

# Trail Area Health & Environment Committee



## MINUTES

**Meeting: Wednesday, April 17, 2019, 7:00 p.m.**  
**City of Trail – Committee Room #2, Spokane St. Entrance**

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### **Committee Members in Attendance:**

Lisa Pasin, Chair, City of Trail  
Dr. Karin Goodison, Interior Health  
Cheryl Whittleton, Interior Health  
Marylynn Rakuson, Community Member

Clare North, Teck Trail Operations  
AJ Downie, BC Ministry of Environment  
Julia Stockhausen, Community Member

### **Others in Attendance:**

Catherine Adair, Teck Trail Operations  
Thompson Hickey, Teck Trail Operations  
Kathy Moore, City of Rossland  
Peggy Evans, BC Ministry of Environment  
Ken Hodgins, Community Member  
Don Nutini, Community Member  
Andrew Masuch, Community Member

Dr. Nelson Ames, MHO, Retired  
Steve Hilts, Teck Resources Ltd.  
Erin Fazzino, Interior Health  
Dan Bouillon, Teck Trail Operations  
Gord de Rosa, Community Member  
Brefny Raney, Community Member  
Christy Anderson, Family Action Network

### **Program Team in Attendance:**

Michelle Laurie, THEC Facilitation Lead/Notes  
Jeannine Stefani, Interior Health  
Bruce Enns, SNC-Lavalin Inc.

Cindy Hall, SNC-Lavalin Inc.  
Marty Cancilla, SNC-Lavalin Inc.

### **Round of introductions**

Mayor Lisa Pasin, THEC Chair, welcomed everyone to the meeting followed by a round of introductions by everyone in the room.

**MEETING MINUTES:** January 22, 2019 meeting minutes approved.

## **PRESENTATIONS, REPORTS, DISCUSSIONS & RECOMMENDATIONS**

### **Presentations**

#### **Interior Health Blood Lead Results & Discussion**

**Presenter: Dr. Karin Goodison, Medical Health Officer, Interior Health**

See attached presentation that provides an overview of blood lead levels tested in fall 2018 as well as comparison of mean blood lead levels in 2018 to previous years.

Summary points included:

- In 2018 the participation was 78% for Areas 2 and 3 and 85% for Area 1;
- There is a significant reduction in the children's blood lead geometric mean to 2.9 ug/dL (2018);
- Blood lead geometric mean varied between 4.9 ug/dL in 2013 and 4.0 ug/dL in 2017;
- Research demonstrates there is no safe blood lead level threshold\_and that health effects are associated with levels less than 10 and as low as 1-2µg/dL

## Draft Media Release

Mayor Pasin shared the draft media release created and reviewed by Teck, City, IH

- Minor edits made to language on air quality paragraph.
- Released to media April 18, 2019 (attached).

## 2019 Work Plan Update: Teck

**Presenter: Clare North, Superintendent of Environmental Remediation, Teck Trail Operations**

See attached presentation that provides an overview of the 2019 Soil Management Program.

Summary points include:

- 2019 Soil Management Plan is an interim step focused on highest risk properties whilst the Wide Area Remediation Plan is developed, and includes:
  - Targeted soil testing to identify properties with children under 12 in neighborhoods with highest lead concentrations
  - New prioritization approach for soil management based on US HUD guidance which considers presence of children, ground cover and lead levels
  - Soil management actions at properties identified as highest priority
    - Full yard soil remediation at 75 yards
    - Improvement at up to a further 100 properties
  - Review of parks and playgrounds (including at daycares and schools)

More information, including Frequently Asked Questions, is found at [thep.ca](http://thep.ca).

## Program Reports & Updates:

### Air Quality

#### **Dan Bouillon, Teck Trail Operations - Report Attached**

- Lead in ambient air measured at Butler Park has decreased 47% between 2016 and 2018.
- First quarter 2019 results for lead in ambient air were slightly lower than first quarter 2019 and remain below the THEC 2018 air quality goal
  - Lead levels in March 2018 were attributed to a cold dry March where wind picks up dust and road washing isn't possible due to cold temperatures.
- Arsenic for 2019 first quarter was slightly lower than the first quarter in 2018 and remains below the THEC 2018 annual air quality goal.
  - Teck is currently investigating ways to drive arsenic down further.
- The fugitive dust reduction initiatives continue, including:
  - Review of fence line monitoring equipment for fugitive dust
  - Performance monitoring of the 30 foot roaster feed pad wind fence
  - Engineering study for a wheel wash at the smelter
  - Advancing the GPS based road dust monitor
- A question arose about sufficient monitoring stations.
  - Action: review monitors on site and see if Teck can/should move one to Tadanac

#### **Mayor Lisa Pasin, Chair of Air Quality Technical Working Group - Verbal Update**

- A meeting was held March 5, 2019 which focused on educating the members on community air quality issues including lead and sulphur dioxide. The meeting served to bring the committee members up to speed as the last meeting was May 2018 and there are many new people participating.
- The working group will report back to the THEC each meeting as part of the air quality update.
- A longer-term action item is to provide a comprehensive presentation to the THEC on air quality issues brought forward at the working group.
- The next meeting is scheduled for May 29<sup>th</sup>.

### **Family Health – Jeannine Stefani, Interior Health – Report Attached**

- Updates on blood lead clinics, healthy family visits and community outreach were presented
- In addition, it's noted one or two members of the program team will attend the Teddy Bear Picnic in June.

### **Home & Garden – Cindy Hall, SNC – Report Attached**

- A request for representation from THEC on the Family Action Network (FAN) board was presented and accepted by the THEC. Cindy Hall will be the representative on the board.
- Information was shared on the implementation of 2019 Soil Management Plan (SMP). Activities such as ground cover evaluation and soil testing are used to help prioritize properties for remediation. Lawn care and yard improvements are used as interim measures while determining remediation priorities.
- A question was asked about situations where landlords don't want to participate in the program however tenants have children. Steps taken include staff working directly with the landlord to educate on the program and improving ground cover and lawns with tenant consent. ENV noted that ultimately they could get involved if required.
- A request for help in finding families with children under 12 was made. Please suggest families call the program office for information on soil testing (250-368-3256).

