

# Cleanup Documents Now Available for Hamilton Road Impacted Area

## Documents that Support Cleanup Decision Available for Operable Unit 1 of Hamilton/Labree Superfund Site

Chehalis, Washington

April 2014

On August 28, 2013, the U.S. Environmental Protection Agency issued an interim cleanup plan, called a Record of Decision, for the Hamilton Road Impacted Area, or HRIA. This area is part of the Hamilton/Labree Roads Groundwater Contamination Superfund Site.

The HRIA is also known as Operable Unit 1. Find the cleanup plan at the information repositories listed on page 7, and on the EPA's Hamilton/Labree web page at <http://go.usa.gov/KvUA>

The cleanup plan is called "interim" because the EPA will propose and select other cleanups for the site after the HRIA cleanup action starts and additional site-wide data is collected and evaluated. Based on the studies done to date, the EPA determined there was enough reliable information about contamination at the HRIA to complete the Record of Decision for this area at this time.

### Public Comments Helped Shape Cleanup Plan

*The EPA provided a public comment period on our proposed cleanup plan from September 28 through November 9, 2012. We carefully considered all comments received during the public comment period before choosing the cleanup alternative documented in the HRIA Record of Decision. We held a public meeting on October 23, 2012 in Chehalis to get verbal and written comments and questions on the proposed cleanup plan.*

*The EPA received numerous comments during the public comment period. We responded to these comments and questions in the Responsiveness Summary which is included in Part III of the HRIA Record of Decision. The Responsiveness Summary is also available in the information repositories and on the EPA's Hamilton/Labree web page.*

## About the Overall Site

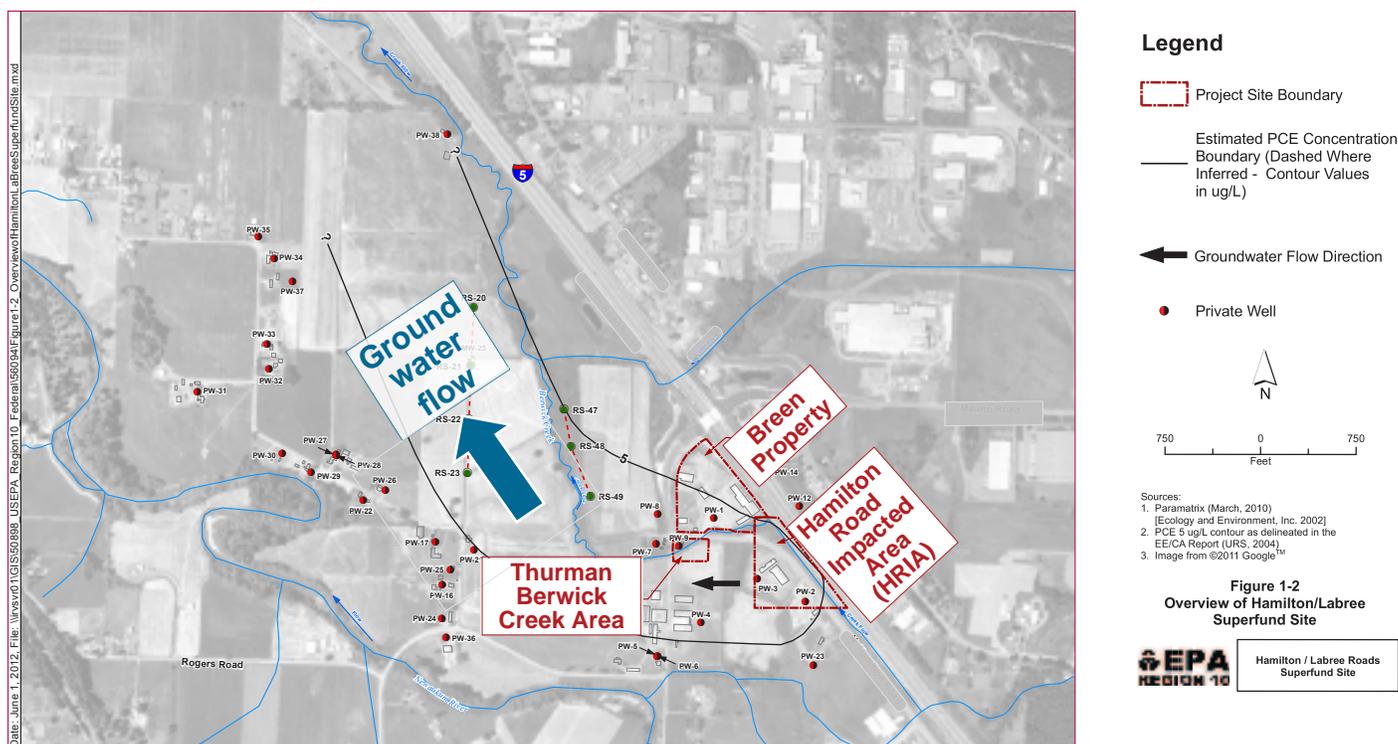
The Hamilton/Labree Roads Groundwater Contamination Superfund Site is located near the intersection of North Hamilton Road and Labree Road, west of Interstate 5, about two miles south of Chehalis, Washington.

