

**Former Kerr-McGee Chemical Corporation  
Superfund Site  
Navassa, NC**

**Public Meeting  
December 7, 2016**

**U.S. Environmental Protection Agency  
North Carolina Department of Environmental Quality  
Greenfield Environmental Multistate Trust, LLC  
Multistate Environmental Response Trust**



# Public Meeting Agenda

- ✓ Introductions
- ✓ Update on EPA Information Repository
- ✓ Overview of Kerr-McGee Navassa Superfund Site
- ✓ Roles of EPA, NCDEQ, Multistate Trust and Stakeholders
- ✓ Where We Are in Superfund Site Cleanup Process
- ✓ Status of the Site Investigations
  - Sampling and Sampling Results To Date
  - Work Planned for 2016 and 2017
  - Timeline for Remainder of Cleanup
- ✓ Kerr-McGee Navassa Redevelopment Planning Initiative
- ✓ Questions and Discussion



# Introductions – Tonya Spencer, EPA

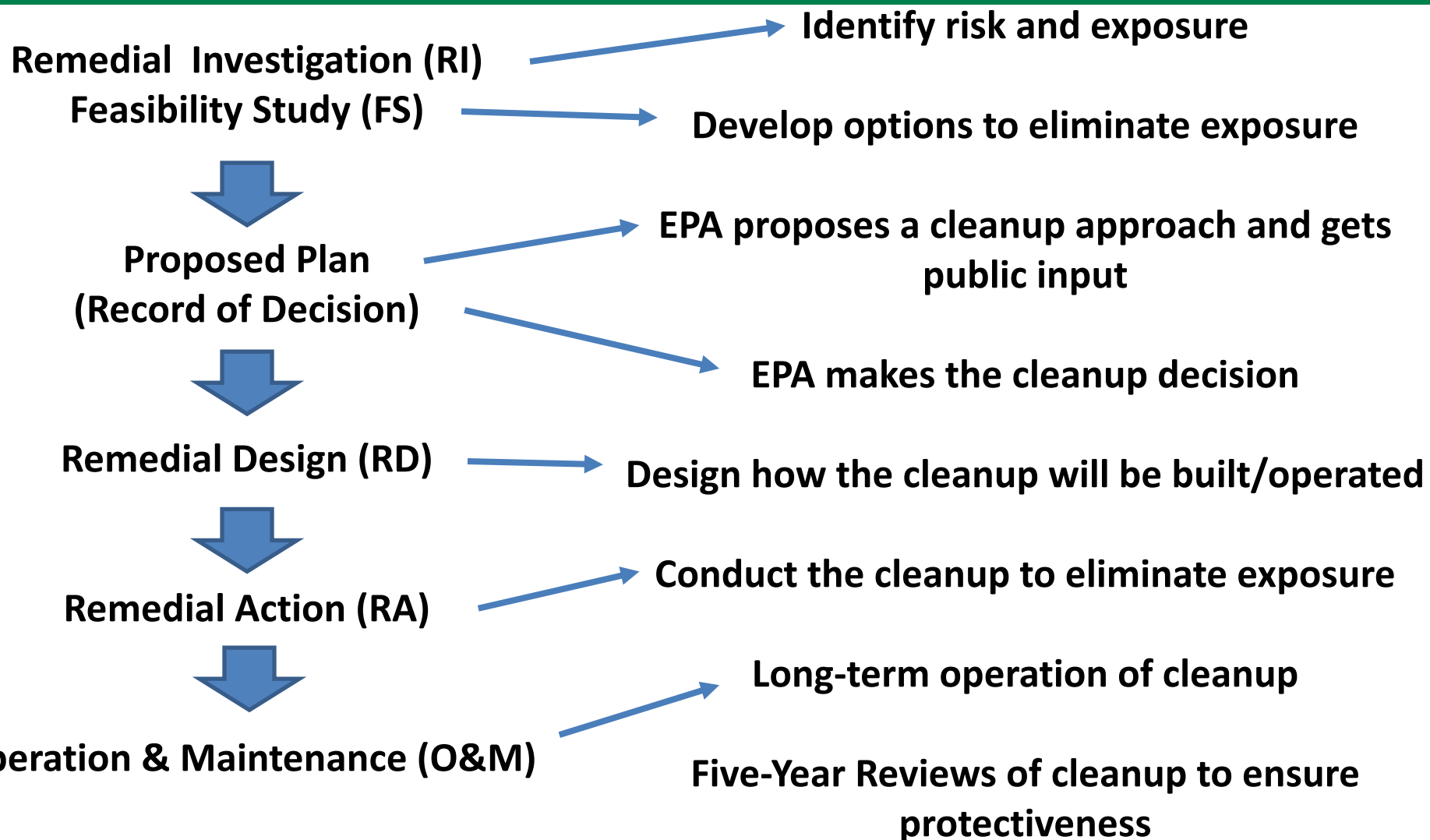
- ✓ Navassa Superfund Site Cleanup Team
  - U.S. Environmental Protection Agency (EPA)
  - North Carolina Department of Environmental Quality (NC DEQ)
  - Multistate Environmental Response Trust (Multistate Trust)
- ✓ Navassa Community Economic & Environmental Re-Development Corporation (NCEERC) – Community group
  - Technical Assistance Grant (TAG) update
- ✓ Navassa Trustees Council
- ✓ Partners in other efforts
  - National Oceanic and Atmospheric Administration (NOAA)
    - Natural resource restoration
  - North Carolina Division of Public Health (NCDPH)
    - Health education and outreach
  - University of North Carolina – Wilmington (UNCW)

