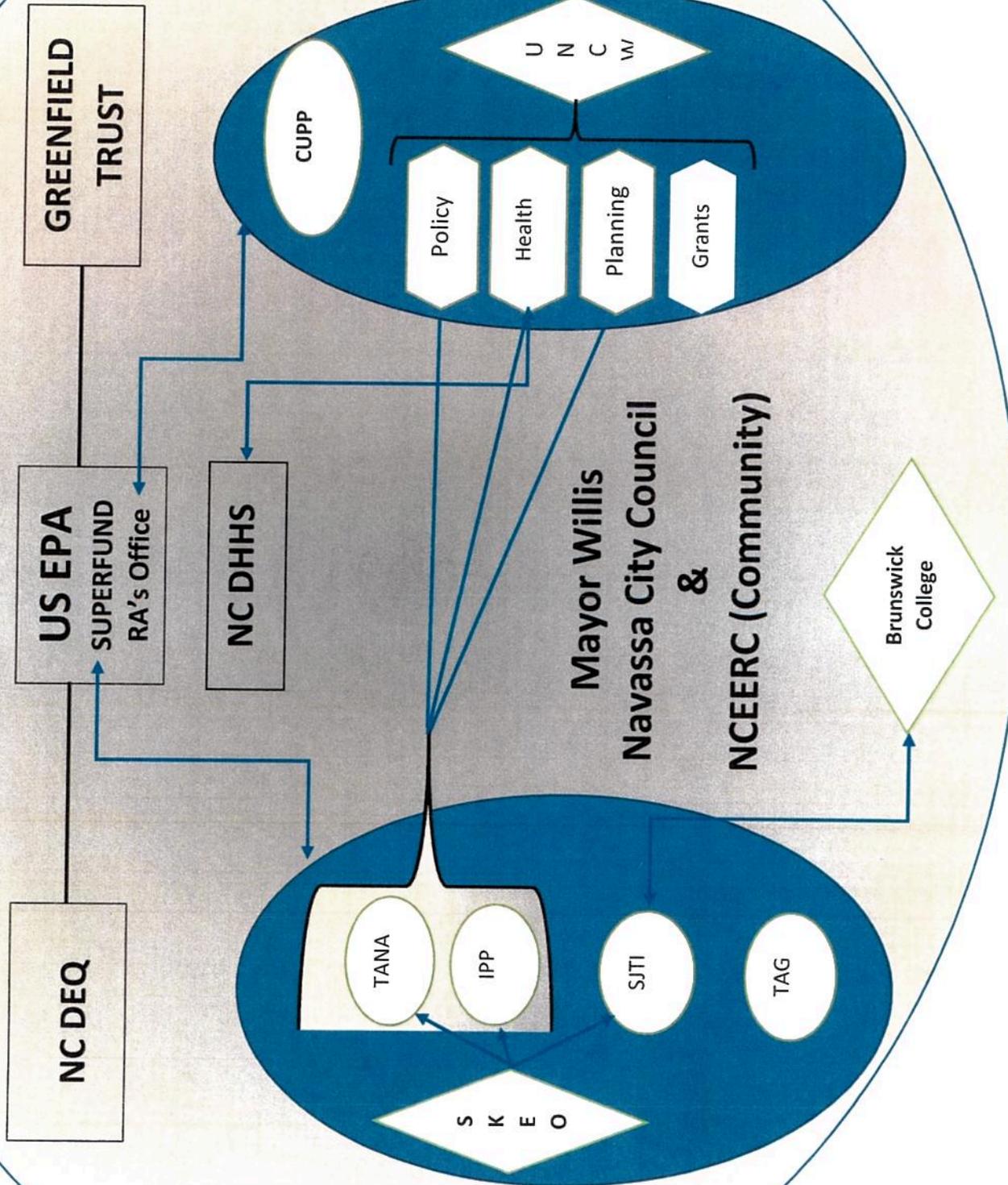


# NAVASSA COMMUNITY OUTREACH COLLABORATION



# Navassa Community Outreach Collaboration

## Acronyms / Definitions

**U. S. EPA** – United States Environmental Protection Agency; **RA** – Regional Administrator

**NC DEQ** – North Carolina Department of Environmental Quality

**NC DHHS** – North Carolina Department of Health and Human Services

**UNCW** – University of North Carolina (Wilmington)

**Brunswick Community College** – Located in Leland, NC, just a few miles from Navassa, Brunswick Community College will serve as the community liaison to assist with the Superfund Jobs Training Initiative. They have volunteered their assistance with curriculum and location for training.  
<http://www.brunswickcc.edu/>

**SKEO** - Skeo Solutions is one of the Contracts used by EPA to assist in offering community outreach for affected communities near Superfund Sites by considering a multidisciplinary approach to navigating the complex issues facing local communities, state governments and federal agencies.  
<http://www.skeo.com/>

**CUPP – College/ Underserved Community Partnership Program**

The College/Underserved Community Partnership Program (CUPP) provides a creative approach to partnering and delivering technical assistance to small underserved communities from local colleges and universities at no cost to the communities. By leveraging existing EPA partnerships with colleges and universities, including Historically Black Colleges and Universities, the program combines environmental justice concerns and mission related objectives of multiple agencies with core curriculum objectives of local colleges and universities.

<https://www.epa.gov/communityhealth/collegeunderserved-community-partnership-program>

**NCEERC – Navassa Community Economic and Environmental Redevelopment Corporation**

Non-profit organization formed to represent the community of Navassa. As a non-profit, the group qualifies to apply for various grants to receive funding and assist with concerns that the community have/will raise throughout this process and in the future.

**TANA – Technical Assistance Needs Assessment**

The Technical Assistance Needs Assessment (TANA) is a site-specific process that identifies whether a community requires additional support from EPA to understand technical information and to enable meaningful community involvement in the Superfund decision-making process. Through discussions with community members, EPA identifies how the community is receiving site-related information; what types of information is being received; whether the community needs additional assistance; and whether there are local organizations interested or involved in site-related

issues and capable of acting as an appropriate conduit for technical assistance services. The TANA process produces a blueprint for a coordinated effort to meet a community's needs for additional technical assistance while minimizing the overlap of services provided by EPA site staff, external partners, and EPA grants and contracts.

<https://www.epa.gov/superfund/technical-assistance-needs-assessments-tanas>

### **IPP – Integrated Planning Project**

The IPP demonstrates how multiple EPA initiatives can align to support community efforts and priorities. Each community is different and will establish different goals and missions within the process. Links to examples of the IPP for Jacksonville, Florida and North Birmingham, AL are below.

