

Trail Area Health & Environment Committee



THEC Summary

Meeting: Feb 22, 2023, 7:00 p.m.

Hybrid Location: Trail City Hall – Committee Room #2, Spokane St. Entrance & Zoom

Committee members in attendance:

Colleen Jones, Chair, City of Trail
Dr. Karin Goodison, Interior Health MHO
Trevor Allegretto, USW Local 480 Rep
Clare North, Teck Trail Operations
Steve Hilts, Community Member (History)
Ashley Melenchuk, Community Member (Parent)

Carolyn Amantea, Village of Warfield
Jasen Nelson, BC Ministry of Environment
Erika Krest, Community Member (Chamber)
Ron Joseph, Community Member (Resident)
Annick de Goede, Community Member (Parent)
Julia Stockhausen, Community Member (FAN)

Others in attendance:

Andrea McCormick, SNC-Lavalin
Meghan Morris, Interior Health
Christina Yamada, Interior Health
Dave Bell, Teck Trail Operations
Morgan Sternberg, Community Member

Cindy Hall, SNC-Lavalin
Frances Boreland, Broken Hill
Thompson Hickey, Teck
Michelle Laurie, THEC Lead Facilitator

The Trail Area Health & Environment Committee (THEC) meets five times per year online or in person. Members, designates and community members are welcome.

WELCOME AND INTRODUCTIONS

- Mayor Colleen Jones welcomed everyone in the room and online. She thanked Thea Hanson for chairing the December THEC meeting and shared regrets for not being able to attend. She thanked Colleen Delaney (BC Ministry of Environment) and Kyle Jorgenson (USW Local 480) for their contributions to the THEC and welcomed their respective replacements Jasen Nelson and Trevor Allegretto.

MEETING MINUTES

- The minutes from the December 1st, 2022 THEC meeting were approved. They are posted on thep.ca.

PRESENTATIONS, REPORTS, DISCUSSIONS, AND RECOMMENDATIONS

Community Program Office Annual Report Presentation

Presenters: Andrea McCormick, Cindy Hall, Alexa Matthes, Wendy Goodrich, Erynn Scaia from SNC-Lavalin (Community Program Office) and Meghan Morris from Interior Health

Community Program Office (CPO) staff, in collaboration with Interior Health, presented a fictional family via storytelling, to demonstrate how a typical family interacts with the program and community partners over time. It highlighted how their work build relationships in the community and the efforts the partners make to ensure families are supported throughout their journey.

Several questions and discussion ensued related to:

- Types of supports provided to reduce indoor dust.
- Timing of Healthy Family Healthy Home visits (prenatal – 3 years old).
- Prioritization framework for soil management.

- Residential Lead Inspection (RLI): a pilot program that will be evaluated and adapted into programming based on what is learned. Based on early learning from 30 RLI, paint screening is being included in primary prevention programs and soil assessment in spring 2023.
- Paint testing on toys: undertaken if a child has an elevated blood lead level, the child frequently puts a specific toy in their mouth and/or it is requested.
- Increased understanding of the importance of connectedness of public facing program team members to ensure engagement of the community and families.
- Greater understanding that engagement happens based on relationships and not only support for reducing lead exposure.

The annual CPO report is attached.



Figure: CPO presentation with online participants on-screen in the background.

PROGRAM REPORTS AND UPDATES

Air Quality

- Air Quality Working Group (AQWG) Update – **Steve Hilts, Working Group Chair**
 - The AQWG met January 18, 2023 and reviewed and developed indicators specific to Air for THEP's Strategic Plan. There was also discussion on adding SO₂ to THEC's air quality report which Clare North presented next. The AQWG will meet in May to review the format of the typical air quality report to THEC with the purpose to improve it.
- Introduction to proposed SO₂ report to THEC – **Clare North, Teck Trail Operations**
 - Clare presented a way to report on SO₂ from Birchbank and Butler Park air quality monitoring stations. Future reporting will include Warfield. She explained that currently Warfield has two stations as the former and new site are both operating and data validation in progress.
 - See attached presentation slides.
 - Several suggestions were made and will be brought to the AQWG for further refinement.
 - Discussion and questions focused on:
 - Adding 2023 year-to-date bar to see current year's status.
 - Ensure its clear that measurement from Teck's stacks and the monitoring stations in the community are different.
 - Confirming the colours and consider further granularity in <35 ppb category.
 - Reporting focusses on hourly levels consistent with health guidance where levels may require actions to reduce short-term exposure vs other measures

that are based on longer-term averages.

Family Health Report – (see attached).

Community Program Office – (see attached report / presentation as per above).

Community & Round Table Check-In - All

- Ron Joseph from the community raised a noise issue impacting West Trail (and other neighborhoods) from Teck's operation. He felt his reporting was not heard via the community feedback line and wanted Teck to respond.
 - Clare North (Teck) will review this internally to identify any areas for improvement
 - Reiterated that Teck's Environment & Community Feedback Line (250 364 4817) is available 24/7/365 and is the number community members should call with any concerns as follow up can be initiated immediately.

Program Planning Update - Michelle Laurie, THEC Lead Facilitator

- Updates were provided on Strategic Plan indicators for milestones (draft attached)
- Soil Management Homeowner Feedback Survey (report attached)
- THEC meeting survey (report attached)
- Communications products to raise THEP visibility:
 - Air Quality Monitoring Station signage (to be installed spring 2023)
 - Handwashing signage at parks and playgrounds (design attached)
 - Living in Trail brochure (working group met to draft design and messaging)
 - Soil management program communications working group initiated (ToR attached)
- The Committee commented on additional ways to raise awareness of programs including sandwich boards, presentations and walking tours.

Partner Meeting Report – Colleen Jones, Chair

- There was no partner meeting.
- Colleen reached out to the co-chairs of the Provincially-led Trail Health Review Committee (ADMs of Provincial Health and ENV Ministries) to get an update on the Trail Health Review Committee status and plan.

Special Closing – Farewell to Andrea McCormick as THEP Community Program Office Manager

- Andrea has been working in THEP's Community Program Office (staffed by SNC-Lavalin) for 15 years first as a project scientist and later as the office manager. Andrea was recently promoted within SNC-Lavalin. She'll continue with some project work in Trail, specifically the WARP.
- Clare North shared a few words of gratitude on behalf of THEP and THEC (slides attached) and thanked Andrea for the positive contributions she made over the years.

2023 THEC MEETING DATES

- April 20
- June 15
- September-December will be determined in the new year.

THEC meetings are held from 7:00-9:00pm.

Trail Area Health & Environment Committee



AGENDA

HYBRID Meeting: Feb 22, 2023, 7:00 p.m.

Location: Trail City Hall – Committee Room #2, Spokane St. Entrance

Online option: <https://us02web.zoom.us/j/81979635054>

Committee Members:

Colleen Jones, Chair, City of Trail
Thea Hanson, Alternate Chair, City of Trail
Dr. Karin Goodison, Interior Health MHO
Jane Power, Interior Health
Kyle Jorgenson, USW Local 480 Rep
Ron Joseph, Community Member (Resident)
Dan Bouillon, Teck Trail Operations
Clare North, Teck Trail Operations
Annick de Goede, Community Member (Parent)

Linda Worley, RDKB Area B
Carolyn Amantea, Village of Warfield
Ali Grieve, RDKB Area A
Cassandra Counce, BC Ministry of Environment
Jasen Nelson, BC Ministry of Environment
Erika Krest, Community Member (Chamber)
Steve Hilts, Community Member (History)
Julia Stockhausen, Community Member (FAN)
Ashley Melenchuk, Community Member (parent)

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WELCOME and INTRODUCTIONS

- Opening remarks from Colleen Jones, THEC Chair

MEETING MINUTES

- Approve minutes from THEC meeting, December 1, 2022 (as attached)

PRESENTATIONS, REPORTS, DISCUSSIONS & RECOMMENDATIONS

Community Program Office Annual Report (35 mins)

Presenters: Cindy Hall, Alexa Matthes, Andrea McCormick, Wendy Goodrich, and Erynn Scaia, SNC-Lavalin. Meghan Morris, Interior Health.

- Presentation
- Q&A panel

Program Reports & Updates

Air Quality, Family Health and Community Program Office reports are provided in the agenda package for your review prior to the meeting. Please bring your questions and comments for discussion.

Q&A and Comments on Reports All (20 mins)

- Air Quality Working Group Update – **Steve Hilts, Working Group Chair**
- Introduction to Air Quality SO₂ Report – **Clare North, Teck Trail Operations**
- Q&A on all reports

Community & Round Table Check-In - All (15 mins)

- Round table contributions & questions

Program Planning Update - Michelle Laurie, THEC Lead Facilitator (10 min)

- Monitoring updates:
 - Strategic Plan indicators developed for each milestone (draft attached)
 - Soil Management Homeowner Feedback Survey (report attached)
 - THEC meeting survey (report attached)
- Communications update
 - Air Quality Monitoring Station signage update
 - Handwashing signage at parks and playgrounds (design attached)
 - Living in Trail brochure update
 - Soil management program working group (ToR attached)

Partner Meeting Report – Colleen Jones, Chair

2023 THEC MEETING DATES

- April 20
- June 15
- September tbc
- November tbc

THEC meetings are held from 7:00-9:00pm.

