

Trail Area Health & Environment Committee



MINUTES

Meeting:
Tuesday, September 9, 2014
City of Trail – Committee Room #2
7:00 pm

Committee Members in Attendance:

Dieter Bogs, Chair, City of Trail
John Crozier, Councillor, Village of Warfield
Mark Tinholt, Teck Trail Operations
Craig Adams, Community Rep.
Steve Como, USWA 480 Rep.
Marylynn Rakuson, Community Rep.
Brandi Thirsk, Community Rep.

Brad McCandlish, Ministry of Environment
Linda Worley, RDKB Area B
Graham Kenyon, Community Rep.
Jeannine Stefani, Interior Health
Dawn Tomlin, Interior Health
Sonia Tavares, WK Early Years

Others in Attendance:

Dr. Rob Parker, Interior Health, MHO
Greg Belland, Teck Trail Operations
Richard Deane, Teck Trail Operation
Dr. Nelson Ames, retired MHO
Cindy Hall, SNC-Lavalin Inc
Glyn Fox, Ministry of Environment
Peggy Evans, Ministry of Environment

Clare North, Teck Trail Operations
Sheri Regnier, Trail Times
Mike Martin, Community Member
Bruce Enns, SNC-Lavalin Inc
Andrea McCormick, SNC-Lavalin Inc
Catherine Juelfs, SNC-Lavalin Inc

MEETING MINUTES: Dated July 8, 2014

Motion to approve July 8, 2014 minutes: Mark Tinholt moved; Steve Como seconded. Passed.

REPORTS & RECOMMENDATIONS:

Trail Area Health & Environment Program Document:

Mark introduced the final Trail Area Health & Environment Program (THEP) document, which is ready for committee member signatures. Dieter commented that it is a living document, as stated on the signature page. As such, as information becomes available and the document requires updating, we will do just that. Mark referred to page 55, where the process to update the THEP document is spelled out. Dieter added that the Ministry of Environment (MoE) is reviewing the THEP document and there will likely be changes resulting from their feedback.

The committee members present signed the Signatory Page of the THEP document.

Dieter read out the proposed media release; no objections or changes were made. Dieter commented that he has chaired the THEC for 17 years and will be stepping down when he is no longer the Mayor of Trail: the November meeting will be his last as Chair. Dieter acknowledged the hard work that has gone into creating the Program; "Well done, thank you".

Air Quality: Report attached

Mark presented the Teck Report on Air Quality. Total Suspended Particulate (TSP) of lead in August at Butler Park was $0.34\mu\text{g}/\text{m}^3$, much lower this year than last year's value of $0.7\mu\text{g}/\text{m}^3$ (Note: post meeting correction - the actual value for August was $0.38\mu\text{g}/\text{m}^3$). Mark is optimistic about the blood lead results from the upcoming Fall clinic.

Greg Belland presented a media release to be issued on September 10, 2014, announcing that the Fugitive Dust Reduction Program is making good progress and that construction of smelter recycle building is going ahead. This is expected to result in an approximate 25% reduction in fugitive dust. Planning and design will begin in 2015 and the enclosure will take about one year to build. Jeannine clarified that it is at “the beach” area in Tadanac. Graham asked for clarification on the completion date. Greg answered that the building will be completed toward the end of 2015 or early 2016. Dieter commented that it is heartening to see the commitments being carried out by Teck; “this is major”. Dieter thanked the company on behalf of the THEC and also complimented Teck on completion of the Acid Plant.

Linda thanked Mayor Bogs, Mark Tinholt, and Teck for their generosity in providing the Emcon street washing in Rivervale. Mark pointed out the Fall 2014 Newsletter article on Rivervale street washing.

Mark continued presenting the Air Quality Report. The arsenic goal for 2018 is $0.01\mu\text{g}/\text{m}^3$ and as of the third quarter this year the goal is being achieved. Richard Deane added that there are a couple key areas where we watch for arsenic, and as we reduce lead emissions, we’ll also see drops in other metals such as arsenic.

Mark presented the Air Quality Technical Working Group meeting summary. Graham pointed out that request was made for a summary of complaints/feedback from citizens to be provided at each AQTWG meeting. It’s important to have transparency and follow up from the Company.

Presentations:

Teck Trail Operations Groundwater Project Update; PowerPoint attached

Clare North presented the PowerPoint presentation. John Crozier sought clarification on the extent of the affected areas and expressed interest in having Clare come and speak to Warfield City Council. John will speak to Vince Morelli.

Update on Human Health Risks from Metals

Mark presented an abbreviated version of his full presentation on this topic. After discussion, the THEC agreed that it would be worth holding a separate meeting to allow for more time for the full presentation.

Other than lead, there are three metals of concern:

- thallium: A 2001 study found Trail residents’ average urine level to be $0.25\mu\text{g}/\text{L}$, which is well below the WHO Level of Concern of $5\mu\text{g}/\text{L}$, and thallium emissions have not increased since then;
- cadmium: The main exposure is from eating produce, leafy vegetables in particular, but risks are within the level considered to be safe; and
- arsenic: The main concern is breathing air, for which the incremental risk of cancer if you live in Trail for 70 years is 8-9 out of 100,000. This is comparable to larger cities but in any case the air quality improvements will lower this risk.

John asked if we only sample produce in the Long Term Study (LTS) or soil as well. Mark confirmed we sample the soil as well. A discussion took place about numerical versus risk based standards and arsenic and cadmium in the body. Dr. Ames clarified that arsenic slowly leaves the body but cadmium will accumulate in the kidneys. Mark referenced the 1994 study which found no increased incidence of chronic renal (kidney) disease in Trail.

The full PowerPoint presentation will occur at a future date; the slides will be provided at that time.

Family Health: Report attached

Jeannine presented the Interior Health Report. There are 170 children invited to the Fall blood lead clinic from the target area. The results will be presented at the November 18 meeting. Jeannine passed around posters promoting the clinics. A discussion took place about the outreach Jeannine has been doing for the clinic. Jeannine explained that cold calls don’t always get a positive response, but parents contacted through the Home & Garden program and expectant parent events already have an idea of the program and are more responsive. During baby visits, the attending public health nurse gives a blanket

and information about a future Healthy Families visit. Three families have declined a Healthy Families visit this year. Sonia suggested we could add some HFHH information to the Books for Babies bag.

