

2019 Soil Management Plan

In recent years, major improvements have been made to lower metal emissions from Teck Trail Operations, resulting in improved air quality. This means that Teck is not adding as many metals such as lead into the soil. We can now focus more on addressing the historical impacts to soil from past emissions.

As part of this focus, the Trail Area Health and Environment Program is expanding its longstanding soil testing and remediation program that has been in place since 2007. This program includes soil testing and, in qualifying yards, replacement of soil or improvements to ground cover on a prioritized basis.

As would be expected, lead and other metals in soil are higher closer to the operation, and lower moving away from the operation. As such, properties further away may require no action.

Given the large number of properties in the area, our immediate focus will continue to be on those properties that are expected to have higher levels of metals in the soil, such as those nearest the smelter.

Soil testing will be prioritized based on the presence of children under 12 within areas that are known to have the highest levels of lead in the soil.

The prioritization of children under 12 allows us to focus on the age group that is the most likely to be exposed to metals in soil. Older children in this age group have a higher tolerance to exposure, while younger children under 6 years of age have lower tolerance to exposure. Our prioritization approach reflects these tolerance levels.

Following soil testing, we'll use three criteria to determine how properties are prioritized for soil management: the presence of children in key age groups, the presence of ground cover, such as grass, and lead levels in soil.

Our aim is to identify and offer soil testing to all residential properties with children under 12 years old present on a prioritized basis. We encourage parents and care takers of children under 12 in the Trail area to contact the Trail Area Health and Environment Program to determine their eligibility for soil testing.

The 2019 Soil Management Plan is being conducted under the direction of the Ministry of Environment and Climate Change Strategy as per the Contaminated Sites Regulation of the *Environmental Management Act*.

Teck is working with the Ministry of Environment and Climate Change Strategy to develop and seek approval for a long-term soil management plan called a Wide Area Remediation Plan. Once that plan is drafted, a full public consultation will take place prior to approval and implementation. The 2019 Soil Management Plan is an interim step focused on highest risk properties.

The Wide Area Remediation Plan will continue to build on the work we have been doing to address historical soil impacts in Trail and the surrounding area.

For more information, visit our downtown Trail Community Program Office at 1319 Bay Avenue, call 250.368.3256, email programs@thep.ca, or visit us online at thep.ca.

Frequently Asked Questions

1. Why is a soil management plan necessary?

- Teck is the responsible party for the Soil Management Plan under the direction of the BC Ministry of Environment and Climate Change Strategy as per the Contaminated Sites Regulation of the *Environmental Management Act*.
- Teck is working with the Ministry of Environment and Climate Change Strategy to develop and seek approval for a long-term soil management plan called a Wide Area Remediation Plan. Once that plan is drafted, a full public consultation will take place prior to approval and implementation. The 2019 Soil Management Plan is an interim step focused on highest risk properties.
- The Wide Area Remediation Plan will continue to build on the work we have been doing to address historical soil impacts in Trail and the surrounding area.
- Metallurgical facilities have been operating in Trail for well over a century. Historical emissions from these facilities have resulted in the addition of metals, including lead, into the soil in the surrounding area. As a result, soil in the Trail area is likely to have metals above natural background levels and regulatory standards.
- In recent years, major improvements have been made to lower metal emissions from Teck Trail Operations, resulting in improved air quality. This means that Teck is not adding as many metals into the soil.
- These improvements include a 99 per cent reduction in stack emissions since the 1990s, as well as a successful fugitive dust reduction program, which addresses dust that escapes from buildings, stockpiles and roads.
- In 2018, Teck achieved the lowest ever recorded annual average for lead in air. Building on previous improvements, since 2016, Trail Operations has realized a 47 per cent reduction in lead in community ambient air.
- We can now focus more on addressing the historical impacts to soil from past emissions.

2. What is the 2019 Soil Management Plan?

- The Trail Area Health and Environment Program is expanding its longstanding soil testing and management program that has been in place since 2007. This program includes soil testing and, in qualifying yards, replacement of soil or improvements to ground cover on a prioritized basis.
- Given the large number of households in these areas, assessments will be prioritized based on the presence of children under 12 within areas that are known to have the highest levels of lead in the soil, such as those neighbourhoods closest to the operation.
- The 2019 Soil Management Plan is being conducted under the direction of the BC Ministry of Environment as per the Contaminated Sites Regulation of the *Environmental Management Act*.
- The program is overseen by the Trail Area Health and Environment Committee, a sub-committee of the City of Trail, with government, community and industry members.
- Teck is the responsible party for the Soil Management Plan under the direction of the BC Ministry of Environment and Climate Change as per the Contaminated Sites Regulation of the *Environmental Management Act*.
- All soil testing and improvement work is coordinated by the Trail Area Health and Environment Program, through funding provided by Teck.

3. What does it mean to live with metals in soil?

- For most people, the risks associated with metals in soil are low, particularly where soils are covered by grass or other materials; however, bare soils may increase exposure to metals and contribute to elevated lead levels in children.

- There are a number of ways residents can minimize their exposure. These include:
 - Covering bare soil areas in your yard by improving lawn areas, mulching gardens or covering exposed areas with landscape fabric and rock;
 - Following good hygiene practices, including washing hands after playing outside and before eating;
 - Taking shoes off at the door, and having floor mats at entryways;
 - Vacuuming, wet dusting and mopping frequently; and
 - Hosing off decks and patios and wiping down outdoor play equipment and furniture.
- For more information and tips on avoiding exposure to metals, visit us online at thep.ca.

