, BC, Final Design*, prepared by AtkinsRealis, dated February 20, 2024, and provided by MOTI to Thurber via email on February 28, 2024.



### 3. SCOPE OF SERVICES

In accordance with our proposed scope, we completed the following:

- A desktop review of available current and historical information concerning the activities conducted in the project area and on nearby lands.
- Preparation of this summary report.

### 4. DESKTOP REVIEW

#### 4.1 Previous Reports

Thurber review the report entitled *Hazardous Materials Inspection for Holt Creek Trestle Bridge, Lake, Cowichan, BC* completed by VOHS Consulting Group (VOHS), dated December 22, 2022. VOHS completed the hazardous materials inspection to identify potential areas that would require safe containment, removal, or abatement prior to demolition at the Project. The following hazardous materials were identified at the Project:

- Yellow paint on metal pole containing lead coatings or products.
- Concrete footings, sand and dirt at the base of bridge structure likely containing silica containing material.
- Wood trestle structure containing Polycyclic Aromatic Hydrocarbons (PAH).

Based on the concentrations of PAH identified by VOHS, the wood trestle structure is considered hazardous waste and must be disposed of per the Hazardous Waste Regulation, BC Reg 63/88.

#### 4.2 Site Registry

The Site Registry is a database maintained by the Ministry of Environment and Climate Change Strategy (ENV) that contains information on the contaminant status of listed properties. The Registry was searched using a 500 m radius area search procedure.

There were no properties listed on the Registry. The search results are included in Appendix B.

#### 4.3 Federal Contaminated Sites Inventory

The Federal Contaminated Sites Inventory is a database maintained by the Federal government that contains information on the contaminant status of Federal land across Canada. The inventory was searched using each of the Project areas' co-ordinates on the Online Map Navigator to identify properties within a 500 m radius of the Project.

No properties were identified within a 500 m radius of the four Project areas. Copies of the search results are provided in Appendix B.

#### 4.4 Air Photographs

Historical aerial photographs for the Project area and the adjacent properties were obtained from the UBC Geographic Information Centre. Aerial photographs from 1946, 1951, 1955, 1958, 1962, 1968, 1974, 1980, 1986, 1989, 1992, and 1999 were reviewed. Additionally, aerial photographs from Google Earth from 2004, 2012, 2016, 2020, and 2022 were reviewed.

A summary of observations of the Project and surrounding area is provided below.

YEAR(S)	Project
1946, 1951, 1955, 1958, 1962, 1968, 1974, 1980, 1986, 1989	The Project appears to be occupied by a timber trestle bridge overlying Holt Creek. A rail line continues through a forested area to the west and east of the bridge.
1992, 1999, 2004, 2012, 2016, 2020, 2022	The Project appears to be occupied by a timber trestle bridge overlying Holt Creek. A trail continues through a forested area to the west and east of the bridge.

YEAR(S)	NORTH	EAST	SOUTH	WEST
1946, 1951	Holt Creek continues through a forested area.	A rail line continues through a forested area.	Holt Creek continues through a forested area.	A rail line continues through a forested area. A rail line continues through a forested area.
1955, 1985, 1962, 1968		A rail line continues through a forested area. Cleared areas on the north side of the rail line and on the north side of Shawnigan Road are present 125 m east of the Project.		
1974		A cleared strip to the north of the rail line is present 150 m northeast of the Project.		
1980, 1986		The cleared areas on the north side of the rail line and on the north side of Shawnigan Road appear to be occupied by a quarry, located 125 m east of the Project.		



YEAR(S)	NORTH	EAST	SOUTH	WEST
1989		A cleared area is observed on the north side of Shawnigan Road 125 m east of the Project.		
1992, 1998		A cleared area on the north side of Shawnigan road is present 70 m east of the Project.		A trail continues through a forested area.
2004, 2012, 2016, 2020, 2022		A trail continues through a forested area.		A trail continues through a forested area. The area to the southwest has been cleared.

#### 4.5 Street Level Imagery

No web-based images of the Project or surrounding area were available for review.

### 5. DISCUSSION

The historical review indicated that the Project was occupied by a CN rail line and timber trestle bridge from the early 1920s to early 1990s. The rail line was decommissioned in 1991 and the timber trestle bridge was modified into a pedestrian bridge. The Project area was redeveloped as a gravel recreation trail known as the Cowichan Valley Trail.

