Overview of Cleanup Progress and Plans
Kerr-McGee Chemical Corporation (KMCC) Navassa Superfund Site, Navassa, North Carolina
March 14, 2017

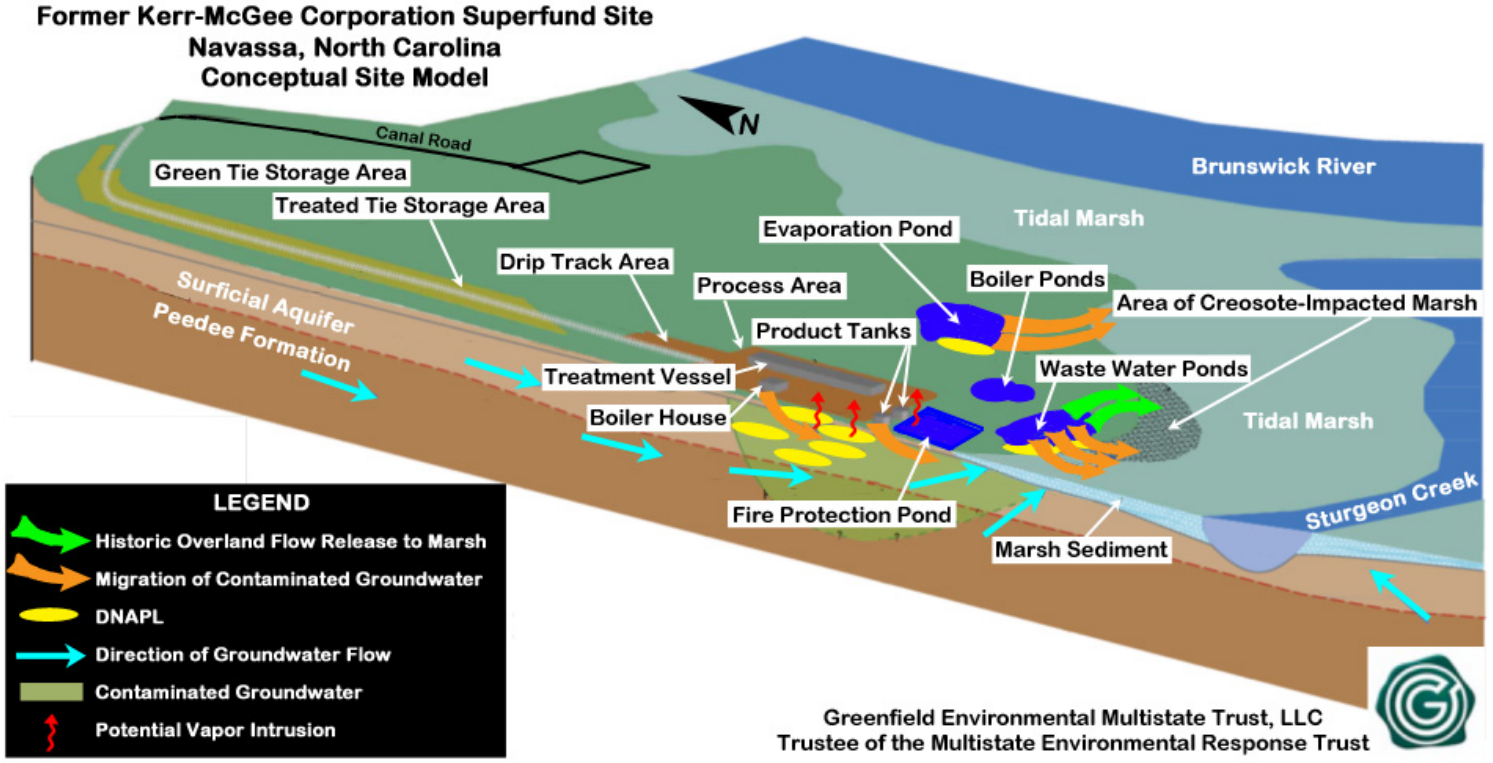
The U.S. Environmental Protection Agency (EPA), the North Carolina Department of Environmental Quality (NC DEQ) and the Multistate Environmental Response Trust (the Multistate Trust) prepared this fact sheet to update the community and other stakeholders about progress and plans for cleanup of the Kerr-McGee Chemical Corporation (KMCC) Navassa Superfund Site (the Site). The Multistate Trust is implementing Site cleanup plans that are approved by EPA, as Lead Agency, in consultation with NC DEQ.

