

Trail Area Health & Environment Committee



Summary

Meeting by zoom: Wednesday, April 21, 2021, 7:00 p.m.

Committee members in attendance:

Lisa Pasin, Chair, City of Trail
Cyra Yunkws, Village of Warfield
Dr. Karin Goodison, Interior Health MHO
Jane Power, Interior Health

Dan Bouillon, Teck Trail Operations
Clare North, Teck Trail Operations
Ron Joseph, Community Member
Steve Hilts, Community Member
Julia Stockhausen, Community Member

Others in attendance:

Cecilee Pitman, Interior Health
Meghan Morris, Interior Health
Christina Yamada, Interior Health
Jayne Garry, Teck Trail Operations
Thompson Hickey, Teck Trail Operations
Cindy Hall, SNC-Lavalin
Erynn Scaia, SNC-Lavalin

Dr. Nelson Ames, Community
Tara Bullanoff, Interior Health
Colleen Delaney, BC Ministry of Environment
David Bell, Teck Trail Operations
Andrea McCormick, SNC-Lavalin
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 & MEETING MINUTES

- Mayor Lisa Pasin, THEC Chair, opened the meeting.
- Minutes were approved from the February 10, 2021 THEC meeting,

PRESENTATIONS, REPORTS, DISCUSSIONS & RECOMMENDATIONS

Presentations

Home Gardening Tips & Update in Trail

Presenter: Andrea McCormick, SNC Lavalin

- The presentation provided an overview of research on Pb (lead) and produce including an update on Pb levels of produce grown in Trail. Slides are attached. The 2019 study on produce in Trail will be made available on thep.ca along with a recording of the presentation.

Toddler Development Instrument Report

Presenter: Christy Anderson, Family Action Network

- Cindy Hall (THEP team member) and Julia Stockhausen (THEC member) are also Family Action Network board members and introduced the presentation. They emphasized the purpose was to highlight recent data gathered through the Toddler Development Instrument in this region including celebrating the collaboration of partners working in our communities on early childhood development. The presentation is attached.

Program Reports & Updates

Air Quality

- **Air Quality Report – Dan Bouillon, Teck Trail Operations**
 - See attached report.
 - Variability in ambient levels has been reduced significantly over the past year as a result of Teck’s existing environmental management systems which include the identification of the cause of elevated levels and timely implementation of controls to mitigate the cause of these events in the future. Probable causes that have been identified and worked on over the past year and contribute to the lower variability in ambient levels include KIVCET Electric Furnace process ventilation, area and road dust and No.3 Slag Fuming Furnace boiler dusting.
- **Air Quality Working Group Update – Lisa Pasin, Chair**
 - All draft communications products are undergoing review based on feedback received during the THEC February meeting and comments received from the ‘plain language review’ volunteers.
 - Teck and ENV are working to gather and review air quality Pb data from other smelter communities and will aim to share this at the November THEC meeting. In addition, ENV is looking into whether data are available from cities without a Pb point source. These data are being sought in response to a committee member’s question to understanding the context of air quality in Trail.

Family Health Report – Meghan Morris, Interior Health

- Meghan shared she is on a temporary assignment to support the COVID vaccination roll-out until October 2021. She introduced Cecilee Pitman as the new public health nurse for THEP.
- See attached report.

Soil Management Program Report - Clare North, Teck Trail Operations

- Teck submitted the 2020 Annual Report and 2021 Work Plan for the Soil Management Program to ENV on March 31, 2021. 2021 work will include continued soil assessments throughout the Environmental Management Area, residential soil management at highest risk properties as identified through the risk-based prioritization framework (which considers age of occupants, ground cover and lead levels), and working with park and playground owners to monitor and maintain ground cover.
- See attached report.

Home & Garden Report – Cindy Hall, SNC Lavalin

- See attached report.

Community Check-In - All community members

- Steve Hilts provided an update on the first interim working group meeting of volunteers discussing community representation on THEC. Michelle and Steve will be reviewing the notes and proposing ways forward for further refinement in May. The proposal will be shared with THEC at a future meeting.

Program Planning Update - Michelle Laurie, THEC Lead Facilitator

- Ongoing support to the program team continues, particularly communications related to increasing soil testing and the spring THEP newsletter.
- A meeting was convened in April with Interior Health’s epidemiologist, the MHO, Christina Yamada, Clare North, Nelson Ames, and Steve Hilts to determine possible ways to increase our understanding of historical blood lead data as well as avenues for future research. The epidemiologist is reviewing next steps with IH staff and will be reporting back to THEP.

Executive Report - Lisa Pasin, THEC Chair, Mayor, City of Trail

- No meeting was held.

The next THEC meeting is June 17 at 7pm. Meetings are currently being held online and are open to the public.

Trail Area Health & Environment Committee



AGENDA

Meeting: Wednesday, April 21, 2021, 7:00 p.m.

By Zoom: <https://us02web.zoom.us/j/87369221512>

Meeting ID: 860 4677 5815

Committee Members:

Lisa Pasin, Chair, City of Trail
Sandy Santori, Alternate Chair, City of Trail
Dr. Karin Goodison, Interior Health MHO
Jane Power, Interior Health
Kyle Jorgenson, USW Local 480 Rep
Dan Bouillon, Teck Trail Operations
Clare North, Teck Trail Operations

Linda Worley, RDKB Area B
Cyra Yunkws, Village of Warfield
Ali Grieve, RDKB Area A
Cassandra Caunce, BC Ministry of Environment
Ron Joseph, Community Member
Steve Hilts, Community Member
Julia Stockhausen, Community Member
Marylynn Rakuson, Community Member

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WELCOME and INTRODUCTIONS

- Opening remarks from Mayor Lisa Pasin, THEC Chair

MEETING MINUTES

- Approve minutes from THEC meeting, February 10, 2021 (as attached)

PRESENTATIONS, REPORTS, DISCUSSIONS & RECOMMENDATIONS

Presentations (60 mins)

Home Gardening Tips & Update in Trail

Presenter: Andrea McCormick, SNC Lavalin

- Presentation
- Q&A

Toddler Development Index Report

Presenter: Christy Anderson, Family Action Network

- Presentation
- Q&A

Program Reports & Updates (45 mins)

All reports are provided in the agenda package. Presenters will provide highlights with time for questions / comments.