The site includes several areas where tetrachloroethylene (known as PCE) and other chemicals were released onto soil and surface water, including at the HRIA. PCE is a chemical used for dry cleaning, metal degreasing and other industrial processes.

PCE-contaminated groundwater flows west and northwest from these areas along the Newaukum River Valley.

Many of the homes and businesses across the site now use drinking water from the City of Chehalis public water supply system. However, if the PCE is not cleaned up and the contaminated groundwater continues to move down the valley, residents and workers not on the public water supply system may be at risk of drinking PCE-contaminated groundwater.

## What is the Hamilton Road Impacted Area?



*PCE-contaminated groundwater flows west and northwest from several source areas at the site.*

The part of the site called the HRIA is a 10-acre area located along Interstate 5 and North Hamilton Road. It is the most upgradient part of the site, meaning it is upstream of the rest of the site. North Hamilton Road and Berwick Creek cross the HRIA from southeast to northwest. Berwick Creek flows west and then northwest from the HRIA.

The source of contamination at the HRIA appears to be a release of liquid PCE directly into Berwick Creek by an unknown entity. The exact date of the spill is also unknown, but it is estimated that the spill happened after 1970 and before 1990.

Studies done to date in the HRIA have found that PCE has contaminated Berwick Creek bed sediment and bank surface soil, and soil and groundwater beneath the creek in the shallow aquifer. This PCE has continued to dissolve over time in the shallow aquifer and move to other areas of the site.

If not cleaned up, it will continue to contaminate the groundwater for many decades to come. People at the HRIA may be at risk if they ever drank the PCE-contaminated groundwater.

In addition, the contamination may pose a risk to fish and animals living in the sediment and soil within the impacted area.

## EPA Compared the Selected Cleanup Alternative to Other Alternatives

The EPA selected a cleanup alternative called Combined Technology Scenario Alternative #2. We compared it with a number of other possible alternatives, including taking no action. The alternatives were evaluated against Criteria #8 and #9 after we received comments on the proposed cleanup plan.

We believe the selected alternative protects people's health and the environment, complies with cleanup requirements, and achieves the best balance in meeting the remaining criteria. Public comments supported the selected alternative, as did the Washington State Department of Ecology, the Confederated Tribes of the Chehalis Reservation, the Cowlitz Indian Tribe, and the Quinault Indian Nation.

## Comparing Selected Cleanup Alternatives

⇒ Continued

The other cleanup alternatives we considered are discussed in detail in the HRIA Feasibility Study report and summarized in the proposed cleanup plan, called the "Proposed Plan." You can find these documents at the information repositories and on the web page listed on page 7.

### Selected Cleanup Alternative Will Address Immediate Risks

The EPA selected Alternative CTS-2 because we believe it will best address the known sources of PCE contamination within the HRIA and the most immediate risks posed by these sources.

It will also best help reduce the amount of contaminated groundwater from moving from the HRIA to the rest of the site. The combination of technologies proposed for contaminated soil and groundwater will work together to reduce HRIA contamination as quickly as possible, and be cost effective.

