OCCIDENTAL CHEMICAL CORPORATION PROPERTY
LAKE ONTARIO ORDNANCE WORKS
PORTER, NEW YORK

Defense Environmental Restoration Program for Formerly Used Defense Sites
Proposed Plan Public Meeting
January 11, 2017

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WELCOME!

AGENDA

- Introductions
- Background Information
- Evaluation of Remedial Alternatives and Selection of Preferred Alternative
- Public Comments

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STAKEHOLDERS

Community

U.S. Department of the Army

U.S. Army Corps of Engineers

U.S. Environmental Protection Agency

New York State Department of Environmental Conservation

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ACRONYMS

AOC	Area of Concern
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Constituent of Concern
DERP-FUDS	Defense Environmental Restoration Program for Formerly Used Defense Sites
DoD	Department of Defense
EU	Exposure Unit
LOOW	Lake Ontario Ordnance Works
mg/kg	milligrams/kilogram
OCCP	Occidental Chemical Corporation Property

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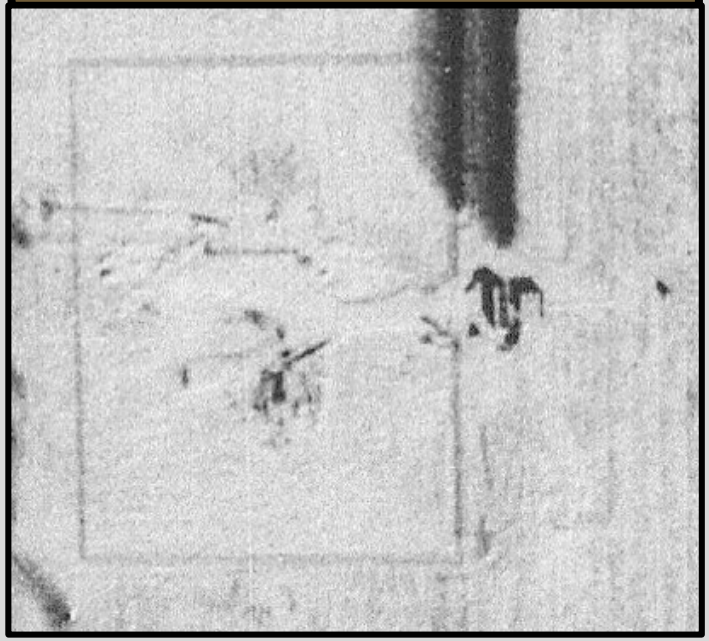
DERP-FUDS MISSION

Protect human health and the environment

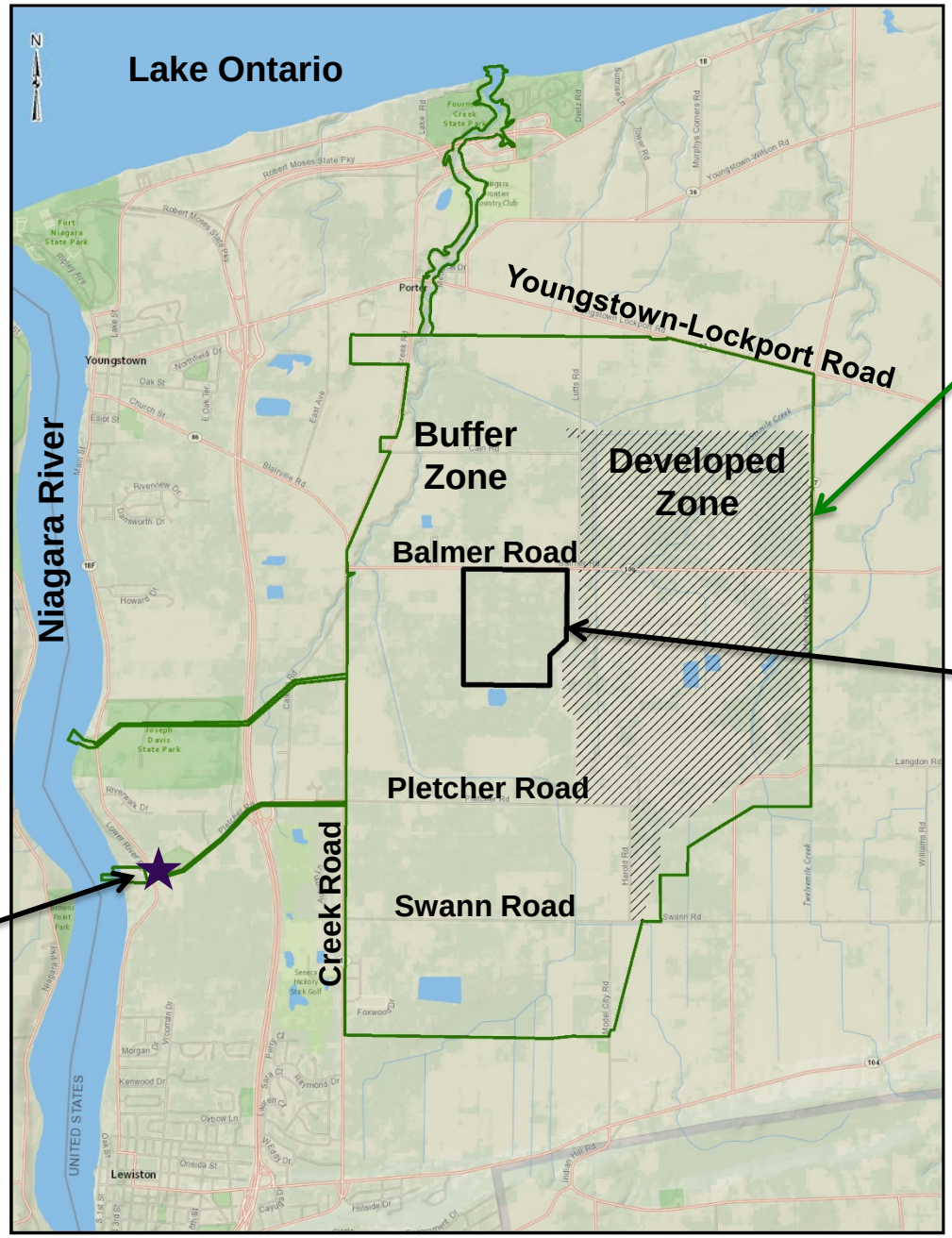
Identify



Investigate

Clean up or control DoD-related material

LOCATION



Lewiston Senior Center

Lake Ontario Ordnance Works with Easements

Occidental Chemical Corporation Property (OCCP)

