# The Everett Smelter Site Advisory 2001

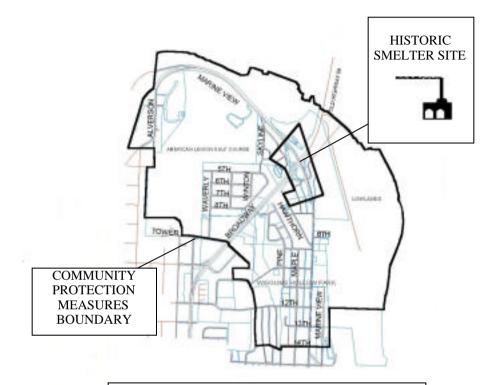
# A Reference Guide for Living and Working Near the Old Smelter Site





Healthy Lifestyles, Healthy Communities

# **EVERETT SMELTER SITE**



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# History of the Everett Smelter Site

In 1894 a factory was built in the northernmost portion of Everett, Washington, near the mouth of the Snohomish River. It was used to produce lead, gold, and silver. The smelter was built by the Puget Sound Reduction Company for processing ore mined from the Monte Cristo area of Snohomish County. An arsenic extraction plant was installed in 1898. ASARCO, Inc. bought the smelter in 1903 and operated it until 1912. The smelter was demolished between 1912 and 1915.

When smelter operations ceased, equipment which could be used at other locations was dismantled and sent offsite. Above-ground structures were demolished. Bricks and other debris were spread in the immediate area of the demolition. Some foundations and floors of former smelter structures remain below the surface in many locations at the smelter site.

The smelter property was sold in various parcels. The last parcel owned by ASARCO, Inc. was sold in 1936. In the 1930s and 1940s, part of the former smelter property was developed into residential properties. The highway interchange between East Marine View Drive and State Route 529 was built across the old smelter site in the 1950s.

Excavations over the years may have moved residual smelter debris slag beyond the former smelter plant boundary. Slag is a heavy, black, metallic, and sometimes glassy, rock-like material, which is the once molten waste product from the smelting process found near the smelter. The slag contains high concentrations of lead, arsenic and other metals. A large amount of the slag was mined and used for fill around the area. The slag also was used in the past to make rock wool insulation.

The soil at the Everett Smelter Site has higher than normal levels of arsenic, lead, cadmium and related metals. The area includes both the former smelter plant property, which contains the smelter debris, and the surrounding area which was impacted by air emissions from the smelter stacks. Areas closely adjacent to the former smelter plant property also may have been impacted by smelter operations, including spilled products and waste.

# What Has Been Done

The Washington State Department of Ecology (Ecology) discovered the contamination problem in October 1990. Ecology was notified that elevated concentrations of arsenic and lead were found in the soil and groundwater during an environmental assessment of lowland property east of Marine View Drive. Ecology conducted an additional investigation of the surrounding area, which included researching historic records.

Snohomish Health District issued the first **Health Advisory** to area residents in March 1991, after Ecology completed a Preliminary Site Hazard Assessment. The assessment identified **arsenic**, **cadmium** and **lead** as the chemicals of concern. These metals and other trace elements maybe present in the soil above cleanup standards for residential property established in Ecology's Model Toxics Control Act Cleanup Regulation for hazardous waste sites.

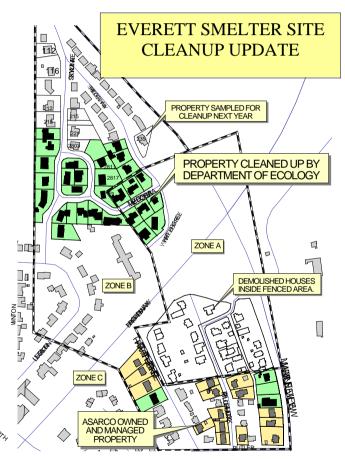
Arsenic is a known carcinogen. Breathing, eating or drinking arsenic increases the risk of lung cancer, skin cancer and tumors of the bladder, kidney and liver. Lead can affect the nervous system. Cadmium is a suspected cancer-causing agent and can cause kidney damage. Generally, arsenic, lead and cadmium do not enter the body through the skin, although arsenic will cause skin irritation when levels are extremely high. (See page 21 for additional sources of information on health effects.)

There has not been any reported illness directly linked to the contaminants found on the smelter site. However, there is uncertainty as to what minimum concentration of metal contamination poses a significant health risk. Therefore, it is prudent to follow the precautionary health guidelines (pages 11&12).

The metals came out of the smokestack and dropped from the air onto the ground nearly a hundred years ago. These metals don't break down or evaporate. They stick to soil particles and can stay in the soil for a long time. Cadmium, for example, can dissolve in water, but binds strongly to soil particles. The main sources of exposure for people are breathing dust, or accidentally eating small amounts of soil or dust. Public water is piped in from offsite and is not affected.

Since the problem was discovered, the size of the study area outside the fence has grown several times, as additional soil samples revealed the extent of the smelter's impact on neighboring properties. The current study area includes properties where arsenic concentrations may be found above 20 mg/kg, or parts per million (ppm), in the soil. This area is now known as the <u>Community</u> <u>Protection Measures Area</u> (map page 1).

