

# Trail Area Health & Environment Committee



## MINUTES

**Meeting:**  
**Tuesday, September 20, 2016**  
**City of Trail – Committee Room #2**  
**7:00 pm**

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

Mike Martin, Chair, City of Trail  
Lisa Pasin, Alternate Chair, City of Trail  
Marylynn Rakuson, Community Member  
Brad McCandlish, BC Ministry of Environment  
Mark Tinholt, Teck Trail Operations  
Sonia Tavares, Community Member

Ron Joseph, Community Member  
Diane Langman, Councillor, Village of Warfield  
Jeannine Stefani, Interior Health  
Steve Como, USWA 480 Rep.  
Brandi Thirsk, Community Member  
Mike Adams, Interior Health

### **Others in Attendance:**

Bruce Enns, SNC-Lavalin Inc.  
Bill Jankola, Teck Trail Operations  
Andrea McCormick, SNC-Lavalin Inc.  
Liz Anderson, SNC-Lavalin Inc.  
Frances Maika, Vox Communications

Daniel Bouillon, Teck Trail Operations  
Cindy Hall, SNC-Lavalin Inc.  
Ruth Beck, Program Manager  
Thompson Hickey, Teck Trail Operations  
Megan Long, Roaming Writer

**Round of Introductions:** Dan Bouillon, Environmental Manager at Teck Trail. Mike Adams, Environmental Health Officer, Healthy Built Environments, Interior Health.

**MEETING MINUTES:** Dated April 19, 2016  
Minutes from Tuesday, April 19, 2016 accepted.

### **New THEC Committee Member:**

Mike Adams introduced himself and spoke about the expertise he will bring to the Committee. He is an Environmental Health Officer (Public Health Inspector) with Interior Health. He is a member of the Healthy Built Environments team that collaborates with communities to reduce environmental risks & chronic diseases where we live, work and play. Mike will provide a public health risk assessment perspective to the Committee. Last year, Mike participated on the Blood Lead Objectives Setting Working Group.

Mike Martin commented that we appreciated Mike Adams' participation on the working group.

**NOMINATION:** Marylynn Rakuson nominated Mike Adams to join the Trail Area Health & Environment Committee. Ron Joseph seconded the nomination. All in favour.

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

#### **Reports & Issues Arising:** ***WARP/WAS Update***

With regard to re-submitting a Wide Area Remediation Plan to the Ministry, we need to provide a long-term outlook for blood lead metrics and programs to continue to reduce children's blood lead levels. This means reviewing our program development plans for 2020 and going forward from there. The scope includes soil remediation, blood lead objectives, and communications with the Medical Health Officer (MHO). Ruth put forward a proposal that the THEC re-engage the Blood Lead Objectives Setting

Working Group and rename & repurpose it as the Blood Lead Levels Reduction Working Group. Previously, the group was comprised of Mike Martin, Mark Tinholt, Jeannine Stefani, Mike Adams, Dr. Golmohammadi (MHO), Dawn Tomlin, Brad McCandlish, Chris D'Odorico, Brandi Thirsk, Cindy Hall, Ruth Beck, and Liz Anderson.

**MOTION:** Mark Tinholt motioned to formally establish the Blood Lead Levels Reduction Working Group comprised of Mike Martin, Mark Tinholt, Jeannine Stefani, Mike Adams, Dr. Golmohammadi (MHO), Dawn Tomlin, Brad McCandlish, Dan Bouillon, Brandi Thirsk, Cindy Hall, Ruth Beck, Ron Joseph, and Liz Anderson. Motion seconded by Ron Joseph. All in favour.

Ruth noted that she will send out a Doodle Poll to determine the best date for a first meeting sometime in the late fall or early winter. The first meeting will set out the terms of reference and scope of work to be taken on by this group. Mark clarified that this working group will have a finite term; it will disband after it has accomplished its goals.

### **Consultation Update**

Frances Maika of VOX Communications presented the Consultation Information Package that went out with the THEC Fall Newsletter to 4523 residential addresses in Trail, Rivervale, Warfield, Oasis, Casino and Waneta. She highlighted that, although our preference is to encourage folks to fill out the survey via text message, completed paper surveys can be dropped off at the Community Program Office, Kiro Wellness Centre, City of Trail, Village of Warfield, and the Columbia Basin Alliance for Literacy (CBAL) office. Frances also noted that we now have floor/sidewalk decals placed at several high traffic indoor and outdoor locations in Trail, and our THEP.ca website now features a Consultation 2016 section. Newspaper ads and web ads are running with the Trail Times and Pennywise. Ruth added that we had some uptake from our media release regarding the consultation – several radio interviews and a planned article in the Trail Times.

In terms of results, we have some good news already; 44 people have completed the long survey to date.

