## Home & Garden

The goal of the Home & Garden Program within THE Plan is to prevent and reduce health risks from exposure to lead and smelter metals in the home and yard environment as well as community locations frequented by young children. Specific goals are:

* to prevent people’s, and particularly young children’s and pregnant women’s, exposure to lead and other smelter metals in their home, yard and community environments
* to inform and engage residents, and particularly expectant families and families with young children, regarding the potential health risks from lead and other smelter metals in their home, yard and community environments
* to promote lead-safe work practices
* to have all home renovators in Trail and Rivervale and renovators of pre-1976 homes throughout Greater Trail use the Home Renovation Support Program

The Home & Garden Program works towards these goals through the following main approaches:

* Community Program Office
* Healthy Homes Program
* Residential Soil Assessment
* Residential Soil Remediation and Yard Improvement Work
* Home Renovation Support Program
* Other Assessment and Remediation in the Community

### Each of these approaches is described in detail below.

### Community Program Office

The Community Program Office (CPO) is a storefront in downtown Trail from which the Home & Garden Program operates and where the public can access information about THEP services. It is a key component of THEP’s community outreach and engagement efforts, as described in Plan section CE.

In addition to providing accessible information about THEP services, the Program Office offers the following support to delivery of the Home & Garden Program:

* providing information, advice and support for residents on how to prevent or minimize health risks from exposure to metals in soil or dust, including dust stirred up by home renovations;
* providing information and referral services to residents related to non-smelter home & garden issues, including:
  + responding to inquires related to lead-based paint, radon, asbestos, and mould;
  + coordinating the distribution of radon test kits;
  + providing information on how to submit samples to a lab for analysis (i.e. water and soil samples from outside of the program area).

CPO staff continuously update their resources/information, utilizing the most current best practice information available from sources such as Health Canada, WorkSafe BC, the US Centres for Disease Control and Prevention (US CDC), the US Environmental Protection Agency (EPA) and the US Department of Housing and Urban Development (HUD).

### Healthy Homes Program

The “Healthy Homes” program is part of a new “Healthy Families Healthy Homes” Program that started in 2013, as described in Family Health section XX. The Program was developed in response to UD CDC guidance to expand efforts to prevent lead exposure in communities where young children’s BLLs test > 5µg/dL. This program takes a holistic approach to home health and safety, based on guidance from various agencies.[[1]](#footnote-1) The holistic approach promotes the Seven Principles of Healthy Homes – Keep it dry, clean, safe, ventilated, pest-free, contaminant-free, and maintained.

The Healthy Homes Program is centered around an in-home visit where Home & Garden staff meet with a family in their home to help them identify the best opportunities to prevent lead exposure in their home and yard. The Program works as follows:

* Home Visits are offered to every family in Trail and Rivervale (see Map ss) who are expecting children as well as any families with children 3 years of age or younger who have not been reached when the family is expecting.
* Qualifying families are identified/contacted through participation in the Kootenay Boundary Regional Hospital Expectant Parent Event, family friendly public events, and blood lead clinics as well as through the THEP newsletter, the Program Office and other THEP communications. THEP has a system for obtaining clients’ consent to share contact information between the Family Health and Home & Garden Programs.
* Healthy Homes visits are prioritized using a “scheduling priority” function in the THE Database. As much as possible, visits are scheduled when soil assessment results are available, as described in Section HG 1.1.3.
* Visits include a review of the soil assessment results, education, information, advice, a visual environmental assessment of the home and yard, lead paint screening (where recommended), and documentation/demonstration of exposure prevention tools/strategies (as appropriate).
* Educational topics include preventing health risks from lead exposure, keeping dust down in the home and yard, strategies for yard and garden improvement, lead-safe home renovation including removal of lead-based paint, and other home health topics, as appropriate. Key messages for different topics are provided in Appendix aa).
* Visits are guided by a checklist that identifies key topics (see Appendix xx). Families may be offered a Dust Buster Kit, and Greening Your Garden Kit, a covered sandbox, a HEPA-vacuum and/or home renovation supplies to support family actions to prevent lead exposure. Contents of the Dust Buster Kit were based on recommendations for lead and allergy kits from a US source (Carol Kawecki, Healthy Housing Solutions Inc., personal communication). Demonstrations are offered for some of the provided supplies.
* Visits end with a discussion of the family’s top 3 opportunities to make a difference in reducing exposure to lead. The opportunities are noted on the Healthy Families Healthy Homes poster (see Appendix xx) along with THEP follow-up actions.
* Follow up includes some or all of the following:
  + Data and documentation management (entry in THE DB),
  + Case conferencing (as needed),
  + Additional communication with the family,
  + Additional materials to support the family (HEPA vacuums, sandboxes, etc.)
  + Remedial or yard improvement work (as described in Section HG 1.1.4)
  + Paint screening. Home & Garden staff propose paint screening for families living in pre-1976 homes where there is evidence of peeling, chipped, or worn paint in areas accessed or used by children or where home renovations are planned or in progress. This provides information to the family; as well, results are included in the Lead-Based Paint Study (as described in Section HG 1.1.7).