Today a large part of the original smelter property is closed to pubic access and is surrounded by a fence (see map below). The fenced area is where the highest levels of arsenic were found, over 700,000 mg/kg (ppm). ASARCO, Inc., purchased and then demolished the homes in this area. Several other interim actions to reduce exposure also were taken at homes where high levels of metals were found in the soil. These actions included paving over exposed soil and replacing gardens.



Although a legal battle continues over responsibility for the cleanup, Ecology has cleaned up 30 properties within the Everett Smelter Site since 1999 The properties were cleaned up by an Ecology contractor who removed accessible soil from the yards then replaced it with clean fill and new lawns. The contractor may have removed soil as deep as 48 inches in some places, but no less than 12 inches, depending on the level of contamination at depth.

It is important to know that contaminated soil may still exist on cleaned up property under walkways, around large trees, and at greater depths. This means that current property users will

need to understand the specific "Details of Cleanup Activity" conducted at each property and continue to take some precautions. See "Frequently Asked Questions" on page 5.

#### What requirements did Ecology follow for the cleanup?

The cleanup followed the "<u>The Everett Smelter Site, Integrated Final Cleanup Action</u> <u>Plan and Final Environmental Impact Statement for the Upland Area</u>" (FCAP) dated November 1999, which was written by Ecology to comply with the Model Toxic Control Act. The FCAP requires removal of contaminated soil and/or the placement of clean soil over contaminated soil that cannot be removed. The FCAP requires a certain amount of pre-cleanup testing for each yard, depending how far away the property was from the original smelter. For example, more testing is required per yard and at greater depth in zone A, than in zone B or zone C (see map on page 4).

#### What if I want to remove a tree, or remodel my home?

Ecology did not clean up beneath large trees, under driveways, or in crawl spaces beneath the home. If you plan to disturb dirt in areas that have not been cleaned, you should follow the preventive measures listed below. In some cases the homeowner may have requested that certain plants or shrubs not be disturbed. This could mean that contaminated soil was left in place.

### Can I dig in my yard?

If it is necessary for you to disturb the soil within the Community Protection Measures Area, you should follow the Public Health Advisory on page 11 and take the following specific precautions:

- Moisten soil before beginning to dig to prevent dust. Add enough water so that your soil is moist or damp, not drenched. Also, use caution when applying water to prevent water from flowing into storm drains.
- If your yard has been cleaned up, a black cloth marker (geotextile) may have been placed at depth below clean soil, to indicate the presence of soil with arsenic exceeding the cleanup level. Soil above the black cloth marker is clean, and soil below the marker is still contaminated. To access soil below the black cloth marker, carefully cut and pull back the black cloth in the area where you plan to dig. Soil above the liner may be used in other areas on your property if kept separate from contaminated soil. Note that in some areas, the black cloth marker may be absent because Ecology determined that the remaining soil had an arsenic level less than the cleanup level. Refer to the specific details of cleanup activities for each property for further information.
- Isolate or set aside the soils that you remove from the excavation or beneath the marker. As you remove the soil from the hole, keep it contained on a plastic sheet so that it doesn't get mixed with the surface soil or grass.

#### What should I do with soil that I have dug up?

If possible, reuse the soil as backfill in the same hole and cover it with the existing geotextile marker and/or clean soil. If you are unable to replace the soil in the excavation, you may be responsible for proper disposal. However, there is free disposal for small volumes of soil through the Residential Soil Disposal Program. Contact the Asarco Information Center at 425.259.0822.

Any soil encountered inside the Community Protection Measures Area, and outside the fenced area of zone A, will probably <u>not</u> designate as a state dangerous waste. All soil from the smelter site should be considered "problem waste" and therefore cannot be used as clean fill. As problem waste, all soil removed from this area must be disposed of as solid waste in a permitted garbage landfill, unless testing demonstrates otherwise. For more information on proper soil disposal, contact Mike Young at the Solid Waste and Toxics Section of the Snohomish Health District at 425.339.5250.

#### What should people do about lawn care?

Keeping the grass and other vegetation in good condition over contaminated soil is important. While grass will not eliminate exposure, it will reduce it compared to bare soil. If your lawn has bald spots, soil should be damp before mowing. Lawn aeration, fertilization, over seeding and watering will keep grass healthy and help keep soil in place. Grass plugs from aeration should be disposed of as trash; clippings can be recycled unless property owners have been notified otherwise. Newly planted sod put over clean soil as part of the Ecology cleanup needs special maintenance because of the new root system. Follow instructions provided by the sod supplier.

#### Can I clean up my own property?

To obtain an Ecology agreement and written response for property cleanup, you must follow the FCAP and work through the Voluntary Cleanup Program. Ecology has some written general guidance material and a consultation program available to provide you assistance tailored specifically for your site. Ecology may provide you up to one hour of consultation on general or technical issues without charge. If you request additional assistance, Ecology will bill you an hourly rate for this time. For help, you may contact Joe Hickey at 425.649.7202; e-mail: jhic461@ecy.wa.gov. http://www.ecy.wa.gov/programs/tcp/vcp/vcp/ag.htm

What cleanup is planned next by Ecology?