### **Community Check-In - All community members invited to speak**

- Question of children's blood testing being voluntary or mandatory arose with the LCCDTS Health & Hospital committee while attempting to recruit physicians to the local area.
  - Action: Review materials to ensure voluntary nature of blood testing is noted. Share with LCCDTS Health & Hospital Committee
- Dr. Ames reminded the group that the THEC started the FAN and should participate in it. Christy Anderson of the FAN noted the website has many supports and services for children in the area. Healthy Home visits help connect families to existing resources.
- Request for context setting at a future meeting on what else promotes children's health and development.
- Suggestion to look at replacement of furnace filters as part of home visit program
  - Action: Review at next program team meeting
- Teck visited surrounding local governments (Regional District Directors, Mayors and CAOs) to inform them of the Environmental Management Area delineated as part of development of a Wide Area Remediation Plan and interim soil management priorities.

### **Program Planning & Operations – Michelle Laurie, THEC Lead Facilitator**

- Newsletter in progress and expected to be out for end of May
- Website updates as part of Soil Management Program
- Supporting THEP team, AQTWG May meeting and THEC June meeting.

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

- Lisa thanked all presenters and requested inclusion of a summary slide at the end of each presentation to assist with key messaging when reporting back to councils and stakeholder groups.
- Goal is for quicker turn around on minutes.
- Executive meetings will only occur when required.

**NEXT THEC MEETING: Tuesday, June 4<sup>th</sup>, 2019.**

# Blood Lead Levels in Trail Fall 2018

Prepared for THEC  
April 17, 2019



## Objective

- \* Overview of blood lead levels tested in fall 2018
- \* Comparison of mean blood lead levels in 2018 to previous years

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## Who Was Tested in 2018?

### Target Group

- \* Children aged 6-36 months, living in City of Trail or Rivervale (Area 2/3)
- \* Children aged 6-36 months living in Warfield, Oasis, Casino and Waneta (Area 1)



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## Additional Testing

These results do not contribute to the yearly analysis

- \* Children new to the area, up to the age of 5 years old
- \* Children with previous case management for follow-up
- \* Children whose parents requested testing for their child from any area

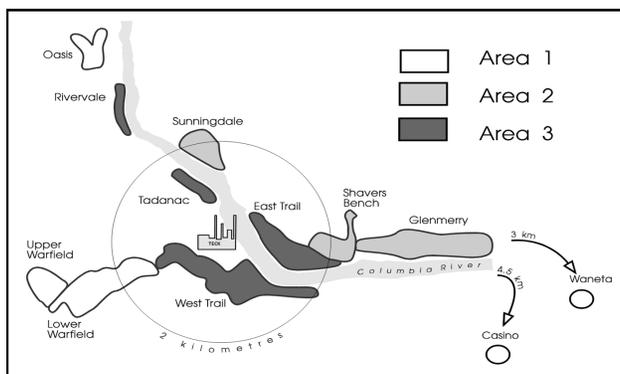


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## “Areas” & Neighbourhoods



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## Participation By Target Areas 6-36 Months

Children Participating in Blood Lead Level Testing By Areas

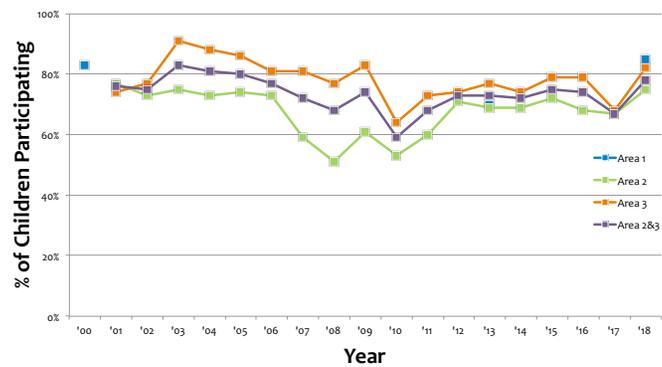
Area	2018		2017	2013
	Number of Children Contacted	Percent of Children Participated	Percent of Children Participated	Percent of Children Participated
Area 2	67	75% (50)	67% (54)	
Area 3	61	82% (50)	68% (51)	
Area 2 & 3	128	78% (100)	67% (105)	
Area 1	37	85% (31)	-	67% (40)

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## Percent Participation by Area



