

Havertown PCP Superfund Site Update

Havertown EAC Meeting
June 27, 2013

Josh Barber
Remedial Project Manager

Havertown PCP Site History



- 1947-1963 – National Wood Preservers (NWP) wood treatment with pentachlorophenol (PCP)
- 1964-1991 – NWP operations using diff. processes
- 1972 – Initial Pa. Department of Environmental Resources order for Naylor's Run cleanup
- 1976 – EPA Cleanup Under Clean Water Act
- September 8, 1983 – National Priorities List

Havertown PCP EPA Cleanup Actions



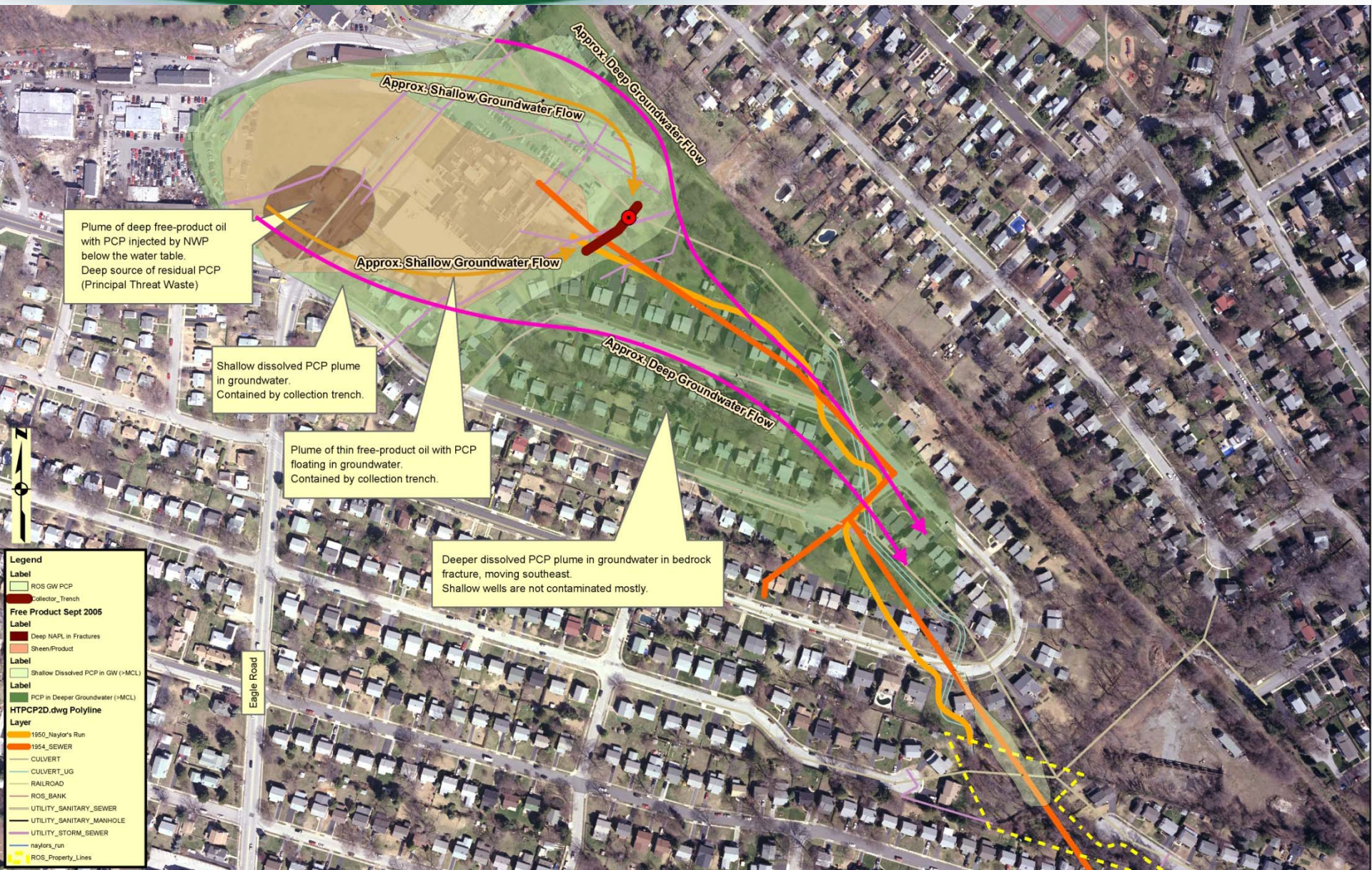
- Operable Unit (OU) 1 – Oil/Water separator, “cleaned” NWP property (‘91)
- Removal Action – NWP Cap (‘96-’97)
 - Synthetic Geomembrane Liner (3 acres)
 - 4’-10’ additional fill
- OU2 – Shallow Groundwater (‘97-’01)
 - GW/Product recovery wells on NWP property
 - Groundwater collection trench (CTR)
 - Groundwater treatment plant

Havertown PCP EPA Cleanup Actions (cont'd)



- OU3 – Deep Groundwater/ROS ('08-'10)
 - Additional source GW extraction well
 - Recreation and Open Space (ROS) excavation & GW extraction
 - Increase capacity of GW treatment system
 - In-situ flushing
 - Institutional Controls
 - Easements, Township Ordinance, IC Plan
 - Ecological Study of in Naylor's Run
- Ongoing Maintenance of Remedy
 - Quarterly, Semiannual & Annual monitoring

Site Aerial Map



Plume of deep free-product oil with PCP injected by NWP below the water table.
Deep source of residual PCP (Principal Threat Waste)

Shallow dissolved PCP plume in groundwater.
Contained by collection trench.

