

National Park Service

Kenilworth Park Landfill Site: Proposed Plan Public Meeting



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Kenilworth Park Landfill Site Proposed Plan Public Meeting

April 11, 2013

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Proposed Plan: Outline

- CERCLA overview
- Site History
- Summary of Environmental Investigations
- Summary of Alternatives
- NPS Preferred Alternative



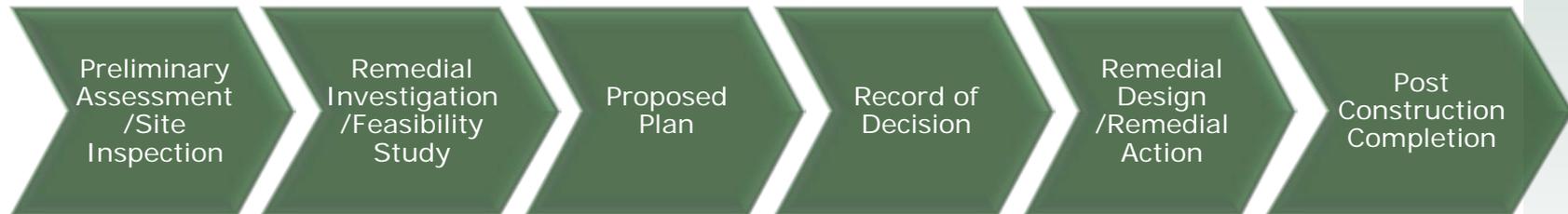
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The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, cleanup process:



↑
NPS
currently
here

CERCLA Section 117(a) and 40 C.F.R. Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)

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Site Background and History

- Kenilworth Park and Aquatic Gardens (700 acres) is part of the Anacostia Park Unit of National Capital Parks-East
- Site originally tidal marsh land along Anacostia River
- Historically, the river was dredged and marsh land was filled in

Landfill Operations Timeline:

- 1942 - District began operating a dump on the site, burning trash and burying ash
- 1968 - Burning stopped
- 1970 - Landfill ceased operations
- 1973 - Fill brought in to cover the site



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Kenilworth Park Landfill Site Map

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Environmental Cleanup Activities:

	Kenilworth North	Kenilworth South
Preliminary Assessment /Site Inspection	2002	2000
Health Consultation		2006
Eco Risk Assessment	2007	2007
Remedial Investigation	2007	2008
Supplemental Sampling Report	2008	2008
Feasibility Study		2012
Proposed Plan		2013

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Recent Changes at the Site

2004 - Section 344 of Public Law 108-335 was enacted:

- to transfer Kenilworth North to the District
 - The transfer has yet to be executed

2006 - Extra fill received at Kenilworth North for recreational fields

2010 - Kenilworth-Parkside Recreation Center was demolished by the District



Current conditions:

Kenilworth North – open to recreation

Kenilworth South – closed to recreation

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Site Contamination

- Types: metals (lead), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenols (PCBs), and methane gas
- Location:
 - Surface Soil
 - Subsurface Soil/Landfill Material
 - Landfill gas
 - Groundwater (OU2)

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Site Contamination (continued)

Media Type	Contamination
Landfill gas	Methane gas
Surface Soils	PAHs, PCBs, & metals (lead)
Subsurface Soils/Landfill Material	PAHs, PCBs, & metals (lead)
Groundwater	OU2

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Site Risks

Human Health Risks

- Residential screening criteria

Exposure Pathways:

- Dermal contact
- Ingestion
- Inhalation

Media types:

surface soils
subsurface soils/landfill material



Site Risks (continued)

Human Health Risk Assessment Results

- Complete exposure pathways for adult/child visitors and construction workers to Site soils

Exposure Assumptions:

- Construction worker
 - 45 days (KPS) or 70 days (KPN) for 5 hrs/day
- Adult
 - 350 days/year, 2 hrs/day, 24 years
- Child
 - 350 days/year, 2 hrs/day, 6 years

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Site Risks (continued)

Cancer vs. Non-Cancer risk

Ingestion and Dermal Contact (surface soil PAHs & PCBs)

Receptor	Cancer Risk	Non-Cancer Risk
Construction Worker	no unacceptable risk	increased risk
Adult park visitor	slight risk	no unacceptable risk
Child park visitor	slight risk	no unacceptable risk

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Site Risks (continued)

Methane Gas

No off-site migration of methane gas

No methane gas detected in tested buildings:

- Kenilworth-Parkside Recreation Center
- Neval Thomas Elementary School

Potential safety risks from site-related methane gas to construction or utility workers that disturbs the landfill material.