**Community Program Office
Annual Report
Presentation**

THEP Community Program Office

A Year in Review - 2022 Annual Update to the THEC

February 22, 2023

1 Healthy Homes & Enhanced Support

Healthy Homes (HH) and Enhanced Support (ES) are components of the THEP Healthy Families Healthy Homes program.

1.1 Healthy Homes

Healthy Homes is a primary prevention education and support program for families with children under 36 months. In total, 54 HH visits were completed and of these visits, 7 visits were with expectant families. The chart below illustrates the distribution of the visits in the different program neighbourhoods by area¹. If a family was offered a visit but declined or did not respond², then it is counted as 'no visit'.



1.2 Enhanced Support

The ES program provides additional support above the primary prevention supports offered through HH. ES is offered to families with children who have been identified as having an elevated blood lead level. ES families are reviewed at an annual case conference with MHO and program staff. Highlights for the year include:

- > 22 children were supported following Fall 2021/Winter 2022 Lead Clinics.
- > 17 children are being supported following the Fall 2022 Lead Clinics.

¹ Area 1 – Annable, Casino, Columbia Gardens, Oasis, Waneta, and Warfield
Area 2 – Glenmerry, Miral Heights, Shavers Bench, and Sunningdale
Area 3 – East Trail, Rivervale, Tadanac, and West Trail

² A minimum of three attempts made to contact either by text, phone call, email or mailed letter.

THEP Community Program Office

A Year in Review - 2022 Annual Update to the THEC

February 22, 2023

1.2.1 Residential Lead Inspection Pilot Program

A Residential Lead Inspection (RLI) is offered to all ES families to evaluate paint, indoor floor dust, soil, and drinking water in the home. The purpose of an RLI is to provide additional information for families to help them better understand potential Pb exposure pathways in the home environment. Highlights for the year include:

- › All new ES families were offered an RLI - 6 accepted.
- › Repeat sampling of floor dust and, in some cases, paint, was conducted at 9 properties. These were properties that in previous years had a completed RLI.
- › A total of 32 RLIs since introduction of pilot in 2019.

2 Community Program Office

The Community Program Office (CPO) is in the core of downtown Trail and central to program-related activities. Its convenient location and regular business hours provide easy access for the community to connect with the team either in person, over the phone, or online through the website (www.thep.ca).

2.1 Lead Safe Renovation

Another service provided at the CPO is access to Lead Safe Renovation (LSR) supports and services. In 2022, 55 residents accessed LSR supplies, a slight increase over 2021.

2.2 Engagement & Outreach

In 2022, the CPO returned to pre-pandemic capacity for outreach & engagement. This year the team continued to participate in the Family Action Network, Early Years Coalition, and Navigator Table. The team also participated in community outreach activities including:

- › Trail FAIR Society (Building Beautiful Babies and Muffins & Munchkins)
- › The Trail IncrEdible Markets
- › Local daycares
- › Interior Health Fall and Winter Lead testing clinics
- › Teddy Bear Picnic
- › Trail and District Library

3 Soil Management Program

The Soil Management Program (SMP) includes soil assessment and, in qualifying residential yards, replacement of soil or improvements to ground cover on a prioritized basis. In 2022, the SMP continued at a similar pace as in recent years. A separate SMP report is provided annually to THEC and is planned for Spring 2023.

THEP Community Program Office

A Year in Review - 2022 Annual Update to the THEC

February 22, 2023

3.1 Soil Assessment & Groundcover Evaluation

Soil assessment provides an understanding of the Pb concentration and other smelter metals in a yard including an evaluation of ground cover quality. The results from an assessment, along with the age of the children, are used to determine how a yard is prioritized for soil remediation. Annually, yards that are child occupied and have been previously assessed are revisited to check if the quality of ground cover has changed. Highlights for the year include:

- › 161 yard or yard/garden soil assessments completed.
- › 4 vegetable garden only assessments completed.
- › 259 ground cover evaluations completed.

3.2 Soil Remediation

Properties are prioritized for soil remediation based on the age of children at the property, the soil Pb concentrations in the yard, and the quality of ground cover. Soil remediation includes the management of soil through soil replacement, ground cover improvements, and covering and capping areas of the yard.

In 2022, the soil remediation procedures and processes continued to improve over previous years. The CPO team, including contractors, worked cohesively throughout the season and was able to adapt quickly when faced with challenges. Highlights for the year included:

- › 112 properties received soil remediation through the program.
- › Addressing properties with tough access using new strategies.
- › Offering soil remediation at all priority properties.

Type of Remediation	Number of Properties
Full Soil Replacement	76
Child Occupied	62 full yards /2 partial
Community Properties	14 full yards /2 partial
Gardens	2
Lawn Care	9
Yard Improvements & Soil Disposal	21

A separate SMP report is provided annually to THEC and is planned for Spring 2023.

Program Reports & Updates

Air Quality Report



Air Quality Report

February 21, 2023

1. Lead in Air:

Averages for lead in air continue to be at historical lows; 2022 annual average for lead in air at Butler Park and Birchbank stations was $0.057 \mu\text{g}/\text{m}^3$ and $0.033 \mu\text{g}/\text{m}^3$, respectively.

As seen in the monthly averages in Figure 2, month to month variability in ambient levels remains relatively low, but the influence of weather including dominant wind direction and precipitation, can be seen in the data.

Figure 3 presents the 3-month rolling average for lead in air measured at the Butler Park station compared to the US EPA standard of $0.15 \mu\text{g}/\text{m}^3$ (Federal and BC Provincial governments do not have ambient air quality objectives or standards for lead; however, it is reasonable to rely on standards from other jurisdictions when this is the case). Lead in air levels measured at Butler Park and Birchbank meet the US EPA standard of $0.15 \mu\text{g}/\text{m}^3$ on a 3-month average.

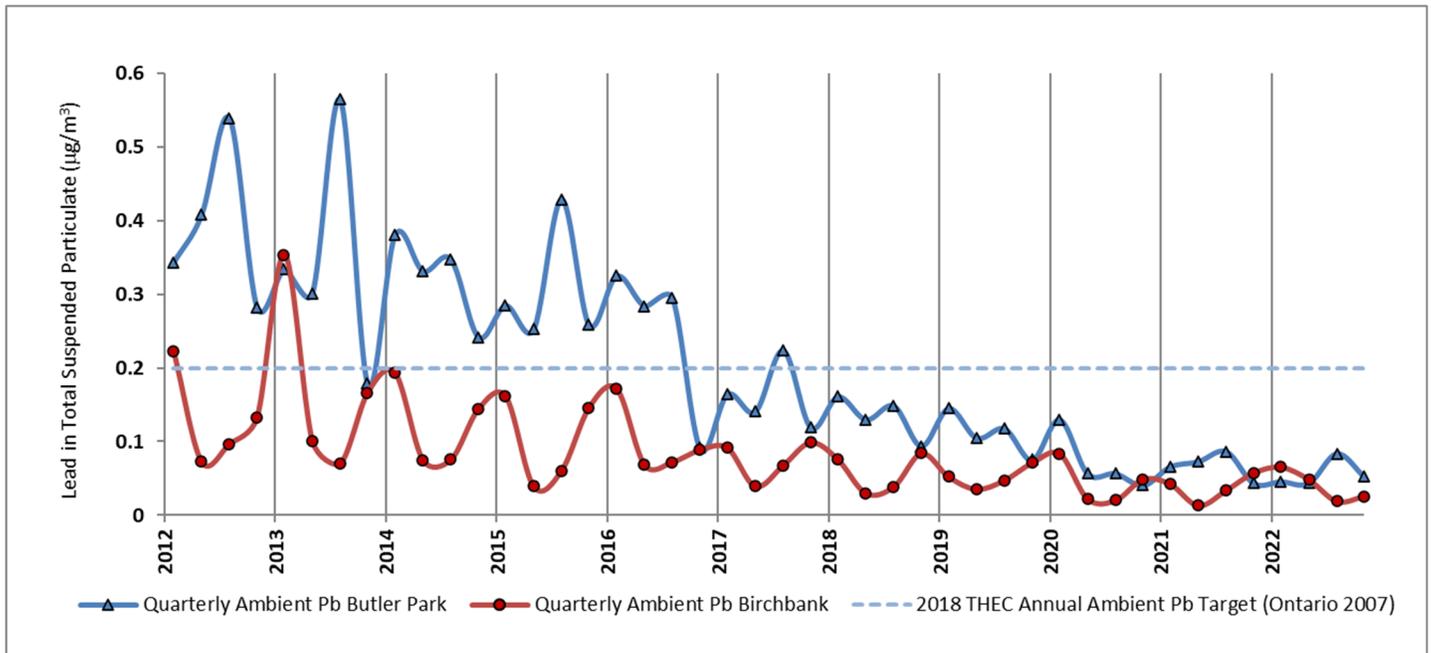


Figure 1: Quarterly monthly average lead at Butler Park and Birchbank stations (as total suspended particulate measured bi-daily)

The chart in Figure 1 shows quarterly averages for Lead in air for Butler Park (dark blue) and Birchbank (red), in comparison to the 2018 THEC Annual Ambient Lead in Air Objective (dashed line).