Plume of thin free-product oil with PCP floating in groundwater.
Contained by collection trench.

Deeper dissolved PCP plume in groundwater in bedrock fracture, moving southeast.
Shallow wells are not contaminated mostly.

- Legend**
- Label**
- ROS GW PCP
 - Collector_Trench
- Free Product Sept 2005**
- Label**
- Deep NAPL in Fractures
 - Shoen/Product
- Label**
- Shallow Dissolved PCP in GW (>MCL)
 - PCP in Deeper Groundwater (<MCL)
- HTPCP2D.dwg Polyline**
- Layer**
- 1950_Naylor's Run
 - 1954_SEWER
 - CULVERT
 - CULVERT_UG
 - RAILROAD
 - ROS_BANK
 - UTILITY_SANITARY_SEWER
 - UTILITY_SANITARY_MANHOLE
 - UTILITY_STORM_SEWER
 - naylor's_run
 - ROS_Property_Lines



Eagle Road

2012 PCP Groundwater Plume Map



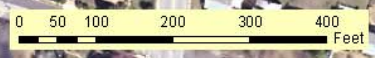
Legend

2012-2013 "Deep" Wells PCP Values (ug/L) Concentrations

- Non Detect
- <1000 ug/L
- 1000 - 2000
- 2000 - 3000
- 3000 - 4000
- >4000

Map Features

- Collector Trench
- Projected PCP Plume - 2013 (1 ppb)
- Projected PCP Plume - Historical
- 1950 Naylor's Run
- 1954 Sewer
- Culvert
- Sanitary Sewer
- Naylor's Run



Ongoing Site Activities



- Monitoring of Groundwater Treatment Plant performance
 - PCP, dioxins, benzene, BTEX, naphthalene, phenathrene, TCE, arsenic, iron, manganese
 - Approx. 143M gallons treated since August 2002
 - Monthly, Semiannual, Annual sampling
- Regular maintenance of Treatment Plant Equipment
 - Impact of naturally occurring metals
- YMCA Coordination
- Cap maintenance
- Updating Evaluation of Extraction System Capture Zone
- Groundwater sampling near western edge of cap

Superfund Long-Term Actions



- Remedial actions to restore groundwater include up to 10 years of Long-Term Remedial Action (LTRA)
- LTRA starts after remedy is deemed Operational & Functional (O&F)
- O&F status achieved 1 year after construction or remedy is complete OR EPA/State determine functioning properly
 - Whichever is first
- After 10 years LTRA, if cleanup goals not achieved, remedy transitions to Operation and Maintenance (O&M) to be conducted by the State

Transfer From EPA to PADEP



- EPA determined OU-2 remedy was O&F June 24, 2003
- Management of OU-2 remedy transitioned to Pennsylvania Dept. of Environmental Protection (PADEP) June 24, 2013
- OU-3 remedial action is comingled with OU-2 remedy
 - PADEP taking over OU-3 LTRA as well
 - Periodic cost reconciliation
- EPA providing continued oversight of remedy with PADEP
 - Five-year reviews still required
- Same consulting firm to manage Site for PADEP as EPA
 - Tetra Tech

Annual Havertown PCP System Operations & Maintenance Costs

Dates		Costs
From	To	
July 2005	June 2006	\$789,000
July 2006	June 2007	\$837,000
July 2007	June 2008	\$712,000
July 2008	June 2009	\$579,000
July 2009	June 2010	\$722,000
July 2010	June 2011	\$912,000
July 2011	June 2012	\$923,00
July 2012	May 2013	\$784,000

Next Steps



- EPA complete “house keeping” tasks initiated before transition
- Issue 2012 Annual Monitoring Report
- Continued EPA & PADEP Coordination
- Initiate 2015 five-year review

Useful Resources



- EPA Havertown Website
<http://www.epa.gov/reg3hwmd/npl/PAD002338010.htm>
- EPA “Transfer of Long-Term Response Action (LTRA) Projects to States,” July 2003
<http://www.epa.gov/superfund/cleanup/postconstruction/ltrafactsheet.pdf>
- EPA “Operation and Maintenance in the Superfund Program,” OSWER 9200.1-37FS, EPA 540-F-01-004, May 2001
<http://www.epa.gov/superfund/policy/pdfs/sheet.pdf>
- National Oil and Hazardous Substances Pollution Contingency Plan (NCP) <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=0ccb37ccb9597b32aa67f3ec1332e9ff&rgn=div5&view=ext&node=40:29.0.1.1.1&idno=40>

Contacts



- Josh Barber
EPA Remedial Project Manager
215-814-3393
barber.joshua@epa.gov
- Ruth Wuenschel
EPA Community Involvement Coordinator
215-814-5540
wuenschel.ruth@epa.gov
- Tim Cherry
PADEP Solid Waste Supervisor
484.250.5728
tcherry@pa.gov