Air Quality

- Air Quality Report – Dan Bouillon, Teck Trail Operations
- Air Quality Working Group Update – Lisa Pasin, Chair

Family Health Report – Cecilee Pitman, Interior Health

Soil Management Program Report - Clare North, Teck Trail Operations

Home & Garden Report – Andrea McCormick, SNC Lavalin

Community Check-In - All community members

Program Planning Update - Michelle Laurie, THEC Lead Facilitator

Executive Report - Lisa Pasin, THEC Chair, Mayor, City of Trail

2021 THEC MEETINGS

- June 17
- Sept 23
- Nov 25

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

Presentations

1. Home Gardening Tips & Update in Trail

The presentation follows as a PDF



HOME GARDENING IN TRAIL

Update to the THEC

April 21, 2021

WHAT SHOULD I KNOW ABOUT GARDENING IN TRAIL?

- › WHAT AFFECTS Pb (LEAD) IN PRODUCE?
- › WHAT IS THEP DOING?
 - › *UPDATE ON MOST RECENT FINDINGS*
 - › *HUMAN HEALTH & PRODUCE*
 - › *TIPS ABOUT GARDENING IN TRAIL*



STUDIES & RESEARCH

GLOBAL RESEARCH - METALS IN FOOD

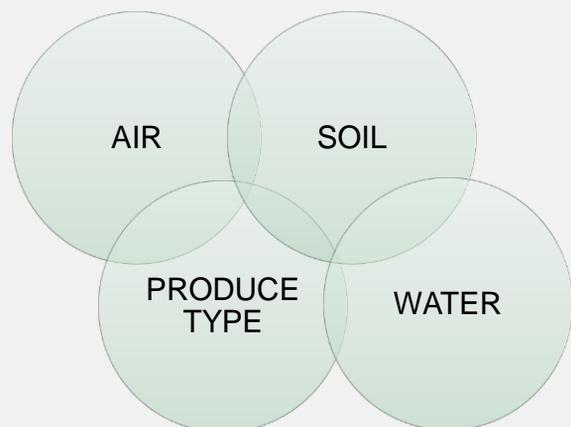
- › Fish, rice, other foods
- › Human caused and natural
- › Plant uptake
- › Soil Amendments
- › Consumption rates and metal absorption in the body

LOCAL STUDIES & TESTING ON Pb

- › Lead Task Force 1990's
- › H&G 2007 – 2013
- › H&G 2019



WHAT CONTRIBUTES TO PRODUCE Pb

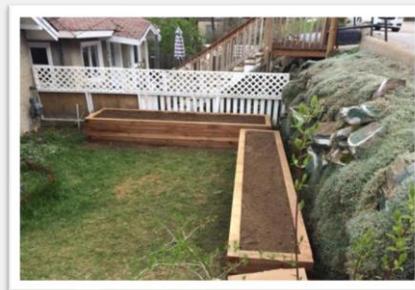


PRODUCE IN TRAIL



SOIL

- › Pb in soil can adhere to edible roots of plants and/or dissolve to be taken up by roots
- › Soil Pb is lower after soil remediation, but produce Pb isn't always lower
- › Soil Pb most closely related to root crops
- › Soil amendments may help reduce Pb uptake
- › Remediation lowers direct contact to Pb in soil



AIR QUALITY (AQ)

- › Pb in the air can land on plants allowing Pb to be absorbed by the leaves
- › Improved AQ appears related to lower produce Pb on fruit and leaf crops, but not roots
- › Washing produce helps lower produce Pb

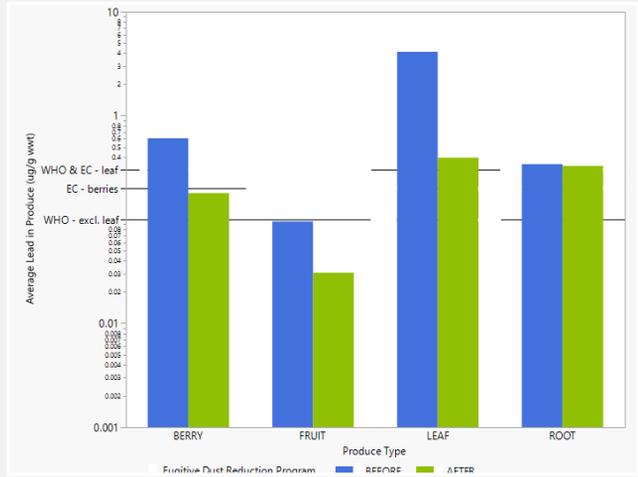


Figure 2: Comparison of produce Pb concentrations before and after implementation of FDRP

PRODUCE TYPE

- › Different crops take up Pb differently from soil, water, air, etc.
- › Fruit crops are the lowest in Pb
 - › Most commonly grown and consumed
- › Leaf crops are higher in Pb
 - › By weight, is consumed at lower amounts
- › Root crops also have higher Pb
 - › Some are higher than others (eg. carrots, beets)
 - › Potatoes are typically lower