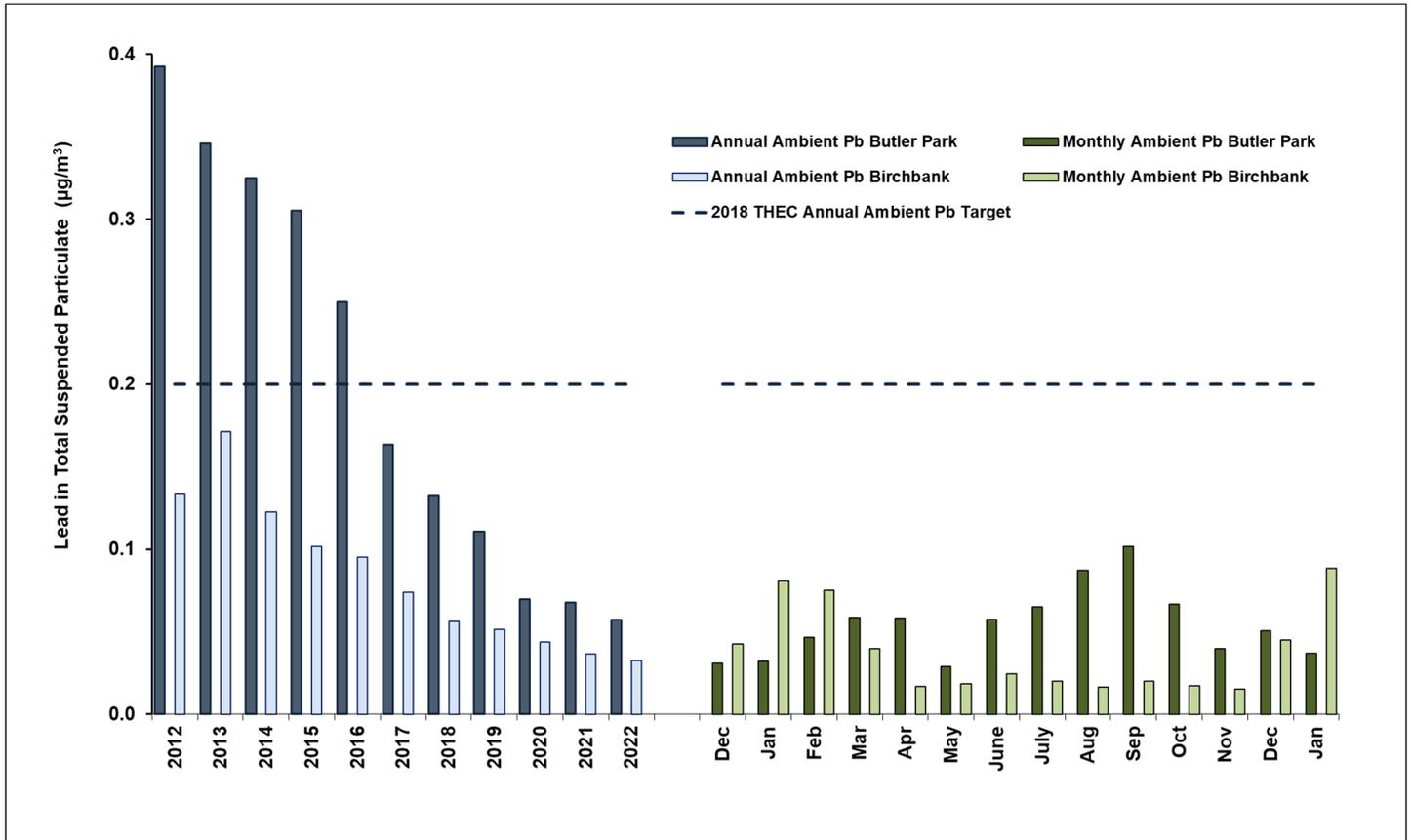


Figure 2: Annual and monthly average lead at Butler Park and Birchbank stations (as total suspended particulate measured bi-daily)

The chart in Figure 2 shows annual and monthly averages for Lead in air for Butler Park. Annual averages are shown on the left for Butler Park (dark blue) and Birchbank (light blue). Monthly averages for the past year are shown on the right for Butler Park (dark green) and Birchbank (light green). The 2018 THEC Annual Ambient Lead in Air Target is shown as a dashed line. Monthly averages for Lead in ambient air are expected to have some variability due to season, weather, predominant wind direction and operational variance.

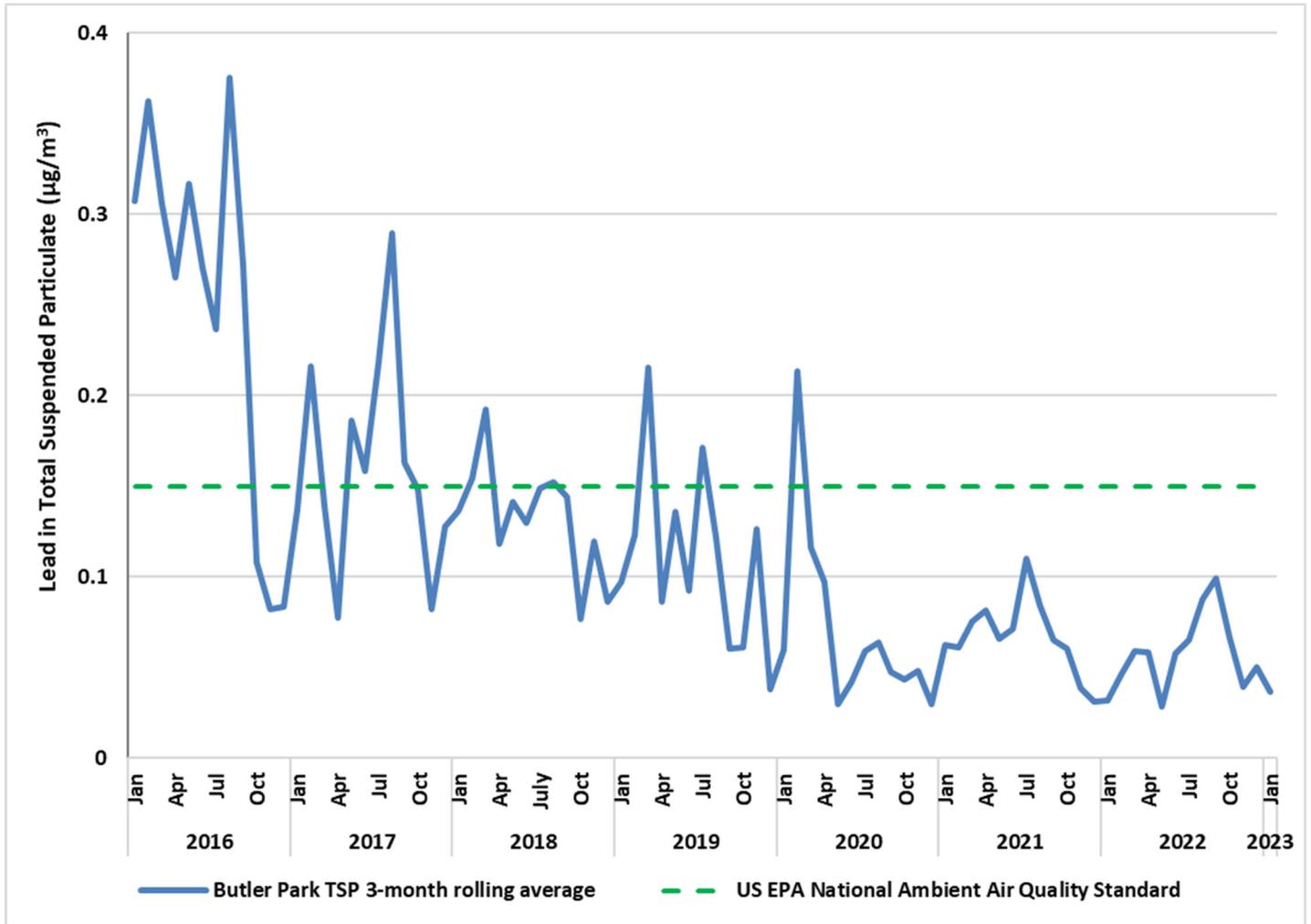


Figure 3: 3-month rolling average lead in air at Butler Park station (as total suspended particulate measured bi-daily)

The chart in Figure 3 shows the 3-month rolling average for lead in air for Butler Park (blue line), in comparison to the US EPA standard (green dashed line).