### Criteria for Evaluating Cleanup Alternatives

1. Overall protection of human health and the environment
2. Compliance with state and federal laws known as "Applicable or Relevant and Appropriate Requirements"
3. Short-term effectiveness
4. Long-term effectiveness
5. Reduction of mobility, toxicity, and volume of contaminants through treatment
6. Implementability, or ability to carry out, the alternative
7. Cost
8. State acceptance
9. Community acceptance

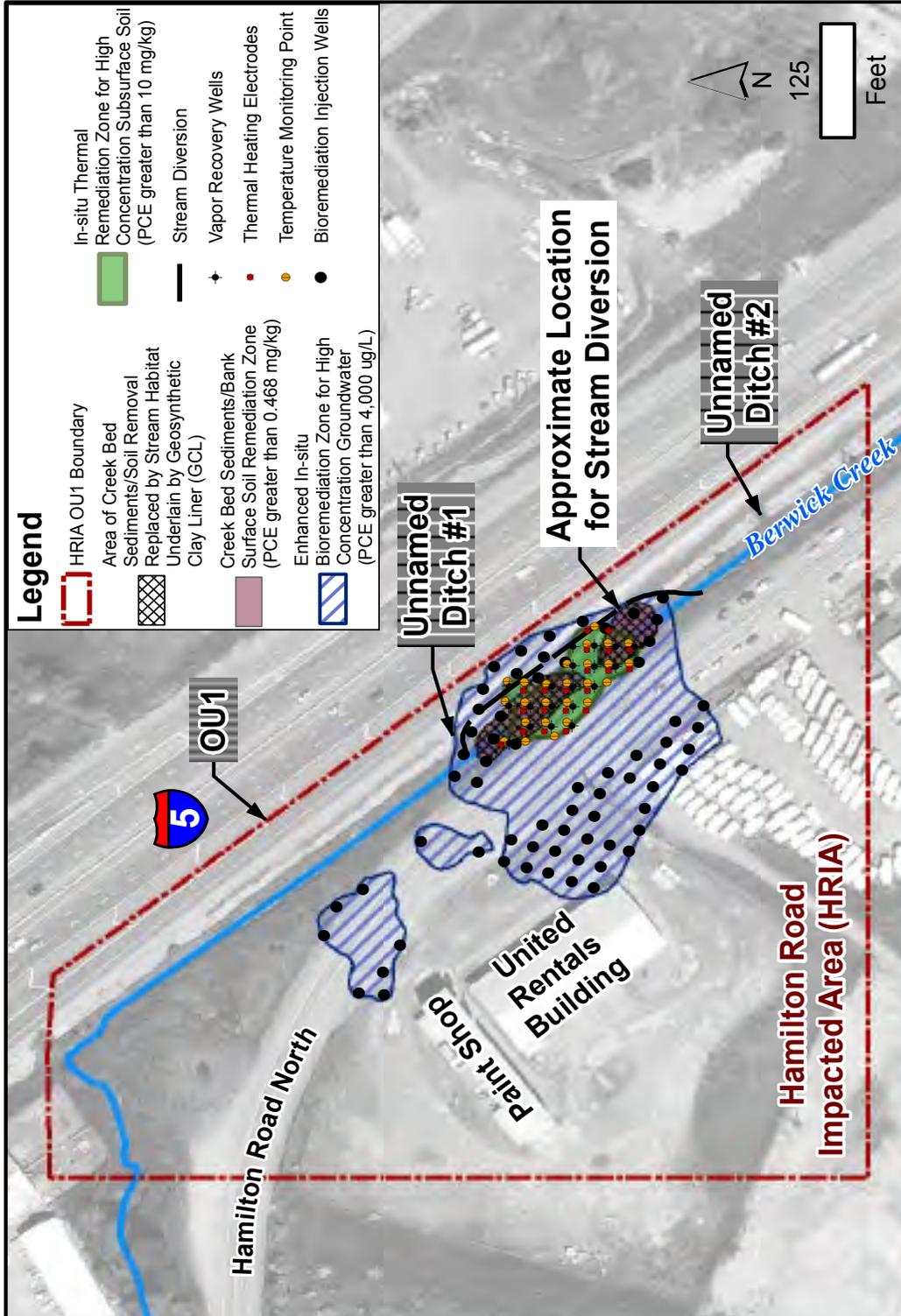
## A Step-by-Step Approach Means an Effective, Protective Cleanup

The EPA is using a phased, or step-by-step, approach to address contamination at the Hamilton/Labree site. We will begin with the interim cleanup at the Hamilton Road Impacted Area to address PCE-contaminated creek bed sediment and banksurface soil, soil beneath the ground surface, and groundwater.