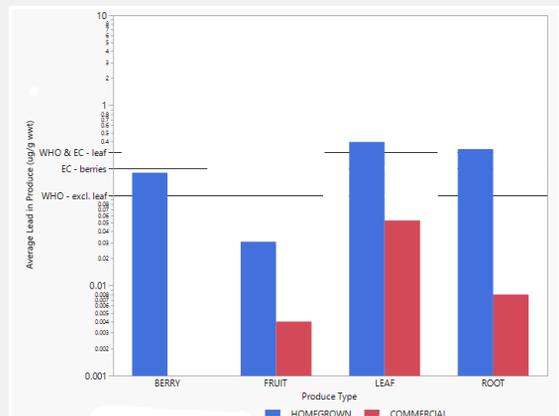


Figure 1: Comparison of 2019 Produce to applicable standards and commercial produce

KEY POINTS ABOUT TRAIL PRODUCE

HUMAN HEALTH & GARDEN PRODUCE Pb

ADULTS

- › Not a concern

CHILDREN

- › There are many ways a child can be exposed to Pb, in the garden these include:
 - › Direct soil contact and hand-to-mouth activity
 - › Produce could contribute to child exposure
 - › *Depends on the amount of produce consumed, how often and for how long*



CONSISTENT FINDINGS ACROSS STUDIES

- › Soil remediation alone does not significantly reduce Pb in produce
- › Different types of produce uptake Pb differently
- › Commercially available produce has lower Pb than homegrown produce
- › There are key ways to minimize Pb exposure:
 - › Wash all produce
 - › Peel root crops
 - › Test your soil
 - › Wash hands after working in the garden



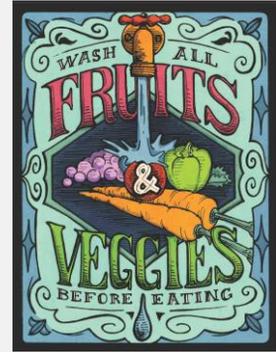
SUMMARY OF NEW FINDINGS

- › Pb in Fruit and Leaf Produce are significantly lower than in previous studies
- › Pb reduction in Fruit and Leafy Produce is closely linked to improved Air Quality
- › Some root crops were consistently higher than others (e.g. carrots vs potatoes)



HOME GARDENING TIPS

- › Always wash fruits and vegetables before consuming
- › Peel root crops
- › Choose what you grow – fruit crops have the lowest Pb
- › Have your soil tested! Amend your soil to help reduce metal uptake
- › Wash your hands (and your children's hands) after working in the garden



There are many known health benefits to growing your own food

People have been gardening in Trail for over 100 years

Produce Pb in Trail is lower than ever!



13



THANK YOU!

Contributors:
 Andrea McCormick
 Bruce Enns
 Tara Siemens-Kennedy
 Tony Gillett
 Steve Hilts
 Clare North



Presentations

2. Toddler Development Index Report

The presentation follows as a PDF

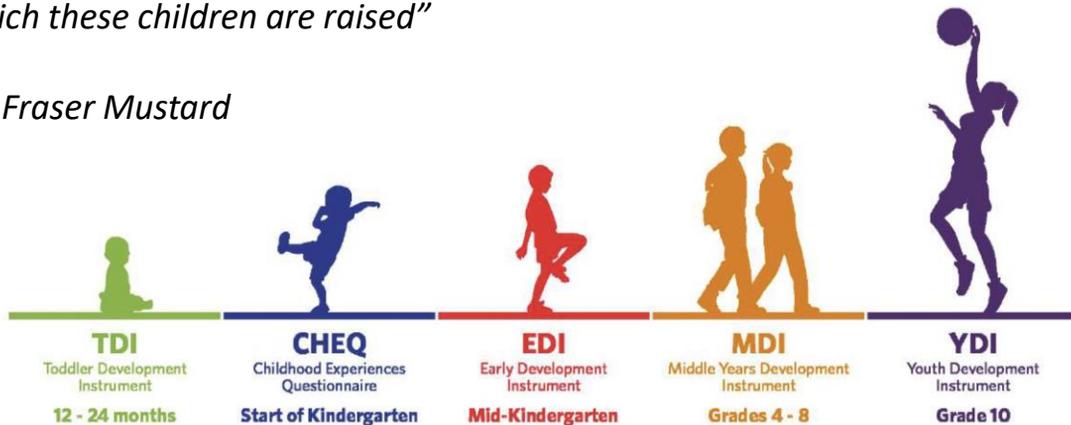


HUMAN
EARLY LEARNING
PARTNERSHIP

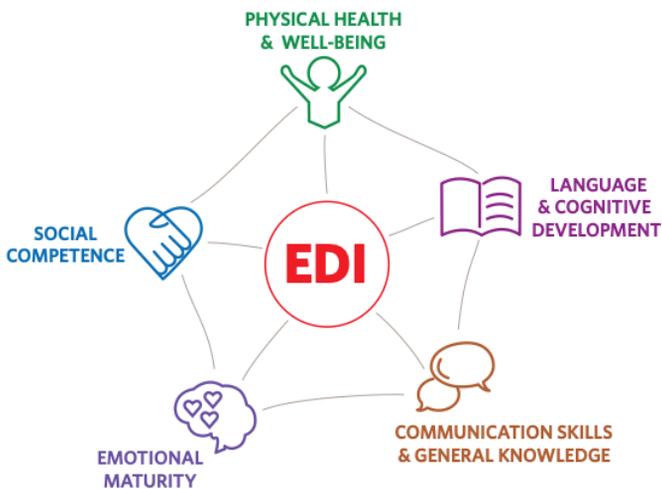
HELP Monitoring System

“The quality of early childhood affects the quality of the future population and the prosperity of the society in which these children are raised”

