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LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

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# OVERVIEW AND STATUS OF SUPERFUND SITES

The CERCLA Program in Louisiana

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# What is Superfund?

- “Superfund” was established as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980.
- It is Federal program designed to fund the cleanup of sites contaminated with hazardous substances and pollutants. It has never been authorized to the states.
- It was designed to address those sites that were left out by the Resource Conservation and Recovery Act (RCRA). Some of these sites pre-dated RCRA, like Love Canal and the Valley of Drums. Others were not properly closed out under RCRA.
- Defines Hazardous Substances, which excludes petroleum products, and uses risk-based cleanup levels

# What is Superfund (continued)

- The EPA may identify Potentially Responsible Parties (PRPs) responsible for hazardous substance releases to the environment and either compel them to clean up the sites, or it may undertake the cleanup on its own using the “Superfund” (a trust fund) and costs recovered from PRPs.
- Through the 1980s, most of the funding came from a tax on commercial petroleum and chemical products. However, this tax was not renewed in 1990, shifting the burden of the cost to general appropriations (taxpayers) and PRPs.
- CERCLA also created the Agency for Toxic Substances and Disease Registry (ATSDR).

# Superfund – Hazard Ranking System and National Priorities List

- Superfund was designed to address the sites that were the “worst of the worst.”
- The EPA is required by law to use the Hazard Ranking System (HRS) to calculate a site score (ranging from 0 to 100) based on the actual or potential release of hazardous substances from a site.
- A score of 28.5 places a site on the National Priorities List (NPL), and makes it eligible for long-term remedial action (i.e., cleanup) under the Superfund program. These are known as NPL Sites, or Remedial Sites.
- Any site scoring less than 28.5 is returned to the state for further action under state laws. A lack of action by Superfund following assessment DOES NOT mean a site is not contaminated, or does not require cleanup. It just means it is not a national priority.

# Other Superfund Actions

- The EPA is also authorized by CERCLA to perform Removal Actions. These are essentially source removals or other short-term actions. These do not require NPL listing.
- A Removal Action requires that conditions that pose an “Imminent and Substantial Endangerment” exist, and that an authorizing “Action Memo” be signed by a EPA Regional Administrator or their designee.
- Typically, CERCLA Removal Actions are limited to two million dollars in cost and two years in duration (however, exceptions can be made). They typically address source materials, grossly contaminated media, or unacceptable exposure situations. They can be enforcement actions (PRPs do the work), or EPA lead actions.

# EVR-Wood Removal Actions (Evangeline)

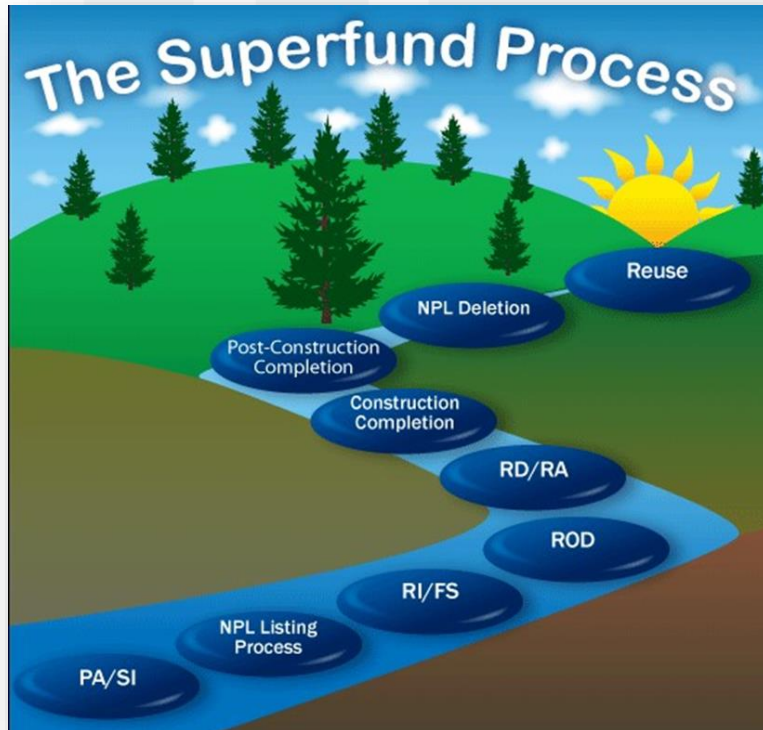


# EVR-Wood Tanks Removal Action





# The Superfund Remedial Process



- Site Assessment
- NPL Listing (HRS $\geq$ 28.5)
- Remedial Investigation/Feasibility Study
- Record of Decision
- Remedial Design/Remedial Action
- Remedy Construction
- NPL Deletion
- Reuse

