



Norwood Landfill Site Assessment
Community Information Session | November 21, 2019

Norwood Landfill Superfund Site Assessment

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US EPA Region III



Norwood Landfill Site Assessment

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Overview

- Community concerns prompted EPA to conduct a site assessment.
- EPA's site assessment began in February 2017 and is ongoing.
- Current data does not indicate contamination found in the landfill or residential soil poses a threat to human health.
- Additional sampling will be conducted.
- Health agency partners will be conducting a health consultation to address some of the health concerns



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- Old Norwood Dump
 - ~ 10 acres
 - “Town Dump”
 - ~ 1950 – 1959
- Norwood Landfill
 - ~ 15 acres
 - 1960 – 1963
 - Municipal Solid Waste
- Former Muckinipattis WWTP
 - Demolished in 1980’s

Norwood Landfill Site Boundaries including Old Norwood Dump
(boundaries approximate)



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Norwood Landfill

1957 Aerial

----- Outline of the
"Norwood Dump"
boundaries
(approximate)





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Norwood Landfill

1958 Aerial

----- Outline of the
"Norwood Dump"
boundaries
(approximate)





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Norwood Landfill
1958 Aerial
Depicting Norwood Dump



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Norwood Landfill

1965 Aerial

Outline of the
known landfill
boundaries





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Norwood Landfill
1965 Aerial
Depicts a capped landfill



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How did EPA Become Aware of the Site?

- Referred to EPA by the Agency for Toxic Substances and Disease Registry (ATSDR) in September 2016
- Community Concerns:
 - The landfill itself
 - Contaminated fill in their neighborhood
 - Cancer and auto-immune disease
 - Proximity to the Lower Darby Creek NPL site



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What Steps Did EPA Take to Investigate the Concerns?

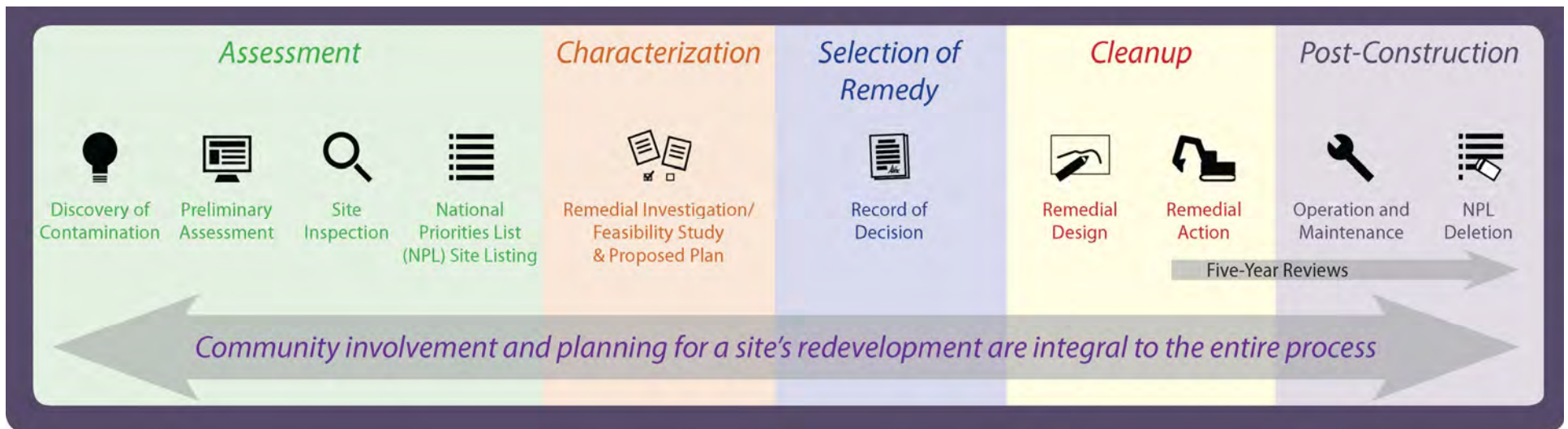
- Consulted with ATSDR to review the cancer and MS data provided to EPA
- Initiated and performed a Site Assessment
 - Pre-CERCLA Screen/Discovery 02/2017
 - Preliminary Assessment 07/2017
 - Site Inspection 02/2018
 - Expanded Site Inspection 09/2018