Dr. Fraser Mustard



THE FIVE SCALES OF THE EDI



Early Development Instrument District results for SD 20 – Kootenay Columbia

Wave 6 2014-2016

22%

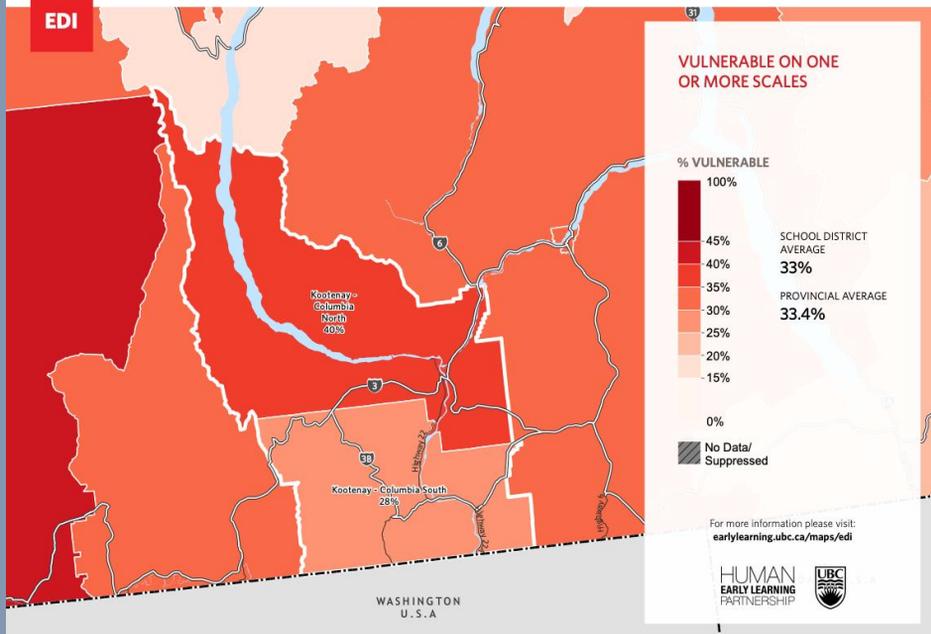
Wave 7 2017-2019

33%

...that's 214 children!

KOOTENAY - COLUMBIA (SD 20) WAVE 7

EDI



Topics covered by the TDI



158 completed surveys

Worked with over 25 community partners to connect to parents and offer survey

Data now available to FAN and our community partners including:

- Average screen time/day experienced by children 1-2 years of age
- Parent/caregiver self-description of well-being
- Challenges in accessing childcare and other family services

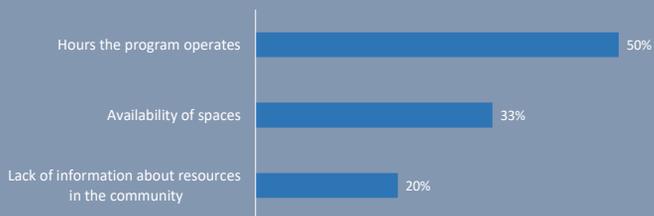
Our challenge:

- 71% of respondents reported household income of \$75,000 and above

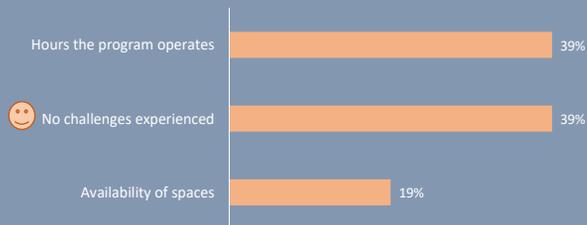


“What challenges have you experienced when looking for child/family resources in your community?” (n=144)

Castlegar



Trail/Rossland/ Fruitvale





“...the common elements of programs that promote aspects of health equity appear to be collaboration, sustained funding and leadership.”

Michele Wiens, *HELP Early Childhood Development Literature Review*, 2014



Questions and Comments?

Contact:
Christy Anderson, Executive Director
Family Action Network
coordinator@familyactionnetwork.ca
250-687-1501

Air Quality Report

Air Quality Report

April 21, 2021

1. Lead in Air:

First quarter 2021 average for lead in air at Butler Park was $0.066 \mu\text{g}/\text{m}^3$, which is significantly lower than the first quarter average for previous years.