ACTION: Cindy to get HFHH rack cards to Sonia to be added to the Books for Babies bag.

The Ages and Stages Screening event will take place at Kiro Wellness Centre on October 8th.

Home & Garden: Report attached

Cindy highlighted the Fall THEP Newsletter and pointed out the photos of participating HFHH families.

ACTION: Liz to get more radon test kits from Golder Associates.

Cindy presented the Home & Garden Report. The number of vacuums given out this year is greater than the number of families visited because vacuums were supplied to families visited in 2013 as well as 2014. Andrea presented the assessment part of the H&G Report. Dieter asked for reiteration about how many properties were added to our list when the Upper Cap Concentration dropped from 5000 to 4000ppm. Andrea responded that there were about 9 properties. Peggy Evans asked whether we seek out "at risk" properties for soil assessment. Andrea responded that we don't turn away any Trail resident who requests sampling, but our priority is families with children under three. For the benefit of Peggy and Glyn (Ministry of Environment representatives), discussion took place about the process of sampling a property and any subsequent remediation. Further discussion took place about what happens when remediation and improvement recipients don't take care of their yards. Andrea stated that as the program exists now, if we go back and there's bare dirt, we'd probably provide new cover again. It is an important question that requires some thought: how can we encourage people to take care of their yards? Craig commented on the cost of the program and having to return to certain properties; he suggested we need to set parameters and limits. The money spent returning to a property could be utilized on another property that needs it. Andrea agreed; there are one or two properties a year and that it is something the committee should address. Dieter suggested that we come up with a process, some kind of 1 page document. Craig added that the community representatives on the Committee also need to take onus and speak up in the community. (Note: Post meeting - The Program Team has since added language to the Program Enrollment form to try to address this issue, which will be further discussed.)

Andrea noted the complaint about roofing in downtown Trail; a contractor was blowing dirt and dust off of a roof on Bay Avenue. She noted that she spoke to the contractor (who was Vancouver-based) and received some good feedback for the contractor engagement program.

Additional items:

Mark provided highlights from the meeting that took place earlier in the day regarding the development of new proposed blood lead goals for 2016. The recommendation is to form a Technical Working Group to recommend new proposed goals. The Working Group will be established after we receive the blood lead results from the 2014 fall clinic this November. Dieter added that we'll have community consultation after that.

Marylynn confirmed that we will call a separate meeting for the Human Health Risks from Metals presentation. Mark and Dieter agreed; a date will be set in the near future.

ACTION: Mark to consult with the THEC to determine a date for the full presentation.

Meeting adjourned at 8:54pm

NEXT MEETING: Tuesday, November 18, 2014

**TRAIL
A R E A
HEALTH &
ENVIRONMENT
COMMITTEE**



NEWS RELEASE

Health & Environment Committee Celebrates 25 Years with Renewed Collaboration

SEPTEMBER 10, 2014 - The Trail Area Health & Environment Committee (THEC) finalized its new 'Trail Area Health & Environment Program' document and signed a renewed commitment to continue its collaboration which has spanned 25 years. "The document describes THEC's activities and initiatives, as well as sets out near and longer-term objectives and initiatives that will be the basis of the THEC's efforts to continue improving the health and wellbeing of our community," states THEC Chair, Mayor Dieter Bogs.

"This is a milestone for our community! We have renewed our commitment to the community-led, collaborative approach of the Trail Health and Environment Committee. We recognize the success of our program and we're committed to it continuing and evolving in the future to achieve our health and environment goals," adds Mayor Bogs. "The THEC partnership between the community, government, and the company is unique in that we work together to determine what needs to be done and everyone does their part. We're very proud of this accomplishment in Trail. It takes hard work from our Committee members and we've done this now for 25 years, and have been recognized provincially and internationally for our collaborative approach."

The document will also form the basis of a wide area remediation plan to be submitted to the BC Ministry of Environment, Land Remediation Section. The THEC will next be preparing for public consultation in 2015, to set new health and environment goals and solicit public feedback on the THEC program document.

Background

The Trail Area Health & Environment Program is a community-led program with 5 main areas of activity: Family Health, Home & Garden, Air Quality, Parks and Wildlands, and Property Development. THEC promotes a healthy environment through a comprehensive integrated program that successfully achieves our goals for 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 and a healthier environment.

The Trail Area Health & Environment Committee (THEC) oversees the program. THEC is a partnership between the local community, Teck, the Ministry of Environment, and Interior Health. Over the past two decades of successful collaboration, children's blood lead levels in Trail have reduced significantly and air quality has greatly improved. THEC's community-led partnership has been recognized internationally

City Hall ☎1394 Pine Avenue, Trail, BC, Canada V1R 4E6 ☎ Telephone: (250) 364-1262 ☎ Fax: (250) 364-0830

www.thep.ca www.trail.ca

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

For more information, contact:

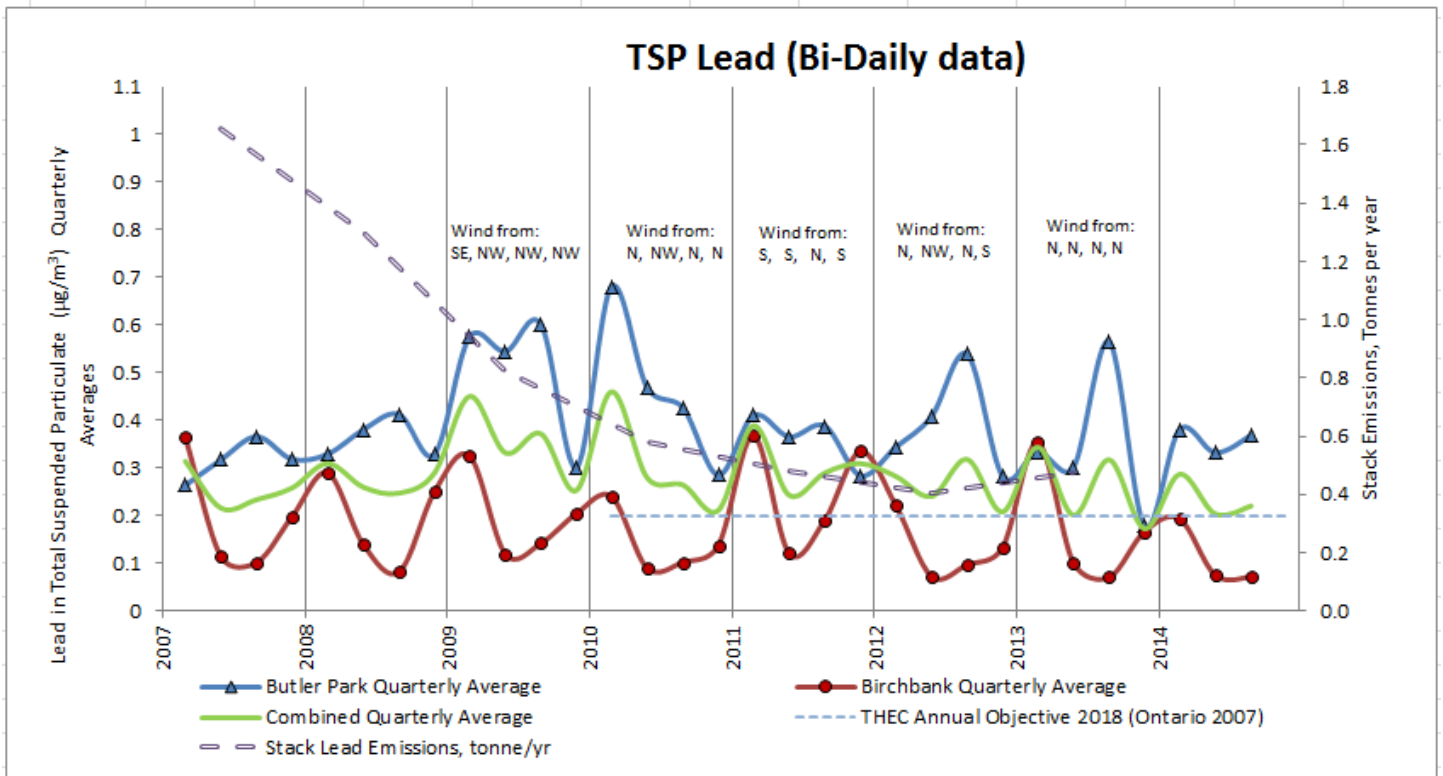
Mayor Dieter Bogs, Trail, Chair of the THEC (250) 364-1262

Trail Health & Environment Committee – Teck Report Sept 9, 2014

Air Quality Program

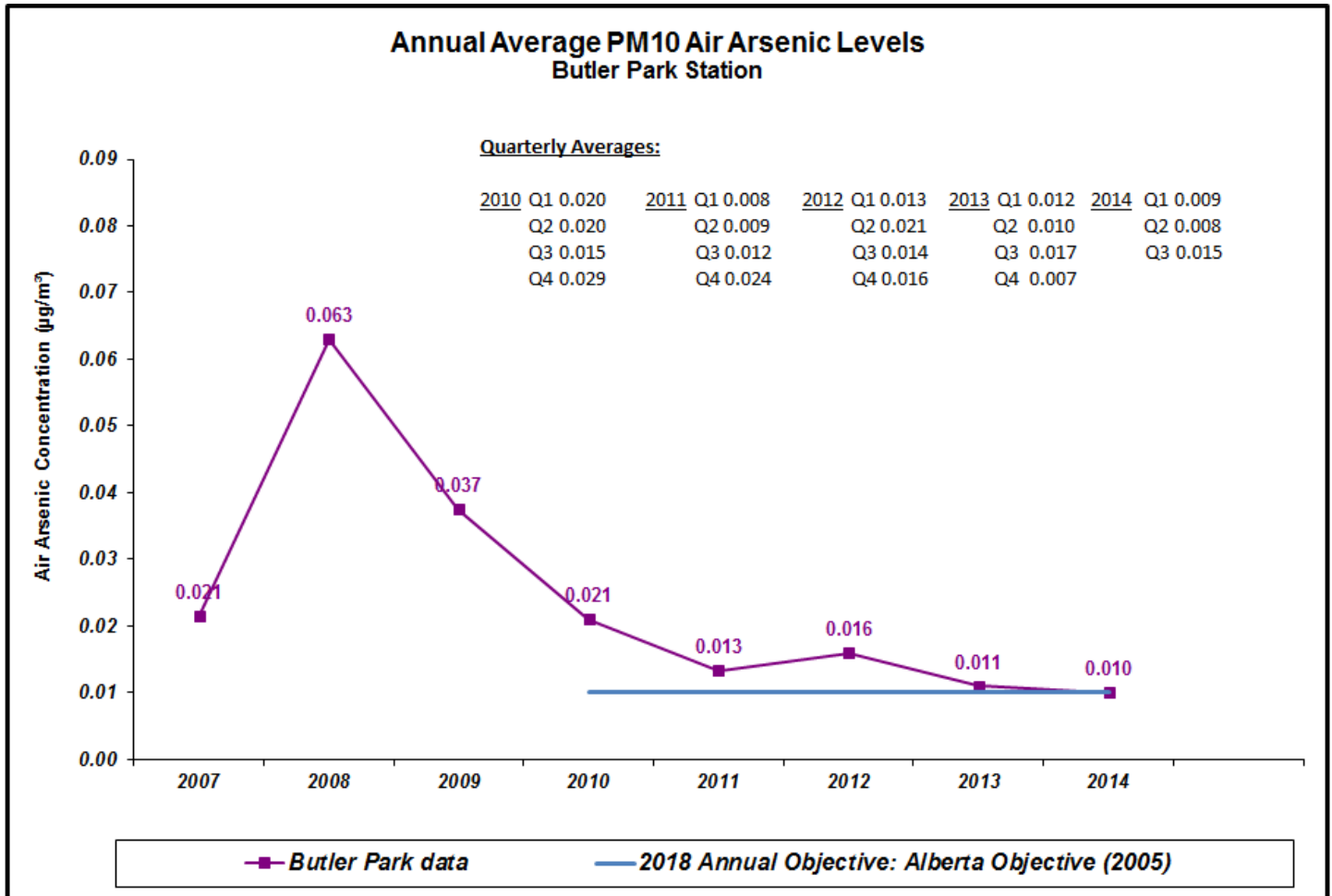
Lead – Total Suspended Particulate:

- The graph shows ambient (community) levels for the Butler Park and Birchbank monitoring stations based on quarterly averages of Bi-Daily data (rather than NAPS -6 day- data), measured stack emissions (annual basis), as well as predominant wind direction (quarterly, as measured at Maintenance Services Building). More detailed data (e.g. box-plots) are reviewed at the Air Quality Technical Working Group meetings.
- The most recent monthly average for August 2014 was $0.36 \mu\text{g}/\text{m}^3$ for Butler Park, much lower than August 2013.
- Quarterly averages for Lead in ambient air at Butler Park continue to follow a typical seasonal trend, with varying influences of predominant wind. The combined average is generally consistent with previous years, with some seasonal variation.
- Both real-time XACT monitors (one at Butler Park and the second at Duncan, located north of Metallurgical Operations) are operational.
- Measured stack emissions have continued to be less than 0.5 tonnes/year. The discrepancy in trends between stack emissions and measured TSP in air is believed to be sourced from fugitive dust.
- Trail smelter's releases of lead to air are still amongst lowest in industry.



