

**Kerr-McGee Chemical Corp.
Navassa, North Carolina
Superfund Site**

**Public Meeting
April 10, 2018**

**U.S. Environmental Protection Agency
N. C. Department of Environmental Quality
Greenfield Environmental Multistate Trust LLC,
Trustee of the Multistate Environmental Response Trust**



Public Meeting Agenda

- ✓ **Introductions**
- ✓ **Update on EPA Information Repository**
- ✓ **Overview of Site and Superfund Process**
- ✓ **NCEERC Update**
- ✓ **Navassa Town Planning Update**
- ✓ **N.C. DEQ Update on Navassa Trustees Council**
- ✓ **Remediation Investigations (RI) Highlights**
- ✓ **Kerr-McGee Navassa Redevelopment Planning Initiative (RPI) Update**
- ✓ **Questions and Discussion**

Introductions

Tonya Spencer, EPA

Introductions

- ✓ **Navassa Superfund Site Cleanup Team**
 - ✓ U.S. Environmental Protection Agency (EPA)
 - ✓ N.C. Department of Environmental Quality (N.C. DEQ)
 - ✓ Multistate Environmental Response Trust (Multistate Trust)
- ✓ **Navassa Community Environmental and Economic Redevelopment Corporation (NCEERC)**
- ✓ **Redevelopment Working Group (RWG)**
- ✓ **Navassa Trustees Council – Natural Resource Damage (NRD) Restoration**
- ✓ **Other Partners**
 - ✓ N.C. Department of Health and Human Services/N.C. Division of Public Health (N.C. DPH) – Health education and outreach
 - ✓ University of North Carolina – Wilmington (UNCW) – College / Underserved Community Partnership Program (CUPP)



Update on EPA Information Repository

Public Meetings Every Quarter

Next Meeting August 9, 2018



Navassa Community Environmental and Economic Redevelopment Corporation (NCEERC) Update

Chris Graham, NCEERC



Navassa Town Planning Update

Barnes Sutton, Town of Navassa

N.C. DEQ Update

Navassa Trustees Council

Natural Resource Damage Update

David Mattison and Anjie Ackerman, N.C. DEQ



Overview of Superfund Process

Erik Spalvins, EPA



How we got here

- ✓ **2005, Kerr McGee created “Tronox,” which went bankrupt in 2009**
- ✓ **EPA took over investigation in 2010**
- ✓ **Tronox Bankruptcy Settlement Agreement finalized in February 2011**
 - ✓ Multistate Trust funds can only be used for cleanup
 - ✓ Navassa Trustees Council - Natural Resource Restoration by NOAA, N.C. DEQ, FWS
- ✓ **Multistate Trust created in 2011**

Superfund Process

Remedial Investigation (RI)



Feasibility Study (FS)



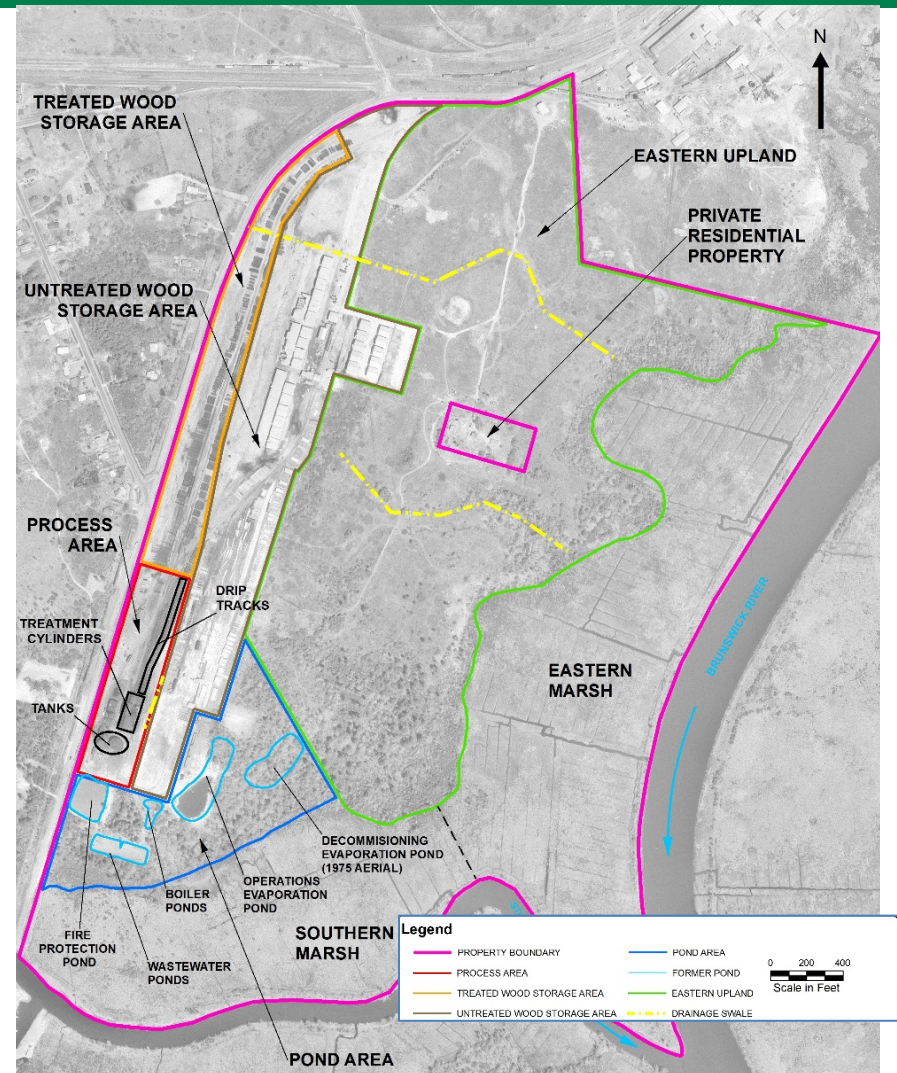
Proposed Plan
(Record of Decision)