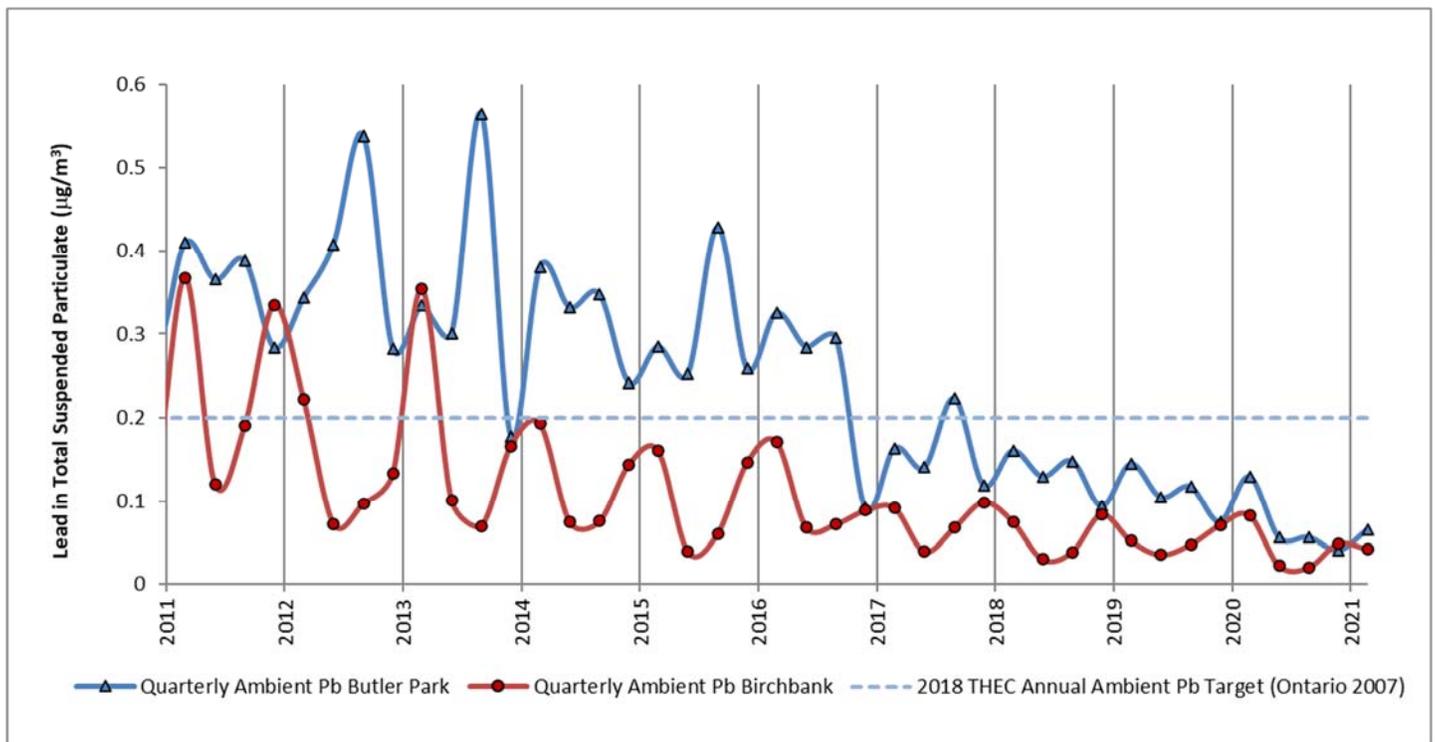


Figure 1: Quarterly monthly average lead at Butler Park and Birchbank stations (as total suspended particulate measured bi-daily)

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).