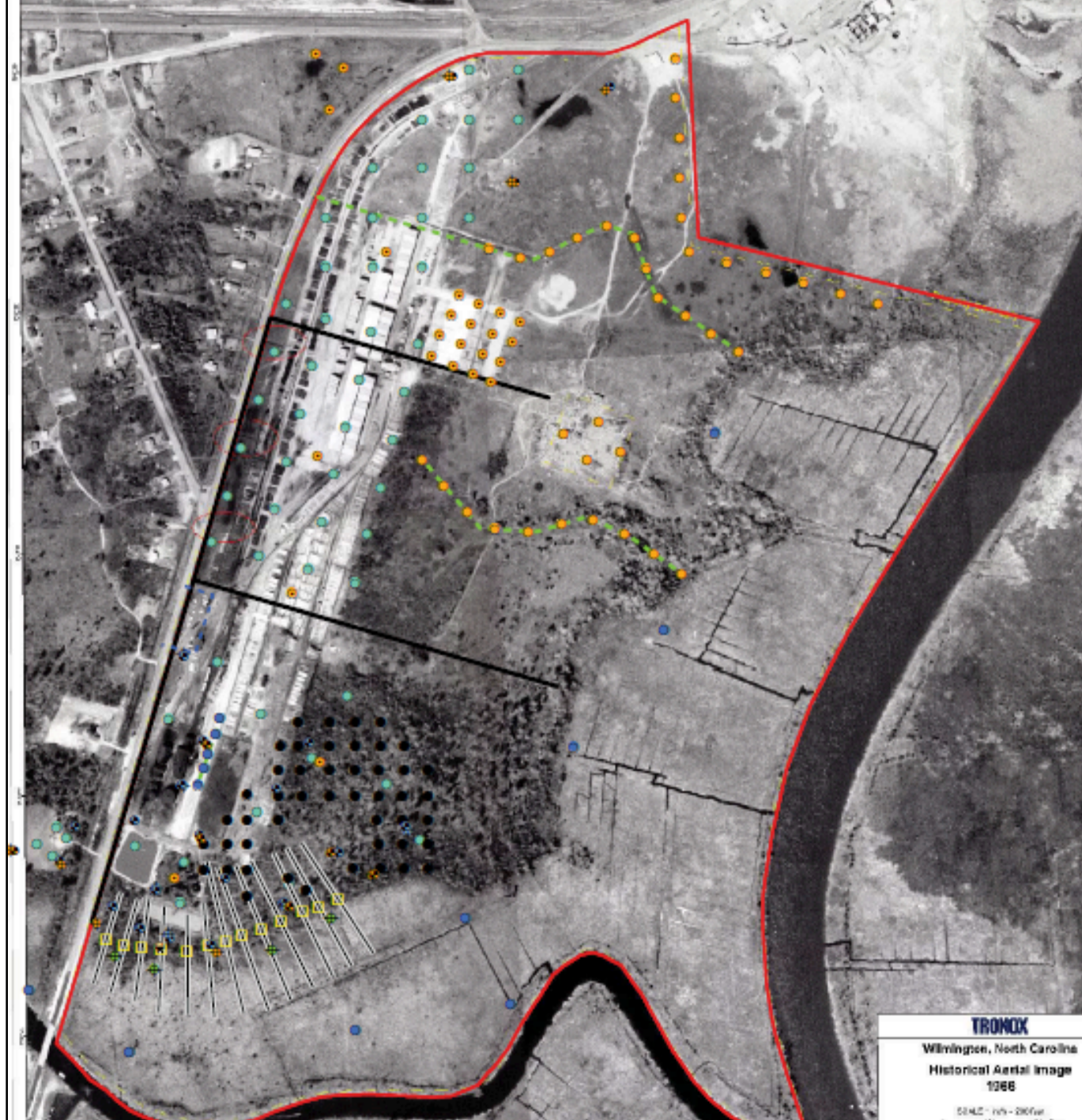


# **Update on EPA Information Repository**



# The Superfund Process – Erik Spalvins, EPA





**TRONIX**

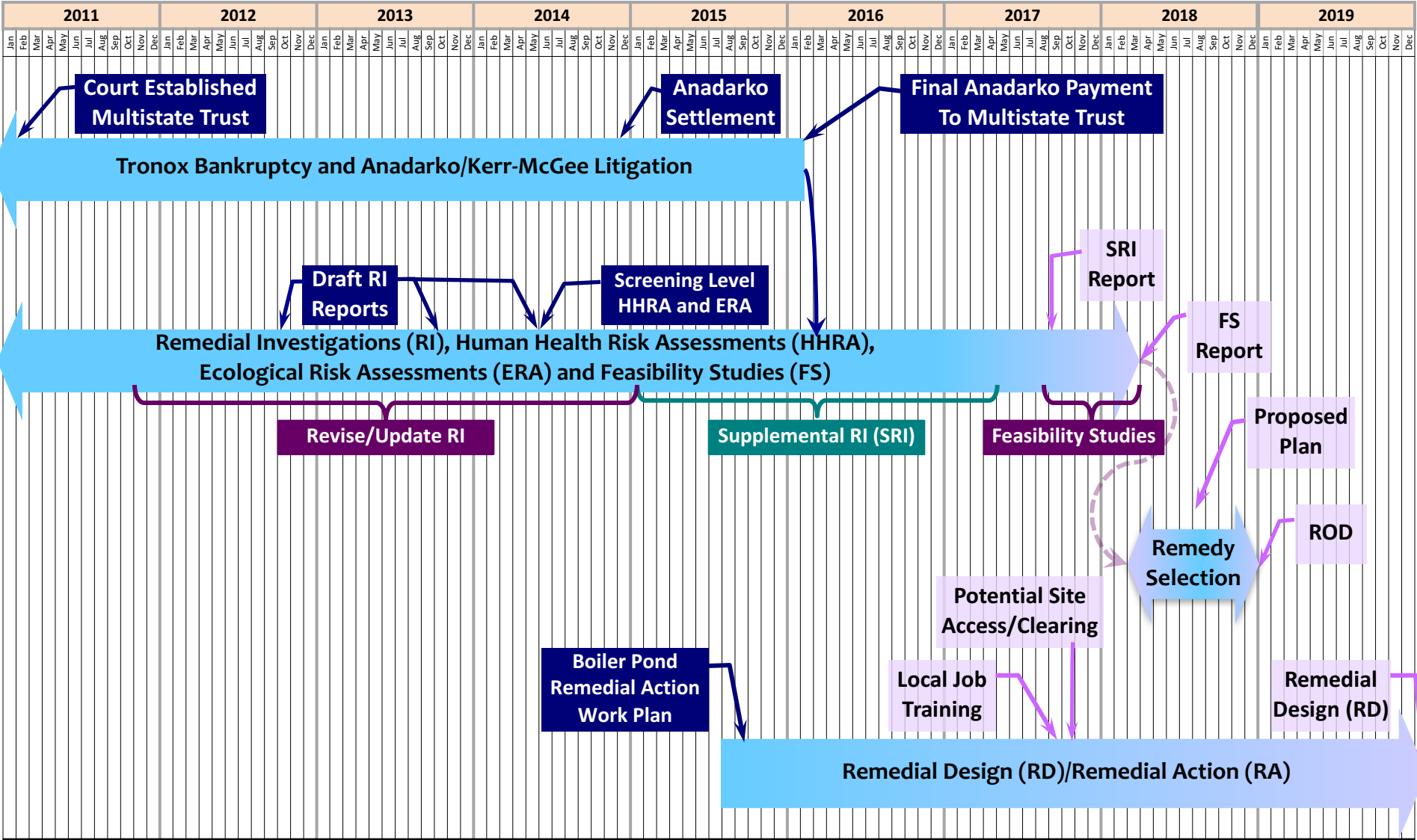
Wilmington, North Carolina  
Historical Aerial Image  
1966

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# Kerr-McGee Navassa Superfund Site Overview of Cleanup Plans