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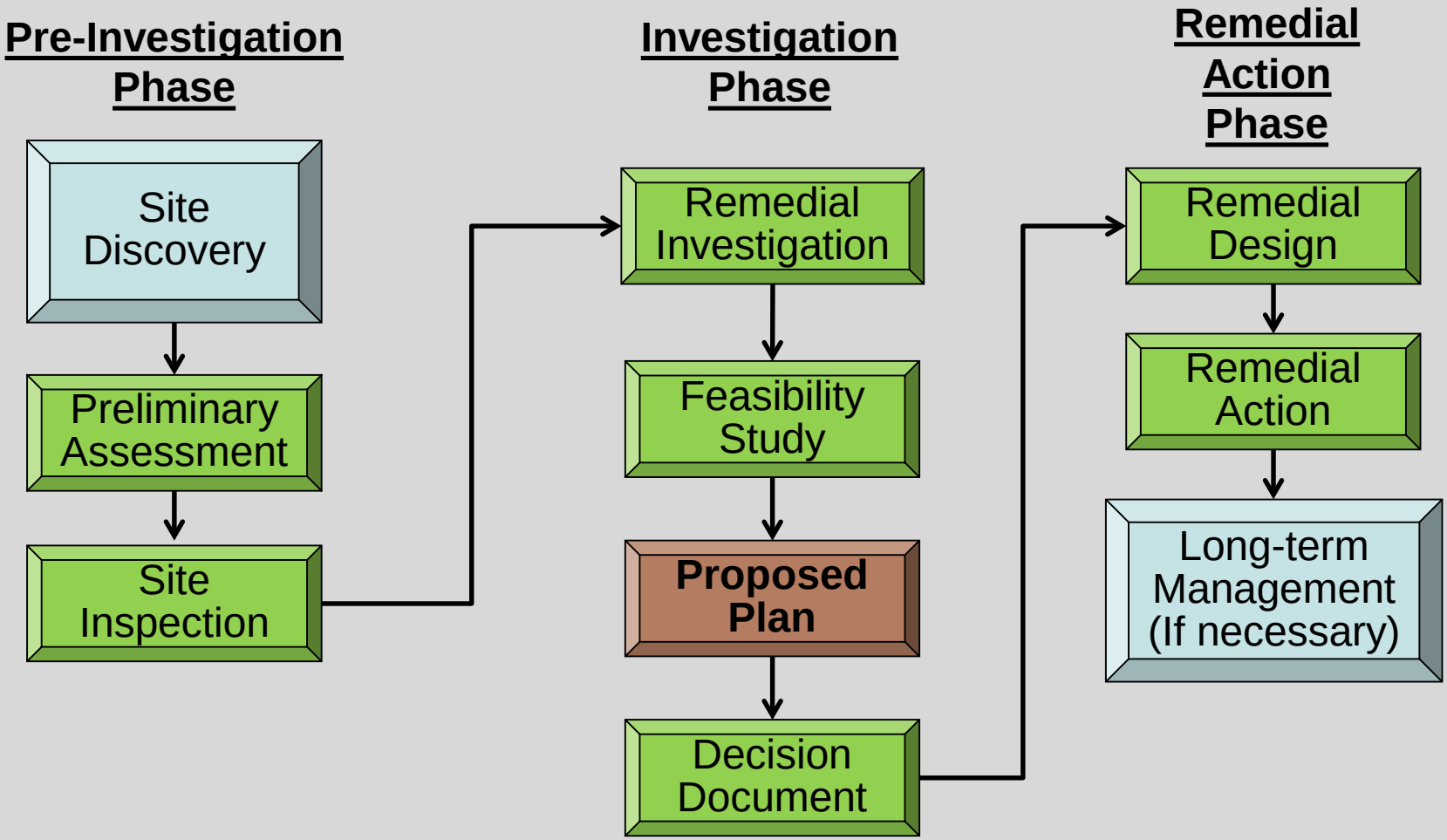
CERCLA PROCESS FOR DERP-FUDS



OCCP CERCLA PROCESS TIMELINE

1992 - Preliminary Assessment

2002 - Phase 2 Remedial Investigation LOOW

2004 - Small-Bermed Clearing Investigation

2008 - Phase 3 Remedial Investigation LOOW

2013 - Remedial Investigation OCCP

2015 - Feasibility Study OCCP EU 8 (AOC 1)