As soon as a final budget from the legislature is approved this year, Ecology will start preparing bids to clean up 9 properties already sampled. This work is anticipated to be done July-October, 2001. Ecology will also begin sampling an additional 20 properties (not yet selected) to be cleaned up in 2002 and 2003.

#### What do I need to know about large projects?

For large projects that might require a building permit, soil samples may be needed before soil disposal options can be considered. A consultant should be employed to help with this. Representative soil samples must be collected and analyzed for total arsenic in accordance with standard environmental laboratory procedures. Results of the analysis must be reported to the City of Everett Public Works Department, the Department of Ecology Toxics Cleanup Program and the Snohomish Health District. A list of certified labs can be obtained from Ecology 360.871.8860 check their at or web page at: http://www.ecv.wa.gov/programs/eap/labs/labs\_main.html.

#### What is the latest news on the court case?

The State Supreme Court will hear the case of ASARCO, Inc. v. Ecology on May 31, 2001. This case concerns constitutional issues regarding cleanup requirements. A notice of opinions will be posted on the court's homepage:

http://www.courts.wa.gov/home.cfm

#### Are people getting sick at this site?

There has not been any reported illness directly linked to the contaminants found on the smelter site. Exposure to the contaminants seems to have been very minimal, and illness risk, if any, is likely to be very small. Urine arsenic levels above the normal range have not been found among residents who have taken advantage of free urine arsenic testing (see page 14), although some elevated urine arsenic levels were found among people living in the most contaminated part of the site shortly after the site was discovered. However, many of the illnesses potentially caused by low levels of exposure to arsenic, cadmium and lead may not appear until many years after exposure and may not be distinguishable from illness caused by other factors. For these and other reasons, illness caused by exposure to the site contaminants would be very difficult to identify with certainty.

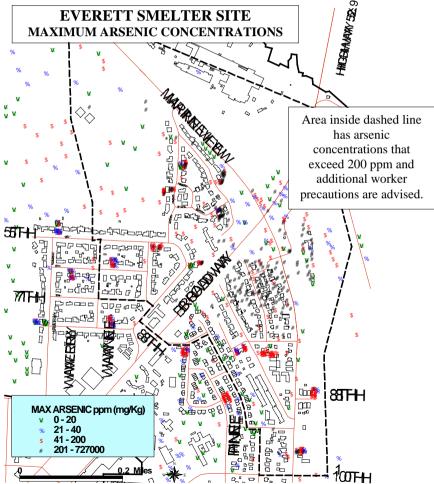
#### Where can I learn more about preventing cancer?

Harvard School of Public Health (http://www.yourcancerrisk.harvard.edu/) This site gives cancer risk estimates and provides personalized tips for prevention.

American Lung Association of Washington (http://www.alaw.org/air) Master Home Environmentalist volunteers use a Home Environmental Assessment List to help you identify health hazards in your home.

#### What should I know as an employee, or employer on the site?

The Department of Labor and Industries has issued Good Practice Guidelines for Employers and Employees Working within the Area. The guidelines (page 9) require that workers are at least aware of the problem, and require more extensive safeguards if workers are in soil that has an arsenic concentration above 200 ppm (see map below). A site-wide safety and health program has yet to be established. Until it is established, following the Good Practice Guidelines is recommended. Please note the Snohomish Health District will send a copy of the guidelines, upon request, to anyone who might work in the area.



# **Good Practice Guidelines**

# For Employers and Employees

"The Good Practice Guidelines for Employers and Employees Working within the Everett Smelter Study Area" was developed by Washington State Department of Labor for the Everett Smelter Study Area.

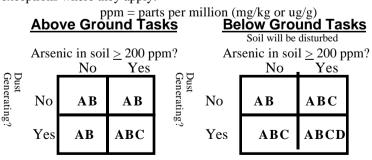
These guidelines address the hazards of arsenic, lead, cadmium and other metals as related to the hazardous waste site. They do not address other safety and health hazards or programs that are required by Washington Industrial Safety and Health Administration.



These guidelines were not developed to protect young children or residents who live on the site. See the Public Health Advisory (page 11) for the residential guidelines and other recommendations for reducing residents' personal exposure.

#### How to use the Good Practice Guideline Decision Boxes For workers in the Smelter Area.

- 1. Determine whether the task is above or below ground level. Ground level is the plane of the earth. If the task is both above and below ground level, use the below ground decision box.
- 2. Determine the soil arsenic concentration (see map on page 8 or sources for additional information on page 21). Use the highest soil level if there are different values.
- 3. Evaluate whether dust is going to be generated. Dust generation is interpreted to be dust suspended in the air. If you can see it, you are generating dust.
- 4. Determine which box and quadrant fits your task. Use the letter guidelines in the selected quadrant.
- 5. Compare your activities/conditions with the exception items. Follow the exceptions where they apply.



