

Trail Health & Environment Committee



MINUTES

Meeting: Tuesday, June 25, 2013
City of Trail – Committee Room #2
7:00 pm

Committee Members in Attendance:

Dieter Bogs, Chair, City of Trail
Mark Tinholt, Teck Trail Operations
Jeannine Stefani, Interior Health Authority
Ron Joseph, Community Representative

Graham Kenyon, Community Representative
Craig Adams, Community Representative
Brad McCandlish, BC Ministry of Environment

Others in Attendance:

Ruth Beck, Program Manager
Bruce Enns, SNC-Lavalin Environment
Cindy Hall, SNC-Lavalin Environment
Pete Golden, Local Resident
Julie Drake, Program Administrator

Sonia Tavares, Success by 6
Richard Deane, Teck Trail Operations
Bill Jankola, Teck Trail Operations
Brandi Thirsk, Local Parent/Resident

AGENDA AMMENDMENT: Ruth Beck requested the addition of an agenda item: nomination of new member.

MEETING MINUTES: Dated April 30, 2013. Minutes accepted as presented.

REPORTS & RECOMMENDATIONS:

Air Quality:

Teck Report – Mark Tinholt; report attached

Mark Tinholt presented the second quarter levels for ambient lead and arsenic. He noted that the lead levels are down from the first quarter of the year due to spring rains and a typical seasonal pattern. Dieter asked when the new Xact meter would be installed. It has just been installed and will be reporting data starting in mid-July. Regarding arsenic reporting, the average this year to date is $0.011 \mu\text{g}/\text{m}^3$. If this trend continues, this will be the best year. Actions to reduce lead improve the arsenic levels as well.

An additional graph was presented re. sulphur dioxide levels. In general, there is no observed increase but there are variations from day to day. Some of the visual aesthetics relate to sulphur (not metals). A lengthy discussion took place regarding the visual impacts of emissions, aesthetics, health risks, dustfalls and other aspects of air quality. Ron Joseph raised concerns that air quality seemed to be getting worse, citing his observations about visual emissions/impacts and Port Pirie's and Torreon's recent improvements in blood lead levels relative to Trail's, which have been more or less constant. He noted that the visual impacts may affect visitors' impressions of Trail and are important to the community and to initiatives such as Communities in Bloom. Dieter Bogs noted that concerns had also been reported to City Hall regarding visual emissions/impacts. It was noted that THEC has had a focus on reducing lead emissions and has met its targets with respect to lead in air. Richard noted that Teck Trail Operations also invests in initiatives to reduce visual impacts (e.g. riverbank greening, painting the ducts, as well as, to some extent, visual emissions) and that it values THEC input on the air quality priorities of the community.

The discussion turned to the question of whether the THEC scope, mandate, values and vision would need to change to include consideration of the visual and aesthetic related aspects of emissions. Different opinions were shared. It was noted that the Air Quality Fact Sheet includes information on

sulphur and particulates. Craig noted that THE Program looks at a holistic approach of living in a community with an active, primary lead and zinc smelter so that any negative effect would come to the THEC table for discussion. It became generally agreed that the THEC mandate, vision, goals and values covers all of the air quality issues.

Ron described the main issue as more urgency in addressing the overall emissions – including metals, health, and aesthetics. Richard noted that the focus has been on lead and arsenic and suggested that there needs to be a discussion about the other issues as well as what should get priority. Mark noted that the discussion was raising many questions and needed to continue in greater depth so that all the air quality issues could get fully identified and prioritized. He proposed that the THEC create an Air Quality Technical Working Group.

MOTION: Mark Tinholt: Moved: that the THEC form an Air Quality Technical Working Group. Seconded by Graham Kenyon. Supported by all; approved.

MEMBERS ASSIGNED TO WORKING GROUP: Brad McCandlish, Graham Kenyon, Mark Tinholt, Bill Jankola, Peter Golden, Ron Joseph, Richard Deane, and Dieter Bogs (floating member).

Fugitive Dust Control Report – Bill Jankola (slide show presented with graphs)

Current initiatives to reduce fugitive dust include developing sustainable materials transportation, improving material storage for raw material, reducing the fugitive dust, and developing a five year plan. Referring to lead and arsenic reporting graphs, Bill noted that a 50% reduction in ambient lead and a 40% reduction in ambient arsenic are needed to reach the air quality goals in 2018.

Graham asked about fluctuations in the numbers between 2004 and 2007. **ACTION:** Mark to check back on the cause of the fluctuations.

Bill went on to report that Teck is ready to start construction next week to enclose several buildings on the site. The buildings will contain arsenic and lead materials. Current outdoor storage areas will also be enclosed. Construction is to be completed in October 2013. Studies have been conducted about other projects being considered. One is for the smelter recycles; this is the area west towards Tadanac. Teck has done a feasibility study which is undergoing a peer review. Teck is hoping that the projects currently being studied will be approved for the 2014 capital plan so that construction can be started. A new engineering study is being conducted for the roaster pad located just north of the roasters. Teck had a couple of studies done; they want to make sure they are on the right path before proceeding.

Roadway fugitive dust is managed by Teck on-site before trucks leave the yard. Methods include sweeper and wash trucks, truck wheel washes, and road sprinklers. In 2012, Teck undertook an extensive study to identify areas that are significantly higher than other areas for emissions. This year, they are targeting 4500 hrs. (sweeper and wash trucks) compared to 2100 hrs. last year. Teck installed a wheel wash station intended to be used in storage buildings last year. Over a one-week period, 5 tons of solids were recovered from vehicles. A second unit purchase has been approved. This one will be installed near the roaster area. Trucks will go through a wheel wash station in this area. Road sprinklers have been expanded to new areas and are on timers.

Teck also monitored and reviewed data for building air flow. An estimate of fugitive emissions was done and plans are being developed to address these areas.

The Xact monitor installed at Butler Park has been very useful. Teck is expanding to a second Xact monitor that will be situated north of the property at a similar distance to the one at Butler Park. The existing monitor has an alarm system. If the alarm signals, Teck looks back at the activities that took place at the plant during the previous hour to determine the cause. Teck is expecting to see more work in this area when the second monitor becomes operational.

The five year plan involves best practices regarding buildings, controlling and reducing fugitive dust emissions from buildings and roadways, and human factors including improving employee awareness. Once endorsed, the plan will be reviewed annually. The draft is currently being reviewed by senior management. Teck has mapped out reductions required to meet the 2018 air quality targets. Richard Deane noted that when the plan review process is complete, Teck will bring the plan to the THEC for input. The plan will be a work in progress as more data becomes available.