History of KMCC Navassa Superfund Site (the Site)

From 1936 to 1974, the 251-acre Site was used for treating wood. Dried lumber for railroad ties, utility poles and pilings was pressure-treated with creosote in Treatment Vessels. Treated lumber was then allowed to drip-dry outside in a Drip Track Area. Treated and untreated lumber was stockpiled and stored in the Green Tie and Treated Tie Storage Areas. Creosote was stored in aboveground Product Tanks.

Process water was discharged into two unlined Waste Water Ponds, where creosote was separated from water for reuse in the treatment process. Water from the Waste Water Ponds was either reused as cooling water or discharged into an Evaporation Pond. A Fire Protection Pond was used to store water for fighting facility fires, and two Boiler Ponds received water from boiling operations used in the treating process.

In 1980, KMCC demolished all wood-treatment buildings and facilities. At that time, creosote sludge from the Waste Water Ponds and Product Tanks was mixed with clean fill, and then disposed of in the Waste Water Pond basins, which were backfilled and vegetated. Water from the Boiler Ponds was drained, and the basins were backfilled and vegetated. The Fire Pond dike was breached and drained.

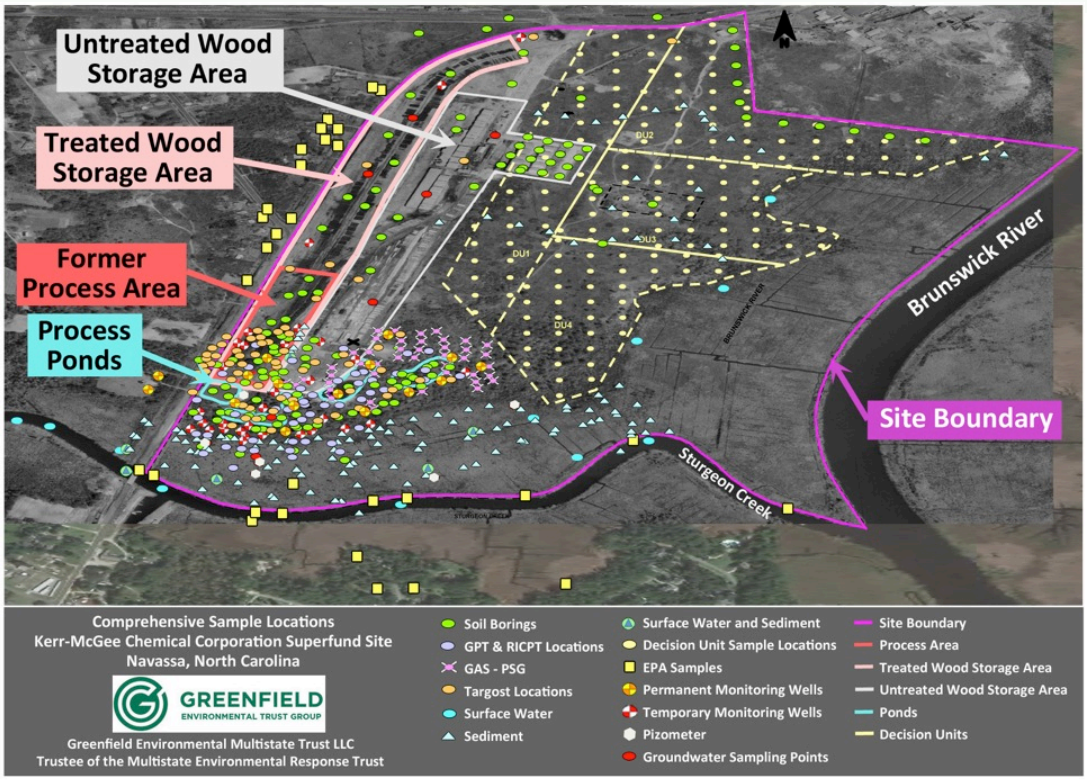


What We Have Been Doing at the Site

As part of the Supplemental Remedial Investigations (SRI), the Multistate Trust has been collecting samples from soil, sediment, surface water and groundwater to determine the lateral (aerial) and vertical (depth) extent of contamination from wood treater operations at the Site. Sampling to date has included collection and analysis of:

- ✓ **238 soil samples** from 140 locations—139 surface soil samples (at depths between 0 and 12 inches below ground surface [BGS]) and 99 subsurface samples (at depths between 1 and 28 feet BGS);
- ✓ **20 surface water samples** from Sturgeon Creek and the tidal marsh areas;
- ✓ **176 sediment samples** from 143 locations; and
- ✓ **191 groundwater samples** were collected from 47 on-site groundwater wells, 2 off-site groundwater wells, and 31 temporary on-site groundwater wells installed at depths up to 95 feet BGS.

SRI results will be used to determine the risk posed by Site contamination to human health and the environment (the Risk Assessments). Once the SRI and Risk Assessments are complete, the Multistate Trust will evaluate the feasibility of different options for remediating the Site (the Feasibility Studies or FS). Based on the results of the RI, Risk Assessments and FS, EPA will select the preferred remedy for the Site.



What We Have Learned About Site Contamination

- ✓ Surface and subsurface soils are impacted by creosote-related constituents. The most highly contaminated soils were found in the former wood treater Process Area. Contaminant concentrations appear to be lower in the former treated wood storage areas, but additional sampling is required to verify this conclusion.
- ✓ Contaminants in the former Process Area are leaching to groundwater. A plume of creosote and fuel contamination in groundwater (centered under the former Process Area) is migrating off-site toward Sturgeon Creek. Additional groundwater data is required to fully delineate the location of the plume.
- ✓ Creosote in sediments appears to be confined to the Tidal Marsh area south and southeast of the Former Process Area.
- ✓ Approximately one-third of the Site, in the northeastern area, is clean because it was not used in wood-treating operations.