[http://www.skeo.com/images/uploads/downloads/JAX\\_R4\\_handout\\_05-5081.pdf](http://www.skeo.com/images/uploads/downloads/JAX_R4_handout_05-5081.pdf)

[http://www.skeo.com/images/uploads/downloads/NBCC Action Plan 2015.01.16 low res.pdf](http://www.skeo.com/images/uploads/downloads/NBCC_Action_Plan_2015.01.16_low_res.pdf)

### **SJTI – Superfund Jobs Training Initiative**

SuperJTI or SJTI is a job readiness program that provides training and employment opportunities for people living in communities affected by Superfund sites. Many of these areas are Environmental Justice (EJ) communities – historically under-represented minority and low-income neighborhoods and areas burdened with significant environmental challenges. EPA's goal is to help these communities develop job opportunities that remain long after a Superfund site has been cleaned up.

[https://www.epa.gov/superfund/superfund-http://www.skeo.com/images/uploads/downloads/NBCC Action Plan 2015.01.16 low res.pdf/job-training-initiative](https://www.epa.gov/superfund/superfund-http://www.skeo.com/images/uploads/downloads/NBCC_Action_Plan_2015.01.16_low_res.pdf/job-training-initiative)

### **TAG – Technical Assistance Grant**

A Technical Assistance Grant (TAG) helps communities participate in Superfund cleanup decision-making. It provides funding to community groups to contract their own technical advisor to interpret and explain technical reports, site conditions, and EPA's proposed cleanup proposals and decisions. An initial grant up to \$50,000 is available to qualified community groups.

<https://www.epa.gov/superfund/technical-assistance-grant-tag-program>



Navassa Community Stakeholder Activities and Programs  
Kerr-McGee Chemical Corporation (KMCC) Navassa Superfund Site, Navassa, North Carolina  
January 11, 2016

The US Environmental Protection Agency (EPA), the North Carolina Department of Environmental Quality (NCDEQ) and the Multistate Environmental Response Trust (the Multistate Trust) prepared this fact sheet to describe community stakeholder initiatives and programs designed to promote public involvement in cleanup and redevelopment of the KMCC Navassa Superfund Site (the Site).

### EPA Stakeholder and Community Involvement Programs

- ✓ **Community Involvement Plan (CIP)**
  - EPA framework for community involvement and outreach to promote active public involvement in the project
  - Describes how public will be informed about cleanup activities and involved in remedy-selection process
  - A “living document” to be revised or updated as needed
- ✓ **Technical Assistance Services for Communities (TASC)**
  - EPA hired Skeo Solutions to facilitate community participation in Site cleanup and redevelopment activities
  - Skeo will likely host a stakeholder design charrette to help define Navassa’s vision for future reuse of the Site
- ✓ **College/Underserved Community Partnership Program (CUPP)**
  - CUPP partners small, underserved environmental justice communities with local colleges and universities
  - Under CUPP, the University of North Carolina Wilmington (UNCW) is providing technical expertise and assistance to the community on Site cleanup and restoration at no cost to community
- ✓ **Other Stakeholder Communications and Multi-Agency Coordination**
  - EPA has coordinated meetings with the Division of Public Health (DPH) of the North Carolina Department of Health and Human Services (DHHS) and community stakeholders (See Public Health Assessment)
  - EPA hosts and attends many public meetings and stakeholder forums to discuss Site activities and issues
  - EPA has facilitated communications between the Navassa Trustees Council (NTC) and the community
- ✓ **Technical Assistance Grant (TAG)**
  - TAG funds are awarded to eligible community groups to hire technical experts to interpret, evaluate and explain cleanup plans and decisions
  - EPA is working with community stakeholders, including the non-profit Navassa Economic and Environmental Restoration Council (NEERC), on securing a TAG

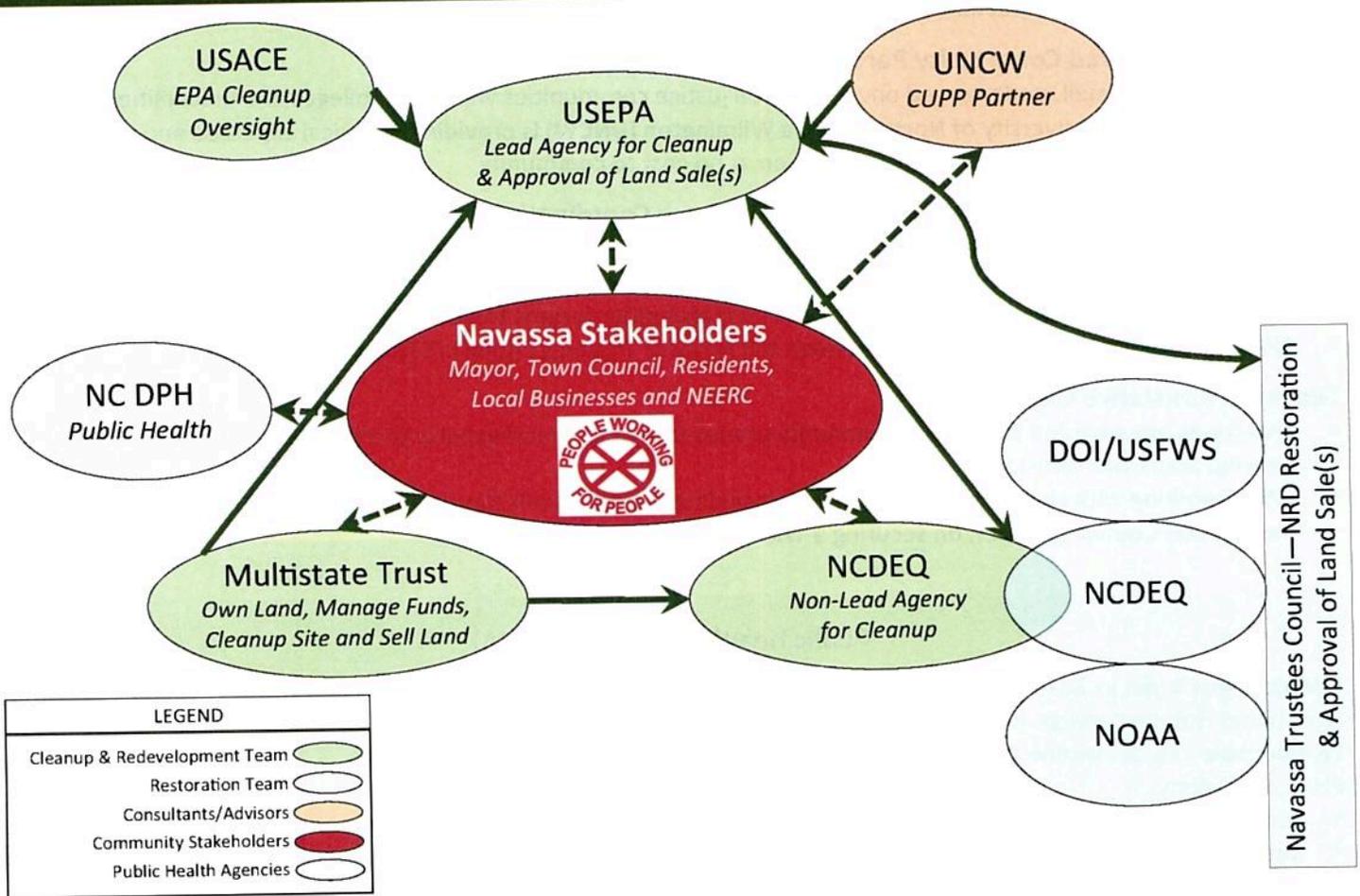
### Public Health Assessment (PHA)