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Site Risks (continued)

Ecological Risks

Evaluated: risks posed by site contamination to various ecological receptors including: robins, hawks, voles, and shrews

Results: no significant ecological risk due to site contaminants

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Remedial Action Objectives

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1. Prevent human exposure to contaminated soils
2. Prevent erosion
3. Maximize use and enjoyment of park resources
4. Meet all legal standards

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Remedial Alternatives

Alternative	Description
Alternative 1	No Action
Alternative 2	Minor Regrading and Institutional Controls
Alternative 3a	12-Inch Soil Cap
Alternative 3b	24-Inch Low Permeability Soil Cap
Alternative 4	Removal of All Accessible Waste Material and Existing Cover Soils with Off-Site Disposal

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Remedial Alternative 1 No Action

- This alternative is required to be considered by the NCP.
- Included to provide a baseline against which action alternatives can be compared
- No measures to address Site contamination are taken
- No attempt is made to measure or monitor any decline in contamination

Cost Estimate: \$84,000

Estimated timeline: None

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Remedial Alternative 2 Minor Regrading and Institutional Controls

- Filling and regrading
 - address depressions and uneven areas
 - eliminate ponding and improve drainage
- Perimeter methane monitoring for 3 years
- Institutional Controls (administrative or legal measures) to increase awareness and require health and safety plans prior to any future ground-disturbing activities

Cost Estimate: \$1 million

Estimated timeline: less than a year

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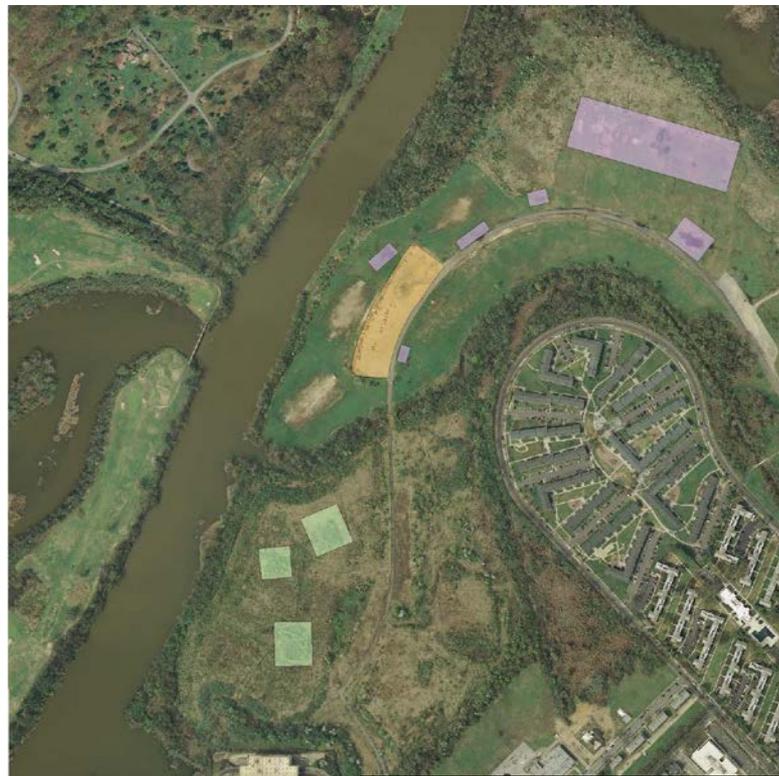
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Remedial Alternative 2 Minor Regrading and Institutional Controls



Legend

-  Depressions Filled with Imported Clean Soil
-  Depressions in Parking Area Filled with Imported Gravel
-  Hummocks and Depressions Leveled

Minor Regrading Map

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Landfill Site Map

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Remedial Alternative 3a 12-Inch Soil Cap

- Placement of a 12-inch soil cap (top 6-inches would be top soil for revegetation)
- Excavation around existing features would occur before placement of the cap to maintain elevations
- Perimeter methane monitoring for 3 years
- Institutional Controls to increase awareness and require health and safety plans prior to future development

