FOCUS
Area-Wide Soil Contamination Project Overview

WASHINGTON STATE DEPARTMENT OF ECOLOGY

AREA-WIDE SOIL CONTAMINATION

Area-wide soil contamination is low-level contamination that is dispersed over a large geographic area. This is distinct from more typical cleanup problems, in that it covers areas ranging in size from several hundred acres to many square miles. In addition, the levels of contaminants associated with area-wide soil contamination are low-to-moderate relative to the contaminant levels found at more typical cleanup sites.

In many areas of Washington State, soil has low-to-moderate levels of arsenic and lead caused by historical activities and sources. As Washington's population has grown, many of these areas have been developed into residential neighborhoods, schools, and parks. These development activities have created pressures for cleanup and raised a variety of health, environmental, and marketplace concerns.

The Departments of Agriculture, Ecology and Health and the Office of Community Development have decided to examine these issues and concerns and develop a Statewide strategy for responding to large areas of low-to-moderate levels of soil contamination.

WHAT HAS CAUSED AREA-WIDE SOIL CONTAMINATION?

Arsenic and lead have been deposited in soil over time by a variety of human activities including: use of lead-based paint and leaded gasoline, metal mining and smelting, and use of arsenic or lead based agricultural chemicals. While present-day regulations have controlled these sources, arsenic and lead do not, however, break down in the environment thus arsenic and lead deposited by historic activities remain in the soil.

WHAT IS THE PROJECT AND WHY WAS IT STARTED?

The Area-Wide Soil Contamination Project is a two-year effort to develop a multi-agency, statewide strategy to respond to area-wide soil contamination. It is overseen by the Departments of Agriculture, Ecology and Health and the Office of Community Development and supported by a stakeholder Task Force chartered by the Agencies.

The Project was started because the Agencies realized that traditional contaminated soil cleanup approaches may not be the best way to respond to area-wide soil contamination problems, and that they lack adequate knowledge about the size and location of area-wide soil contamination problems and possible solutions.

The project is not designed to address current industrial operations, on-going cleanups, or current agricultural practices.

WHAT IS THE ROLE OF THE TASK FORCE?

The Area-Wide Soil Contamination Task Force was chartered by the Agencies. Members are asked to provide findings and recommendations to the Agencies on steps that can be taken to better address area-wide soil contamination problems. The Task Force is comprised of 18 members, including representatives of local government, elected officials, agriculture, environment, business/development, financial institutions, and education/schools. Two work groups, also representing various interests, support the Task Force. These work groups are looking into technical aspects of the project and providing findings and possible recommendations to the Task Force.

WHAT DOES THE PROJECT INVOLVE?

As part of the project, research and evaluations are being conducted to identify:

- Current knowledge about the nature and extent of arsenic and lead soil contamination.

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- Ways to improve our understanding of the location and magnitude of arsenic and lead soil contamination.
- Practical and technically feasible measures for addressing widespread low-to-moderation soil contamination problems.
- Changes needed to eliminate barriers to addressing area-wide soil contamination.
- Agency involvement and possible funding sources needed to address area-wide soil contamination problems.

HOW IS THE PUBLIC INVOLVED?

Public input is a cornerstone in the Project. The Task Force is formed by members representing both the geographic range and stakeholder interest with regard to these issues. All Task Force meetings are open to the public. The Agencies and Task Force will implement a series of public outreach activities including draft findings and recommendations when developed. Additional opportunities for the public to engage will be offered throughout the project.

WHAT ELSE ARE THE AGENCIES DOING?

In tandem with the Area-Wide Soil Contamination Project, Ecology will continue to clean up residential properties at the Everett Smelter site and evaluate areas where children play (e.g., schools, parks, and childcare facilities) in the areas within the Tacoma Smelter Plume area. In addition, the Agencies plan to work with local health departments in eastern Washington to identify schools and childcare facilities with elevated levels of arsenic and lead and, based on those results, take appropriate interim actions.

SHOULD RESIDENTS BE CONCERNED ABOUT THEIR HEALTH?

The levels of arsenic and lead generally associated with area-wide soil contamination are not high enough to trigger an emergency response action under state cleanup regulations. However, there is concern that ongoing exposures to arsenic and lead, even at low levels, over a long period of time could lead to health problems for some people. The Area-wide Soil Contamination project will provide clarification on the issue and develop strategies to address potential risks. In the meantime, residents of properties located in areas affected by historic smelter operations or that were previously used for agricultural production are encouraged to learn more and take some intermediate precautions.

Since arsenic and lead typically stay in the upper soil layers, and are not readily absorbed into plants, the easiest way for people to come into contact with them is through contact with contaminated soil. Precautions should be taken to keep soil and dust out of the house and limit activities that could result in soil being inhaled or ingested, particularly by children who are especially sensitive to lead exposure, even at low levels. Consider the following recommendations.

Recommendations for the home:

- Remove shoes before entering the house,
- Wash children's toys and pacifiers frequently,
- Wash hands thoroughly after playing or working in the yard and before eating, and
- Keep food surfaces and floors where children play clean – damp mop and dust frequently, and use a vacuum cleaner with a HEPA (high efficiency particulate arrest) filter.

Recommendations for the yard:

- Limit the amount of exposed soil in yards by planting more grass and groundcover, and/or applying decorative rock or bark,
- Discourage children and pets from playing or digging in soil,
- Bring in clean soil for play areas and raised garden beds,
- Place wood chips or other ground cover under children's play equipment,
- Dampen soil while gardening or working in the soil to reduce dust, and
- Thoroughly wash fruits and vegetables from home gardens to remove any residual soil particles.

For more information about this project feel free to call any of the following Ecology representatives:

- **Dawn Hooper** in Olympia at 360-407-7182
- **Rick Roeder** in Yakima at 509-454-7837
- **Tony Valero** in Yakima, Spanish speaking, at 509-454-7840

Or visit the **project web site** at http://www.ecy.wa.gov/programs/tcp/cleanup.html, and click on Area-Wide Soil Contamination.