Family Health: IHA Report – Jeannine Stefani, report attached

Dieter asked about the wooden sandbox at the Program office. What kind of cover will they have? Cindy noted that the prototype cover will be made from banner-type material and will be tested. Jeannine pointed out that we are giving out traditional plastic sandboxes right now.

Jeannine noted that the blankets that we offer families are intended for younger children for when they are on the ground. She has not seen as many younger kids so not as many blankets have been handed out. Public feedback about the new Healthy Families visits has been positive.

Jeannine explained to the group that she attends Building Beautiful Babies as a dual role as part of her IH public health nursing role as well.

It was noted that the Teddy Bear picnic takes place tomorrow from 10 am to 1 pm at the Cominco arena.

Home & Garden: Community Program Office Report – SNC Lavalin, report attached

Cindy noted that part of the Healthy Homes visits involves reviewing the soil assessment results with families. This means having soil results ready before the visit. Soil tests are prioritized based on Healthy Homes Program primary prevention families first, then vegetable gardens, then general yard assessments. Graham asked what the term “primary prevention” means. Bruce noted that we are targeting young families that are expecting or have children under three years.

(Program Manager Note: Primary prevention refers to interventions that prevent health risks in the first place. The Healthy Families and Healthy Homes programs target all families who are expecting children or have children under 36 months. Eventually we hope to reach all families before children reach 12 months of age. The goal is to reach these families with lead exposure prevention strategies before lead exposure occurs. The Program Team has agreed not to use the term “primary prevention” in future but rather to describe the activity so that the meaning is clear.)

Craig asked if there has been any reassessment of yards that have been remediated. Bruce responded that, yes, this is part of the Long Term Study and that results were expected to be available in the fall. Mark noted that the question is whether new soil being provided through remediation is becoming recontaminated. It is difficult to determine. The study has to be done over time and the data does not always show a trend. We have three years of data now. Bruce added that we have no control over what people do with their soil. Some people add composting or other products to their soil.

Cindy reported that she was on-site at the Home & Garden events this year and that lots of people attended. Regarding the Healthy Home visits, she plans to have radon kits on hand. It was noted that we don't keep the data on radon but that people who sign up for the radon test kit can sign a release to be part of the study of radon levels in homes. (Note: this is the Dana Schmidt Memorial Fund study for mapping radon hazards in West Kootenay communities. People wanting more information could contact Golder Associates in Castlegar.)

Cindy noted that, during her recent Healthy Home visits, she encountered two highlights worth sharing. First, she received a phone call from a parent wanting to say thank you. That parent is Brandi Thirsk, who has attended the meeting tonight. Brandi asked to say a few words.

COMMENT: (Brandi Thirsk) “As a parent who grew up here, the focus is on Teck as being the problem. Through the THE Program, you can learn a lot about where the problems come from. There are a lot of resources available. I felt very taken care of. I got a vacuum and sand box. I love the vacuum. There is nothing bad to say. They (*Community Program Office staff*) keep in contact to make sure everything is going good. It is a good program, please continue it.”

The second highlight is being able to contact families by texting. We are being thanked for texting families. Also, Cindy has been in contact with a mom who was initially concerned about having professionals from “a program” come into her home but agreed to have a Healthy Home visit. She has now had a Healthy Home visit from Cindy as well as a follow-up visit. The mat was out and our poster was on the fridge. Cindy noted: “I am honoured to be accepted into her home.”

Cindy went on to discuss sandboxes, noting that we started talking about some new ideas a year ago. Trail Middle School (TMS) has taken the lead and students are involved with making them. Interior Signs will help us make covers out of banner material. TMS has stated that they can meet our requests for sandboxes and would be pleased to consider other possible projects such as shoe shelves or garden

boxes. The wooden sandbox will be taken to the Teddy Bear Picnic tomorrow to see if families are interested.

Program Planning & Operations:

Program Plan Working Group Report – Ruth Beck, report attached

The Program Team has handed their initial drafts of their section of the Program Plan to Ruth Hull. We want to make sure we provide appropriate references and describe what we do and why. Intrinsic has provided a draft report of a commissioned literature review. The draft report is under revision. Steve Hilts has reviewed the document and made comments; Intrinsic is working on the revision. It is an update on scientific literature since 2001, including information on interventions around the world. THEC members will receive a copy once the literature review is finalized.

Ruth reported that, as a result of the first literature review, the Working Group identified that there are a number of aspects of THE Program, particularly related to children's healthy development, that we do because they are considered best practices but where we haven't reviewed the literature in a systematic way. We would like to have the literature reviewed regarding these aspects of the Program. The idea of a second phase of literature review has been discussed with Steve Hilts, Lesley Dyck, Jeannine Stefani, Dr. Nelson Ames, Sonia Tavares, Mark Tinholt, and Ruth Hull. The potential scope for a second phase of literature review would focus on the factors other than lead that influence children's healthy development; the benefits of community-based collaboration related to early childhood development (ECD); and the benefits and effectiveness of in-home visits re. improving ECD. Dr. Ames has stated there is good evidence related to in-home visits. We are awaiting a proposal from colleagues of the late Dr. Clyde Hertzman from the Human Early Learning Partnership (HELP) at UBC for this second phase literature review. Mark noted that this is a new piece that has come up. It has good value but it hasn't been planned or budgeted for. Once we get the proposal from HELP, we will discuss the budget.

Executive Committee Report: Nothing reported.

Program Manager's Report – Ruth Beck, report attached

Last meeting we talked about changes needed to our radio ads. These changes have been done and are currently on the air. The changes were easy to make.

A news release announcing the one-time children's lead clinic for Warfield, Oasis, Casino, and Waneta this fall went out on June 18, 2013. The Trail Champion put the news release directly on their website. Jeannine was interviewed by two radio stations (Mountain FM and EZ Rock). Jeannine read the news release on air and referred questions to Dr. Larder.

The update on the Intranet has been deferred.

As noted above, the Teddy Bear Picnic has been moved indoors to the Cominco arena because of the weather forecast. Larry Doell will proceed with the photo shoot indoors.

FAN Update – Ruth Beck

FAN recently received some disappointing news. FAN had made a submission to the Columbia Basin Trust (CBT) for grant funding but was turned down. In the meantime, FAN is moving ahead with two priority projects: a second Ages and Stages Screening Day and family washroom facilities. Dieter wondered if FAN has received word about why the application was turned down. There is some indication that they went too big in one application. They are going to try to obtain more feedback. Sonia explained that the application that was accepted by CBT for the larger amount of funding was given to the East Kootenays. CBT staff don't make the decisions on funding applications, it is a committee. A new process is being developed. Jeannine added that another application would be submitted in the fall. Dieter noted that FAN can be encouraged to contact me for feedback for the next application. An e-mail is currently being drafted to the Advisory Group requesting feedback.