# Supplemental Remedial Investigations (SRI)

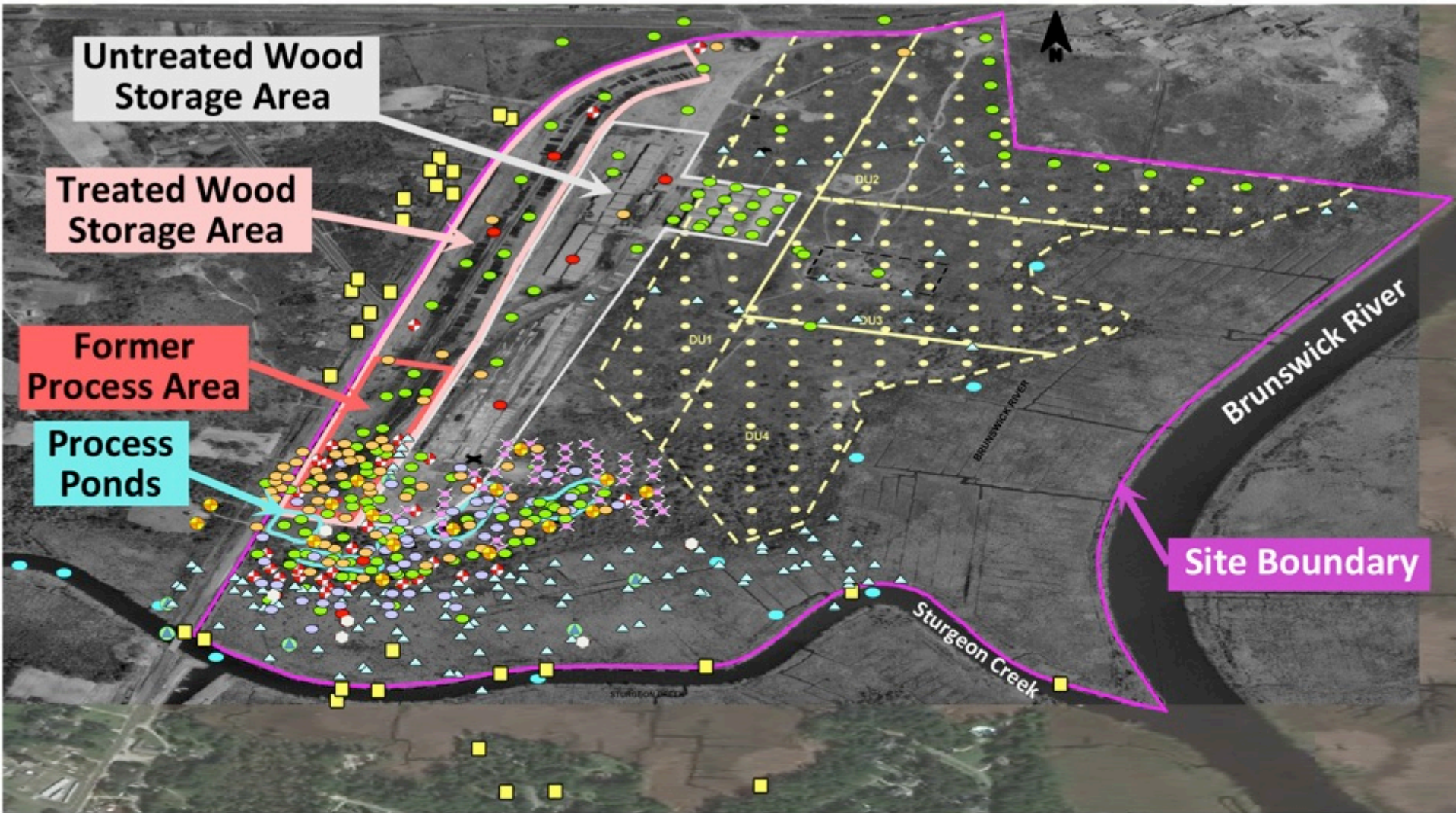
## Richard Elliott, Multistate Trust

### **Purpose of Supplemental Remedial Investigations (SRI): Characterize Nature and Extent of Contaminants of Concern**

- Determine lateral and vertical distribution of contaminants
- Investigate all media: soil, sediment, groundwater and surface water
- Use SRI results to determine risk posed by contamination to human health and the environment

# Supplemental Remedial Investigations (SRI)

- ✓ Sediment: 163 samples from 133 locations
- ✓ Soil: 223 samples from 125 locations
  - 124 surface samples (0 – 12 inches below ground surface)
  - 99 subsurface samples (1 – 28 feet below ground surface)
- ✓ Surface Water: 17 samples (Sturgeon Creek, marsh)
- ✓ Ground Water: 147 samples
  - 116 samples from monitoring wells (depths of 3.5 – 95 feet)
  - 26 samples from temporary wells (depths of 3 – 36 feet)
  - 5 Interstitial pore water samples (from marsh)
- ✓ Total of 49 groundwater wells
  - 47 wells on site
  - 2 wells off site



Comprehensive Sample Locations  