- ✓ PHA commissioned in 2011 by Agency for Toxic Substances & Disease Registry (ATSDR) and North Carolina Department of Health and Human Services (NCDHHS), Division of Public Health (DPH)
- ✓ PHA purpose: to determine if Site contaminants pose a health hazard to the community
- ✓ PHA conclusions:
  - Infrequent ingestion of Site soils or sediments would not cause harm or sickness unless ingested daily for many years
  - Unintentional ingestion of soil on private residential properties (east-central Site area) would not cause harm
  - Drinking water quality in private wells west of Site was not impacted by Site contaminants
  - Need additional studies to determine if eating Sturgeon Creek or Brunswick River fish or shellfish could cause harm
  - Although many residents have expressed concern about past exposure to Site contaminants, there is insufficient data to determine if people living near Site were harmed by contaminants when wood-treating operations took place
- ✓ See: <http://www.atsdr.cdc.gov/HAC/pha/KerrMcGee/KerrMcGeePHAFinalBlueCover05042012.pdf>

### Multistate Trust Community and Stakeholder Involvement Initiatives

- ✓ **Technical Support for Community Grants**
  - Developed materials and information to assist and support Town leaders and stakeholder efforts to secure “public capital” (grants, in-kind services, etc.) to help fund redevelopment planning for the Site
  - Prepared Navassa’s application for a Sustainable Neighborhoods Assessment submitted to Global Greens USA
  - Provides ongoing technical support to help Navassa community realize its goals and vision for future reuse of Site
- ✓ **Local Hiring Initiative**
  - Initiating discussions with community stakeholders to develop a program to identify, recruit, train and hire local businesses and residents interested in securing short-term cleanup jobs at the Site
  - Seeking potential community partners to help implement the program
- ✓ **Stakeholder Communication Tools & Support**
  - Develops fact sheets and other materials to ensure community stakeholders are aware of Site activities
  - Organize frequent Site tours, including boat tours that allow the public to safely view the Site

### KMCC Navassa Superfund Site—Community Stakeholders



**For more information about community and stakeholder activities at the KMCC Navassa Superfund Site:**

**EPA:** Erik Spalvins (404-909-0345) and LaTonya Spencer (404-562-8463)

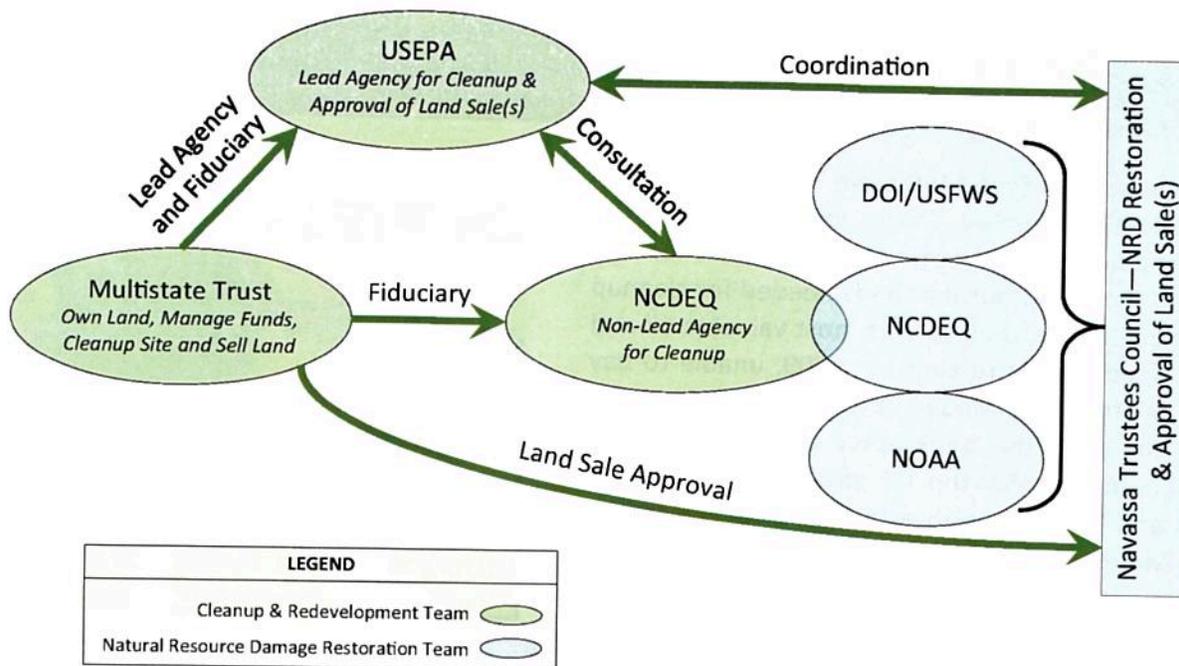
**NCDEQ:** Dave Mattison (919-707-8336)

**Multistate Trust:** Cindy Brooks (617-448-9762) and Lauri Gorton (414-732-4514)



**Government Agencies Involved in Tronox Bankruptcy & Multistate Trust Activities at Site**

- ✓ **EPA—Lead Agency:** approves Multistate Trust cleanup plans and budgets, in consultation with NCDEQ
- ✓ **NCDEQ—Non-Lead Agency:** consults with EPA on Multistate Trust cleanup plans and budgets
- ✓ **Navassa Trustees Council (NTC)—**Represented by **US Fish & Wildlife Service (USFWS)**, **National Oceanic and Atmospheric Administration (NOAA)** and **NCDEQ:** responsible for restoration of damaged natural resources
- ✓ **EPA and NCDEQ—Beneficiaries** of the Multistate Trust for the Site
- ✓ **EPA and NTC:** approve any sale or transfer of Multistate Trust property



