



# PROPOSED PLAN ANNOUNCED FOR RAVENSWOOD PCE SUPERFUND SITE

CITY OF RAVENSWOOD, JACKSON COUNTY, WEST VIRGINIA      **JANUARY 2011**

## EPA PROPOSES CLEANUP PLAN

The United States Environmental Protection Agency (EPA) has developed a Proposed Remedial Action Plan, or proposed plan, for cleaning up the contaminated groundwater associated with the Ravenswood PCE Superfund Site.

The proposed plan outlines several options for cleanup, including EPA's preferred cleanup alternative.

### **EPA's preferred cleanup alternative for the contaminated groundwater associated with the site includes:**

- Continued In-Situ Air Sparging with Soil Vapor Extraction (AS/SVE) at the site. The current system, which was part of a Treatability Study, will be expanded;
- Monitoring the contaminated groundwater;
- Continued treatment of the city's contaminated production wells *before* distribution to the city;
- An investigation to ensure proper placement of the air sparging and soil vapor extraction wells; and
- Institutional controls to prevent installation of new production wells in the contaminated groundwater.

This fact sheet is a summary of the proposed plan. The entire Proposed Plan is available online under the "Administrative Record" link at:

<http://www.epa.gov/reg3hwmd/super/sites/WVSFN0305428/index.htm>



## EPA SEEKS YOUR COMMENTS

Community involvement is critical to EPA's decision making process. To make sure the community has the opportunity to comment on the proposed plan, there is an official 30-day Public Comment Period. **The Public Comment Period opens on January 10, 2011 and runs through February 9, 2011.**

There are three ways you can comment on the proposed plan:

1. By postal mail;
2. By email;
3. **Or in person at EPA's Public Meeting (see below):**

### **EPA Public Meeting**

Thursday, January 20, 2011  
6:30 p.m.-8:30 p.m.

City of Ravenswood Fire Hall  
333 Virginia Street  
Ravenswood, WV 26164

- EPA representatives will be presenting the proposed plan and will answer questions regarding the site.
- This is your opportunity to provide your comments on the plan in person.

## PROPOSED PLAN SUMMARY

EPA evaluated four different options to clean up the contaminated groundwater associated with the site.

### **EPA's preferred cleanup option is Alternative 4.**

The other options are summarized below:

#### **Alternative 1: No Further Action**

EPA is required by law to consider a "No Further Action" alternative for every Superfund Site for comparison reasons.

- Estimated Cost: \$0
- Estimated Time of Completion: Hundreds of years

#### **Alternative 2: Groundwater Extraction and Granular Activated Carbon (GAC) Treatment Using New Extraction Well**

Alternative 2 includes:

- Installation of a new extraction well;
- Pumping contaminated groundwater to the surface for treatment through a GAC system;
- Discharge of treated water to the Ohio River or city's water supply; and
- Institutional controls to prevent production wells from being installed in the contaminated area.
- Estimated Cost: \$1,600,000
- Estimated Time of Completion: 30 years

#### **Alternative 3: Venturi Air Stripping Using a New Extraction Well**

Alternative 3 includes:

- Installation of a new extraction well;
- Installation of a Venturi Air Stripper to remove tetrachloroethylene (PCE) from the city's water supply; and
- Institutional Controls to prevent production wells from being installed in the contaminated area.
- Estimated Cost: \$1,200,000
- Estimated Time of Completion: 30 years

#### **Alternative 4: In-Situ Air Sparging with Soil Vapor Extraction**

Alternative 4 includes:

- In-Situ Air Sparging
  - Air is injected into the groundwater to help remove the PCE from the groundwater by converting the PCE into a vapor.
- Soil Vapor Extraction
  - Vapors are captured to ensure that it does not migrate.
  - The vapors are filtered and clean air is discharged outside.
- A study to ensure proper placement of the In-Situ Air Sparging and Soil Vapor Extraction units.
- Estimated Cost: \$978,000
- Estimated Time of Completion: 30 years

