Clearview Landfill OU1 Remedial Design/Remedial Action Overview

Lower Darby Creek Area Superfund Site October 11, 2018

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Lower Darby Creek Area (LDCA) Superfund Site



- Clearview and Folcroft Landfill (LF)
- 3 different "Operable Units" or "OUs"
- Clearview LF 2 miles upstream of Folcroft LF
 - OU1 Soil and Waste
 - OU3 Groundwater
- Folcroft in John Heinz NWR (OU2)



The "Site" is wherever contamination has come to be located

The Superfund Process



Remedial Site Discovery & **NPL** Listing **Investigation &** Evaluation Feasibility Study OU2 OU3 Remedy Remedial Selection **Proposed Plan** Design (ROD) OU1 **Remedial Action Reuse and NPL Operation &** Maintenance Deletion ("cleanup")

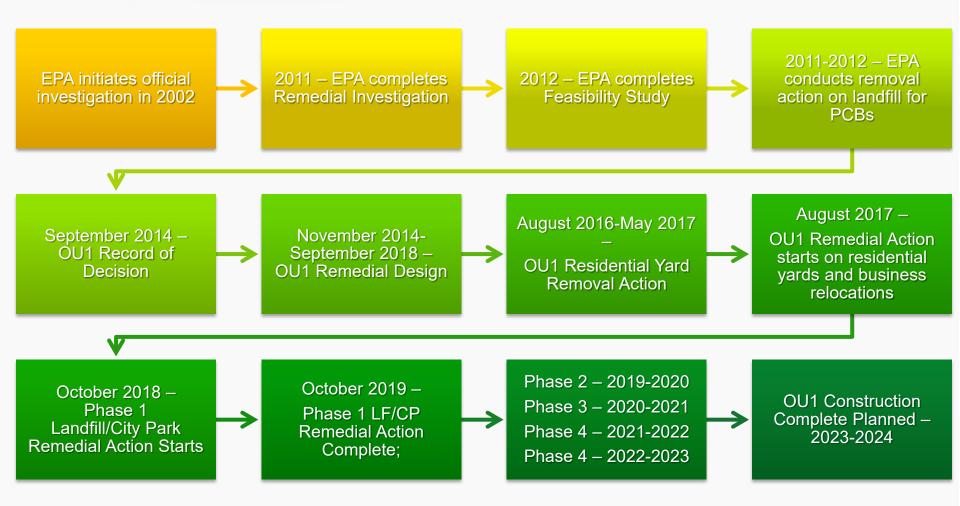
Clearview Landfill – History



- Former wetland
- Unpermitted disposal from the 1950s to 1970s of municipal and industrial wastes
- Excavation, filling and grading of eastern portion of landfill in mid-1970s for development of Eastwick neighborhood and City park
- Continued illegal disposal activities from 1970s through late 1990s
- LDCA listed on National Priorities List in 2001
- Several businesses currently located on landfill

Clearview Landfill History & Schedule









Clearview Landfill OU1: Soils and Waste OU3: Groundwater

- OU1 Contaminants of Concern
 - PAHs, PCBs, Cd, Cu, Pb, Zn
- OU1 Selected Remedy addresses
 - Unacceptable risks from landfill waste and contaminated soil
 - Legal requirement for a final cover
 - "Shallow" leachate discharging to the creeks
- OU1 ROD includes responses to all submitted comments on the proposed plan

Soil Cleanup Levels

Table C. Controlling Cleanup Levels

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	ZONES 2 AND 3 ¹	
COCs	Ecological ² (Top 2 feet)	Human ² (All Soils)
	Inorganics (mg/kg)	
Cadmium	2.2	
Copper	166	
Lead	380	
Zinc	308	
	PAHs (µg/kg)	
Benzo(a)anthracene		1,700
Benzo(a)pyrene		466
Benzo(b)fluoranthene		1,700
Benzo(k)fluoranthene		17,000
Dibenzo(a,h)anthracene		170
Indeno(1,2,3-cd)pyrene		1,700
Total PAHs	8,754	
HMW PAHs ³	8,754	
	PCBs (µg/kg)	
Aroclor-1254	840	1,240
Aroclor-1260	840	2,600

