



United States Avenue Burn Site Proposed Cleanup Plan

Agenda

- **Welcome**.....Mayor Edward Campbell, Gibbsboro
- **Introduction**.....Pat Seppi, EPA
- **Overview**.....Julie Nace, EPA
 - Superfund Process
 - Burn Site Contamination
 - Alternatives & Proposed Remedy
- **Questions?**



Superfund Process

Discovery of Site
Preliminary Assessment
Site Investigation



Site Proposed to National Priority List



Remedial Investigation

- Define site conditions
- Determine human and ecological risk



Feasibility Study

- Evaluate remedial alternatives using "Nine Criteria"



Superfund Process

Remedy Proposed

- Proposed Plan
- Public Comment Period



Remedy Selected

- Record of Decision
- Legal agreement for remedy



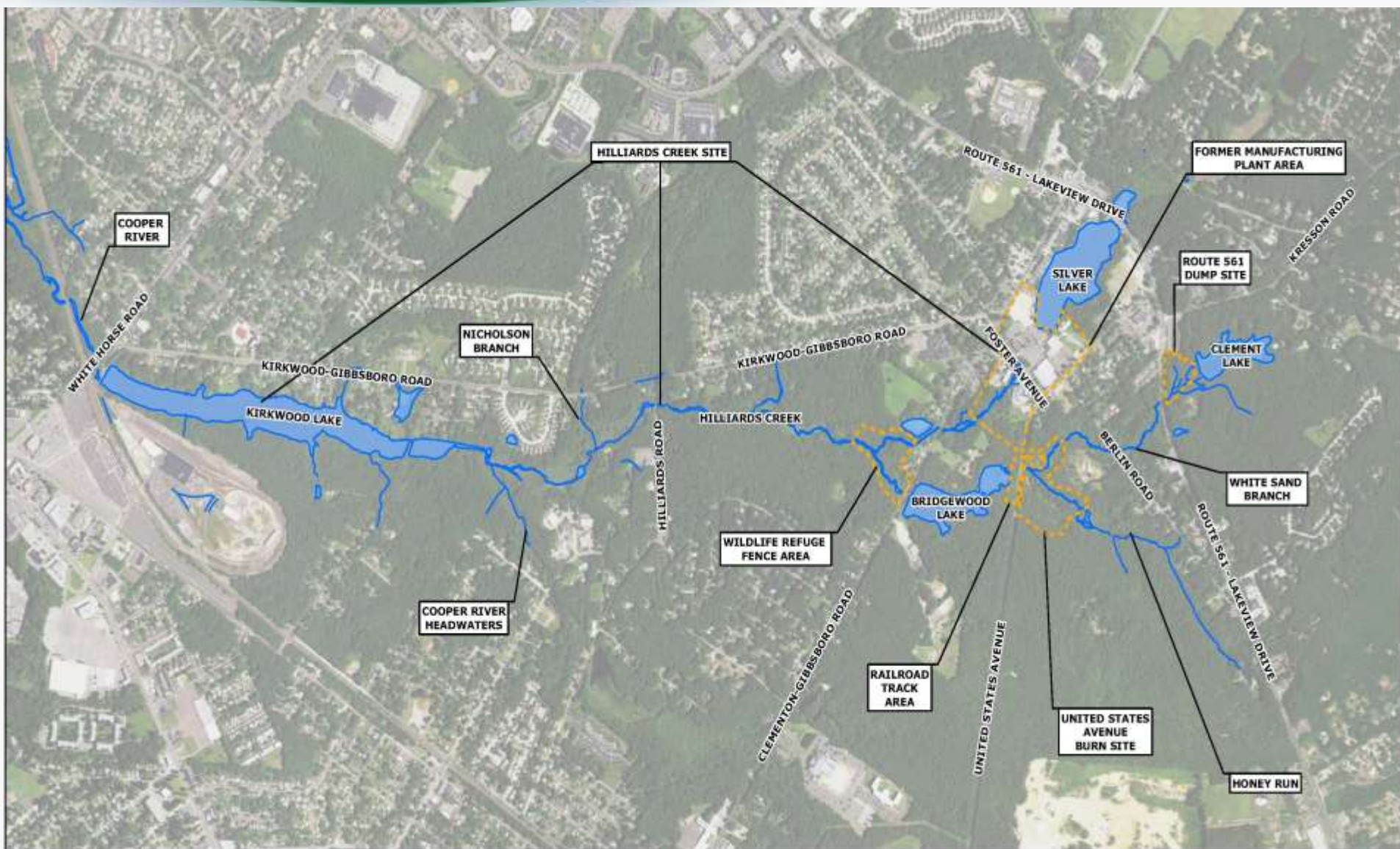
Remedy Design

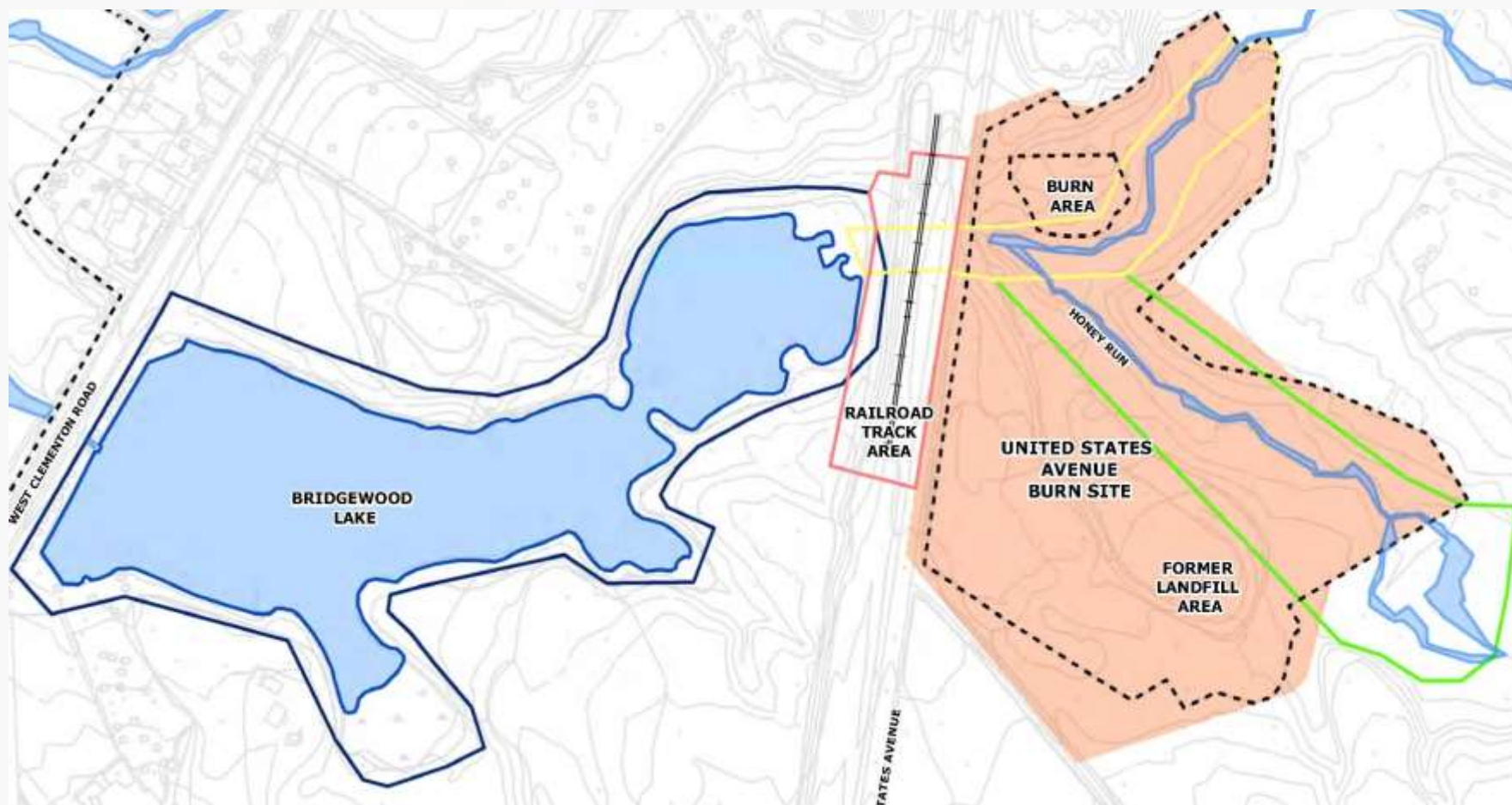
- Pre-design sampling
- Remedy design

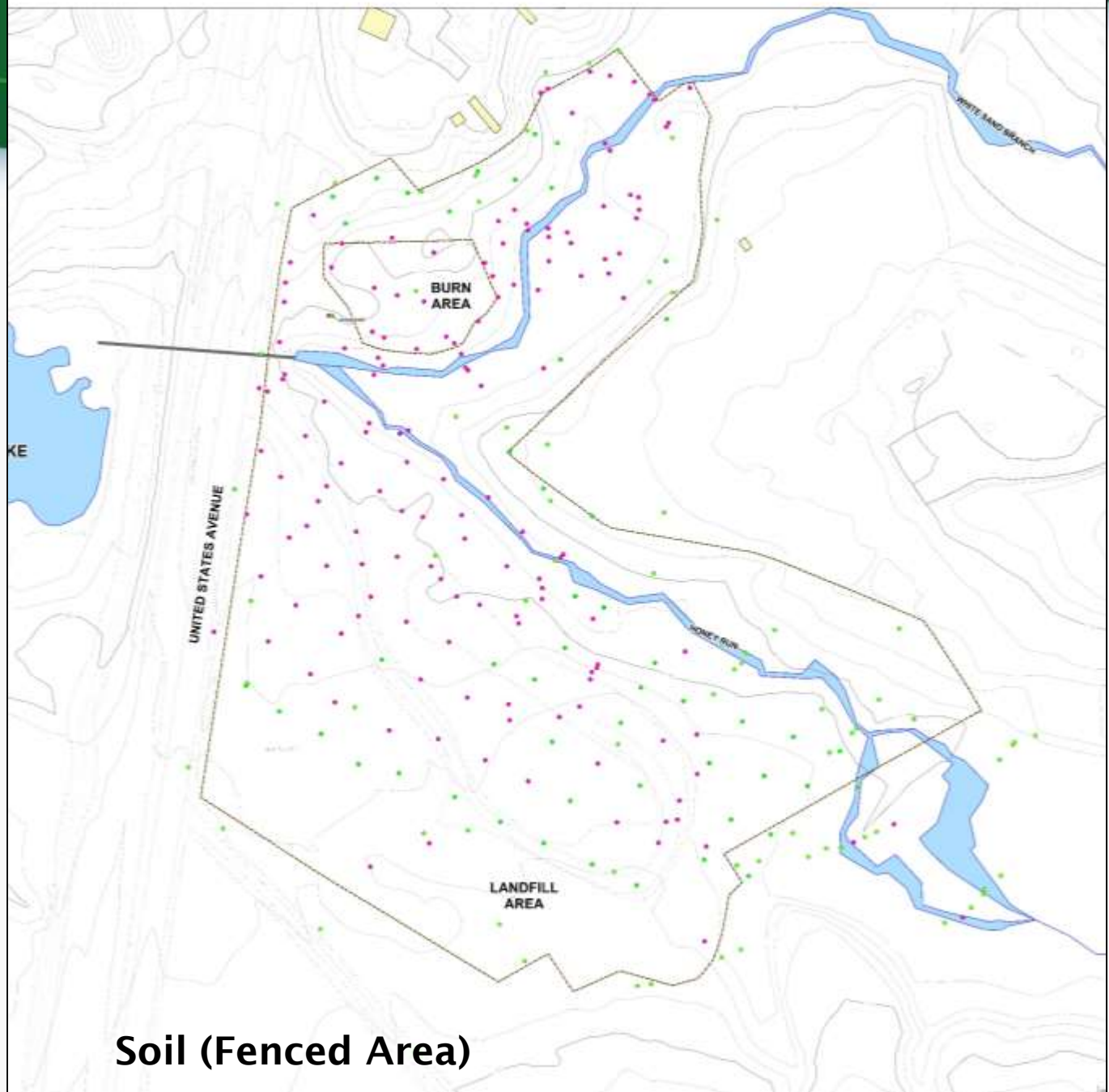


Action