2. Arsenic in Air:

Averages for arsenic in air continue to be at historical lows. 2022 annual average for arsenic in air at Butler Park and Birchbank was $0.002 \mu\text{g}/\text{m}^3$.

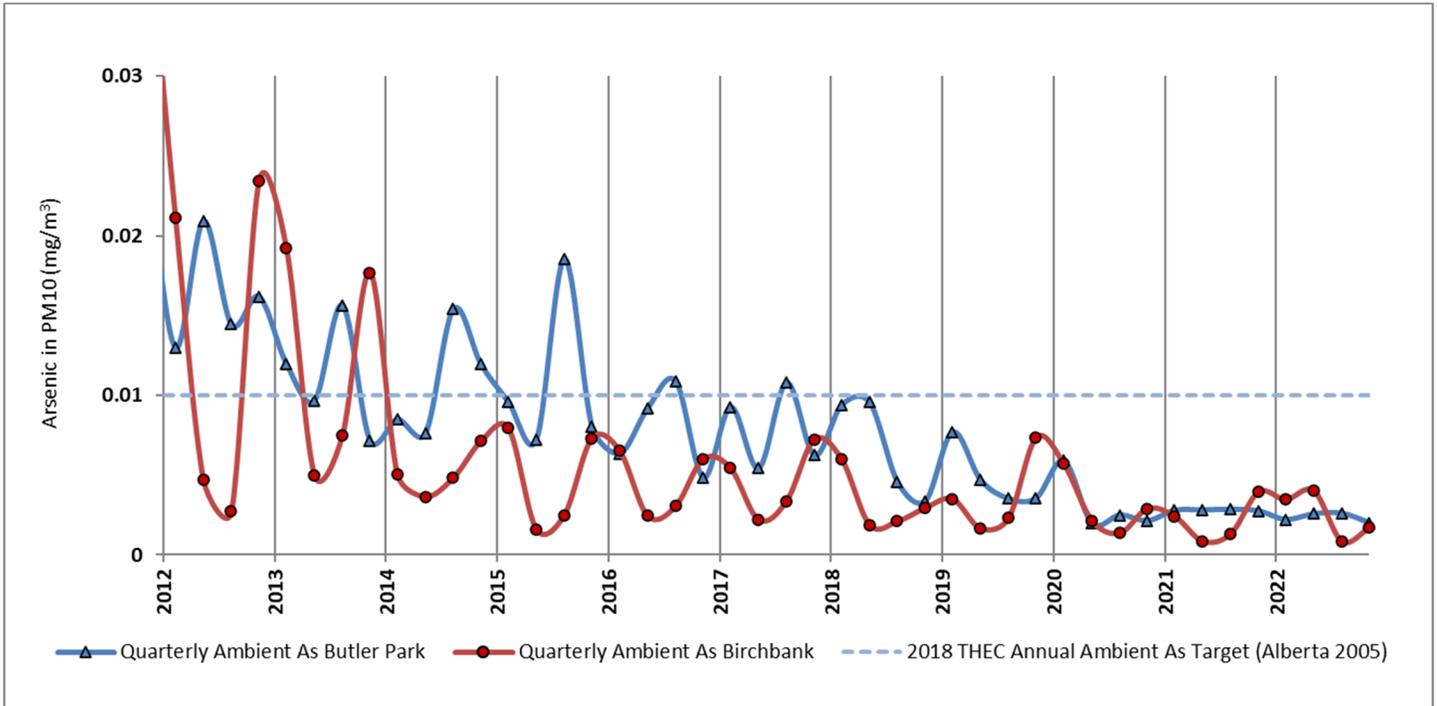


Figure 4: Quarterly average arsenic at Butler Park and Birchbank stations (as inhalable PM₁₀ fraction measured weekly)

The chart in Figure 4 shows the annual average for Arsenic in air (measured as inhalable PM₁₀ fraction) at Butler Park (blue) and Birchbank (red) in comparison to the 2018 THEC Air Quality Objective (blue line).

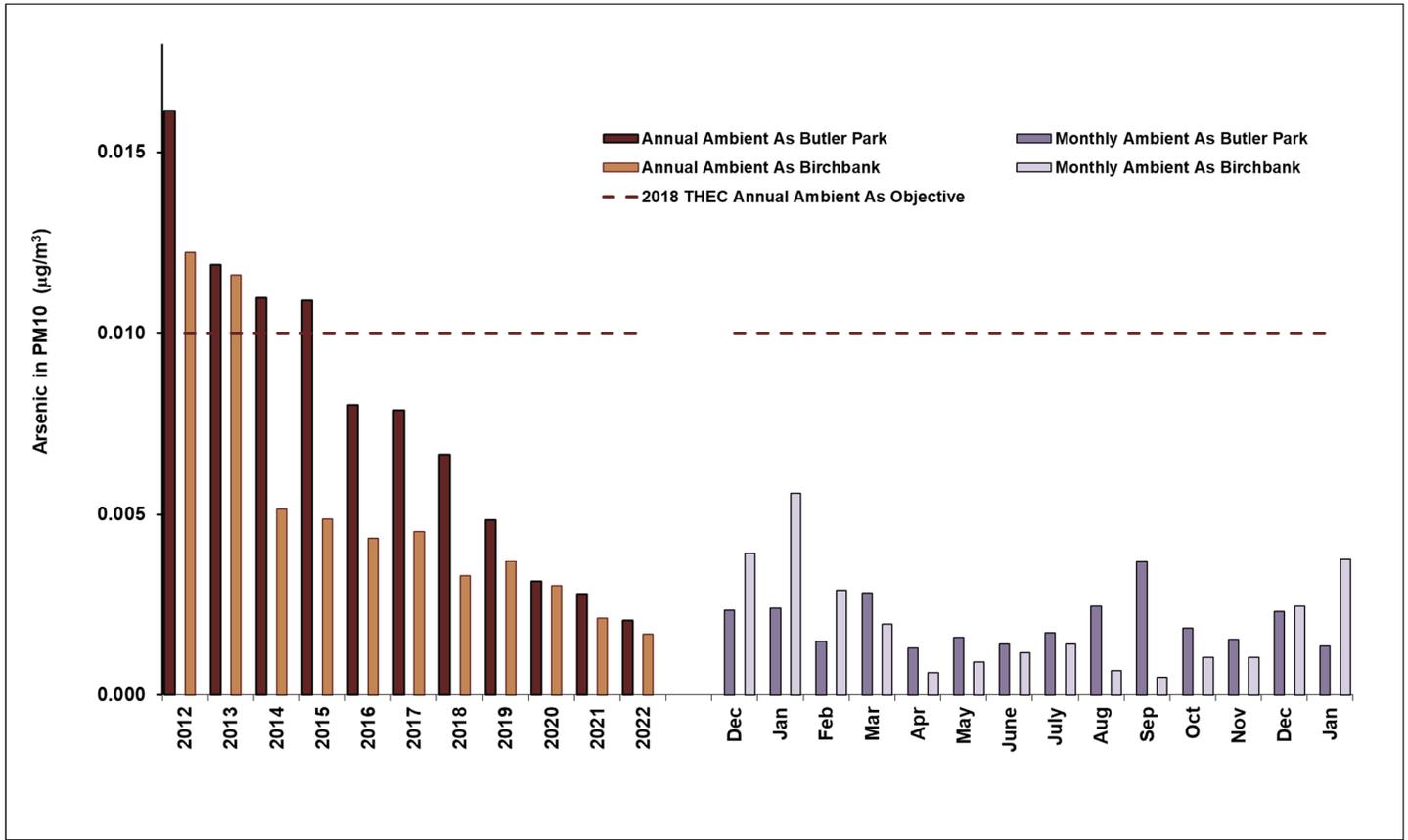


Figure 5: Annual and monthly average arsenic at Butler Park and Birchbank stations (as inhalable PM10 fraction measured weekly)

The chart in Figure 5 shows annual and monthly averages for Arsenic in air at Butler Park and Birchbank. Annual averages are shown on the left for Butler Park (dark brown) and Birchbank (light brown). Monthly averages for the past year are shown on the right for Butler Park (dark purple) and Birchbank (light purple). The 2018 THEC Air Quality Arsenic in Air Target is shown as a dashed line. Monthly averages for Arsenic in ambient air are expected to have some variability due to season, weather, predominant wind direction, operational variance and sampling frequency.

3. Sulphur Dioxide (SO₂):

SO₂ is emitted by Teck Trail Operations as a by-product of processing mine concentrates, which contain sulphur, into metal and chemical products. Teck Trail Operations currently captures more than 99% of the sulphur and converts it to by-products, such as fertilizer and sulphuric acid. About 1% leaves the operation through emissions to air. With environmental improvements, SO₂ emissions continue to decline. However, the dispersion of air emissions from the smelter is constrained due to the location of the smelter, weather and the surrounding topography.

