

Diamond Head Oil Superfund Site:

Proposed Cleanup Plan for the Operable Unit 1 Record of Decision Amendment & Operable Unit 2 Record of Decision

Agenda

Welcome and Introduction.....Pat Seppi, EPA

Overview..... Brittany Hotzler, EPA

- Superfund Process
- Site History & EPA Activities
- Alternatives & Proposed Remedy

Questions



Superfund Process

Discovery of Site
Preliminary Assessment
Site Investigation



Site Added to National Priority List



Remedial Investigation

- Human health and ecological risk assessment



Feasibility Study

- Evaluate alternatives using "Nine Criteria"



Superfund Process

Remedy Proposed

- Proposed Plan
- Public Comment Period



Remedy Selected

- Record of Decision (ROD)

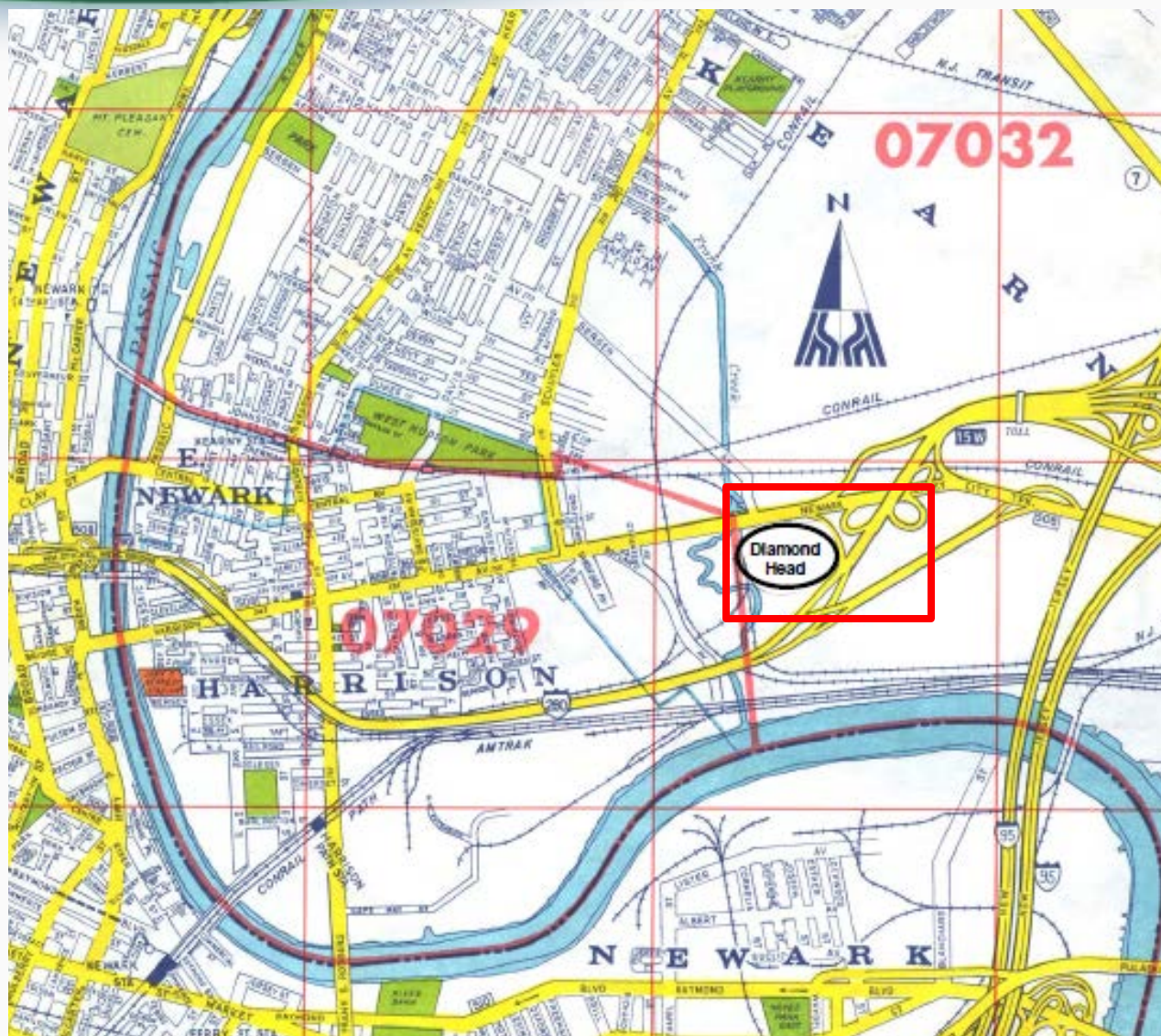


Remedy Design



Action

- Construction and operation of remedy







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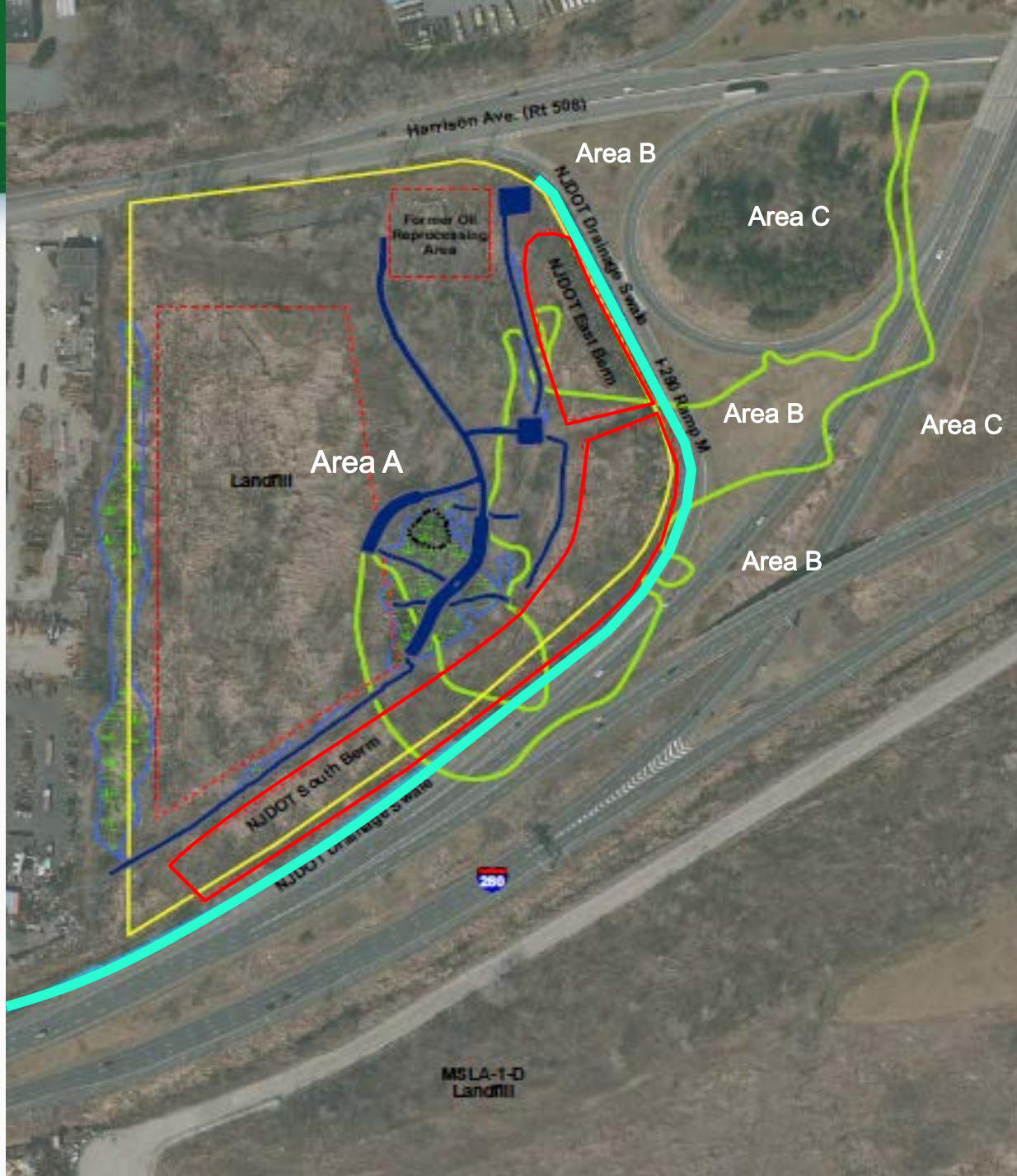
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Site History (Continued)