2016 - Proposed Plan OCCP

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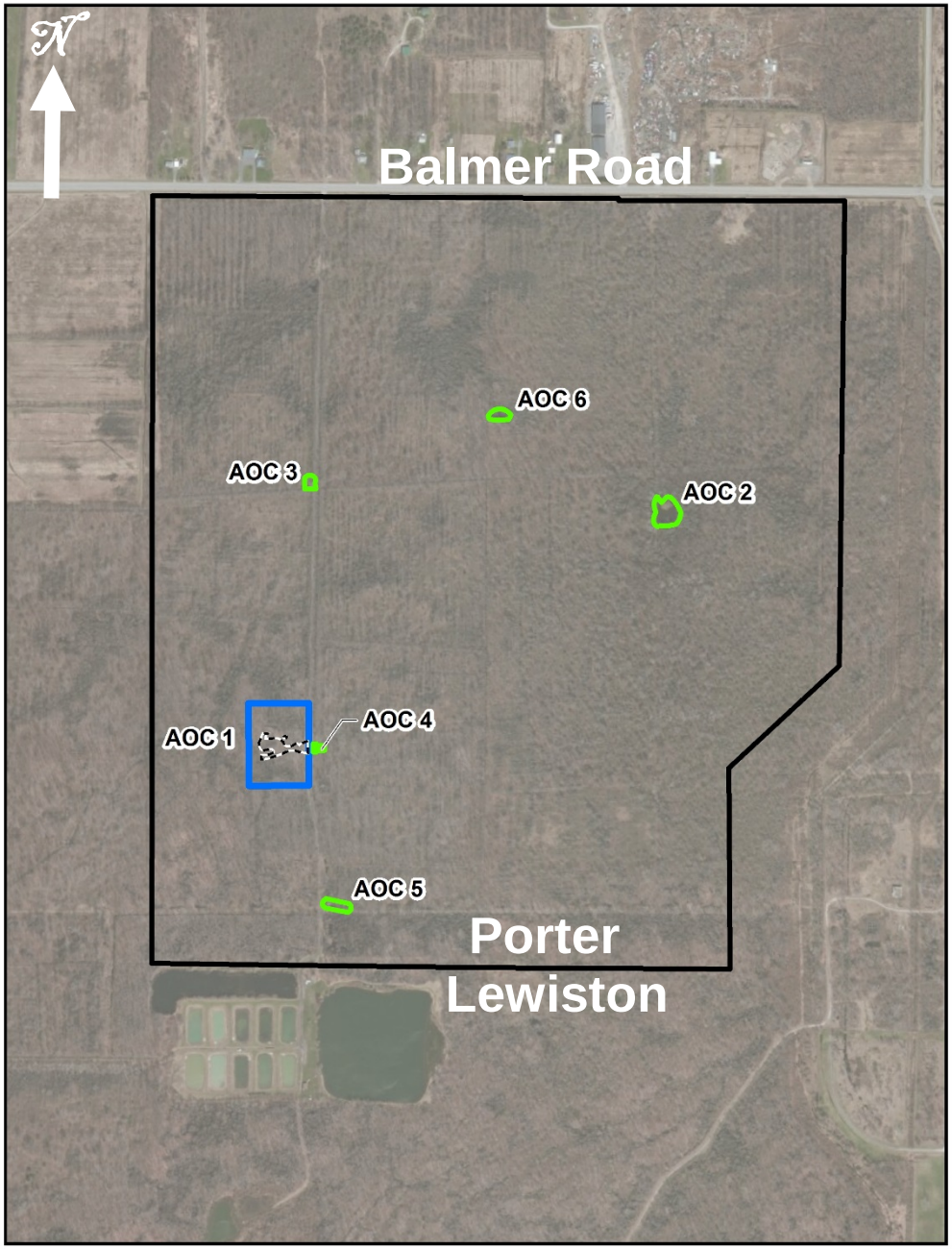
OCCIDENTAL CHEMICAL CORPORATION PROPERTY AREAS OF CONCERN



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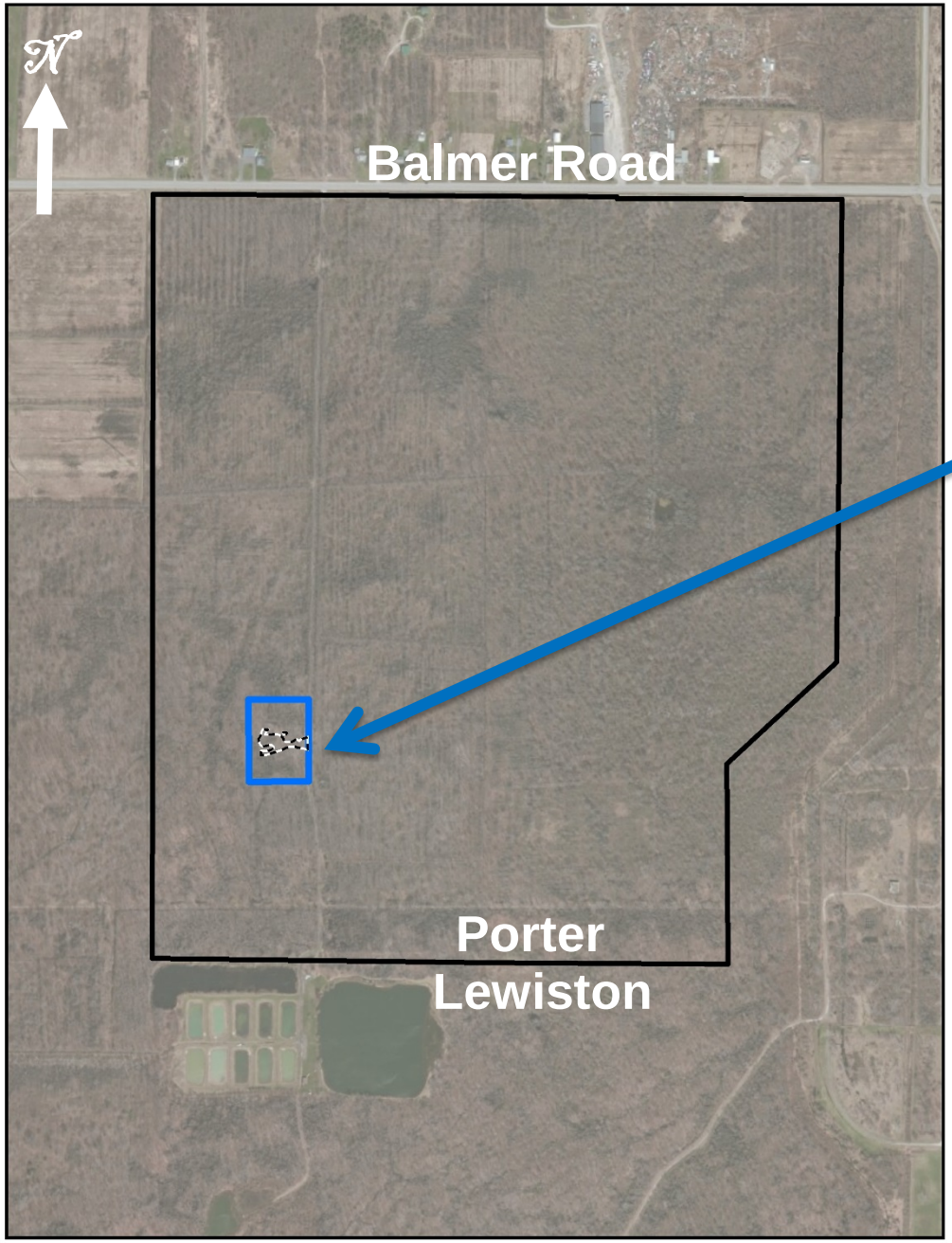