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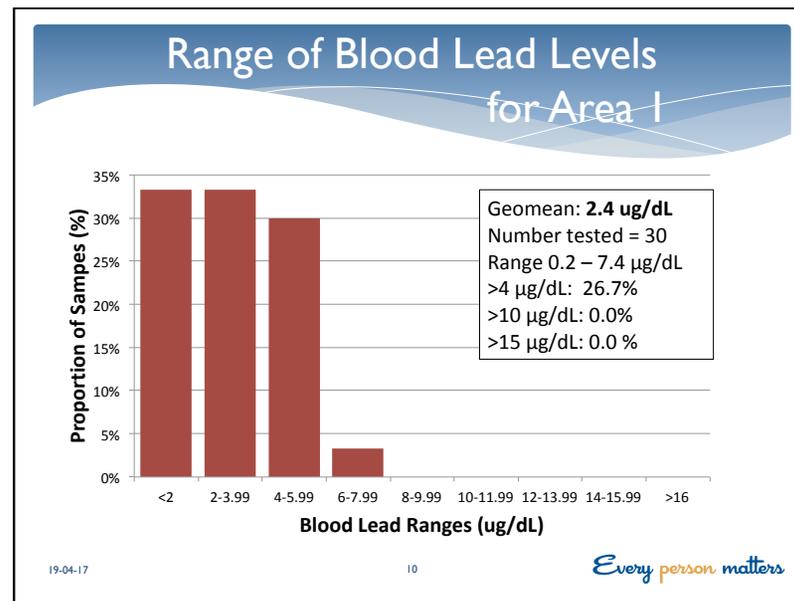
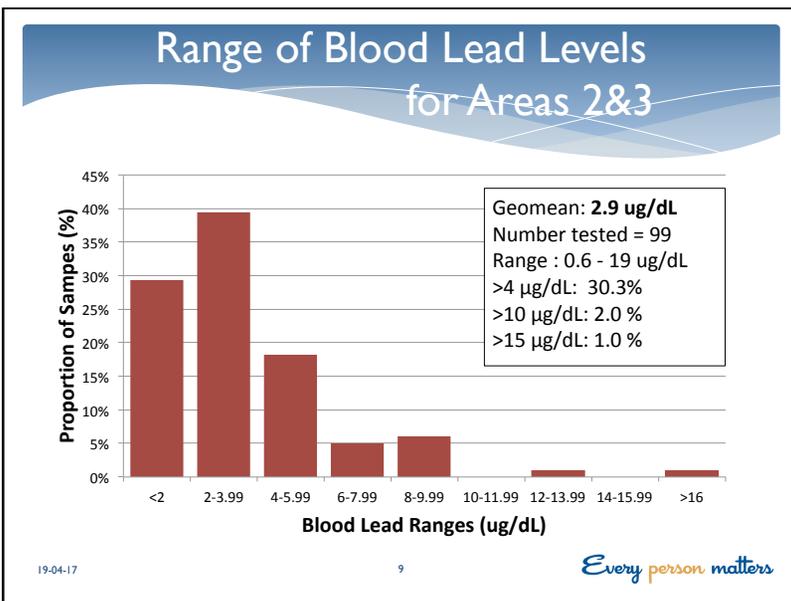
## Blood Lead Level Threshold

- \* Recent research demonstrates there is **no safe blood lead level threshold**
- \* Canadian children 3-5 years old had mean blood lead levels at  $0.67 \mu\text{g/dL}$  in 2015
- \* Blood lead levels as low as  $1-2 \mu\text{g/dL}$  are associated with adverse health outcomes particularly in children\*\*

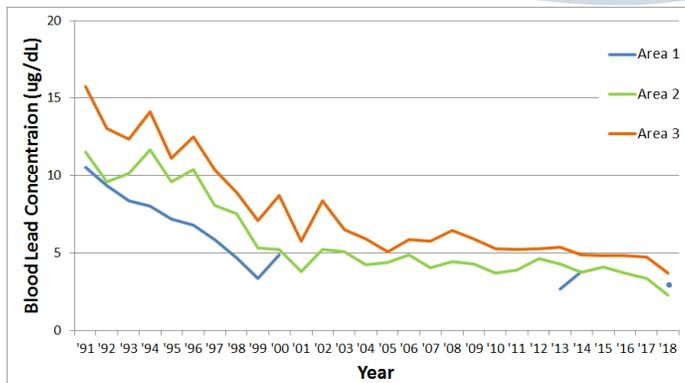
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## Trend of Blood Lead Geomean by Area Years 1991-2018



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## Concluding Messages

- \* In 2018 the participation was 78% for Areas 2 & 3 and 85% for Area 1
- \* There is a significant reduction in the children's blood lead geometric mean to 2.9 ug/dL (2018)
- \* Blood lead geometric mean varied between 4.9 ug/dL in 2013 and 4.0 ug/dL in 2017
- \* No major changes in the methodology (children cohort, laboratory or laboratory technique) that may have contributed to this sudden decline have been identified
- \* Results need to be interpreted with caution and future testing is needed to confirm whether the current observed change signifies a general trend

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Thank You



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**NEWS RELEASE issued by THEC**  
**2018 Children's Lead Levels are the Lowest to Date**

April 17, 2019

Trail, BC - The results from the 2018 children's blood lead testing clinic show that the average blood lead level for children aged six -36 months in Trail and Rivervale is 2.9 micrograms per decilitre. This is a decrease from the 2017 average of 4.0. There continues to be a very high participation rate for this voluntary program.

The THEC is continuing its efforts to further reduce children's blood lead levels and is encouraged by the decline. We strive for continuous improvement working to deliver programs aimed to reduce exposure to lead in the community, and specifically exposure to children.

The THEC continues to strive to reduce lead in the environment through the Air Quality program managed by Teck Trail Operations. In 2018, the annual average lead in community air was 0.13 micrograms per cubic metre, which is a 47% decrease since 2016. This achieves and exceeds the THEC 2018 air quality goal of 0.2 micrograms per cubic metre.

**Quotes:**

"Our 2018 blood lead level results are the lowest to date for our community-wide average. With the support of the community and through the comprehensive Trail Area Health and Environment Program, we have reached another landmark with a blood lead level under 3.0. Teck Trail Operations' continued investments in reducing fugitive dust emissions provides the greatest opportunity to further reduce lead levels in our community. In combination with our other programs such as soil testing and remediation, Healthy Families Healthy Homes, and lead safe renovation support, we are on course to achieve even lower blood lead levels in the future." Mayor Lisa Pasin, City of Trail, Chair of the Trail Area Health & Environment Committee.

"We are pleased to see a reduction in the blood lead geomean for children in the Trail area. Even low levels of blood lead are associated with negative impacts on children's health, so we will continue to work with THEC with the goal of further reducing exposure to lead and other environmental contaminants in the community." Dr. Karin Goodison, Medical Health Officer, Interior Health.

