

## Summary

The Washington State Department of Ecology (Ecology) wants your input! Ecology is seeking comments on potential environmental impacts of a proposed cleanup plan for the Tacoma Smelter Plume (TSP) site. The former Asarco copper smelter in north Tacoma caused widespread arsenic and lead soil contamination. In parts of King, Pierce, and Thurston counties, the arsenic and lead in soils pose a risk to human health and the environment. Ecology is working on a long-term plan to protect human health and clean up the environment. This plan will be called the **Interim Cleanup Action Plan (ICAP)**.

The draft ICAP will go out for public review and comment under the Model Toxics Control Act. At that time, Ecology must make a determination whether the project is likely to have significant adverse environmental impacts. There are three possible outcomes, or “determinations”:

- If impacts are significant, Ecology must develop an Environmental Impact Statement (EIS). An EIS looks at possible environmental impacts and describes how to mitigate (lessen) them.
- If impacts are not significant, Ecology may issue a Determination of Non Significance (DNS).
- If there are few environmental impacts and they can be mitigated, Ecology may issue a Mitigated Determination of Non Significance (MDNS) and make changes to the cleanup plans.

**Early SEPA scoping** (WAC 197-22-265) will help Ecology identify issues that should be considered when making a State Environmental Policy Act determination. How significant are the environmental impacts from this project? Is an environmental impact statement needed? This scoping notice is being sent to state, county, and local agencies involved in SEPA review. It is also being sent to agencies and organizations that may be affected by parts of the ICAP. Your input is very important to us!

## What to Comment On

Ecology is proposing a complex strategy to address TSP contamination. Some parts of the strategy may have impacts on the environment and surrounding communities. Please review this document and submit comments on **what Ecology should consider in its assessment of potential environmental impacts from the project**. This information will help the agency determine what impacts are significant and how they can be mitigated.

Later, the public will have the chance to comment on the specific contents of the draft ICAP, aside from the specific environmental impacts that are being scoped now. Ecology expects the draft ICAP and SEPA determination to be issued for public review and comment in late 2009 or early 2010.

## What's Inside This Document

- Section A. Introduction – Purpose of early scoping and ICAP schedule
- Section B. Background – Tacoma Smelter Plume site history and need for a cleanup action plan.
- Section C. Interim Cleanup Action Plan - Proposal to address arsenic and lead soil contamination.
- Section D. Other Cleanup Approaches Considered
- Section E. The SEPA process
- Section F. Call for Public Comment

## Contact Information

For further information about this early scoping notice, please contact Hannah Aoyagi, Public Involvement Coordinator at 360.407.6790 or by e-mail at [haoy461@ecy.wa.gov](mailto:haoy461@ecy.wa.gov).

## A. Introduction

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The purpose of early scoping is to gather information about all possible environmental impacts of a project. The Tacoma Smelter Plume (TSP) is a very large and complex site that impacts many different communities, agencies, and organizations. The Interim Cleanup Action Plan (ICAP) is also large and complex, with several different cleanup strategies. Ecology needs your help to identify the full range of **environmental and community impacts** that may result from this proposed cleanup plan. Section C describes the ICAP. See Section E for more information about the types of environmental impacts that are typically analyzed during the SEPA process.

## Estimated Schedule

SEPA Early Scoping – comment period	February 2 – March 20, 2009
Ecology review and summary of comments	April – May, 2009
Draft SEPA determination and draft ICAP public comment period	Late 2009 – Early 2010

## B. Background

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**Tacoma Smelter Plume:** The Asarco Company operated a copper smelter in Ruston, Washington for nearly 100 years. Air pollution from the smelter’s smokestack settled on surface soils over 1,000 square miles of the Puget Sound basin (see Figure 1 on page 3). As a result, many parts of King, Pierce, Thurston, and Kitsap counties have arsenic and lead soil contamination.

The Asarco smelter property and surrounding neighborhood became a federal Superfund site in the 1980s. Starting in 1999, Ecology worked with local health departments in King, Pierce, Kitsap, and Thurston counties to study the extent of contamination beyond the Superfund site. The “footprint” of contamination covered over 1,000 square miles, with a wide range of arsenic and lead concentrations. To address this large area, Ecology provided grant funding to Tacoma-Pierce County Health Department (TPCHD), Public Health – Seattle & King County (PHSKC), and Thurston County Public Health and Social Services Department. The counties continued studying contamination, focusing on child play areas, and began offering education and outreach.