**The Navassa Trustees Council (NTC) for KMCC Navassa Superfund Site**

The NTC is made up of natural resource trustees from USFWS, NOAA and NCDEQ. The NTC is responsible for restoration of natural resources damaged by Site contamination. The NTC received \$22 million from the Tronox bankruptcy settlement to be used for projects aimed at restoring natural resources and habitat for fish, birds and other wildlife in the Navassa region that were injured by creosote-based contaminants from the Site. Please contact Howard Schnabolk from NOAA at 843-740-1328 or [howard.schnabolk@noaa.gov](mailto:howard.schnabolk@noaa.gov) for more information or visit the NOAA website at <https://darrp.noaa.gov/hazardous-waste/kerr-mcgee-chemical-corp>

**Tronox Tort Claims Trust**

As part of the bankruptcy settlement, the court established the Tronox Tort Claims Trust to pay claims to people with adverse health effects from exposure to contaminants from the Kerr-McGee sites throughout the United States. For more information, please contact the Tronox Tort Claims Trust helpline via email at [helpline@tronoxorttrust.com](mailto:helpline@tronoxorttrust.com) or by phone at 800-753-2480 or visit the Tronox Tort Claims Trust website at <http://www.tronoxorttrust.com>.

(Note: EPA, NCDEQ, and the Multistate Trust have no involvement in the Tronox Tort Trust.)

**For more information about cleanup and redevelopment of the KMCC Navassa Superfund Site, please contact:**

**EPA:** Erik Spalvins (404-909-0345) and LaTonya Spencer (404-562-8463)

**NCDEQ:** Dave Mattison (919-707-8336)

**Multistate Trust:** Cindy Brooks (617-448-9762) and Lauri Gorton (414-732-4514)



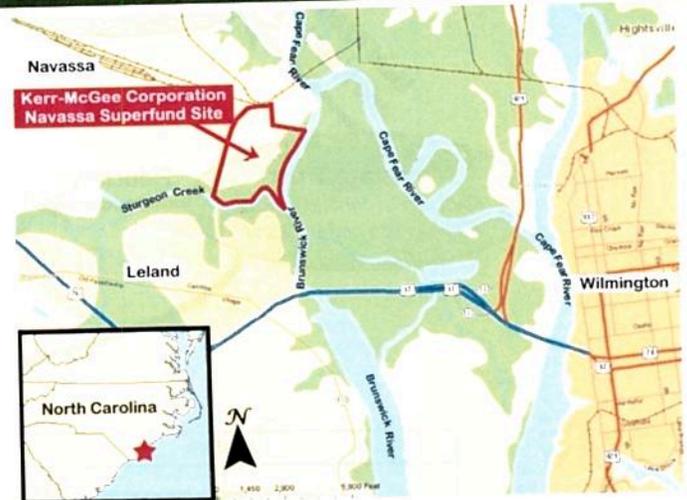
## Overview of Tronox Bankruptcy Settlement—Multistate Environmental Response Trust Kerr-McGee Chemical Corporation (KMCC) Navassa Superfund Site, Navassa, North Carolina January 11, 2016

The US Environmental Protection Agency (EPA), the North Carolina Department of Environmental Quality (NCDEQ) and the Multistate Environmental Response Trust (the Multistate Trust) prepared this fact sheet to explain the roles and responsibilities of the organizations involved in remediation, redevelopment, and natural-resource restoration at the Kerr-McGee Chemical Corporation (KMCC) Superfund Site in Navassa, North Carolina (the Site).

### Overview of the Multistate Trust

In 2005, Kerr-McGee created Tronox by transferring the Navassa Site and hundreds of other contaminated sites into this corporate “shell” without the funds needed for cleanup of the sites. Kerr-McGee then sold its most valuable oil and gas assets to Anadarko Petroleum. In 2009, unable to pay for cleanup of the Kerr-McGee sites, Tronox filed for bankruptcy. In 2011, the bankruptcy court approved a settlement agreement with the US government, 24 state governments and Tronox, which established several trusts, including the Multistate Trust.

The Multistate Trust is an environmental response trust responsible for owning and managing more than 400 former Kerr-McGee contaminated sites in 24 states, remediating the sites using funds earmarked for each site, and facilitating safe redevelopment and long-term stewardship of the sites. Since it was created in 2011, the Multistate Trust has been performing cleanup activities approved by EPA and NCDEQ using the cleanup funds allocated for the KMCC Navassa Superfund Site. It will eventually sell or transfer the property for future reuse. The Multistate Trust has a fiduciary duty to its two beneficiaries—EPA and NCDEQ. The trust is a private entity with the public purpose of protecting human health and the environment. Greenfield Environmental Multistate Trust, LLC, is the court-approved Trustee of the Multistate Environmental Response Trust.