Cost Estimate: \$11 million

Estimated timeline: 1-2 years

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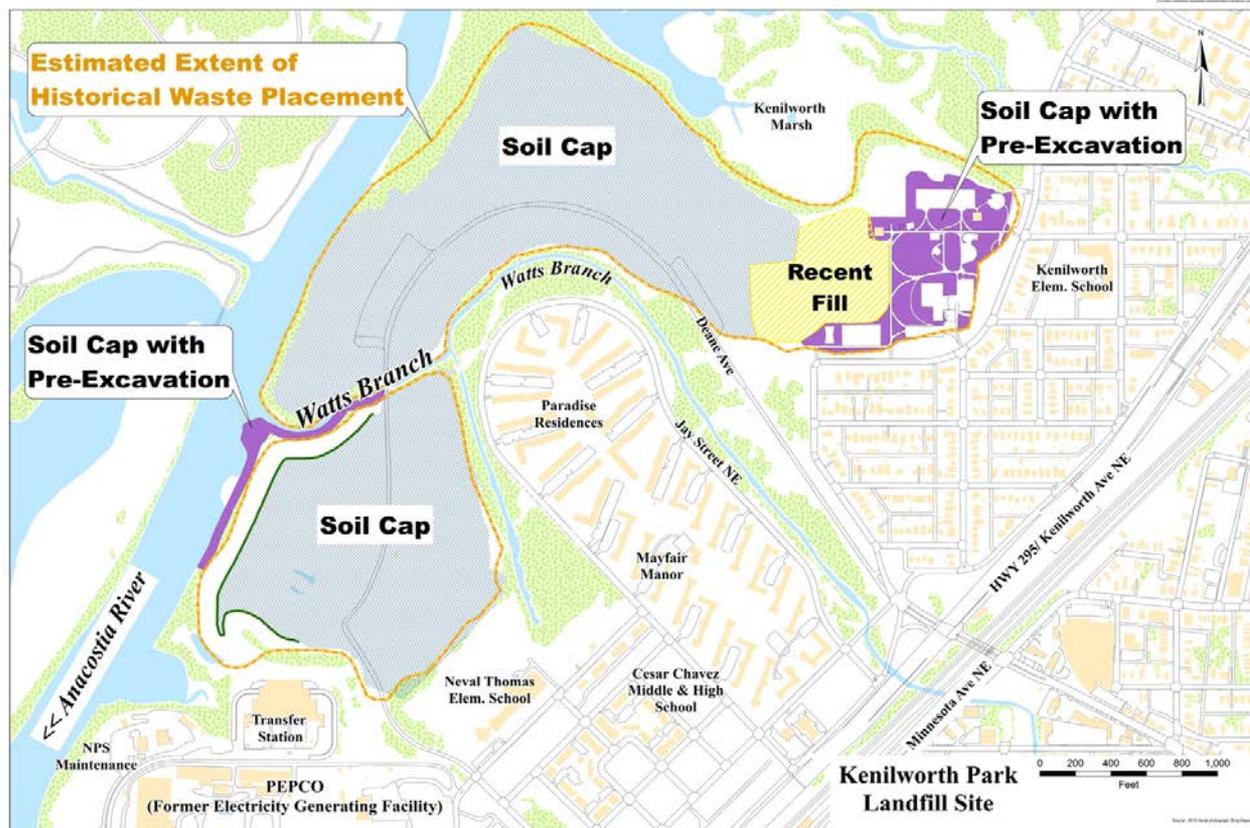
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Remedial Alternative 3a 12-Inch Soil Cap

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Fill Map - Kenilworth Park Landfill Site Map

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Remedial Alternative 3b 24-Inch Low Permeability Cap

- Placement of a 24-inch soil cap (6-inches topsoil)
- Soil would be compacted to reduce permeability and minimize infiltration
- Excavation around existing features prior to installation
- Perimeter methane monitoring for 3 years
- Institutional Controls to require health and safety plans prior to future development