"In recent years, major investments and operational improvements have been made to further reduce emissions from Teck Trail Operations, resulting in improved air quality. Our 2018 results show a significant reduction in our air emissions, and the lowest level ever for lead in community air. Our

fugitive dust reduction program is having a positive impact and we are focused on continuous improvement going forward.” Dan Bouillon, Manager, Environment Teck Trail Operations.

### **About the Trail Area Health & Environment Program**

The Trail Area Health & Environment Program (THEP) is a community-led program with five main areas of activity: Family Health, Home & Garden, Air Quality, Parks and Wildlands, and Property Development. THEP promotes a healthy environment through a comprehensive integrated program that successfully improves air quality and children’s blood lead levels, and promotes the health of the community. The Air Quality Program reduces smelter emissions and makes the largest contribution to achieving health and environment goals. All our activities work together to get the best results – lower exposure, lower health risks, and a healthier environment.

The Trail Area Health & Environment Committee (THEC), a subcommittee of Trail City Council, oversees the program. THEC includes collaboration with the local community, Teck, the Ministry of Environment and Climate Change Strategy, and Interior Health. Over the past two decades children’s blood lead levels in Trail have reduced and air quality has improved. THEC’s community-led partnership has been recognized as an effective collaborative model for safeguarding health and the environment. In 2011, the program received a Premier’s Innovation and Excellence Award for Partnership. For more information please visit [www.thep.ca](http://www.thep.ca).

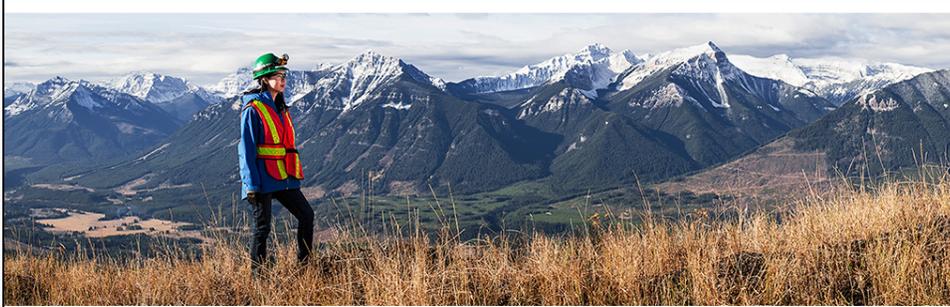
For more information, contact:

Mayor Lisa Pasin, City of Trail, Chair of the THEC (250) 364-0809 or [lpasin@trail.ca](mailto:lpasin@trail.ca)  
Catherine Adair, Community Relations Leader, Teck Trail Operations (250) 364-4878 or  
[Catherine.adair@teck.com](mailto:Catherine.adair@teck.com)



## 2019 Soil Management Program

April 2019  
Clare North, Superintendent, Environmental Remediation



### 2019 Soil Management Program Background



- In addition to continuing progress on air quality, we are expanding the soil assessment and remediation work currently offered through the Home & Garden Program
- Teck is working with the Ministry of Environment and Climate Change Strategy (ENV) to develop and seek approval for a long-term soil management plan called a Wide Area Remediation Plan
- The 2019 Soil Management Plan is an interim step focused on highest risk properties whilst the Wide Area Remediation Plan is developed, and was submitted to ENV on April 1
- Plan and more information can be found at [www.thep.ca](http://www.thep.ca)



## Soil Management Program

## 2019 Soil Management Program What's New?

Teck

- More targeted soil testing
  - households that have children under 12 in areas that are known to have the highest lead levels in the soil
- New prioritization criteria based on guidance published by US Department of Housing and Urban Development (HUD)
  - three criteria will be used to prioritize properties for soil management:
    - the presence of children under 12 years of age;
    - the presence of ground cover; and
    - lead levels in soil
- Review of parks and playgrounds
  - previous testing of public spaces in the Trail area to be re-assessed to identify any additional work required under the new prioritization approach



If you have children under 12,  
contact us to learn more.

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## 2019 Soil Management Program New Prioritization Approach

Teck

- Properties with children up to 12 years old
  - age group that is the most likely to be exposed to metals in soil
  - older children in this age group have a higher tolerance to exposure, while younger children under 6 years of age have lower tolerance to exposure and this is considered
- Ground cover
  - Soil covered by grass or other materials presents a lower risk as children cannot get as much soil on their hands
- Lead levels
  - Based on age of children and ground cover, properties are put in priority categories using US HUD lead concentrations



Our aim is to identify and offer soil  
testing to all residential properties  
with children under 12 years old.

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## 2019 Soil Management Program What Stays the Same?

Teck

- Vegetable garden testing
  - testing will continue for anyone who requests it, and we will remediate vegetable gardens over 400 ppm lead.
- Other THEP components will continue, including:
  - Air Quality, striving for further improvements to ambient air
  - Healthy Homes and Family Health, focusing on families with children up to 3 years old; and
  - Lead Safe Renovation for do-it-yourself renovators.



WORKING TOGETHER  
Creating a healthy environment

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## 2019 Soil Management Program What Next?

Teck

- Remediate or improve properties already identified as highest priority
  - full yard soil remediation at 75 yards (compared to 24 in 2018)
  - yard improvement at up to 100 further properties
  - properties identified after June or any properties that could not be remediated for other reasons will be prioritized for future field seasons
- Targeted soil testing to identify further remediation priorities
  - identify properties with children under 12 in neighbourhoods with highest lead concentrations
  - targeting soil testing at 300 properties



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## 2019 Soil Management Program Summary

Teck

- 2019 Soil Management Plan is an interim step focused on highest risk properties whilst the Wide Area Remediation Plan is developed, and includes:
  - Targeted soil testing to identify properties with children under 12 in neighbourhoods with highest lead concentrations
  - New prioritization approach for soil management based on US HUD guidance which considers presence of children, ground cover and lead levels
  - Soil management actions at properties identified as highest priority
    - full yard soil remediation at 75 yards
    - improvement at up to a further 100 properties
  - Review of parks and playgrounds



### Soil Management Program

#### Have you had your soil tested?

In 2019, we're expanding our soil testing and remediation program.