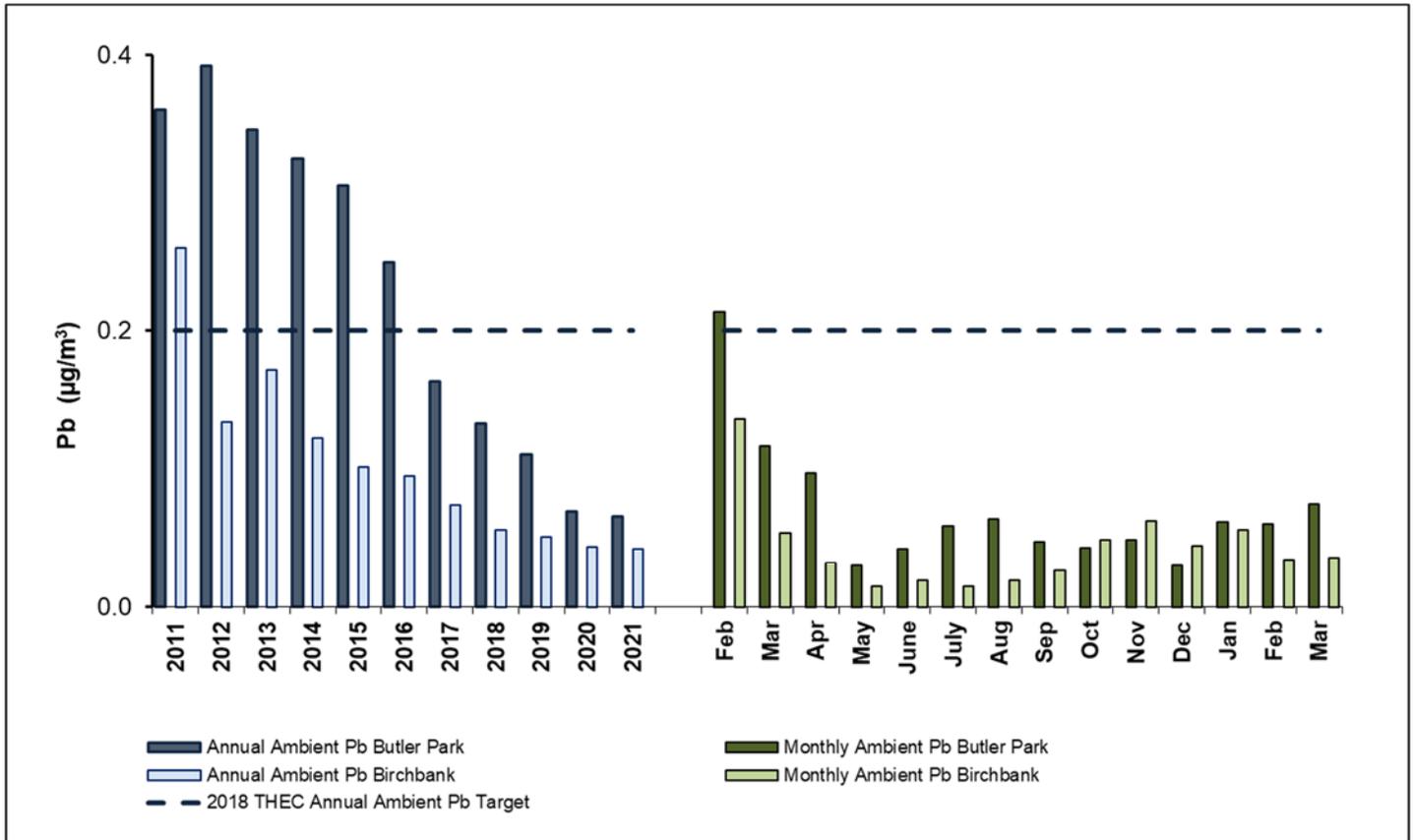


Figure 2: Annual and monthly average lead at Butler Park and Birchbank stations (as total suspended particulate measured bi-daily)

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 Objective 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.

2. Arsenic in Air:

First quarter 2021 average for arsenic in air at Butler Park was $0.003 \mu\text{g}/\text{m}^3$, which is significantly lower than first quarter averages in previous years.

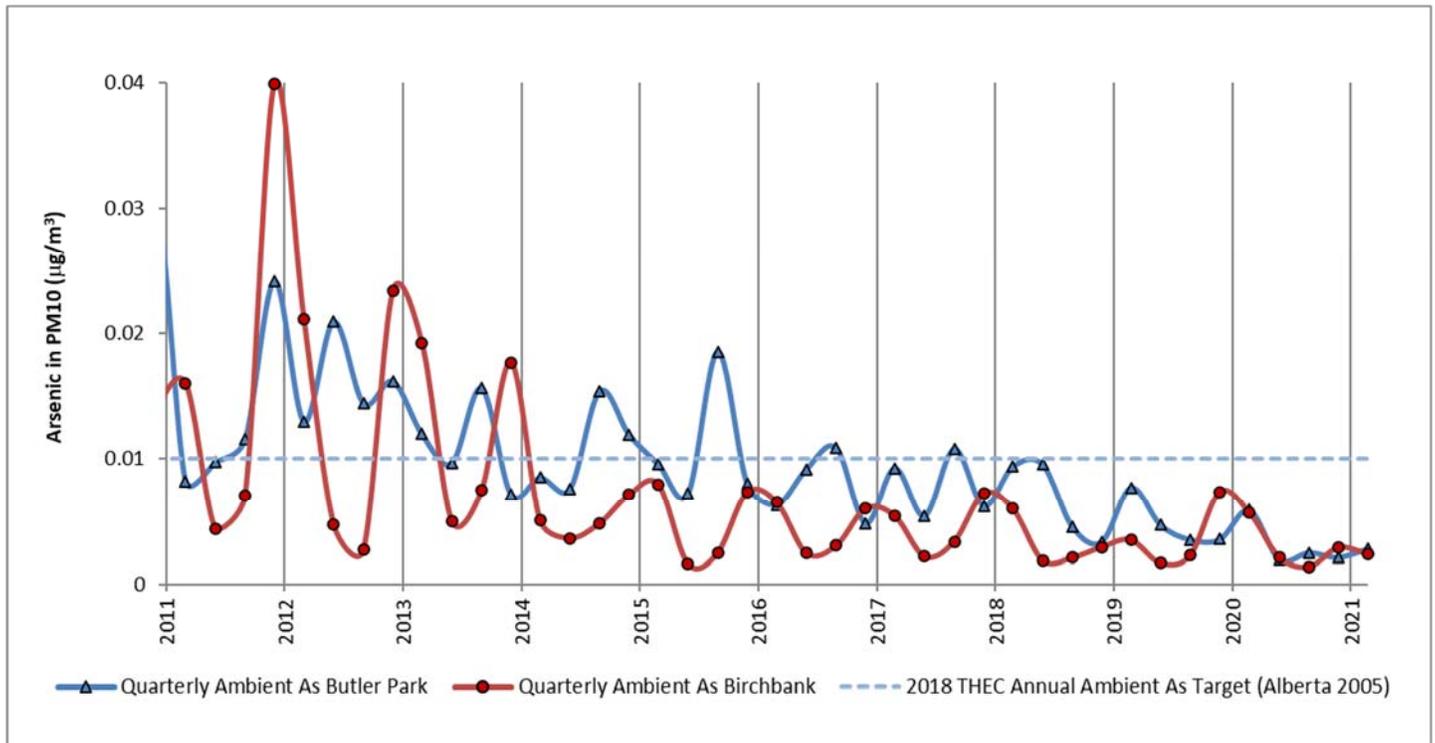


Figure 3: Quarterly average arsenic at Butler Park and Birchbank stations (as inhalable PM₁₀ fraction measured weekly)

The chart in Figure 3 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).