**KMCC Navassa Superfund Site**

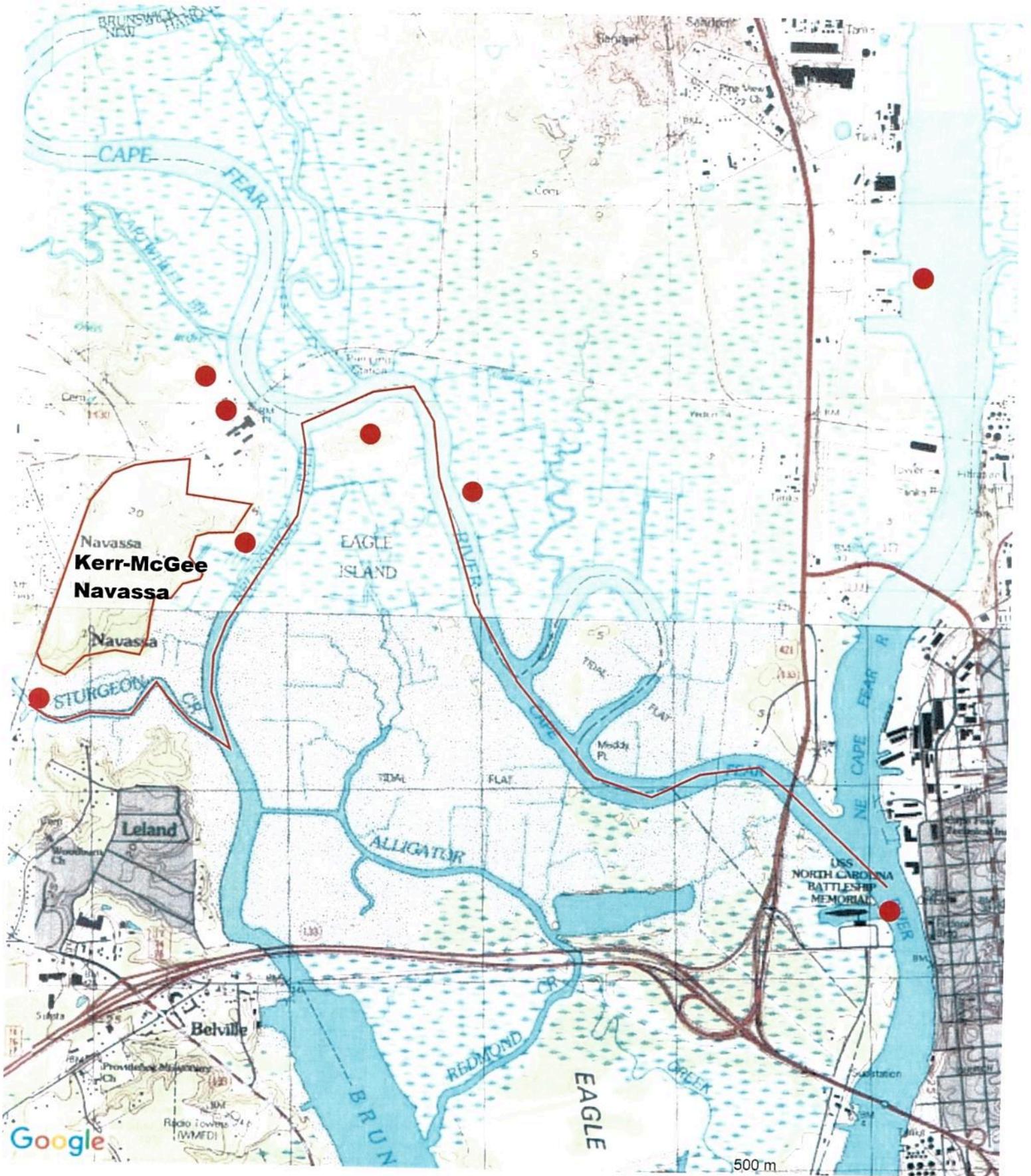
From 1936 until 1974, Kerr-McGee and other companies operated a creosote-based wood treatment facility at the 300-acre Site situated on the bank of the Brunswick River. In 2010, EPA added the Site to the National Priorities List of federal superfund sites because of contamination in groundwater, soils and sediments resulting from the wood-treating activities.



### Multistate Trust Cleanup Funds

- ✓ The Multistate Trust received \$92.5 million to clean up the Site. These cleanup funds are managed and invested by the Multistate Trust. EPA and NCDEQ do not hold or control the cleanup funds.
- ✓ Cleanup funds can only be spent on environmental actions (such as site investigations and cleanup).
- ✓ The Multistate Trust is prohibited from using cleanup funds to: redevelop the Site; engage in for-profit activities; restore damage to natural resources (see Navassa Trustees Council); and compensate people for health effects caused by past exposure to Site contamination (see Tronox Tort Claims Trust).
- ✓ The companies responsible for Site contamination—Tronox, Kerr-McGee and Anadarko Petroleum—were the source of Multistate Trust cleanup funds, not the US government or American taxpayers.

# Navassa Topo Map in Brunswick County North Carolina



[Print this map](#)

Map provided by TopoZone.com



**TRONOX**  
Wilmington, North Carolina  
Historical Aerial Image  
1961

SCALE 1 inch = 200 feet  
0 200 400 Feet

WILMINGTON, NC. BASED ON U.S. PLANE NORTH LAMBERT AZ. PHOTO TAKEN BY AERIAL PHOTOGRAPHY CO. PHOTOGRAPHY CO.

# Use of Innovative Technology for Remedial Investigations at Navassa Superfund Site

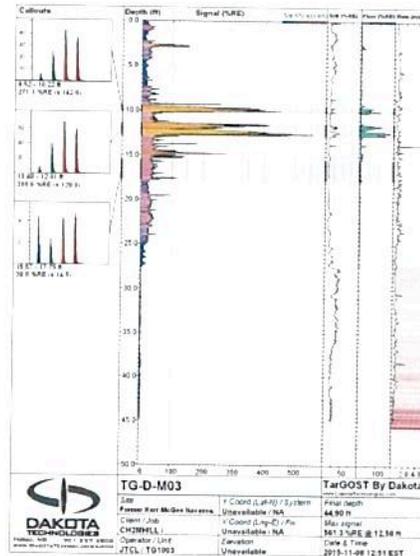
## TarGOST System

The laser-based Tar-specific Green Optical Screening Tool (TarGOST) system (below left) was deployed to quickly and cost-effectively characterize the vertical profile of non-aqueous phase liquid (NAPL) using the TarGost high-resolution technology. The TarGost system was deployed with direct push technology (DPT) equipment (below right), although thin layers of dense limestone limited DPT penetration to 40 to 70 feet bgs. TarGOST responses indicated potential NAPL in the marsh sediments, but not in the underlying sandy soils. Based on borings completed near the waste water ponds, TarGOST results also suggested weathering of NAPL near that area based on the different instrument signature results.



### Vibracore Sampling

A Vibracore sampling system is being used to collect continuous cores of soft, loose marsh sediment that cannot be recovered with rotosonic drill equipment. Cores will be inspected and screened, and samples will be collected for analysis and comparison with TarGOST profiles to clarify the differences in TarGOST responses between the borings in the marsh and those near the waste water ponds.



This log for a TarGOST boring in the marsh shows distinct peaks that indicate NAPLs present between 10 and 15 feet bgs.

## Questions or Comments?

### EPA

Remedial Project Manager, Erik Spalvins: (404) 909-0345 or [Spalvins.Erik@epa.gov](mailto:Spalvins.Erik@epa.gov)

EPA Community Involvement Coordinator, LaTonya Spencer: (404) 562-8463 or [Spencer.LaTonya@epa.gov](mailto:Spencer.LaTonya@epa.gov)

### NCDEQ

Project Manager, Dave Mattison: (919) 707-8336 or [david.mattison@ncdenr.gov](mailto:david.mattison@ncdenr.gov)

### Multistate Trust

Managing Principal, Cindy Brooks: (617) 448-9762 or [cb@g-etg.com](mailto:cb@g-etg.com)

Environmental Programs Director, Lauri Gorton: (414) 732-4514 or [lg@g-etg.com](mailto:lg@g-etg.com)

Communications Director, Christine Amrhine: (540) 846-3163 or [ca@g-etg.com](mailto:ca@g-etg.com)

Learn more about the Navassa Superfund Site

Visit the Multistate Trust website at <http://multi-trust.org/navassa-north-carolina> or the EPA website at <https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0403028>



## Overview of Ongoing Remedial Investigations Kerr-McGee Chemical Corporation Superfund Site, Navassa, North Carolina April 7, 2016

### Navassa Site

The 251-acre Kerr-McGee Chemical Corporation Superfund Site (Site) is bounded to the east by the Brunswick River, the south by Sturgeon Creek, and the north and west by a residential area and a former boat manufacturing facility.

