

Trail Area Health & Environment Committee



Meeting Summary

Meeting by Zoom: Wednesday, February 10, 2021, 7:00 p.m.

Committee members in attendance:

Lisa Pasin, Chair, City of Trail
Dr. Karin Goodison, Interior Health MHO
Jane Power, Interior Health
Clare North, Teck Trail Operations
Dan Bouillon, Teck Trail Operations

Cyra Yunkws, Village of Warfield
Kyle Jorgenson, USW Local 480 Rep
Cassandra Caunce, BC Ministry of Environment
Marylynn Rakuson, Community Member
Steve Hilts, Community Member
Julia Stockhausen, Community Member

Others in attendance:

John Aitken, Community
Meghan Morris, Interior Health
Christina Yamada, Interior Health
Donna Haga, BC Ministry of Environment
Jayne Garry, Teck Trail Operations
Keith Klimchuck, Teck Trail Operations
Thompson Hickey, Teck Trail Operations
Cindy Hall, SNC-Lavalin

Dr. Nelson Ames, Community
Tara Bullanoff, Interior Health
Colleen Delaney, BC Ministry of Environment
Suzanne Belanger, Teck Trail Operations
Tim Moore, Teck Trail Operations
Dave 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 November 26, 2020 THEC meeting,

PRESENTATIONS, REPORTS, DISCUSSIONS & RECOMMENDATIONS

Presentations

An Introduction to SO₂ in Trail (Panel)

Panelists:

- Donna Haga, Sr. Air Quality Meteorologist, Air Quality Section (Assessments and Stewardship), BC Ministry of Environment and Climate Change Strategy
- Dan Bouillon, Manager Environment, Teck Trail Operations
- Dr. Karin Goodison, Medical Health Officer, Interior Health

Panel Hosts: Lisa Pasin (Mayor City of Trail), Michelle Laurie (THEC Lead Facilitator)

- Lisa Pasin introduced the panel. Historically, THEC has been focused on reducing smelter metals (such as lead and arsenic). Over the last several years, changes have taken place with respect to Canadian and BC Air Quality Standards. This panel presentation is a first step to broaden the THEC's understanding of sulphur dioxide. The AQWG is working on communication materials. Questions received from the THEC will be considered by the AQWG for inclusion in the communications materials being prepared.

- Panelists each shared introductory remarks followed by small group discussion and Q&A. Panel presentations are attached.

Home & Garden Annual Report

Presenter: Andrea McCormick, SNC Lavalin

- The 2020 Annual Home & Garden Report was presented. See attached presentation and report.

Program Reports & Updates

Air Quality

- Air Quality Report – **Dan Bouillon, Teck Trail Operations**
 - See attached report.
- Air Quality Working Group Update – **Lisa Pasin, Chair**
 - Draft air quality communication documents are being reviewed for plain language with the aim of bringing a draft final to the THEC meeting in April.
 - In response to a question posed by Cyra Yunkws, around air quality comparisons, ENV looked into ambient lead comparisons with other locations in Canada. The data found requires analysis including checking the data collection methods and approaches. It will be brought to the AQWG for further follow up and next steps.

Family Health Report – Meghan Morris, Interior Health

- See attached report.

Soil Management Plan Report - Clare North, Teck Trail Operations

- The 2020 annual report is due in March 2021 along with the 2021 work plan. An overview will be provided to the THEC at the April meeting.

Community Check-In - All community members

- Steve Hilts would like to focus energy on recruitment and engagement of community members within all parts of the THEC / THEP. He will prepare a background document and proposed action plan. Anyone interested to be involved, please contact Steve or Michelle.
- Julia Stockhausen shared thoughts on sulphur dioxide communications in Trail/ Warfield. She reminded everyone that young families have existing anxieties related to COVID-19 and this needs to be considered. Messaging should include relative risks to contextualize the information.

Program Planning Update - Michelle Laurie, THEC Lead Facilitator

- An overview of THEP 2021 work plan was shared. See attached.
- A summary report of a Healthy Family Healthy Homes review was shared and will be put online at thep.ca.
- A homeowner feedback survey post-soil remediation was undertaken and results were similar to 2019 in that 94% of respondents were very satisfied or satisfied with the work completed by the Home & Garden program on their properties.

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

- There was no Executive meeting. However, at the November Executive meeting, ENV offered to present on their work to the THEC and this is planned for the April 2021 meeting.

2021 THEC MEETINGS

- April 21
- June 17
- Sept 23
- Nov 25

Trail Area Health & Environment Committee



AGENDA

Meeting: Wednesday, February 10, 2021, 7:00 p.m.

By Zoom: <https://us02web.zoom.us/j/86046775815>

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

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 (5 min)

- Opening remarks from Mayor Lisa Pasin, THEC Chair

MEETING MINUTES

- Approve minutes from THEC meeting, November 26, 2020 (as attached)

PRESENTATIONS, REPORTS, DISCUSSIONS & RECOMMENDATIONS

Presentations

An Introduction to SO₂ in Trail (Panel) (45 mins)

Panelists:

- Donna Haga, BC Ministry of Environment and Climate Change Strategy
- Dan Bouillon, Teck Trail Operations
- Dr. Karin Goodison, Interior Health

Panel Hosts: Lisa Pasin (City of Trail), Michelle Laurie (THEC Facilitator)

- Panel presentation
- Q&A

Home & Garden Annual Report (20 mins)

Presenter: Andrea McCormick, SNC Lavalin

- 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 – Meghan Morris, Interior Health

Soil Management Plan Report - Clare North, Teck Trail Operations

Community Check-In - All community members (15 mins)