Arsenic- PM10:

- Arsenic in ambient (community) air had returned to pre-2004 levels in 2011. Improvements appear to be the results of actions taken at the Continuous Drossing Furnace and Refinery Scrubber Stack.
- The average for 2014 year to date is 0.01 µg/m³, equal to the 2018 objective.
- Trail smelter’s releases of arsenic to air are amongst lowest in industry.



Trail Area Health & Environment Committee Air Quality Technical Working Group

MINUTES

Meeting: Wednesday, Sept 3, 2014



In Attendance:

Ron Joseph, Community Rep, Chair
Mark Tinholt, Teck, Secretary
Brad McCandlish, BC MoE
Dieter Bogs, City of Trail
Gord DeRosa, City of Trail
Graham Kenyon, Community Rep
Bill Jankola, Teck
Suzanne Belanger, Teck
Angelique Rosenthal, Teck

MEETING MINUTES:

1. Reviewed April 29 Minutes and Actions
 - o It was requested that for each AQTQG meeting Teck prepare a summary of excursions/complaints from the previous period, so that community leaders can be informed on what the issues were and how they were addressed.
 - o Household furnace/air conditioners: now that summer vacations are over, will find an HVAC expert do a presentation on the types/mechanics of household furnaces and air filters- Program office staff should also attend the presentation
 - o A sulphide-like odour was previously reported to be coming from a highway sewer manhole or vent located between E&M and the overpass. Teck had tried to follow-up but the location was not clear – the location was visited in person after the meeting so that Teck can better investigate.
2. August 2014 Air Quality results: Average to date for Butler Park TSP lead is 0.34 ug/m³, an significant improvement from 2013. This lead to a discussion/summary of the additional efforts undertaken as part of a focused summer program to reduce fugitive dust, and what can be done for further improvements in 2015.
3. Inventory of Key Emissions Sources: Teck had prepared simplified figures and tables illustrating the key emission sources for discussion at AQTW meetings. The majority of the meeting was spent reviewing and further populating the inventory. Teck to prepare revised version based on the input received for review an next meeting.
4. Next meeting: to be scheduled Q4 2014 (Thursday afternoons are best; to be located downtown hereafter: first choice is Community Futures board room, second choice is City Committee Room)



Trail Operations Groundwater Update

September 2014

Clare North, Superintendent, Environmental Projects



Agenda



Introduction

Main Ammonium Sulphate Groundwater Affected Zone

Additional Groundwater Investigation Areas

Annable and Haley Gully

Questions

Main Ammonium Sulphate Groundwater Affected Zone: Overview

Teck

- Elevated ammonia, sulphate, zinc, cadmium and manganese
- Related to historical discharges, not present operation
- Present under metallurgical and fertilizer operational sites



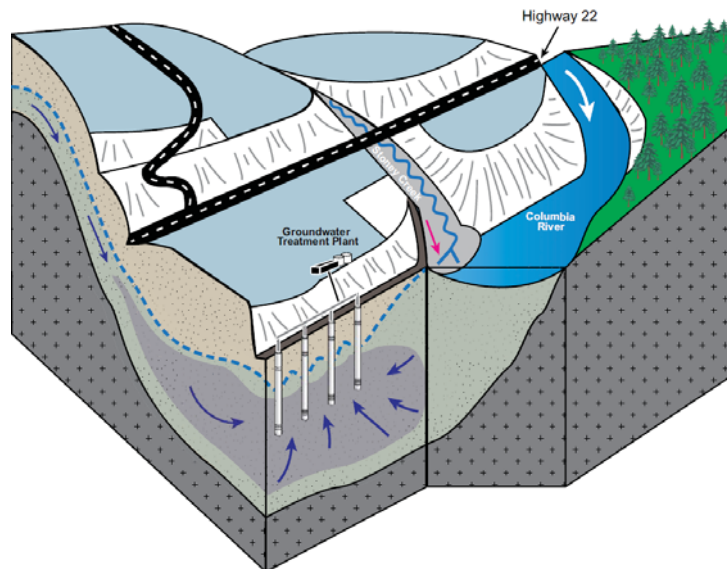
- Groundwater flow toward Columbia River and East Trail
- Also smaller amount of flow toward Annable (Silver Street area)
- Discharge to Columbia River rapidly diluted and fish populations not affected
- Very little risk to human health as no groundwater users in East Trail

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Main Ammonium Sulphate Groundwater Affected Zone: Remediation Plan

Teck

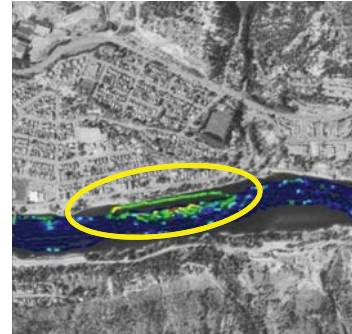
- Intercept and treat Main Ammonium Sulphate Groundwater Affected Zone
 - Four extraction wells
 - Standalone groundwater treatment plant
 - Treated water discharged to river
- Construction begins 2015
- Operational mid-2016



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Main Ammonium Sulphate Groundwater Affected Zone: East Trail