Cost Estimate: \$18 million

Estimated timeline: 2-3 years

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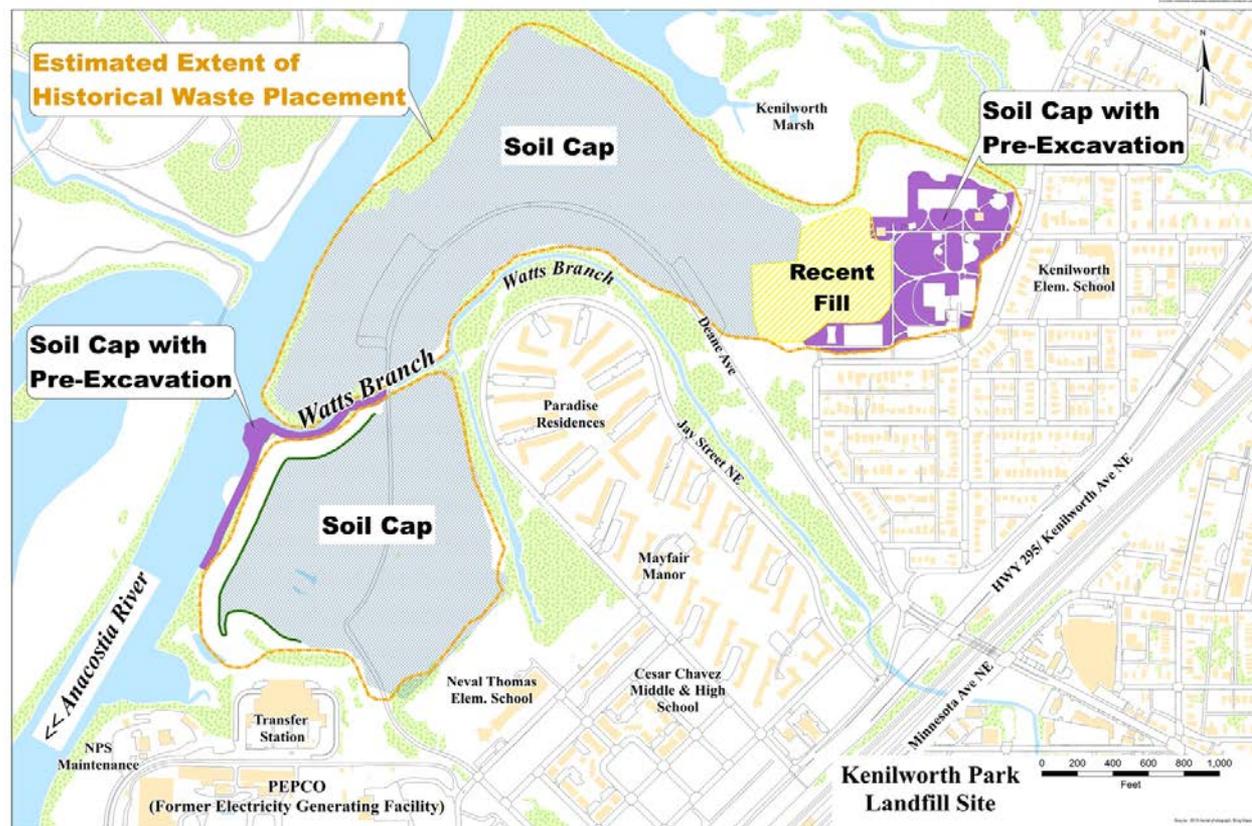
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Remedial Alternative 3b 24-Inch Low Permeability Cap

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Fill Map - Kenilworth Park Landfill Site Map

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Remedial Alternative 4 Removal & Disposal

- Complete excavation of all Landfill materials
- Reestablish original grades and wetland habitat
- Institutional Controls only necessary around existing structures

Cost Estimate: more than \$400 million

Estimated timeline: 5-8 years

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Comparison of Alternatives

Alternatives	1	2	3a	3b	4
Protect Human Health and the Environment	X	X	✓	✓	✓
Complies with ARARs	X	X	X	✓	✓
Long-Term Effectiveness and Permanence	X	X	✓	✓	✓
Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment	X	X	X	X	X
Short-Term Effectiveness	X	X	✓	✓	X
Implementability	✓	✓	✓	✓	X
Cost (in Millions)	0.1	1	11	18	>400

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Preferred Alternative 3b 24-Inch Low Permeability Cap

This alternative addresses site risks and achieves the Site's remedial action objectives