Supporting materials include:

* THEP Healthy Families Healthy Homes poster – part of OP?
* THEP Greening Your Garden rack card
* THEP Family Health materials (as listed in Section xxx)
* THEP communications materials (as listed in Section zzz)
* Go Green when you Clean (produced by…)
* Bust that Dust (by…)
* Creating Healthy Environments for Kids (by)
* Hazardcheck: Hazards in your Environment (by)

Note: Appendices need to be developed with:

* key messages - for dust buster kit, carpets/vacuuming, pets, garden kit, renovations, lead-based paint
* OP for lead-paint screening
* OP for In-Home Visits (and how to use the poster/checklist)

### Residential Soil Assessment

Soil assessment is available for Trail and Rivervale residents to prevent and reduce health risks from exposure to metals that may be present in yard and garden soil. Top priority is expectant families, families[[2]](#footnote-2) with children age 3 and under, and families with children who have measured blood lead levels above the Family Health case management thresholds. Second priority is vegetable gardens. Third priority is yard assessment of targeted blocks of properties close to the smelter.

The geographic area covered by the Residential Soil Assessment Program is Trail and Rivervale, except for requests considered case-by-case from outside this area.

Soil assessment is provided as follows:

* Yard soil assessment is offered to every expectant family and family with children 3 years and under living in Trail and Rivervale. This is part of the Healthy Homes Program (see Section HG 1.1.2 above);
* Vegetable garden soil assessment is available upon request for residents in Trail and Rivervale;
* Yard soil assessment is offered in a targeted manner to residents of city blocks in areas close to the smelter and where it is suspected that soil metal levels may exceed remediation action levels (see Section HG 1.1.4). Assessment is offered to residents on a block-by-block basis each year, depending on available resources;
* People outside Trail and Rivervale can make soil sampling requests, which are considered on a case-by-case basis. These requests are typically low priority as other communities are likely to have soil metal concentrations below remediation action levels.

Residential soil assessment generally takes place between April and November when the ground is snow-free. The soil assessment process includes:

* Signed consent from property owner to conduct soil assessment;
* A site reconnaissance visit: on-site inspection of property conditions, sketch and photographs of property, and interview with property owner/tenant re. metals contamination issues;
* Soil sample collection: shallow soil samples (up to 0.15 m. below grade) are collected from across the property including key areas such as bare soil, sandboxes and vegetable gardens. Deeper soil samples are collected on a case-by-case basis when screening indicates high metal concentrations or in situations where it is suspected that metals may be present in soil for reasons other than aerial emissions.
* Soil screening: All soil samples are screened with an X-Ray Fluorescence (XRF) analyzer for preliminary information about metal levels.
* Laboratory analysis: approximately 2-3 soil samples from each property are submitted for laboratory analysis. This typically includes the highest sample, the median and any samples from vegetable gardens.
* Quality assurance/control measures: One of every 10 samples sent to the lab is a duplicate sample (one sample split into two) to evaluate laboratory precision. Occasionally, replicate samples (two samples taken from the same location) are submitted to verify sample accuracy/representation. Other quality assurance measures include calibration of the XRF, sterilization of field equipment, certification and field training for all soil assessment personnel.
* Data interpretation: For yard assessments, the XRF screening readings are correlated with the laboratory results and the 95% upper confidence limit of the mean (UCLM) is calculated for each property. For vegetable gardens, the laboratory result is the measure used to compare with remediation action levels.
* Data management : property information is tracked and managed through the THE database, as described in Section HG 1.1.7.
* Reporting: Assessment results letters are provided to property owners following the assessment work and a summary letter is submitted to Teck after the assessment season is complete. Assessment results are reviewed with property owners where properties qualify for remediation as well as for all families participating in the Healthy Homes Program or receiving Family Health case management.