Kerr-McGee Chemical Corporation Superfund Site  
Navassa, North Carolina



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

- |                         |                                  |                               |
|-------------------------|----------------------------------|-------------------------------|
| ● Soil Borings          | ▲ Surface Water and Sediment     | — Site Boundary               |
| ● GPT & RICPT Locations | ● Decision Unit Sample Locations | — Process Area                |
| ✕ GAS - PSG             | ■ EPA Samples                    | — Treated Wood Storage Area   |
| ● Targost Locations     | ● Permanent Monitoring Wells     | — Untreated Wood Storage Area |
| ● Surface Water         | ● Temporary Monitoring Wells     | — Ponds                       |
| ▲ Sediment              | ● Pizometer                      | — Decision Units              |
|                         | ● Groundwater Sampling Points    |                               |

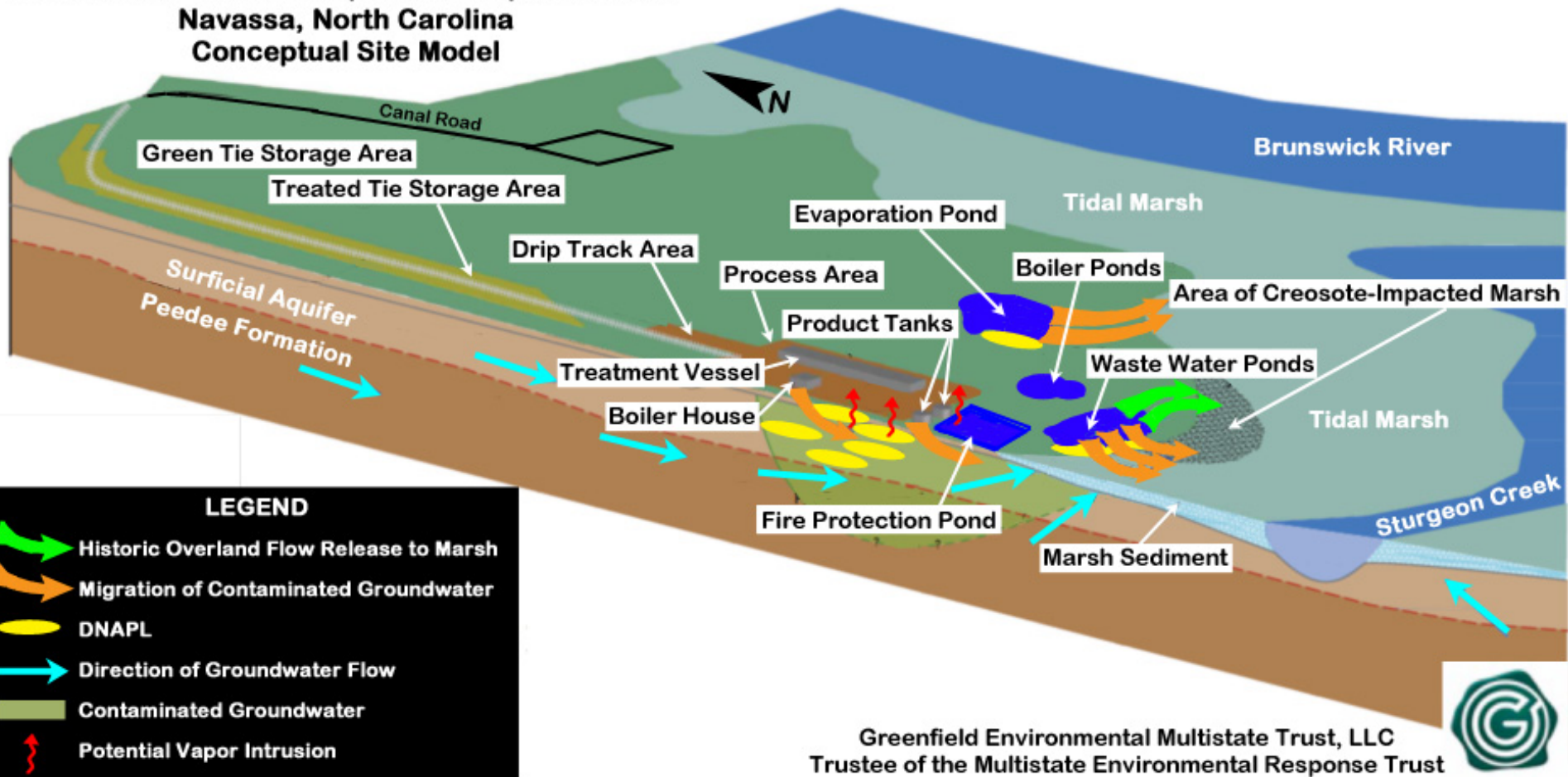
# Key Findings from Supplemental Remedial Investigations (SRI)