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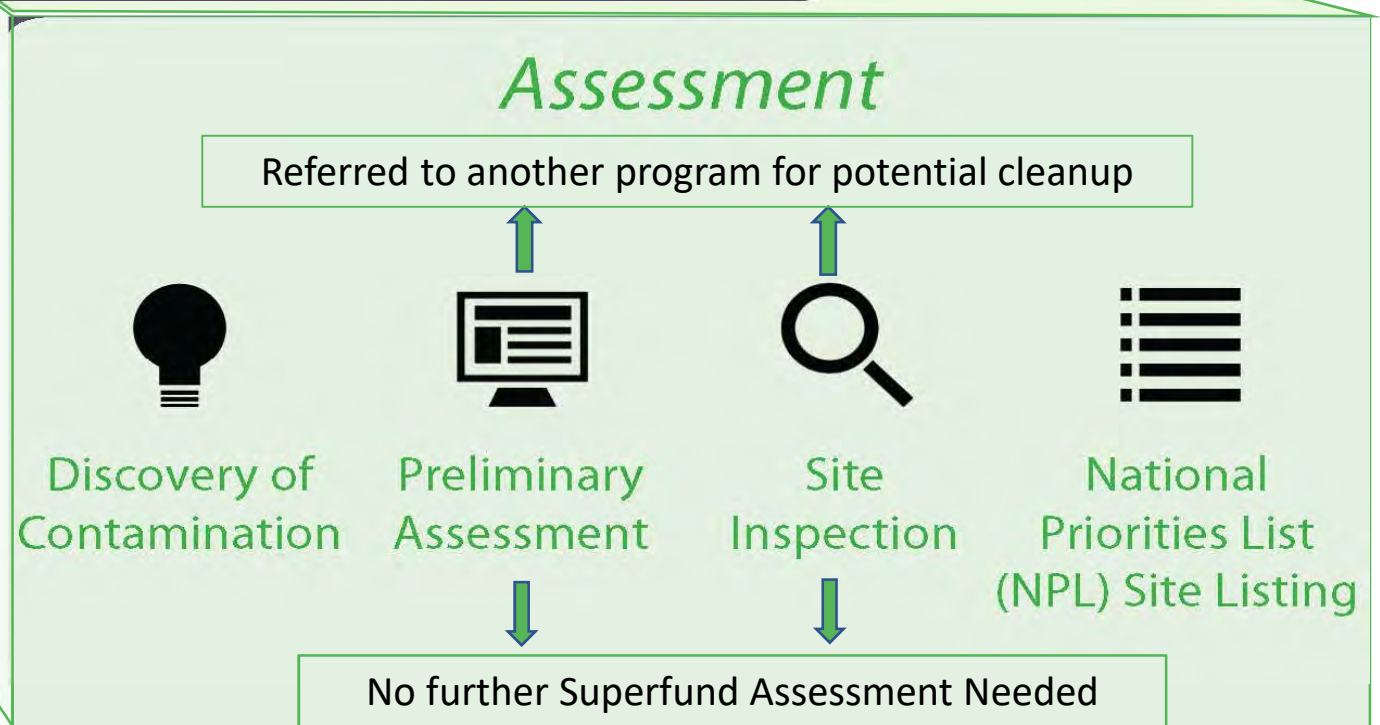
The Overall Superfund Remedial Process





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Hazard Ranking System (HRS)

- Used to assess the relative threat associated with actual or potential releases of hazardous substances
- Determines whether a site is to be proposed on the NPL
- Evaluates four pathways of contaminant migration and exposure
 - Groundwater Migration
 - Surface Water Migration
 - Soil Exposure
 - Air Migration



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Why did EPA conduct environmental testing of the landfill?