Remedial Design (RD)



Remedial Action (RA)



Prioritizing Areas for Cleanup

Remedial Investigation (RI)



Feasibility Study (FS)



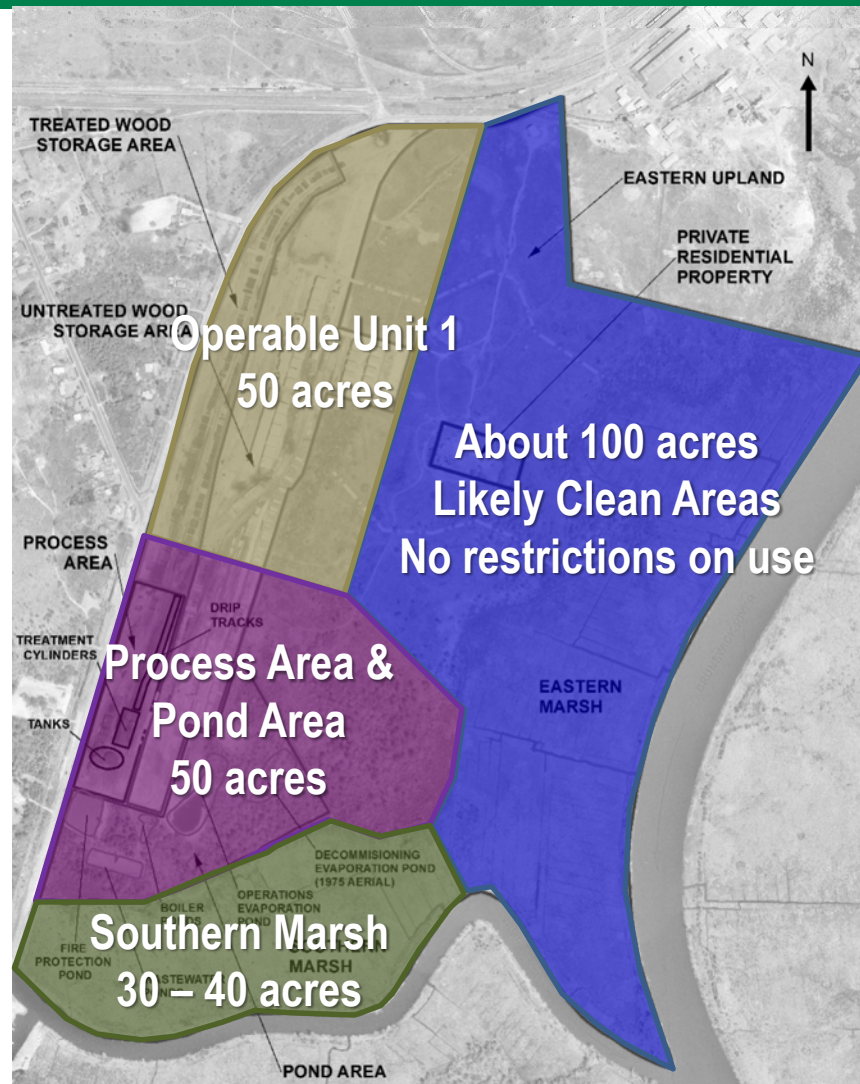
Proposed Plan
(Record of Decision)



Remedial Design (RD)



Remedial Action (RA)



Community Involvement Mission Statement

- ✓ **EPA, N.C. DEQ, Multistate Trust commitment:**
 - ✓ Remediate the Site to enable reuse(s) supported by and beneficial to the community
 - ✓ Inform the public of environmental conditions at the Site and remediation progress
 - ✓ Encourage public involvement in the remediation process
 - ✓ Conduct the remediation so it can have a broad, positive community impact

- ✓ **The role of the community – Vision and Voice**
 - ✓ Provide input into the process
 - ✓ Provide a vision of what types of future use would be preferred

Highlights of Remedial Investigations

Richard Elliott, Multistate Trust



Remedial Investigations (RI)

Purpose of Remedial Investigations (RI):