## Letter guidelines used by employees

A	

**Hazard communication**: Know the arsenic levels in the soil. Know arsenic and other metals in the soil cause health problems. Know appropriate methods to minimize dust exposure. Know that arsenic and other metals can be taken home if precautions are not taken.



**Personal hygiene**: No eating or smoking while doing tasks on location. Wash hands and face before eating or smoking. Wash hands and face before breaks, at the end of the day or task, and when leaving location.

С

**Work clothing**: Wear coveralls and hat while doing task. When leaving site, remove coveralls and clean hat and shoes. Prevent transfer of hazardous materials by placing removed clothing in a bag for transporting. Launder coveralls separately and carefully.



A work site-specific safety plan: A plan is recommended and may be required. See WAC 296-62-3010 for details. Workers may need additional training, at least 24 or up to 80 hours, before entering the work site.

#### **Exceptions**

Crawling under houses or in similar circumstances is a special situation. The space is enclosed and airborne concentrations of dust can climb rapidly. Add the next letter guideline to the selected decision box.

A site-specific safety plan is recommended and may be required when undertaking large scale site development, or building activities that involve excavation soils. See WAC 296-62-300 (Part P).

All work activity in the current fenced area requires following WAC 296-62-300 (Part P).

## Guidelines for Reducing Potential Exposure Everett Smelter Site

The highly contaminated soil over the original smelter has been covered, fenced or removed and **there is no immediate danger to human health**. However, it is uncertain what minimum level of long-term exposure to soil contaminated with arsenic, lead or cadmium poses a significant health risk. Therefore, **it is prudent to follow the precautionary health guidelines** outlined below.

Note that this advisory is not specific to any property. Concentrations of arsenic, lead, and cadmium in soil vary from location to location. Generally, higher levels of metals are found in the soil near the original smelter site and lower levels are found in outlying areas. Arsenic is the metal of most concern. Also note that large chunks of smelter slag found in the area are less hazardous than dust particles because dust can enter into the body more readily.

#### 1. Children are more likely than adults to be exposed to arsenic, lead, and cadmium in soils and dust. Their exposure should be limited as much as practical.

- Children should not play in dirt. Play areas covered with grass or some other material will reduce a child's exposure.
- Encourage your children to wash their hands and faces after playing outdoors.
- Damp mop and dust your house frequently to reduce your child's contact with dust.

#### 2. Avoid eating vegetables and fruit grown within the affected area.

- Lead and cadmium are known to accumulate in leafy vegetables such as lettuce, spinach, carrots, endive, cress, and beet greens. Onions, mustard, potatoes, and radishes have a moderate ability to uptake heavy metals from the soil.
- It is not known if these metals accumulate in blackberries or other fruit, so avoid eating them until more information is available. Metals were not found above the laboratory detection limits in apples tested from the site.
- If vegetables or fruit are consumed from local gardens, wash thoroughly before eating.

#### 3. Use caution while working in the soil.

- Avoid all unnecessary exposure to soil or dust in the affected area.
- Spray the soil with water before and during the project to minimize dust. Do not saturate the soil or allow water to run off the site.
- Wear clean, full body protective clothing (coveralls or long sleeve shirt and pants), shoes and gloves (see page 9). For maximum protection wear a dust mask or other respiratory protection. Wash work clothes separately from other clothing.
- Don't eat, drink, smoke, or chew any material while in the work area.
- Clean surfaces by wet mopping, spraying with water, or vacuuming with a HEPA filter. Don't sweep or blow the surface.

#### 4. Avoid other sources of metal exposure.

- Minimize children's exposure to hobbies that use lead (e.g., hobbies that involve the use of lead solder or paint).
- Make sure your child eats a well-balanced diet. Children who have acceptable iron and calcium intake, and low fat intake are less likely to absorb lead from their environment.
- Homes built before 1980 could have lead-based paint. Maintain the painted surfaces in your home to avoid exposure to lead paint chips and dust.
- If your job involves lead or lead compounds, shower and change clothes before returning home.

#### 5. Construction activity.

- Employees of companies who are required to work in soil within the study area should refer to Good Practice Guidelines on page 9, and WAC 296-62 (the General Occupational Health Standard), or consult the Department of Labor and Industries for assistance on how to reduce work-related exposure to contaminated soil.
- Use heavy equipment that have enclosed cabs whenever possible.
- Soil removal from any site in the study area must be carried out in consultation with the Snohomish Health District. Soils in the area may have the potential to be designated as Dangerous Waste due to high metals content.

#### 6. Pet precautions.

• Pets can come in contact with contaminated soil, which may then be carried into the home. If possible, keep pets out of areas of exposed soil. Inspect your yard and look for exposed soil your pet may have access to. Fill any holes where dogs may be digging as soon as it is noticed. If possible, restrict pet access from your house. Bathe your pets frequently. Wash your hands after handling your pet, and before preparing or eating food. The Snohomish Health District has implemented a Community Protection Measures Program for residents living in the Everett Smelter Site Study Area. ASARCO, Inc. has funded this program since March of 1997, and the program will continue until the cleanup has been completed. The intent of the program is to address concerns about the potential for adverse health effects among individuals living and working in and around the Everett Smelter Site by providing the following services.