- There were indicators in the information received from the community that fit the criteria of the Hazard Ranking System (HRS):
 - Credible information received from the community
 - Proximity of landfill to large residential community
 - Proximity to sensitive environments such as wetlands
 - Community health concerns



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Legend

- Parcels Previously Sampled by USFWS
- John Heinz National Wildlife Refuge
- Former Landfill
- NW1 Wetlands
- Muckinipattis Creek
- SW/Sed Sample Locations
- Surface Soil Sample Locations
- Surface and Subsurface Sample Locations

Data Sources:

Imagery: ESRI, Bing Mapping Service
The source of this map image is Esri, used by the EPA with Esri's permission.

Shapefiles: US Fish and Wildlife Service

Coordinate System:

WGS 1984 UTM Zone 18N
Linear Unit: Foot US

Datum: WGS 1984



Norwood Landfill Site
Norwood, Delaware County, PA

TDD#: W503-17-03-001
Contract: EP-03-15-02
Prepared: 11/14/2019



Sample Location Map

September 2017



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SOIL sampling activities in September 2017

- 20 surface (0"-6" below surface) samples
- 9 subsurface soil samples (24"-48" below surface)
- 3 test pits dug down to 48" to determine if waste material was present
- Analyzed for VOCs, SVOCs, PAH's, pesticides, PCBs, metals, and mercury samples



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Results from September 2017 sampling

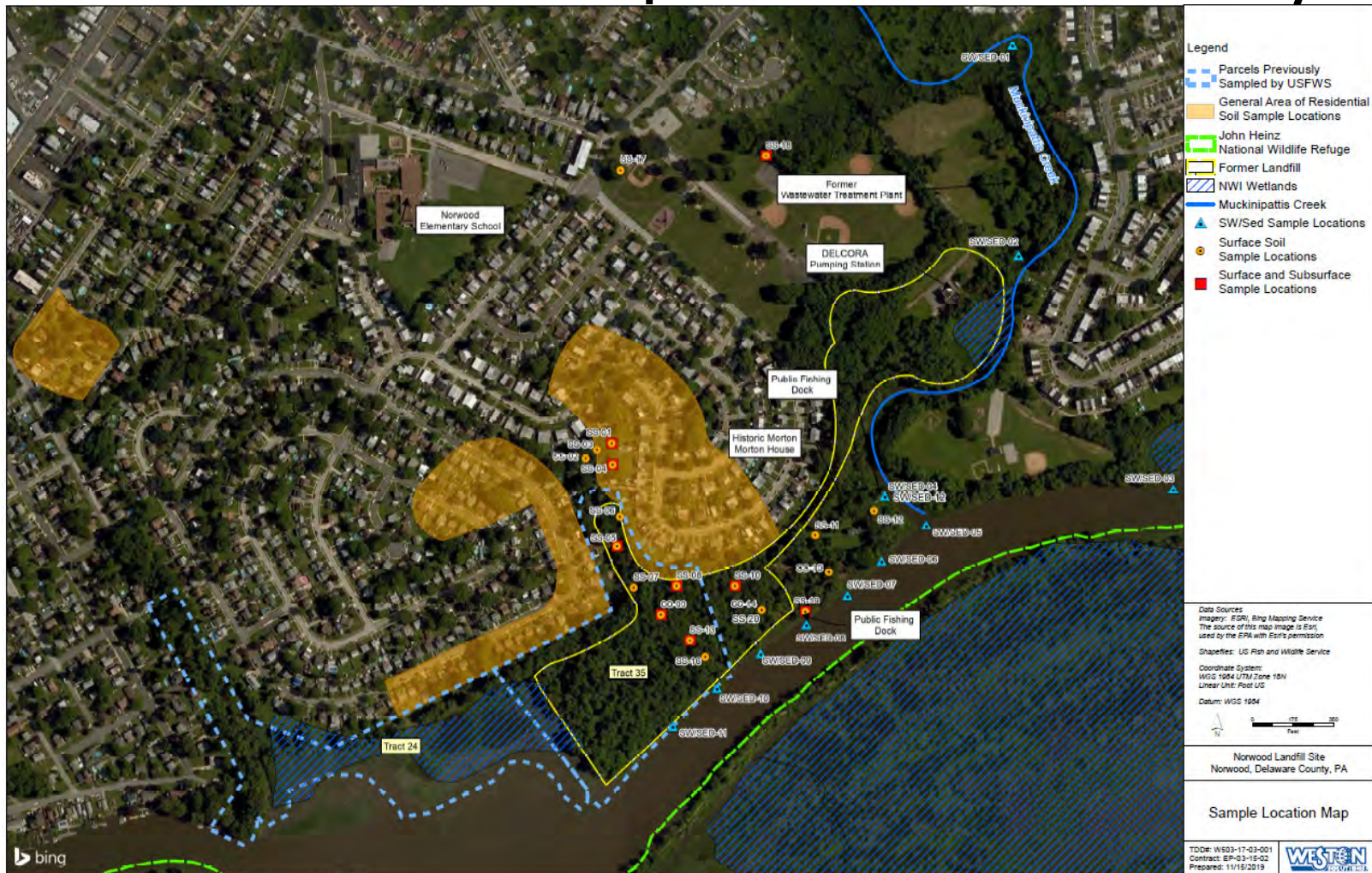
- PAHs, PCBs, pesticides, and metals found at low levels in both surface and subsurface soils of the landfill
- Only certain metals found in surface water, with most detected below EPA's Screening Levels for a freshwater environment
- PAHs, certain metals, pesticides, and mercury were found in sediments at certain locations above EPA's Screening Levels for a freshwater environment
- *Exceeding EPA's Screening Levels does not mean there is a risk, but rather indicates the need to do further evaluation*