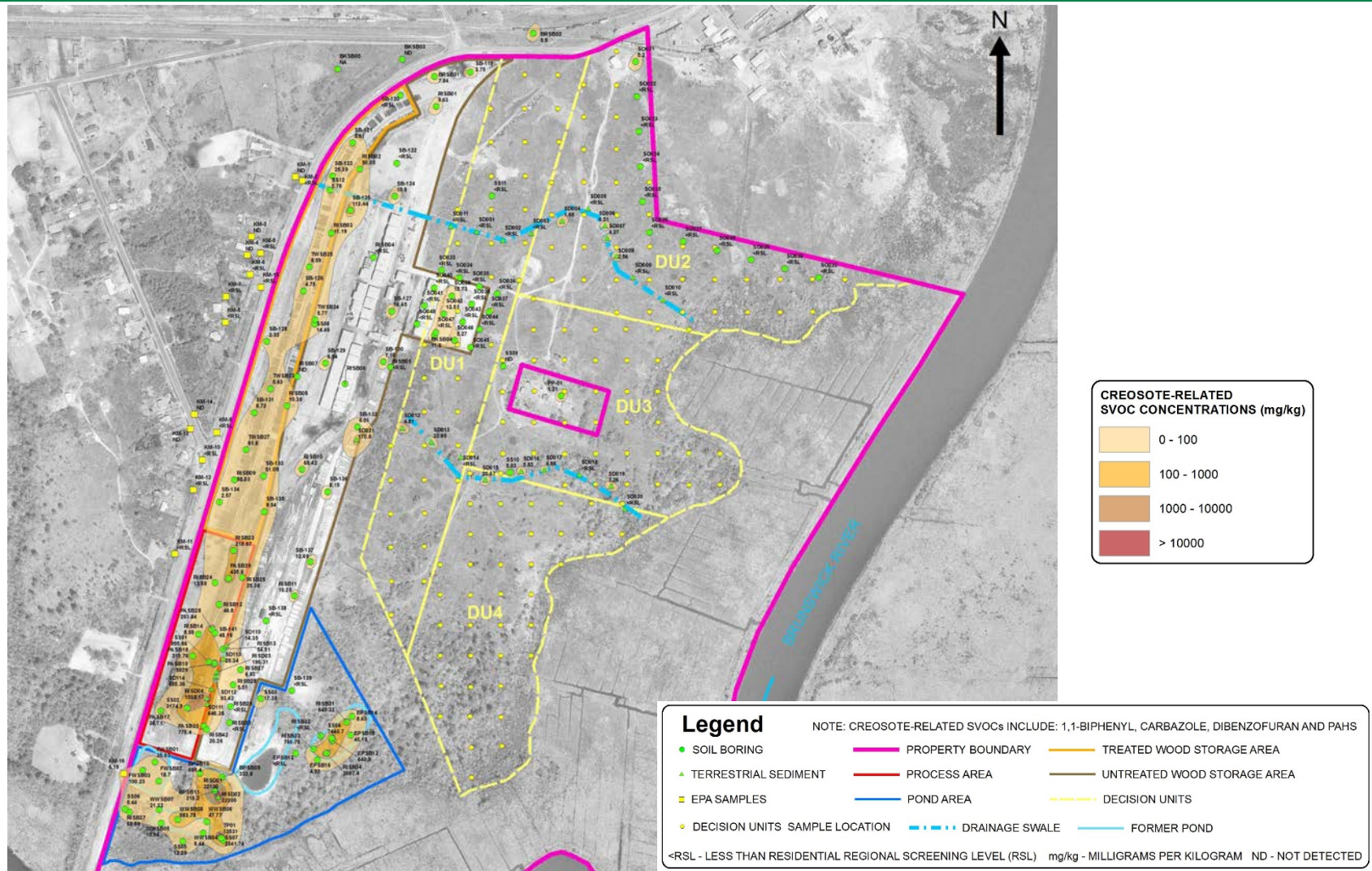
Identify areas of contamination on and around the Site that need to be remediated to protect people and the environment

- ✓ Investigate all potentially contaminated media on- and off-Site – soil, sediment, groundwater and surface water
- ✓ Determine the limits and concentrations of Site contaminants
- ✓ Use RI results to evaluate potential risks to people and the environment and identify remediation actions (Feasibility Study or FS)