**Alternative 4 is EPA's preferred cleanup Alternative based on the criteria below.**

## EPA'S NINE CRITERIA ANALYSIS

Before EPA chooses a final cleanup method, the alternatives are evaluated using nine criteria to ensure that EPA is selecting the best cleanup. **EPA's nine criteria in selecting a cleanup are:**

1. Overall Protection of Human Health and the Environment;
2. Compliance with Applicable or Relevant and Appropriate Requirements;
3. Long-term Effectiveness;
4. Reduction of Toxicity, Mobility, or Volume through Treatment;
5. Short-term Effectiveness;
6. Implementability;
7. Cost;
8. State Acceptance; and
9. Community Acceptance.

At this point, EPA has fully evaluated the first seven of the nine criteria. Only after considering input from state officials and the community regarding the proposed plan, will EPA make a final cleanup decision. **EPA's preferred alternative could be modified in response to new information and/or public comment.**

## NEXT STEPS

After the public comment period has ended and comments have been reviewed and carefully considered, EPA will choose the cleanup option for the site. The cleanup option will be described in a **Record of Decision (ROD)**. EPA's responses to submitted comments will be recorded in a document called the Responsiveness Summary, which will be part of the ROD.

## WHAT IS PCE?

Tetrachloroethylene (also known as perchloroethylene, PCE, or PERC) is the contaminant of concern at the Ravenswood PCE Superfund Site. PCE is a chemical that is commonly used in dry cleaning and in metal degreasing. It is a sweet smelling chemical that evaporates easily into the air. Being exposed to high concentrations of PCE can cause dizziness, headaches, sleepiness, confusion, nausea, and difficulty speaking and walking. If someone is exposed to low levels of PCE over a period of time, there is a chance it may cause cancer.

## Proposed Plan Comment Period

January 10, 2011  
Through  
February 9, 2011

Comments can be received via:

- Mail;
- Email; or
- In person at the public meeting on January 20, 2011 at the City of Ravenswood Fire Hall.

**See page 4 for email and mailing instructions.**



## FOR MORE INFORMATION

If you would like to review the proposed plan in full, read site background information or review other site-related documents, please visit our website at: <http://www.epa.gov/reg3hwmd/super/sites/WVSFN0305428/index.htm>

**To review the Administrative Record in person, call to make an appointment:**

Anna Butch, (215) 814-3157

U.S. EPA Region 3

Administrative Records

Room

1650 Arch Street

Philadelphia, Pennsylvania

19103

Hours: Monday-Friday 8:30 a.m.-4:30 p.m.



**Information is also available at:**

Jackson County Library

323 Virginia Street

Ravenswood, WV 26164

Phone: (304) 273-5343

Hours: Sunday: 9:00am to 5:00pm

Monday: 9:00am to 8:00pm

Tuesday: Closed

Wednesday: 9:00am to 8:00pm

Thursday: 9:00am to 5:00pm

Friday: 9:00am to 3:00pm

Saturday: Closed



**Federal Funding for  
Technical Assistance**

**EPA's Technical Assistance  
Grant (TAG) Program**

provides funds of up to \$50,000 to qualified citizens' groups affected by a Superfund site to hire independent technical advisors to help interpret and comment on site-related information. Since only one TAG may be awarded for a site, EPA encourages groups to consolidate to apply.

For TAG information, please contact **Amelia Libertz, TAG Coordinator, at 215-814-5522**

**Ravenswood PCE Superfund Site Contacts:**

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**Community Involvement Coordinator**  
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**Remedial Project Manager**  
**(215) 814-3295**  
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Mail comments (postmarked no later than February 9, 2011) to:

**U.S. EPA Region 3**  
**ATTN: Laura Johnson, 3HS23**  
**1650 Arch Street**  
**Philadelphia, PA 19103**

Or email comments via email to: johnson.laura@epa.gov

**EPA Proposed Plan for Ravenswood PCE Superfund Site**



U.S. Environmental Protection Agency  
Attn: Trish Taylor  
Mailcode 3HS52  
1650 Arch Street  
Philadelphia, PA 19103