We believe this approach is the most appropriate when there is not enough information gathered yet to determine how likely it is to be able to achieve long-term cleanup goals, like restoring groundwater to safe drinking water levels, over all or parts of the site. Addressing contamination in the HRIA is the first part of a comprehensive and dynamic strategy to manage the contaminated groundwater for the entire site. See map on next page ⇒

The selected cleanup alternative, CTS-2, includes:

- **Re-routing Berwick Creek around areas of contamination**
- ✓ Re-routing Berwick Creek around the areas of contamination in the HRIA will help protect fish and animals that live in or visit the creek channel from possible negative impacts caused by cleanup activities. The creek will be re-routed to a place within the HRIA where it may remain permanently. The creek channel (bed and banks) will be designed to protect fish and animals especially those living in the creek bed sediments. This means that PCE in the creek bed and banks will need to be less than 0.468 milligrams per kilograms (mg/kg) of PCE.



The selected cleanup alternative will address contamination in the Hamilton Road Impacted Area. For a more detailed map, see the Record of Decision at <http://go.usa.gov/kvUA>

## A Step-by-Step Approach Means an Effective, Protective Cleanup

⇒ *Continued*

### **Heating sediment and soil with PCE concentrations greater than 10 mg/kg**

- ✓ Heating the sediment and soil will remove contaminant mass and reduce PCE concentrations to 10 mg/kg.

### **Excavating and disposing of remaining sediment and surface soil with PCE concentrations greater than 10 mg/kg**

- ✓ If heating the sediment and surface soil (soil that is at the surface to 5 feet below the ground surface) does not reduce PCE contamination to 10 mg/kg, the sediment and surface soil will be excavated.
- ✓ Limited excavation may also be required before heating the contaminated sediment and soil. For example, excavation would be considered if isolated hotspots of PCE are found outside of the currently planned treatment area. These excavated hotspots would either be placed within the area to be heated or disposed of off-site at a licensed disposal facility.
- ✓ Excavated sediment and surface soil to be disposed of off-site will first be consolidated within the HRIA and treated with a chemical, such as potassium permanganate, if necessary, to meet disposal requirements. Or, the sediment and surface soil may be treated at an off-site, licensed disposal facility.
- ✓ If heating subsurface soil (deeper than 5 feet below the ground surface) does not reduce PCE contamination to 10 mg/kg, it will be treated with the same organic material that will be used to treat contaminated groundwater, as described in the column to the right ⇒

### **Adding organic materials to groundwater with PCE concentrations greater than 4,000 micrograms per liter (µg/L)**

- ✓ Injecting organic material such as emulsified vegetable oil into groundwater with PCE concentrations greater than 4,000 µg/L will enhance the biological breakdown of PCE. It will also reduce the movement of PCE from the HRIA to other areas of the site by 90%.

### **Institutional controls**

- ✓ Institutional controls or “ICs” will be carried out during and after the interim cleanup action. ICs are legal restrictions, covenants or easements on property, and governmental and/or administrative controls. ICs will be used to help stop or reduce the possibility of people being exposed to hazardous substances, pollutants or contaminants. IC objectives include preventing using groundwater for drinking water and requiring workers to wear protective gear.

### **Monitoring**

- ✓ Surface water, sediment, soil, groundwater, and air will be tested during and after cleanup to ensure people and the environment are protected, and the interim cleanup action is effective.

***Addressing contamination in the Hamilton Road Impacted Area is the first part of a comprehensive and dynamic strategy to manage the contaminated groundwater for the entire site.***

## About PCE (Tetrachloroethylene)

Other names for tetrachloroethylene (PCE) include tetrachloroethene and perchloroethylene.

PCE is a chemical used for metal degreasing, dry cleaning, and other industrial processes. It can move easily through air, water, and soils and may harm people. EPA has determined that PCE is carcinogenic (causes cancer) in people by all exposure routes (swallowing, breathing in, and skin contact).

- At high concentrations in air, particularly in closed, poorly ventilated areas, exposures can cause dizziness, headache, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, and death.
- At low levels in ambient air or drinking water (below the drinking water standards), risk of adverse health effects is minimal.
- The Maximum Contaminant Level (MCL) for PCE has been set at 5 parts per billion. EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to remove this contaminant should it occur in drinking water.