SO₂ is monitored by Teck at four locations throughout Trail and the surrounding areas – Birchbank, Butler Park, Columbia Gardens and Warfield. These stations operate continuously, with near real-time data publicly available [here](#) SO₂ levels fluctuate throughout the day, month and year.

THEP’s SO₂ Fact Sheet provides guidance for actions to take when SO₂ levels are elevated. The chart below provides SO₂ hourly data from Butler Park and Birchbank stations for the last 10 years categorized by the health guidance levels. As Teck Trail Operations continues to implement emissions reductions measures, the percentage of hours within the yellow (35-185 ppb) and red (>185 ppb) categories is decreasing. In 2022, there were no hours in the red (>185 ppb) category at Butler Park or Birchbank stations.

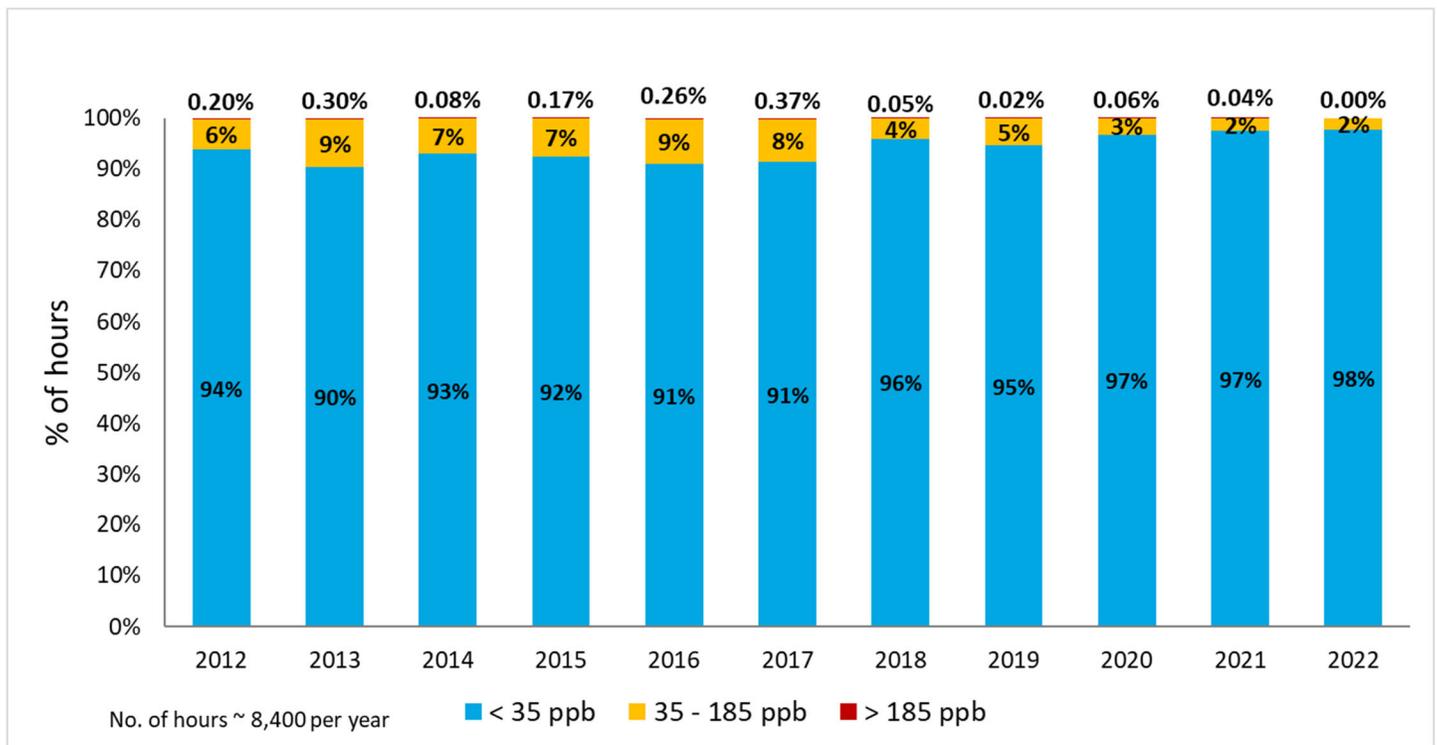


Figure 6: Distribution of Hourly SO₂ Levels at Butler Park

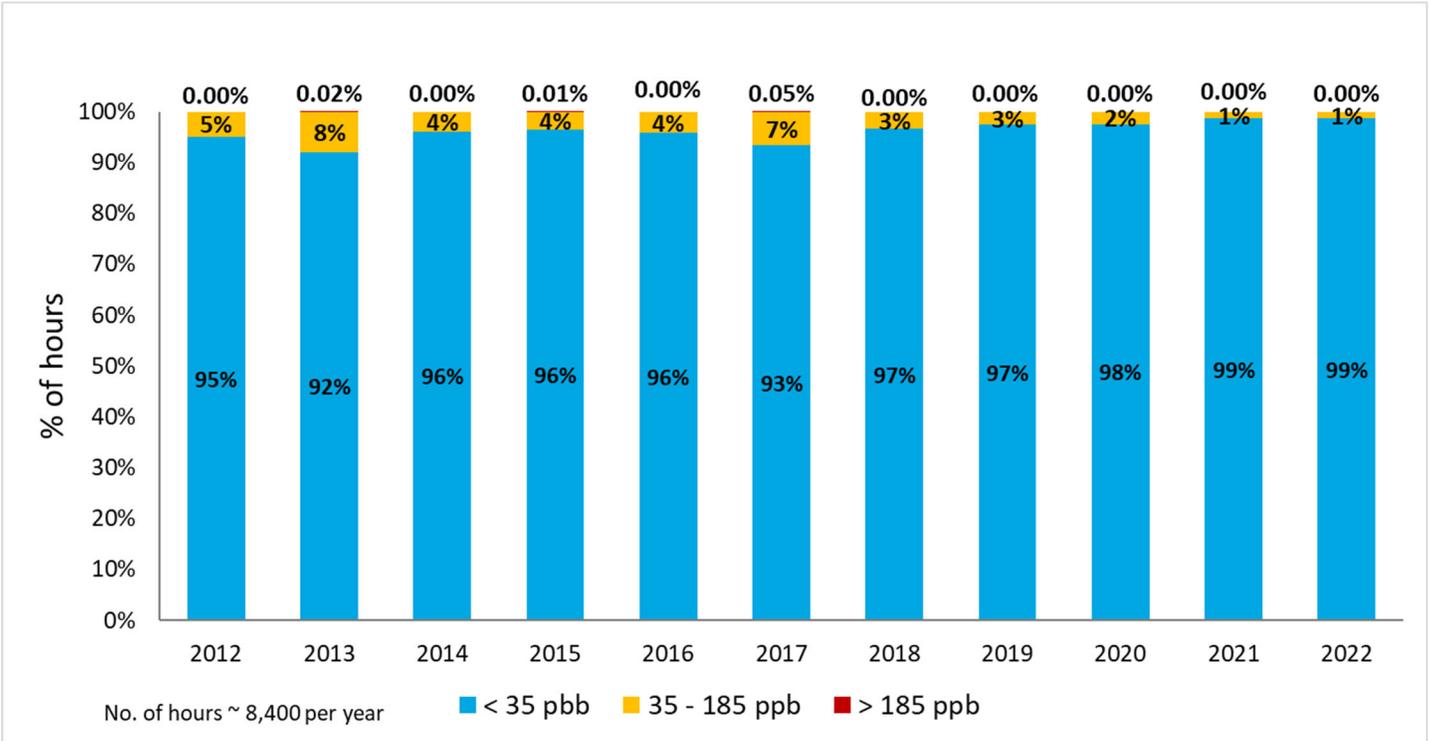


Figure 7: Distribution of Hourly SO₂ Levels at Birchbank

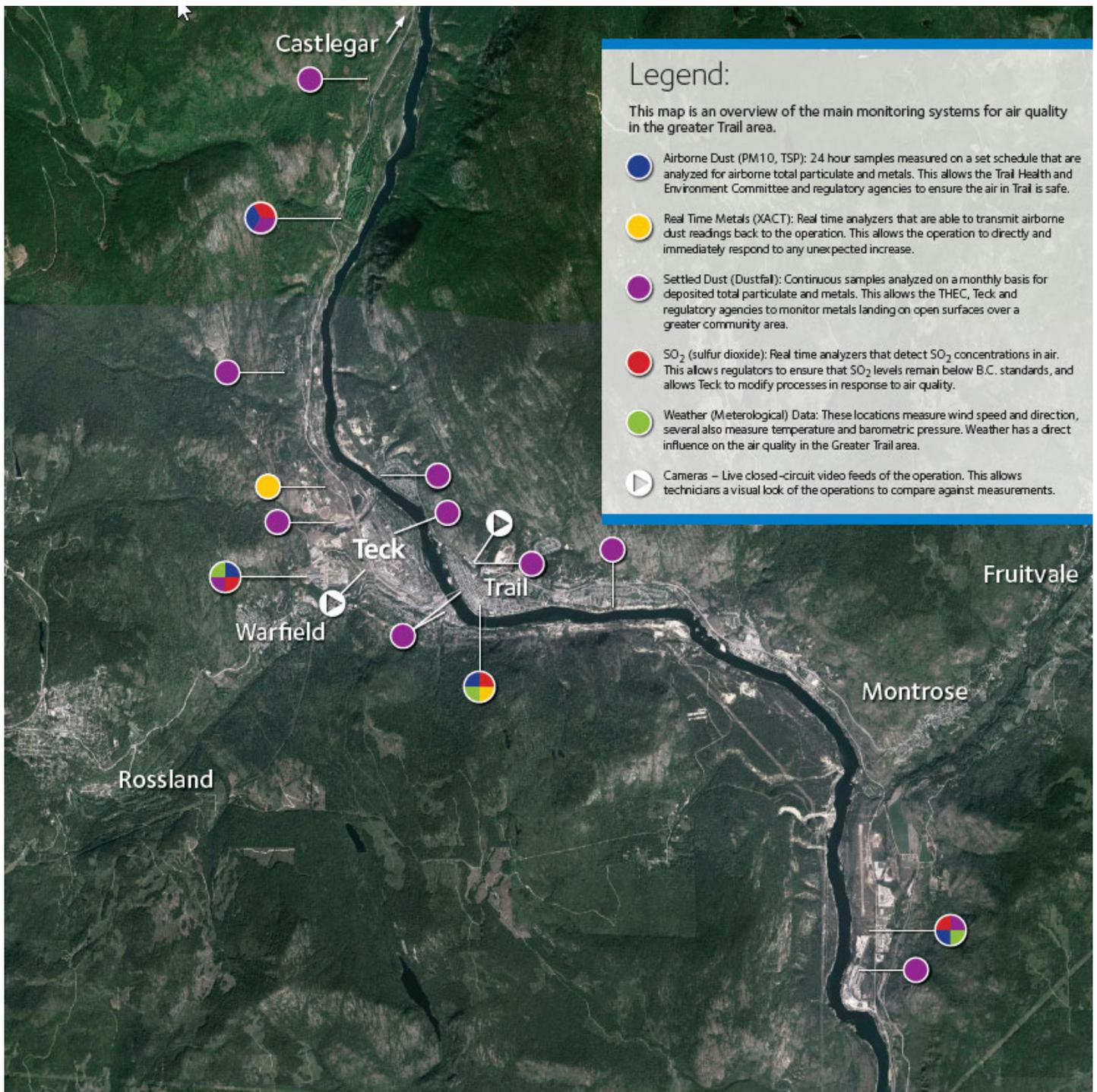


Figure 8: Teck Community Air Monitoring Stations

Family Health Report



FAMILY HEALTH REPORT

February 22, 2023

RECENT HIGHLIGHTS

1. Healthy Family Visits
 2. Upcoming Winter Blood Lead Clinics
 3. Community Outreach
-

ADDITIONAL DETAILS

1. Healthy Family Visit Summary for 2022

- 71 Healthy Family Visits Completed-Total 90% Participation Rate
- 6 Visits declined
- 2 Families not carried forward as children now over age 3.

Method of Visits:

- 51 at Kiro Wellness Centre
- 19 Home Visits
- 1 by phone with information mailed out

Healthy Family Visits in 2023

- 17 Visits completed
- Including 6 Combined HFHH Home Visit with Wendy for families that have been challenging to connect with or have recently moved to Trail.

2. Winter 2023 Blood Lead Clinics are next week:

- February 27, 2022 9am-4pm
- February 28, 2022 11am-6pm

3. Community Outreach

- Meghan attending Building Beautiful Babies Monthly.
- Cecilee attending Muffins and monthly.
- Cecilee and Wendy attended Sunshine Daycare in January.
- Cecilee and Wendy attended Tiny Tots Cooking Program in January.
- Meghan attended Metis Cultural Workshop on Feb 15th

Program Planning Update

Strategic Plan Indicators

Annex: Program Monitoring: How will we know we succeeded?

THEP Milestones 2022-2027	Indicator	Annual Update / Status
Program Area: Air		
<p>1. By 2025, review the ambient air monitoring network in the community and, where necessary, identify recommendations for modifications to ensure air quality data are representative of the community's air.</p>	<p>Evidence that air quality data is representative of community air; and / or recommended modifications to achieve this.</p> <ul style="list-style-type: none"> Process indicator: Study of AQ monitoring network underway. (By 2024) 	
<p>2. Annually, demonstrate improvements in Pb in ambient air, as measured in the community.</p>	<p>Review of Pb ($\mu\text{g}/\text{m}^3$) in ambient air trend. (annual)</p>	
<p>3. Biannually review and update the communications plan on community education around SO₂ levels in Trail, potential risks, and actions to take.</p>	<p>The Air Quality Working Group reports to THEC that SO₂ communications planned is current (1/year).</p> <ul style="list-style-type: none"> Process indicator: The AQWG reviews and updates the SO₂ communications plan (biannual) 	
Program Area: Soil		
<p>1. Annually, ensure the soil management prioritization framework meets the needs of changing priorities and emerging issues.</p>	<p>Review, by the soil team, of the soil prioritization framework completed. (annual)</p> <p>Soil prioritization framework is documented in the Soil Management Plan submitted to ENV including any updates as warranted. (annual)</p>	