Tacoma Smelter Plume studies and maps can be found at: [http://www.ecy.wa.gov/programs/tcp/sites/dirt\\_alert/studies\\_and\\_maps/s\\_and\\_m.html](http://www.ecy.wa.gov/programs/tcp/sites/dirt_alert/studies_and_maps/s_and_m.html).

**Area-Wide Task Force:** In 2001, the Washington State Departments of Agriculture, Ecology, Health, and Community, Trade & Economic Development chartered a task force on area-wide soil contamination in Washington. The Task Force made recommendations for addressing contaminated areas like the Tacoma Smelter Plume. The foundation of the recommendations was education and awareness-building. Other ideas included focusing on child play areas, assisting residential property owners with cleanup, and working with local governments and organizations to institutionalize soil safety. For exam-

This map is currently being updated to reflect more recent data on soil contamination.

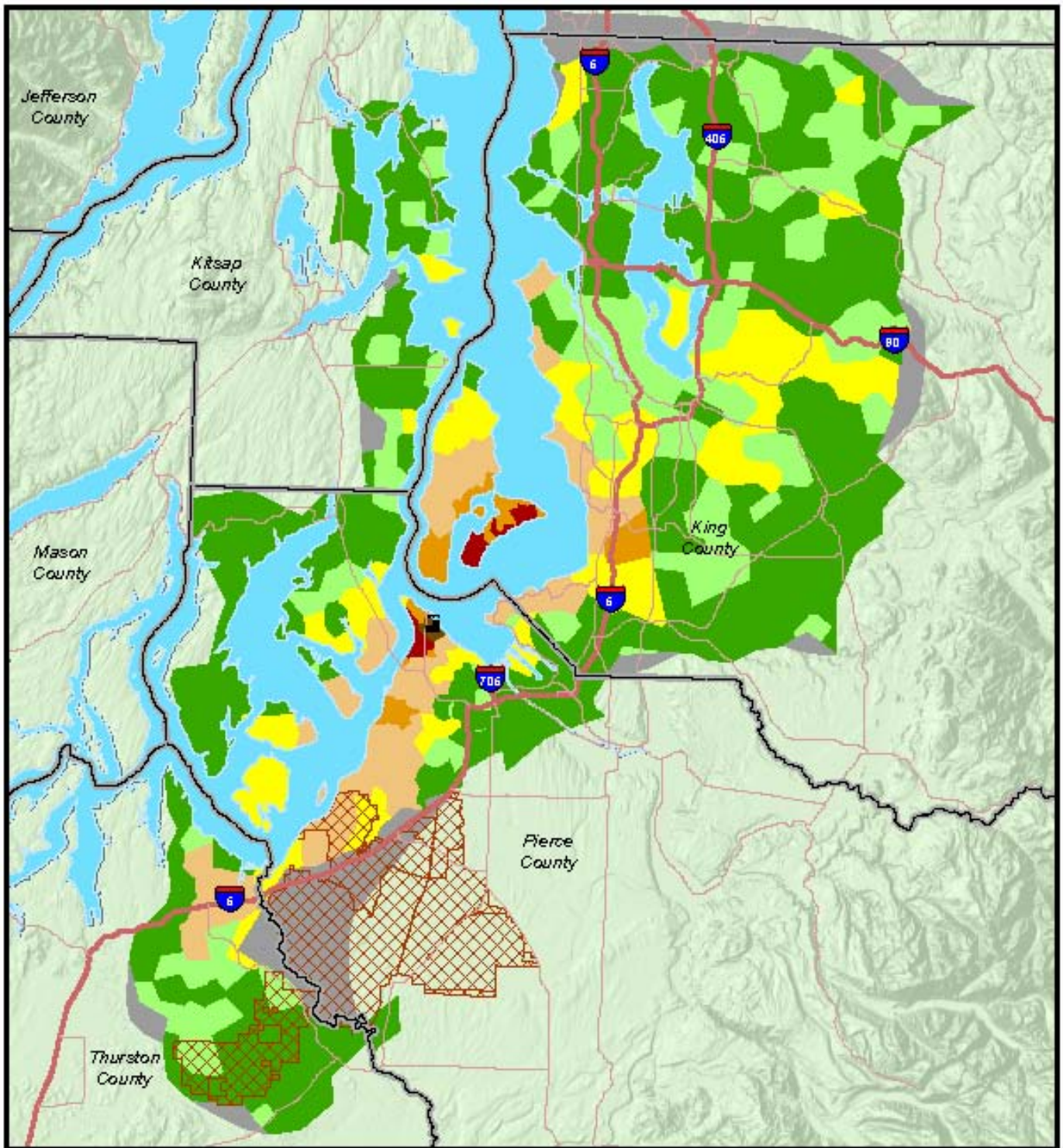
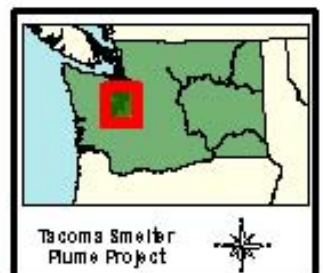
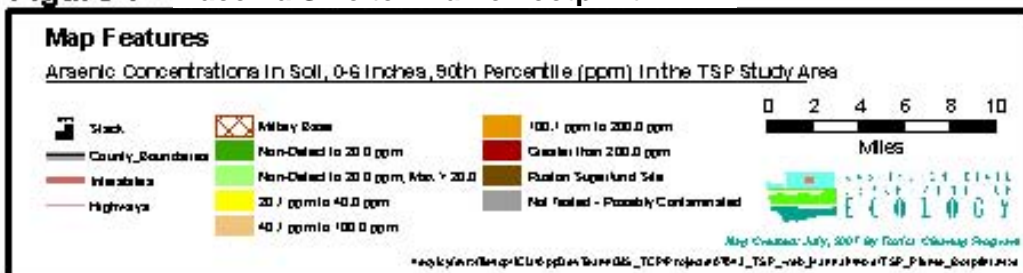