AREA OF CONCERN 1

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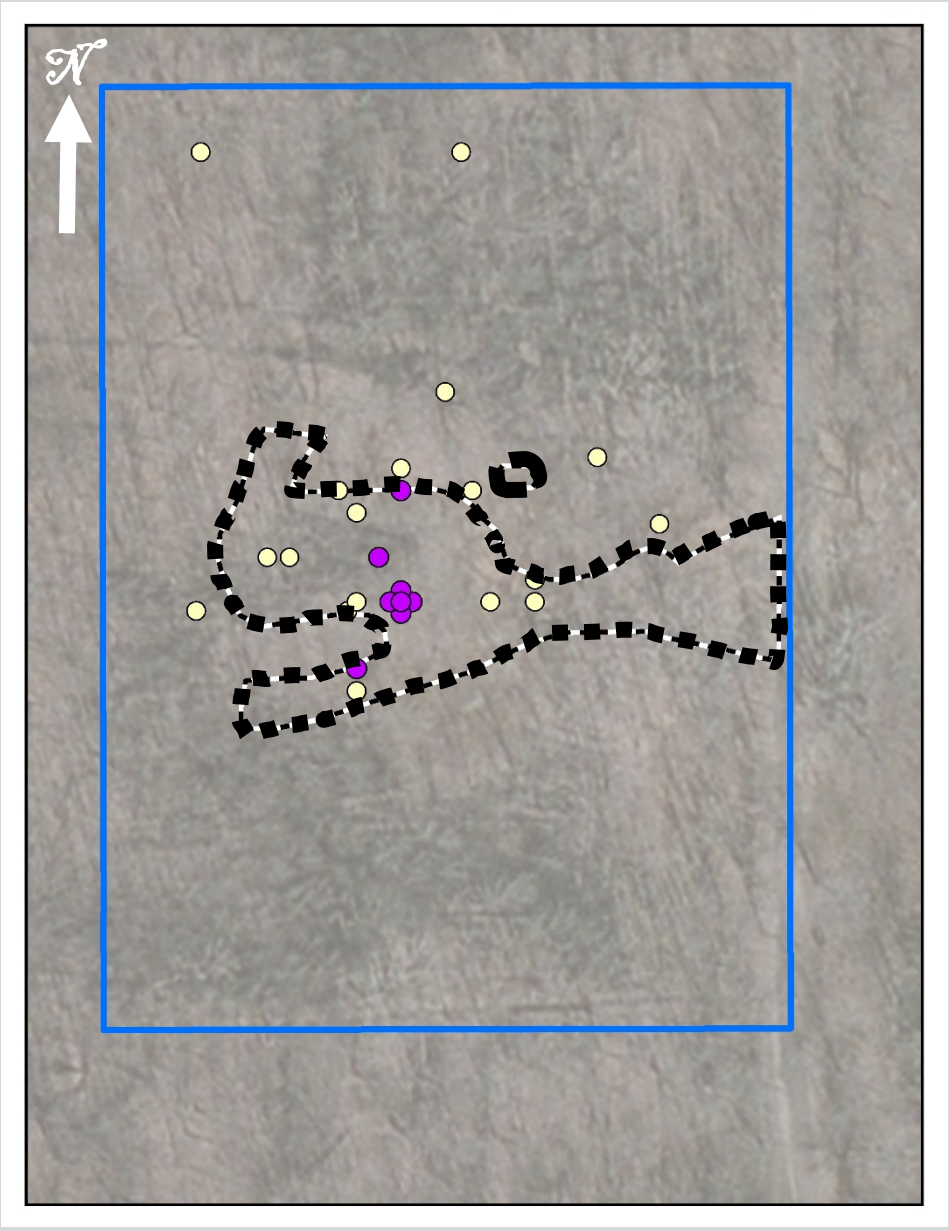

AOC 1 RISK-BASED SOIL REMEDIATION GOALS

TNT – 18 mg/kg

Lead – 400 mg/kg

Legend

- Soil Sample Location with TNT or Lead Exceeding Risk-Based Remediation Goal
- Soil Sample Location
- Approximate Areas of Debris
- Area of Concern 1

OCCIDENTAL CHEMICAL CORPORATION PROPERTY

REMEDIAL ALTERNATIVES EVALUATION

AND

SELECTION OF PREFERRED ALTERNATIVE

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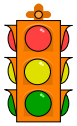
CERCLA EVALUATION CRITERIA



Threshold

Balancing

Modifying

Alternatives

Protection of human health and the environment

Compliance with applicable or relevant and appropriate requirements

Long-term effectiveness and permanence

Reduction of toxicity, mobility or volume through treatment

Short-term effectiveness

Implementability

Cost

Community acceptance

State acceptance

Selected Remedy

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APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS)

Potential Action-Specific ARARs:

Resource Conservation and Recovery Act

- ✓ Design and Operating Requirements
  - – Subpart N (40 CFR 264.301)
- ✓ Land Disposal Restrictions
  - – Subpart D (40 CFR 268.48)

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REMEDIAL ALTERNATIVES

~~1 No Action~~ - (screened out)