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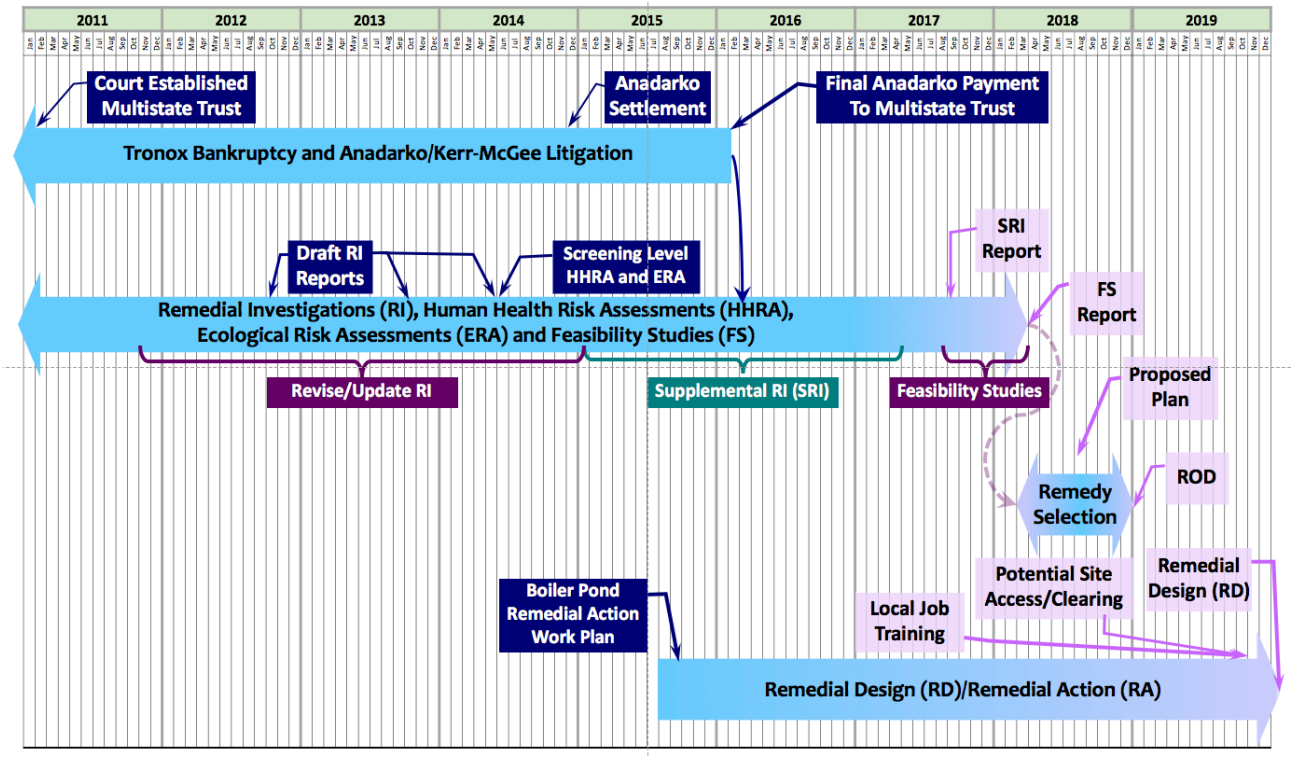
What Will Happen Next

- ✓ The Multistate Trust expects to have completed these Supplemental RI activities in the next few months.
  - To delineate the groundwater contaminant plume, we will sample existing groundwater wells, possibly drill additional groundwater wells and collect soil borings.
  - To support the assessment of potential risks to ecological receptors, such as fish or invertebrates, we will collect additional sediment samples from the Tidal Marsh areas.
  - We will collect additional samples to determine if vapors from contaminants in groundwater can migrate through soils into future Site buildings.
  - We will collect additional soil samples in the northern area of the Site to further assess the former wood storage areas.
- ✓ SRI results will be used to perform Site Risk Assessments, which are designed to determine the risk to people and ecological receptors posed by Site contamination.
- ✓ Combined, the results of the SRI and Risk Assessments will be used to evaluate the feasibility of different options for remediating the Site (the Feasibility Studies or FS).
- ✓ Based on the results of the FS, EPA will propose the agency's preferred cleanup plan for the Site (the Proposed Plan), which will be issued for formal public review and comment.
- ✓ After considering all comments received on the Proposed Plan received from stakeholders and the public, EPA will select the preferred remedy, which will be set forth in a Record of Decision (ROD).
- ✓ Design and implementation of the EPA-selected remedy—commonly referred to as Remedial Design (RD) and Remedial Action (RA)—follow the ROD.
- ✓ Future reuse of the Site will be incorporated into the RD/RA.
- ✓ Long-term Operation and Maintenance (O&M), long-term stewardship and Site redevelopment can be coordinated with RD/RA activities (although could be implemented in phases if areas of the Site are released for future use).

Kerr-McGee Navassa Superfund Site Overview of Cleanup Plans



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Multistate Trust contractors use an innovative, state-of-the-art sampling technology to cost effectively determine whether creosote contaminants are present in marsh sediments near the Brunswick River.

Multistate Trust contractors install a concourse of temporary, high-performance mats to create a stable surface for drill rigs and other heavy equipment to safely access marsh areas, while protecting sensitive areas.

Questions or Comments?

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