Figure 1 - Tacoma Smelter Plume Footprint





ple, the Task Force suggested working with realtors to educate their clients, and working with developers to do soil sampling before they begin developing a site.

The Task Force recommendations can be found at: [http://www.ecy.wa.gov/programs/tcp/area\\_wide/Final-Report/index.htm](http://www.ecy.wa.gov/programs/tcp/area_wide/Final-Report/index.htm).

### **Arsenic and Lead**

Long-term exposure to arsenic has been linked to a variety of health problems, including heart disease, diabetes, and cancer of the bladder, lung, skin, kidney, liver, and prostate. Lead exposure can cause behavioral problems, permanent learning difficulties, and reduced physical growth. Young children are the most vulnerable. They are more likely to play in soil, put dirty fingers in their mouths, and eat with dirty hands. The small amount of polluted soil they may swallow is more harmful to children because they are still growing.

### **Model Toxics Control Act (MTCA) cleanup levels for unrestricted land use:**

- Arsenic = 20 parts per million (ppm)
- Lead = 250 ppm

**Current Strategy:** Ecology and the local health departments developed a strategy based on the Area-Wide Task Force recommendations. The basis for the strategy is ongoing outreach and education. Local health departments currently use television advertising, billboards, mailings, and other methods to increase public awareness of TSP. The Soil Safety Program, funded by the Washington State Legislature, provides free soil sampling and cleanup for contaminated child play areas at schools and childcares. The program ends in June 2009, although Ecology will resume childcare and school sampling and cleanup under the ICAP.

Ecology also provides recommendations and technical assistance for some local governments that permit development in the affected area. The agency is working on soil sampling and cleanup guidance for developers, as well as outreach to realtors. This strategy is described in more detail in the Tacoma Smelter Plume Management Plan: [http://www.ecy.wa.gov/programs/tcp/sites/tacoma\\_smelter/tsp\\_mgmt\\_plan.html](http://www.ecy.wa.gov/programs/tcp/sites/tacoma_smelter/tsp_mgmt_plan.html)

More information about the Soil Safety Program can be found at: [http://www.ecy.wa.gov/programs/tcp/sites/dirt\\_alert/soilSafety/SoilSafety.htm](http://www.ecy.wa.gov/programs/tcp/sites/dirt_alert/soilSafety/SoilSafety.htm)

**Asarco Bankruptcy:** In 2005, Asarco filed for bankruptcy. Ecology filed a claim with Asarco for past and future costs of the Tacoma Smelter Plume contamination. Although the final court settlement is still pending, Ecology is developing a cleanup plan to prioritize spending the funds. The settlement will remain in a special account, to be used only for the TSP site.