New Member Nomination

Ruth noted that, at the last meeting, there was discussion about the need for new community members. She spoke with Sonia Tavares to see if she would be interested. Sonia expressed her interest.

MOTION: Mark Tinholt: Moved: that Sonia Tavares be accepted as a committee member; Graham Kenyon: Seconded. All agreed; accepted.

NEXT MEETING: Tuesday, September 10, 2013

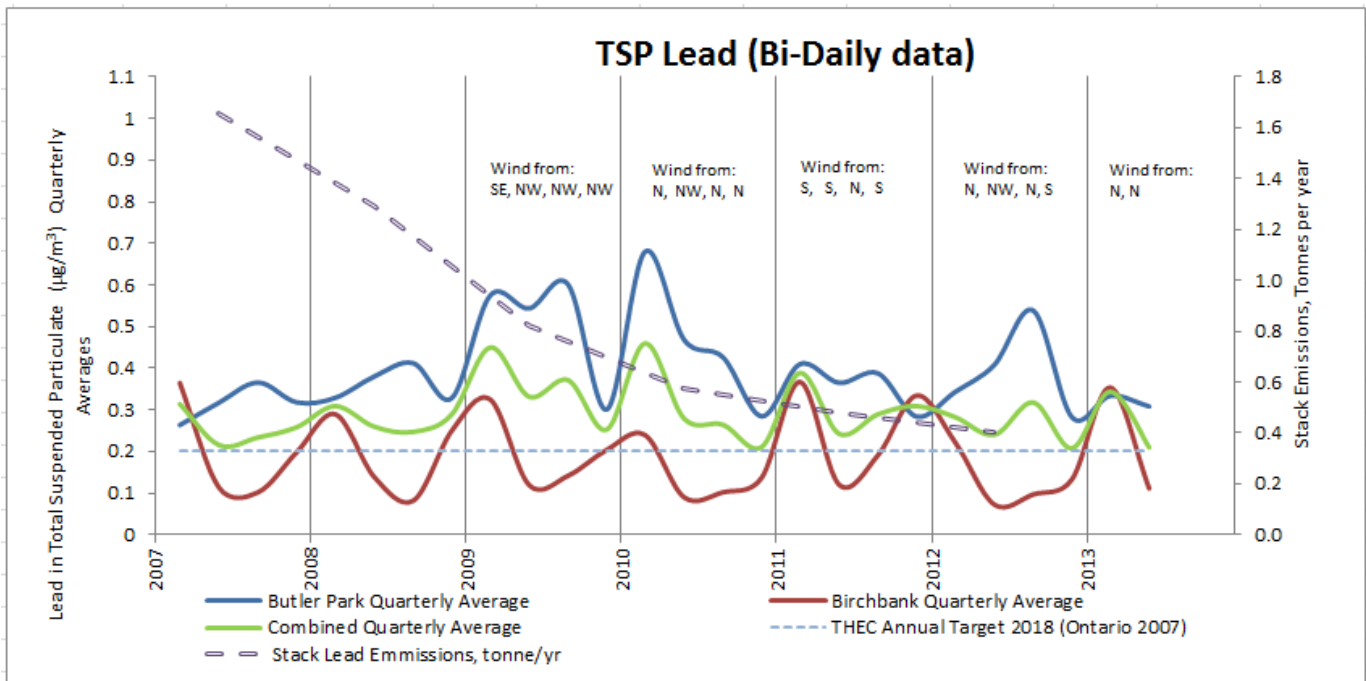
Meeting adjourned at 9:14pm.

Trail Health & Environment Committee – Teck Report June 25, 2013

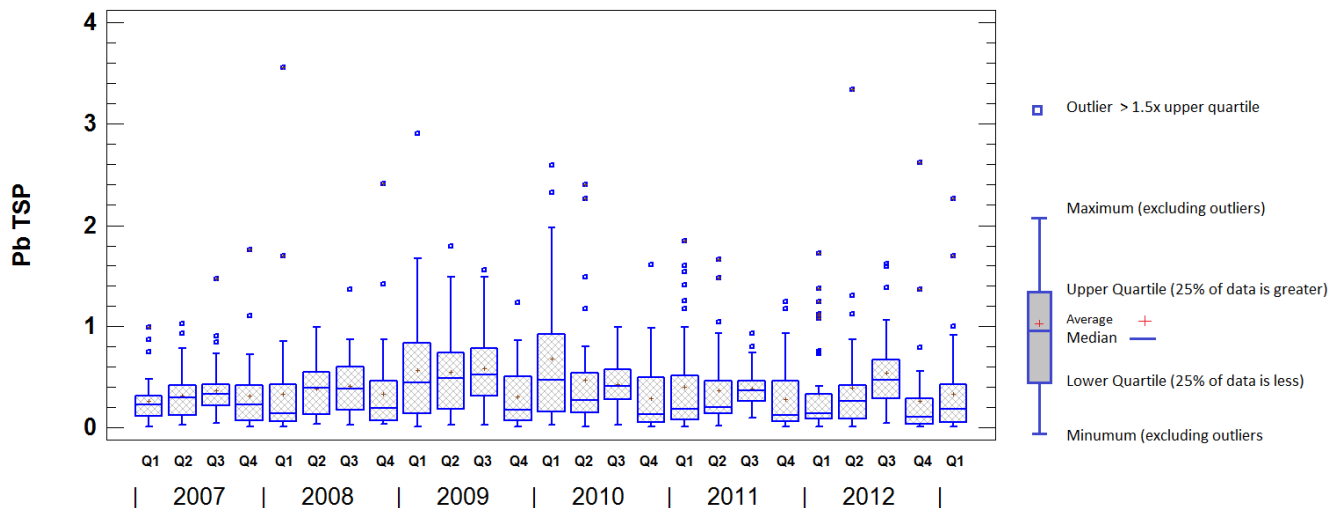
Air Quality Program

Lead – Total Suspended Particulate:

- The first graph shows ambient (community) levels for the Butler Park and Birchbank monitoring stations based on quarterly averages of Bi-Daily data (rather than NAPS day -6 day- data), measured stack emissions (annual basis), as well as predominant wind direction (quarterly, as measured at Maintenance Services Building). The second Box-Plot graph for Butler Park is included to provide data transparency at the request of the technically savvy committee members – it is not yet updated for Q2 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.
- Measured stack emissions have continued to drop. 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.