- ✓ Surface and subsurface soils impacted by creosote-related constituents
  - Majority of highly contaminated soils are limited to Former Process Area
  - Soils with lower concentrations of contaminants are found in Former Treated Wood Storage Area (Plan additional sampling in the Northern area to confirm)
- ✓ Identified creosote and fuel contaminants in groundwater plume
  - Plume is centered under Former Process Area (likely primary source of contaminants in groundwater)
  - Groundwater plume is migrating from Former Process Area toward Sturgeon Creek
  - Need additional groundwater data to delineate boundaries of plume
- ✓ Creosote in sediments appears confined to marsh area south and southeast of Former Process Area



# Conceptual Site Model

## Former Kerr-McGee Corporation Superfund Site Navassa, North Carolina Conceptual Site Model



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





# SRI Data Collection Work Plans 2016 and 2017

## ✓ 2016 Work Plans

- Groundwater samples from existing monitoring wells
- Sediment samples for Eco-Risk Assessment (ERA)
- Background soil samples from Town of Navassa property
- Work scheduled to begin 12/12/2016

## ✓ 2017 Work Plans

- Geotechnical samples for vapor intrusion analysis
- Potential additional on-site and off-site monitoring wells
- Additional soil samples from northern areas of Site
- Additional soil borings for DNAPL investigations
- Work scheduled for 1/2017 to 4/2017
- Utilize local capability (train/hire/short-term)

# SRI, Risk Assessments, and Feasibility Studies (FS) 2016 and 2017

- ✓ Risk Assessments
  - Human Health and Ecological Risk Assessments
  - Scheduled to be complete June 2017
  - Complete Human Health and Ecological Risk Assessments
- ✓ Supplemental Remedial Investigation (SRI) Report to be issued August 2017
- ✓ Initiate Feasibility Study (FS) September 2017

### What Should Redevelopment Plan Do?

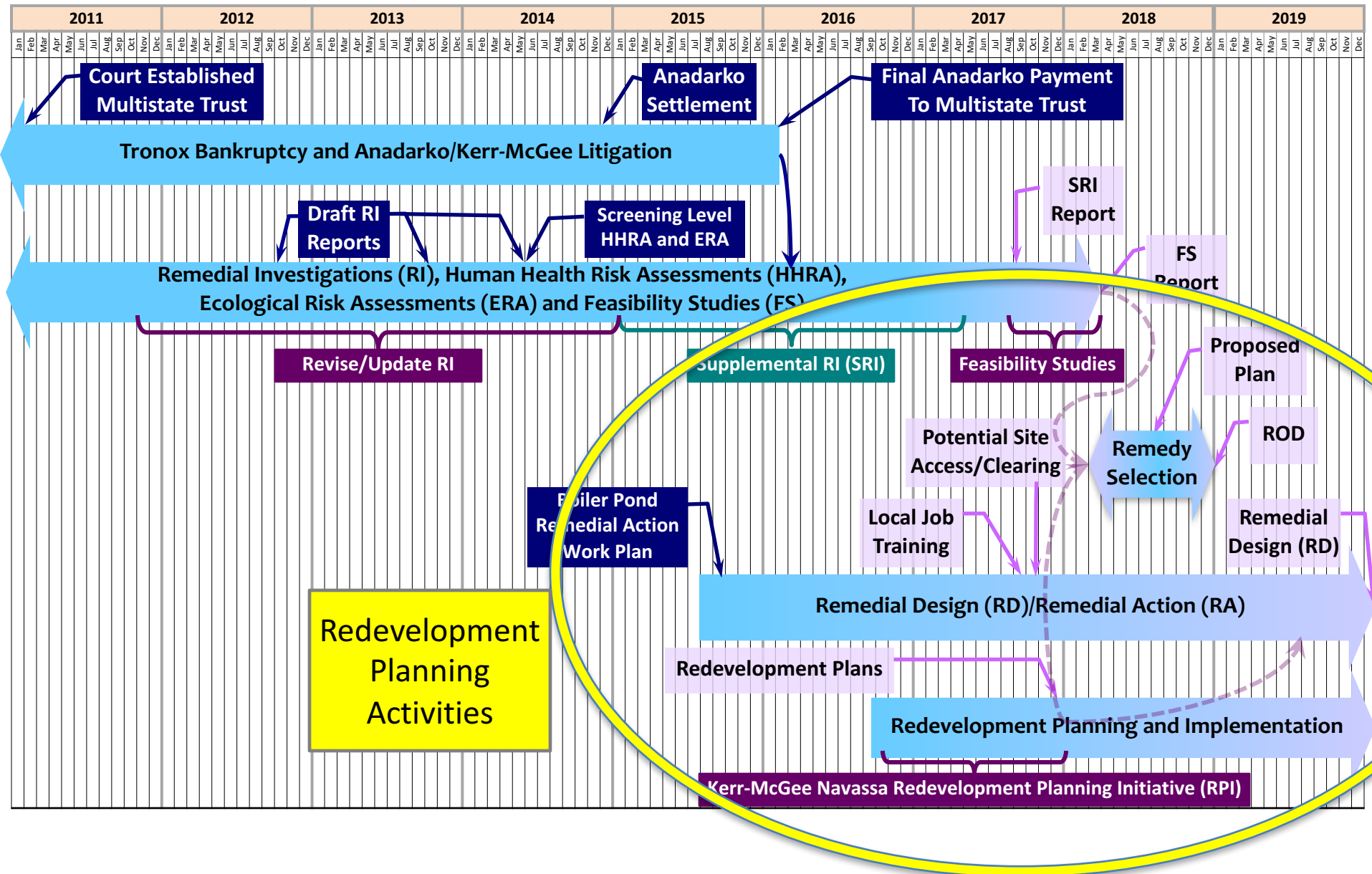
- ✓ Protective of Human Health and the Environment
- ✓ Endorsed by Community Stakeholders
- ✓ Technically Feasible
- ✓ Economically Viable/Sustainable
- ✓ Consistent with Superfund Laws, Zoning, etc.