We offer soil testing and, in qualifying yards, replacement of soil or improvements to ground cover on a prioritized basis.

Our aim is to identify and offer soil testing to all residential properties with children under 12 years old.

Following soil testing, we'll prioritize properties for soil management based on:

- 1 The presence of children in key age groups,
- 2 The presence of ground covers, such as grass, and
- 3 Lead levels in soil.

If you have children under 12, contact us to learn more.



## Air Quality Report

April 17, 2019

### 1. Lead in Air:

First quarter average for lead in air at Butler Park was  $0.145 \mu\text{g}/\text{m}^3$ , which is slightly lower than first quarter in 2018 ( $0.161 \mu\text{g}/\text{m}^3$ ) and remains below the THEC 2018 Annual Objective of  $0.2 \mu\text{g}/\text{m}^3$ .

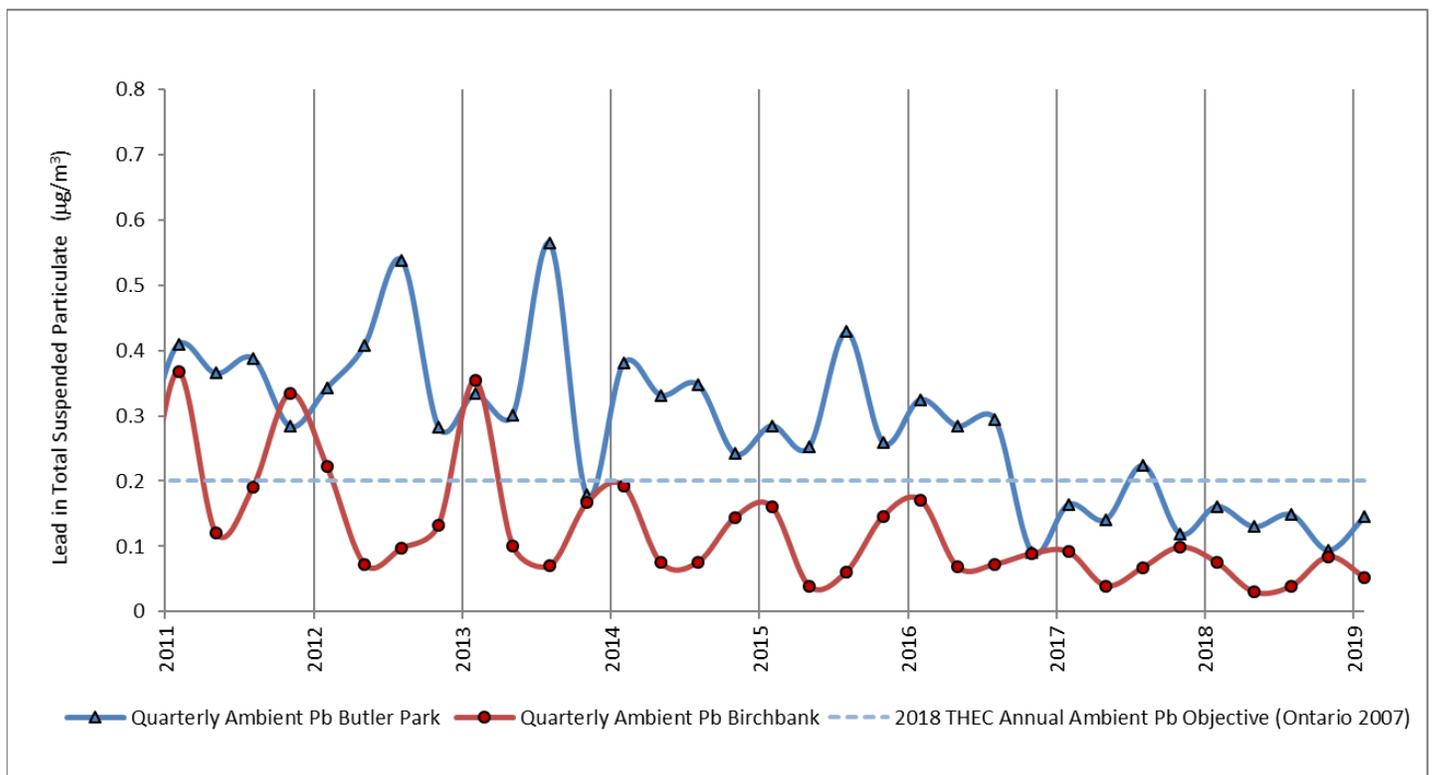


Figure 1: Quarterly monthly average lead at Butler Park and Birchbank stations (as total suspended particulate measured bi-daily)

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 Air Quality Objective (dashed line).