<p>2. Annually, support prioritized soil management on residential properties by identifying priority properties and offering soil management work.</p>	<p>Review, by the soil team, of the priorities for soil assessment completed. (annual)</p> <p>% of P1 properties offered soil management work. (annual)</p>	

<p>3. By 2024, develop a long-term monitoring program to:</p> <ol style="list-style-type: none"> a. evaluate soil metal levels over time, including the influence of contemporary emissions; and b. consolidate performance verification activities for remediated sites. 	<p>Long-term soil monitoring program developed and presented to THEC and ENV (by June 2024)</p> <ul style="list-style-type: none"> • Interim indicator: Study Terms of Reference developed (by December 2023) 	
<p>4. By 2025, identify opportunities for, and provide outreach to, property developers to increase their knowledge and understanding on soil management considerations in the EM Area.</p>	<p>Track and demonstrate timely response to Property Development Program enquiries. (annual)</p> <p>Outreach plan developed, implemented, and reviewed. (by 2025)</p>	
<p>5. By 2025, identify, evaluate, and recommend solutions for soil management including soil relocation, reuse, and disposal strategies for the EM Area that support a long-term sustainable approach to soil management.</p>	<p>Strategy for soil relocation, reuse and disposal is developed. (by 2025)</p> <p>Process indicators:</p> <ul style="list-style-type: none"> • ToR for study published (by Dec 2023) • Study underway (by 2024) 	
<p>6. By 2025, support the community to have an increased awareness and understanding around metal contaminated soil, potential risks, soil management programs, and priorities.</p>	<p>Process indicators:</p> <ul style="list-style-type: none"> • THEP Newsletter article on soil (annual) • Formation of a Soil Management Communications Working Group including community members • # of community events where THEP participated to promote soil education in the community. (annual) 	
<p>7. Integrate THEP-supported soil management activities into the</p>	<p>Soil management activities are integrated into a draft WARP submitted to ENV.</p>	

development of a future WARP for the EM Area.		
Program Area: Built Environment		
1. Biannually review and update the communications plan on community education about Pb sources in the built environment.	<p>Program team reports to THEC on the updated communication plan for built environment. (annual)</p> <ul style="list-style-type: none"> • Process indicator: THEC facilitator with the program team reviews and updates the communications plan. (biannual) 	
2. Annually, ensure at least 90% of the known eligible homes / daycares are offered an in-home visit by the community program representative focused on a healthy home.	<p>% of known eligible homes are offered an in-home visit by CPO. (annual)</p>	
3. Biennially, demonstrate that at least 80% of in-home visit recipients surveyed feel they were empowered to take action in their home or daycare environment.	<p>% of Healthy Family Healthy Homes survey respondents felt empowered to take action. (biennial)</p>	
4. By 2025, review data collected through existing THEP activities to evaluate the prevalence of Pb-based paint in the Trail area and make recommendations, as required, to update THEP guidance for residents on managing Pb based paint and dust in the home.	<p>Data collection on prevalence of Pb based paint started. (by 2023)</p> <p>Need for updated guidance is evaluated. (by 2024)</p> <p>Guidance for residents on managing Pb based paint and dust in home developed (if needed). (by 2025)</p>	
5. By 2026, demonstrate an increase in THEP's online lead-safe renovation support and education usage.	<p># of unique requests completed for LSR support.</p> <p>Process indicator:</p> <ul style="list-style-type: none"> - Review of LSR program conducted (2023/2024) 	