2: Land-Use Controls

3: Landfill Cap

4: Excavation and Off-Site Disposal

5: In Situ Chemical Reduction/Oxidation and Stabilization

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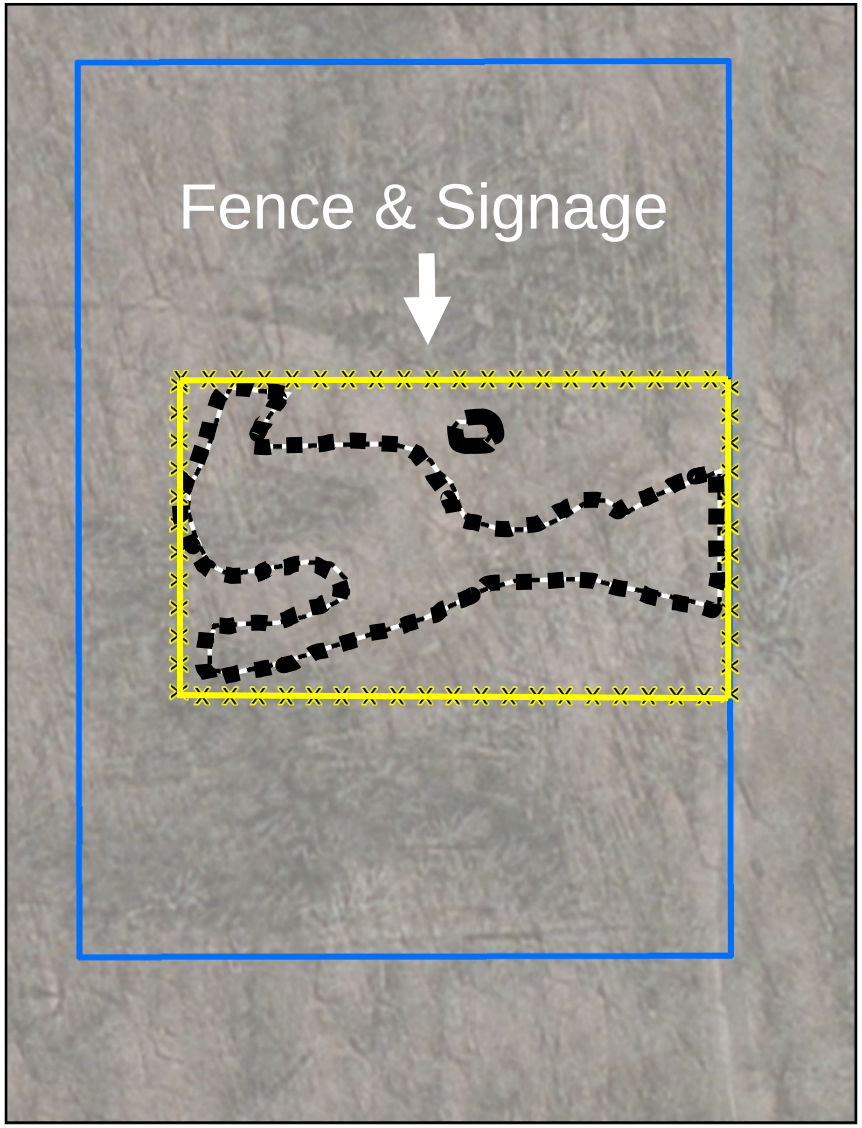
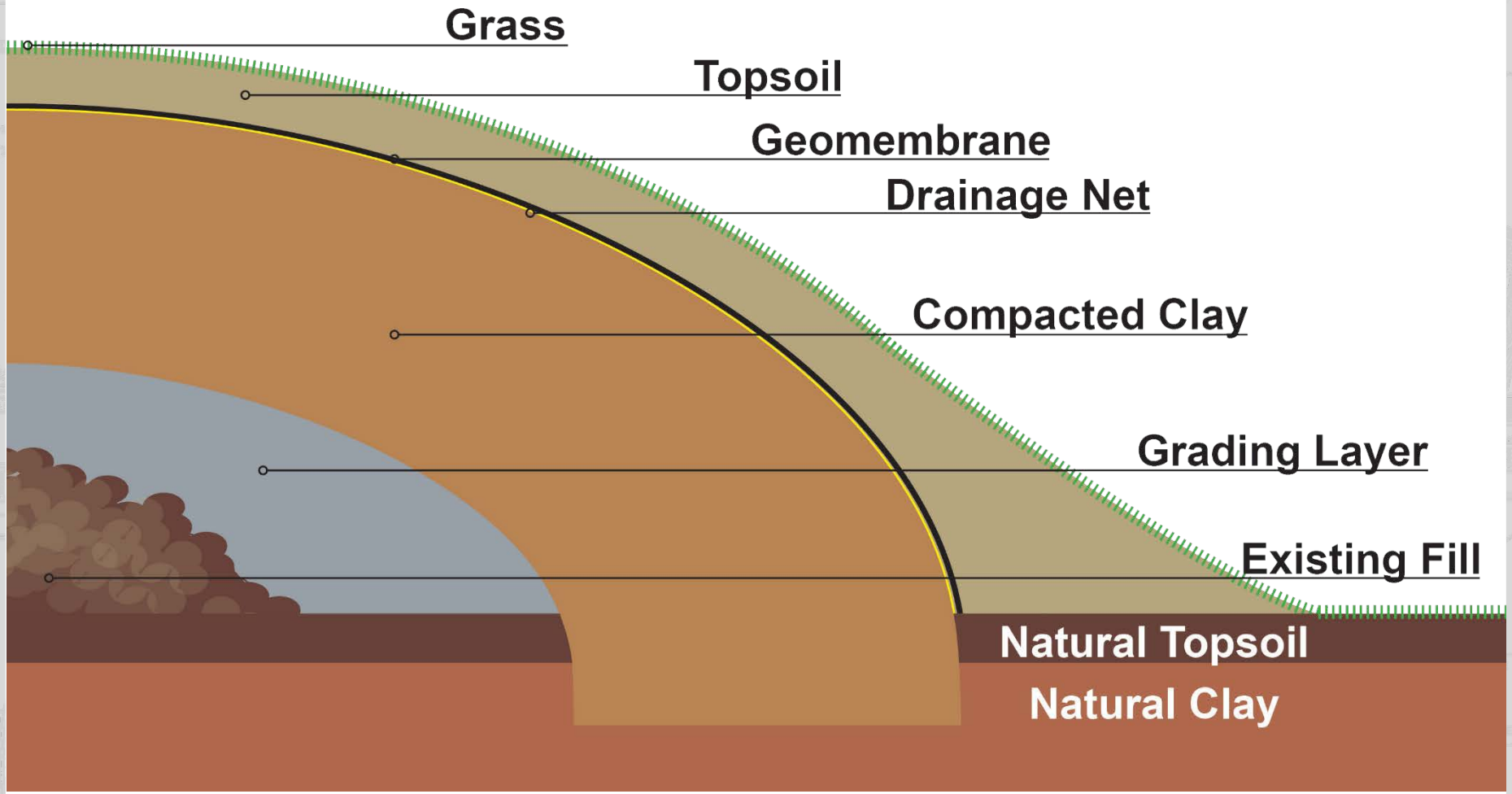
ALTERNATIVE 2: LAND-USE CONTROLS