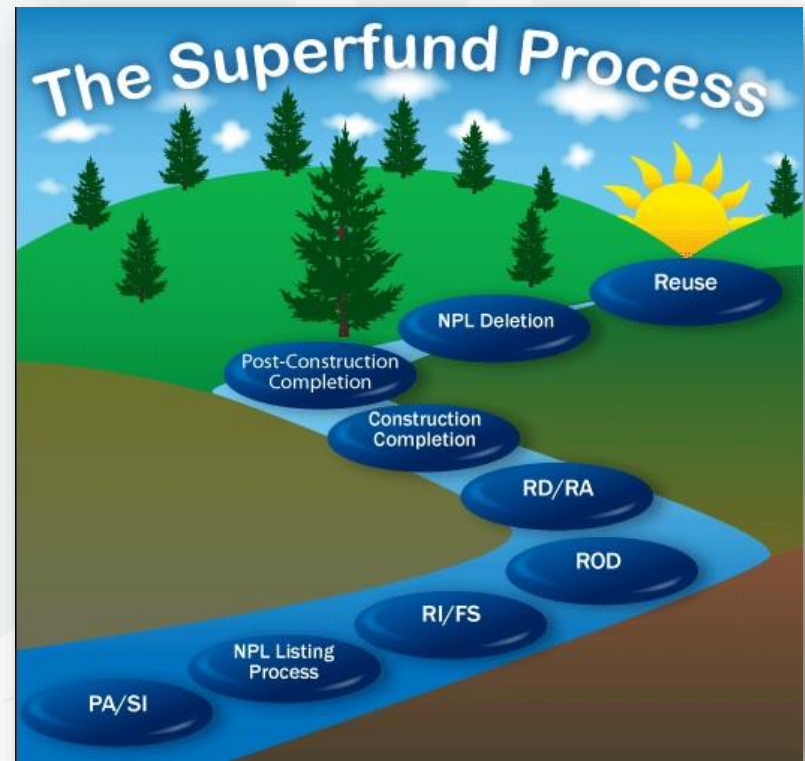
# Superfund Case Study American Creosote – Deridder Superfund Site

- Wood Preserving Facility
- Early 1920's to mid-1950's
- 55 acres
- Current owner –
  - Central Manufacturing Company
  - (not financially viable)



# EPA Superfund Process American Creosote – Deridder Superfund Site

- 2015 – Preliminary Assessment
- 2016 – Site Inspection
- 2017 – Proposed to the National Priorities List
- 2018 – Finalized on the National Priorities List
- 2018 (September)
  - Initiated Remedial Investigation