Support materials include:

* OP for Yard Soil Assessment
* OP for Garden Soil Assessment
* OP for THE Database

### Residential Soil Remediation & Yard Improvement Work

The residential soil remediation and yard improvement program is designed to prevent or minimize human health risks from soil in residential yards and vegetable gardens where elevated concentrations of smelter metals such as lead have been identified. The main concern is exposure to bare soil and the main health risks are to young children. Health risks from soil are negligible if the soil is well covered. (Include information from Steve’s paper on Acceptable Risk)

The geographic area covered by the residential soil remediation and yard improvement work program is Trail and Rivervale. Assessment may be requested outside this area but it is unlikely that the metals concentrations would warrant remediation.

Residential properties qualify for remediation where the soil assessment results (see Section HG 1.1.3) exceed established remediation Action Levels. The Action Levels have been established by the Trail Health & Environment Committee as follows:

* For yard soil and flower gardens:
* For full remediation of yards and flower gardens, the action level corresponds to the Upper Cap Concentration (UCC), currently 5,000 ppm lead, set out in Protocol 11 of the BC Ministry of Environment, Contaminated Sites Regulation. If the soil lead concentration is greater than 5,000 ppm, full remediation of some or all of the yard is offered. This involves soil replacement to a depth of 30 cm (approximately 1 foot).
* Where soil lead concentrations are below 5,000 ppm and expectant families or children age 3 and under are present on a property, yard improvement work is determined case-by-case to address potential risks from exposure to bare soil. In these situations, the work plan is determined based on the soil assessment results in conjunction with a visual assessment of ground conditions and land use. Key areas of concern are areas of poor ground cover or bare ground in drip zones, play areas, parking areas, pathways, patios, as well as vegetable and flower gardens. In these cases, the yard improvement work typically consists of removing existing surface soil and ground cover and replacing it with better ground cover. The objective is to prevent young children’s potential exposure to metals in dust and soil.
* For vegetable gardens:
  + If the soil lead concentration is greater than 1,000 ppm, full remediation is offered. This involves soil replacement to a depth of at least 60 cm (2 feet) across the vegetable garden. The 1,000 ppm action level is recommended for vegetable gardens because of young children’s higher potential risk of exposure to bare garden soil as well as potential risks associated with consuming garden produce as determined by the HHRA (add ref). In addition, there is a strong relationship between the level of lead in soil and the level of other smelter metals such as arsenic and cadmium. Remediation of vegetable gardens with soil lead above 1,000 ppm typically protects residents from potential exposure to other metals that may be present in their garden soil.
  + For gardens where soil concentrations of other metals, typically cadmium, are assessed at levels exceeding the UCC (e.g. 30 ppm for cadmium), full remediation of the garden is offered even if the soil lead concentration is below 1,000 ppm.

Soil with metals concentrations below these levels do not qualify for remediation at this time.

Remediation and yard improvement work priorities are determined based on soil metals concentrations in conjunction with the following factors:

* properties with expectant families or families with children under age 3. This includes family homes, daycares and homes of extended family and other caregivers where children spend a significant amount of time;
* gardening season for people preparing their vegetable garden to grow food;
* remediation logistics for the contractor (e.g. proximity to other remediation work) and/or property owner/tenant (e.g. preference, availability etc.);
* inclement weather (e.g. too wet or potentially extremely hot, dry & dusty);
* worker health and safety;
* condition of existing ground cover.