Clearview Landfill OU1 Cleanup Plan



- Evapotranspiration Cover over ~50 acres
- Contaminated soil excavation in Eastwick Park & Neighborhood
- Leachate collection and treatment via engineered wetlands
- Streambank stabilization
- Permanent business relocation
- Long-term monitoring, maintenance, institutional controls

Landfill Remediation Phases





Landfill Restoration Plan



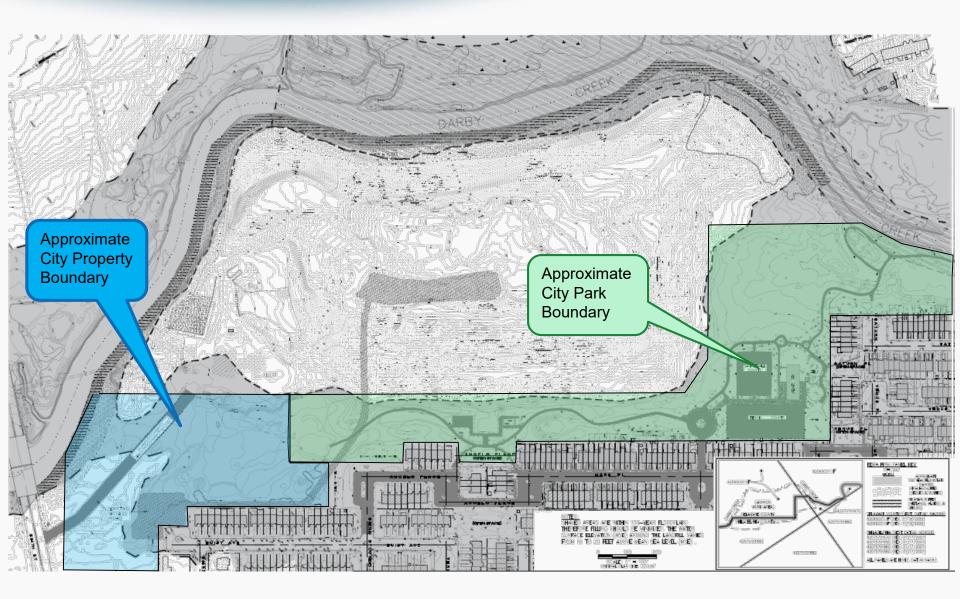


WET SPECIES REFORESTATION - WETLAND SEED MIX FLOODPLAIN FLOOD PLAIN SPECIES REFORESTATION - FLOOD PLAIN SEED MIX

WETLAND