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Areas where residential soil samples were collected and analyzed



Sample Location Map (Residential Soil Sample general area) May 2018



RESIDENTIAL SOIL sampling RESULTS for May 2018

- 3 properties exceeded EPA's Screening Level for PAHs
- 1 property exceeded EPA's Screening Level for lead
- 2 properties exceeded EPA's Screening Level for a pesticide
- ***Exceeding EPA's Screening Level does not mean there is a risk, but rather indicates the need for further evaluation by EPA***
- Human Health Risk Evaluation conducted



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What have we learned from the Site Assessment to date?

- Approximate landfill boundaries
- Time frame waste was deposited
- Discovery of the “Old Norwood Dump”
- Contaminants are present at varying levels in surface soils in the landfill area



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What have we learned from the Site Assessment to date?

- There is no pattern or equal distribution of contaminant concentrations across residential properties or the landfill
- Data from residential properties does not appear to be attributable to the landfill
- Data does not reflect an ongoing release to surface water
- ***Current data does not support proposing the site to the Superfund National Priorities List (NPL)***



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What are EPA's Next Steps?

- Collecting soil samples from the Old Norwood Dump to determine if there is an ongoing release
- Collecting additional sediment samples along Muckinipattis Creek to determine if there is contamination migrating from the Dump to surface water
- Sampling to be conducted in early 2020
- Data review and finalizing the Site Assessment by the end of 2020



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Community Information Session | November 21, 2019

Summary

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Resources for More Information

Superfund Site Assessment Process:

- <https://www.epa.gov/superfund/superfund-site-assessment-process>

Human Health Risk Assessment Process:

- <https://www.epa.gov/risk/human-health-risk-assessment>

Agency for Toxic Substances and Disease Registry

- <https://www.atsdr.cdc.gov/>

PA Department of Health

- <https://www.health.pa.gov/Pages/default.aspx>



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Contacts

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