The remediation process is provided in the attached OP and involves the following key steps:

* + Reviewing soil assessment results and developing the scope of remediation or yard improvement work required (full remediation of whole or partial yard, yard improvement, vegetable garden remediation);
  + Submitting additional soil samples as necessary, for lab analysis to determine levels of leachable metals for soil disposal purposes (TCLP);
  + Preparing regulatory documentation for the BC Ministry of Environment, Land Remediation Branch Site Advisor for properties receiving full remediation of all or part of the yard. This includes the Notification of Independent Remediation (NOIR), a Site Risk Classification Report, an Exposure Pathway Questionnaire, a survey plan, a copy of the land title and a map of metals concentrations in the soil[[3]](#footnote-3).
  + Obtaining signed consent to access the property from the property owner and developing a remediation/yard improvement work plan in consultation with the property owner/tenant and contractor;
  + Scheduling remediation/yard improvement work based on prioritized list of properties
  + Submitting documentation to BC Ministry of Environment as listed above[[4]](#footnote-4)
  + Performing the remediation/yard improvement work as described in the OP (see Appendix xx);
  + Completing the work and obtaining a sign-off from the property owner that the work has been completed to their satisfaction;
  + Submitting a Notification of Completion of Independent Remediation (NCIR) to the BC Ministry of Environment[[5]](#footnote-5);
  + For High Risk Sites as determined under Protocol 11 of the CSR; providing a Site Reclassification Report signed by a Contaminated Sites Approved Professional (CSAP) to change the high-risk designation on the Site Registry to either non-high risk or a risk-managed high risk site[[6]](#footnote-6).
  + Providing a summary of the remediation/yard improvement work to the property owner and to Teck.

Support materials include:

* OP for Residential Soil Remediation

### Home Renovation Support Program

The Home Renovation Support Program (HRSP) was initiated based on a recommendation by the Trail Community Lead Task Force following the 2000 Community Consultation (Hilts et al., 2001). The recommendation was to: “Implement a new program to advise and assist people doing excavation, construction, demolition, or renovation”.

Further recommendations were as follows:

* + To encourage homeowners and contractors to follow precautions when undertaking, excavation, construction demolition or renovation projects in order to minimize dust exposure to workers and residents.
  + To assist people who need to dispose of contaminated soil or dust or other material (i.e. rain gutter debris).
  + The program is not meant to encourage people to undertake projects such as soil replacement. Instead, it is intended to make it safer and easier for people who, on their own, have decided to do work on their properties.

In addition, the THEP 2010 Community Consultation led to the following recommendation:

* + “Given strong public support but low awareness of this program, it is a priority to conduct more extensive promotion of the Home Renovation Support Program. This includes expanded outreach to young families throughout Greater Trail through daycares, family play groups, home & garden stores, libraries and other businesses and services that cater to young families. There also will be increased outreach to home renovation professionals and links to the RDKB building permits department.”

Based on these recommendations the HRSP continues to evolve and strive to be an integral, accessible THEP service.

The HRSP Program consists of advice and information on preventing lead exposure during home renovations, provision of free supplies to qualifying clients, loan of a construction grade HEPA vacuum (shop vac) and, under special circumstances, on-site visits to help set up or monitor a renovation.

The HRSP Program operates as follows:

* Residents and property owners can access the HRSP through the Community Program Office.
* Home renovation advice is available to all members of the public. For residents requesting our free safety supplies and loan of a HEPA shop vac, a member of the Home & Garden Program Team ensures the client’s eligibility prior to initiating support. HRSP support is available to all homeowners, tenants and landlords in Trail and Rivervale as well as homeowners, tenants and landlords of pre-1976 homes anywhere in Greater Trail. See Map HG-XX.