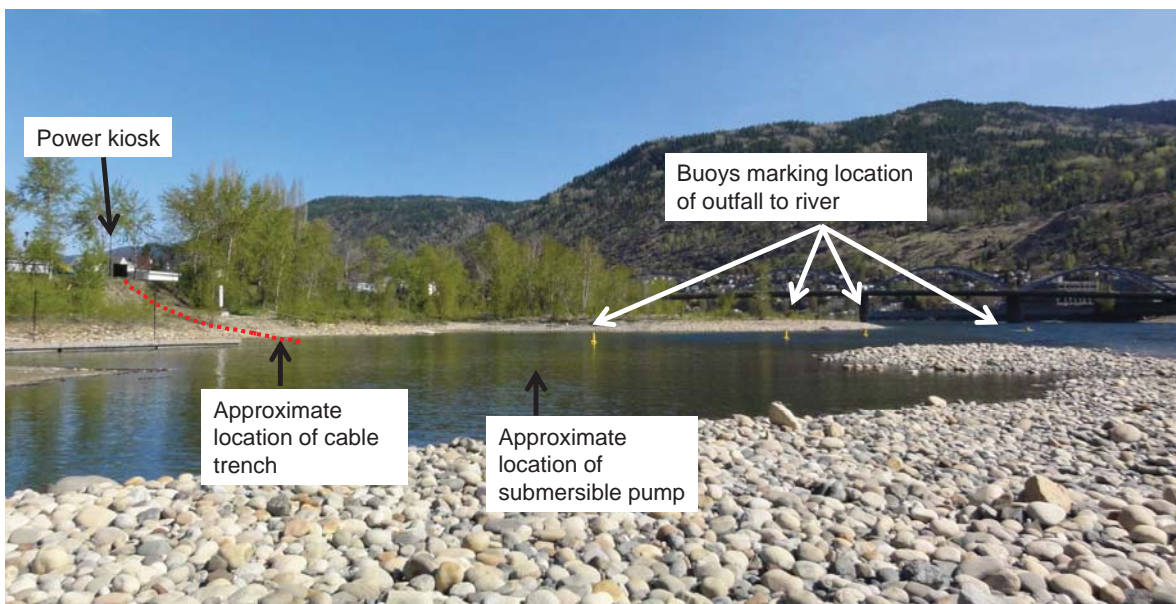
- Ecological risk assessment for East Trail where affected groundwater potentially enters Columbia River
 - No unacceptable risk
 - No remedial intervention required
 - Follow up monitoring to confirm levels remain similar



- Groundwater monitoring network expansion
 - Three new monitoring wells proposed along river
 - Delineation of affected zone beneath East Trail
 - Downgradient monitoring points to evaluate remediation efficacy

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Main Ammonium Sulphate Groundwater Affected Zone: Gyro Park Boat Launch Bay Interim Measure



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Main Ammonium Sulphate Groundwater Affected Zone: Gyro Park Boat Launch Bay Interim Measure

Teck



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Additional Groundwater Investigation Areas: Overview

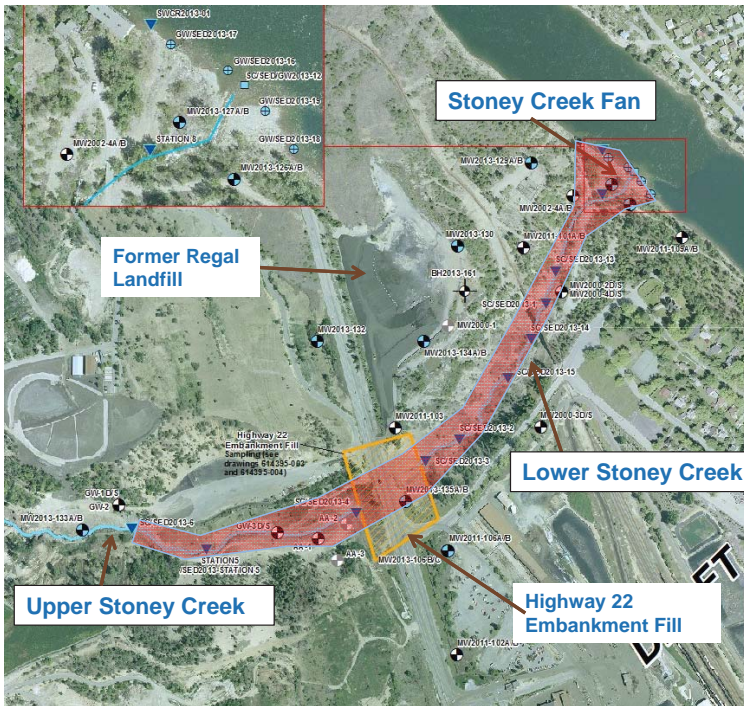
Teck

- Inspector's Direction from Environment Canada required Teck to expand groundwater investigation up and downstream of operational site
- Three isolated areas with potential for localized groundwater impacts were identified:
 - Lower Stoney Creek
 - Iron Ore Roaster Residue Release Area
 - Columbia River Adjacent to Downtown
- Final Remediation Plan committed to additional studies of these three areas followed by remedial planning, if required



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Additional Groundwater Investigation Areas: Stoney Creek



- Elevated metals in surface water and sediment
- Higher concentrations downstream of highway embankment fill

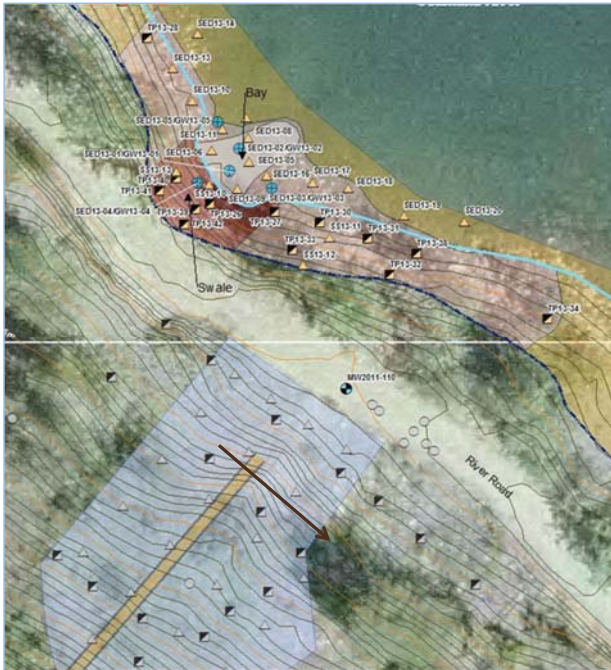
Additional Groundwater Investigation Areas: Stoney Creek