# Kerr-McGee Navassa Redevelopment Planning Initiative (RPI) - How Redevelopment Plans Will Be Used

- ✓ EPA: Establish reasonably anticipated land use to inform Superfund cleanup process
- ✓ EPA and NCDEQ: Guide safe reuse of properties
- ✓ Multistate Trust: Integrate into cleanup plans, if approved by EPA
- ✓ Multistate Trust: Inform property disposition

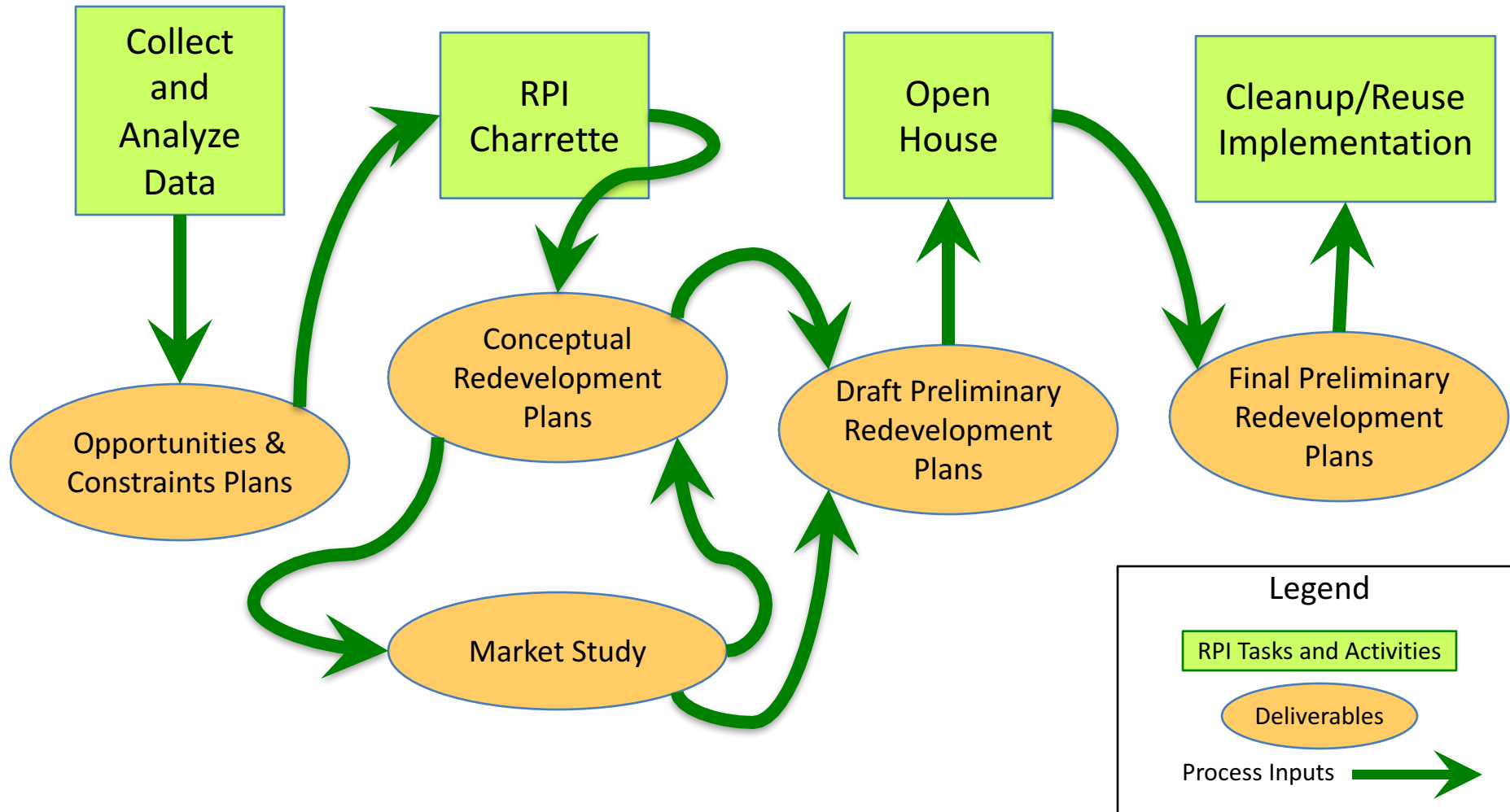
# Kerr-McGee Navassa Superfund Site

## Overview of Cleanup Plans





# Kerr-McGee Navassa Redevelopment Planning Initiative (RPI)



# Kerr-McGee Navassa Redevelopment Working Group (RWG) - Proposed Participants

## Community Stakeholders

- ✓ Town of Navassa
- ✓ NCEERC