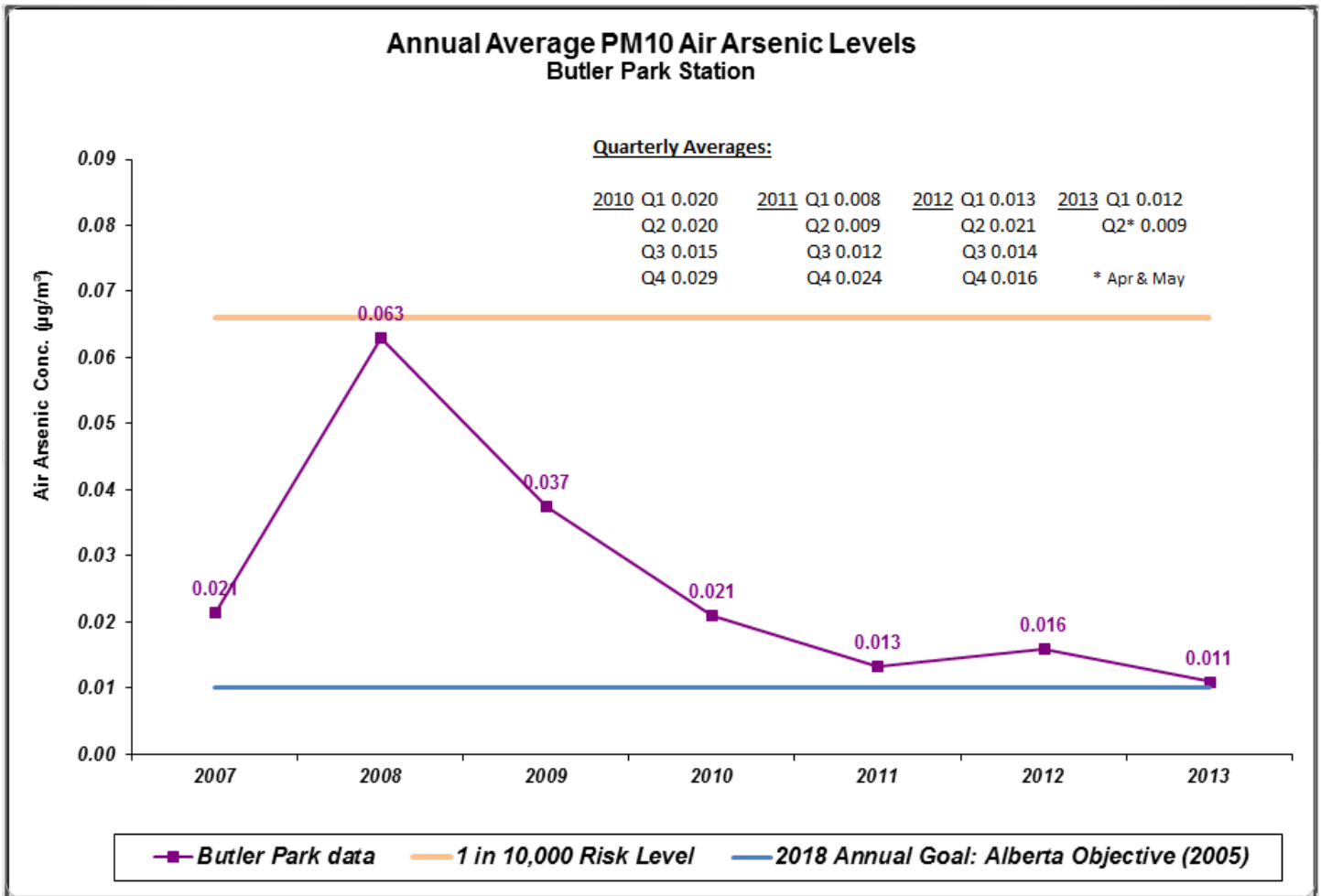


Quarterly Box Plot - Lead at Butler Park

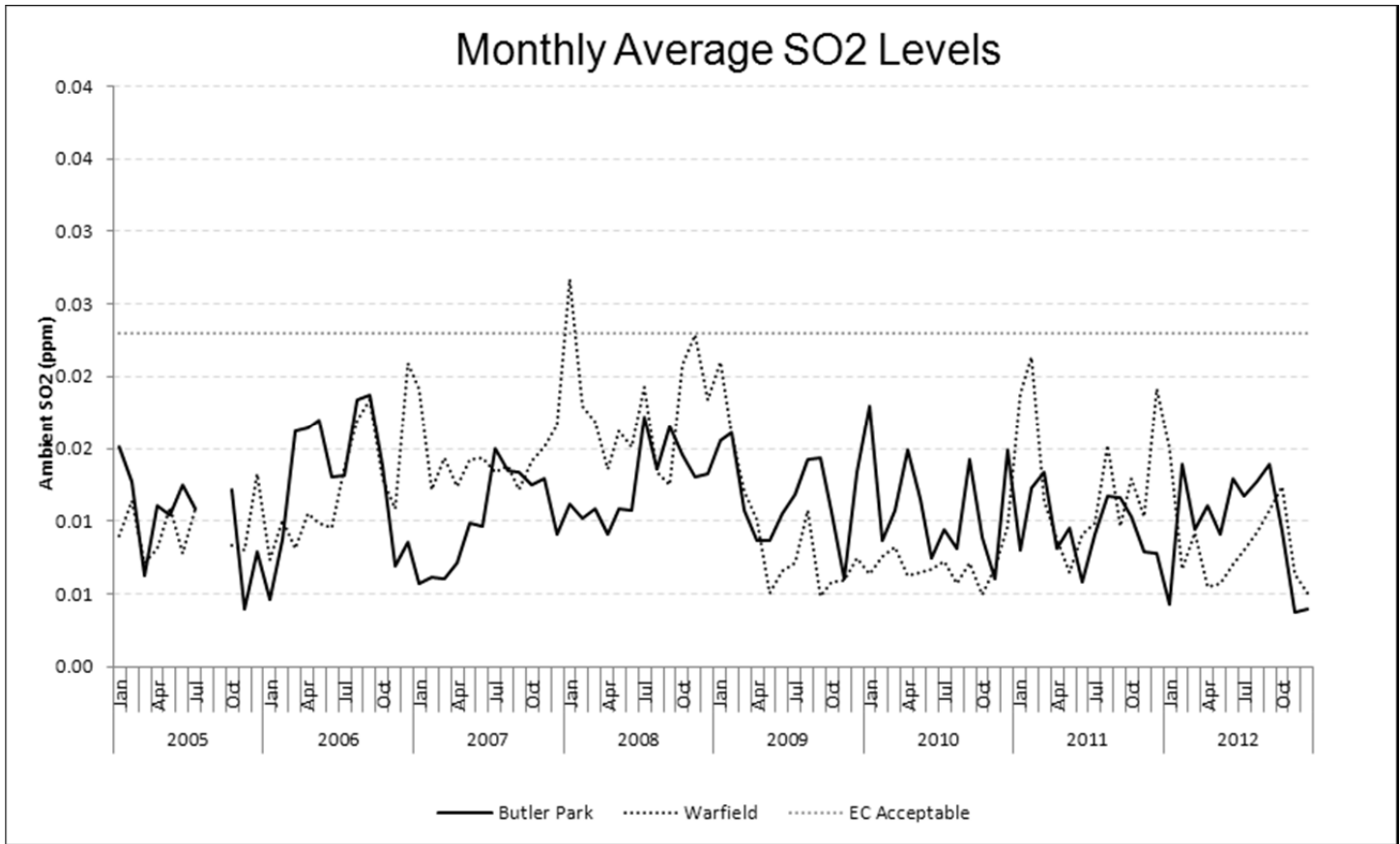


Arsenic- PM10:


- 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.
- 2012 annual average was 0.016 $\mu\text{g}/\text{m}^3$, similar to 2011, as is 2013 year to date.
- Trail smelter's releases of arsenic to air are amongst lowest in industry.



Sulpher:



Teck 100
Celebrating One Hundred Years



**Trail Health & Environment Committee
Fugitive Dust Update**
June 25, 2013


Fugitive Dust Project:
Project Goals



- Reduce fugitive dust emissions
 - Improve materials storage for raw materials, intermediate process materials and recycles at Trail Operations
 - Develop sustainable materials transportation, handling and recycling practices
 - Reduce fugitive emissions from existing processes and infrastructure
- Develop 5-year Plan with milestones and targets to achieve THEC 2018 ambient metal targets
 - Improve risk and source identification
 - Focus on continuous improvement
 - Develop improved control measures to prevent excursions from resulting in elevated fugitive emissions

Teck 100
Celebrating One Hundred Years

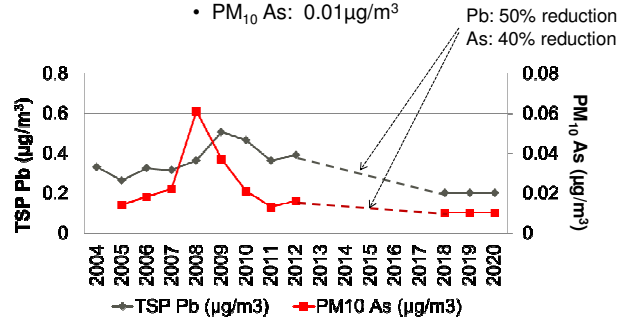
Fugitive Emissions
- Ambient Air Targets at Butler Park



Achieve 2018 targets:

- TSP Pb: 0.2 $\mu\text{g}/\text{m}^3$
- PM_{10} As: 0.01 $\mu\text{g}/\text{m}^3$


Pb: 50% reduction
As: 40% reduction



Year	TSP Pb ($\mu\text{g}/\text{m}^3$)	PM_{10} As ($\mu\text{g}/\text{m}^3$)
2004	0.35	0.015
2005	0.25	0.012
2006	0.30	0.015
2007	0.30	0.020
2008	0.40	0.060
2009	0.50	0.040
2010	0.45	0.020
2011	0.35	0.015
2012	0.38	0.015
2013	0.35	0.015
2014	0.30	0.015
2015	0.25	0.012
2016	0.22	0.010
2017	0.20	0.010
2018	0.20	0.010
2019	0.20	0.010
2020	0.20	0.010


Teck 100
Celebrating One Hundred Years

Fugitive Dust Project:
Project Status – Materials Storage




Tadanac North Enclosure

- Site preparation underway
- Construction to commence first week of July
- Project complete October, 2013



Teck 100
Celebrating One Hundred Years

Fugitive Dust Project:
Project Status – Materials Storage





Smelter Recycle Enclosure

- Feasibility study peer review underway


Roaster Feed Enclosure

- Engineering study initiated




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Fugitive Dust Project:
Project Status – Transportation