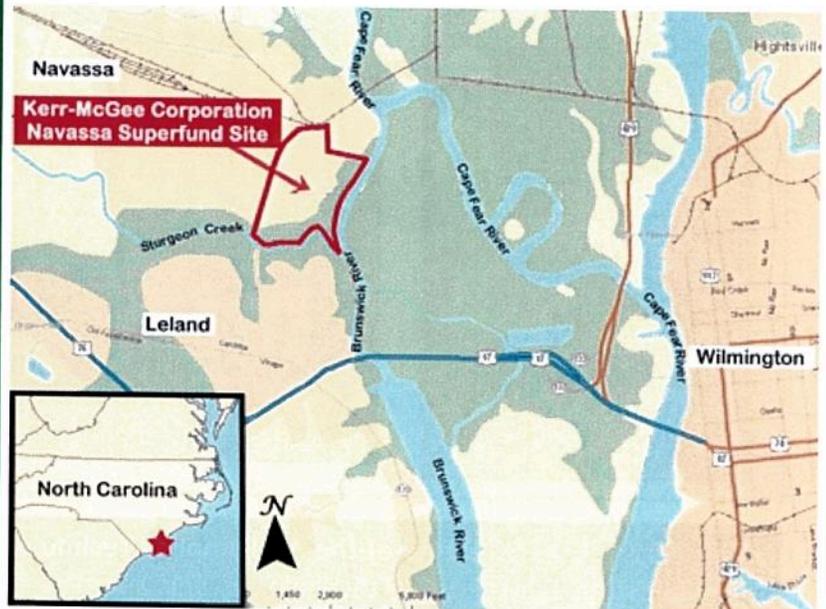
### Site Background

The Site was used for creosote-based wood treating from 1936 to 1974. By 1980, Kerr-McGee dismantled the wood-treatment buildings and facilities. During decommissioning, the creosote sludge from product tanks and unlined waste water ponds was mixed with clean fill, then compacted in the pond basins, which were backfilled and vegetated.

### Site Contamination

Creosote is still present in soils in the former process and pond areas, and has moved to sediments in the tidal marshes that border the property. The contaminated soils and sediments are leaching creosote-related contaminants to groundwater, which generally flows south and southeast to the tidal marshes, Sturgeon Creek, and the Brunswick River.

In 2010, the EPA listed the Site on the National Priorities List because of contaminated groundwater, soil, and sediment resulting from the wood-treating operations.



### Multistate Trust Cleanup Activities

Since it was established in 2011, the Multistate Trust has been performing investigations and cleanup activities approved by EPA in consultation with NCDEQ, using the cleanup funds allocated for the Site.

The Multistate Trust is currently performing final supplemental Remedial Investigations (RI) to fill data gaps and finalize the RI report. The RI activities are focused on delineating the nature and extent of contamination in the former process areas and the tidal marsh between the former waste water ponds and Sturgeon Creek.

### The Multistate Trust

The Multistate Trust owns and manages more than 400 former Kerr-McGee contaminated sites in 24 states. It has assumed responsibility for remediating the sites using funds earmarked for each site, and facilitating safe redevelopment and long-term stewardship of the sites.

Greenfield Environmental Multistate Trust, LLC, is the court-appointed Trustee of the Multistate Environmental Response Trust.



## Use of Innovative Technology for Remedial Investigations at Navassa Superfund Site

### High Performance Mats

A temporary concourse of more than 300 high-density polyethylene mats was installed to protect the marsh environment while creating a stable surface for drill rigs and other heavy equipment to collect samples in the marsh. A sampling window is open in the mats to allow access to soils and sediments (below left).



### State-of-the-Art Sampling Technologies and Innovative Methods

The Multistate Trust is using technologies and approaches designed to allow real-time, rapid data collection between tidal cycles and to minimize disturbance of sensitive environmental areas.



### Rotosonic Drill Rig

A track-mounted rotosonic drill rig (above and left) was used to rapidly penetrate coastal lithologies and minimize waste generation. The drill rig recovered continuous soil cores as deep as 100 feet below ground surface (bgs). Geologists inspected and screened the cores to characterize site geology and evaluate contaminant distribution.

# Multistate Environmental Response Trust

Environmental Response and Environmental Justice



Greenfield Environmental Multistate Trust LLC  
Trustee of the Multistate Environmental Response Trust