This texting-based survey is the first of kind in BC and possibly Western Canada; please feel free to encourage people to participate with this method and help pioneer this technology! The deadline to participate in the consultation is October 31, 2016.

**ACTION:** Frances to send out digital posters to the Committee so they can add them to their websites.

Ruth spoke about the Consultation Presentations; she has lined up presentations with at least 8 organizations; FAIR (Family and Individual Resources), the Chamber of Commerce, Early Childhood Development Coalition, Lower Columbia Affordable Housing Coalition, Community Skills Centre, Communities in Bloom, Trail Rotary Club, and Webster Parent Advisory Committee (PAC). Ruth is still waiting to hear back from two groups. Ruth reported that she has been receiving great input and questions, as well as opportunities for future collaboration.

Frances spoke about the upcoming Focus Group on October 13<sup>th</sup>. The focus group is the main face-to-face event for the consultation; we'll go through the content of the long survey (ie. the draft goals and programs associated with them) with time for Q&A and filling out the long survey. This is an opportunity for THEC members to attend and represent the THEC with the community.

We have a list started of people to invite. Please feel free to suggest names and contact info of anyone you think would want to participate. The Focus Group will be from 5:30- 8:30 pm on Thursday, October 13<sup>th</sup> at the Iona Hall (St. Andrew's Church, alley entrance) at 1347 Pine Ave.

**ACTION:** Liz to send an Outlook meeting request to the Committee members for the Focus Group.

Cindy pointed out that we will reimburse anyone for childcare or transportation costs.

Ruth and Mike Martin will brief Dr. Golmohammadi regarding the Focus Group in hopes that he will be able to participate in the meeting, probably via Skype.

Mark complemented the hard work done to get the consultation underway: "Great job team, very good material".

The text survey can be done more than once on a cell phone so that folks like Cindy and Andrea can allow people they speak with to participate by text, if they choose. We can also enter input from the paper short surveys into the Textizen software so that they can tabulate the results. Frances added that completed paper surveys can be dropped off at the Program Office or other drop boxes as soon as possible as the consultation team will begin entering the input data.

### **Presentations:**

#### *Fugitive Dust Reduction Program update; attached*

Bill Jankola presented a PowerPoint update of the Fugitive Dust Reduction Program. Marylynn commented that the tour of the Smelter Recycle Building earlier this summer was very informative and thanked Bill. Mike commented that he saw the sweeper truck out early and complimented Bill on the hard work. Mark clarified with Bill that the ethanol mixture they will use to wash the streets in the fall is a new technology; he added that he will share the information with the City.

Bill continued his presentation and spoke about reducing fugitive emissions from the Roaster Pad area; the key project upcoming for the program that should be completed before next summer. For the Fugitive Dust Reduction Program, the Smelter Recycle Building and the Roaster Pad are the major projects.

Mark shared that this will likely be Bill Jankola's last presentation to the Committee as he will be retiring in 2017. Bill has done a lot of work discovering sources of fugitive dust, prioritizing projects, getting the funding, and implementing the projects. Mike Martin added that it has taken a lot of work, but by bringing the science and technical knowhow, Bill got it done. The Committee offered Bill congratulations and thanks.

#### *Lower Columbia Ecosystem Management Program (LCEMP); attached*

Mark presented the LCEMP update. Mark explained that historic (e.g. the 1930s) sulphur dioxide emissions from the smelter were the biggest source of ecosystem impacts and much of the vegetation has recovered. There is still some residual impact, however, and that is what LCEMP is working to address. Note: "Polygons" are mapped areas that group together general ecosystem types: areas where the environment and vegetation are similar.

Ron expressed an interest in joining the LCEMP Steering Committee.

Mark also highlighted the attached maps and the four trial polygons. Bruce added that there will be 40 polygons sampled by the end of October 2016.

#### *Groundwater Update; attached*

Mark presented the Soil and Groundwater Management Program Report and noted that the groundwater treatment plant start-up has been delayed due to defective panels for the holding tanks; repairs are expected to be complete by December 2016.

### **Program Updates and Business Arising:**

#### **Community Check-in:**

No comments or questions raised.

#### **Air Quality:**

Mark presented the Air Quality Report and highlighted that lead in air was the lowest for a third quarter average since the 2005 shutdown year. This is despite not yet having the full benefit of the new Smelter Recycle Building. Mark complimented the rest of Bill's work to reduce fugitive emissions at Teck such as street and wheel washes. Mark also reported that arsenic in air is at  $0.008\mu\text{g}/\text{m}^3$  (better than our 2018 target) and we are on track to meet or exceed the 2018 target of  $0.01\mu\text{g}/\text{m}^3$ . Mike commended Teck: "quite remarkable, great work".