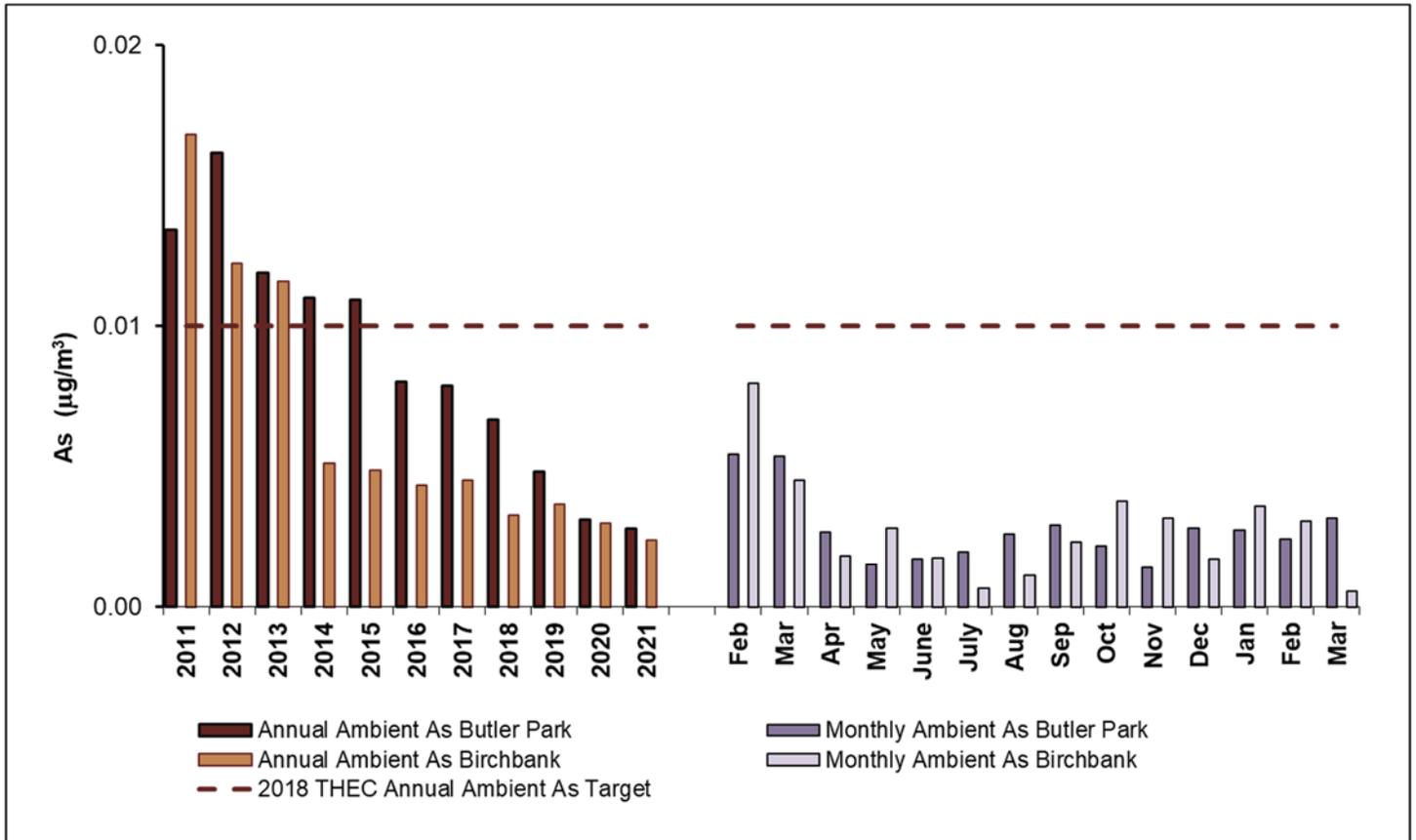


Figure 4: Annual and monthly average arsenic at Butler Park and Birchbank stations (as inhalable PM10 fraction measured weekly)

The chart in Figure 4 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 Objective 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.