* For eligible clients, the following steps are taken to determine and arrange the safety supplies and materials required for the project:

1. Completion of Project Scope Survey (Appendix HG-XX)
2. Completion of HRSP request form (Appendix HG-XX); Appendix HG-XX is an itemized product list of the HRSP safety supplies.
3. HRSP request is faxed to a nearby equipment supplier
4. Client picks up filled order from supplier or the CPO.
5. Client picks up HEPA vacuum from CPO, if required

* Client information is cross-referenced with THE database at the time the HRSP request is made. This supports seamless provision of THEP services to residents by identifying other THEP programs that may relate to their property or family, ie. children who have not been in contact with the Family Health Program; updating property owner information; obtaining yard soil assessment consent, etc.
* To support thorough clean-up, clients are able to loan one of THEP’s four HEPA vacuums, including all necessary attachments and disposable bags.
* Each HRSP request is considered an educational opportunity to engage the client about potential lead-related health risks associated with home renovations and construction. It is also an opportunity to demonstrate how to set up a work area to best protect people and their home from dust during renovations. Home & Garden Program staff are available to provide this support either in the CPO or in the client’s home. Educational materials and information for lead-safe home renovation and construction are provided free of charge to the client.

Additional Home Renovation Support Program Services include:

* *BC One Call:* The Community Program Office collaborates with the City of Trail to respond to BC One Call requests. (Note: BC One Call is a province-wide, non-profit organization that provides the excavating community, including contractors and homeowners, with a means to request information on the location of underground services prior to digging or creating ground disturbance on a worksite.) When a BC One Call request is made to the City of Trail, it provides the person with a dimensional site plan for the property as well as a copy of the THEP Home Renovation Support brochure. The City copies the CPO on its response to the property owner (Appendix HG-XX). The CPO then follows up with the property owner or person doing the work to ensure proper handling of soil and/or renovation materials. The procedures are outlined in HRSP-OP.
* *Providing information on housing-related health and safety risks:* Since the CPO opened in 2010, an increasing number of community members have enquired about radon and asbestos. While these enquires are non-smelter related, the Home & Garden Program provides information, as appropriate, recognizing the opportunity to provide service to the community and build THEP’s reputation as a reliable source of credible information on home health and safety. THEP distributes the Hazardcheck booklet, product of a public education campaign of the Government of Canada that promotes awareness about environmental health risks in the home. The information is geared toward families and can be accessed online or in the booklet. A copy of the Hazardcheck booklet is attached as Appendix HG-XX.

#### Coordinating the distribution of radon test kits: As described in the CPO section, the Home & Garden program coordinates the distribution of radon test kits in Trail in partnership with the Donna Schmidt Lung Cancer Memorial Fund (DSLCMF). The kits are free with a suggested $15 donation going to the DSLCMF. Sign-up forms are attached in Appendix HG-XX. Additional information is provided to clients, as needed.

#### Responding to enquiries regarding asbestos: Many of the non-smelter-related enquires received at the CPO are about asbestos, including requests for asbestos sampling. We provide WorkSafe BC handouts and refer people to the WorkSafe BC Asbestos interactive website: <http://www.hiddenkiller.ca>. Examples of these handouts are attached in Appendix HG-XX.

Additional program development of THEP’s home renovation services includes:

* *Construction Sector Engagement:* The Home Renovation Support Program recognizes that contractors are a key player in ensuring lead-safe home renovations in Greater Trail. The Home & Garden Team is developing a program to:
  + inform/educate the construction sector about lead exposure prevention guidelines;
  + monitor lead levels in dust on residential roof replacement work sites;
  + engage home owners who are using professional renovation contractors to encourage the contractor’s use of lead-safe construction guidelines and, for roofing projects, see if the homeowner & contractor will allow us to monitor lead levels in dust during their project;
  + engage contractors in program development so that we create a program that they will use. This includes getting their input into how best to provide educational training and discussing their challenges with dust suppression so they can develop practices/systems that will be effective.

Currently, THEP partners with the Regional District of Kootenay Boundary (RDKB) to provide a HRSP brochure with each building permit issued for properties in Trail and Rivervale. THEP is considering how best to expand the partnership with the RDKB to engage building inspectors in promoting the HRSP guidelines.