#### Soil Disposal Project

Soil with arsenic concentrations above 20 ppm (mg/kg) is considered solid waste and must be disposed of properly. It cannot be taken off site to be used as clean fill. Residents may now dispose of small quantities of soil generated inside the Community Protection Measures Area free of charge. Call Clint Stanovsky, ASARCO, Inc., at 425.259.0822 for more information.

#### **Education and Public Presentations**

Community education focuses on the nature of the metals found at the site, their potential hazards, and recommendations to reduce exposure to these metals. The Snohomish Health District gives public presentations about health issues and the nature of the Site to specific groups and local health care providers.

# **Distribution of Public Health Advisories**

The Snohomish Health District distributes Public Health Advisories to the residents on the site twice a year, which recommend ways to reduce exposure to metals in the soil.

#### **Technical Library**

The Snohomish Health District has a small technical library for residents of the Everett Smelter Site and local health care providers regarding health and risk issues associated with the site. The Snohomish Health District also is developing a database of soil sample results that can be viewed by the public.

# **Environmental Investigations**

The Snohomish Health District responds to specific complaints regarding personal exposure to dust or soil. The Snohomish Health District will evaluate any situation of concern and provide individualized advice, provide educational materials regarding control measures, and provide referrals to other agencies if needed.

# **Urine Arsenic Testing**

Free, confidential, and voluntary testing for exposure to arsenic is now being provided as part of the Community Protection Measures Program. Residents living within the Everett Smelter Site Area, or persons spending significant time there, can be tested for arsenic exposure twice a year. Please note that the urine arsenic test is a simple and reliable testing method commonly used in occupational medicine. However, the test has limitations. For example, arsenic will only remain in a person's urine about three days after exposure. Therefore, the test will not be able to show evidence of exposure that occurred long ago, nor can anyone make conclusions about long term health status from these test results. **People in the study area should consider taking part in this program if they have had recent contact with dust or soil known to be contaminated.** 

A physician specializing in occupational medicine will review test results at no charge. The consulting physician will send participants an explanation of the test results. If positive results are found, participants are eligible for additional testing and follow-up.

# **Other Testing**

Personal Air Testing is available for workers on the site if not provided by an employer. Blood lead testing may also be available in the future.

If you are interested in participating in the testing or have need for other services, please contact Mike Young of the Snohomish Health District at 425.339.5250.

موقع إقاريت للمعادن

يتوم مركز علوم البيئة دولدة واشغض مدراسة المعادن الموجودة بالتربة فى منطقيتام. نسمى هذه الدراسة "موقع إفارت للمعادن " المعادن الموجودة هى : الزرنيخ \_ الكادميوم والرمامى، ولفد خلف مركز مجادر لمعدن الرمامي بعن من المعدن فى النزية . لقد أعلق هذا المركز منذ حوالى ٨٠ عام معنت ولكن صاف إحتهال أن تلون كمية المعدن المتخلفة فى مالزية أعلى من الطبيعي ، لذلك نقوم بإختبار النزية ولنغن على دلك، ورما لام سد المستنصن أن تقلل نعاملك المباش معالية ولقد ومنع المركز العمى فى سنيموسم نشرة مهمية لدرشادك فى هذا الشاف وتنم حك النشرة المعسية مما يلى .

ببجب منع الدطفال سداللعب مى الترية، ولفد تُغنَبَرُ
 المناطق المنزرعة بالحشيش أو المعطاه بالدسفلت أو ما
 شابتها مناطق آمنة حيث أن النزية تتلون معطاه.

- تشجيع الدَّطْنَال على غسل البدين والوجه بعد اللعب
   ف الخارج وخاصة قبل الدَّكل ،
- قمو بمسيح الذرض وإزالة العبار مد منزلك باسمنهار.
- نتجب أكل الطفروات الطازجة المزروعة فى حدائن
   منطختكم حارد تناولنها متأكد من عسيلها قبل الذكل

• تتجب اللممي المباغر للنزبة عن لمحريق إرتداء القفازات ومديس غاصة للعمل بالنزبة .

• نجب الأحل والنشرب والتدخين أنْناءَ عملك في النربة .

الرجاء قراءة النشرق الطبية الكاملة المتعرف على كافة المغترسات التى تقلل من تعرضك للتربة ومن المستحسن إنباع هذه الهفترجات لحين الدنتجاء من هذه الدراسات.

للمزيد من المعلومات الرجام الانتمال بالسيد/مايك يانع عن طريق نشخص بنتحدث الانجليزية على الحالف التالى: ٥٢٥٠ - ٣٣٩ (٤٢٥)

#### Everett Smelter Site Emplazamiento de la fundición de Everett

#### Actualización

El Departamento de Ecología del Estado de Washington está estudiando los metales contenidos en el suelo de su zona residencial. El estudio se denomina Everett Smelter Site. Los metales son arsénico, cadmio y plomo. El plomo que se encuentra en el suelo procede de una antigua fundición de plomo que se encontraba en la zona hace unos 80 años. La cantidad de metales que hay en el suelo podría ser o no ser superior a lo normal. Estamos haciendo análisis del suelo para averiguar.