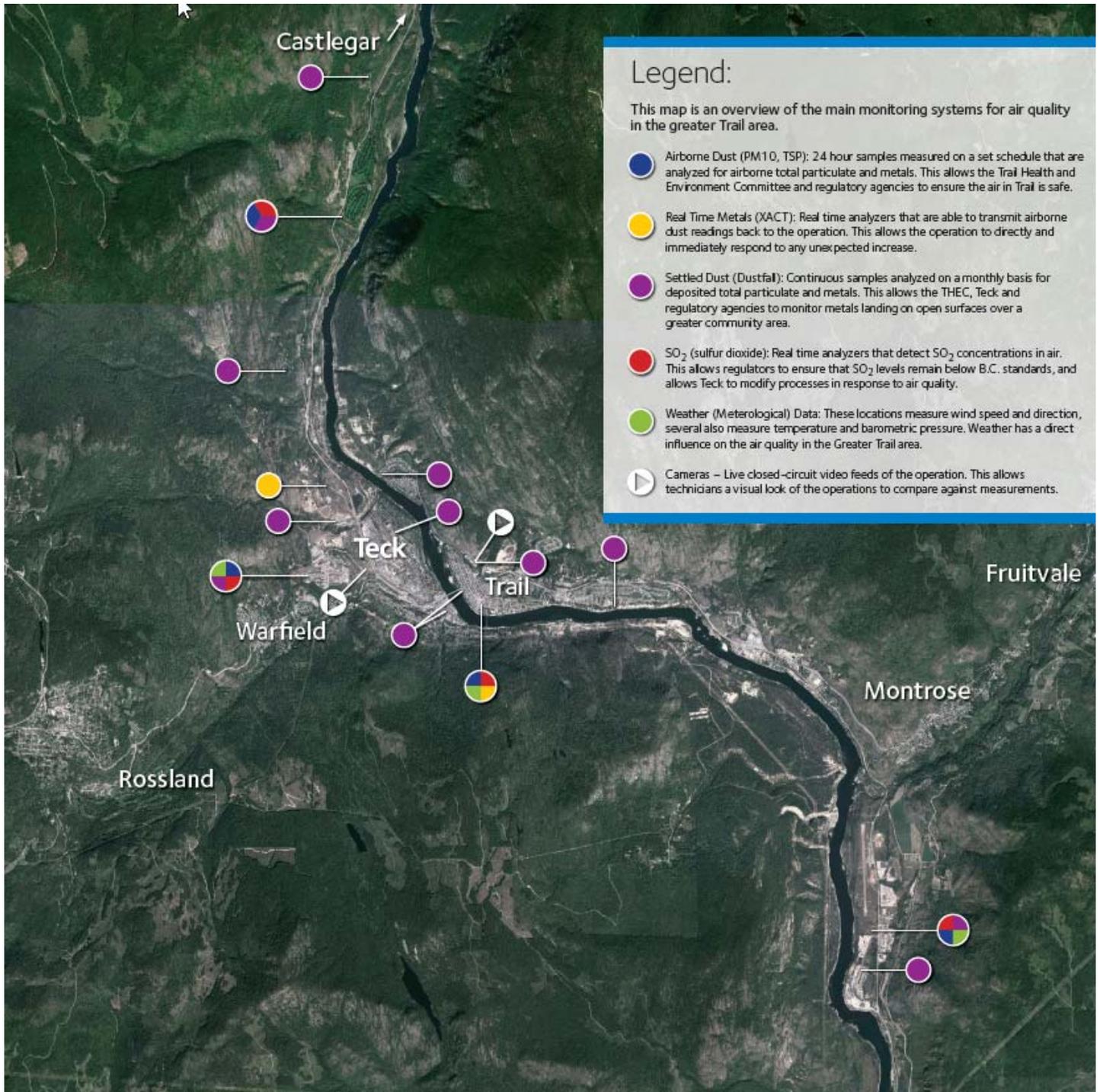


Figure 5: Teck Community Air Monitoring Stations

Family Health Report



FAMILY HEALTH REPORT

April 21, 2021

RECENT HIGHLIGHTS

1. Public Health Nurse Update
2. Healthy Family Visits
3. Community Outreach
4. Fall 2020 Blood Lead Clinic Dates

ADDITIONAL DETAILS

1. Public Health Nurse Update

- Meghan Morris has shifted temporarily to Community Integrated Care Coordinator to support the Pandemic Vaccine rollout until the end of October 2021. Cecilee Pitman has stepped into the Public Health Nurse Role with the THEP.

2. Healthy Family Visits

- 16 Healthy Family visits completed in 2021, either in person at Kiro or over Zoom/FaceTime or WhatsApp based on families preference.
- Currently working with the Home and Garden office and will soon begin offering Healthy Family Visits to Area 1 Families with children aged 6-18 months in September 2021.

3. Community Outreach

- Unable to attend the current Building Beautiful Babies cohort due to staffing changes and Public Health capacity.

3. Fall 2020 Blood Lead Clinic

- Early Planning Stages for September 2021 Blood Lead Clinic. 6 clinic days (2 days per week over 3 weeks) will be offered. Likely beginning on September 13th, but TBC.

Soil Management Program Report

Soil Management Program

April 21, 2021

Clare North

Superintendent, Environmental
Remediation

Teck

Soil Management Program

- **Soil management is one way to reduce Pb exposure in the home and yard environment**
- **Soil management program aims to:**
 - **Identify properties with children under 12** and assess soil and ground cover
 - **Identify highest priority** properties and complete soil management actions
- Annual Soil Management Plan is developed and submitted to ENV;
- 2021 plan includes:
 - Continued soil testing
 - Residential soil management
 - Improvements at parks and playgrounds

Teck



The graphic features three overlapping dashed circles. The top circle contains a laboratory flask with a chemical reaction. The bottom-left circle contains icons of a family (two adults and a child) and a dog. The bottom-right circle contains a stylized green landscape with trees.

Have you had your soil tested?

Bare soil in yards and gardens is a source of dust and may contain lead.

Ensure your yard is healthy & safe.

It's Free. Sign up online.



The illustration shows a green landscape with rolling hills, a blue sky, and various elements including a red excavator, a blue tractor, a house, a tree, and a river.

TRAIL AREA
Health & Environment Program For more information visit thep.ca

Visit our Office
1319 Bay Avenue

Email
programs@thep.ca

Call
250.368.3256

Home & Garden Report

April 21, 2021

HIGHLIGHTS

Spring is here! The H&G program is fully staffed, and all programs are running at full capacity. COVID protocols are unchanged. The program office is open Tues–Thurs (10-4) and by appointment.

Soils Program:

- a. Soil Replacement: contractor kick-off was conducted at the beginning of this week and crews have begun to actively remediate properties.
- b. Soil Assessment: sampling has been completed for all families that have been queued over the winter.
- c. Ground Cover Evaluation: in progress (phone and in-person check-ins).
- d. Yard Improvement: all families residing at properties that qualify for lawn care have been contacted to initialize the service; other improvement activities will begin soon.

2. Healthy Homes:

- a. 17 HH visits have been completed since January 1st, 2021. Lots of new families moving to area and connecting with the program!
- b. Area 1 HH Visits: a plan has been developed to offer HH visits starting at the beginning of May. Families with children born between March 2020 and March 2021 will be prioritized.
- c. Residential Lead Inspection (RLI): sampling has been completed. All families have received the results in follow-up phone conversation, and letter reports will be mailed out by the end of May.

3. Lead Safe Renovation:

- a. After a year of limited access to safety supplies, the local supplier, and the program is back to capacity.

4. Outreach and Engagement:

- a. Daycares: THEP information packages will be mailed out to all program area daycares by the end of the month. The plan is to connect back and arrange in-person outreach and education when it's safe to do so.
- b. THEC Community Representation – Wendy and Cindy have joined a working group to explore opportunities that ensure the THEC remains relevant and attracts new members.