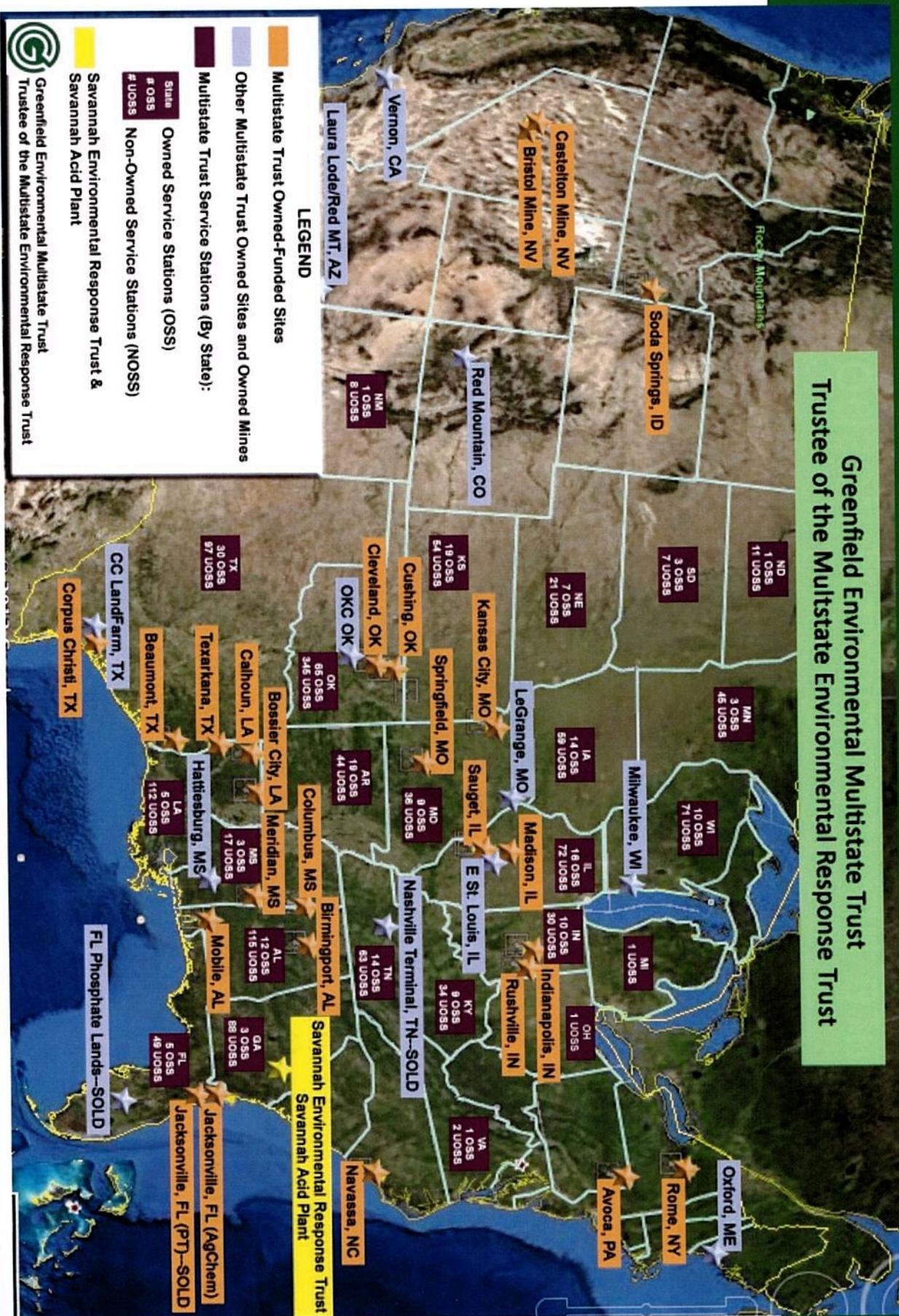
Cindy Brooks and Lauri Gorton

April 7, 2016



Greenfield Environmental Multistate Trust, LLC  
Trustee of the Multistate Environmental Response Trust

# Greenfield Environmental Multistate Trust Trustee of the Multistate Environmental Response Trust



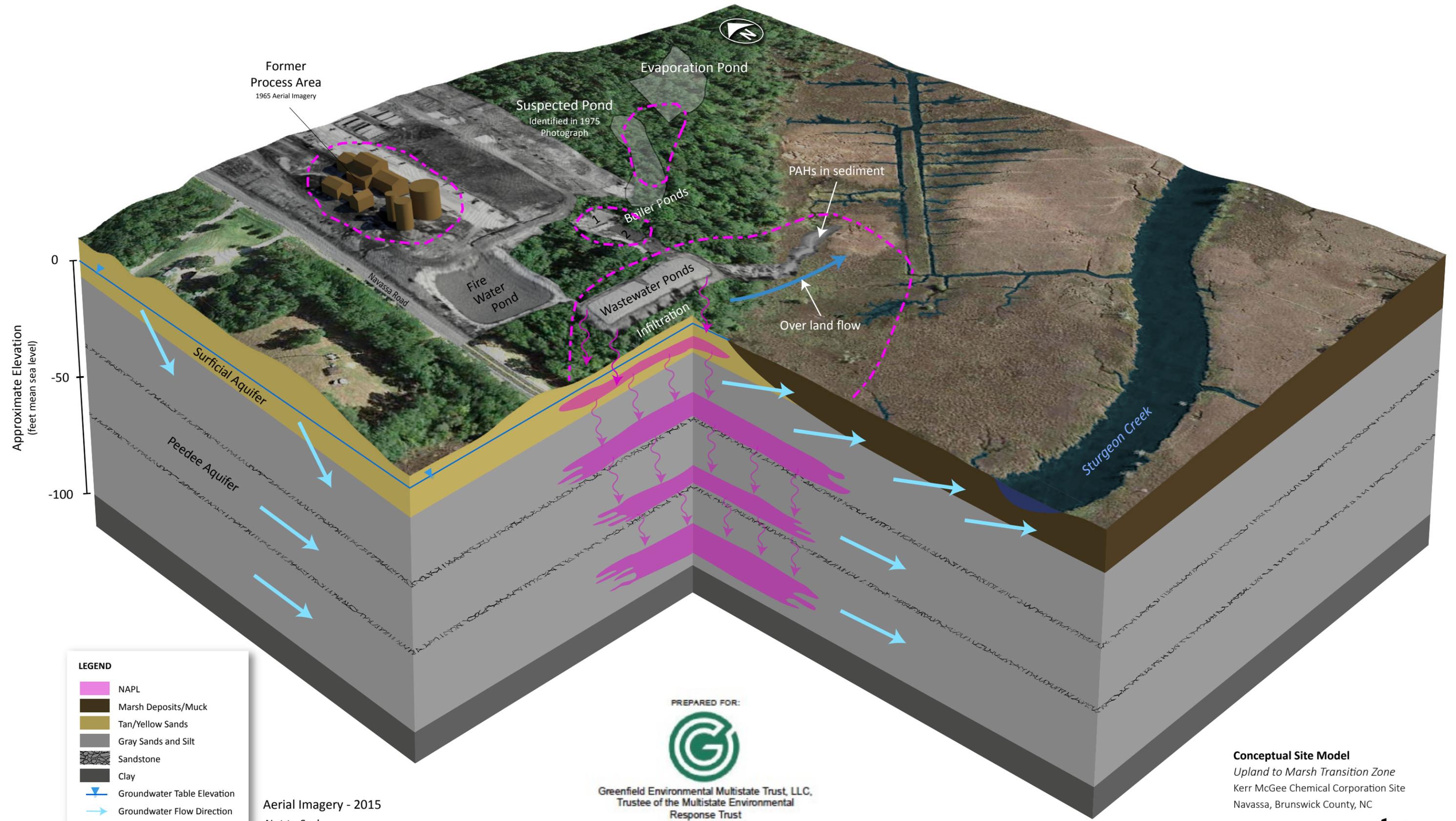
Greenfield Environmental Multistate Trust, LLC  
Trustee of the Multistate Environmental Response Trust