Next Steps

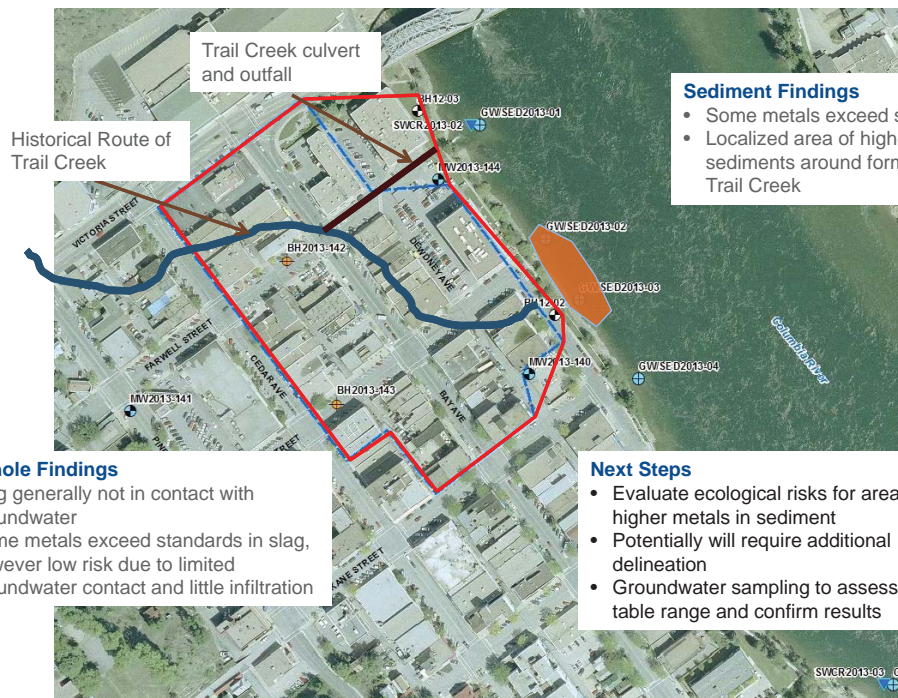
- Priority is to minimize transport of fill materials into Columbia River via Stoney Creek
 - Erosion control on embankment fill
 - Review options to isolate Stoney Creek from source materials
- Delineate Stoney Creek sediments already in Columbia River

Additional Groundwater Investigation Areas: Iron Ore Roaster Residue Release Area



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Additional Groundwater Investigation Areas: Columbia River Adjacent to Downtown



Sediment Findings

- Some metals exceed standards
- Localized area of higher metals in sediments around former mouth of Trail Creek

Borehole Findings

- Slag generally not in contact with groundwater
- Some metals exceed standards in slag, however low risk due to limited groundwater contact and little infiltration

Next Steps

- Evaluate ecological risks for area of higher metals in sediment
- Potentially will require additional delineation
- Groundwater sampling to assess water table range and confirm results

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Annable Affected Groundwater Zone



- Elevated ammonia and other fertilizer constituents in groundwater
- Related to historical discharges, not present operation
- Groundwater not used for drinking
- Indoor air concentrations meet standards
- Additional investigations in 2013-14

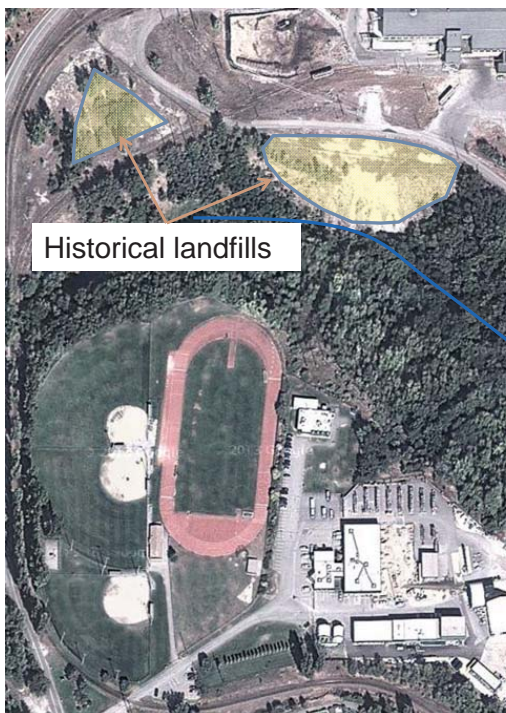


Next steps

- Install groundwater extraction well to enable larger scale pumping of groundwater, which will support development of a remediation plan

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Haley Gully



Overview

- Elevated metals present in both landfills
- Seepage from western landfill contributes elevated metals to Haley Creek
- Erosion of eastern landfill contributes metals-impacted sediment to Haley Creek

Next steps

- Develop remedial plan to intercept western landfill seepage
- Review options for management of sediments from eastern landfill

Trail Health and Environment Committee

IH Family Health Program Report

September 9, 2014

1. Fall Blood Lead Clinic

- Clinic dates are September 15, 17, 23, 25, 29 & 30.
- 259 children were on my list
- 30 children had since moved (19), lost (3), not able to attend (2) or not interested (6)
- Clinic invite letters sent out 3 weeks ago with appointment date and time to:
 - 170 children from Area 2 and 3 between 6 - 36 months
 - 25 are case management children
 - 59 children:
 - 14 children from area 1
 - 7 are case management children
 - 31 children from area 2 and 3 that greater than 36 months parents requesting testing
 - 14 are case management children
- Posters for clinic also put up around the area and at Doctors offices

2. Healthy Family Visits

- 56 done in 2014
- 5 done since last meeting July 8 (on holidays from July 7th-August 12th)
- 2 more booked, 13 moved, 3 declined, 1 lost
- 58 remain on list, 34 of those have had at least one attempted contact.

3. Community Education

- Continuing to attend local Pregnancy Outreach Program (Building Beautiful Babies) once a month
- Helping with FAN organizing the space at Kiro for the Ages and Stages Day on October 8th.