Mark added that the last meeting for the Air Quality Technical Working Group was in July, and they will meet again in a month to discuss the soon-to-be-enacted Canadian Ambient Air Quality Standards

(CAAQS - pronounced "cakes") for Sulphur Dioxide to develop a clear set of actions for communications planning around enactment of new federal legislation.

**Family Health; attached**

Jeannine presented the Family Health Report and highlighted the blood lead clinics (three clinic days remaining) and the continuing development of the new IH database for the Family Health Program.

**Home & Garden; attached**

Andrea presented the report and highlighted the desire to work further with the RDKB (Regional District of the Kootenay Boundary) to promote Lead Safe Renovations. Andrea also spotlighted the soil remediation program, noting that replacement soil comes from Trowalex in Castlegar. Mark added that Teck sometimes re-uses the removed soil for reclamation projects on Teck industrial property. Teck reprocesses the soil if the soil removed from a property has metal levels that would be too high for putting into the landfill.

Cindy highlighted the Trail Market Family Zone that she hosted this past summer in cooperation with Sonia Tavares (ECD Coalition), Christy Anderson (FAN), and Jeannine Stefani. The Family Zone provided space for families to enjoy activities, shade, connection with other families, and a table of information on local resources for families to access if they wanted.

Ruth made a connection back to the importance of community consultation. The lead safe renovation videos are a result of feedback from the 2010 consultation - that we needed to improve how we get our renovation messages out to the community. Also, the positive efforts we make towards making the Trail area the best place to raise a family (Healthy Families Healthy Homes and the Market Family Zone) were spurred by feedback from the 2010 consultation, too.

**ACTION:** Ruth to follow up with Solona regarding web analytics for the LSR videos and for the consultation.

Mike requested that the Home & Garden team include graphs showing the history of the soils program with our reports.

**ACTION:** Andrea to add graphs to the report to accompany the minutes of this meeting.

**Program Planning & Operations:**

Ruth provided a verbal update. She highlighted that THEC members can make use of the handout to record anecdotal comments from residents during the Public Consultation. Ruth also emphasized the desire to find participants for the focus group; we are looking for 35-40 participants. The focus group is an excellent opportunity for the THEC/THEP to build relationships and rapport with the community.

Ruth shared that she will be submitting a proposal for next year's THEP Management service contract very soon.

**ACTION:** Ruth will take acronyms out of the THEC agendas going forward.

Suggestion from Bill Jankola: distribute consultation documents and surveys to local churches and church groups.

Jeannine confirmed that the results from the fall 2016 blood lead clinic will be presented at the November THEC meeting.

*Overheard after the meeting: Bill Jankola crediting the legacy of Graham Kenyon for his motivation for success with the Fugitive Dust Reduction Program.*

**NEXT MEETING: Tuesday, November 22, 2016**


Teck

## THEC Update: Fugitive Emissions

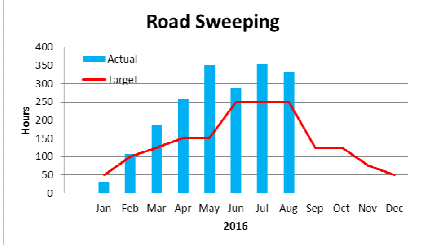
September 20, 2016  
Bill Jankola, Superintendent Operations Environmental Projects



## Dust Suppression on Roadways

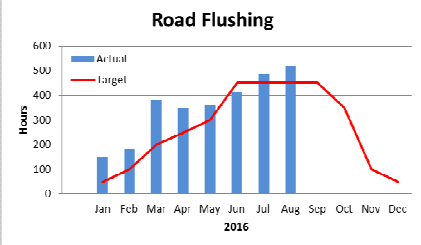


### Road Sweeping



Month	Actual (Hours)	Target (Hours)
Jan	20	20
Feb	100	100
Mar	180	150
Apr	250	180
May	350	200
Jun	280	250
Jul	350	250
Aug	330	250
Sep	150	150
Oct	120	100
Nov	80	80
Dec	50	50

### Road Flushing



Month	Actual (Hours)	Target (Hours)
Jan	150	50
Feb	180	100
Mar	380	200
Apr	350	250
May	380	300
Jun	450	450
Jul	480	450
Aug	500	450
Sep	450	450
Oct	350	350
Nov	100	100
Dec	50	50

- Road sweeping is 144% of target through August while flushing is 126% of target.
- Compared to 2015:
  - Sweeping hours are up 30% (445 hours)
  - Flushing hours are down 20% (780 hours)
- Preparing for cold weather operation (methanol/water mixture in the sweepers).