- Round table contributions & questions

Program Planning Update - Michelle Laurie, THEC Lead Facilitator

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

2021 THEC MEETINGS

- April 21
- June 17
- Sept 23
- Nov 25

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

Presentations

Sulfur Dioxide (SO₂) in Trail

Donna Haga

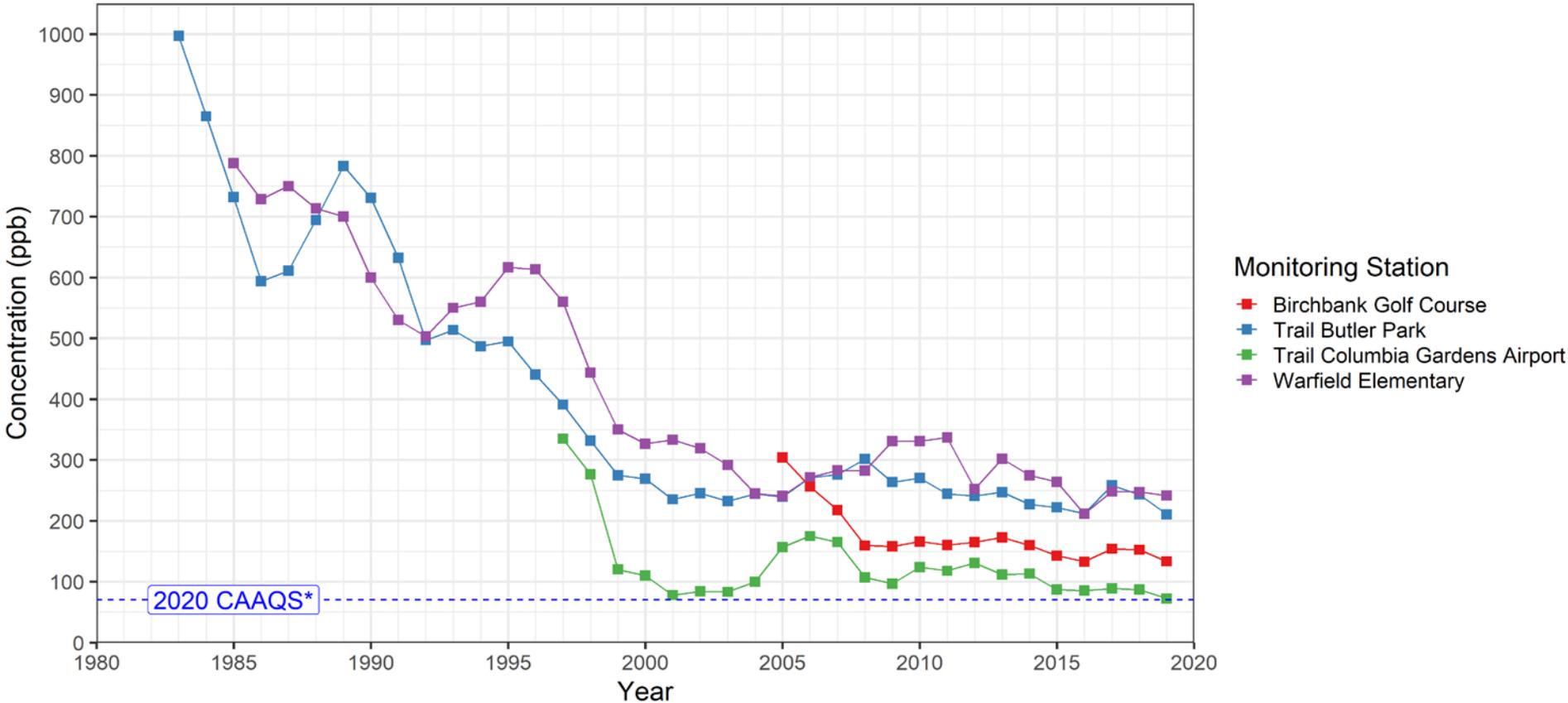
Sr. Air Quality Meteorologist

Monitoring Network



Sulphur Dioxide in Trail (1981-2019)

1-hour CAAQS*, based on 3-year average

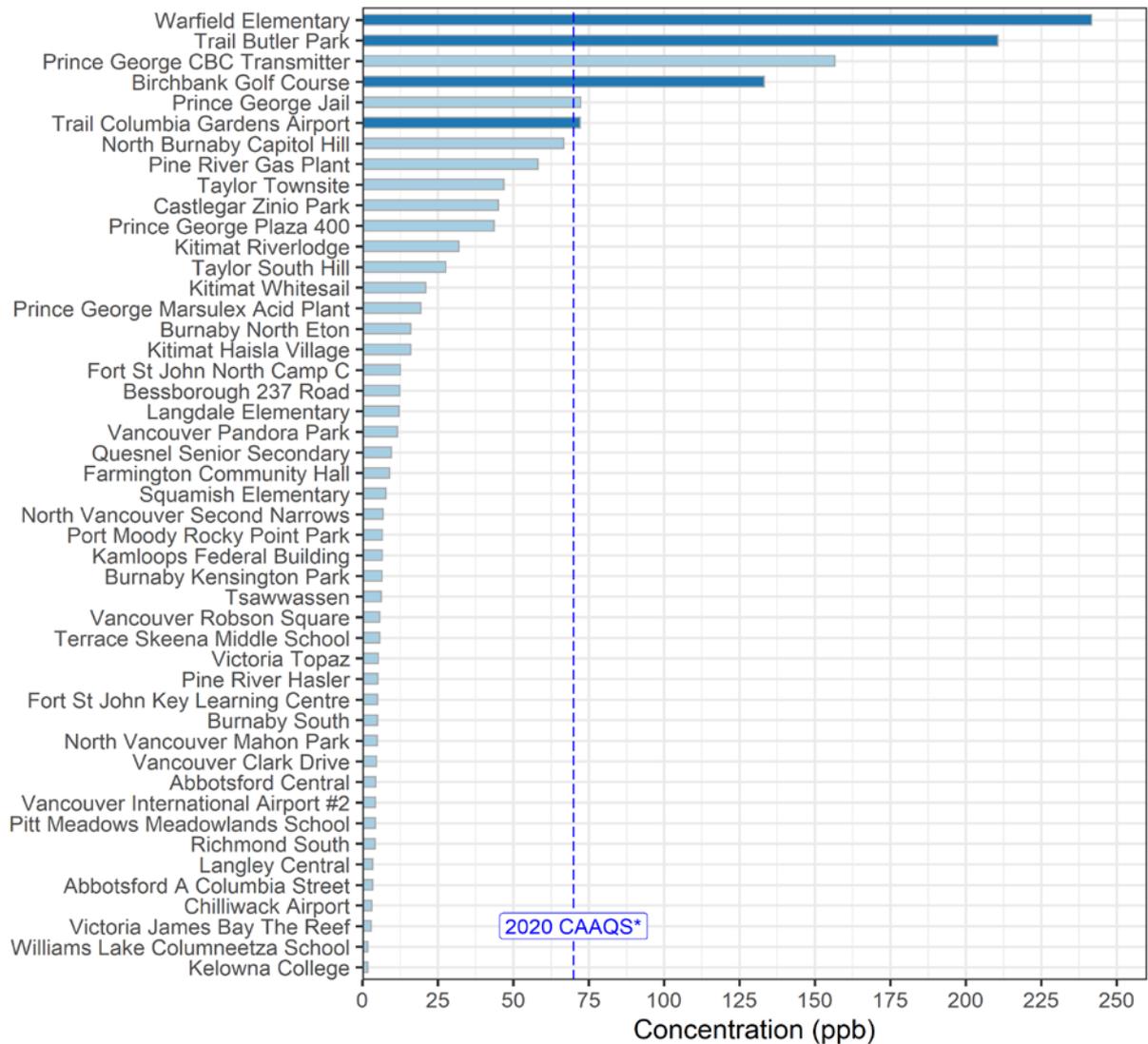


*Canadian Ambient Air Quality Standard (effective January 1, 2020)



Sulphur Dioxide in BC (2019)

1-hour CAAQS*, based on 3-year average

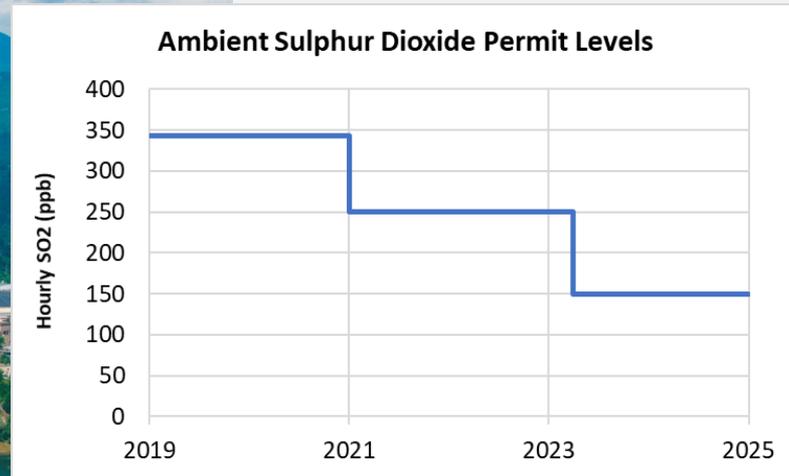


*Canadian Ambient Air Quality Standard (effective January 1, 2020)