- Construction and operation of remedy

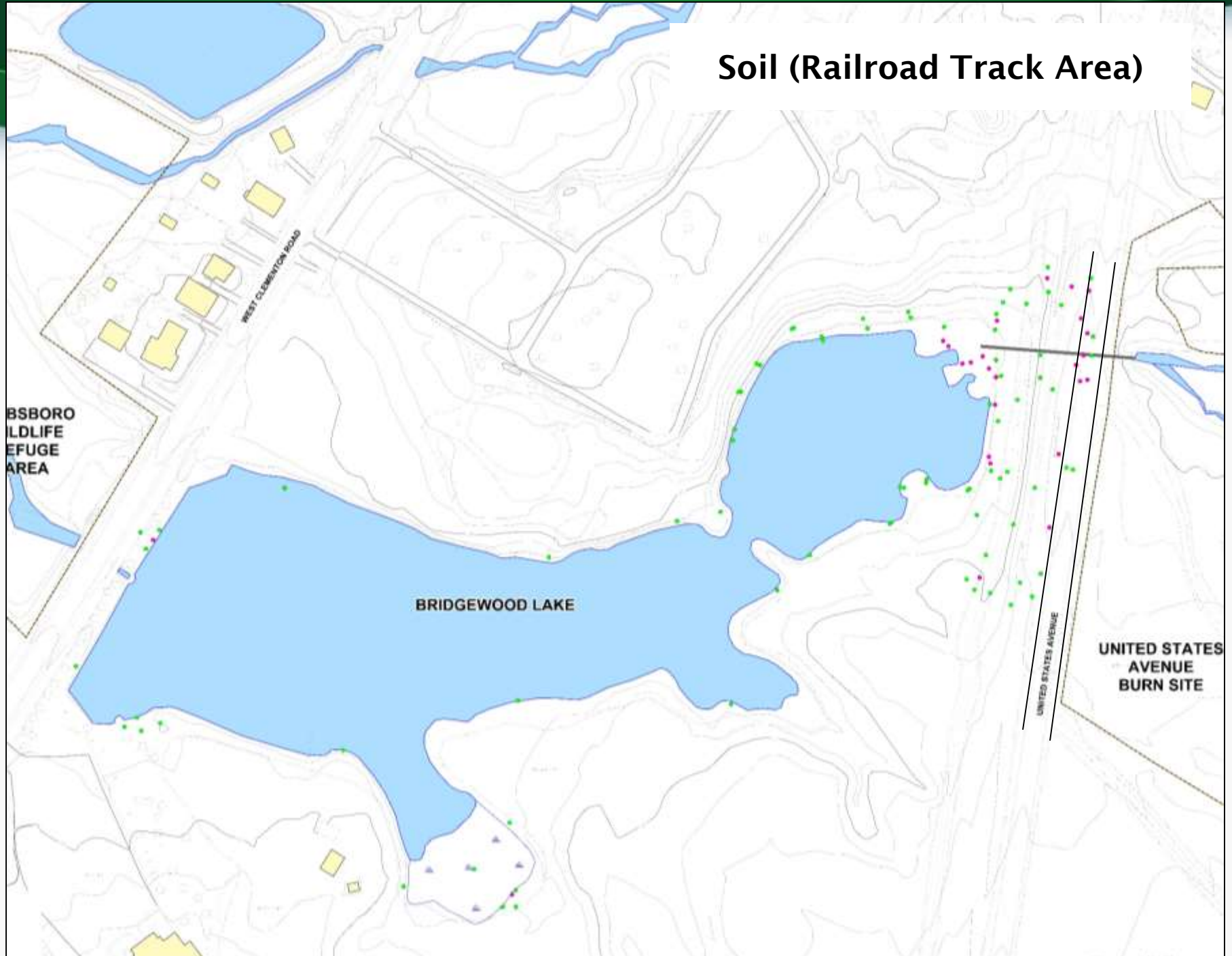


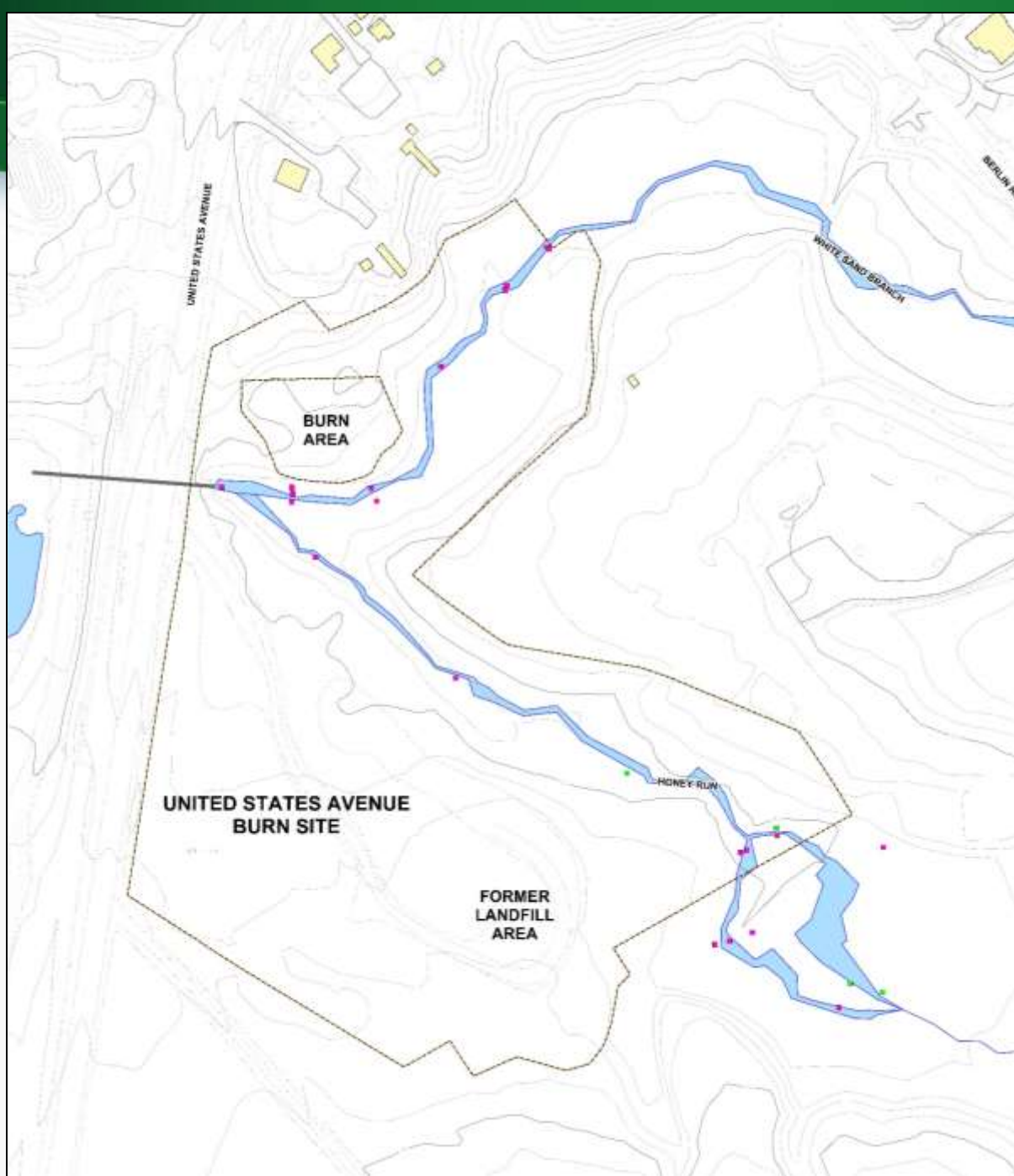




Soil (Fenced Area)

Soil (Railroad Track Area)





Sediment



Alternatives & Proposed Remedy:

- EPA found that the main contaminants at the site are lead and arsenic
- EPA found unacceptable risk



- Develop Remedial Action Objectives
- Evaluate alternatives



What are the Remedial Action Objectives?

- Prevent unacceptable risks to human health and the environment from ingestion of or contact with the soil and sediment
- Minimize migration contaminants found in the soil and sediment



Alternatives for Soil

- Alternative 1:** No Action
- Alternative 2:** Institutional and Engineering Controls and Monitoring*
- Alternative 3:** Targeted Surface Soil Excavation, Capping and Institutional Controls*
- Alternative 4:** Soil Removal for Human Health and Ecological Protection, Groundwater Source Control, Capping and Institutional Controls*
- Alternative 5:** Excavation to Depth and Institutional Controls*

* Deed notice expected



Alternatives for Sediment

- Alternative 1:** No Action
- Alternative 2:** Institutional and Engineering Controls and Monitored Natural Recovery
- Alternative 3:** Removal of Surface Sediment, Capping, and Institutional Controls
- Alternative 4:** Removal of all Sediment



How does EPA evaluate alternatives?