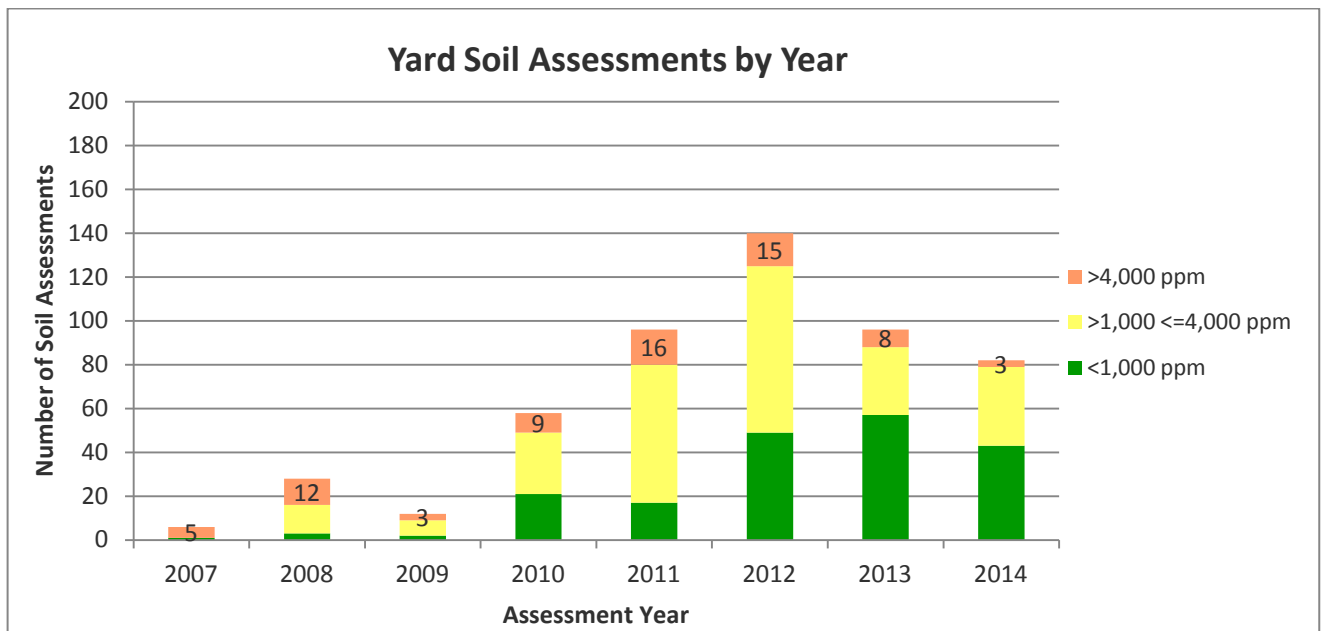
Trail Area Health & Environment Committee
Home & Garden Program Update
September 9, 2014

1. Healthy Homes Program

- a. Update on in-home visits (YTD as Sept 5th):
 - i. **83** families have received a visit and **22** visits since last report
 - ii. **3** families scheduled for a visit in the coming weeks
 - iii. **14** families currently on the Healthy Homes scheduling list
- b. Supports provided to families (YTD as of Sept 5th):
 - i. **81** Dust-buster kits
 - ii. **74** Garden kits
 - iii. **45** Sandboxes
 - iv. **95** Vacuums

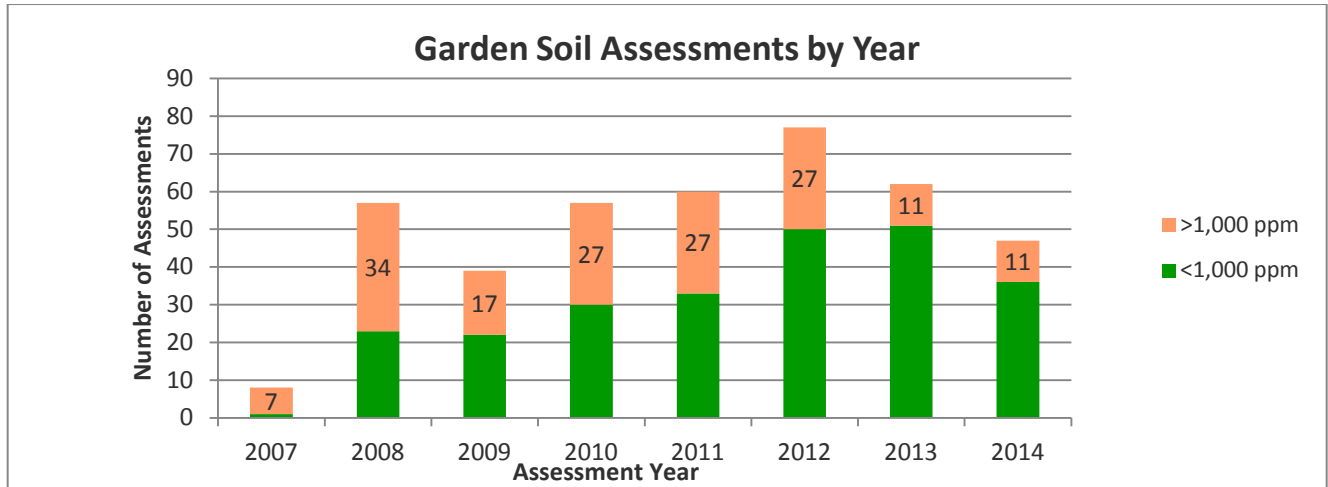
2. Soil Programs – up to Sept 5th, 2014

- a. Yard soil assessment completed at **102** properties
 - i. **63** yard assessments were part of the Healthy Homes Program (HH)
 - There are no outstanding HH soil assessment requests!
 - ii. **19** yards have been completed through community assessment
 - We have completed nearly half of the 70 community assessment requests from 2013/2014. 36 properties remain in the queue.
 - iii. Results for 82 properties shown below, with 20 results pending.