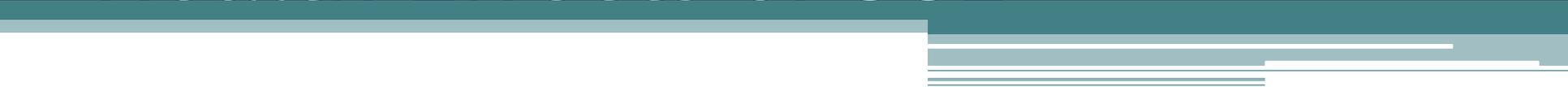
Donna.Haga@gov.bc.ca

250-420-6320

SO2 Emissions, Terrain & Permit

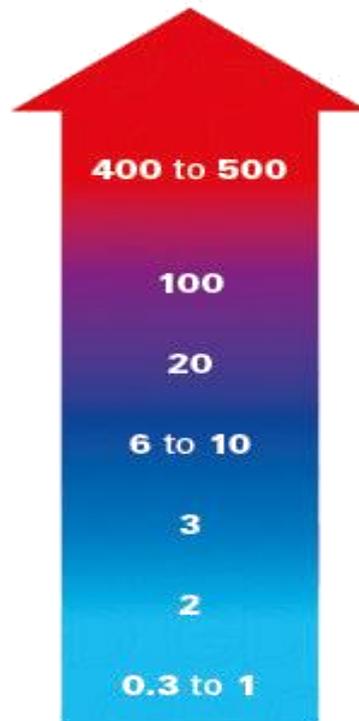


Health Effects of SO₂



Effects of sulfur dioxide (SO₂) on health

Sulphur dioxide concentration
(expressed in ppm)



Effects on human health

- ▶ Hazardous concentration of sulfur dioxide gas that can cause edema or glottis then death after a prolonged exposure
- ▶ Maximum exposure for 30 minutes
- ▶ Irritating to the eyes
- ▶ Irritating to the nose and throat
- ▶ Easily detectable through smell
- ▶ Permissible exposure limit (PEL, NIOSH, ACGIH)
- ▶ Sulfur dioxide is primarily detectable through taste

What are the Health Concerns?

- At very high levels (work-places), sulphur dioxide can be life-threatening
- **Short-term exposure**
 - health concerns for people with asthma or chronic obstructive pulmonary disease (COPD), young children and the elderly
 - Symptoms may include constriction or tightening of the airways in the lungs, coughing, wheezing and shortness of breath. Also cause irritation of the respiratory system and eyes.
 - increase emergency room visits and hospital admissions for respiratory illnesses for sensitive individuals

What are Health Concerns? (cont)

- **Long-term exposure**
 - Reduce ability to breathe deeply or take in as much air for each breath
 - Particles produced by the reaction of sulphur dioxide with other compounds in the air can penetrate deeply into the lungs. These particles can then damage the lining of the lungs as well as cause other effects in the body. Particles can worsen existing heart and respiratory disease, including emphysema and bronchitis.
 - Children who have been chronically exposed to sulphur dioxide may also develop more breathing problems as they get older.

Actions:

- **When SO₂ concentrations are elevated**, consider:
 - reducing or rescheduling activities outdoors
 - Avoid vigorous exercise or hard physical labor
 - remaining indoors
 - reducing indoor sources of SO₂ including tobacco smoke and unvented gas stoves.
- Persons with asthma should follow a management plan developed with their health care provider.
- If you are having trouble breathing, have chest pain or discomfort, or a severe cough, contact your health care provider or emergency department

2020 Home & Garden Annual Report

2020 Home & Garden Summary Annual Report to THEC

Healthy Homes

In-home visit program for families focused on the prevention of lead exposure in the home and yard environment.

- › 44 visits completed in 2020
 - 34 were virtual
 - 14 prenatal visits
 - 90 % participation rate (target 95%)
- › Response time to schedule 3-4 weeks
- › 623 HH visits since 2012

Enhanced HFHH Supports

Supports for families of children with elevated blood lead levels.

Enhanced Support ¹ Families receiving supports following the BL Clinic	24 Children (based on 2019 clinic)	23 Children (based on 2020 clinic)
Follow-up (e.g., phone call, material supports, and/or home visits) following the BL clinics with support through the following year.	Completed with 24 children	Completed with 22 of 23 children
ES follow-up visits	4 in home-visits	3 virtual visits
House Cleaning	5 families accepted bi-weekly cleaning	4 families accepted bi-weekly cleaning Offering deep-cleaning to families not part of bi-weekly cleaning (1 completed in 2020)
Residential Lead Inspection	5 completed in 2020	5 completed in 2020 and another 7 in 2021.

¹ Enhanced Support Families – ES BL threshold for 2020: $\geq 5\mu\text{g}/\text{dL}$ and/or an increase of $3\mu\text{g}/\text{dL}$ or more between 2 consecutive fall Blood Lead clinic visits.

- › Residential Lead Inspections as part of a Pilot Project were completed in 2020 and offered to ES families above to 6 priority families and to all families in 2020.
- › Case Conference with Program Team, MHO and IH reps.

Outreach & Engagement

..... *Engage with families, residents and community organizations to promote THEP goals and objectives*

- › **Events:** Virtual Teddy Bear Picnic, SMP sandwich board on display at the IncrEdible Farmers Market FAN/UBC TDI Pilot (presentation of preliminary results)
- › **Collaboration:** Navigator Table, Early Years Coalition, Family Action Network
- › **Presentations:** Building Beautiful Babies, Trail Library

Outreach & Engagement

..... *How did families find the Healthy Homes Program in 2020?*

- › 66% through Interior Health Referrals; 19% through the Home and Garden Office; 14% through word-of-mouth; 1% website

Lead Safe Renovation

..... *Prevent exposure to and the spread of lead dust during renovation projects*

- › 27 requests (8/27 were re-orders)
- › LSR supplies temporarily on hold through the supplier due to COVID. Job site safety items (e.g., plastic sheeting) and shopvac supplies still available.

Soil Management Program

Soil Assessment

..... *Identify metals in residential yards and gardens*

- › 164 - yards tested in 2020
- › 3 - vegetable garden only tested
- › Offered testing to over 250 residents
- › 342 - Ground Cover Evaluations
 - 178 were follow-up GCE
- › 1726 soil tests done since 2007

Soil Remediation

..... *Manage soil in residential yards through soil management and soil replacement*

- › 183 - Top priority properties received work
- › 25 - Yard improvements (2 pick-ups for DYI improvement, 3 improvements by plan done by contractor, and 2 soil pickup and disposal)
- › 73 - Lawn care
- › 69 - Fully Remediated (including 3 partial yards that made full remediation complete)
 - 67 Healthy Homes top priority properties
 - 3 daycares
 - 2 Community Program Yards
- › 19 - Vegetable gardens remediated - (4 VG only, 1 Part YIP, 14 Full REM)
- › 261 full remediations completed since 2008



Successes and Challenges of the 2020 Home & Garden Program

Presentation to the THEC

February 10, 2021

OUTLINE

The 2020 Home & Garden Program

- › Reflections of the Program during COVID
- › Healthy Homes & Enhanced Supports
- › Outreach & Engagement
- › Community Program Office
- › Soil Management Program
- › Home & Garden 2021



Reflections of H&G during the COVID-19 Pandemic



Healthy Homes & Enhanced Support Programs



Healthy Home Visiting

Healthy Homes continued in 2020

- › 44 visits - 34 virtual

Adapted from an in-home to virtual visit

- › Quick adaptation when pandemic began
- › Reached similar number of families - 55 in 2019
- › Participation and delivery remained high
- › Offers flexibility to families

CHALLENGES

- › Less opportunity to observe possible risk factors
- › Less personal connection
- › Cannot lend a hand during the visit



Enhanced Supports

Response to Enhanced Support families following 2019 & 2020 Blood Lead Clinics

- › 2019 – 6 Children – supports in 2020
 - › 18 Children had follow-up based on 2020 threshold
- › 2020 – 23 Children – initial follow-up

Successes

- › Continued support & collaboration
- › Families continued to be engaged
- › Information from Residential Lead Inspection Pilot Program
- › Positive feedback on Residential Lead Inspection
- › Virtual Case Conference

CHALLENGES

- › Suspension of some services
- › Less personal connection
- › IH staff very busy with pandemic response



Outreach & Engagement



Outreach & Engagement

Collaboration with:

Family Action Network

- > Toddler Development Instrument
- > Thought Exchange
- > COVID Resource Guide
- > Neighbourhood House

Early Years Coalition

Navigator Table

In early 2020, Outreach to:

Building Beautiful Babies

Trail Library



Community Program Office



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Community Program Office

Began working from home due to COVID

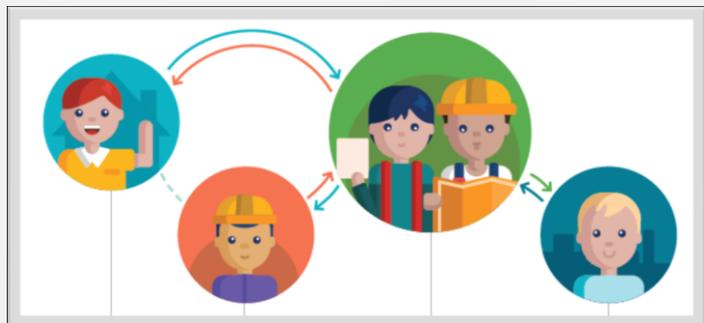
Allowed field staff priority access to the office

Successes

- › Field programs continued
- › Website updates
- › Electronic Intake

Challenges

- › Walk-ins and calls
- › Office visits by appointment
- › Lead Safe Renovation Materials



Soil Management



Soil Assessment

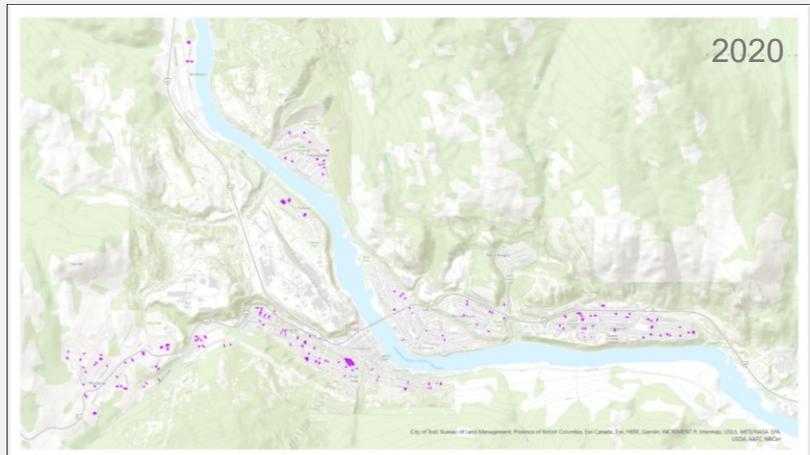
164 properties tested in 2020
342 Ground Cover Evaluations

Successes

- › Sampled across all neighbourhoods
- › More communication with owners due to COVID check-in
- › No backlog of requests

CHALLENGES

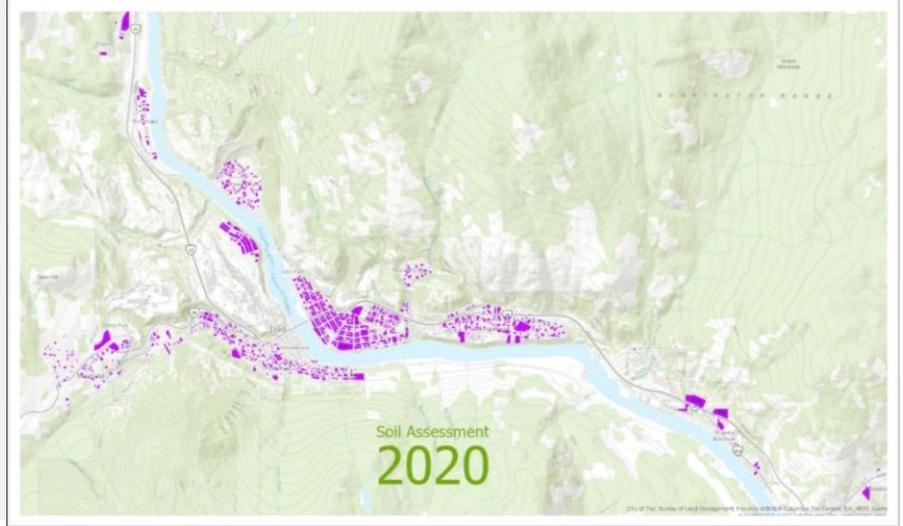
- › Fewer responses from offer letters
- › How to engage people for testing?



Soil Assessment Progress

1726 properties sampled since 2007

- › 45% in Trail & Rivervale
- › 35% when include Area 1



Remediation

Successes

- › Quick adaptation in Spring to ensure COVID protocols were adhered to
- › Owners doing own work

CHALLENGES

- › Fewer face-to-face meetings
- › 6 owners declined remediation due to COVID



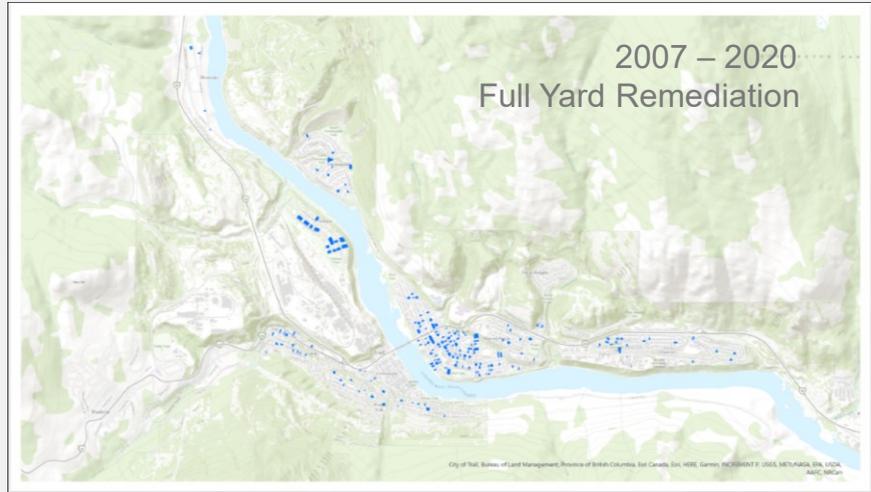
Remediation Progress

Goal to remediate top Priority Properties

- › 168 priority properties received remediation:
 - › 25 Improvement
 - › 73 Lawn care
 - › 67 Soil replacement
 - › 3 Gardens
- › Soil replacement at 2 community properties

Progress

- › Remediated 261 to date
- › Continually identifying P1s



Home & Garden 2021



2021 Looking ahead and staying adaptable

Healthy Homes, ES & Outreach

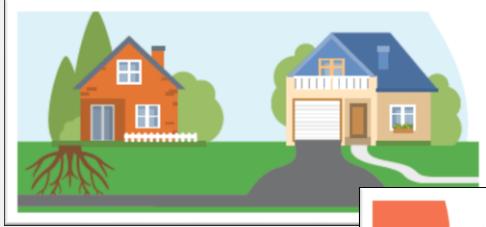
- › Offering visits to Area 1 – 6 to 18 months
- › Staying connected
- › Programs re-starting as small groups

Program Office

- › Looking to open the doors by Spring
- › LSR Intake & Outreach

Soil Management

- › Reaching those looking for soil assessment
- › Offering remediation in priority order
- › Developing a re-sampling project



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THANK YOU!

QUESTIONS?

REACH US ANYTIME AT:
programs@thep.ca



Air Quality Report

Air Quality Report

February 10, 2021

1. Lead in Air:

Fourth quarter 2020 average for lead in air at Butler Park was $0.041 \mu\text{g}/\text{m}^3$, which is significantly lower than previous years and the lowest quarterly average ever recorded. The 2020 annual average for lead in air at Butler Park was a record low of $0.071 \mu\text{g}/\text{m}^3$.