Remedy Components

- Placement of a 24-inch soil cap (6-inches topsoil)
- Soil would be compacted to reduce permeability and minimize infiltration
- Excavation around existing features prior to installation
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- Institutional Controls to require health and safety plans prior to any future ground-disturbing activities

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Preferred Alternative 3b 24-Inch Low Permeability Cap

Modifying Criteria

8. State (District) Acceptance
 - NPS will seek the District of Columbia's comments and concurrence on this alternative
9. Community Acceptance
 - Your opportunity to comment
 - NPS will consider all public comments

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Preferred Alternative 3b 24-Inch Low Permeability Cap

Formal comment period:
March 5, 2013 to May 6, 2013

Administrative Record: A formal collection of documents used to select the remedy. Copies of the Administrative Record are available at:

National Capital Parks-East
1900 Anacostia Drive, SE,
Washington, D.C. 20020
(202) 692-6033

National Park Service
1050 Walnut Street, Suite 220
Boulder, CO 80302
(303) 415-9030

Hours: Mon-Fri 9 a.m. to 4 p.m.
Except federal holidays

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To submit formal written comments, please send them to:

National Capital Parks-East
1900 Anacostia Drive, SE,
Washington, D.C. 20020
(202) 692-6033

National Park Service
1050 Walnut Street, Suite 220
Boulder, CO 80302
(303) 415-9030

kenilworthpark_ou1@nps.gov

Planning, Environment, & Public Comment:
<http://parkplanning.nps.gov/>

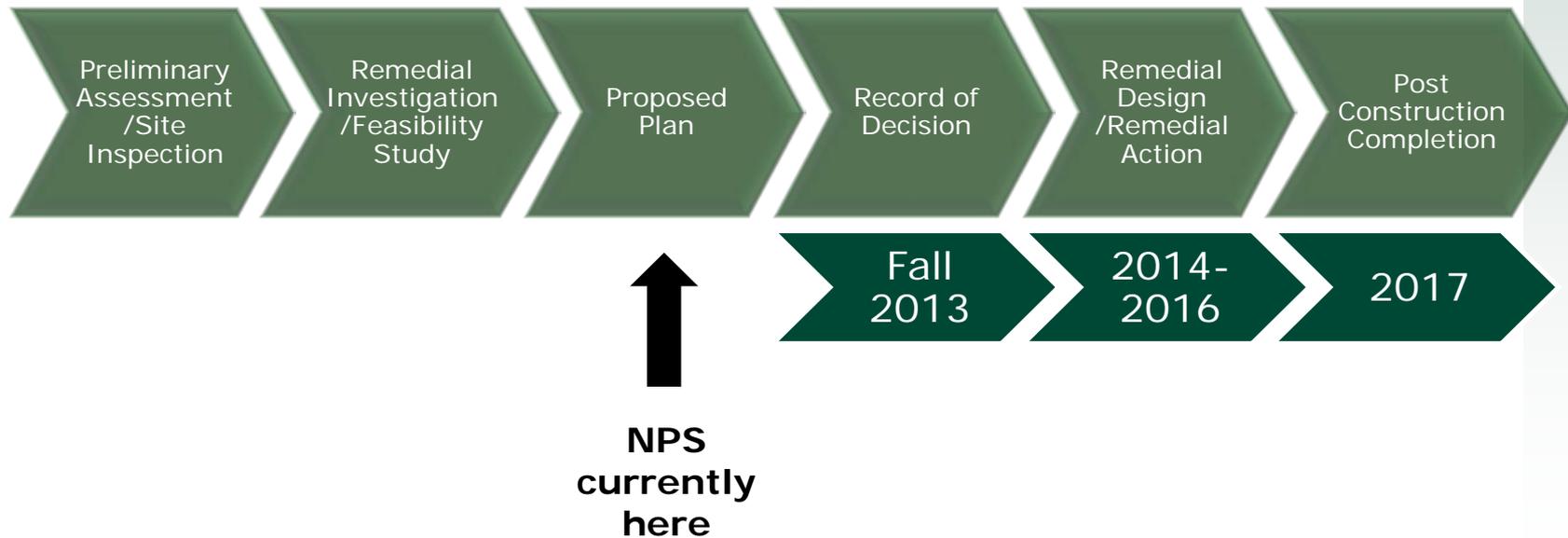
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