Quizás le convenga reducir su contacto con el suelo (la tierra). El Distrito de Salubridad de Snohomish redactó un aviso de salud muy útil. En el aviso se sugiere lo siguiente:

- Que los niños no jueguen en la tierra. Los lugares que con pasto (césped), asfalto u
  otro material son más seguros pues la tierra está cubierta.
- Pida a los niños a que se laven las manos y la cara después de jugar afuera, particularmente antes de comer.
- Trapee y sacuda su casa con frecuencia.
- Evite comer verduras y vegetales cultivados en las hortalizas de su zona residencial. Si los come, primero lávelos.
- Evite el contacto directo con la tierra: póngase guantes y ropa de trabajo cuando trabaje con el suelo.
- Evite comer, beber o fumar mientras trabaja con el suelo.

Lea todo el aviso de salud pues contiene otras sugerencias de cómo reducir su contacto con la tierra. Quizás le convendría seguir estas sugerencias hasta que el estudio quede finalizado. អតែតូចរបានពេះសំខ្មែនទេសរុវដូនអំរឿង (ខ្មែនហ្រឹន ស្ទីលថា សៃ)

#### ក្រឹង្គអារតត័មម្ហូម្យន្តនោះ

ក្រសួងដេកូឡូស៊ីសៃអ្នរ៉ាស៊ីអោងកំពុងតែធ្វើការសិក្សាពីរឿងជាតុដែកច្បេង១ខៅក្នុងទីនៅក្នុងកន្លែង សម្តាត់ដែលលោកអ្នករសំនៅ។ ការសិក្សានេះមានឈ្មោះថា ជនដែលនេះ Socier Soc ដើរប្រើក្តី ស្មីលទី សែរ។ ជាតុដែកទាំងនោះគឺ អាសិងតិកទោធក្រពុលប្រើទេ) ទានហៀប និង សំណា កន្លែងវិលាយថាតុដែល នៅនិតសន្តាត់លោកអ្នកយន់ទុកបោលចាក្រដែកផ្សេង១ឲ្យមាននៅការិសល់ក្នុងទីនោះ។ កន្លែងវិលាយថាតុ នៃកនោះបានមិនតាំងគឺដែលផ្លាំកម្លងមកហើយ។ សំពុះចាត់ដែកឡេង១ដែលមានកប់នៅក្នុងតែនោះ កន្លែងវិលាយថាតុ ចាមសន្សមិនមានចំណុះច្រើនហ្វូសចាងធម្មភាអា យើងសព្វថ្ងៃនេះកំពុងតែធ្វើការពិសោធន៍មើលអ៊ីននោះដើម្បី សម្តែងតំណងសំហូរស្ថិនហ្វូសចាងធម្មភាអា យើងសព្វថ្ងៃនេះកំពុងតែធ្វើការពិសោធន៍មើលអ៊ីននោះដើម្បី សត្ថិតតិការនោះ។

លោកអ្នកប្រហែលជាចង់បន្ថយការប៉ះពាល់ទៅនឹងចិនោះ។ ក្រសួងសុខមាលភាពនៃតាមតំលូហ្វមិស្លាធរសរ សេរសេទក្តីប្រកាស់សំរាប់ឲ្យយោមល័ក្នុងការទួយការជាវងលំសុខភាលមសំលោកអ្នក។ ការឲ្យយោមលំ នេះស្ទើរសំឲ្យលោកអ្នកធ្វើឲ្យមានមិនេះ :

- កុមារាចិនកុមបិត្តាតែកុំរត់លេសនៅលើវិច្ឆាល់។ កន្លែងដែលមានល្បាំ ក្រាលពៅស៊ី ឬមាង ក្រាលជាកុរប្បធរ ទៀតជាកន្លែងដែលមានសម្តីសុទដល់សុទភាពជាត តិព្រោះចំពោះមានអ្វីក្រាលពី លើក។
- មួយប្រាប់ពល់កុមារាតិឧកុមាវិញលាតនៃ និងមុនរបស់វាបច្ចាប់មកពីលេតលេទទេក្រៅប្រាន់ដី សេសនៅមតពេលញាំ។
- នសមិតបោសផ្ទុតផ្ទលិធិនៅក្នុងខ្លះគោយប្រើក្រណាត់សើមឲ្យយនញឹកញាប់។
- ខៀសវាងទទួលទានបន្លែដែលនៅនៅក្នុងចំពារទៅក្នុងសង្កាត់តែលលោកអ្នករសំនៅ។ បើសិនជា លោកអ្នកទទួលទានបន្លែ សូមល៉ាងភា មុននិងលោកអ្នកទទួលទានបន្លែនោះ។
- ទៀសវាងការប៉ះពាល់ទៅនិងតិច្បាល់ ដោយលាក់ស្រោមតែនិងសំលៀកចំពាក់សំរាប់ធ្វើការនៅ លេសកំពងធ្វើការម្នាល់និងនិ។
- លៀសវាងការញៀ ជិត ខ្លាក់នៅពេលកំពុងធ្វើការពូលនិងគឺ។