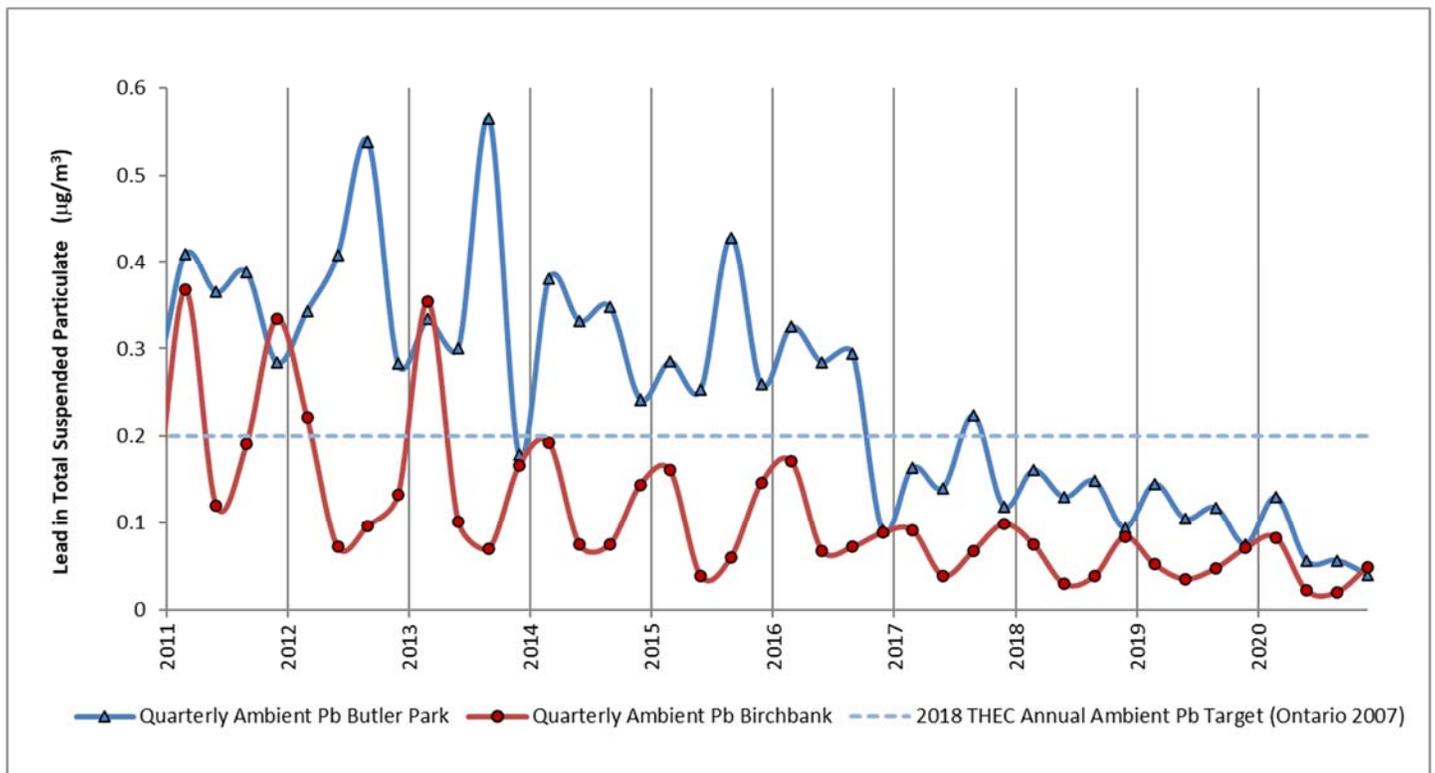


Figure 1: Quarterly monthly average lead at Butler Park and Birchbank stations (as total suspended particulate measured bi-daily)

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).

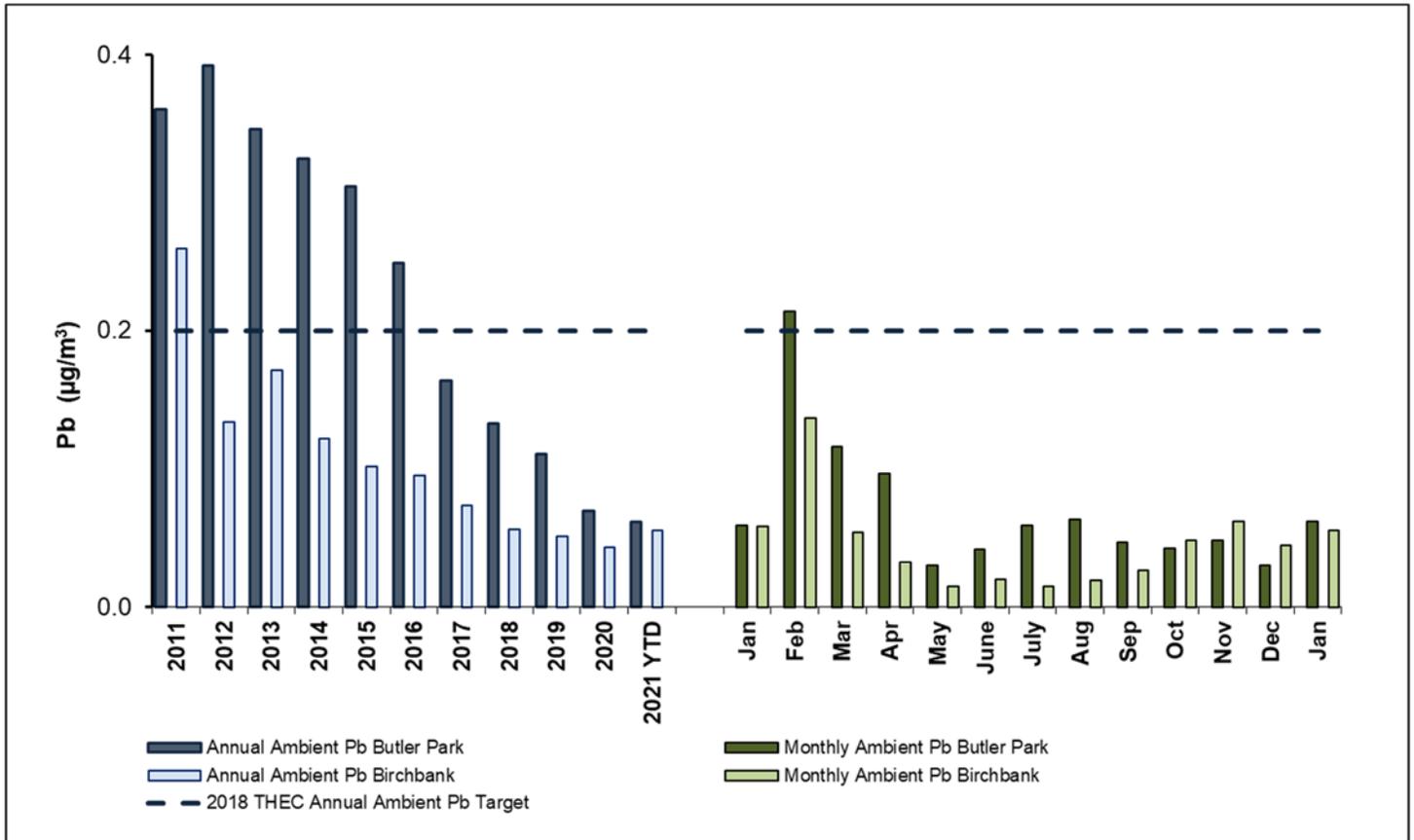


Figure 2: Annual and monthly average lead at Butler Park and Birchbank stations (as total suspended particulate measured bi-daily)

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:

Third quarter 2020 average for arsenic in air at Butler Park was $0.002 \mu\text{g}/\text{m}^3$, which is significantly lower than previous years and similar to the second and third quarter 2020. The 2020 annual average for arsenic in air at Butler Park was a record low of $0.003 \mu\text{g}/\text{m}^3$.