CERCLA Balancing Criteria	
Short-Term Effectiveness	High
Long-Term Effectiveness and Permanence	Low
Reduction of Toxicity, Mobility, and Volume Through Treatment	Low
Implementability	Moderate
Total Cost	$3,000,000

ALTERNATIVE 3: LANDFILL CAP



Enhanced for visual clarity

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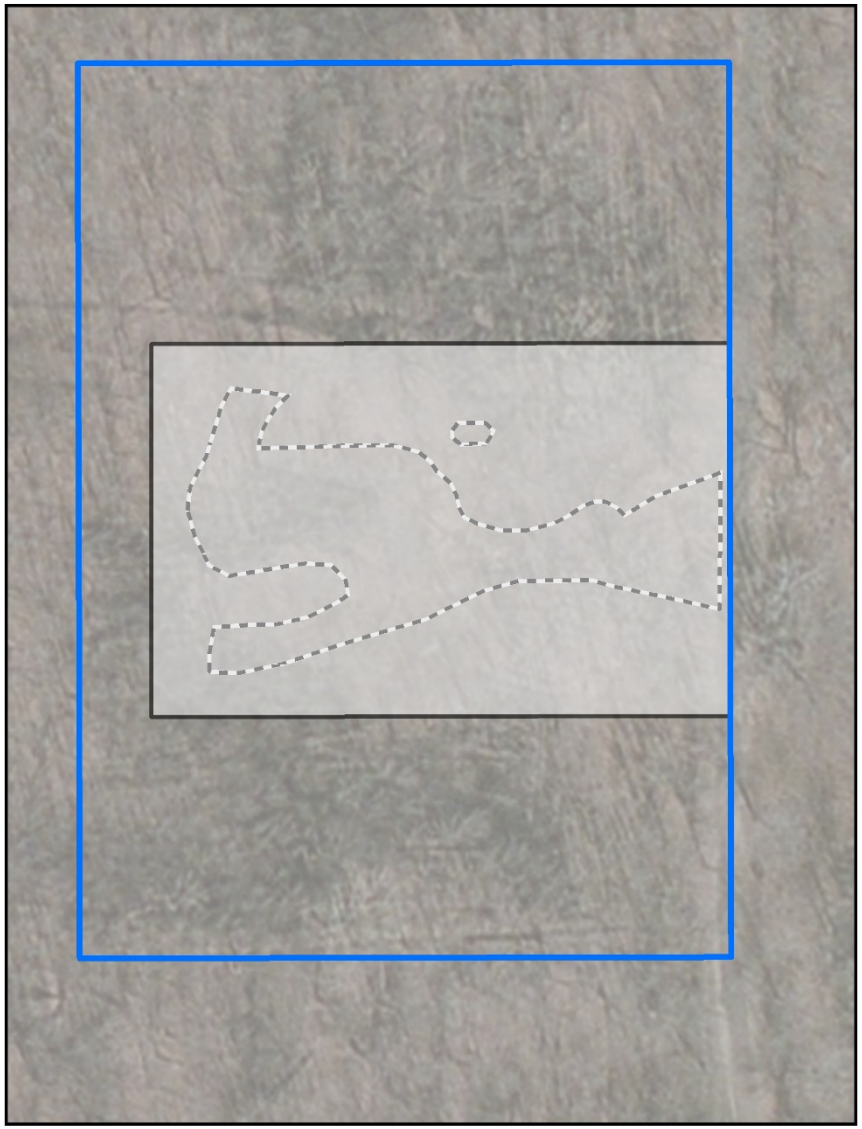
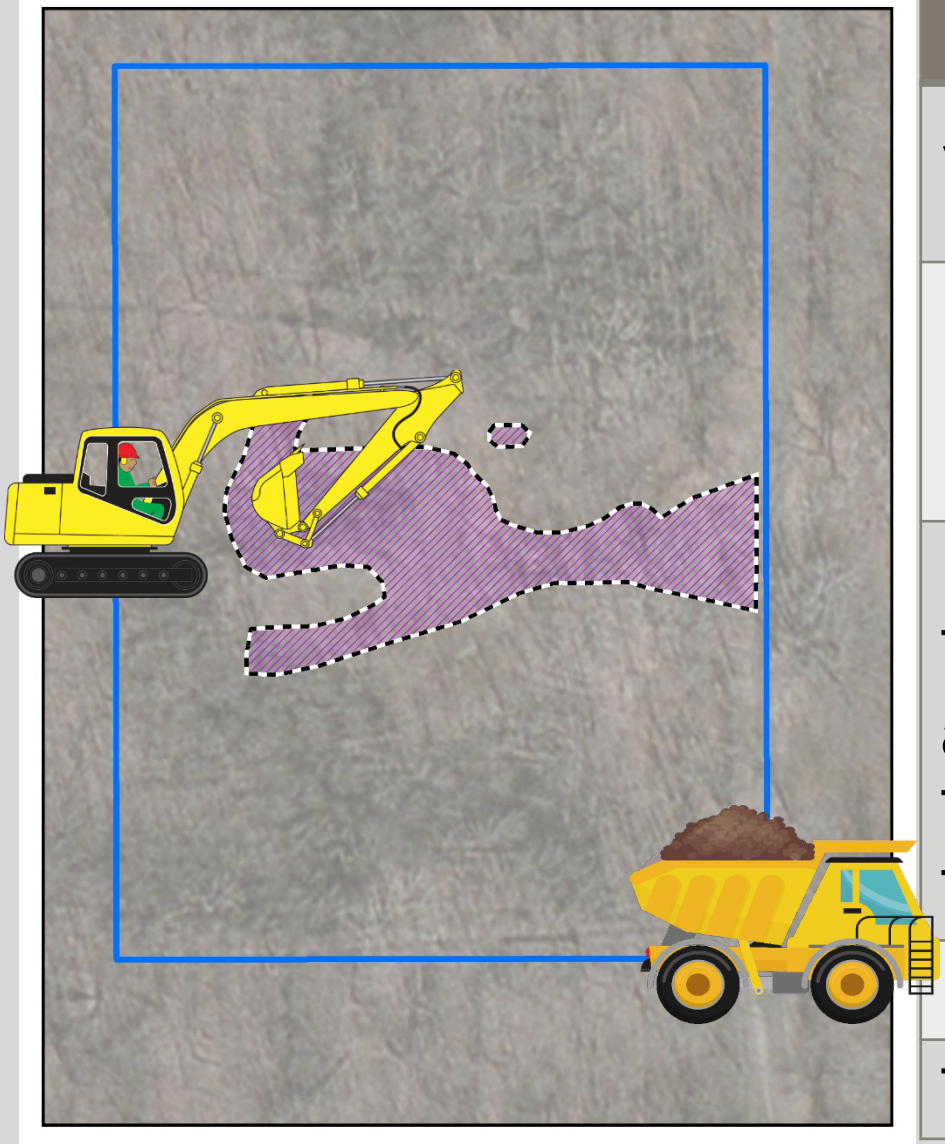
ALTERNATIVE 3: LANDFILL CAP