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## Smelter Recycle Building

Teck

### Commissioning underway:

- Ventilation balanced & baghouses commissioned
- Safety testing with vehicle operation underway (combustion gases)
- Hygiene testing – moving fine dross & baghouse dust inside



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## Roaster Pad

Teck

### Dust suppression 2017

- Planning underway for implementation
  - Use of wind fence on perimeter
  - DustBoss water cannons
  - Target completion by summer 2017

### Future improvements

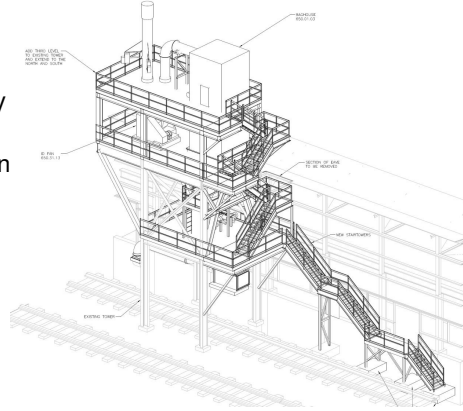
- Reduce mixing/handling in the open
  - Prefeasibility complete
  - New technology



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**Improved ventilation for the feed pot for the lead anode caster**

- Detailed engineering underway (complete in October 2016)
- Target installation completion in the fall of 2017.
- Will reduce both lead and arsenic emissions



LOWER COLUMBIA ECOSYSTEM  
MANAGEMENT PROGRAM

REPORT



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Sept 20, 2016

RECENT HIGHLIGHTS

1. Soil Sampling and Feasibility Studies for Select Polygons:

- Soil sampling has been completed on 40 (17 in 2015, 23 in 2016) polygons since in 2015 and 2016 to further characterize soil conditions and allow for the preparation of detailed re-vegetation prescriptions.

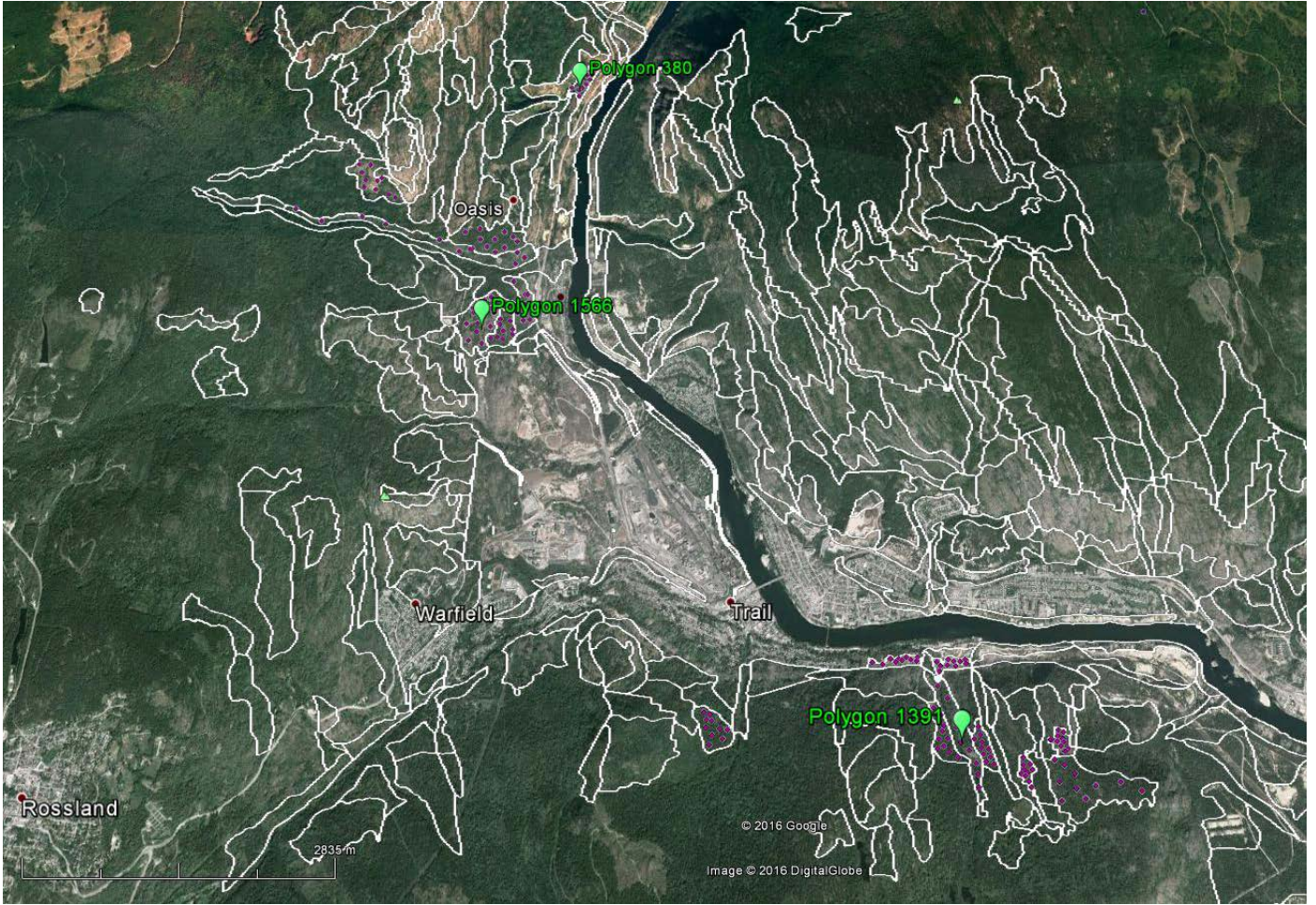
2. Re-vegetation Prescription for Select Polygons:

- Detailed re-vegetation prescriptions have been prepared for four polygons that comprise a total of 57.71 hectares of land. The prescriptions involve a combination of soil tilling, organics addition, liming, and irrigation. Some additional seeding or planting will be considered during field implementation. The success of implementing these trial prescriptions will inform future prescriptions as part of the LCEMP implementation.

3. Steering Committee Meeting:

- The next LCEMP Steering Committee Meeting is scheduled for October 17, 2016. The main focus of the meeting will be a field review and discussion of the prescriptions prepared for the four pilot polygons.





Map #1 – Polygon 1391, 1566, 380





Map #2 – Polygon 1361

# SOIL AND GROUNDWATER MANAGEMENT REPORT



Sept 20, 2016

## RECENT HIGHLIGHTS

### 1. Groundwater Treatment Plant:

- Construction substantially complete.
- Moving Bed Bio-Reactor (MBBR) tanks found to be leaking during testing phase. A repair scope of work and schedule has been developed. Repairs will necessarily carry through until the end of October, with confirmation leak testing of the repaired tanks being completed in early November. Assuming a successful repair, final commissioning could then begin with an expected duration of three weeks, with processing of groundwater starting in December 2016.
- The issue of the MBBR tank defects and associated delays is a serious concern for Teck and we are working actively with the contractors and engineering firm to improve on schedule. However, we also want to ensure that the long-term reliability of the tanks is not jeopardized, and so are ensuring the repairs are done properly.

### 2. Stoney Creek:

- Ongoing performance monitoring of the sediment erosion control and retention structures installed in 2015. Preliminary data indicates improving trend, will require several years for flushing to be complete and seasonal data trends to become clear.

### 3. Indian Eddy:

- Pump upgrade to provide additional flushing in Indian Eddy ready for installation end of September.

### 4. Annable Groundwater:

#### *Groundwater Remediation:*

- Preliminary design and Feasibility estimate for Hydraulic interception and water treatment system underway. The preferred option remains recycle of the groundwater within fertilizer operation, with a secondary option of piping the groundwater for treatment in Phase 2 Groundwater Treatment Plant.

#### *Indoor Air:*

- Installation of sub-slab depressurization and slab sealing is underway in two homes, to mitigate indoor air ammonia vapors.

### 5. Haley Gulley:

#### *Eastern Landfill:*

- Detailed design of riffle pool complex complete. Goal is to reduce the risk of contaminated sediment migration in Haley Creek.
- Targeting installation end of September, pending water license approval.

#### *Western Landfill:*

- Ongoing bench-scale testing of permeable reactive barrier for in-situ passive treatment of groundwater seepage into Haley Creek.
- Additional geological investigation ongoing (first phase of test-pitting complete, follow-up phase planned).