**Cleanup plan:** The Tacoma Smelter Plume (TSP) site is the largest and one of the most complex cleanup sites in Washington. Cleanup will require a mix of traditional and non-traditional actions, and a phased strategy. At a typical cleanup site, Ecology writes a Cleanup Action Plan for the full cleanup, across the entire site. This is required by the Model Toxics Control Act (Figure 2). In this case, the agency is proposing an *Interim* Cleanup Action Plan (ICAP) to:

1. Continue with existing strategies that have been successful, such as outreach and education.
2. Begin using traditional cleanup methods to address areas of highest contamination.
3. Gather public input on future cleanup strategies that require more research and planning.

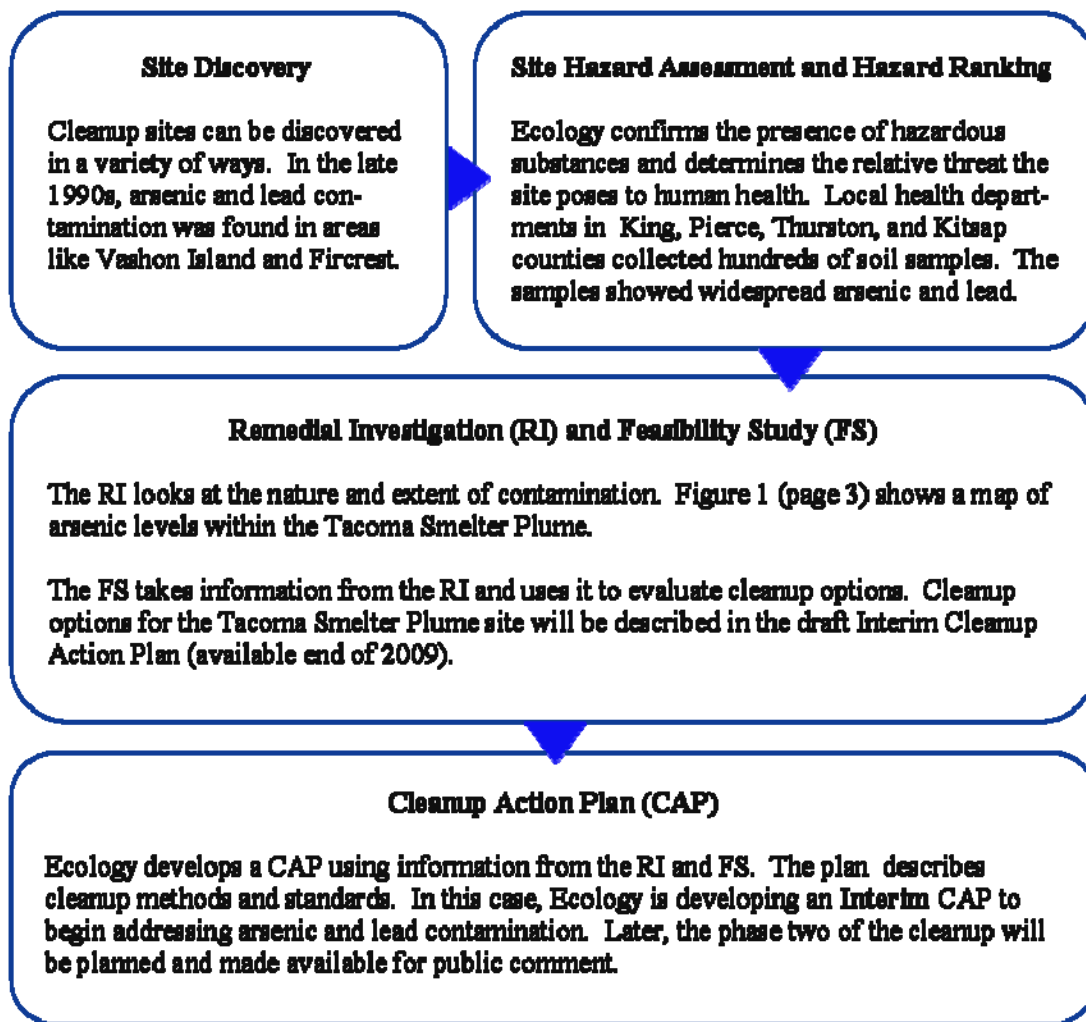


Figure 2. Steps in the Model Toxics Control Act (MTCA) cleanup process

### C. Interim Cleanup Action Plan (ICAP)

The Interim Cleanup Action Plan (ICAP) outlines several approaches that may be used to address Tacoma Smelter Plume contamination. This section describes the general strategies, although the full plan is not yet ready for review. Ecology expects to make the draft ICAP available for public comment in late 2009 or early 2010.