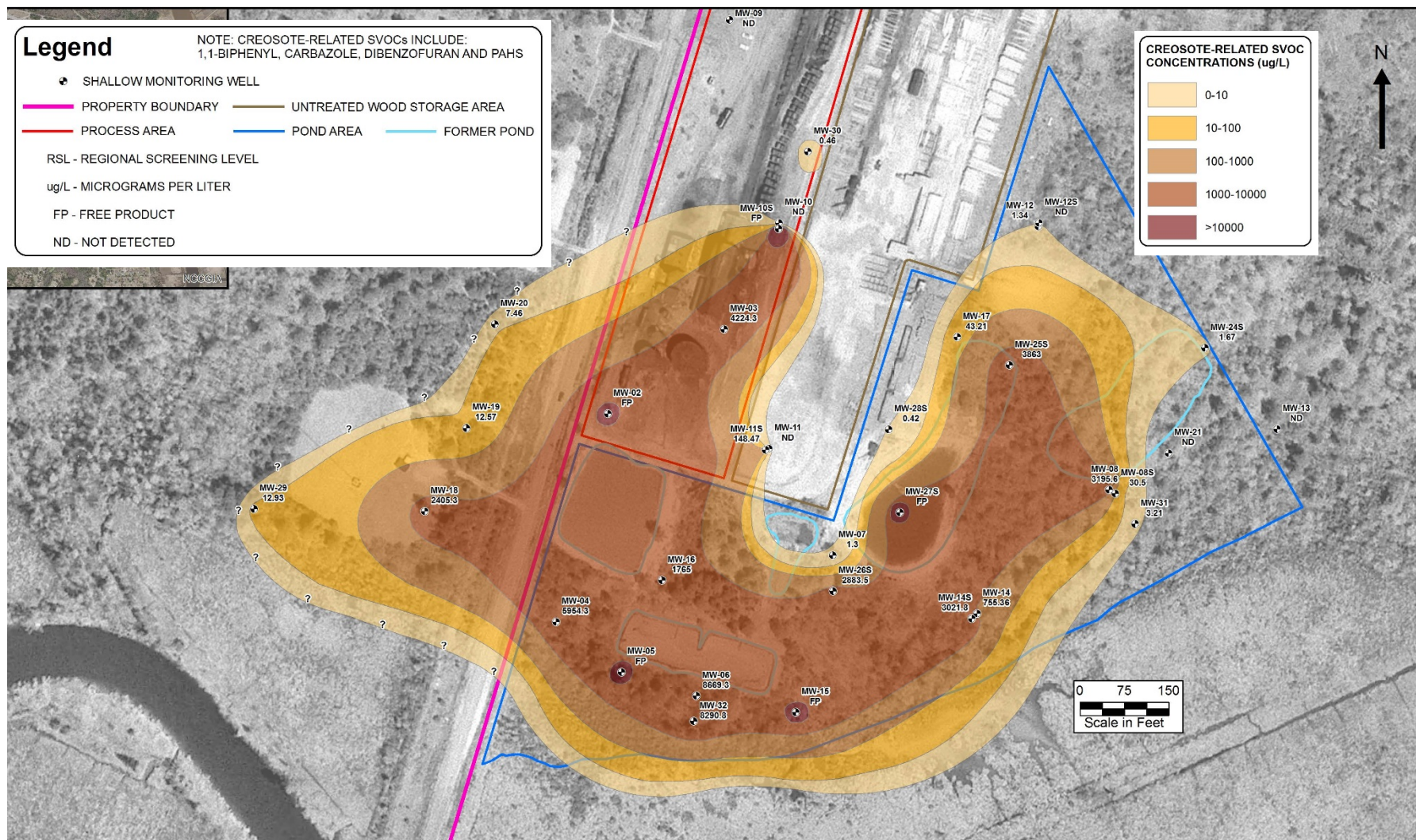
RI Highlights

- ✓ **Constituents of Concern (COCs)**
 - ✓ Polycyclic Aromatic Hydrocarbons (PAHs) (creosote-related SVOC contaminants)
 - ✓ Inorganics (Arsenic)
- ✓ **Extent of Contamination**
 - ✓ Surface Soils
 - ✓ Subsurface Soils
 - ✓ Terrestrial Sediment
 - ✓ Marsh Sediment
 - ✓ Groundwater
- ✓ **Human Health Risk Assessment**
- ✓ **Baseline Ecological Risk Assessment**

Distribution of Creosote-Related SVOCs in Surface Soil and Terrestrial Sediments



Distribution of Creosote-Related SVOCs in Groundwater



Human Health Risk Assessment

- ✓ Evaluates risk to human health currently and in the future
- ✓ HHRA evaluated risk for each area of the Site for each medium (soil, sediment, groundwater)
- ✓ Receptors evaluated included:
 - ✓ Future residents (child and adult)
 - ✓ Teenage trespasser
 - ✓ Construction worker
 - ✓ Industrial worker
- ✓ Constituents of concern (COCs) identified for further evaluation include:
 - ✓ Inorganics (Arsenic)
 - ✓ Volatile Organic Compounds (VOCs)
 - ✓ Creosote-related SVOCs
- ✓ No exposure currently occurring
- ✓ Consumption of game (deer and squirrels) that have ranged onto the Site is a very low risk to humans
 - ✓ Creosote related PHAs are metabolized by mammals
 - ✓ Creosote related PHAs do not bio-accumulate