Type	Criteria
Threshold Criteria	1. Overall Protection of Human Health and the Environment 2. Compliance with State and Federal Regulations
Balancing Criteria	3. Long-term effectiveness and permanence 4. Reduction of Toxicity, Mobility, or Volume through treatment 5. Short-term effectiveness 6. Implementability 7. Cost
Modifying Criteria	8. Support Agency Acceptance 9. Community Acceptance



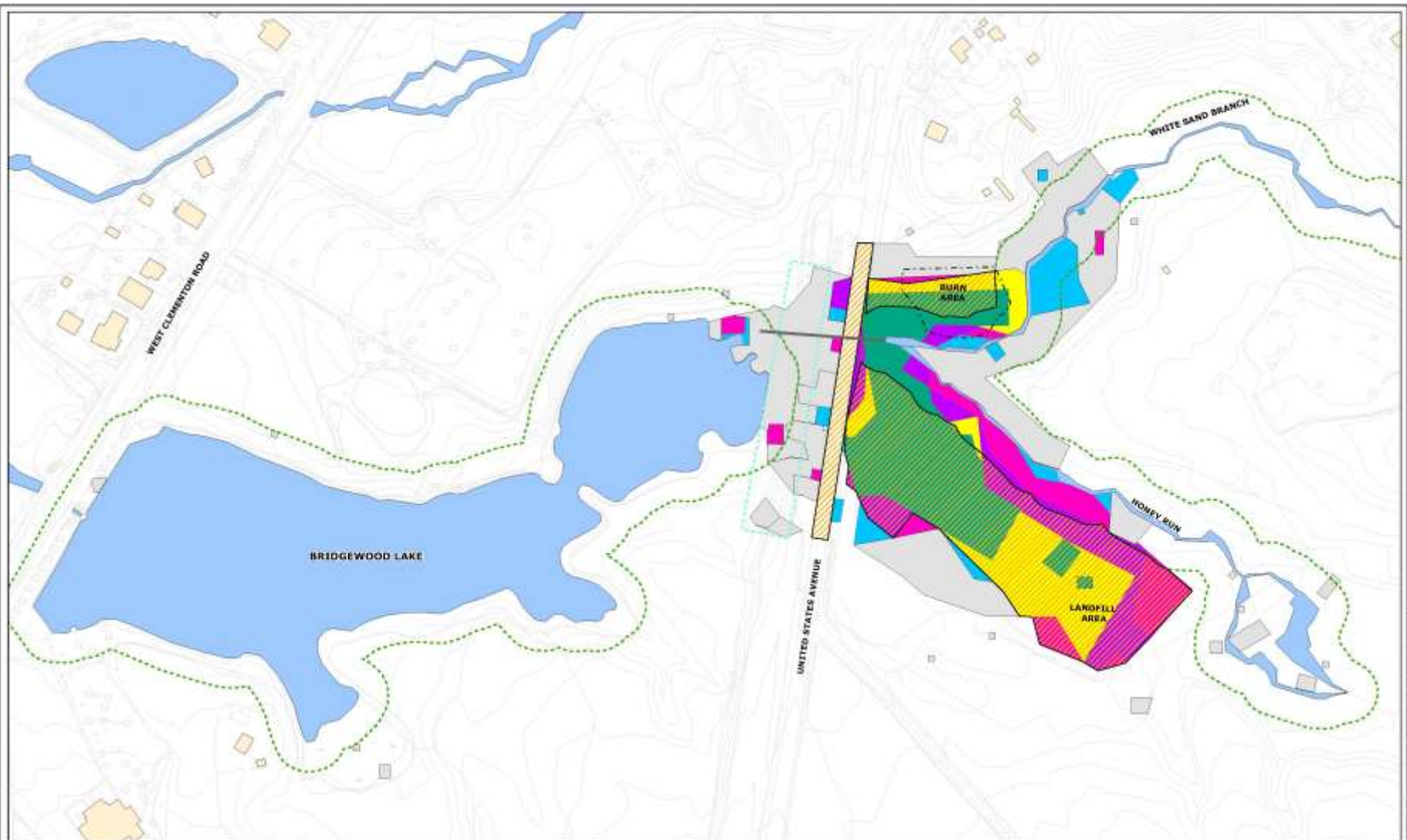
Comparison of Soil Alternatives

	1 No Action	2 Institutional and Engineering Controls	3 Surface Soil Removal and Cap	4 Excavation to 12 feet with Cap	5 Excavation to 18 feet
Protective	No	No	Yes	Yes	Yes
Compliance	No	No	Yes	Yes	Yes
Long-term effectiveness	x	x	Least	Most	Most
Reduction of Toxicity	x	x	No	No	No
Short-term effectiveness	x	x	Least risk	Moderate risk	Higher risk
Implementability	x	x	Easiest	Moderate	Difficult
Cost	\$0	\$563,790	\$6.6 million	\$19 million	\$26 million



Soil Alternative 4:
Excavation, Capping, and Institutional Controls

- Excavation to 12 feet
- Capping where necessary
- Deed notices
- Estimated Cost: \$19 million
- Estimated Timeframe: 8 Months