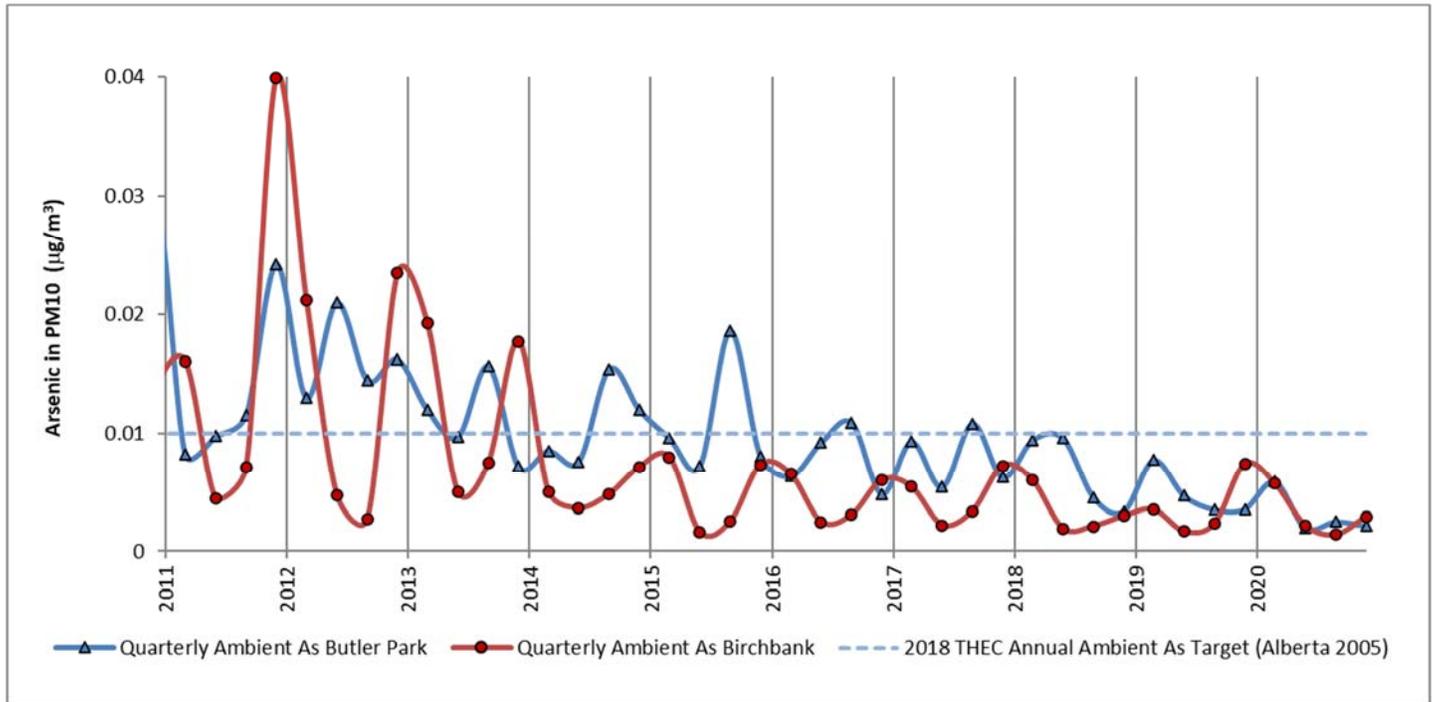


Figure 3: Quarterly average arsenic at Butler Park and Birchbank stations (as inhalable PM₁₀ fraction measured weekly)

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).

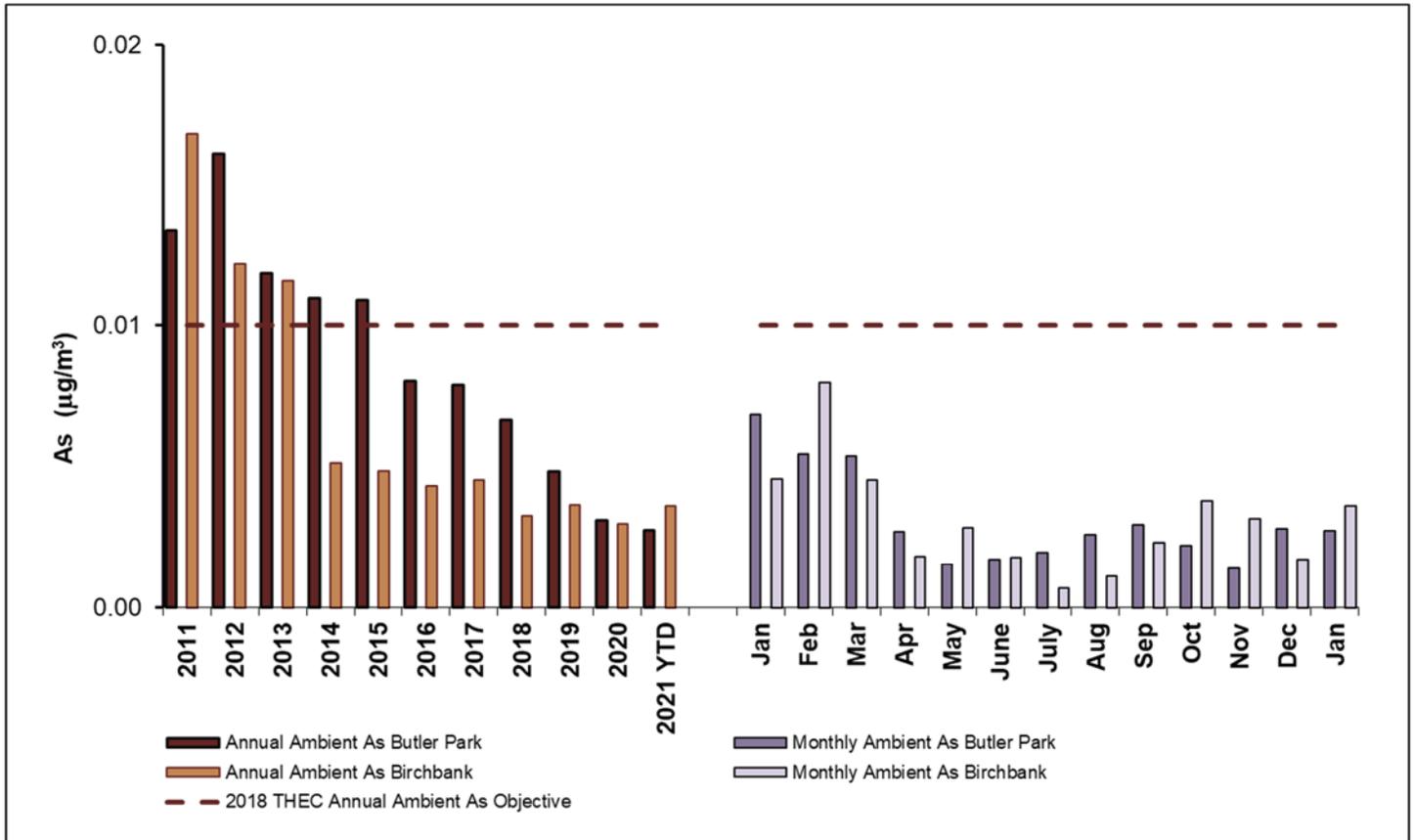


Figure 4: Annual and monthly average arsenic at Butler Park and Birchbank stations (as inhalable PM10 fraction measured weekly)

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.