In addition, starting in spring 2013, THEP has been reaching out to residential construction contractors, and particularly roofing contractors, to get their input into the development of a training program for roofing contractors. The aim of this program is to have all construction projects minimize dust/soil disturbance and exposure to lead.

The Home Renovation Support Program provides two levels of service for geographic areas within Greater Trail. The entire Greater Trail region is eligible for advice, information, contractor training, and HRSP supplies & use of vacuums for home owners/tenants of pre-1976 homes. Trail and Rivervale is the area in which all home owners/tenants conducting renovations qualify for supplies and use of THEP’s HEPA vacuums. See map HGxx.

Supporting educational materials and handouts include:

* THEP Home Renovation Support brochure (Appendix HG-XX)
* Lead in Your Home (CMHC, 2004)
* Renovate Right (Appendix HG-XX)
* Hazardcheck (Appendix HG-XX)

### Assessment & Remediation in the Community

From time to time, the Home & Garden program receives requests (typically from Teck, the City of Trail, or local residents) for soil assessment at sites in the community such as playgrounds, school yards, parks, picnic areas, rodeo grounds, play fields and other places of concern. These are typically sites that receive considerable use by children or the public, or where there are human health concerns about metals concentrations. Soil assessment and any resulting remediation or improvement work is determined case-by-case (in consideration of the Action Levels as described in Section HG 1.1.4). To date, one community site qualified for improvement work; the soil lead concentrations were below 5,000 ppm but the site was exposed and very accessible to the public. Improvement work on that site has been completed.

Another form of assessment that may be provided case-by-case, upon request, is lead paint screening for daycares, playgrounds and other sites where young children spend a significant amount of time. Screening results are included in the lead-based paint study, see Section HG 1.1.7.

The CPO receives requests for produce testing from residents with vegetable gardens. THEP only samples produce in vegetable gardens that are part of the Long-Term Study (see 1.1.7 below). If the property has received remediation, they may be considered to join the study. We also advise residents of the results of produce studies conducted in Trail in the 1990s. This information is in the Home & Garden Fact Sheet on our website (add reference once the H&G Fact Sheet is updated).

### Monitoring, Evaluation and Continuous Quality Improvement

As part of THEP’s adaptive management approach, the Home & Garden Program conducts studies, monitors, evaluates and refines program activities to meet the evolving needs of the community. Monitoring and evaluative activities are as follows:

* Long-term Soil Study (2010 - ): The purpose of this study is to evaluate the effectiveness of residential remediation programs in the presence of a continuously operating smelter. Both soil and garden produce are studied.
  + Remediated Soils: This study monitors metals concentrations in remediated yards and vegetable gardens over time. The study is expected to continue over the long-term to determine changes in measured soil metal concentrations.
  + Produce sampling: Each year, a representative sample of garden produce is collected from approximately 30 properties. The sample is small and depends upon the produce that the gardeners are growing or have harvested. It is intended to correspond to the sampling done for the HHRA.
* Other Studies/Monitoring: Other studies and/or monitoring activities are undertaken from time to time, often in response to questions from the THEC or community members/groups. These studies are often time-limited with the objective of answering the questions raised. The study results may give rise to program refinements. Current examples include:
* Grass Clipping Assessment (2012): This study was initiated in response to questions from local gardeners, to determine what THEP should advise residents about the potential impacts of including grass clippings in garden compost. Samples of grass clippings were collected from 10 yards and analyzed for metal content. The results of the study have not yet been finalized.
* Lead-Based Paint Study (2013)*:* This is a pilot study to assess the prevalence of lead-based paint within the Program Area, and the possible impact of non-smelter sources of lead in homes where children are present. Lead-based paint screening is conducted as part of the Healthy Homes Program and for Case Management families in situations where paint screening is proposed (see Section HG 1.1.2) and were the property owner provides signed consent (see Appendix xx). Paint screening may also be conducted, on a case-by-case basis, in situations where there may be a significant risk of exposure for children outside of their primary residence (e.g. daycare, play school). Lead-based paint testing is conducted using an X-ray Fluorescence handheld analyzer. The procedures are described in detail in the Lead Based Paint Screening OP.
  + Roofing Projects Lead Dust Study (2013): This is a recent initiative, designed to assess the extent of lead dust generated by residential roofing projects, most typically roof replacement. To date, dust samples have been collected at one roofing project site.
* Data Management – Bruce to include overview as appropriate

Continuous quality improvement in THEP information and communications

Information provided by through the CPO is regularly vetted by the Program Team for the most current best practice guidelines, techniques, and practices to help people plan and make good healthy choices when undertaking a project. (We may need to consolidate this somewhere in the plan.)