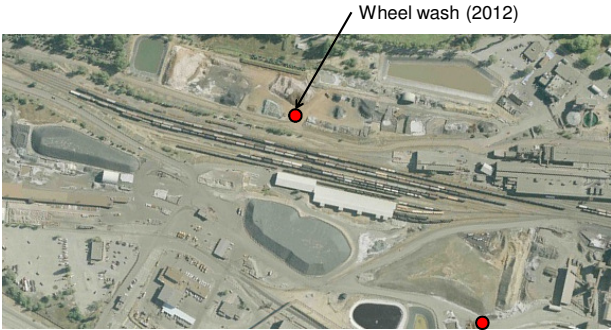
Roadway Fugitive Dusts


- Sweeper and wash trucks targeting main sources
 - Monitor and track use weekly
- Truck wheel wash
 - One in use at Smelter Recycle Mix area
 - Second unit being installed near the Roasters
- Road sprinklers
 - Expanded use of sprinklers to new roadways

6 


Fugitive Dust Project:
Project Status – Transportation






7 

Fugitive Dust Project:
Project Status – Building Fugitives



Identified significant sources

- Work completed Spring 2013
- Key source of fugitive emissions identified
 - KIVGET
 - Lead Refinery
- Individual plants developing & implementing plans

8 

Fugitive Dust Project:

Project Status – Improved Monitoring



XACT Monitor

- Butler Park Station
 - Useful tool for troubleshooting process issues

- Expanding to second XACT
 - Located North of the property, similar distance as Butler Park.
 - Commissioning underway this week
 - Operational mid-July



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Fugitive Dust Project:

Project Status – Five Year Plan



Draft completed

- Elements include:
 - Enclosures – common element of successful fugitive emission reduction plans
 - Controlling & reducing fugitive emissions from buildings and roadways
 - Human factors – improving employee awareness of the issue and what they can do to facilitate improvement
 - Continues improvement – annual evaluation and adjustment of plans
- Reviews with Senior Management and Operating Managers underway



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Trail Health and Environment Committee

Interior Health Report

June 25, 2013

1. Healthy Family visits

- 103 children on my list born between September 2011 to June 2013
- Priority children to see was those that were under 12 months at Fall 2013 clinic
- Contacted or attempted contact of 54 children
- 23 visits done, 7 more booked to be seen, 4 need to be rescheduled, 1 declined
- Items given out:
 - 7 sandboxes (plus 13 for case management families)
 - 21 soaps
 - 17 balls
 - 22 bibs
 - 23 plate/bowl
 - 22 cups
 - 7 blankets

2. Fall Blood Lead Clinic prep started

- 279 children presently on list to invite to Fall 2013 Blood Lead Clinic (all areas all ages)
- 186 children 6-36 months from Area 2 and 3
- 54 children 6-36 months from Area 1
- Tentative dates of clinics September 23rd, 24th, 25th, October 1st, 2nd, 3rd.