- ✓ Residents of Navassa
- ✓ Local Businesses
- ✓ Navassa Churches

## Advisors

- ✓ U.S. EPA
- ✓ NC DEQ
- ✓ Trustees Council

## Coordinators

- ✓ Multistate Trust
- ✓ Multistate Trust Planner

One Representative From Each Organization



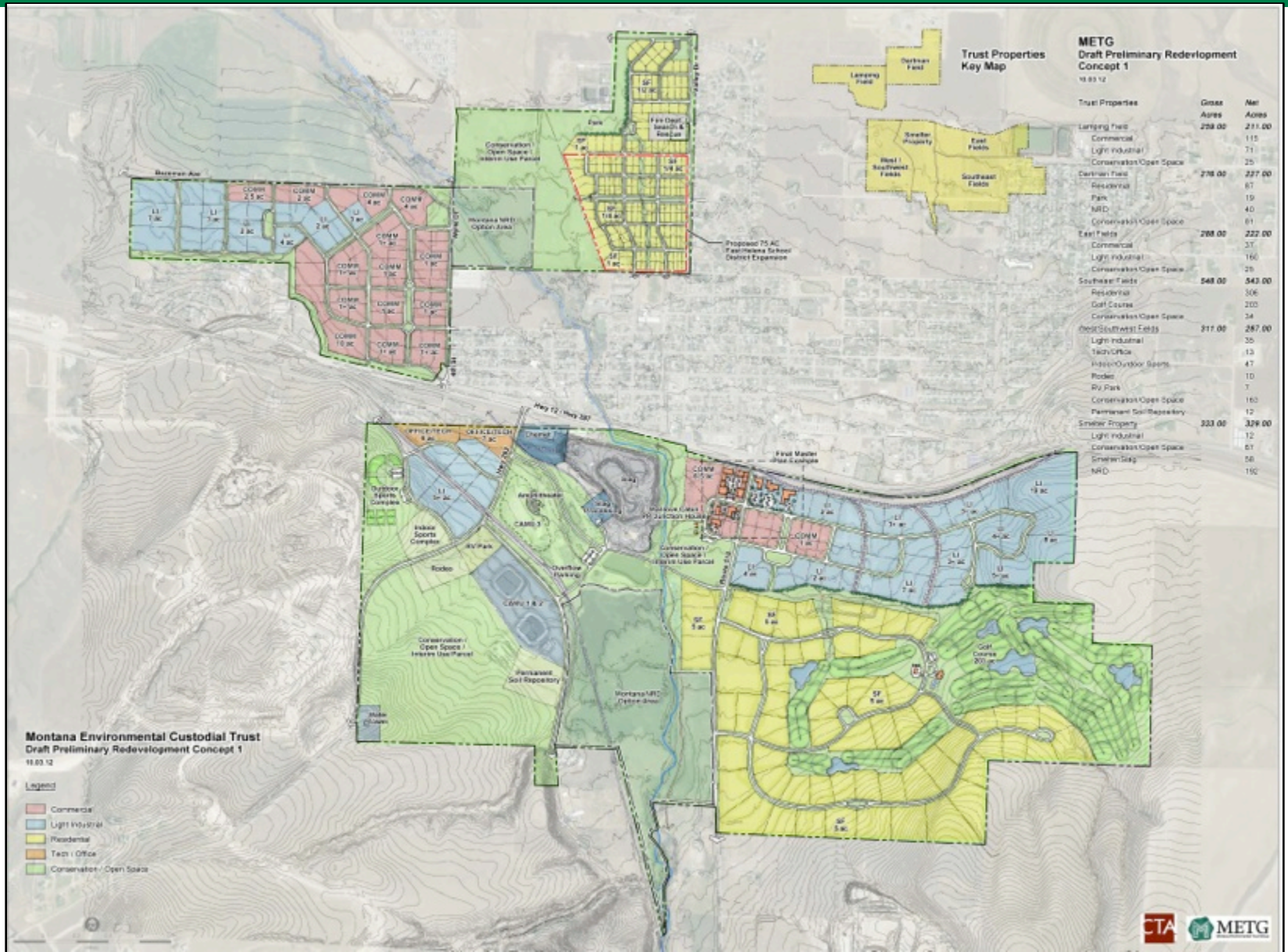
# Kerr-McGee Navassa Redevelopment Planning Initiative (RPI) - Community Partners

- ✓ UNC Wilmington (UNCW)
- ✓ Brunswick County Community College
- ✓ North Carolina Coastal Land Trust
- ✓ The Eagles Island Coalition
- ✓ U.S. National Park Service (NPS)
- ✓ North Carolina Public Access Foundation (NCPAF)
- ✓ Gullah Geechee Heritage Corridor
- ✓ North Carolina Department of Health and Human Services