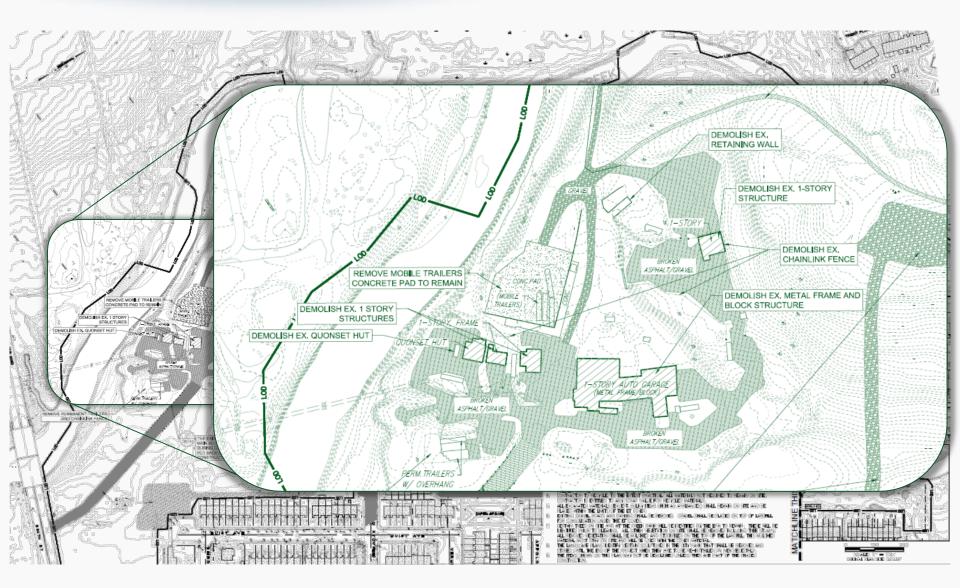
100-Year Floodplain





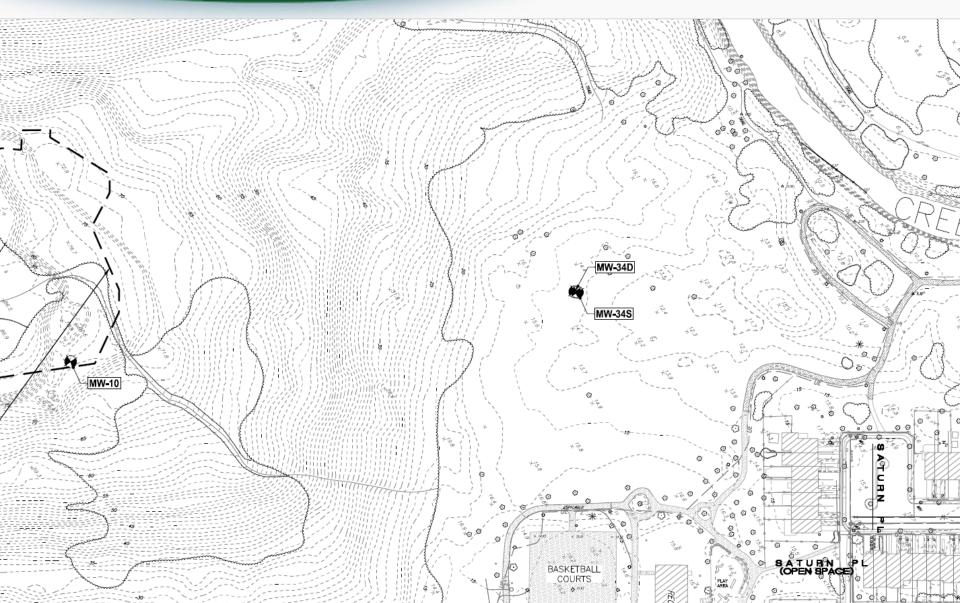
Business Area Demolition





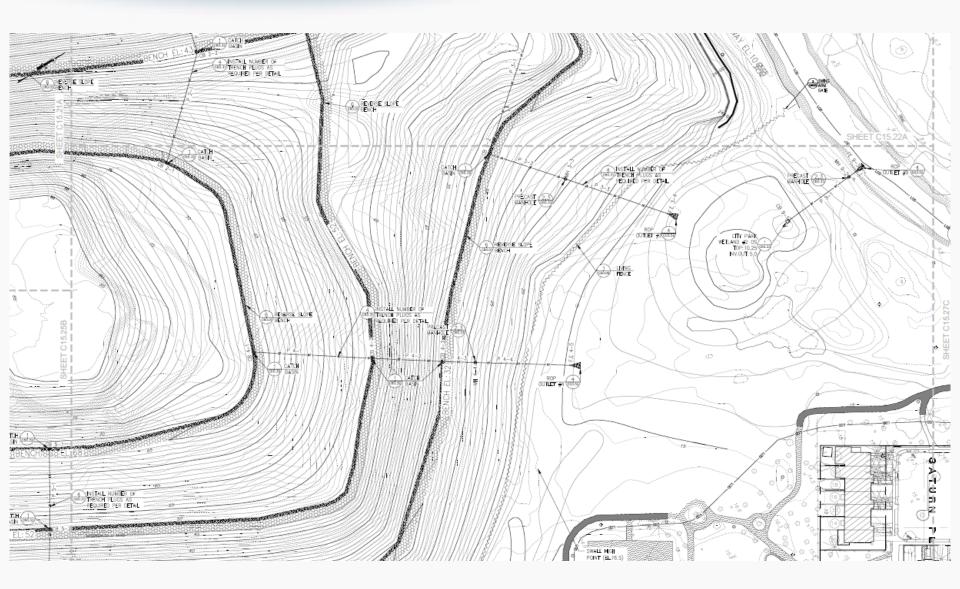
Current Conditions – Area C



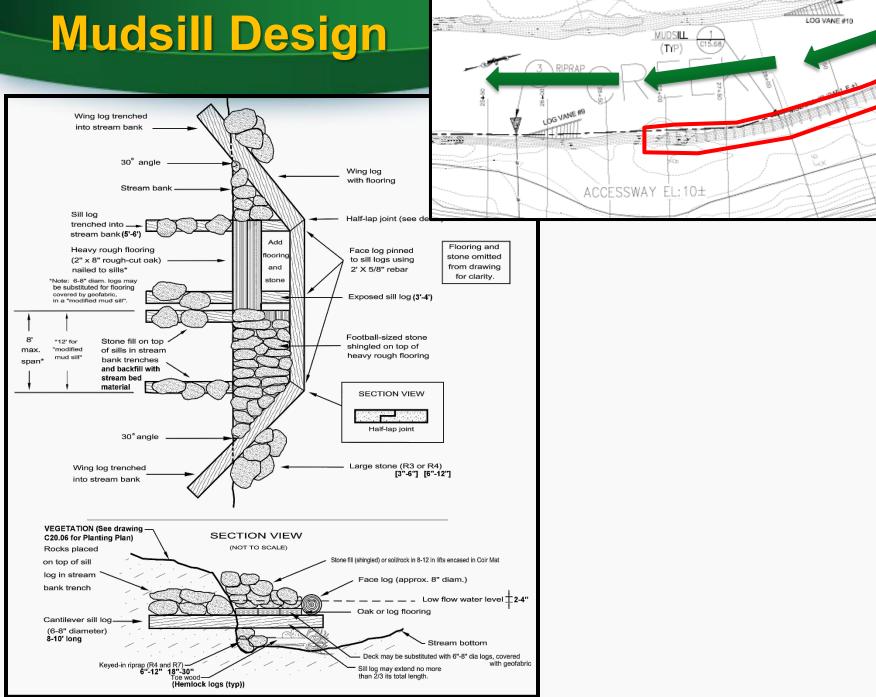


Post-Construction Conditions – Area C