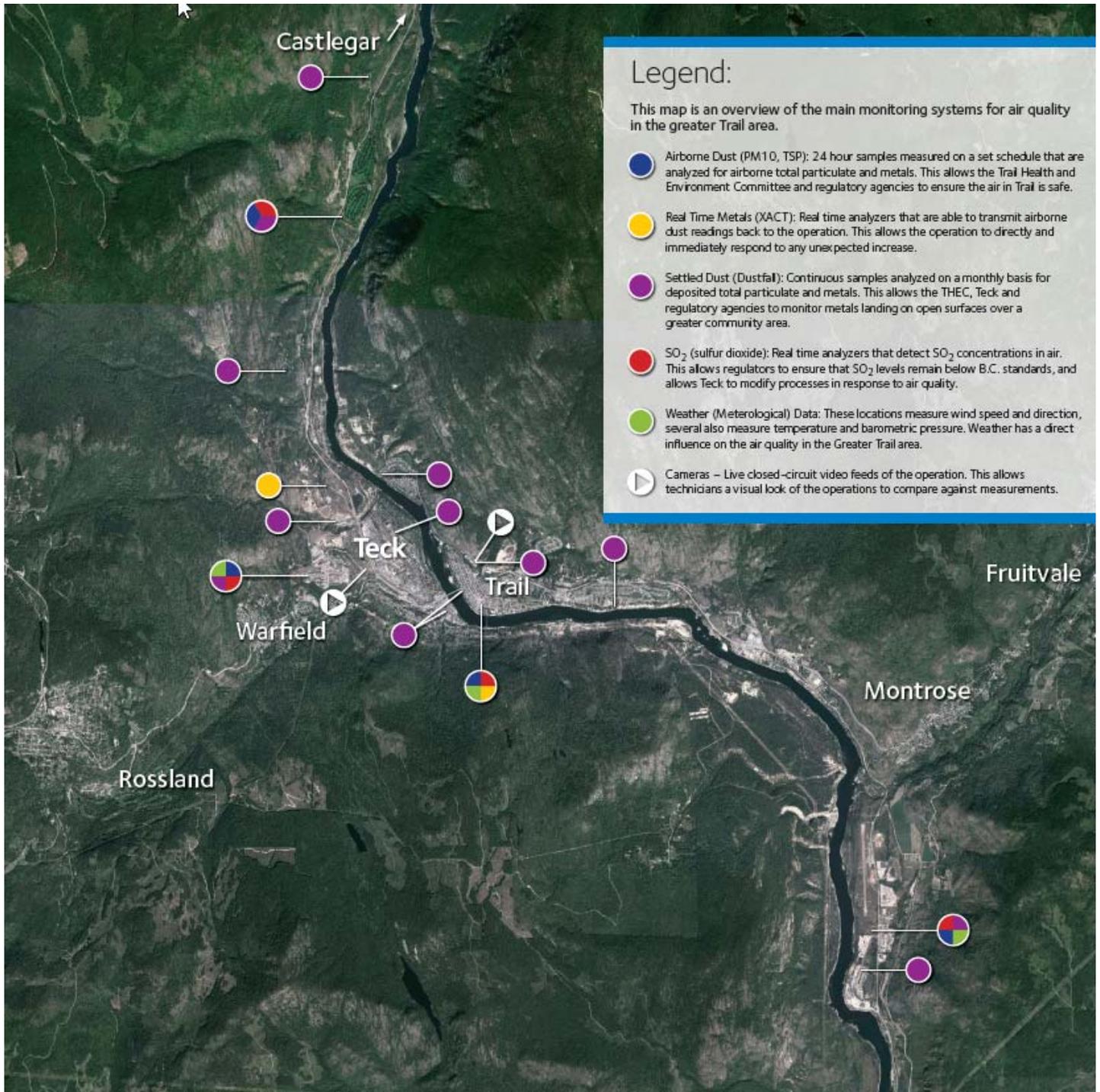


Figure 5: Teck Community Air Monitoring Stations

Family Health Report



February 10, 2021

RECENT HIGHLIGHTS

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

ADDITIONAL DETAILS

1. Blood Lead Clinics
 - Winter Clinic was held February 9th and 10th
 - 59 Children were invited
 - Target for the Winter Clinic is babies currently 6 months-1 year of age that were too young last September and as follow-up for children above the Enhanced Support Threshold of 5ug/dL.
2. Healthy Family Visits
 - 2020 Totals: 61 Visits completed, 3 Declined, and 6 children now aged >3 and not carried forward to offer in 2021.
 - Overall participation rate for 2020 is 87%.
 - Visits Jan –mid March were in home visits. Mid-March onwards were completed at Kiro when families in for other services or virtually via Zoom, FaceTime or WhatsApp.
 - 9 Healthy Family Visits complete in January 2021.
3. Community Outreach
 - Building Beautiful Babies ran a 6 week session December 2020–Mid January 2021. There were 4 different cohorts. I was able to attend 3 of these 4 cohorts and discussed THEP as well as other Public Health Nursing topics of interest.
 - Current 6 week session of Building Beautiful Babies is in progress with two cohorts. I will attend each of these cohorts once.
 - Booked to attend MOPS (Mothers of Preschoolers) Zoom meeting on Feb 25th

Program Planning Update

THEP 2021 WORKPLAN

FAMILY HEALTH

Blood Lead Clinics: Winter / Fall clinics including prep, communications and delivery

Family Health Education: Research and communications on anemia, diet, primary prevention

HEALTHY FAMILY HEALTHY HOMES

Visits ongoing; program review, learning and adaptations (Area 1, staying connected in pandemic environment); internal systems improvement, training with 2nd public health nurse

Enhanced HFHH Support: Follow up visits; conference planning/delivery; Residential Lead Inspection pilot

HOME & GARDEN

Soil Management: 2020 report and 2021 work plan to ENV; continue soil assessments and prioritized remediation; communication improvements (public, homeowners, team); evaluating challenges with property access and soil disposal

Lead Safe Renovation: Continue to provide supplies; consider online request format

AIR QUALITY

Smelter Emissions Reductions: Continue SO2 and fugitive emissions initiatives, monitoring and reporting

Communications: New SO2 materials for website, newsletter, presenting; update program materials

Air Quality Working Group: 4 meetings / year; SO2 communications planning ongoing

Community Dust Control: City-led community dust control ongoing

PARKS

Continue ground cover evaluations; support ground cover improvements

PROPERTY DEVELOPMENT

Program review and update

THEP CONNECTIONS

- Liaising between partners regularly
- Knowledge sharing relationships (BC CDC, community partners, smelter communities)
- Outreach local and beyond (daycares, workplaces, physicians, UBC seminar series)
- Communications (newsletter, website updates and monitoring)
- Reflection, learning planning as team
- Investigate social media opportunities



Review of Healthy Family Healthy Homes 2013-2019: What we learned

Background

The Healthy Families Healthy Homes (HFHH) program has been in place since 2013. HFHH is an in-home visitation, health promotion program targeting expectant families and families with children aged 0-3 years in Trail and Area. This is a time when children are more at risk of exposure to lead in their home environment as they are beginning to crawl, explore their world and put objects in their mouths.

Each family receives two visits, one from an Interior Health Public Health RN and one from a trained professional at the Home & Garden program. Visits focus on prevention of lead exposure and strengthening the children's healthy development through education, awareness and supplies to help parents take action immediately.

In November 2020, in an effort to take stock of the program and monitor how it is doing, an independent evaluation consultant was hired to complete a review. The review included conducting an online survey of program participants from 2013-2019 as well as seeking feedback from community partners and past and current program staff. Program records were used to compile participation numbers and background information. Taken together, the information provided a picture of how the program has been going and helped to identify areas that are working well and areas for further development.

A key message that emerged from the review is that families who participated in the program feel that HFHH services and offerings helped them reduce health risks from lead or exposure to lead, and they made changes based on what they learned in home visits.

HFHH conducted home visits with 844 children for Healthy Families, and 578 home visits for Healthy Homes.



Review of Healthy Family Healthy Homes 2013-2019: What we learned

Key Findings

There are No Barriers to Participation

Families may participate at any time, and will be supported as needed. In addition, because of the network of organizations within the community supporting families, common messaging is repeated and families may choose to participate after having heard similar messaging from a variety of sources.