Sept 20, 2016

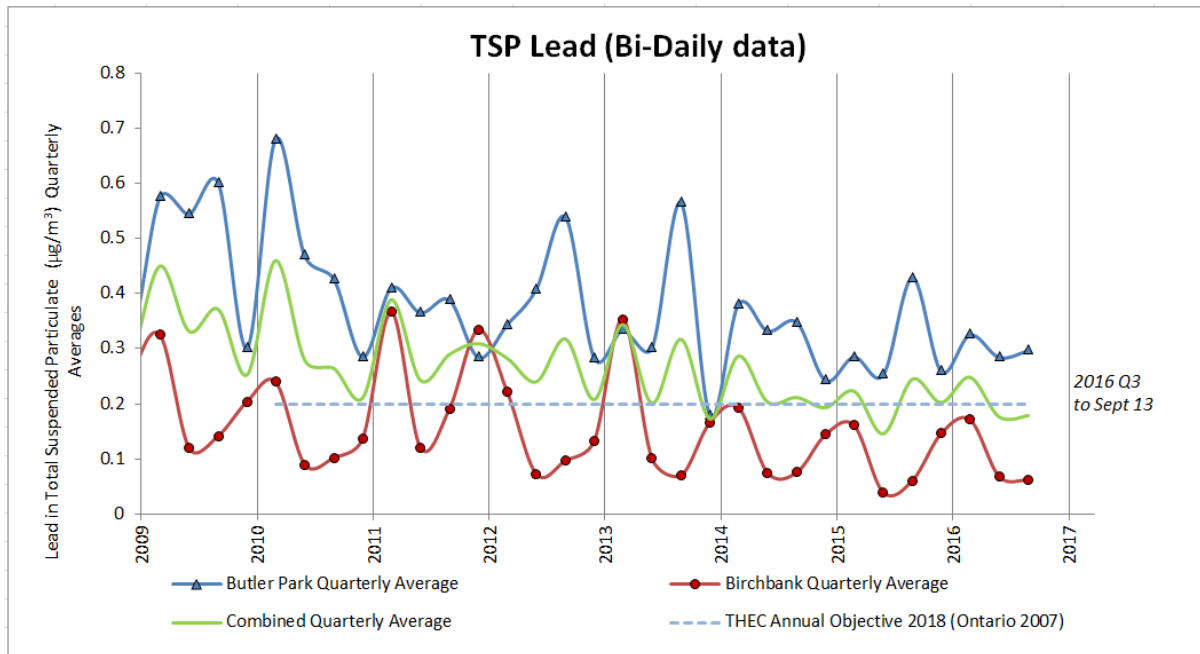
## RECENT HIGHLIGHTS

### 1. Lead in Air:

- The average for the third quarter of 2016 is the lowest for the third quarter since the 2005 shutdown year.

#### Details:

The chart shows quarterly averages for Lead in air (measured in Total Suspended Particulate) for Butler Park (dark blue), Birchbank (red), in comparison to the 2018 THEC Air Quality Objective (dashed line). The green line is the average of the two. Quarterly averages for Lead in ambient air are expected to have some variability due to season, weather, predominant wind direction and operational variance. The average to date for the third quarter of 2016 ( $0.296 \mu\text{g}/\text{m}^3$ ) at Butler Park is the lowest since the 2005 shutdown year.