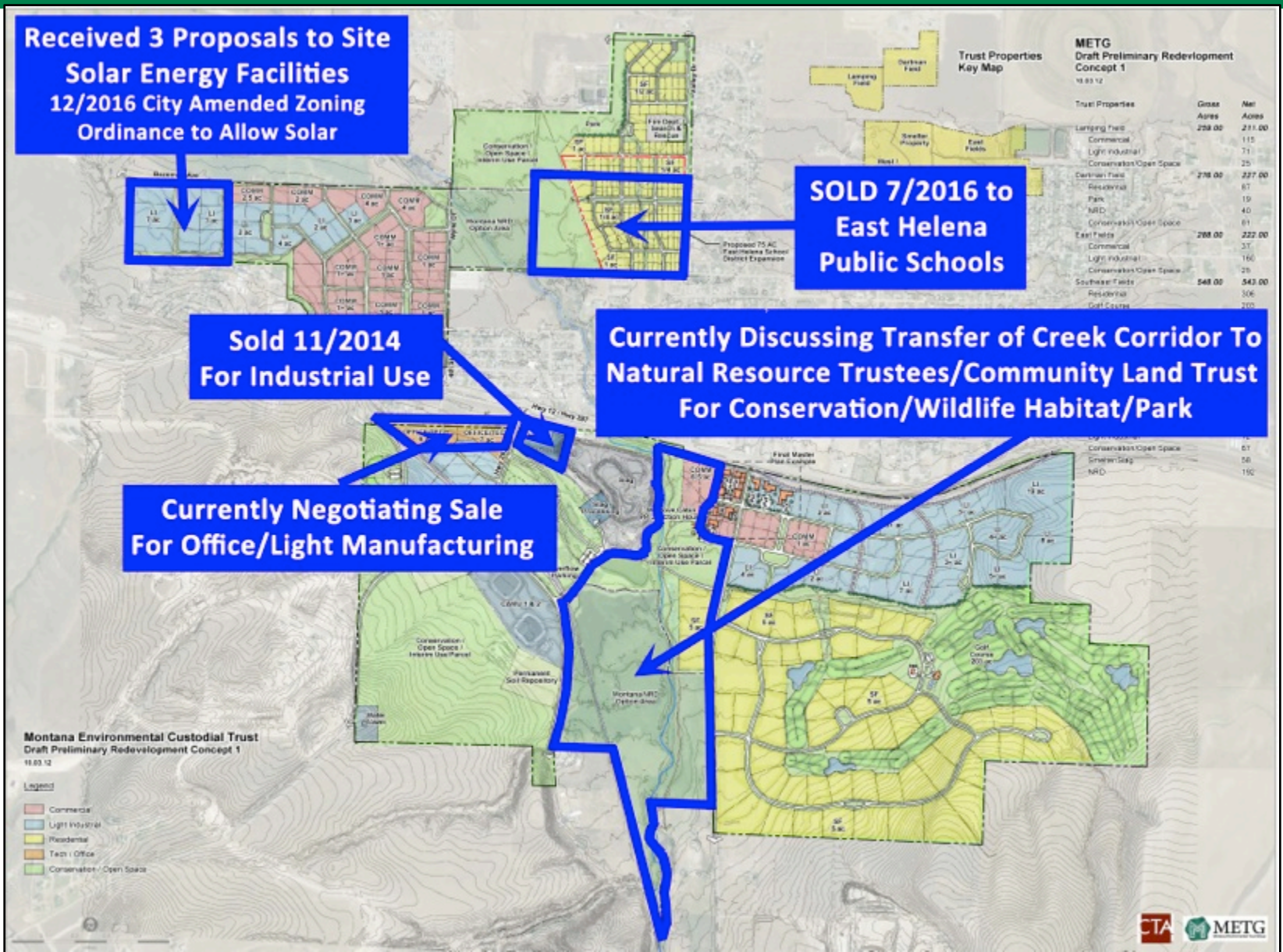
**Former Asarco Smelter RCRA/Superfund Site, East Helena, Montana**  
**Trustee of the Montana Environmental Custodial Trust**





# Former Asarco Smelter RCRA/Superfund Site, East Helena, Montana

## Trustee of the Montana Environmental Custodial Trust





# Industri-plex Superfund Site, Woburn, Massachusetts

## Trustee of the Industri-plex Custodial Trust



**Redevelopment Plan  
Industri-plex Superfund Site  
Woburn, MA**

# Industri-plex Superfund Site, Woburn, Massachusetts

## Trustee of the Industri-plex Custodial Trust

Anderson Regional Transportation Center (RTC)



Central Passenger Station  
Final Phase of Construction

Alternate Cover for RTC  
Under Construction



Redevelopment Plan  
Industri-plex Superfund Site  
Woburn, MA



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**Redevelopment Plan  
Industri-plex Superfund Site  
Woburn, MA**



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# Industri-plex Superfund Site, Woburn, Massachusetts

## Trustee of the Industri-plex Custodial Trust



**MetroNorth Hotel  
(Corporate Center)  
Industri-plex  
Superfund Site**



**MetroNorth Retail Center  
Industri-plex Superfund Site  
Woburn, MA**



# Industri-plex Superfund Site, Woburn, Massachusetts

## Trustee of the Industri-plex Custodial Trust



**MetroNorth Hotel  
(Corporate Center)  
Industri-plex  
Superfund Site**



**MetroNorth Retail Center  
Industri-plex Superfund Site  
Woburn, MA**



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# Questions and Discussion





