



## LOWER DARBY CREEK AREA SUPERFUND SITE UPDATE

PHILADELPHIA AND DELAWARE COUNTIES, PENNSYLVANIA

JANUARY 2011

### EACH LANDFILL INVESTIGATION IS UNIQUE

The **Lower Darby Creek Area (LDCA) Superfund Site** is comprised of the Clearview and Folcroft Landfills (see **Figure 1** below). The landfills sit on opposite sides of the lower end of Darby Creek about two miles apart. They are considered one site because they are located in the same watershed and have the potential to affect the same wetlands and creeks. This fact sheet provides an update of activities ongoing at both landfills.

**Clearview Landfill** is being investigated by the Environmental Protection Agency (EPA) in coordination with the Pennsylvania Department of Environmental Protection (PADEP). The landfill is located primarily in Darby Township, Delaware County, but its original footprint extended into Philadelphia, primarily into the Eastwick City Park.

**Folcroft Landfill** is being investigated by a group of Potentially Responsible Parties (PRPs) with oversight by EPA and PADEP and in consultation with the US Fish and Wildlife Service. Folcroft Landfill is located in Folcroft Borough, Delaware County, and is within the John Heinz National Wildlife Refuge (NWR).

**Free:** Register for the April 2011 **Brownfields Conference & Environmental Justice Caucus** right here in Philadelphia!

To register, go to [www.brownfields2011.org](http://www.brownfields2011.org)

### WHAT IS A REMEDIAL INVESTIGATION AND FEASIBILITY STUDY?

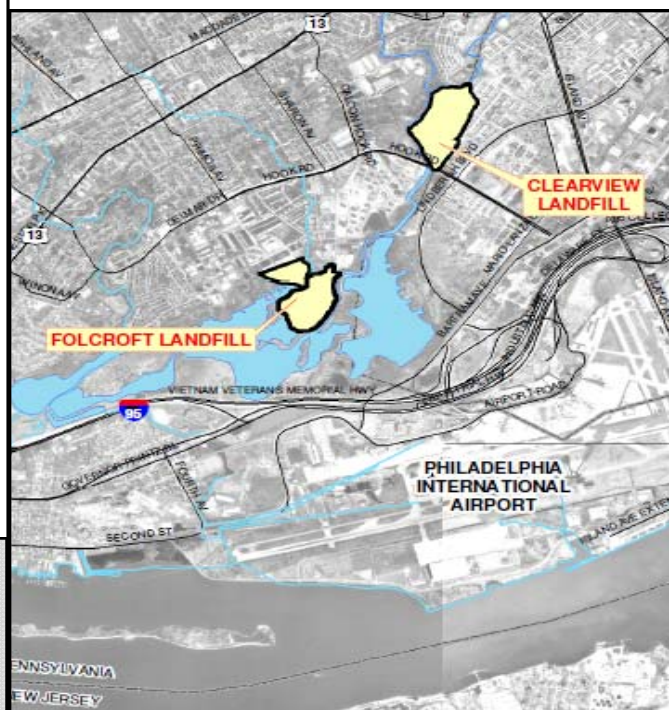
The Remedial Investigation (RI) is intended to:

- Identify what and how much contamination is present, where it is located, and how it could move through the environment.
- Assess whether and how the contaminants might affect human health or the environment.

The Feasibility Study (FS) is intended to:

- Evaluate the different options that will clean up the contamination and protect people and the environment.

**Figure 1.** Location of Clearview and Folcroft Landfills



## WHAT ARE THE FINDINGS OF THE RI FOR CLEARVIEW LANDFILL?

The RI for Clearview Landfill is nearly complete. Important findings from the RI include:

- Families of contaminants found at the landfill include: metals, organic and other petroleum related compounds, polychlorinated biphenyls (PCBs), and pesticides.
- Numerous contaminants in the soil and groundwater were detected within the main body of the landfill that sits in Delaware County.
- Low levels of several contaminants were detected in the City Park soils; most were several feet below the ground surface.
- Little or no contamination was detected in the soil in the Eastwick neighborhood.
- Several contaminants were detected at lower levels in the water and sediment from Darby and Cobbs Creek as well as in Tinicum Marsh.
- Fish tissue was determined to have excessive levels of contaminants. Eating fish from local waters could pose a risk to consumers.
- Gases associated with the landfill were detected in soil.