	<ul style="list-style-type: none"> - LSR program updated - Website section updated as recommended (2024/2025). 	
Program Area: Health		
1. Annually, ensure at least 90% of the known families will receive a primary prevention in-home visit by the Public Health Nurse focused on Pb and SO ₂ before each child's first birthday.	% of known eligible homes are offered an in-home visit by PHN. (annual)	
2. Annually, conduct outreach and support participation in IH's blood Pb testing clinics to maintain high participation rates.	% of blood lead clinic participants in target populations (geographic areas) (annual)	
3. Biennially, ensure that the in-home visiting team (Public Health Nurse and community program representative) continues to be known as a trusted source of knowledge on Pb and SO ₂ in the community.	% of the Healthy Family Healthy Homes survey respondents felt the HFHH team is a trusted source of knowledge. (biennial)	
Program Area: Community Connectedness & Leadership		
1. Annually, keep abreast of the work of, and actively contribute to, other organizations whose work supports THEP goals.	<p>THEP program team is represented on at least two relevant boards in the community. (annual)</p> <p>Brainstorm of other organizations where THEP could actively collaborate. (annual)</p>	
2. Annually, identify and participate in at least five events/year to raise THEP's profile, improve connectedness, and demonstrate leadership.	<p>Outreach / event participation. (annual)</p> <p># events/activities to improve connectedness (e.g. attending meetings with care providers, beautiful babies group, meetings with realtors, etc.). (annual)</p>	

	<p># events/activities to demonstrate leadership (panel, conference presentation, hosting event, etc). (annual)</p> <p># events/activities to raise profile (hosting tour, etc.). (annual)</p>	
<p>3. By 2025, document the story of THEP’s evolution and achievements for the public and science community (2001-2021).</p>	<p>ID authors and outline. (by August 2023)</p> <p>Submit draft to potential publications. (by August 2024)</p> <p>Publish a journal article on 20 years of THEP work (2001-2021). (by 2025)</p> <p>Once journal article is published, knowledge products developed for the public. (by 2026)</p>	
<p>4. By 2025, establish a community of practice / learning network to support knowledge sharing and learning between global actors facing similar challenges to THEP partners (e.g. potential members include BCCDC, Port Pirie, Broken Hill, Mount Isa, along with THEP).</p>	<p># individual members. (annual)</p> <p># of geographic communities represented. (annual)</p> <p>Process indicators:</p> <ul style="list-style-type: none"> • CoP TOR developed • CoP work plan developed <p>Report to THEC to demonstrate activities toward build international CoP. (annual)</p>	
Program Area: Integration, Understanding and Creating Value Together		
<p>1. Annually, at the community program level, ensure that team members with varied expertise will continue to actively to seek opportunities for collaboration across subject matter (air, soil, health, and built environment).</p>	<p>Program team reflection meeting with purpose of seeing connections across subject matter held. (annual)</p> <p>- Process indicators: team meetings</p>	
<p>2. Annually, have the THEP partners gather, reflect, document, and share</p>	<p>Program partners meeting (annual)</p>	

<p>publicly the lessons learned generated by the partners and Program team, with a focus on seeing the bigger picture.</p>	<p>Report on program partners lessons learned shared at THEC meeting. (annual)</p> <ul style="list-style-type: none"> - Process indicators: Partner participation rates at annual program partner meeting 	
<p>3. By 2025, create and integrate into operations an onboarding process to welcome new Program staff and committee members.</p>	<p>THEP onboarding process established.</p> <p>Process indicators:</p> <ul style="list-style-type: none"> - Knowledge Base implemented to support onboarding (by 2024) - Review and update Knowledge Base, as needed (annual) 	
<p>4. By 2025, develop an accepted adaptive management framework to review and learn continuously from Program work.</p>	<p>Draft framework for adaptive management program. (by 2023)</p> <p>Draft framework piloted. (by 2024)</p> <p>Adaptive management program in place. (by 2025)</p>	
<p>5. Ongoing, advocate for participation of partners in studies that help better understand the health and environment of Trail (e.g. UBC teeth study, Trail Health Review Committee, etc.)</p>	<p>Regular updates provided from facilitator to THEC on advocacy and partnerships. (annual)</p>	

Soil Management Homeowner Survey Report

Homeowner Feedback – Results Summary 2022

Soil Remediation of Residential Yards in Trail



The Trail Area Health & Environment Program (THEP) undertook a survey of residents who participated in the residential yard remediation program. The survey was online through SurveyMonkey and open from November 4 to 24, 2022. The survey was emailed to 78 program participants and 46 people responded (59% response rate). Among respondents who indicated where they lived, 29% were in West Trail, 20% in East Trail, 16% in Glenmerry, 13% in Sunningdale, 7% in Rivervale, and the rest living in Tadanac, Oasis, Warfield, or other areas. All respondents were homeowners. 38% of respondents participated in the Healthy Families Healthy Homes program.

The vast majority of respondents were satisfied with the yard remediation program. 96% of respondents said they were either very satisfied or satisfied, and 4% said they were neutral.

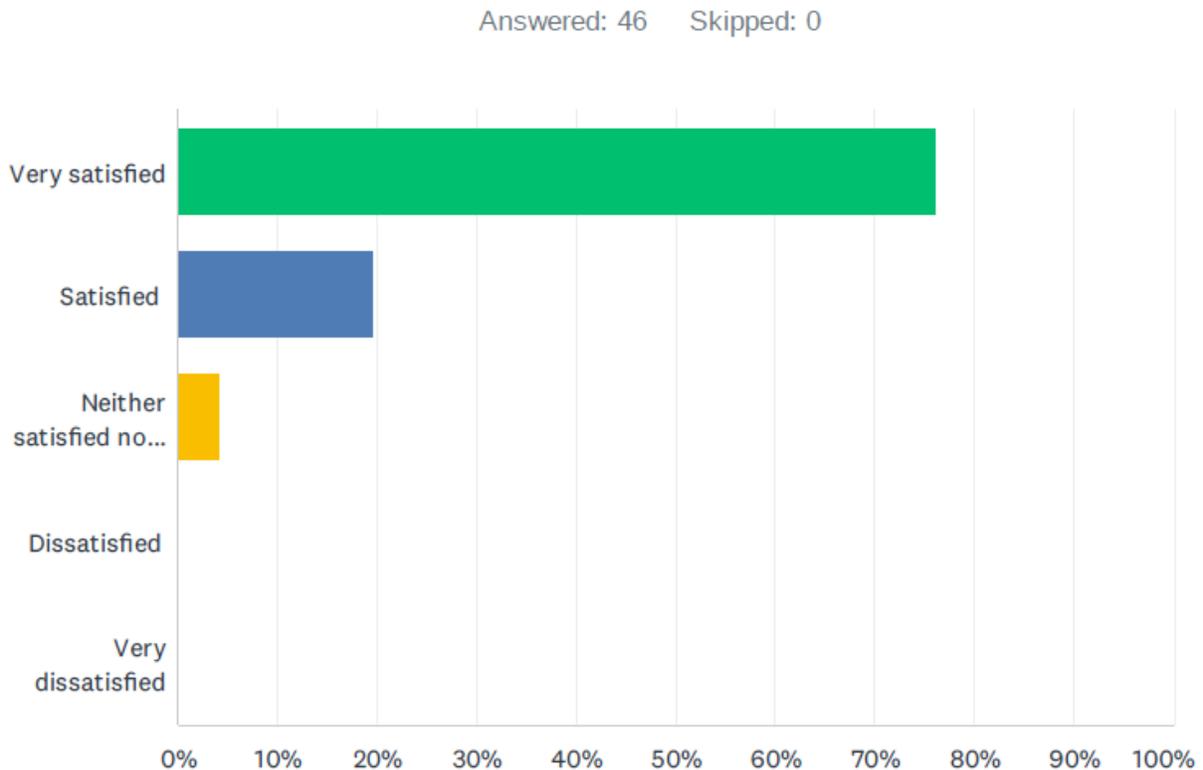


Figure 1: Respondents' answers to "When telling friends and family about your experience with yard remediation, how would you rate your overall experience?"

Respondents were generally very positive about the soil remediation program. 98% of respondents said they were satisfied with the work plan they developed for their yards, 100% said they would likely recommend that friends and family contact the community program office to have their soil tested, 96% thought the finished yard product was the same or better than before, 93% said that the Home & Garden team communicated well and in a timely manner, 89% said they were provided with information about health and safety considerations prior to work, 93% said that the team responded to questions in a reasonable timeframe, 96% said that their questions about the new yard and maintenance were addressed, and 87% had enough time to prepare for the remediation work. Nine respondents left positive comments (e.g. *"They were wonderful!"*), while four respondents commented on some negative aspects: the work happened late, the sprinkler contractor did not show up at the scheduled time, the respondent's new driveway was damaged and this was not addressed, the respondent had to micromanage the work to ensure the quality was reasonable, and there were communication breakdowns.