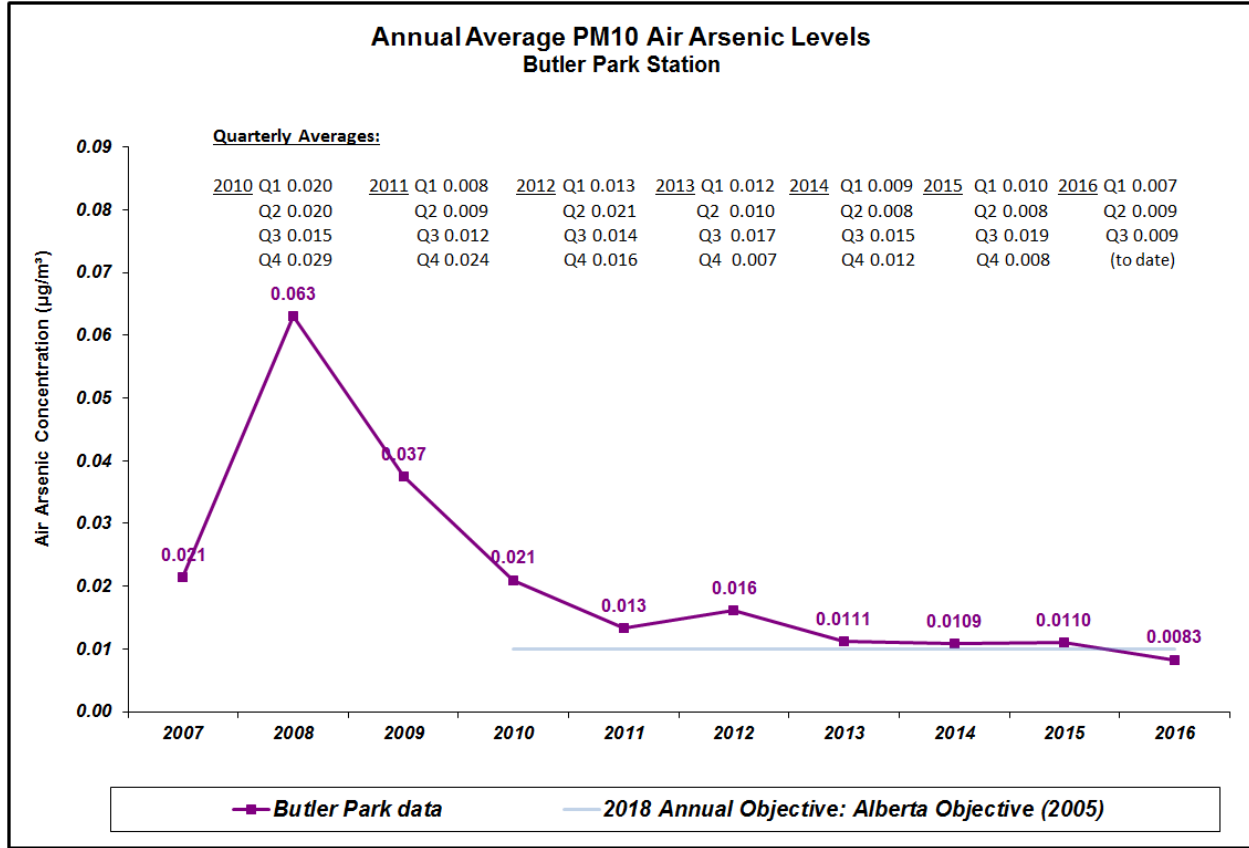


### 2. Arsenic in Air:

- The annual average for arsenic in air continues to be improving; the average for the year to date is less than the 2018 objective.

#### Details:

The chart shows the annual average for Arsenic in air (measured as inhalable  $\text{PM}_{10}$  fraction) for Butler Park (purple) in comparison to the 2018 THEC Air Quality Objective (blue line). Improvements between 2008 and 2011 appear to be the result of maintenance of the Continuous Drossing Furnace and Refinery Scrubber Stack. The 2015 annual average was  $0.0109 \mu\text{g}/\text{m}^3$ , and for the 2016 to date,  $0.008 \mu\text{g}/\text{m}^3$ .



3. The Air Quality Technical Working Group will be called in the coming month to discuss new standards for sulphur dioxide. An update to the THEC will be provided at a future meeting.

## FAMILY HEALTH REPORT

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September 19, 2016

### RECENT HIGHLIGHTS

1. Fall 2016 Blood Lead Clinic Dates
  2. Healthy Family Visits
  3. Community Outreach
  4. New Trail Blood Lead Program Database
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### ADDITIONAL DETAILS

1. Fall 2016 Blood Lead Clinic dates:
  - Monday September 12<sup>th</sup> from 9:00-4:00
  - Tuesday September 13<sup>th</sup> from 9:00-4:00
  - Monday September 19<sup>th</sup> from 9:00-4:00
  - Wednesday September 21<sup>st</sup> from 11:00-6:00
  - Monday September 26<sup>th</sup> from 9:00-4:00
  - Tuesday September 27<sup>th</sup> from 11:00-6:00
  - Approximately 252 children on list invited
2. Healthy Family Visits
  - 50 done in 2016
  - 2 done since last Trail Area Health and Environment Committee meeting June 28th
  - 2 more scheduled and will schedule more visits after lead clinics
3. Community Outreach
  - Attended local pregnancy outreach program on September 20<sup>th</sup> and attend monthly
  - Assisted with Family Zone at Trail Markets
  - Family Action Network's Ages and Stages Day at Kiro Wellness Centre on October 25<sup>th</sup>. Poster included in lead clinic invite letters to families
4. New Trail Blood Lead Program Database
  - Continue to work collaboratively with Interior Health's Information Management Information Technology department and Teck to develop a new Trail Blood Lead Program Database