- 2003-2008: EPA conducts the Remedial Investigation (RI) and Feasibility Study (FS), which reveals LNAPL source material
- EPA divides the Site into three Phases, or Operable Units
- 2009: Record of Decision Signed for source material
- 2009-2015: Pre-Design Investigations for Phase 1 & studies conducted for Phase 2



Pre-Design Investigations

- Determined Biocell treatment technology would not attain Remedial Action Objectives and remediation goals for the LNAPL source material
- Refined the criteria used for measuring the extent of LNAPL source material and identified the LNAPL Remedial Target Area (RTA)



Results of the OU2 Remedial Investigation

- RI revealed multiple contaminants including chromium, dioxin, PCBs, lead, aldrin, thallium, and benzo[a]pyrene
- Highest levels of contamination found in the area of the former refining operations and within the footprint of the former Oil Lake



Residual Contamination Risks

- EPA conducted a Baseline Human Health Risk Assessment
- The Human Health Risk Assessment found risks from exposure to residual contamination through ingestion, inhalation, and dermal contact
- The potentially effected populations include:
 - Adult Site Maintenance Workers
 - Child and Adult Trespassers
 - Adult Highway Workers
 - Adult Industrial Workers
 - Adult Construction Workers



Residual Contamination Risks Continued

- EPA conducted a Baseline Ecological Risk Assessment
- Potential risks to ecological communities include:
 - Potential risks to soil invertebrates from exposure to surface soil
 - Potential risks to water column aquatic communities from exposure to surface water in the drainage ditch
 - Potential risks to benthic invertebrates from exposure to sediment in the drainage ditch



Nine Criteria for Alternative Evaluation

Type	Criteria
Threshold Criteria	<ol style="list-style-type: none">1. Overall Protection of Human Health and the Environment2. Compliance with State and Federal Regulations
Balancing Criteria	<ol style="list-style-type: none">3. Long-term effectiveness and permanence4. Reduction of Toxicity, Mobility, or Volume through treatment5. Short-term effectiveness6. Implementability7. Cost
Modifying Criteria	<ol style="list-style-type: none">8. Support Agency Acceptance9. Community Acceptance



OU1 Original Remedy

- Components of the 2009 OU1 ROD:
 - Off-site disposal of principal threat LNAPL source material
 - Construction of an on-site biocell within the excavated area for the treatment of low-level threat LNAPL source material



OU1 Preferred Alternative

Excavation and Off-Site Disposal

- Excavation of all LNAPL Source Material
- Off-Site disposal
- Cost: \$13.7 million



OU1 Preferred Alternative

- Excavation of LNAPL source material from Remedial Target Area (RTA)
- Stabilization of excavated material prior to transportation for off-site disposal
- Excavated areas backfilled with non-hazardous berm soil
- Clean fill added to grade



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OU2 Proposed Alternatives

Alternative 1 No Action

Alternative 2 Excavation, Consolidation, and Vegetated Cover

Alternative 3 Excavation with Off-Site Disposal and Vegetated Cover

Alternative 4 Excavation, Consolidation, On-Site Stabilization, and Vegetated Cover



Common Elements

- Soil cover to prevent exposure
- Excavation of sediment in the drainage ditch along I-280
- Wetland restoration
- Institutional controls