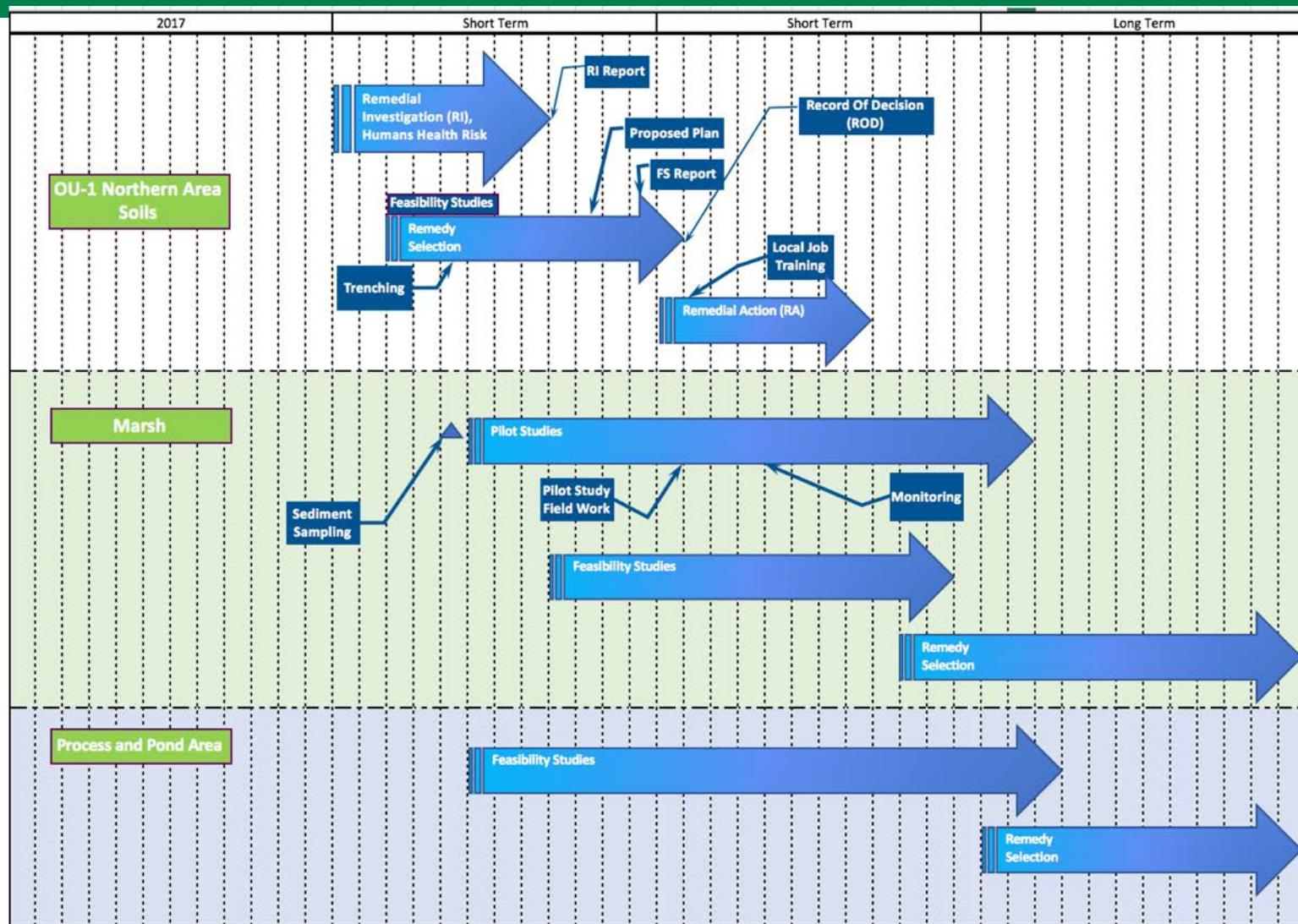
Baseline Ecological Risk Assessment

- ✓ **BERA focused on potential risks related to Polycyclic Aromatic Hydrocarbons (PAHs) in the marsh**
- ✓ **BERA evaluated potential risks for sediment dwelling organisms, fish, mammals, and birds**
- ✓ **Multiple lines of evidence were used, including 2017 investigation results, to understand if PAHs are “biologically available”**
- ✓ **Results demonstrate that most of the marsh has low levels of PAHs (if any) that do not pose a risk to the ecological receptors**
- ✓ **Small area in marsh, approximately 1 to 3 acres in size, may pose a risk to ecological receptors and may need to be addressed**