The RI also assessed potential risks from exposure to what is in the landfill. Findings include:

- If consumed over long periods of time (30+ years), the groundwater under the landfill could cause negative health effects. However, all residences and businesses in the area are on public water and do not use groundwater.
- Fish in Darby Creek were determined to have excessive levels of contaminants. Regularly eating fish from the creek over long periods of time (30+ years) could cause negative health effects. There is a Pennsylvania restriction on consumption of fish from Darby Creek.
- Direct contact with contaminated soils from the main body of the landfill presents a slightly elevated chance of health impacts over a long-term (30+ years) exposure period for humans.
- Direct contact with soils in the park and neighborhood over a long time (30+yrs) poses lower risks for health effects than landfill soils.

- The likelihood that negative health effects will occur from direct contact with soils is slightly higher than EPA allows. The greatest risks come from ingesting (swallowing) soils. Risks from skin contact or inhalation are minimal.
- Surface water, sediment, and landfill gases have the least potential to cause adverse health effects to humans over a lifetime. These risks are within EPA's "acceptable" range.

**Please note:** EPA has determined that long-term health risks associated with exposure to the entire site (including the contaminants deep in the landfill and the groundwater) are low, and the landfill poses no potential short-term health risks.

## ADDITIONAL INVESTIGATION

While the Clearview RI is being finalized and the FS is being written, EPA is investigating several other issues at the landfill. These include:

**Additional Groundwater Testing:** Additional monitoring wells will be installed to test groundwater and see how far contamination from the landfill extends. These wells will be installed in the Eastwick City Park and neighborhood and on several properties west of Darby and Cobbs Creek. **Installation of the wells will start in February 2011 and will take several weeks.** The well drilling equipment will be quite loud but should only last a few days for each well location. EPA will notify residents when drilling is about to start using postcard announcements.

**Residential Air Testing:** In Spring 2010, EPA tested approximately twenty homes in Eastwick. The results indicated that some homes need to be further evaluated. The second round of testing will measure concentrations of contaminants (if they are present) inside and beneath homes. The sample results should determine if **1)** landfill gases are present under the homes; **2)** if so, whether the gases are getting into the homes; and **3)** if so, what potential risks they pose to residents. This testing will take place in Winter 2011.

**Revolutionary War Graveyard Research:** Evidence that a soldiers' burial ground may be present near this landfill was provided to EPA by local historians. A cultural resources survey is now being conducted to determine if a graveyard or other culturally significant resources are present and, if so, what must be done to preserve them.

## WHAT IS THE STATUS OF THE RI AT FOLCROFT LANDFILL?

The RI for Folcroft Landfill is expected to be completed by Spring of 2011. EPA recently reviewed a draft version of the RI that was submitted by the PRPs. Because the RI is still in an early phase, no data or conclusions are available for release at this time.

## AN AQUATIC RISK ASSESSMENT IS UNDERWAY

EPA is conducting an aquatic Baseline Risk Assessment (BRA) of the portion of Darby Creek from Clearview Landfill to the Delaware River, including the Tinicum Marsh within the NWR. The goal of the BRA is to evaluate what, if any, potential risks LDCA-related contaminants may pose to humans, plants, and animals that use these waters.

Fish tissue samples were collected in April 2010 for the BRA. Additional sampling is planned for Spring 2011. EPA anticipates that the final aquatic risk assessment will be completed by 2012.

## HOW IS RISK CALCULATED?

When EPA evaluates the health risks posed by a Site, it is calculating whether exposure to site-related contaminants might cause illnesses in addition to the illnesses that would be statistically likely to occur in the local population if there was no Superfund site in the community.