3. Community Education

- Continue to attend Building Beautiful Babies once a month
- Attended / attending the following events with Home and Garden Program
- Ready, Set, Learn events at area elementary schools May 15th, 16th, 21st, 23rd.
- Beaver Valley Adventure Picnic June 10
- Expectant Parent Event June 18
- Teddy Bear Picnic June 26
- Home and Garden Events - Family Health Program represented by the Home and Program.

Trail Health & Environment Committee

Home & Garden Program Update June 25th, 2013 – 7:00 – 9:00 p.m.

1. Soil Programs
 - a. Soil assessment has been done on the following priority basis:
 - i. Primary Prevention
 - ii. Vegetable gardens
 - iii. General yard
 - b. Primary Prevention (Figure 1)
 - i. 46 yard assessments
 - c. Garden and Yard (Figures 2 & 3)
 - i. 25 vegetable garden assessments
 - ii. 51 yard assessments
 - d. Yard Remediation to date in 2013 (Figure 4)
 - i. 2 PP yards partially remediated; 1 in progress; 1 in the queue
 - ii. 1 CM yards partially remediated; 0 in progress; 0 in the queue
 - iii. 1 other full yards remediated in progress
 - e. Garden Remediation to date in 2013 (Figure 4)
 - i. 8 gardens remediated

2. Home Renovation Support and Radon kits – see Figure 5
 - a. More requests so far than last year but overall numbers do not exceed the 2011 (e.g. May 2011 - 23 requests vs. May 2013 - 9 requests)
 - b. Current HRSP total for 2013 is 34.
 - c. Radon kits – 2 since last report.

3. Primary Prevention – Healthy Home Visits
 - a. Over 200 families have been identified and based on H&G team capacity we expect to visit ~90 families for 2013
 - i. 25 families visited since April launch
 - b. Priority is based on: Case Management; age of youngest child; and whether yard soil assessment results are available
 - c. Healthy Family - Health Home Incentives 2013
 - i. 18 Yard-garden kits
 - ii. 24 Dust-buster kits and garden kits have been well received
 - iii. HH visit highlights
 - iv. Sandboxes – 7 plastic (not including the ones handed out by IH)

4. Contractor Training – Roofing Pilot Project

- a. Occurred the 1st week of May at the home of a Primary Prevention family in the East Trail area.
- b. Purpose of the project was to observe, monitor, and sample the dust generated during roofing and use the information to develop and test dust suppression techniques for future roofing projects.
- c. Observation and monitoring activities included: particulate monitoring, weather, dust wipe sampling (before, during, and after), and bulk sampling of the roof dust during demolition.
- d. Using HRSP the H&G team assisted the family in sealing off the attic area from the main living area to prevent dust exposure, and shortly following the roofing work professional cleaners were contracted to thoroughly clean the entire inside of the home.
- e. The results will be reported at an upcoming THEC meeting.

5. Community Outreach and Engagement

- a. Home & Garden Days: Columbia Valley Greenhouse, Silver City Days – Community Program Office Open House, Home Hardware
- b. Attended the following family friendly events with IH: Beaver Valley Picnic, Ready Set Learn, and KBRH Expected Parent Event
- c. Next big event: Great Trail Success by 6 –Teddy Bear Picnic

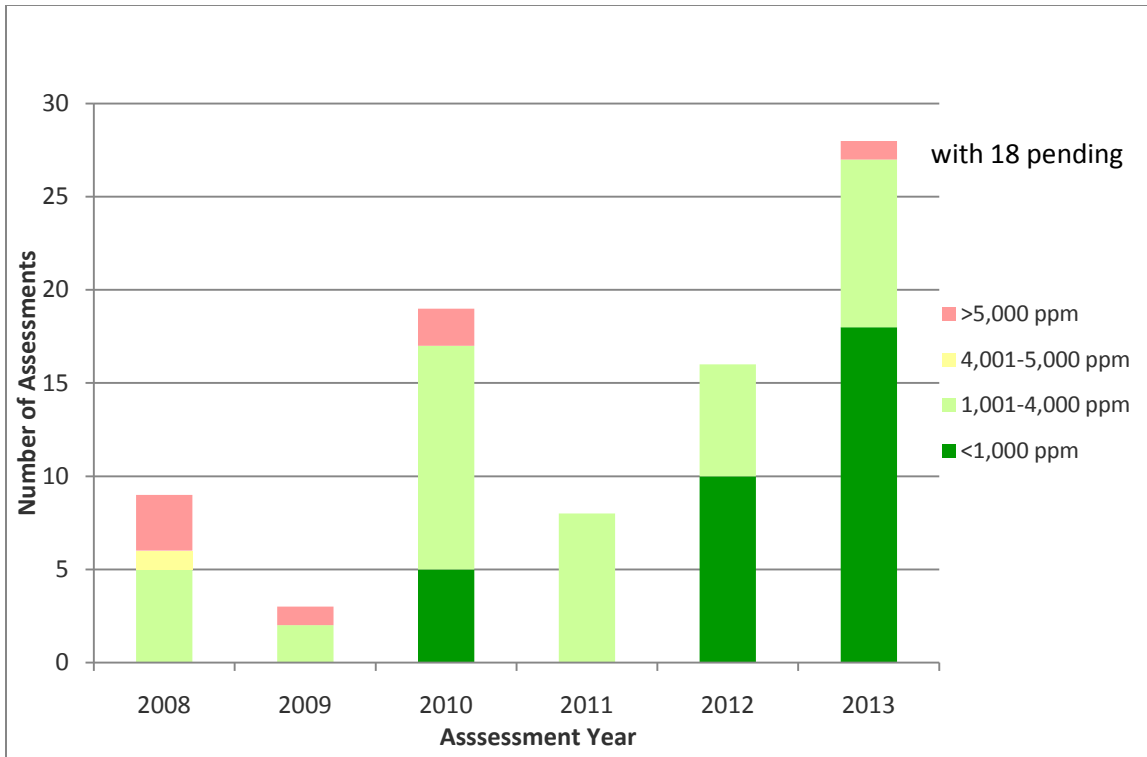


Figure 1. Primary Prevention / Case Management Soil Assessments through June 24, 2013.