**Phased approach:** Ecology is proposing a phased approach to cleanup (Figure 3). Phase One prioritizes sampling and cleaning up properties where people are at greatest risk of exposure to contaminated soils, including childcares and schools. Phase One also continues existing education and outreach, efforts to work with other government agencies, and encouraging cleanup during land development. Phase Two will have a separate Cleanup Action Plan and SEPA review process. It will focus on broader strategies that require more research and planning. For example, Ecology plans to explore *requiring* soil sampling and cleanup through local development permitting processes. While Phase One focuses on the highest contamination, Phase Two will look more broadly at strategies for the whole plume area.

The phased approach allows Ecology to do permanent cleanups and prioritize funding in the highest risk areas. However, it also allows Ecology to address lower risk areas without using costly, traditional cleanup methods at every property. This meets the Area-Wide Task Force’s recommendation for a balanced approach that is effective, practical, and affordable.

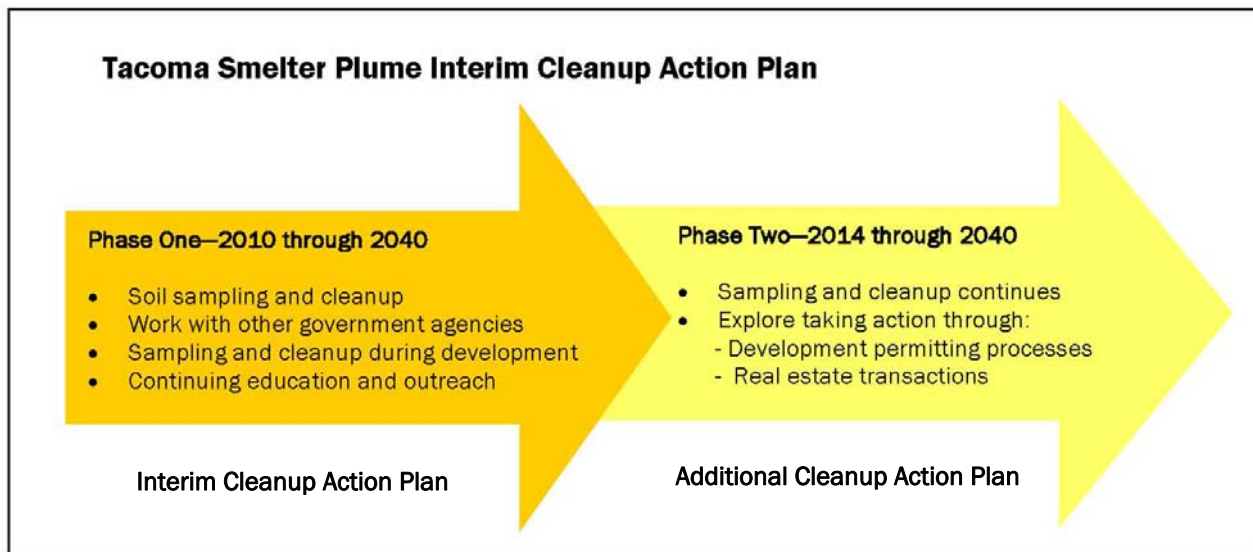


Figure 3. Phased Approach

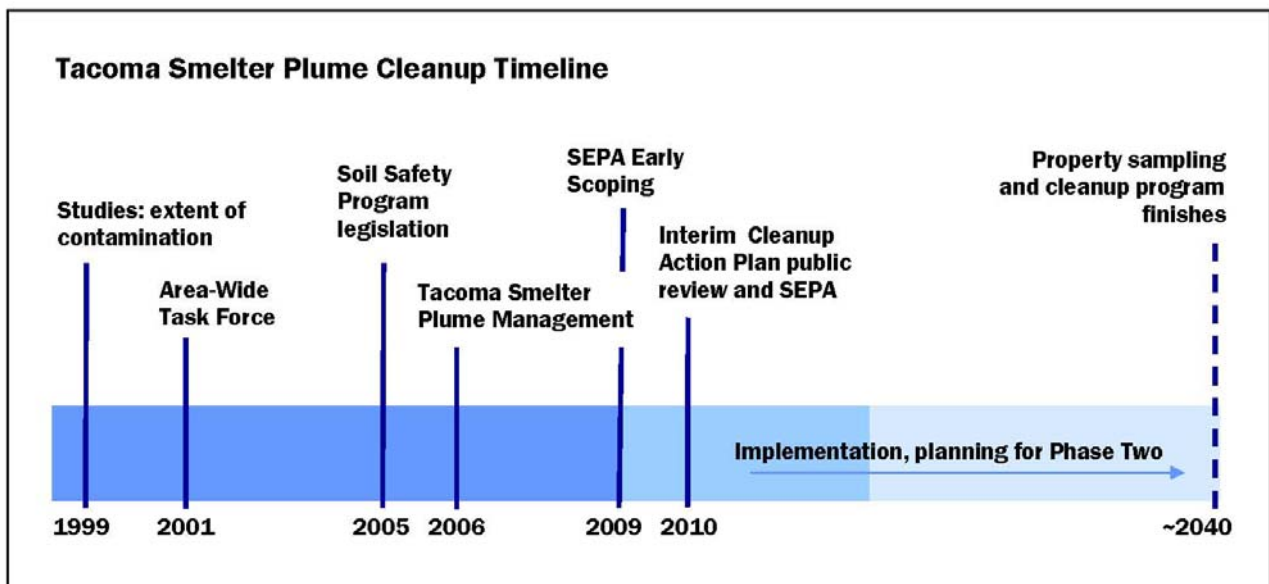
#### Phase one actions

1. Property Sampling and Cleanup – Ecology will design and manage a program that provides soil sampling and cleanup. The program will target the most contaminated areas of the Tacoma Smelter Plume, where arsenic levels are expected to be over 100 parts per million (ppm) and lead levels over 500 ppm. Within the targeted area, residential properties containing arsenic or lead above state standards (see box on page 4) will be cleaned up using Asarco settlement funds. In most cases, contaminated soils will be dug up and trucked to a landfill. Clean soils will then be brought in to backfill the excavated areas.

Ecology estimates that roughly 125 properties could be cleaned up each year, as settlement funds allow. It is expected that most of these properties will be standard residential lots. The program will likely begin in North Tacoma neighborhoods and on Vashon-Maury Island, where the highest contamination is found.

2. Childcares and Schools – Ecology will continue the work of the Soil Safety Program under the ICAP. The agency will sample and clean up play areas at new childcares and schools. Asarco settlement funds would offset the cost to childcares. Ecology and the Department of Early Learning (DEL) are already exploring making soil sampling a condition of childcare licensure.