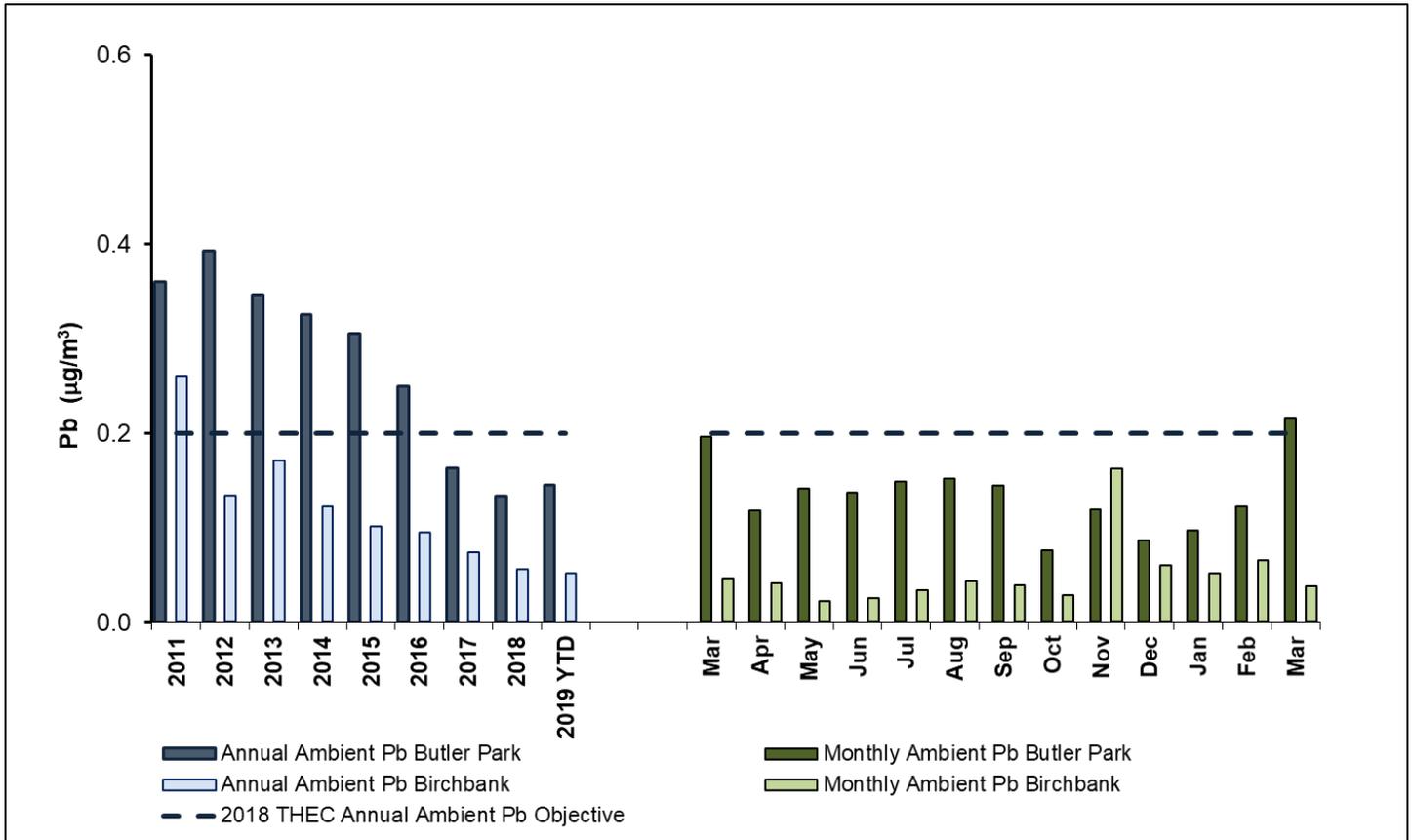


Figure 2: Annual and monthly average lead at Butler Park and Birchbank stations (as total suspended particulate measured bi-daily)

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 Air Quality 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 average for arsenic in air at Butler Park was  $0.008 \mu\text{g}/\text{m}^3$ , which is slightly lower than the first quarter in 2018 ( $0.009 \mu\text{g}/\text{m}^3$ ) and remains below the THEC 2018 Annual Objective of  $0.010 \mu\text{g}/\text{m}^3$ .