# Summary of Total Multistate Trust Funds

	Total Funds (\$k)
<b>EPA Region 4 Owned-Funded Multistate Trust Sites</b>	
<b>Alabama</b>	
Mobile--Kerr-McGee Titanium Dioxide Beneficiation Plant	\$293,402
Birmingham--Kerr-McGee Chemical/Petroleum Terminal	\$855
<b>Total Alabama</b>	<b>\$294,257</b>
<b>Mississippi</b>	
Columbus--Kerr-McGee Wood Treater NPL Site	\$73,474
Meridian--Kerr-McGee Wood Treater RCRA Site	\$23,950
<b>Total Mississippi</b>	<b>\$97,424</b>
<b>Florida</b>	
Jacksonville--Kerr-McGee Chemical/Pesticide Production NPL Site	\$94,826
Jacksonville Petroleum Terminal Site	\$39
<b>Total Florida</b>	<b>\$94,865</b>
<b>North Carolina</b>	
Navassa--Kerr-McGee Wood Treater NPL Site	\$94,813
<b>Total North Carolina</b>	<b>\$94,813</b>
<b>Total Region 4 Owned-Funded Multistate Trust Sites</b>	<b>\$581,359</b>
<b>Total Cleanup Funds for All Multistate Trust Owned-Funded Sites</b>	<b>\$1,012,354</b>
<b>Percent of Owned-Funded Site Cleanup Funds Allocated to Region 4</b>	<b>57.4%</b>
<b>All Other Multistate Trust Funds</b>	
Other Multistate Trust-Owned Sites (Including Mining Sites)	\$135,907
Owned Service Stations	\$17,648
Non-owned Service Stations	\$45,934
Administrative Account	\$69,261
<b>Grand Total All Multistate Trust Funds</b>	<b>\$1,281,105</b>



Greenfield Environmental Multistate Trust, LLC  
Trustee of the Multistate Environmental Response Trust



**LEGEND**

- NAPL
- Marsh Deposits/Muck
- Tan/Yellow Sands
- Gray Sands and Silt
- Sandstone
- Clay
- Groundwater Table Elevation
- Groundwater Flow Direction

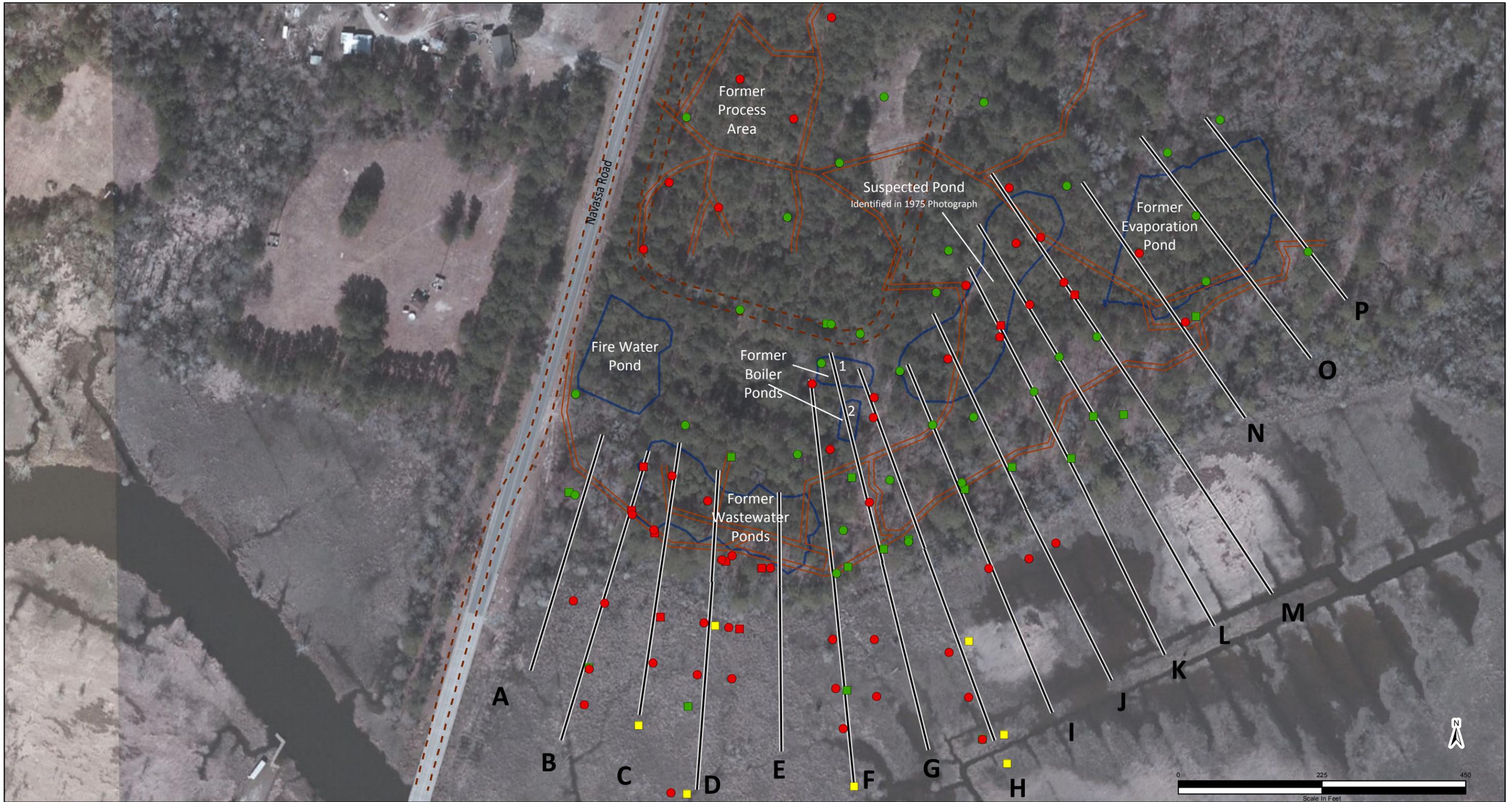
Aerial Imagery - 2015  
Not to Scale



PREPARED FOR:  
Greenfield Environmental Multistate Trust, LLC,  
Trustee of the Multistate Environmental  
Response Trust

**Conceptual Site Model**  
Upland to Marsh Transition Zone  
Kerr McGee Chemical Corporation Site  
Navassa, Brunswick County, NC





**Completed SRI Sampling Locations**

- TarGOST, NAPL not detected
- TarGOST, NAPL Detected
- Sonic Boring, NAPL not detected
- Sonic Boring, NAPL Detected
- Proposed Vibracore Sample Location
- TarGOST Sampling Transect
- On Site Roads
- Paths
- Former Impoundment

PREPARED FOR:



Greenfield Environmental Multistate Trust, LLC,  
Trustee of the Multistate Environmental  
Response Trust

BASE MAP SOURCE:  
ESRI, ArcMap Imagery - Microsoft, 2011

Supplemental Remedial Investigation Work Plan | Kerr-McGee Chemical Corporation Site, Navassa, North Carolina

**Completed TarGOST and Sonic Borings, and Proposed Vibracore Sampling Locations**

DATE: 12/7/2015	PN: 659368
CREATED BY: NC	<b>ch2m.</b> <small>CH2M HILL North Carolina, Inc.</small>
CHECKED BY: KB	