Most respondents were generally satisfied with the remediation contractor who worked on their yard. 65% of respondents worked with Alpine Contracting, 20% worked with Simms Excavating, and 15% either had a different contractor or didn't know which company worked on their yard. 96% of respondents said the contractors completed the work safely, 85% said the contractors contained soil and dust as it moved in and out of the yard, 85% of respondents said the contractors communicated well and in a timely manner, 93% said the contractors worked efficiently, 74% said the contractors helped prepare the yard for remediation, and 74% said the contractors provided valuable advice during planning and work. Four respondents had only positive things to say in their comments about the contractors. Five respondents commented on some negative aspects: some of the contractors were difficult to work with, the contractors didn't clean everything up when the work was done, there were communication breakdowns and/or issues with project management, and one part of the yard was not fixed.

Results were mixed regarding satisfaction with the irrigation contractor. 48% of respondents had their sprinklers replaced. 57% of respondents thought the irrigation contractor communicated well, compared to 29% of respondents who did not think the irrigation contractor communicated well. 76% of respondents had enough time to prepare for the work. 76% of respondents thought the contractor responded in a reasonable timeframe, whereas 19% did not think the contractor responded in a reasonable timeframe. 57% of respondents were informed about sprinkler maintenance, while 33% were not. Five respondents had only positive things to say about the contractor. Six respondents commented on some negative aspects: the contractor doesn't respond quickly or at all, the work was not done well/correctly, and they didn't clean everything up when the work was done.

This survey was also administered by THEP from 2019 to 2021. The results are quite similar, with only marginal differences between years. Like in past years, survey respondents are generally positive about the program. One item which has changed over the years is respondents agreement about having enough time to prepare for the remediation work – in 2019, 82% of respondents said they had enough time; in 2020, 92% of respondents said they

had enough time, and in 2021, 76% of respondents said they had enough time; in 2022, 87% of respondents said they had enough time, showing an improvement from the past year. Another large change among years is regarding preparing the yard for remediation – in 2019, 84% of respondents said the contractors helped prepare the yard for remediation; in 2020, 86% of respondents said the contractors helped prepare the yard for remediation; and in 2021, 59% of respondents said the contractors helped prepare the yard for remediation. This also improved from the past year in 2022, with 74% of respondents saying that the contractors helped prepare the yard for remediation. However, this improvement from 2021 is still not up to the levels of 2019 to 2020.

A summary of the feedback results with comments removed to protect anonymity and maintain privacy is available upon request. Please contact the THEP community program office: programs@thep.ca with questions.

THEC Meeting Survey Report

Exchange Summary

Michelle Laurie, THEC Lead Facilitator
December 8, 2022-January 4, 2023



What do you feel should be considered to help THEC meetings in 2023 be most valuable to participants? What topics do you want to learn about and discuss? What formats do you find most engaging? What other ideas do you have?



PARTICIPATION

Breakdown of Participation



19
Participants



20
Thoughts

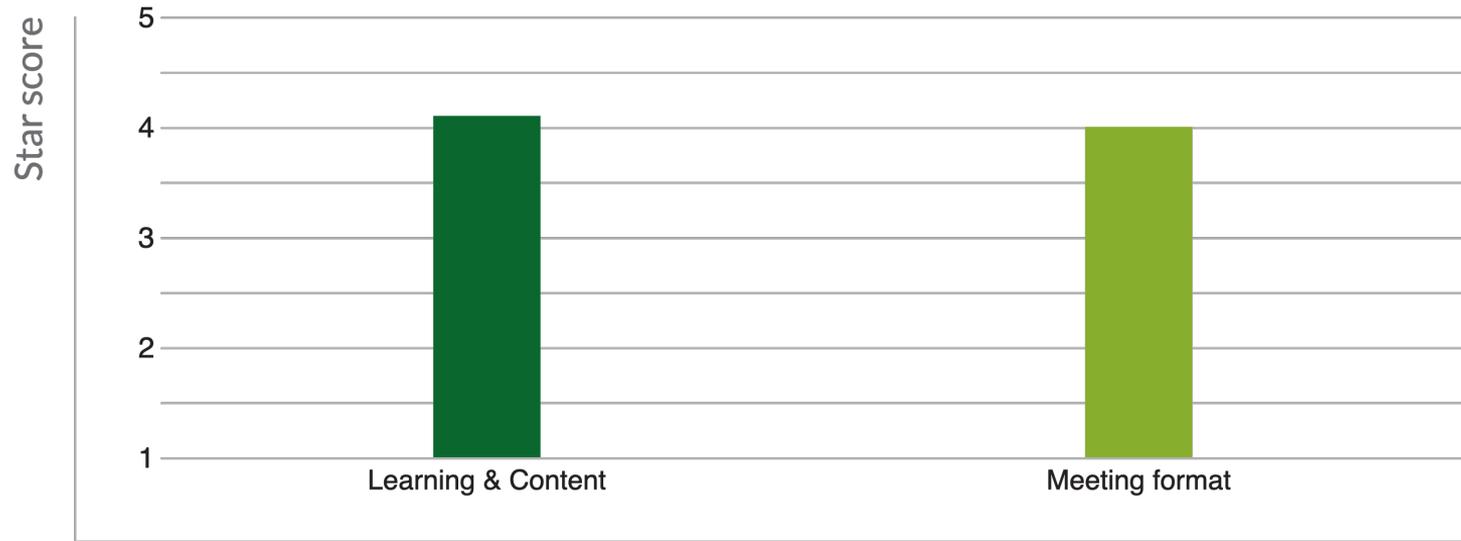


147
Ratings



THEC MEETINGS

Top Themes by star score





THOUGHTS

Learning & Content

It would be interesting to hear from subject matter experts from outside of the THEP (e.g., Frances Boreland, Broken Hill) to foster 'a culture of of knowledge sharing and learning'

4.0  (8 )

All members of the committee should have visited the THEP office at least once. If not, organize a tour. Office staff can give a short tour. Better understand the program.

3.8  (11 )

Invite the ADM Environment to a THEC meeting. ADM needs to continue to be involved. Coordinate a Teck tour at the same time; include THEC members. High level Ministry staff need to have the opportunity to see Teck, Trail, and need to speak directly with community reps.

3.8  (10 )



THOUGHTS

Meeting format

Interaction with audience Keeps people engaged, learn more

3.9  (9 )

Keeping in mind that it is a committee meeting, I like how the meeting format has evolved over the past few years. The mix of presentations, reporting, mini workshops, etc. keeps it interesting while still conducting the business at hand.

3.9  (9 )

In support of the hybrid meetings. I believe most people would prefer to meet in person, however, a hybrid meeting increases participation by providing the option to attend virtually.

3.9  (8 )



WRAP UP Next Steps

In summary, feedback was provided with respect to the content and learning desired along with the meeting format (hybrid option and engaging / interactive).

Future THEC meetings will be designed with this input in mind.

Thank you for the input!

Handwashing Signage Design



Wash hands after play & before eating.



**Soil Management
Communications Working Group
Terms of Reference**

Terms of Reference: THEP Soil Management Communications Working Group (Jan 31, 2023)

Background

THEP's Soil Management Program expanded in the Trail Area in 2019 and incorporated a risk-based prioritization framework to identify properties for soil management. A communications plan was developed and implemented in conjunction with the expansion. After the first field season of the expanded program, a perception survey of Trail residents was undertaken which illustrated wide support for soil management despite the inconveniences it can cause in neighbourhoods. After four years of implementation, the program has learned that communications around soil can be challenging and at times sensitive. Examples include explaining the prioritization process for soil management, who is at risk from contaminated soils, as well as additional emergent issues such as contaminated soil disposal in the RDKB.

The communications plan is being updated in 2023 to maintain its relevance to the current context as well as embed learning from the last four years.

Purpose of the working group

The purpose of this group is to provide THEP with an external perspective on communication and education topics related to soil management in the Trail Area as needed.

Anticipated tasks

- Review and provide comments on draft THEP documents and key messages including:
 - Validate and/or challenge proposed content and messaging to improve clarity, understanding and acceptance from the community.
 - Provide a plain language lens to technical content.
- Share feedback and concerns heard in the community related to soil management.

Membership

Working group membership aims for representation from THEC committee members representing affected areas and residents as well as program staff.

Current membership (January 2023) includes:

- Annick de Goede – THEC community member with young children, hard to access property, West Trail
- Ashley Melenchuk – THEC community member with older children, Trail
- Carolyn Amantea – THEC elected official, no resident children, Warfield
- Alexa Matthes - Soil Management Program
- Wendy Goodrich - Healthy Homes (knows a lot of families)
- Dave Bell - Teck Soil Management Program
- Andrea McCormick - Community Program Office Manager
- Michelle Laurie – THEC Lead Facilitator / THEP communications

Meetings

Meetings will take place as needed. It is expected there will be monthly meetings from January to June to help improve communications for the 2023 field season.

Reporting

Reporting will be via the standing Community Program Office report to THEC.