Supporting documents

* OP for THE Database
* OP for Produce Sampling
* OP for Long Term Soil Study
* OP for Paint Screening

### References

Soil Assessment and Remediation

SOPs

Healthy Homes

CDC. 2013. Home visiting, Care Coordination, and Referrals Track. CDC National Healthy Homes and Lead Poisoning Prevention Training Center. Chicago, IL. March19-21, 2013.

Intrinsik. 2013. Lit review…or appendix?

EPA.1999. Lead in Your Home: A Parent’s Reference Guide. Available online at <http://www2.epa.gov/lead/lead-your-home-parents-reference-guide> .

HUD. 2012. The Healthy Homes Program Guidance Manual. U.S. Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control. Available online at: <http://www.healthyhousingsolutions.com/Portals/0/HUD_Guidance_Manual_July_2012.pdf> .

Healthy Housing Institute

<http://www.healthyhouseinstitute.com/a-853-How-to-Choose-a-HEPA-Vacuum-Cleaner#sthash.QzCHWeTf. http://www.allergybuyersclub.com/hepa-vacuum-cleaners.htmldpuf>

Home Renovation Support

CMHC. 1984. Lead in Your Home. Prepared by Canada Mortgage and Housing Corporation and Health Canada. (Attached in Appendix HG-XX)

Health Canada. 2012. Radon: It’s Your Health. <http://hc-sc.gc.ca/hl-vs/iyh-vsv/environ/radon-eng.php> (June, 2012)

Hilts, S., White, E., and Yates, C. 2001. Evaluation, Identification, and Selection of Remedial Options. Trail Lead Program. Trail, B.C.

HUD. 2011. Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work. U.S. Department of Housing and Urban Development Office of Healthy Homes and Lead Hazard Control. HUD-1779-LHC

WCB. 2006. Lead: preventing exposure at work. Workers’ Compensation Board of British Columbia. BK 17 (Available online at: <http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/lead.pdf> ).

WCB. 2012. Safe Work Practices for Handling Asbestos. Workers Compensation Board of British Columbia. (Available online at: <http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/asbestos.pdf> )

THEC. 2010. THEP Community Consultation….

### Contacts

Please refer to Table 1-1 for more information or to obtain copies of the referenced documents.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 1-1 Contact Information for the Home and Garden Program** | | | |
| Program Area | Contact Person | Contact Phone Number | Contact Email |
| Trail Health and Environment Program General Information | Mark Tinholt | 250-364-4385 | Mark.Tinholt@Teck.com |
| Residential Yard Remediation |  |  |  |
|  |  |  |  |
| Home Renovation Support Program |  |  |  |

1. The agencies including HUD’s Office of Healthy Homes and Lead Hazard Control (OHHLHC), the CDC and EPA (include sources, including Health Canada, in bibliography). [↑](#footnote-ref-1)
2. Families include extended families, caregivers and other situations such as daycares where children age 3 and under are present on the property for a significant amount of time. [↑](#footnote-ref-2)
3. Note that procedures with respect to submissions to the Ministry of Environment Land Remediation Section are proposed to change following an Approval in Principal (AiP) for the Trail Area. The proposed procedure subsequent to an AiP is to submit an Annual Remediation Summary listing all remediated properties and a description of the work completed. [↑](#footnote-ref-3)
4. As above [↑](#footnote-ref-4)
5. Note to Ruth Hull: Footnote references 3,4,and 5 all need the same footnote – Intrinsik, please format accordingly… [↑](#footnote-ref-5)
6. As above [↑](#footnote-ref-6)