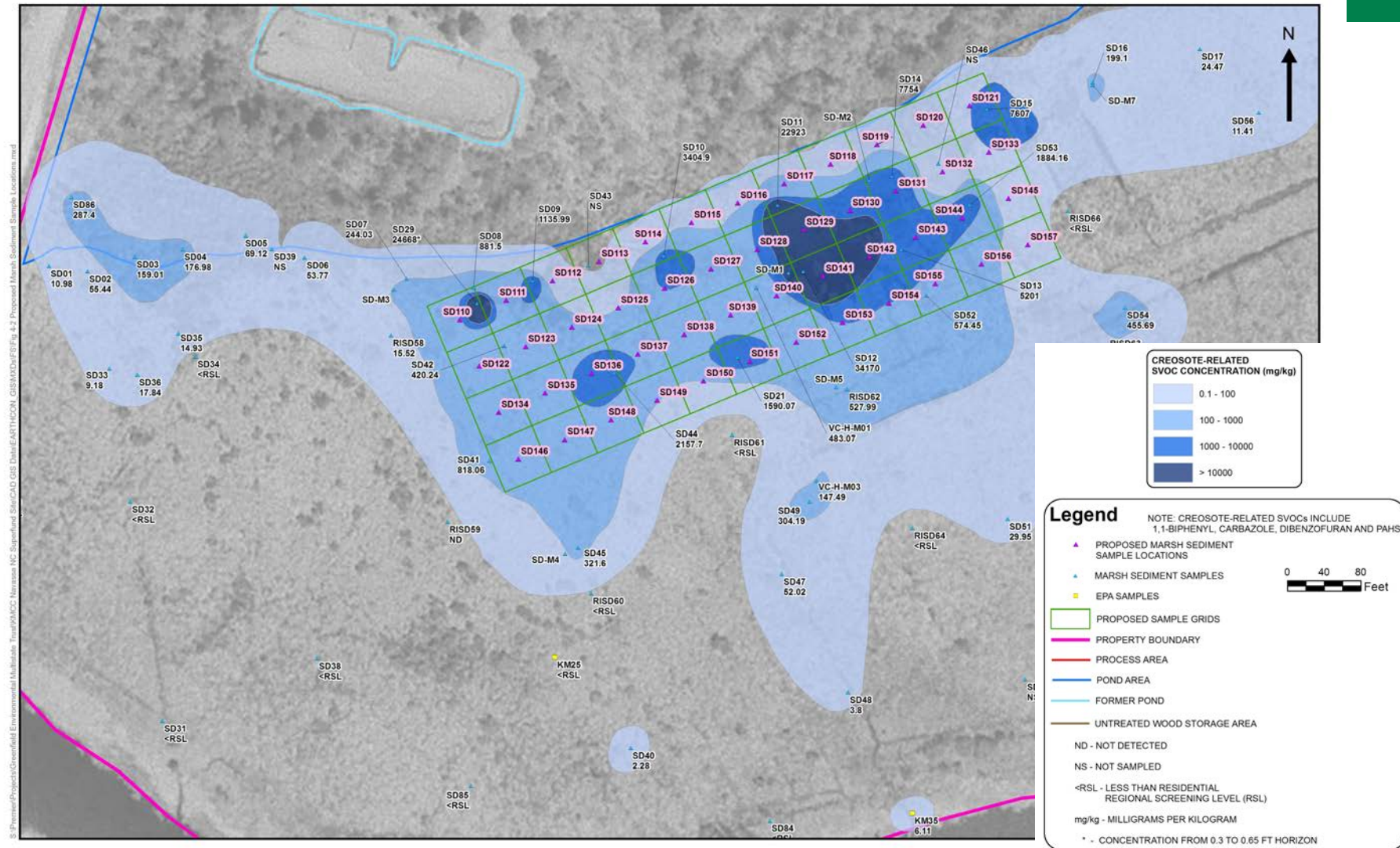
Key Activities for 2018

- **Complete Reports**
 - RI Report
 - HHRA
 - BERA
- **Operable Unit 1**
 - Trenching Investigation
 - Complete Feasibility Study and Proposed Plan
- **Marsh**
 - Take Additional Samples
 - Initiate Pilot Study
- **Process and Pond Area**
 - Initiate Feasibility Study
- **Groundwater**
 - Conduct Analysis of Groundwater Impact Behavior
- **Complete Redevelopment Planning Initiative**

2018 Activities Schedule



Proposed Sediment Sample Locations



Kerr-McGee Navassa Redevelopment Planning Initiative (RPI)

Richard Elliott, Multistate Trust



Kerr-McGee Navassa Superfund Site Redevelopment Planning Initiative (RPI)

- ✓ **Opportunities for Community Input/Engagement**
 - ✓ Redevelopment Working Group (RWG)
 - ✓ Community Survey
 - ✓ Community Stakeholder Meetings
 - ✓ Community Visioning Workshop, February 23-24, 2018
 - ✓ Open House
- ✓ **RPI Process and Deliverables**
- ✓ **RPI Schedule**

Kerr-McGee Redevelopment Planning Initiative (RPI)

Redevelopment Working Group

Redevelopment Working Group (RWG) Participants

- ✓ **Town of Navassa**
 - ✓ Town Council (Councilors Bethel, Brown, Burgess, Burns, and Merrick)
 - ✓ Mayor Willis
- ✓ **Residents of Navassa**
 - ✓ Ernest Mooring, Jr.
 - ✓ Patrice Robbins
- ✓ **Navassa Community Environmental & Economic Redevelopment Corporation (NCEERC)**
 - ✓ LaTanya Beatty-Nixon
 - ✓ Chris Graham
 - ✓ Conswalia Green
 - ✓ Marcell Hatten
 - ✓ Henry Lancaster III
 - ✓ Dr. Roger Shew
 - ✓ Attorney Chandra Taylor
- ✓ **Other Stakeholders**
 - ✓ Resea Willis/President/Brunswick Housing Opportunities (BHO)
 - ✓ Veronica Carter/Board Member/North Carolina Coastal Federation (NCCF)