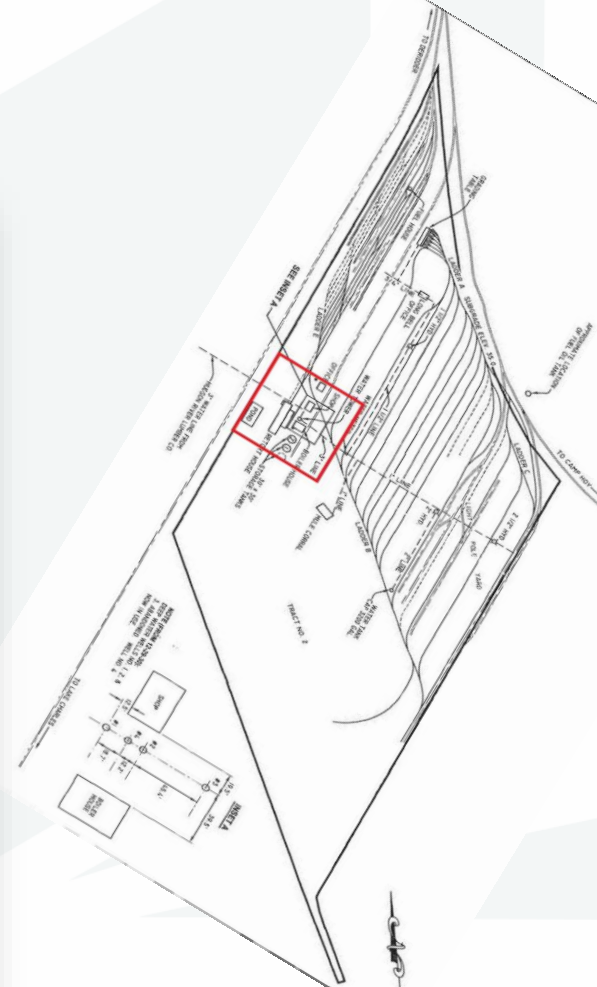
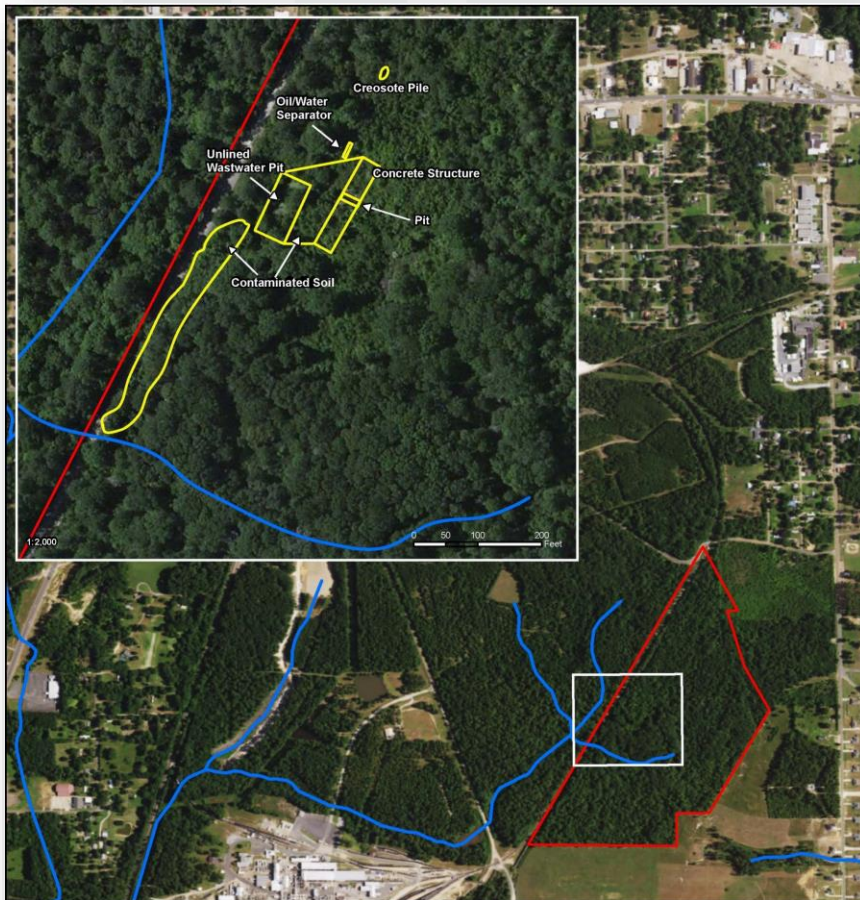
# Site Characteristics

## American Creosote – Deridder Superfund Site

### ➤ Remaining Sources

- Concrete Structure (former retort house basin)
- Oil/Water Separator
- Unlined Wastewater Pit
- Aggregated Areas of Soil Contamination
- Creosote Piles

# Site Characteristics American Creosote – Deridder Superfund Site



# American Creosote – Deridder Superfund Site

Concrete Structure



Unlined Wastewater Pit



# Remedial Investigation American Creosote – Deridder Superfund Site

## ➤ Phased Investigation

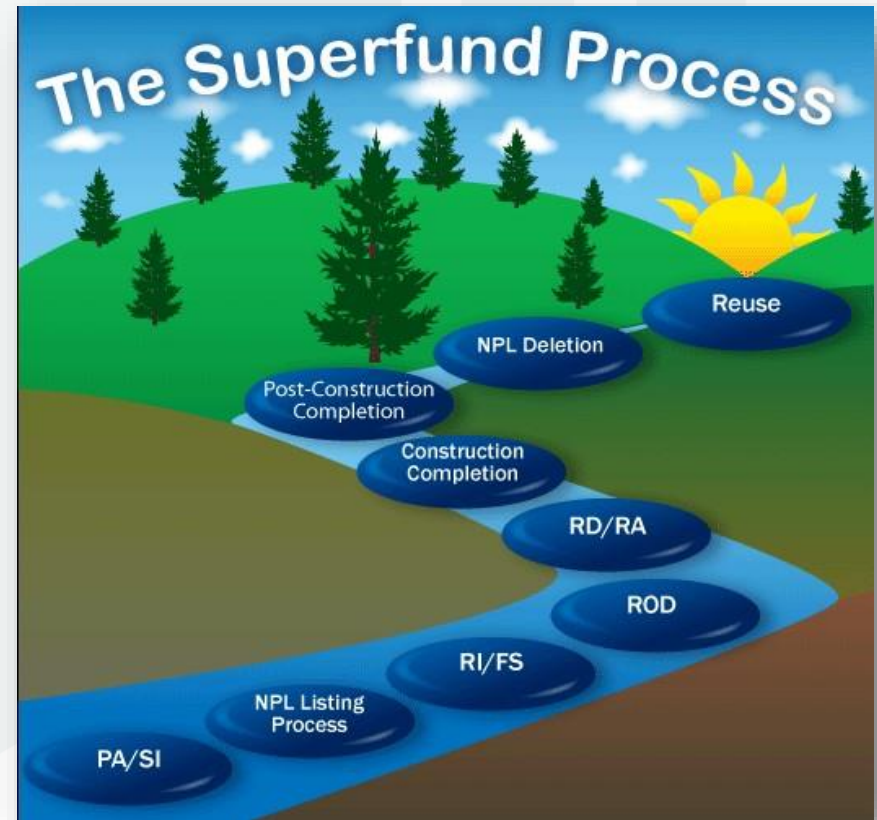
- Objectives
  - Identify additional source areas
  - Identify extent of soil contamination
  - Identify extent of surface water contamination
  - Identify extent of sediment contamination
  - Identify extent of ground water contamination
  - Limit Access