Families Understand the Purpose of Home Visits and Have Made Changes Based on What They Learned

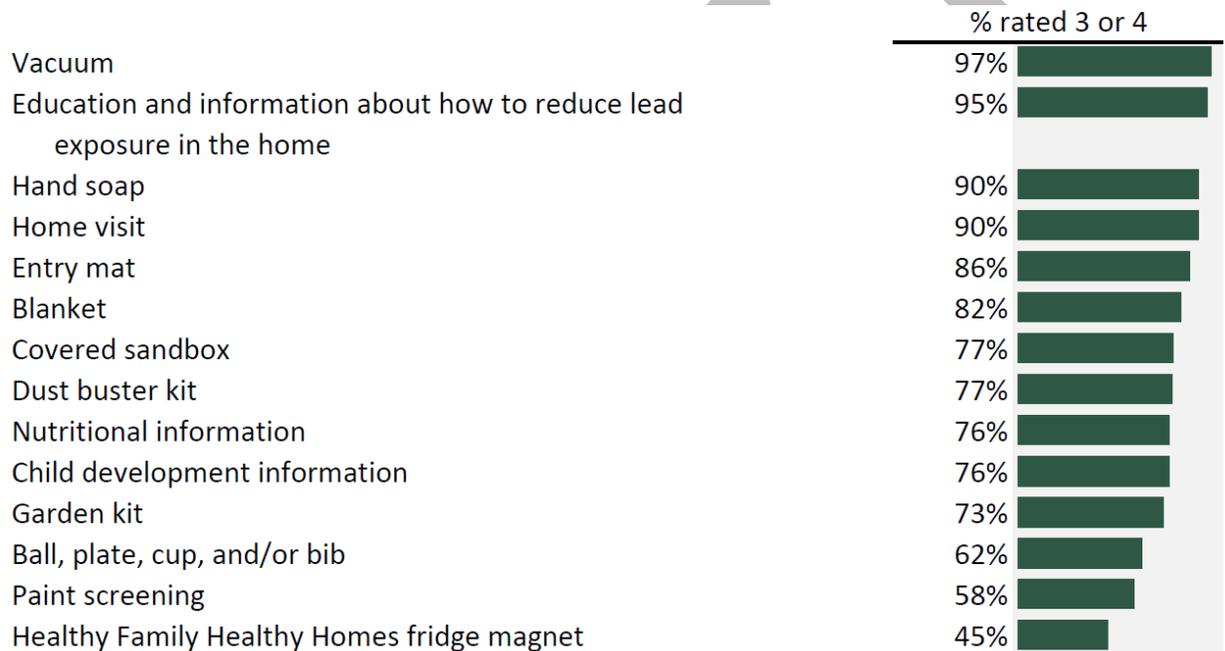
Overall, families who participated in HFHH programs both understood the purpose of a home visit and made changes based on what they learned. Public health and Home & Garden staff also confirmed that the program was meeting needs in the community and resulting in behaviour changes recommended as part of primary prevention.

Responses from participating families provide a positive picture of the value of the HFHH program to families. 97% of respondents said that they **understood why they received a home visit**, and in addition to the services provided during the home visit, 74% of families also **learned about other** programs in the community. 88% of respondents said that they **received substantial information** from the home visit (44% selecting 4 on a scale of 1 to 4 and 44% selecting 3 on a scale of 1 to 4). 69% of respondents said the **home visit was very helpful** (4 on a scale of 1 to 4) and 27% selected 3 on a scale of 1 to 4 for how helpful the home visit was to them. 93% of respondents said that **participating in HFHH empowered them to take steps for a healthier family and kid(s)**.



Review of Healthy Family Healthy Homes 2013-2019: What we learned

When asked about the **extent to which services and offerings helped the family to reduce health risks from lead or exposure to lead**, respondents selected 3 or 4 out of 4 for the following:

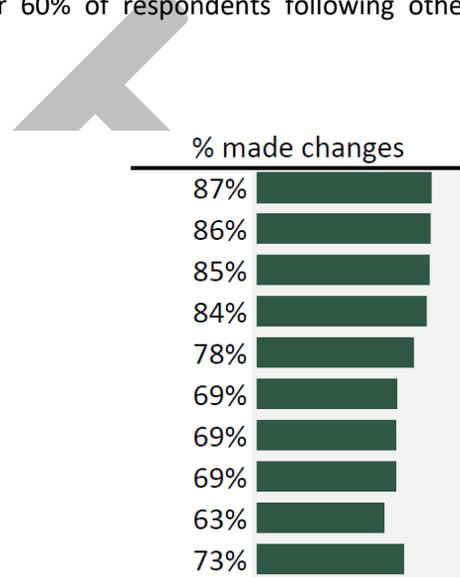




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Respondents indicated that **they did make changes based on information they received during a home visit**. The following summary shows that, as a result of having a home visit, over 80% of respondents did damp dusting, hand washing after outdoor play, vacuuming, and wet mopping floors. Changes in other areas were also followed quite readily by families, with over 60% of respondents following other recommendations.

Damp dusting
 Hand washing after outdoor play
 Vacuuming
 Wet mopping floors
 Hand washing before meals
 Leaving shoes at the door
 Washing and grooming pets outdoors
 Keeping outdoor play areas clean
 Eating iron rich foods
 Other



Blood Lead Levels Are Down

Average lead levels in blood have lowered from 2013 to 2020 through the combined efforts of the Trail Area Health and Environment Program. Healthy Families Healthy Homes is one of the program components contributing to this through delivery of primary prevention education and support.

	2013	2020
Area 1	2.7	2
Area 2	4.3	2.2
Area 3	5.4	2.4



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Communication Throughout the Community is Key

Partners, staff and families participating in the program all noted the importance of referrals to programs within the community. The repetition of messaging by different community organizations and the referrals back and forth so that families could find out about services they need regardless of which program staff they were speaking with were all valuable components of communication about HFHH and in support of the families.

Families noted that they primarily use social media and word of mouth to learn about community events. Staff also indicated that people use a variety of sources to find out about events and resources. While parents of young children are the main target for the HFHH program and most likely to use social media, general messaging intended to reach all demographics may need to be shared more broadly.

The Program is Working: Keep Successful Elements and Plan for Evolution

Overall, feedback on the program was excellent. Families, partners and staff saw value in the program, the program delivered services and offerings that relate to program goals, and families made changes based on the recommendations provided in home visits. In addition, staff expressed the sense that the program evolved over time in response to feedback.

Emergent Learning

The importance of diet

Nutritional information was appreciated by families, but not all families who received the information increased consumption of iron-rich foods. Future consideration may be given to supporting behaviour changes, including addressing the costs and preparation time associated with eating iron-rich foods.

The relative influence of various sources of lead in a household and community

As blood lead levels decrease in children, the relative influence of a range of lead sources becomes more important. Understanding the different exposure pathways for children, including for example exposure to lead paint and hobbies where lead exposure exists for children, will ensure supports remain relevant.

Where appropriate, program development can be addressed in partnership with relevant community organizations.



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Considerations for the Program

Maintain key aspects of HFHH

The program is working well. It will be important to maintain aspects of the program that are working. For example, the program should maintain material offerings that were well used, in addition to educational topics and materials that families found valuable and / or helped them to engage in the program.

Continue an active role in networks of community organizations

Being an active part of a network of community organizations brings value to the program and should be continued. This creates opportunities for shared messaging and informal program referrals that support local organizations to collectively meet the needs of families, and ensures that families are able to navigate community resources without barriers.

- a. Within program communication, efforts should be made to identify individuals and organizations in the community who act as influencers, to help share key messages.
- b. Given the high value of community partnership, staff should continue to participate in the leadership of Lower Columbia Poverty Reduction Project, Navigator Table, Family Action Network Board, Early Years Coalition, as well as outreach to the community.

Continue to learn and refine the program over time

A primary prevention approach is working well. There continues to be good uptake. Many people expressed behaviour changes and uptake of messaging. Maintaining open communication and feedback in order to continue refining the program is important.

The program may consider discussing how to embed an adaptive management framework into the program to build on the learning and refinements to date in a formalized way.