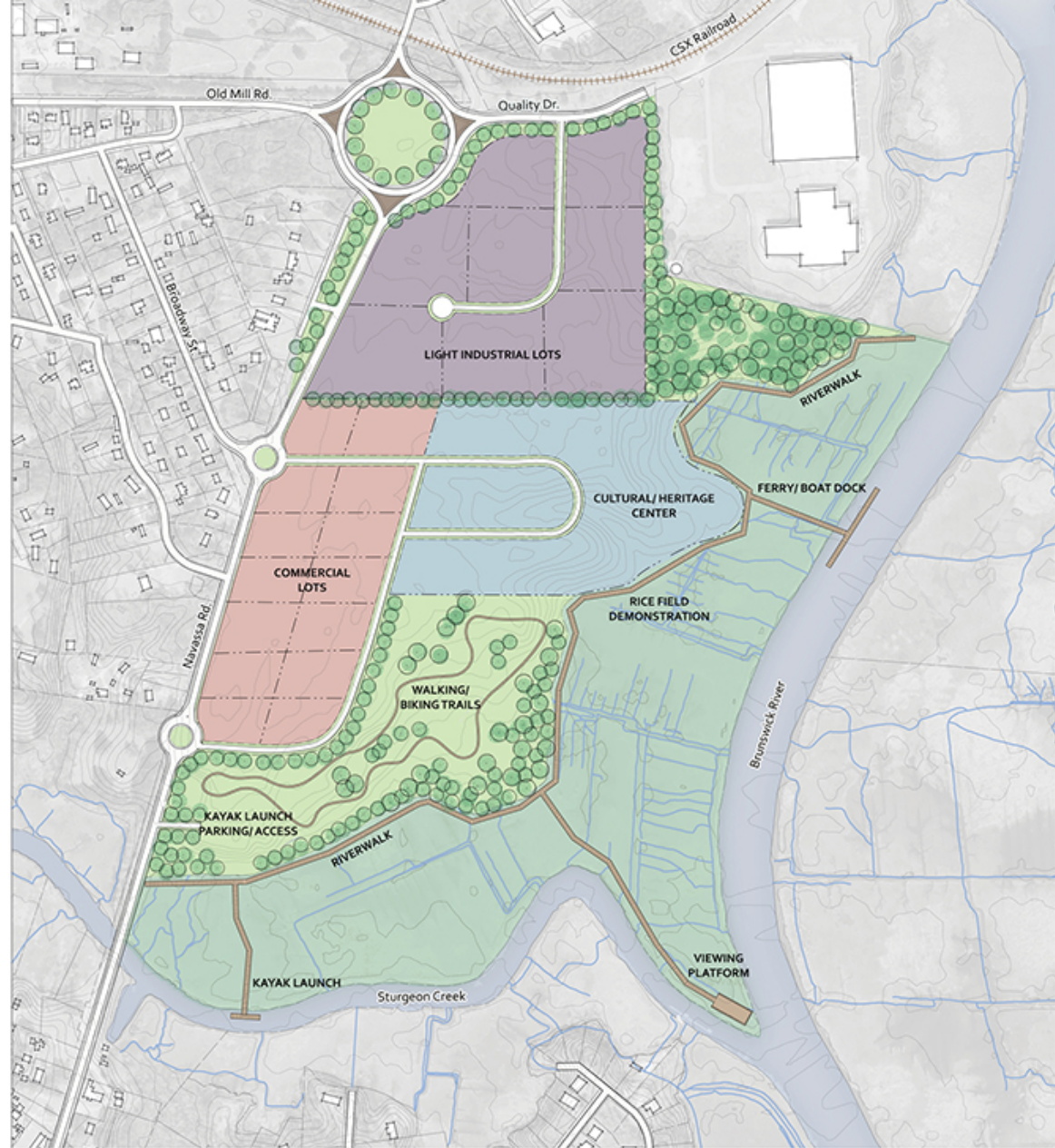


Kerr-McGee Redevelopment Planning Initiative (RPI)

Community Involvement To Date and Going Forward



Concept A



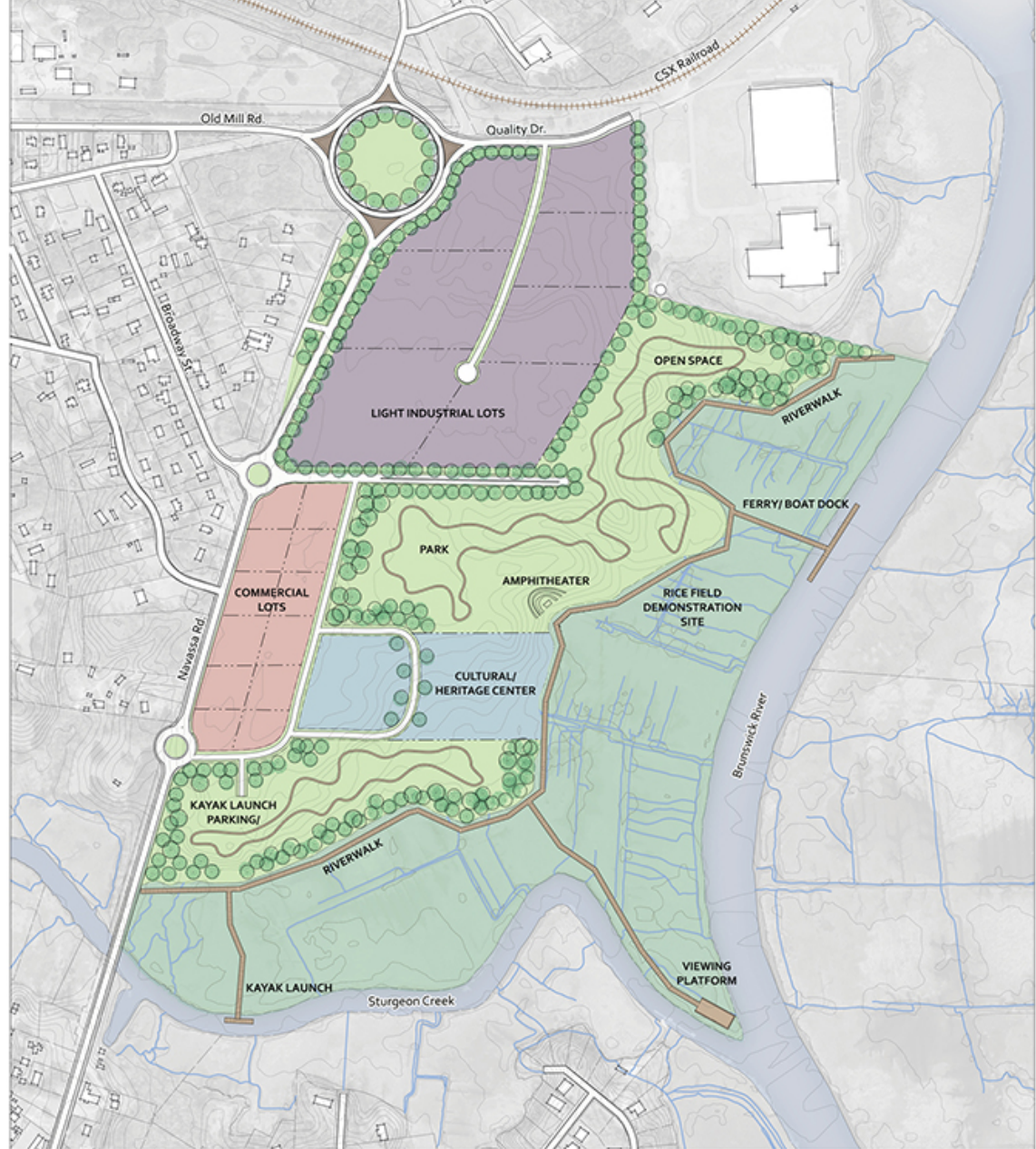
Kerr-McGee Navassa
Redevelopment Planning Initiative