3. Properties Managed or Regulated by Other Government Agencies – Ecology will work with other government agencies to address soil safety on properties that they manage or regulate. The Soil Safety Program covers currently operating schools and childcares in the program’s service area—future schools and childcares, as well as parks and camps, need long-term soil safety measures to ensure that children are protected. These measures are designed to be permanent, beyond the lifespan of the Soil Safety Program.
4. Property Development – Ecology will encourage local planning offices to require property sampling and cleanup when permitting new developments or major redevelopment. The agency will provide guidance to both the planning offices and developers or property owners doing sampling and cleanup. Property development plans often already include actions that clean up contaminated soil. For example, removing surfaces soils, landscaping, and covering soils with buildings or pavement can limit or prevent future exposure to arsenic and lead.
5. Outreach and Education – Broad-based outreach and education by local health departments will continue. Current outreach includes television advertising, billboards, targeted mailings, and community presentations. Additional outreach and education is needed to support the four actions listed above.

## Overall Timeline



## D. Other Cleanup Approaches Considered

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Ecology considered and rejected three alternatives to the ICAP.

- The first alternative is to take **no action**. This is not consistent with MTCA or the Area-Wide Task Force recommendations. Taking no action is not an option, as Ecology will have funding from the Asarco settlement for cleanup and other actions.
- The second alternative is to **sample and clean up all properties** within the Tacoma Smelter Plume. Although this meets MTCA goals of permanent cleanup, there are several problems. Ecology does not have the resources to address all properties within the plume. Further, cleaning up all properties would create a significant environmental impact. Removing, transporting, and landfilling large volumes of soil would create large traffic, noise, air emissions, and waste disposal impacts.
- The third alternative is to not do cleanup and focus instead on **“institutional controls.”** Institutional controls attempt to limit human exposure through education and outreach, and by restricting future land use using deed restrictions or environmental covenants. This alternative does not adequately protect people in the highest risk areas of the plume. Funding will be available to do cleanup in addition to institutional controls.