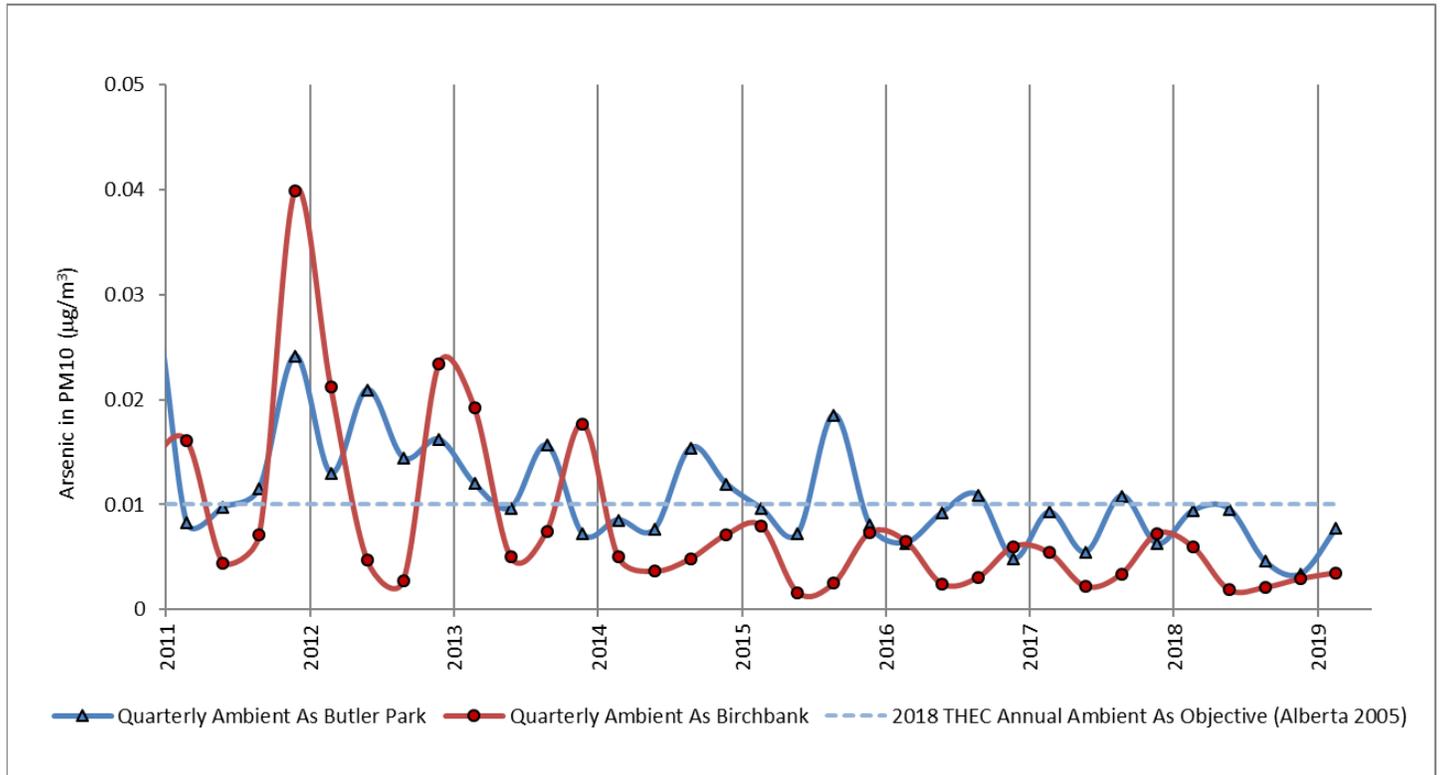


Figure 3: Quarterly average arsenic at Butler Park and Birchbank stations (as inhalable PM<sub>10</sub> fraction measured weekly)

The chart in Figure 3 shows the annual average for Arsenic in air (measured as inhalable PM<sub>10</sub> fraction) at Butler Park (blue) and Birchbank (red) in comparison to the 2018 THEC Air Quality Objective (blue line).

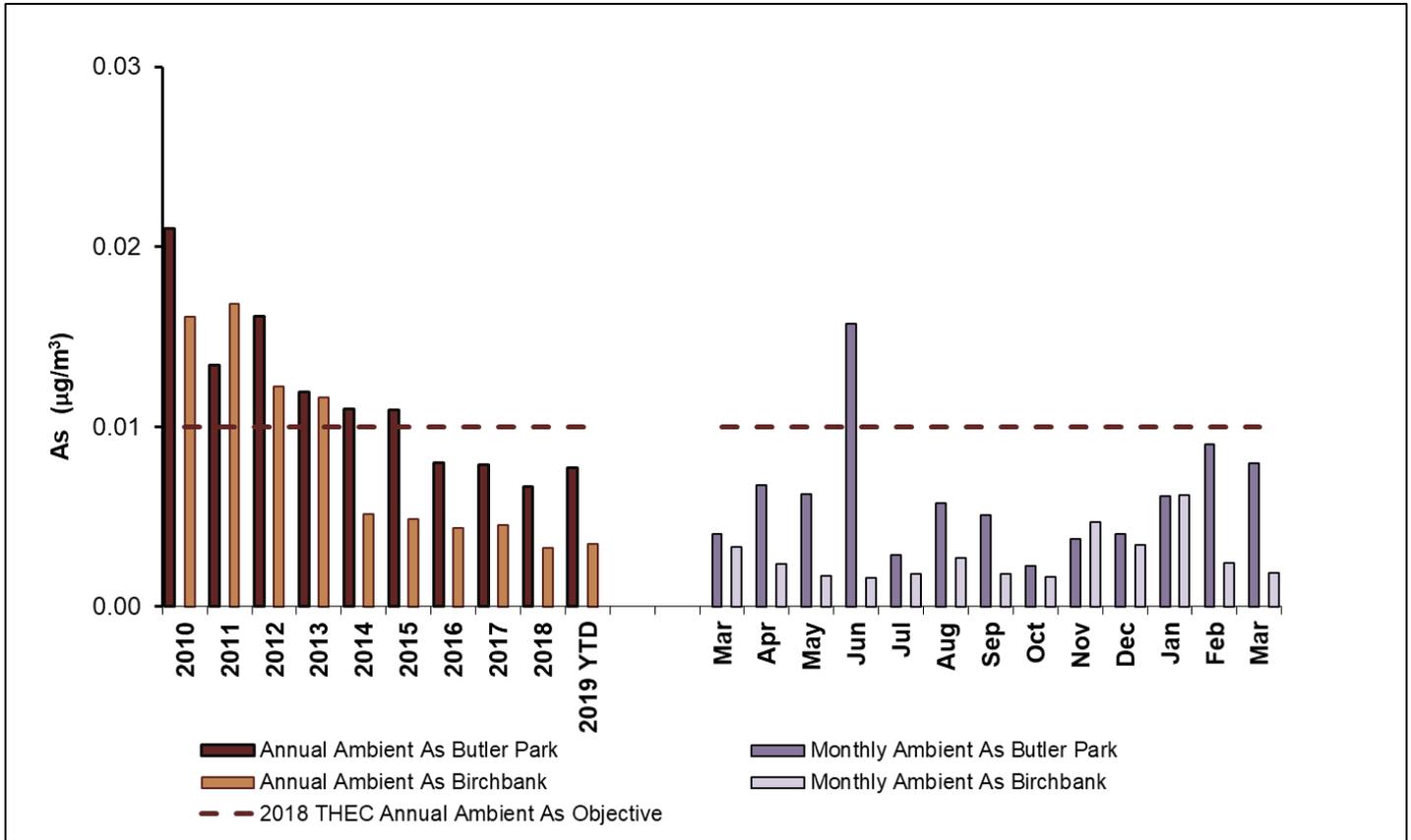


Figure 4: Annual and monthly average arsenic at Butler Park and Birchbank stations (as inhalable  $\text{PM}_{10}$  fraction measured weekly)

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.