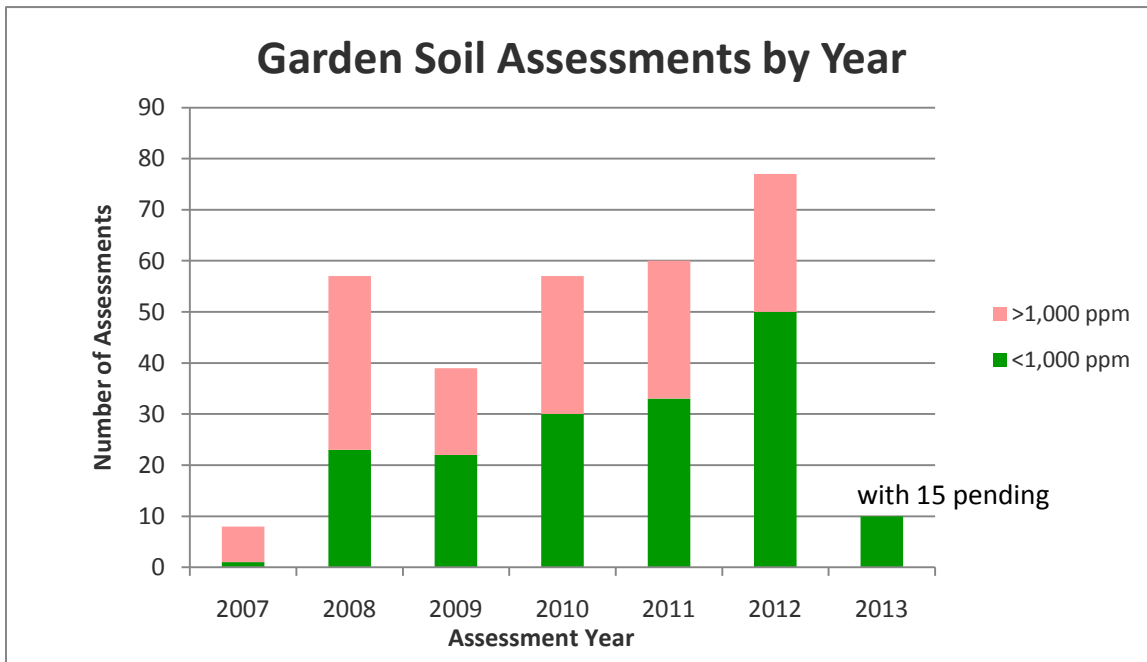


Figure 2. Garden Assessments by Year through June 24, 2013.

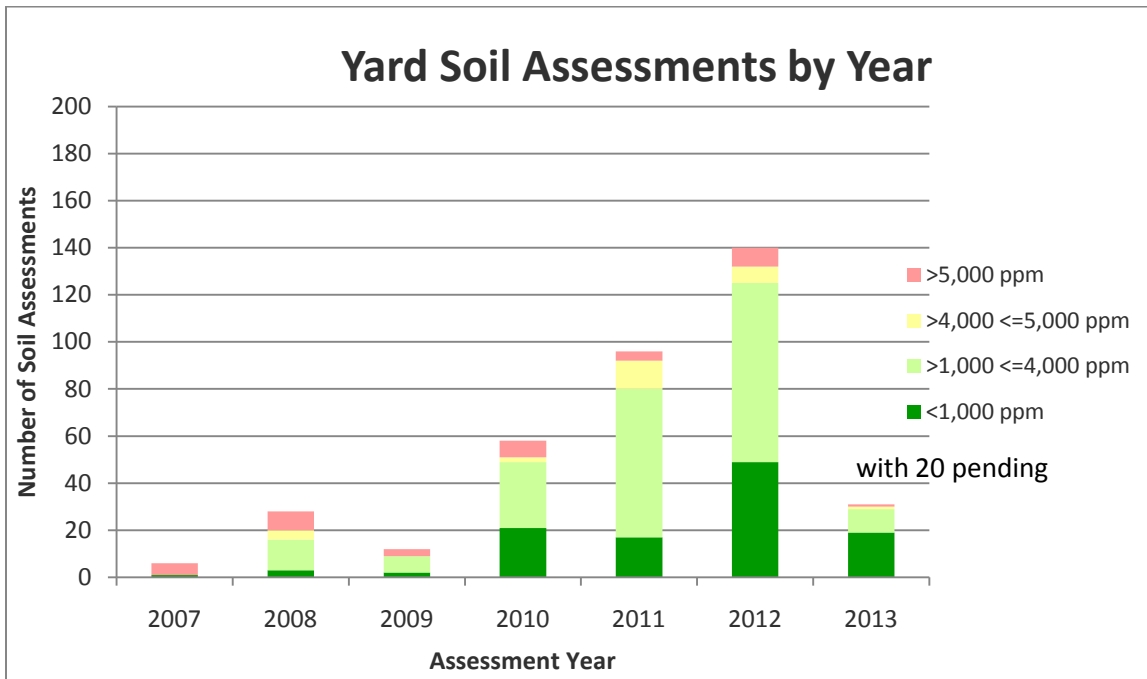


Figure 3. Yard Assessments by Year through June 24, 2013.