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September 20, 2016

## RECENT HIGHLIGHTS

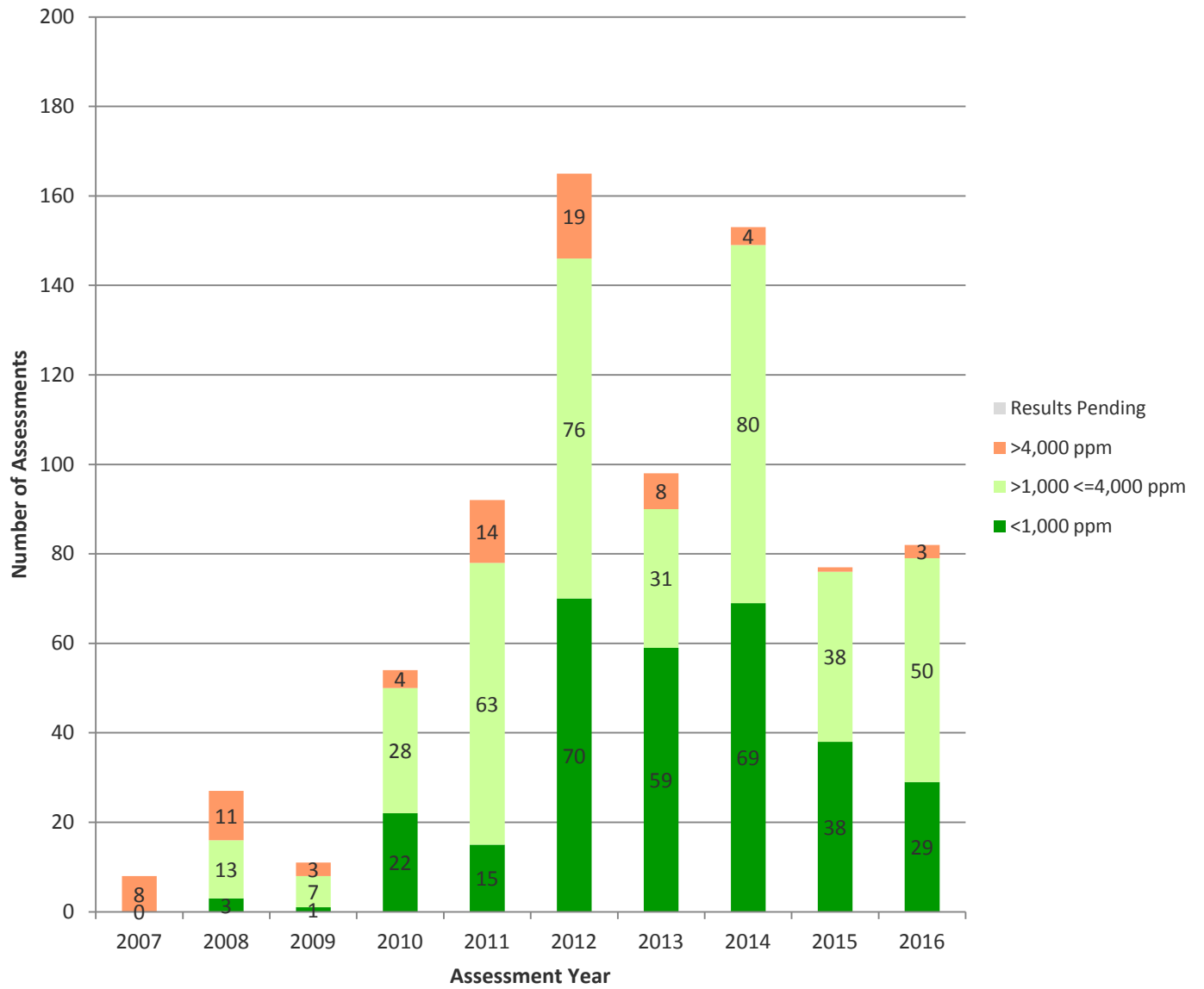
1. Soil Program Update
2. Dust Study
3. Lead Safe Renovation
4. Outreach Events

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## Additional Details

1. Soil Program Update
  - Assessment - total of 80 assessments to date:
    - i. 41 Yard only (27 Community Program and 14 Healthy Homes),
    - ii. 34 Both yard and vegetable garden (12 CP and 22 HH),
    - iii. 5 Vegetable garden only (4 CP and 1 HH)
  - No outstanding sampling requests for Healthy Homes and 59 Yard requests currently in the queue.
  - Remediation, Improvement and Conditioning – total of 55 to date:
    - i. 18 Yard conditioning
    - ii. 6 Vegetable gardens remediated (2 more planned this year)
    - iii. 26 Yard improvements for HH families (12 more planned this year)
    - iv. 5 Yards remediated (2 at HH properties) (1 more planned this year)
2. Dust Study
  - 63 properties throughout Trail and Rivervale participated in the August Dust Study.
  - Dust mats and dust fall jars have been collected and prepared to be sent away for lab analysis. We expect to begin to receive results in about a month.
  - Once lab analysis results are received, the data analysis will begin and we would like to have preliminary results for the THEC early in 2017.
3. Lead Safe Renovation (LSR)
  - LSR has been steady throughout the summer months.
  - We have been promoting the videos to renovators and are awaiting metrics from the web developer on how many people are watching them online.
  - We have one new lead safe contractor and would love more.
  - We have had publicity through SHAW cable, Trail Times and are working with the City of Trail to promote on Facebook.
4. Outreach Events
  - Trail Market Family Zone was set up during each of the 9 market events that occurred throughout the summer.
  - There was persistent inclement weather that plagued the market, however, attendance numbers were good when the sun was shining.
  - A review of Family Zone initiative will take place over the winter to assess the feasibility for 2017 market season. More information will be provided in the new year.

# Figure 1: Yard Soil Assessment Results by Year



**Figure 2: Garden Soil Assessment Results by Year**



**Figure 3: Summary of Remediation and Improvement Work by Year**