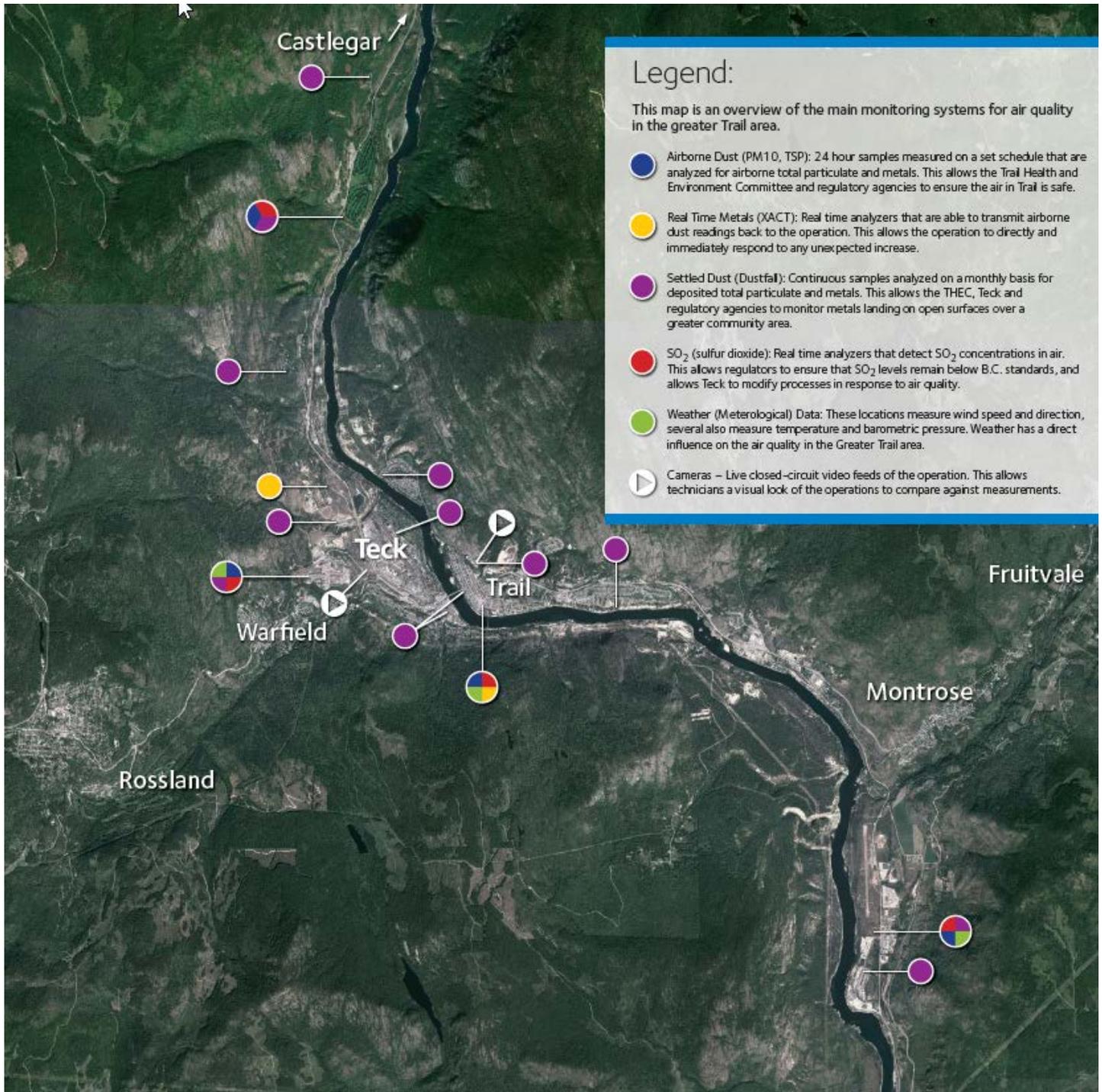


Figure 5: Teck Community Air Monitoring Stations

## FAMILY HEALTH REPORT

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April 17, 2019

### RECENT HIGHLIGHTS

1. February 11th and 12th, 2019 blood lead clinics
  2. Healthy Families Visits
  3. Community Outreach
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### ADDITIONAL DETAILS

- February 11<sup>th</sup> and 12<sup>th</sup>, 2019 blood lead clinics
  - 32 children invited
    - 24 attended, 3 not interested in testing, 1 no show/unable to contact, 2 unable to attend, 2 moved
    - 15 out of 21 children attended who were not 6 months old for the Fall 2018 clinic = 71% participation rate
    - 4 of 4 case management children attended
      - All results lower than Fall Clinic
    - No new case management, one repeat case management
    - 5 of the children tested were at the parent's request
- Healthy Families Visits
  - 23 visits done so far in 2019
    - 11 done since last THEC meeting on January 22
    - 4 more visits scheduled
- Community Outreach
  - Attend local Pregnancy Outreach Program monthly
  - To attend Ready, Set, Learn event at Glenmerry School May 24.



## HOME & GARDEN REPORT

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April 17, 2019

### RECENT HIGHLIGHTS

1. FAN Request/THEC Representation
2. Ground Cover Evaluation
3. Soil Testing
4. Remediation

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### ADDITIONAL DETAILS

1. FAN Request/THEC Representation
  - Attached is a letter received from the Family Action Network (FAN) who are actively recruiting members from the community to join their Board of Directors and are seeking representation from the THEC.
  - Cindy with her connection to families is the best fit and is asking for a decision from the THEC to move ahead.
2. Ground Cover Evaluation
  - As part of the effort to prioritize properties for remediation services, we are completing ground cover evaluations where children less than 12 years of age are living or visiting frequently. While we are actively on the ground doing this work we are still trying to find families so if you know of someone with kids please have them contact us.
3. Soil Testing
  - We are offering soil testing to all properties within the THEP boundary but properties with kids < 12 years and living in neighbourhoods where remediation is most likely are given the top priority.
4. Remediation, Lawn Care and Yard Improvements
  - We are providing remediation services to more properties in 2019. Note that remediation priorities are based on the presence of children, the frequency that



children are on the property, the quality of the ground cover on the property and the soil metals levels in the yard.