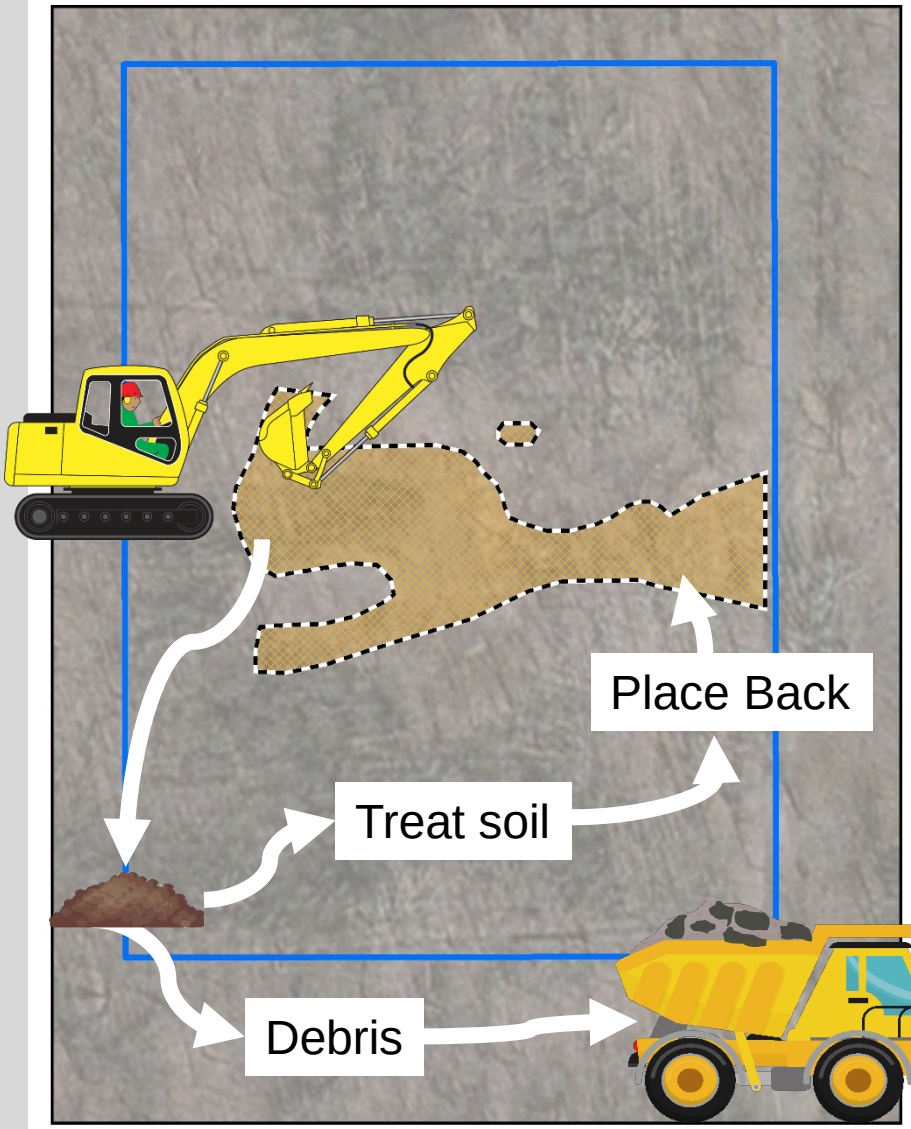
CERCLA Balancing Criteria	
Short-Term Effectiveness	High
Long-Term Effectiveness and Permanence	Moderate
Reduction of Toxicity, Mobility, and Volume Through Treatment	Moderate
Implementability	Moderate
Total Cost	$5,500,000

ALTERNATIVE 4: EXCAVATION AND OFF-SITE DISPOSAL



CERCLA Balancing Criteria	
Short-Term Effectiveness	High
Long-Term Effectiveness and Permanence	High
Reduction of Toxicity, Mobility, and Volume Through Treatment	High
Implementability	High
Total Cost	$846,000

ALTERNATIVE 5: IN SITU CHEMICAL REDUCTION/OXIDATION AND STABILIZATION



CERCLA Balancing Criteria	
Short-Term Effectiveness	High
Long-Term Effectiveness and Permanence	Moderate
Reduction of Toxicity, Mobility, and Volume Through Treatment	High
Implementability	Moderate
Total Cost	$6,371,000