4. How do you plan to address lead in the soil?

- As in previous years, measures to manage exposure to lead and other metals in the soil may include the replacement of soil in yards and/or gardens in qualifying cases. In other cases, improvements to ground cover, such as planting grass, may be made as an interim measure.
- Our programs are voluntary so it is your choice if you would like your soil to be tested.

5. Can you tell me more about your prioritization criteria?

- In 2019, we are expanding our longstanding soil testing and management program that has been in place since 2007.
- We'll be starting by offering testing to interested households that have children under 12 in areas that are known to have the highest lead levels in the soil, such as those closest to the operation.
- Following soil testing, we'll use three criteria to determine how properties are prioritized for soil management: the presence of children under 12 years of age, the presence of ground cover, and lead levels in soil.

6. How is the presence of children defined?

- In the 2019 Soil Management Plan, priority will be given to properties where children under 12 live, or visit regularly. This would include where children are present two or more days each

week for periods of three hours or more, or a total of 60 hours or more each year.

7. What are the regulatory standards that this plan is based on?

- The 2019 Soil Management Plan is an interim plan, conducted under the direction of the BC Ministry of Environment and Climate Change as per the Contaminated Sites Regulation of the *Environmental Management Act*.
- Teck is working with the BC Ministry of Environment and Climate Strategy to develop and seek approval for a long-term soil management plan, called a Wide Area Remediation Plan. Once that plan is drafted a full public consultation will take place prior to approval and implementation.
- The Wide Area Remediation Plan will continue to build on the work have been doing to address historical soil impacts in Trail and the surrounding area.

8. Why are you looking at a wider area than in the past?

- The Ministry of Environment and Climate Change Strategy has defined an area for a future Wide Area Remediation Plan called the Teck Trail Environmental Management Area (EMA). An EMA is a specific area that contains specified contaminants from one specific source, covers a larger geographic area and parcels within the site would likely be contaminated with one or more of the specified contaminants. For more information, please see the Ministry of Environment and Climate Change Fact Sheet on **Wide Area Sites**.
- The EMA is being used as the subject area for the 2019 Soil Management Plan and includes Trail, Rivervale, Warfield, Montrose, south Castlegar, areas of RDKB Area A and B, areas of RDCK Area J and the edges of Rossland.
- As would be expected, metal levels in soil are higher closer to the operation, and decline to near natural background concentrations toward periphery areas. As such, properties in those periphery areas may require no action.
- Given the large number of properties in the area, our immediate focus will continue to be on those properties that are expected to have higher levels of metals in the soil, such as those nearest the smelter.

9. Does this just apply to residential properties or are playgrounds, daycares and schools also included?

- Soil testing and prioritized soil management will apply to playgrounds, daycares and schools.
- It is important to note that, generally speaking, ground cover is typically very good in parks and playgrounds. If you notice poor ground cover at parks or playgrounds please contact the City of Trail and/or the THEP Community Program Office.
- Parks and playgrounds in the wider Trail area have been previously included in the soil testing work, and this data will be re-assessed to identify any additional work required under the new prioritization approach.

10. Why are you now focusing on properties with children up to 12 years old?

- The prioritization of children under 12 allows us to focus on the age group that is the most likely to be exposed to metals in soil. Older children in this age group have a higher tolerance to exposure, while younger children under 6 years of age have lower tolerance to exposure. Our prioritization approach reflects these tolerance levels.
- It is important to note that our soil management program is just one aspect of the Trail Area Health and Environment Program. Other existing components of the program will continue, including Healthy Homes and Family Health, focusing on families with children up to 3 years old, and Lead Safe Renovation for do-it-yourself renovators.

11. When will the expanded soil management program begin?

- We have already identified a number of the highest-priority properties and our goal is to remediate or improve those properties in 2019, along with any additional properties that are identified as high-priority by the end of June.

- We expect to provide full yard soil remediation and/or soil improvement at approximately 200 properties in the 2019 work season (compared to 58 in 2018). Properties identified after June 30, 2019 or any properties that could not be remediated for various reasons may be prioritized for the 2020 field season.

12. Who is paying for soil management?

- There is no cost to the landowner for this work to be undertaken. All soil testing and improvement work is coordinated and paid for by the Trail Area Health and Environment Program, through funding provided by Teck.
- The program is overseen by the Trail Area Health and Environment Committee, a sub-committee of the City of Trail, with government, community and industry members.
- Teck is the responsible party for the Soil Management Program under the direction of the BC Ministry of Environment and Climate Change as per the Contaminated Sites Regulation of the *Environmental Management Act*.
- Teck Metals has invested approximately \$5 million toward the soil management program this year alone as part of its continued commitment to healthy homes and gardens in the Trail area.
- It is expected that these programs will continue for many years to come.

13. What should I do if I want my garden soil tested?

- Please visit our downtown Trail Community Program Office at 1319 Bay Avenue, phone us at 250.368.3256 or email us at programs@thep.ca.
- If you have a vegetable garden, please contact our office. Vegetable gardens remain within our priority focus for the Home & Garden program.

14. Where can I get more information?

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