LEGEND

- PUBLIC ACCESS AREA
- RIPARIAN BUFFER (50 FEET)
- FENCE BOUNDARY
- AREAS TO BE CAPPED TO ADDRESS RDCRS
- APPROXIMATE LOCATION OF CULVERT BENEATH U.S. AVENUE

REMOVAL AREAS

- 2 FT EXCAVATION DEPTH
- 4 FT EXCAVATION DEPTH
- 6 FT EXCAVATION DEPTH
- 8 FT EXCAVATION DEPTH
- 10 FT EXCAVATION DEPTH
- 12 FT EXCAVATION DEPTH

Soil Alternative 4



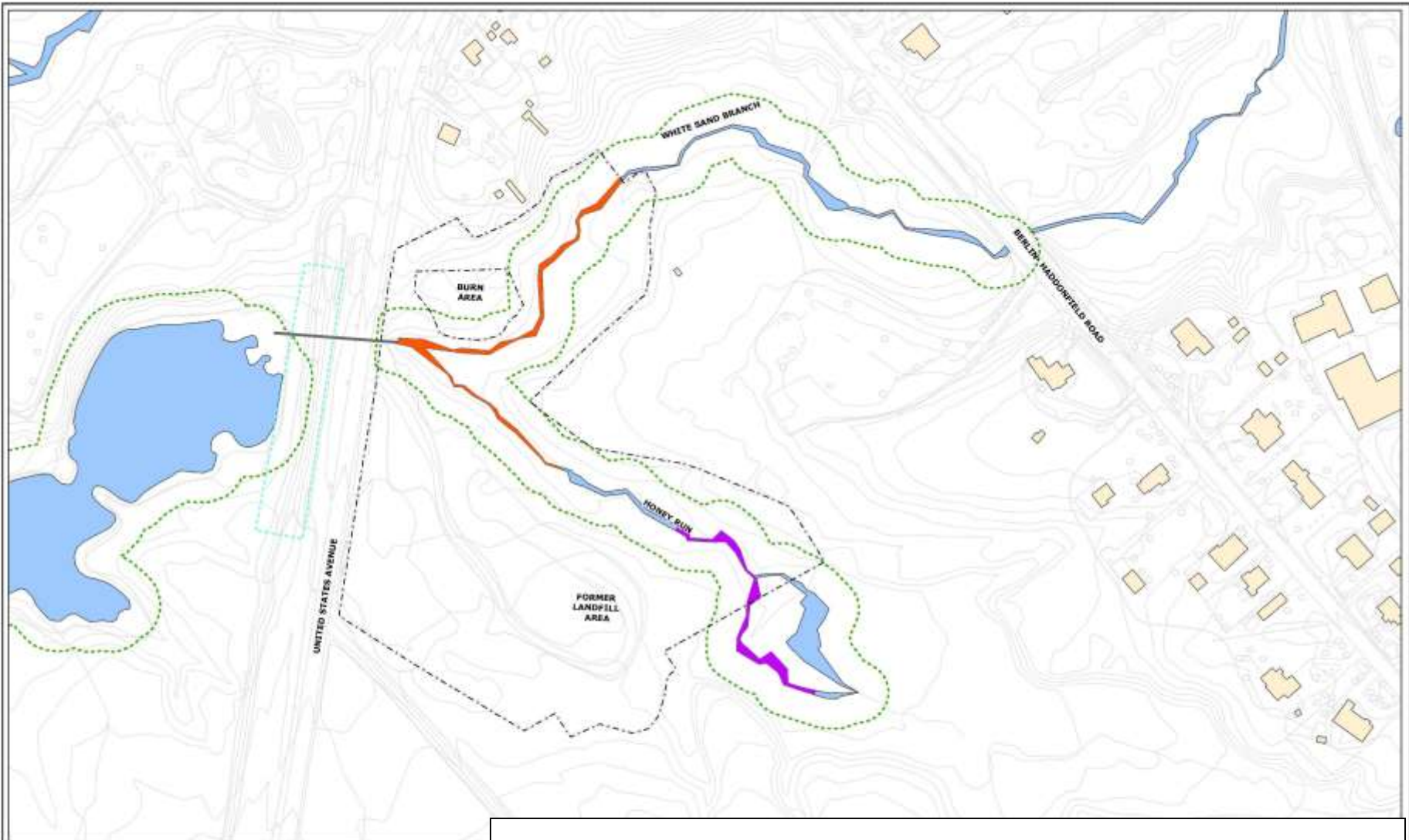
Comparison of Sediment Alternatives

	1 No Action	2 Institutional and Engineering Controls	3 Removal of Surface Sediment and Cap	4 Removal of All Sediment
Protective	No	No	Yes	Yes
Compliant	No	No	Yes	Yes
Long-term effectiveness	x	x	Least	Most
Reduction of Toxicity	x	x	No	No
Short-term effectiveness	x	x	Moderate risks	Slightly more risks
Implementability	x	x	Similar	Similar
Cost	\$0	\$508,595	\$2.1 million	\$1.7 million