EPA uses scientific formulas to calculate potential risks for cancers and for non-cancer health effects (other illnesses). Some things the formulas take into account are the type and amount of hazardous substance present, the way a person may come into contact with it, how long the person stays in contact with it, how frequently contact occurs and over what period of time. Additionally, the formulas consider the age of the person and the type of activity the person is performing.

## FEASIBILITY STUDIES ARE NEEDED AT BOTH LANDFILLS

Because of 1) potential risks to humans and animals and 2) laws that apply to a Site like this, a separate FS is needed for each landfill. An FS evaluates several potential cleanup options that could be used to effectively address contamination and unacceptable risks identified in the RI. The FS for Clearview Landfill is expected to be completed in early 2012. The FS for Folcroft will likely be completed later in 2012. The cleanup strategy for each landfill will be based on the FS and will be selected after a public comment period.

## LDCA REUSE ASSESSMENT


EPA recently began a Site Reuse Assessment for the LDCA site. Its purpose is to determine how various stakeholders view the site and to identify any potential plans or desires for future reuse of the site after cleanup is complete. To date, several Philadelphia and Delaware County municipal officials have been interviewed, as well as community and environmental non-profit organizations, and some site property owners. A Reuse Assessment report will soon be finalized that will document the findings of this phase of the Reuse Assessment.

## WHAT'S NEXT?

The next step is to share the Reuse Assessment with local community members and hear their ideas about future reuse of the landfills. Although EPA can place certain restrictions on Superfund sites when they are remediated, the Agency does not control future site uses in any other way. However, where possible, EPA does attempt to select remedies that are compatible with the intended future use(s). EPA plans to share more detailed results of the Clearview RI, the overall project schedule, and information from the Phase 1 Site Reuse Assessment with interested community members in February 2011. A public meeting date will be announced in the *Southwest Philadelphia Globe Times* and postcard announcements will be sent to community members on EPA's mailing list.

HOW CAN I STAY INFORMED?	TECHNICAL ASSISTANCE IS AVAILABLE
<p>For additional information regarding the Lower Darby Creek Superfund Site, you may contact:</p> <p style="text-align: center;"><b>Carrie Deitzel</b> Community Involvement Coordinator US EPA Region 3 1650 Arch Street (3HS52) Philadelphia, PA 19103-2029 215-814-5525; <a href="mailto:deitzel.carrie@epa.gov">deitzel.carrie@epa.gov</a></p>	<p>EPA awarded a <b>Technical Assistance Grant (TAG)</b> to the Darby Creek Valley Association (DCVA). The group hired an independent technical advisor to review site-related data and documents and provide analyses to DCVA. DCVA reports on site-related developments in its newsletter. For more information about the TAG, feel free to contact DCVA at:</p> <p style="text-align: center;">The Darby Creek Valley Association P.O. Box 732 Drexel Hill, PA19026 610-789-1814 <a href="mailto:message@dcva.org">message@dcva.org</a></p> <p>EPA also provides independent technical support to community members through a user-friendly program called <b>Technical Assistance Services to Communities (TASC)</b>. Through TASC community members may request independent technical advisors, educational workshops, and many other services. Interested community members may <b>contact Carrie Deitzel</b>, Community Involvement Coordinator, for more information.</p>
<p style="text-align: center;"><b>Joshua Barber</b> Remedial Project Manager U. S. EPA Region 3 1650 Arch Street (3HS21) Philadelphia, PA 19103-2029 215-814-3393 <a href="mailto:barber.joshua@epa.gov">barber.joshua@epa.gov</a></p>	

Address Label


 U.S. Environmental Protection Agency  
 Region 3  
 Attn: Carrie Deitzel  
 1650 Arch Street (3HS52)  
 Philadelphia, PA 19103

**U.S. Environmental Protection Agency  
 Community Update for Lower Darby Creek Area Superfund Site**