The timber trestle bridge was constructed from creosote treated timber. The use of creosote and concentrations of PAH identified in the sample collected from the structure by VOHS, present a potential to impact soils at the Project.

The surrounding area was historically forested. The area further to the east along the rail line was cleared in the 1950s. A large, cleared area, possibly a shooting range, was observed 150 m to the northeast of the Project in the 1970s and a quarry was observed 125 m to the east in the 1980s. Based on the distances from the Project, these activities present a low potential to impact the Project.

#### 5.1 Schedule 2 Activities

Schedule 2 of the CSR is a list of commercial and industrial activities that ENV considers a potential risk to the environment. Based on our historical review and observations, no Schedule 2 Use activities were identified near or at the Project.



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## **5.2 High Risk Sites**

Based on our historical review, no high-risk sites were identified near or at the Project.

## **6. RECOMMENDATIONS**

As no Schedule 2 activities or high-risk sites were identified at or near the Project, a Step B Soil Characterization Report is not required for any cut soils to be relocated within the Project area or to a MOTI property as per the Technical Circular T- 03/20.

If any cut soils cannot be relocated within the Project or to a MOTI property, a Step B Soil Characterization Report is recommended prior to any soils being disposed of at a third-party receiving facility.

If soils suspected to be contaminated or hazardous are identified during project works, soil must be handled in accordance with SS165.14.03 and Appendix 165-A of MOTI's "2020 Standard Specifications for Highway Construction" dated November 1, 2020. Suspect soils require segregating, testing, handling, and disposal at an approved disposal site or licensed disposal facility.



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## 7. CLOSURE

We trust this information meets your present needs. If you have any questions, please contact the undersigned at your convenience.

Yours truly,  
Thurber Engineering Ltd.

Andrew Sorensen, P.Eng., CSAP  
Review Engineer

Alex Harden, EIT  
Environmental Engineer

### Attachments

Statement of Limitations and Conditions

Appendix A      Figure 1

Appendix B      Site Registry and Federal Contaminated Sites Inventory Findings

Thurber Engineering Ltd.  
Permit to Practice #1001319



## STATEMENT OF LIMITATIONS AND CONDITIONS

### 1. STANDARD OF CARE

This Report has been prepared in accordance with generally accepted engineering or environmental consulting practices in the applicable jurisdiction. No other warranty, expressed or implied, is intended or made.

### 2. COMPLETE REPORT

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment are a part of the Report, which is of a summary nature and is not intended to stand alone without reference to the instructions given to Thurber by the Client, communications between Thurber and the Client, and any other reports, proposals or documents prepared by Thurber for the Client relative to the specific site described herein, all of which together constitute the Report.

IN ORDER TO PROPERLY UNDERSTAND THE SUGGESTIONS, RECOMMENDATIONS AND OPINIONS EXPRESSED HEREIN, REFERENCE MUST BE MADE TO THE WHOLE OF THE REPORT. THURBER IS NOT RESPONSIBLE FOR USE BY ANY PARTY OF PORTIONS OF THE REPORT WITHOUT REFERENCE TO THE WHOLE REPORT.

### 3. BASIS OF REPORT

The Report has been prepared for the specific site, development, design objectives and purposes that were described to Thurber by the Client. The applicability and reliability of any of the findings, recommendations, suggestions, or opinions expressed in the Report, subject to the limitations provided herein, are only valid to the extent that the Report expressly addresses proposed development, design objectives and purposes, and then only to the extent that there has been no material alteration to or variation from any of the said descriptions provided to Thurber, unless Thurber is specifically requested by the Client to review and revise the Report in light of such alteration or variation.

### 4. USE OF THE REPORT

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client, the BC Ministry of Transportation and Infrastructure (MoTI) and Authorized Users as defined in the MoTI Special Conditions Form H0461d. NO OTHER PARTY MAY USE OR RELY UPON THE REPORT OR ANY PORTION THEREOF WITHOUT THURBER'S WRITTEN CONSENT AND SUCH USE SHALL BE ON SUCH TERMS AND CONDITIONS AS THURBER MAY EXPRESSLY APPROVE. Any use which an unauthorized third party makes of the Report, is the sole responsibility of such third party. Thurber accepts no responsibility whatsoever for damages suffered by any unauthorized third party resulting from use of the Report without Thurber's express written permission.