## E. The SEPA Process

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**Early Scoping:** The planned cleanup process will likely have impacts on communities and environments within the Tacoma Smelter Plume site. Early scoping will help Ecology identify possible environmental impacts of the ICAP. This is also a chance for Ecology to share some preliminary cleanup plans with stakeholders. The agency will not ask for comments on the ICAP until late 2009 or early 2010.

This document is being sent to the following types of agencies and organizations:

- State agencies that conduct SEPA reviews for Ecology cleanups.
- County governments and planning agencies.
- County health agencies.
- Municipal governments and planning agencies.
- Environmental organizations.
- Building, development, and real estate associations.
- Individuals who have expressed an interest in the Tacoma Smelter Plume cleanup.

Ecology will compile all comments and make them publicly available in spring of 2009 (see page 9). The agency will consider these comments when making a SEPA determination.

**What types of impacts are considered?** A SEPA review looks at impacts to the environment and to surrounding communities. These typically include, but are not limited to:

- Land – stability, potential for erosion.
- Air – possible air emissions.
- Water – surface water, ground water, and runoff (includes storm water).
- Plants and animals – what types are present and whether they are threatened or endangered.



- Energy usage and natural resources.
- Environmental health – potential for exposure to health hazards, including noise.
- Land and shoreline use – current land use, zoning, potential for displacing people.
- Housing, aesthetics, light and glare, and recreation.
- Historic and cultural preservation.
- Transportation, public services, and utilities.

**SEPA Determination and ICAP Public Review:** Ecology plans to make the draft ICAP and SEPA determination available for public review in late 2009 or early 2010. The ICAP will describe more details of the sampling and cleanup work, and the other strategies listed in Section C. Ecology will use public comments to revise the ICAP, if appropriate, and produce a final draft. This second public review process will also be a chance to share cleanup plans with a wider range of stakeholders.

For more information about SEPA, visit <http://www.ecy.wa.gov/programs/sea/sepa/e-review.html>.

## **F. Call for Public Comments**

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Please send written comments to Hannah Aoyagi by e-mail at [haoy461@ecy.wa.gov](mailto:haoy461@ecy.wa.gov), or by mail to:

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WA Dept. of Ecology  
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Olympia, WA 98504-7775

Ecology will review your comments and create a summary. This summary will be made publicly available on Ecology's Web site: [http://www.ecy.wa.gov/programs/tcp/sites/tacoma\\_smelter/ts\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/tacoma_smelter/ts_hp.htm). A hard copy can be requested by contacting Hannah Aoyagi at the above address, or by calling 360.407.6790.

**What types of comments are helpful?** Ecology is trying to determine the types of environmental impacts the agency should consider. Please send your comments on what Ecology should include in the SEPA review process. There will be a chance to comment on the cleanup process itself once the draft ICAP is ready for public review (late 2009/early 2010).

**Staying Involved:** If you received an e-mail or mailing from Ecology, you are on the permanent mailing list for the project. If you would like to be added or removed from to the mailing list, please contact Hannah Aoyagi at 360.407.6790 or by e-mail at [haoy461@ecy.wa.gov](mailto:haoy461@ecy.wa.gov).

Please check Ecology's Tacoma Smelter Plume Web site for periodic updates:  
[http://www.ecy.wa.gov/programs/tcp/sites/tacoma\\_smelter/ts\\_hp.htm](http://www.ecy.wa.gov/programs/tcp/sites/tacoma_smelter/ts_hp.htm)



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## **Tacoma Smelter Plume Site King, Pierce, and Thurston Counties, WA**

### **State Environmental Policy Act (SEPA) Early Scoping for Cleanup**

Public Comment Period:  
February 2—March 20, 2009

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#### **What am I being asked to comment on?**

Ecology will be proposing an interim cleanup plan for the Tacoma Smelter Plume. Please submit comments on what Ecology should consider in assessing potential environmental impacts from this project.

#### **What is inside this document?**

- Background on the Tacoma Smelter Plume and current cleanup efforts.
- Information about the proposed interim cleanup plan.
- How the State Environmental Policy Act review process works.

#### **To be added or removed from the mailing list:**

Contact Hannah Aoyagi, Public Involvement Coordinator at 360.407.6790 or by e-mail at [haoy461@ecy.wa.gov](mailto:haoy461@ecy.wa.gov).



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