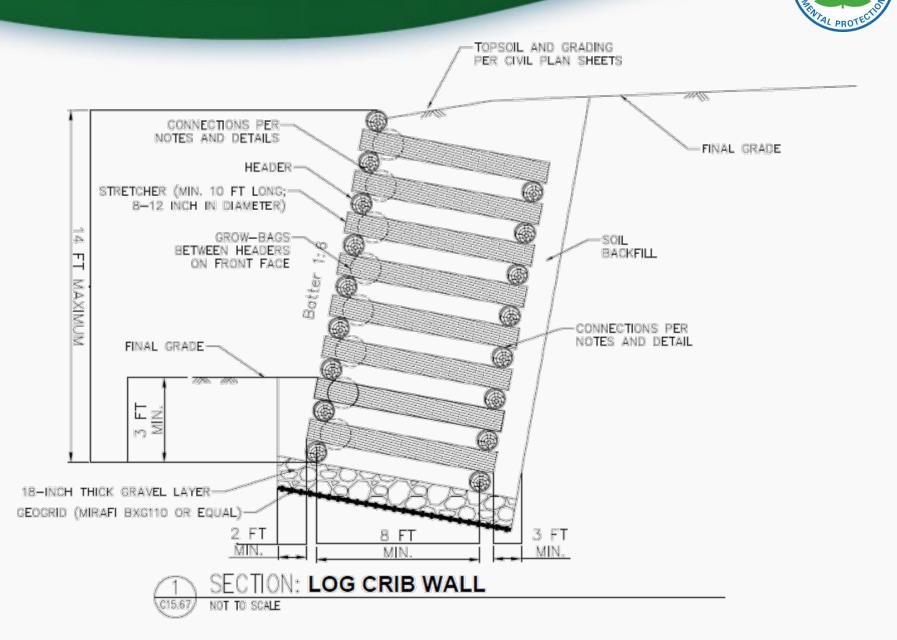


Mudsill Design



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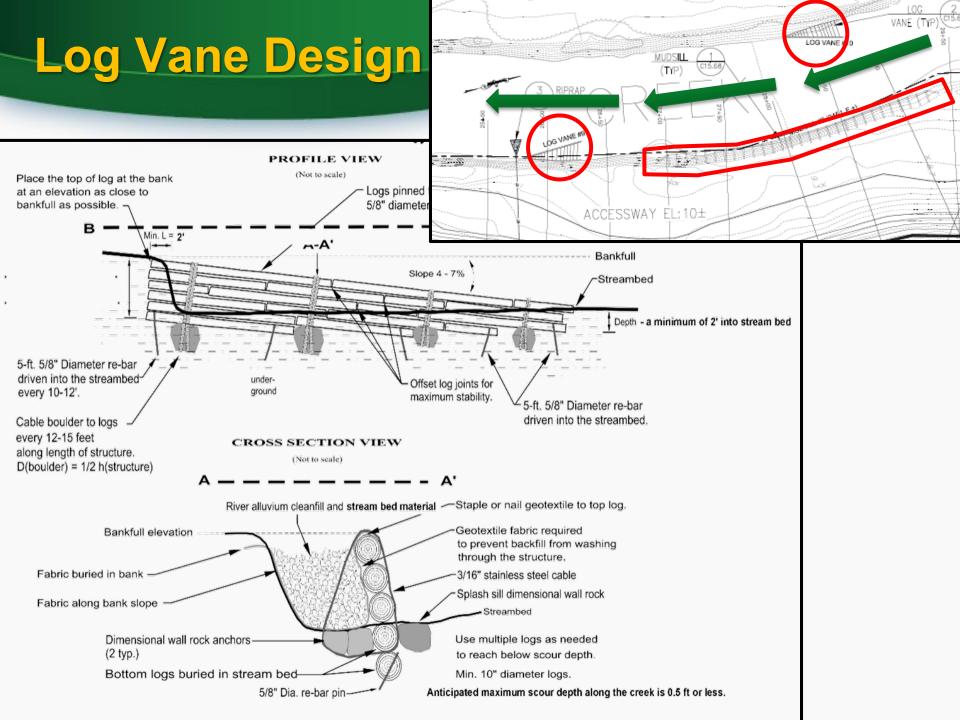
Log Crib Wall Design



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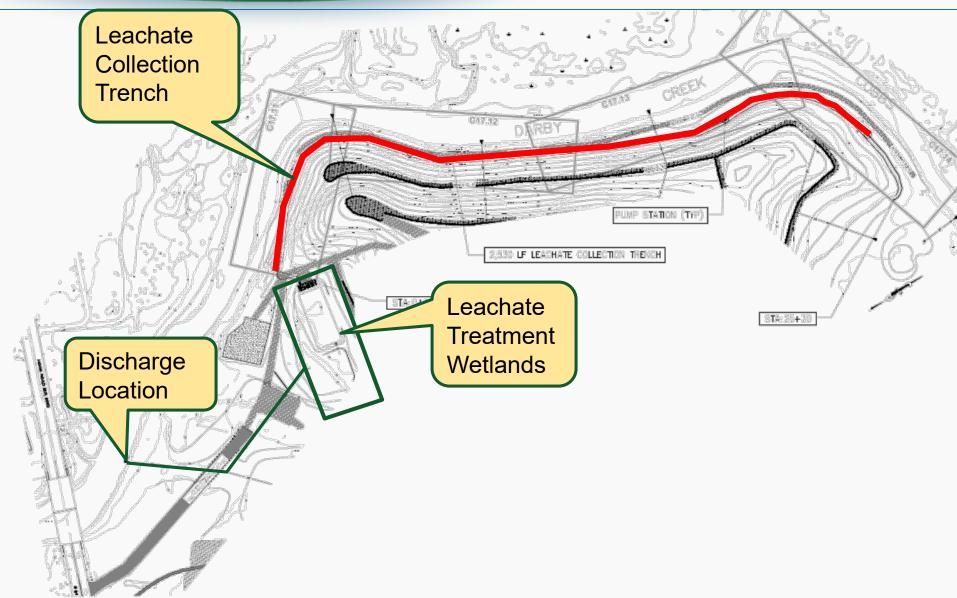
AGENCY