# Superfund Process American Creosote – Deridder Superfund Site

## ➤ Project Timeline

- Remedial Investigation/Feasibility Study – 2018 to 2022
- Proposed Plan – 2023
- Record of Decision - 2023
- Remedial Design - 2025
- Remedial Action – 2025 to 2027





# Louisiana Superfund Sites by the Numbers

- Currently on the NPL = 13
- Proposed to the NPL (long term PRP sites) = 3
- Deleted from the NPL = 13
  
- Oldest site currently on the NPL = Bayou Bonfouca in Slidell: Listed 09/08/1983
- Newest site listed on the NPL = American Creosote – DeRidder: Listed 01/18/2018

# Louisiana Superfund Sites by Types- Currently Listed on the NPL

- The largest class: Wood Treating = 7
- Waste Processing/Disposal = 3 (Agriculture Street Landfill, Combustion Inc., Petro Processors)
- Shipyards = 2 (Delta Shipyard, SBA Shipyard)
- Federal Facility = 1 (Louisiana Army Ammunition Plant {LAAP} a.k.a. Camp Minden)

# Louisiana Superfund Sites by Types – Proposed to the NPL (long term PRP)

- The EPA describes this approach in regard to the Highway 71/72 Refinery Site :

“EPA did not finalize the site on the NPL. The site’s PRP addressed the cleanup by employing an alternative approach that requires the same investigations, cleanup process and standards required for sites listed on the NPL.”

- Waste Processing/Disposal = 2 (Devil’s Swamp Lake, Entergy North Ryan Street)
- Refineries = 1 (Highway 71/72 Refinery Site, a.k.a. Old Citgo)

# Louisiana Superfund Sites by Types – Deleted from the NPL (finished &/or O&M)

- The largest class: Waste Processing/Disposal = 7
- Metals Sites = 2 (Delatte Metals, Ruston Foundry)
- Refineries = 2 (Mallard Bay Landing Bulk Plant, Old Inger Refinery)
- Wood Treating = 1 (Central Wood Preserving)
- Shipyard = 1 (Southern Shipbuilding)

# Operation & Maintenance (O&M)

- Following Remedy Construction, the site may or may not be deleted from the NPL.
- If the site has not been completely remediated, or if engineering controls must be maintained, Operation and Maintenance (O&M) is required.
- The EPA cannot itself conduct O&M according to CERCLA. PRPs, State Governments, or local governments must assume O&M duties.
- O&M can include active groundwater pump and treat operations, cap maintenance, groundwater monitoring, fencing maintenance, and vegetation control.



# Bayou Bonfouca Groundwater Treatment – cost to operate 30K+/month

Groundwater from three well arrays is treated & discharged



# Madisonville Creosote Groundwater Treatment – cost to operate 15K+/month

Groundwater from DNAPL recovery array is treated & discharged



# Old Inger Refinery – Significant Site Repairs (Neglected)

Fencing maintenance and vegetation control – 76K in 2018-19



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# Site Reuse – Back into Commerce

- It is a major goal of the Superfund Program to remediate sites so that they may be brought back into use and/or commerce.
- Sometimes, when it is not possible for an entire site to be reused, a portion of the site can be.
- Historical cleanups under the Superfund program in the 1980s - 1990s did not always consider reuse potential. There were a lot of “cap, fence, and monitor” options which took the property out of commerce.
- Even capped landfills are now being re-evaluated for grazing potential or use as solar farms.

# Bayou Bonfouca Superfund Site Slidell's Heritage Park & Marina



# Highway 71/72 Refinery Site (Proposed NPL) Bossier City Business and Residential Areas



# Speaker Contact Information

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  - Link to current listing of Louisiana Superfund Sites:  
[https://deq.louisiana.gov/assets/docs/Land/Remediation/SUPERFUND\\_SITES\\_IN\\_LOUISIANA\\_5-23-2018.pdf](https://deq.louisiana.gov/assets/docs/Land/Remediation/SUPERFUND_SITES_IN_LOUISIANA_5-23-2018.pdf)

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