សូមមានសេចក្តីប្រកាស់សំរាម់ឲ្យយោបល់ក្នុងការមួយការពារដល់សុទភាពនេះឲ្យងនពេញលេញដើម្បីឲ្យ មានកំនិតជាច្រើនក្នុងការបន្ថយការប៉ះពាល់របស់លោកអ្នកទៅនិងឆិ។ លោកអ្នកប្រហែលជានង់ធ្វើតាមការ ស្នើសំឲ្យធ្វើទៅធរនេះរហូតដល់ការសិក្សានេះមានចប់ពេញលេញ។

#### Dja Điểm Phân Loại Kim Khí Everett (Everett Smelter Site)

# TIN CẦN BIẾT

Bộ Sinh Thái của Tiếu Bang Washington (Washington State Department of Ecology) dang khảo cứu về những chất kim loại trong đất ở vùng quí vị dang cư ngụ. Công cuộc khảo cứu được lấy tên là Everett Smelter Site. Những kim loại là những chất arsenic, cadmium và chỉ (lead). Một xuông luyện chỉ ở vùng lân cận đã làm ô nhiễm dất. Xuông này đã dóng của khoảng 80 năm qua. Tỷ lệ những chất kim loại trong dất có thể cao hơn bình thường, hoặc có thể vẫn bình thường. Chúng tôi dang thủ nghiệm dất để tìm hiểu cận kẽ hơn.

Quí vị nên bót động chạm với đất. Bộ Y-Tế vùng Snohomish (Snohomish Health District) đã viết ra một tập chỉ dẫn y-tế để hướng dẫn quí vị. Tập chỉ dẫn đề ghị quí vị thi hành những điều sau đây:

- Trê em không nên chơi dùa ngoài dất. Những nơi dất duọc trải cò, si-mặng hoặc chất liệu khác thì an toàn hơn.
- Khuyến khích cho con em rủa tay, rủa mặt sau khi chơi đùa ngoài săn, nhất là traớc khi ăn com.
- Lau và phủi bụi nhà thường xuyên.
- Tránh dùng ăn nhũng rau trồng tại những vuồn tại khu vực dang cư ngụ, hoặc phải rùa kỹ trước khi ăn.
- Khi làm việc ngoài săn, nhỏ đeo bao tay, mặc quần dài để tránh dất cát bảm vào da thịt.
- Khi làm việc ngoài sân, tránh ăn, uống hoặc húi thuốc.

Xin đọc nguyên tập chỉ dẫn y-tế để am hiểu hơn về những cách thúc để giảm thiểu hóa sự dụng chạm với dất cát. Quí vị nên theo đúng những diệu chỉ dẫn đó cho đến khi cuộc khảo củu được hoàn tất.

# Everett Smelter Site Эверет Смелтер Сайт

#### Последние данные

Департамент экологии штата Вашингтон проводит изучение металлов в почве вашего района. Это исследование называется Everett Smelter Site. Металлами являются арсений, кадмий и свинец. Металлы от близлежащей свинцовой плавильни остались в почве. Плавильня закрылась 80 лет тому назад. Содержание металла в почве может быть или выше нормы, или нет. Для того, чтобы это определить, мы проводим виялиз почвы.

Мы рекомендуем вам уменьщить ваш контакта с почвой. Отдел Здравоохранения округа Снохомий составил список мер предосторожности для ввс. Вам рекомендуется следующее:

- Детям не следует нграть в почве. Поверхности, покрытые травой, всфальтом или другим материалом - безопаснее, так как поверхность закрыта.
- Дети должны мыть руки и лицо после игр на улице, особенно перед едой.
- Часто проводите влажную уборку в доме.
- Избегайте употребления овощей, выращенных в соседних огородах.
   Если ны едите овощи, то мойте их перец употреблением.
- Избегийте прямого контакта с почвой. При работе пользуйтесь перчатками и рабочей одеждой.
- Воздерживайтесь от еды, употребления напитков и курения при работе с почвой.

Прочтите полный список мер предосторожности для понижения вашего контакта с почвой. Советуем вам их соблюдать до момента окончания нашего исследования. สุนเองอินจักสะแมองที่.

ຫ້ອງການຄົ້ນຄວາສີພະບາກອນກຳລັງຊຶ່ກສາກຮູວກັບໂຂດະຫາດໃນພົ້ນຕົນໃນ ລົງເດດຂອງຫານ. ການສຶກສາບັນີຊີວ່າ ສູບກາງເອເວີແຮັດສະແນວເຕີ່. ໂລຕະນັ້ນີພິດ,ອັນຕະລາຍແລະເປັນຫນຶ່ຽງ. ສາດໂລສະເລົ່ານີ້ໂດຖືກຝັ່ງໄວ ໃນຕີນປະມານຊຸວປີແລ້ວ. ຈຳນວນໂລຫະຟັງຢູ່ໃນດີນນີ້ອາດາະນີຫຼາຍກວາ ຫຼືບໍ່ກໍ່ບໍ່ສູ້,ພວກເຮົາກຳລັງພິສຸດຫາສາເຂດຢູ່.