ENVIN



Leachate Collection Trench

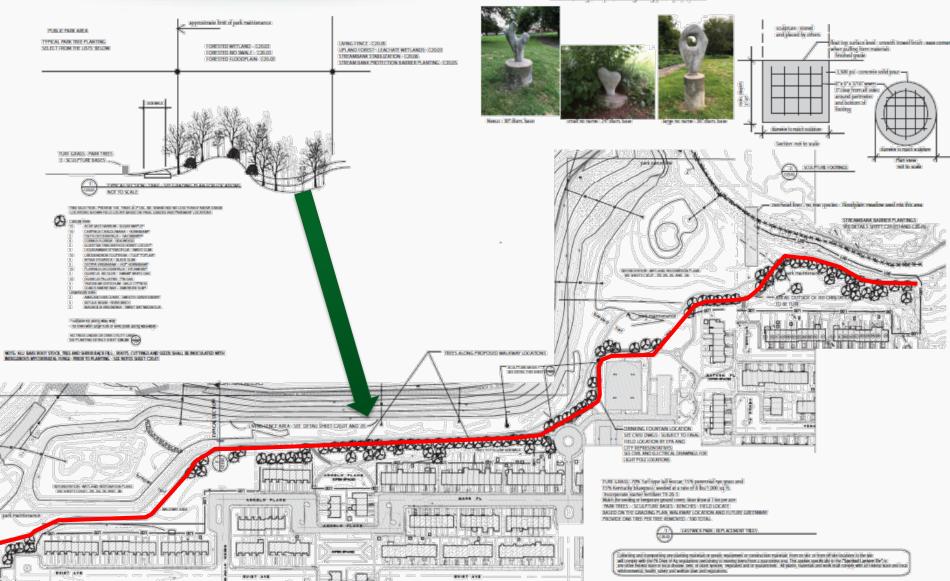




City Park Features and Restoration

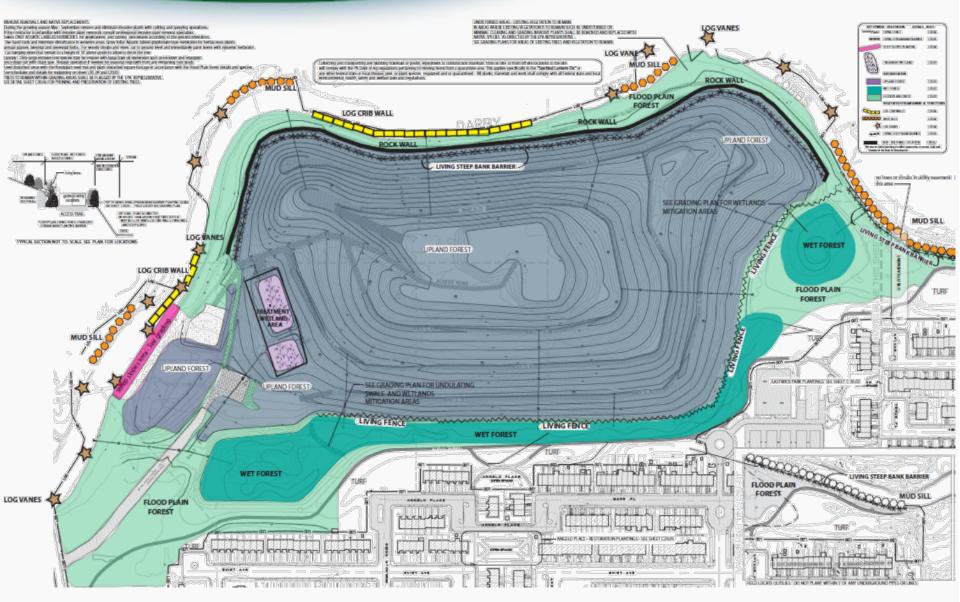


Subplanes, to be recarded by others on base facting detail. Intel locations for each determined by the Oty Representative Relocation, Stonger transport, meaning, defining, pin or appay, by others



Project Complete







Questions?

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LDCA Website: http://www.epa.gov/superfund/lowerdarby