Alternative 4: Removal of All Sediment

- Removal of all contaminated sediment
- Estimated Cost: \$1.7 Million
- Estimated Timeframe: 4 months



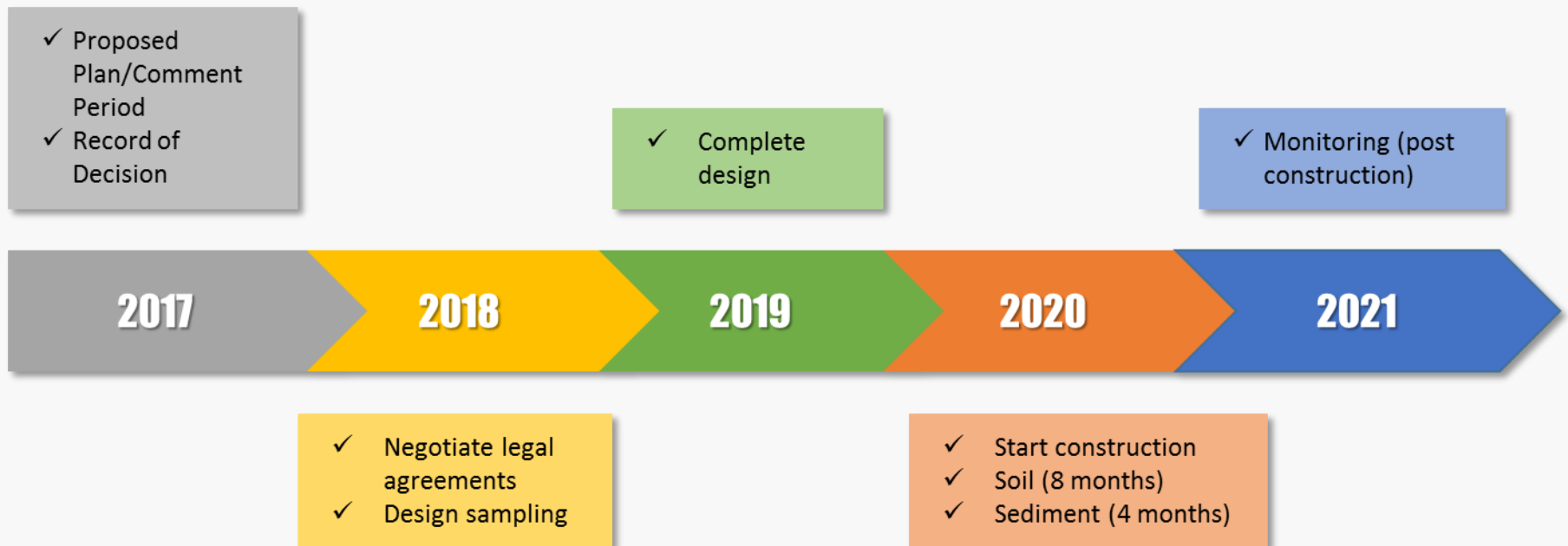
LEGEND

- PUBLIC ACCESS AREA
- RIPARIAN BUFFER (50 FEET, APPROXIMATE)
- FENCE BOUNDARY
- 2 FT EXCAVATION DEPTH
- 2.5 FT EXCAVATION DEPTH
- APPROXIMATE LOCATION OF CULVERT BENEATH U.S. AVENUE

Sediment Alternative 4



Estimated Timeline





30-Day Public Comment Period

July 27 – August 28, 2017

Administrative Record available at:

Gibbsboro Borough Hall/Library

49 Kirkwood Road

(856) 435-3656

www.epa.gov/superfund/us-avenue-burn

Contact Information

Julie Nace

Remedial Project Manager

(212) 637-4126

Nace.Julie@epa.gov

Pat Seppi

Community Liaison

(212) 637-3679

Seppi.Pat@epa.gov