ທ່ານຄວນຫຼືກເວັ້ນສ່າງຈາກຕາດັນນີ້. ເພື່ອປ້ອງກັນໄພຈຸບັດເຫດກາງກອງ ການກະຊວງສາຫຼາຍະນະສຸຂຂອງສະໄທຮົ່ວນິດໄດ້ມີໃບເຕືອນເພື່ອຊວຍ ເຫຼືອຫ່ານແລະໃຫ້ປະຕິບັດຕານຂ້າງຈຸມນີ້:

- . ບໍ່ຄວນປອບໃຫ້ເດັກຫຼິ້ນຕານຫນ້າດື່ນ.ເດີ່ນທີ່ມີຫຍ້າ, ປາງປູຫາງຫຼືອື່ນໆ ນັ້ນບໍ່ເປັນຫຍັງເພາະດິນຖືກປົກຄູນແລ້ວ.
- ກະລຸນນາເຕືອນບຸດຂອງຫານໃຫລາງມືແລະຫນາຕເຫຼັງຈາກກັບຫຼື້ນຈາກ ອ້າງນອກແລ້ວ, ສະເພາະກອນເວລາຮັບປະຫານອາຫານ.
- . ຕອງພັດຖະລະປັດມຸນເຮືອນຂອງການເລືອບປ.
- . ພະຍາຍາມຢ່າກີນຮັກທີ່ປຸກງາກສວນນັກໄກ້ບ້ານຂອງຫານ, ຕ້ອງຂາງໃສ ສະອາດເສັຽກອນຖາຫານຕ້ອງກິນ.
- ເວລາທ່ານເຮັດວຽກຕາມຫນ້າດື່ນ, ທ່ານຕ້ອງໃສ່ຖິງມີແລະນຸ່ງເຄື່ອງເຮັດ
   ວຽກສະເພາະ.
- ເວລາເຮັດວຽກນຳດື່ນກະລາພາຢາກິນ, ດື່ນນຳ້, ຫຼືສຸບຢາ.

ກະລຸນນາອ່ານແລະປະຕິບັດຕາມຄຳແນະນຳຂອງກະຊວງສາຫາລະນະສຸກ ໃນການປ້ອງກັນບໍ່ໃຫ້ຕິດຕໍ່ກັບດື່ນນັ້ຈົນກວາການຄົ້ນຄົ້ວນ້ຳະສາເຈັດລົງ.

# ENFORCEMENT OF THE CLEANUP LAW

Washington State Department of Ecology Northwest Regional Office 3190 160th Avenue SE Bellevue, WA 98008-5452 http://www.wa.gov/ecology/

David L. South, Site Manager

dsou461@ecy.wa.gov

# POTENTIALLY LIABLE PARTY

ASARCO, Inc. P. O. Box 1677 Tacoma, WA 98401 http://www.asarco.com/

425.649.7200

# **RESIDENTIAL SOIL DISPOSAL PROGRAM**

ASARCO Everett Information Center 545 Hawthorne Street Everett, WA 98201 Clint Stanovsky 425.259.0822

#### COMMUNITY PROTECTION MEASURES/ HEALTH INFORMATION

Snohomish Health District 3020 Rucker Avenue Everett, WA 98201-3900 http://www.snonet.org/shd/

> Mike Young, CPM Manager 425.339.5250 Myoung@shd.snohomish.wa.gov

# TAX INFORMATION

Snohomish County Tax Assessor 3000 Rockefeller Avenue MS 510 Everett, WA 98201 Property Assessments: 425.388.3433 Personal Property, business: 425.388.3656 Hours: 9-5; 3rd Floor, Administration Bldg.

# ENVIRONMENTAL HEALTH SUPPORT

U.S. Public Health Service, Agency for Toxic Substances and Disease Registry 1200 6th Avenue, Suite 1930 Seattle, WA 98104 http://atsdr1.atsdr.cdc.gov:8080/atsdrhome.html

Washington State Department of Health Office of Toxic Substances 1112 SE Quince Street, P.O. Box 47890 Olympia, WA 98504-7825 http://www.doh.wa.gov/

# WORKER RELATED ISSUES

Department of Labor & Industries 100th Street SE Everett, WA 98203 425.290.1404 http://www.wa.gov/lni/

# LAND USE / COMMUNITY ISSUES

City of Everett 2930 Wetmore Everett, WA 98201 http://www.ci.everett.wa.us/ Building and Site Development; 425.257.8810 Everett Housing Authority; 425.258.9222 Everett Public Library (Reference Section); 425.257.8010 Excavations Planning; 425.257.8731 Office of Neighborhoods NW Everett Neighborhood Association NE Everett Community Organization Contact: Marion Krell, Neighborhoods; 425.257.8717 Parks and Recreation Department; 425.257.8300 Port of Everett; 425.259.3164

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