COMPARATIVE ANALYSIS

CERCLA Balancing Criteria	Alt 2: Land-Use Controls	Alt 3: Landfill Cap	Alt 4: Excavation and Off-Site Disposal	Alt 5: In Situ Chemical Reduction/ Oxidation and Stablilization
Short-Term Effectiveness	High	High	High	High
Long-Term Effective-ness and Permanence	Low	Moderate	High	Moderate
Reduction of Toxicity, Mobility, or Volume Through Treatment	Low	Moderate	High	High
Implementability	Moderate	Moderate	High	Moderate
Total Cost	$3,049,000	$5,510,000	$846,000	$6,371,000

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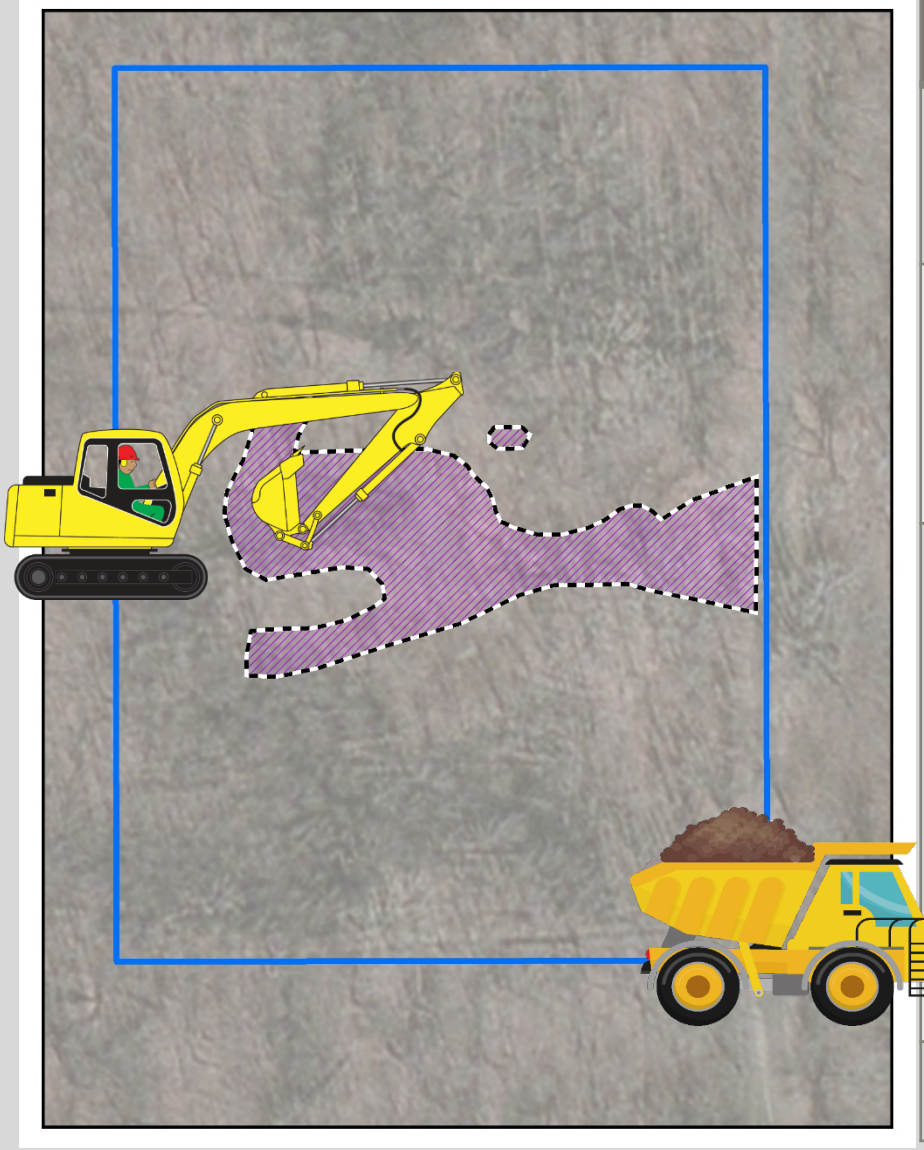
PREFERRED ALTERNATIVE: ALTERNATIVE 4: EXCAVATION AND OFF-SITE DISPOSAL



CERCLA Balancing Criteria	
Short-Term Effectiveness	High
Long-Term Effectiveness and Permanence	High
Reduction of Toxicity, Mobility, and Volume Through Treatment	High
Implementability	High
Total Cost	$846,000

OCCIDENTAL CHEMICAL CORPORATION PROPERTY PATH FORWARD

- Public Comments
- Decision Document and Responsiveness Summary
- Remedial Design/Remedial Action
- Response Complete

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COMMENT PERIOD

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ADMINISTRATIVE RECORD LOCATIONS

Lewiston Public Library
305 South Eighth Street
Lewiston, New York 14092

Youngstown Free Library
240 Lockport Street
Youngstown, New York 14174

By Appointment:
U.S. Army Corps of Engineers
1776 Niagara Street
Buffalo, New York 14207
800-833-6390 (Option 4)

RESPONSES TO COMMENTS

- We will respond to oral and written comments on the proposed plan in the responsiveness summary of the record of decision.
- Your comments will become part of the official record and be placed in the administrative record.

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OPERATING PRINCIPLES FOR COMMENTING

- Stenographer will be recording proceedings.
- One person speaks at a time.
- Please use the microphone when speaking.
- State your name and affiliation.
- Speakers are limited to three minutes to allow everyone an opportunity to speak.
- Limit subject to the proposed plan.

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PROVIDE COMMENTS

Written comments should be postmarked by February 7, 2017, and mailed to:

U.S. Army Corps of Engineers, Buffalo District
Special Projects Branch
1776 Niagara Street
Buffalo, NY 14207-3199

or send an email by close of business February 7, 2017, to:

derpfuds@usace.army.mil

please include “Occidental Chemical Corporation Property Proposed Plan” in the subject line.

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FOR MORE INFORMATION

DERP-FUDS Questions

By phone: 800-833-6390 (Option 4)

By e-mail: derpfuds@usace.army.mil

By writing: U.S. Army Corps of Engineers, Buffalo District
Special Projects Branch
Environmental Project Management Team
1776 Niagara Street
Buffalo, NY 14207

On the web:

www.lrb.usace.army.mil/Missions/HTRW/DERP-FUDS.aspx

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Thank you for your participation!

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