- These drinking water standards, and the regulations for ensuring these standards are met, are called National Primary Drinking Water Regulations. All public water supplies must abide by these regulations.

### **MCL = Maximum Contaminant Level**

MCL is the legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act.

The limit is usually expressed as a concentration in milligrams per liter (parts per million), or micrograms per liter (parts per billion) of water.

For more information about possible health effects from PCE, see the Agency for Toxic Substances and Diseases Registry web portal at

☞ <http://www.atsdr.cdc.gov/toxfaqs/index.asp>

Search under “T” for tetrachloroethylene or go to <http://go.usa.gov/DvvF>

## Site Studies and Past Cleanups

Contamination was first identified at the site in 1993-94, when the Washington State Department of Health found six private water-supply wells contaminated with PCE. Shortly thereafter, Ecology started providing bottled water to affected well owners, and began investigations to determine the contamination source.

**In 1998**, two areas of contamination were discovered at the site: the HRIA and an area northwest of the HRIA on property owned by the S.C. Breen Construction Company.

The Breen property covers about 11 acres and is bounded by Interstate 5 to the east, North Hamilton Road to the south, and Labree Road to the west. In 1999, about 70 drums, pails and cans, and 600 tons of PCE and petroleum-contaminated soil were removed from under a building on the Breen property.

**In 2000**, the EPA added the site to its Superfund National Priorities List (NPL) of contaminated sites selected for further investigation and cleanup. From 2000-2002, the EPA installed a new public water supply line to homes and businesses whose private wells were or could be contaminated with PCE. Since then, investigations suggest there are other sources of contamination at the site. However, more site-wide data is needed to develop other cleanup action(s) for the site that will achieve long-term protection of human health and the environment.

**In April 2013**, the EPA sampled 19 residential drinking water wells along Rice and Hamilton Roads. These wells are not hooked up to the Chehalis municipal water supply line, and are downgradient (downstream) of the known sources of PCE contamination at the site. PCE was **not** detected in any of these wells.

## Draft Site-Wide Cleanup Studies Available

In late 2011, the EPA completed two draft reports on the entire Hamilton/Labree Roads Groundwater Contamination Superfund Site:

- The Remedial Investigation Report, which describes the nature and extent of contamination across the entire site
- The Baseline Risk Assessment Report, which evaluates current and potential future risks to people's health and the environment from contamination across the site

These draft documents are available at the information repositories and website listed below.

We need to do additional studies to finalize these site-wide documents and prepare cleanup options for other areas of the site outside of the Hamilton Road Impacted Area.

However, these draft reports contain valuable information that helped us propose cleanup options for the Hamilton Road Impact Area, which led to the interim cleanup plan.

## Find the HRIA Record of Decision

Review the HRIA ROD and the Administrative Record (documents that support the cleanup decision) at:

### Vernetta Smith Chehalis Timberland Library

📍 400 N. Market Blvd  
Chehalis, WA 98532

☎ (360) 748-3301  
*Please Call for hours*

### EPA Region 10 Superfund Records Center

📍 1200 Sixth Avenue  
Seattle, WA 98101

☎ Toll free: 800-424-4372, ext 4494 or  
(206) 553-4494. *Please call for an appointment*

### 📍 Online

Find site documents, including the Record of Decision, on the EPA's Hamilton/Labree website: at <http://go.usa.gov/KvUA>

## For More Information

### General Information

#### Debra Sherbina

Community Involvement Coordinator

☎ Toll free: 800-424-4372 ext. 0247  
or 206-553-0247

📧 [sherbina.debra@epa.gov](mailto:sherbina.debra@epa.gov)

### Technical Information

#### Tamara Langton

Project Manager

☎ Toll free: 800-424-4372 ext. 2709  
or 206-553-2709

📧 [langton.tamara@epa.gov](mailto:langton.tamara@epa.gov)

☎ If you need materials in an alternative format, please contact Debra Sherbina toll free at 800-424-4372 ext. 0247 or 206-553-0247

📠 TDD or TTY users, please call 1-800-877-8339 and give the operator Debra's phone number at 206-553-0247



***EPA's Cleanup Documents Now Available  
for Hamilton Road Impacted Area***

***Look Inside for***

- ***Public Comments Helped Shape Cleanup Plan***
- ***What is the Hamilton Road Impacted Area?***
- ***Steps to an Effective, Protective Cleanup***