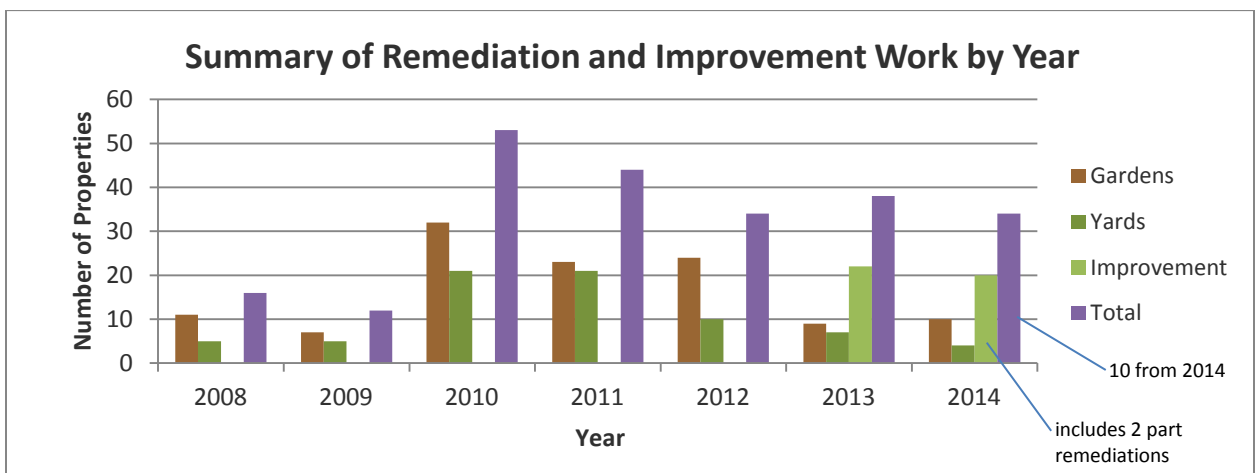
b. 47 Vegetable garden assessments completed (21 independent of yards)

- To date: 11 are > 1,000 ppm (2 results are pending)
- There are 2 garden assessment requests in the queue

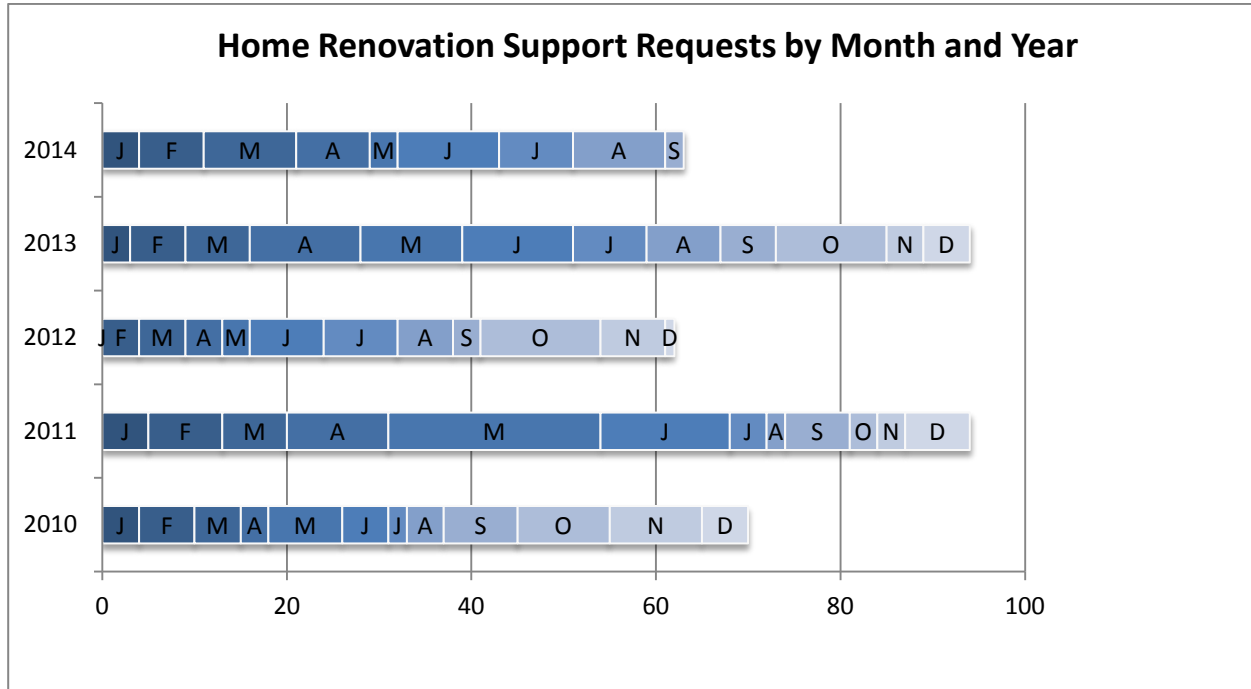


c. Remediation and Yard Improvement Work

- Yard Improvement for Healthy Homes families:
 - 20 properties have yard improvement work complete or in-progress (including 2 with full remediation on part of the yard)
 - 14 more properties are planned for this year
 - 12 properties require evaluation to determine if improvement is recommended, but it is unlikely that any work will be done until 2015
- Yard remediation is offered to properties with soil > 4,000 ppm lead
 - 4 properties have had full yard remediation completed (one was a HFHH property)
 - 5 properties are scheduled for remediation this year
- Garden Remediation
 - 10 gardens have been remediated this year
 - 2 gardens are currently scheduled to be remediated this fall



3. Home Renovation Support, Contractor Training and Radon kits
 - a. Total HRSP requests in July: 8 and in August: 10 (plus 2 so far in September), 13 enquiries
 - b. Radon kits – 2 kits given out
 - c. Responded to a complaint from a downtown business about dust from a roofing project. Provided information to the roofing contractor and talked about best work practices.



4. Community Outreach and Engagement
 - a. Community Program Office Public Contact Summary
 - i. July: Total **80**: 45 walk-ins and 35 phone calls
 - ii. August: Total **50**: 36 walk-ins and 14 phone calls
 - b. Engagement Activities
 - i. Hosted outreach tables to promote HFHH Summer Playing Cards and to connect with eligible HFHH families who we have not reached:
 - July 17th at Gyro Park – limited success despite the beautiful weather
 - August 21st at the Waneta Mall –joined by Christy Anderson (Regional Coordinator for FAN)
 - September 4th at Walmart – with FAN
 - ii. Upcoming:
 - September 11th at Walmart Mall – with FAN
 - September 15, 17, 23, 24, 29, and 30th - 2014 Children’s Lead Testing Clinics
 - September 26th at the Trail Market – jointly hosting an outreach table with Vallen (HRSP supplier) to promote Safety Week and HRSP
 - October 7th – HFHH presentation to Building Beautiful Babies group
 - October 8th at Kiro Wellness Centre – hosting an outreach table during the FAN Ages & Stages Developmental Screening
 - October 21st – THEP/HFHH presentation to local MCFD staff