### 5. INTERPRETATION OF THE REPORT

- a) Nature and Exactness of Soil and Contaminant Description: Classification and identification of soils, rocks, geological units, contaminant materials and quantities have been based on investigations performed in accordance with the standards set out in Paragraph 1. Classification and identification of these factors are judgmental in nature. Comprehensive sampling and testing programs implemented with the appropriate equipment by experienced personnel may fail to locate some conditions. All investigations utilizing the standards of Paragraph 1 will involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. Actual conditions may vary significantly between the points investigated and the Client and all other persons making use of such documents or records with our express written consent should be aware of this risk and the Report is delivered subject to the express condition that such risk is accepted by the Client and such other persons. Some conditions are subject to change over time and those making use of the Report should be aware of this possibility and understand that the Report only presents the conditions at the sampled points at the time of sampling. If special concerns exist, or the Client has special considerations or requirements, the Client should disclose them so that additional or special investigations may be undertaken which would not otherwise be within the scope of investigations made for the purposes of the Report.
- b) Reliance on Provided Information: The evaluation and conclusions contained in the Report have been prepared on the basis of conditions in evidence at the time of site inspections and on the basis of information provided to Thurber. Thurber has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Thurber does not accept responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of misstatements, omissions, misrepresentations, or fraudulent acts of the Client or other persons providing information relied on by Thurber. Thurber is entitled to rely on such representations, information and instructions and is not required to carry out investigations to determine the truth or accuracy of such representations, information and instructions.
- c) Design Services: The Report may form part of design and construction documents for information purposes even though it may have been issued prior to final design being completed. Thurber should be retained to review final design, project plans and related documents prior to construction to confirm that they are consistent with the intent of the Report. Any differences that may exist between the Report's recommendations and the final design detailed in the contract documents should be reported to Thurber immediately so that Thurber can address potential conflicts.
- d) Construction Services: During construction Thurber should be retained to provide field reviews. Field reviews consist of performing sufficient and timely observations of encountered conditions in order to confirm and document that the site conditions do not materially differ from those interpreted conditions considered in the preparation of the report. Adequate field reviews are necessary for Thurber to provide letters of assurance, in accordance with the requirements of many regulatory authorities.

### 6. RELEASE OF POLLUTANTS OR HAZARDOUS SUBSTANCES

Geotechnical engineering and environmental consulting projects often have the potential to encounter pollutants or hazardous substances and the potential to cause the escape, release or dispersal of those substances. Thurber shall have no liability to the Client under any circumstances, for the escape, release or dispersal of pollutants or hazardous substances, unless such pollutants or hazardous substances have been specifically and accurately identified to Thurber by the Client prior to the commencement of Thurber's professional services.

### 7. INDEPENDENT JUDGEMENTS OF CLIENT

The information, interpretations and conclusions in the Report are based on Thurber's interpretation of conditions revealed through limited investigation conducted within a defined scope of services. Thurber does not accept responsibility for independent conclusions, interpretations, interpolations and/or decisions of the Client, or others who may come into possession of the Report, or any part thereof, which may be based on information contained in the Report. This restriction of liability includes but is not limited to decisions made to develop, purchase or sell land.



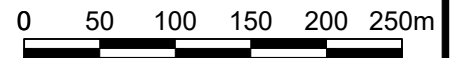


NOTES:

1. AERIAL IMAGE TAKEN FROM GOOGLE EARTH.
2. LOT LINES TAKEN FROM THE DISTRICT OF COWICHAN VALLEY REGIONAL OPEN DATA CATALOGUE.

LEGEND:

SITE BOUNDARY



**THURBER ENGINEERING LTD.**

MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE

**SITE AND SURROUNDING LAND USE**

HOLT CREEK BRIDGE NO. 10543 REPLACEMENT

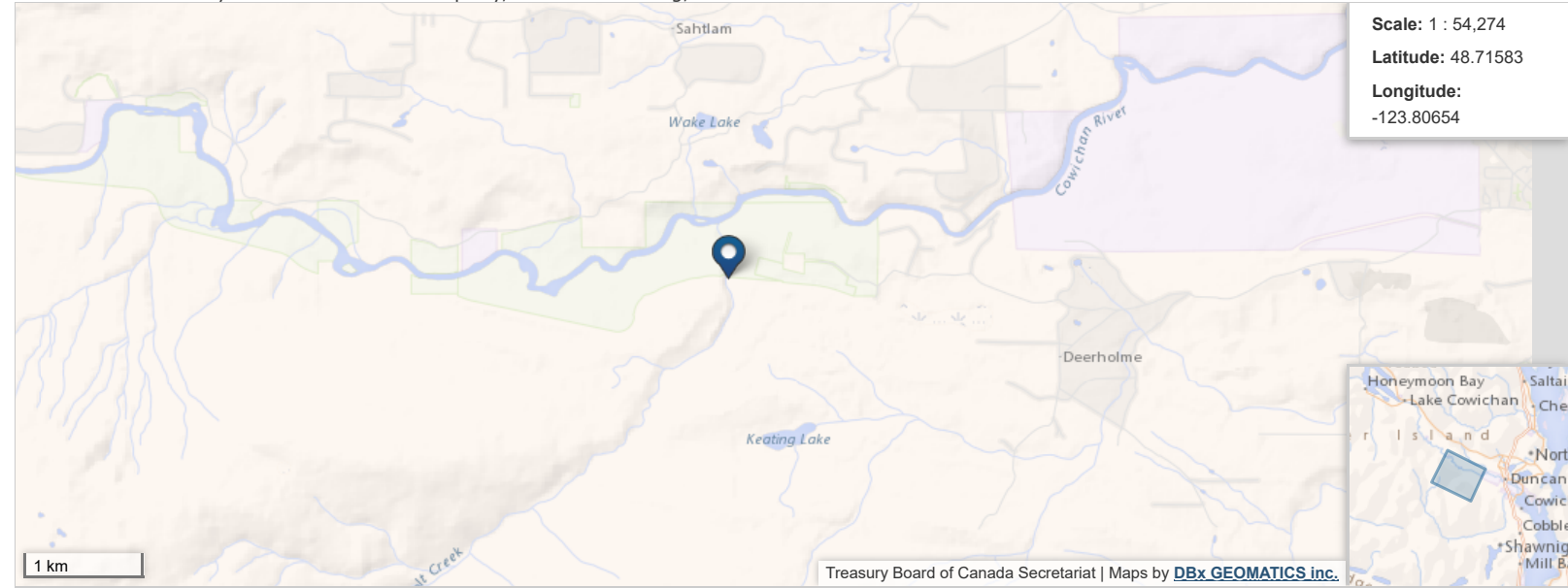
COWICHAN VALLEY, BC

DESIGNED ASH	DRAWN JL	APPROVED LP	DATE MARCH 6, 2024	SCALE 1:5000	PROJECT No. 35808	FIGURE NO. 1	REV. 0
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## DFRP/FCSI - Map Navigator

Area: Cowichan Valley Content: 0 Federal Property, 0 Federal Building, 0 Federal Contaminated Site



### Layers

- Federal Properties
- Federal Buildings
- Federal Contaminated Sites
- Economic Region
- Census Divisions
- Census Subdivisions
- Metropolitan Areas
- Federal Electoral Districts
- Treaty Areas

<sup>1</sup> This layer is visible only when the map scale is smaller than 1:3,000,000.  
<sup>2</sup> Suspected Active Closed  
<sup>3</sup> Google base maps are only available when the map scale is smaller than 1:60,000.

The tables content is currently representing the actual map.

[UPDATE TABLES](#)

**Federal Properties (0) / Parcels (0) Federal Buildings (0) Federal Contaminated Sites (0)**

No record found.

# Site Registry - Area Search

## BC Registries and Online Services

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No records from the Site Registry that match the search criteria provided:

Folio: 35808

Latitude: 48deg 45min 25.2sec

Longitude: 123deg 48min 2.9sec

Radius: 0.5km

You have been charged for this information.

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Sites may be revealed by searching with alternate search methods. For example, a site not revealed in an Area search may be revealed by searching with another piece of information such as PID, PIN, address, or Crown Lands File Number.

Disclaimer: Site Registry information has been filed in accordance with the provisions of the *Environmental Management Act*. While we believe the information to be reliable, BC Registries and Online Services and the Province of British Columbia make no representation or warranty as to its accuracy or completeness. Persons using this information do so at their own risk.