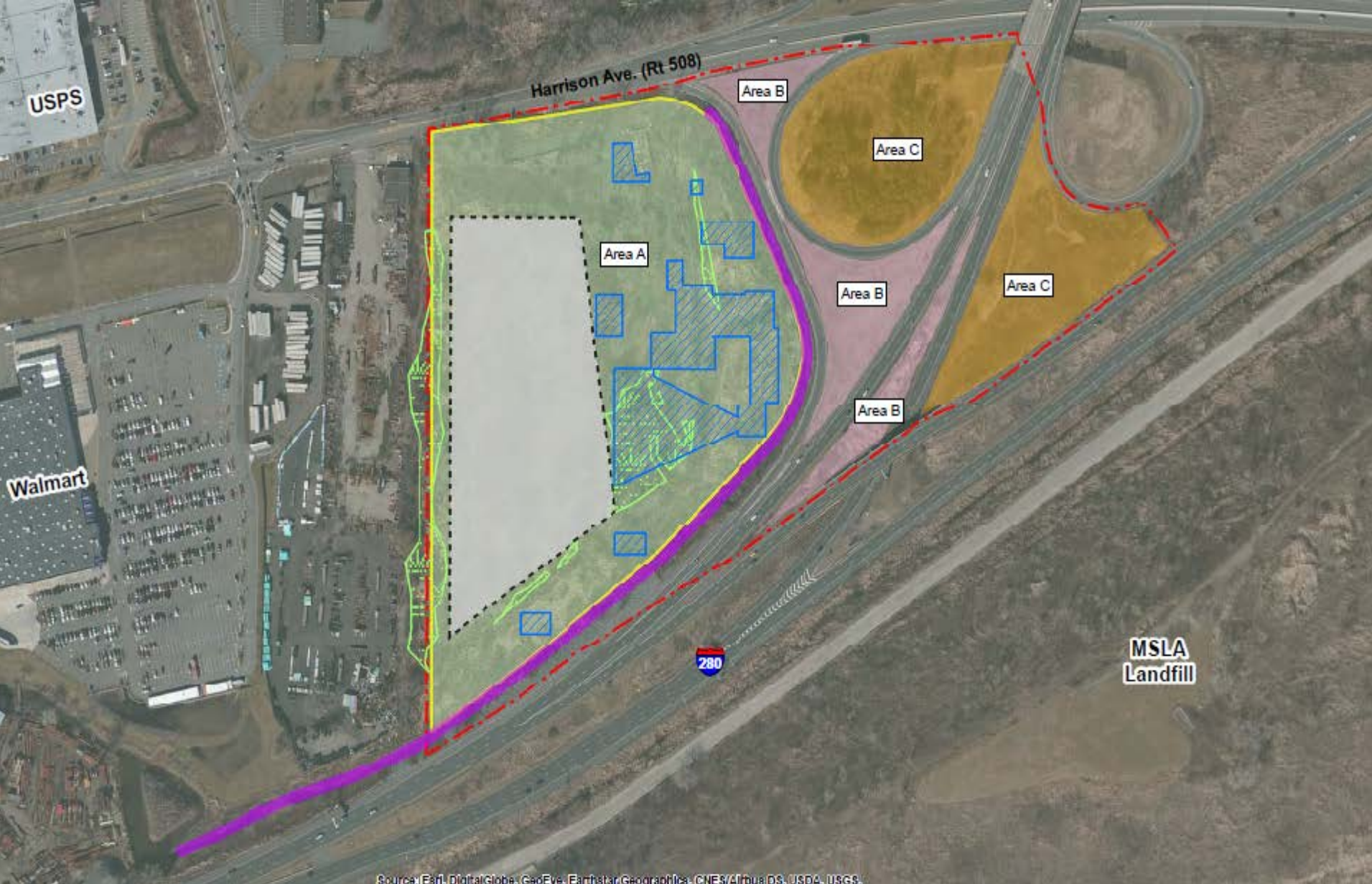


OU2 Preferred Alternative:

Alternative 2 – Excavation of Soil in Areas B and C; Vegetated Cover in Areas A, B, and C; Institutional Controls; and Excavation of Sediments

- Excavation and consolidation of surface soil
- Placement of a vegetative soil cover
- Excavation of sediments
- Institutional controls

- Cost: \$10 Million





Questions?



30-Day Public Comment Period

June 19 – July 19, 2017

Administrative Record available at:

Kearny Public Library
318 Kearny Avenue
Kearny, New Jersey 07031
(201) 998-2666

or

EPA Records Center, Region 2
290 Broadway, 18th Floor
New York, New York 10007-1866
(212) 637-4308

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