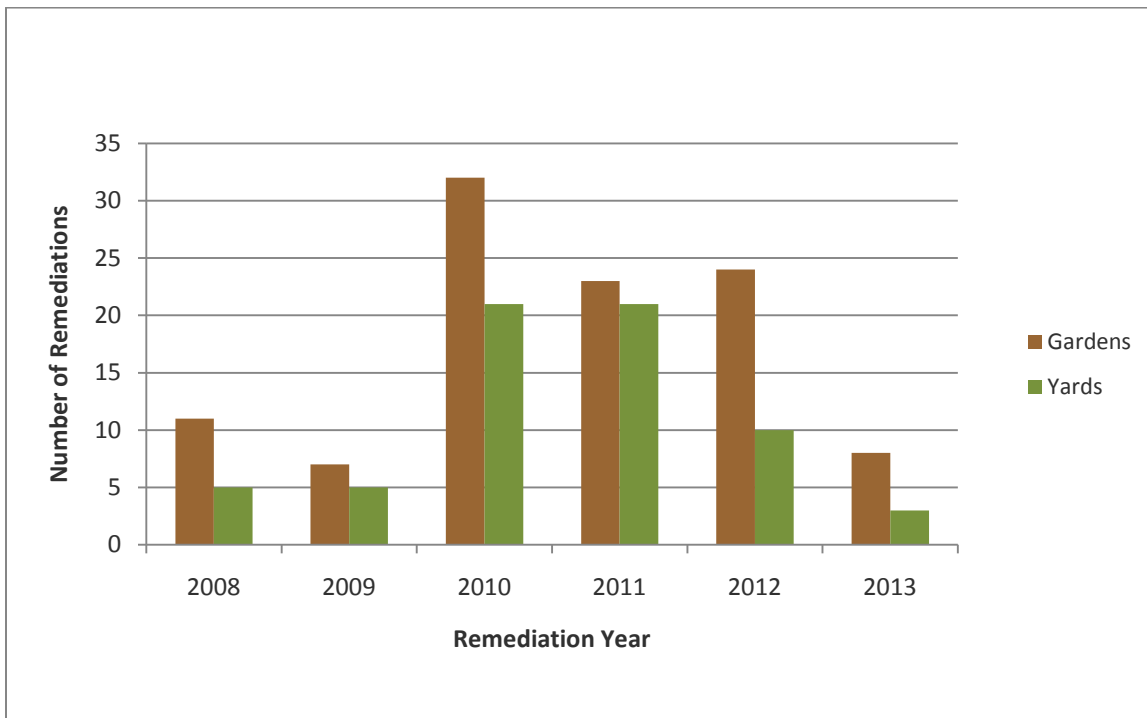


Figure 4. Remediations by Year through June 24, 2013.

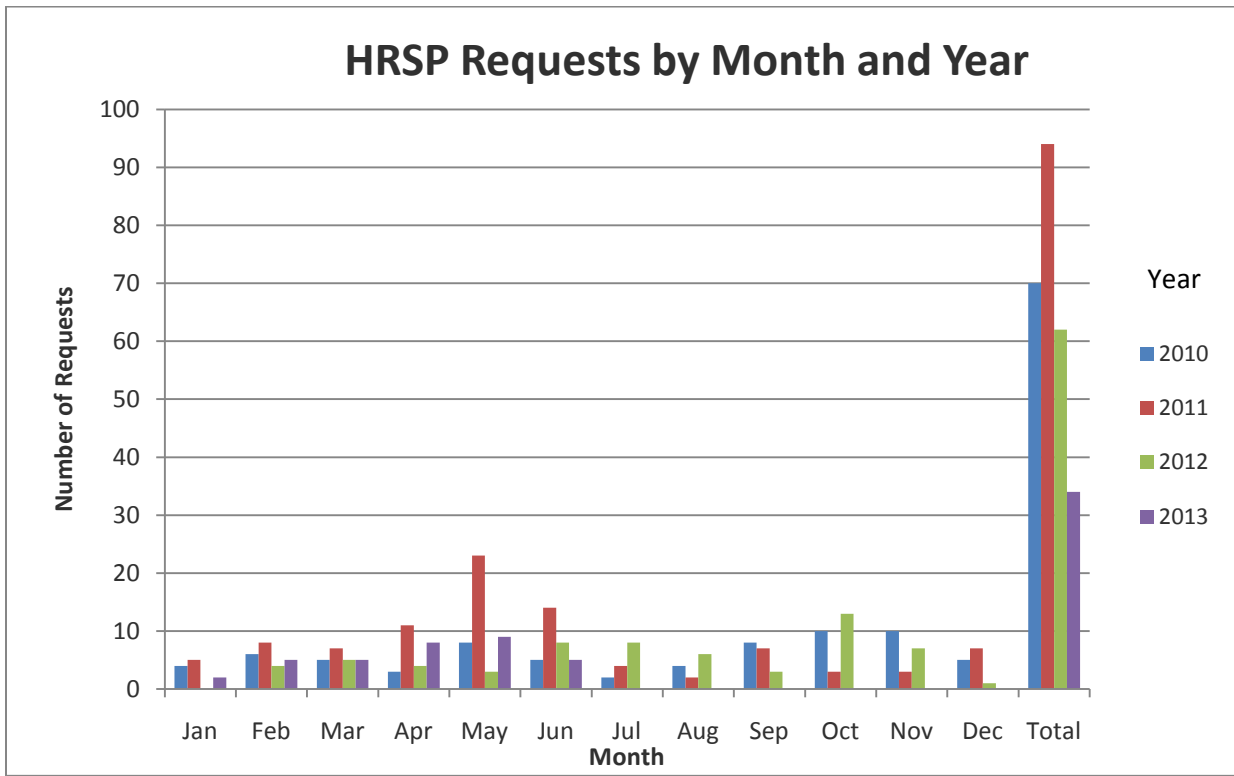


Figure 5. Home Renovation Support Requests from 2010 through June 2013.

THEP Program Manager's Report June 25, 2013

1. Program plan

- All of us on the Program Team have been setting aside time to write our parts of the Program Plan, myself included. I've drafted sections on the Family Health Program, Community Engagement, THEC Purpose and Goals, and Organizational Structures (ie. Committees). We're meeting on July 4 to get feedback on our drafts and start refining our parts.
- In addition, in follow up to the May 2 meeting of the Program Plan Working Group, I have been developing Terms of Reference for a second phase of the literature review to focus on the evidence base around children's healthy development and the effectiveness of home visits, health education and community collaboration. Dr. Ames, Steve Hilts, Lesley Dyck, Sonia Tavares, Ruth Hull, Jeannine Stefani and Mark Tinholt have been providing advice and direction. Last week, I had a phone conference with two researchers, colleagues of the late Dr. Clyde Hertzman from the Human Early Learning Partnership at UBC, regarding the possibility of engaging them to undertake this Phase 2 literature review. They will prepare a proposal and budget by the end of this week for our consideration.

2. Communications

- The THEP radio ads are being broadcast on EZ Rock from May 21 to September 21. Ad messaging was changed as discussed last meeting to focus on children's healthy development and "celebrating families in our community".
- A news release was developed, with input from Interior Health and local government officials, to announce the one-time children's lead clinic for Warfield, Oasis, Casino and Waneta this fall.
- The intranet part of the website is ready for use; the Program Team reviewed the features of the site this afternoon.
- We have contracted Larry Doell to take photographs at the Teddy Bear Picnic tomorrow and we're hoping the weather will cooperate. Larry took a series of photos at the Picnic in 2011. We use these photos in our newsletters, brochures and displays. We will be integrating more of our photos into the website in future, too. We are hoping for good weather, despite the forecast.