Concept A

0 500 1,000 2,000 Feet



Concept B



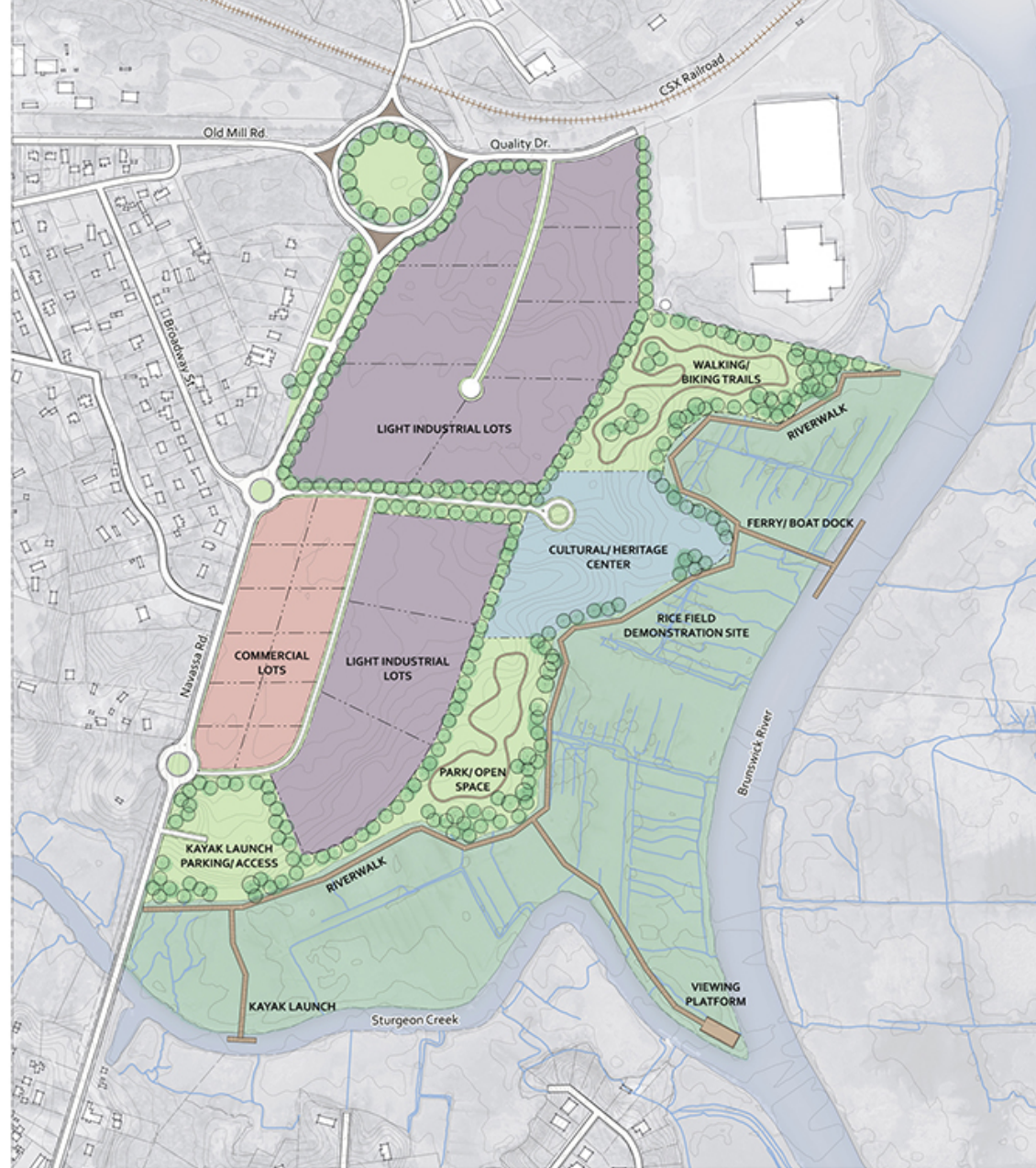
Kerr-McGee Navassa
Redevelopment Planning Initiative

Concept B

0 500 1,000 2,000 Feet



Concept C



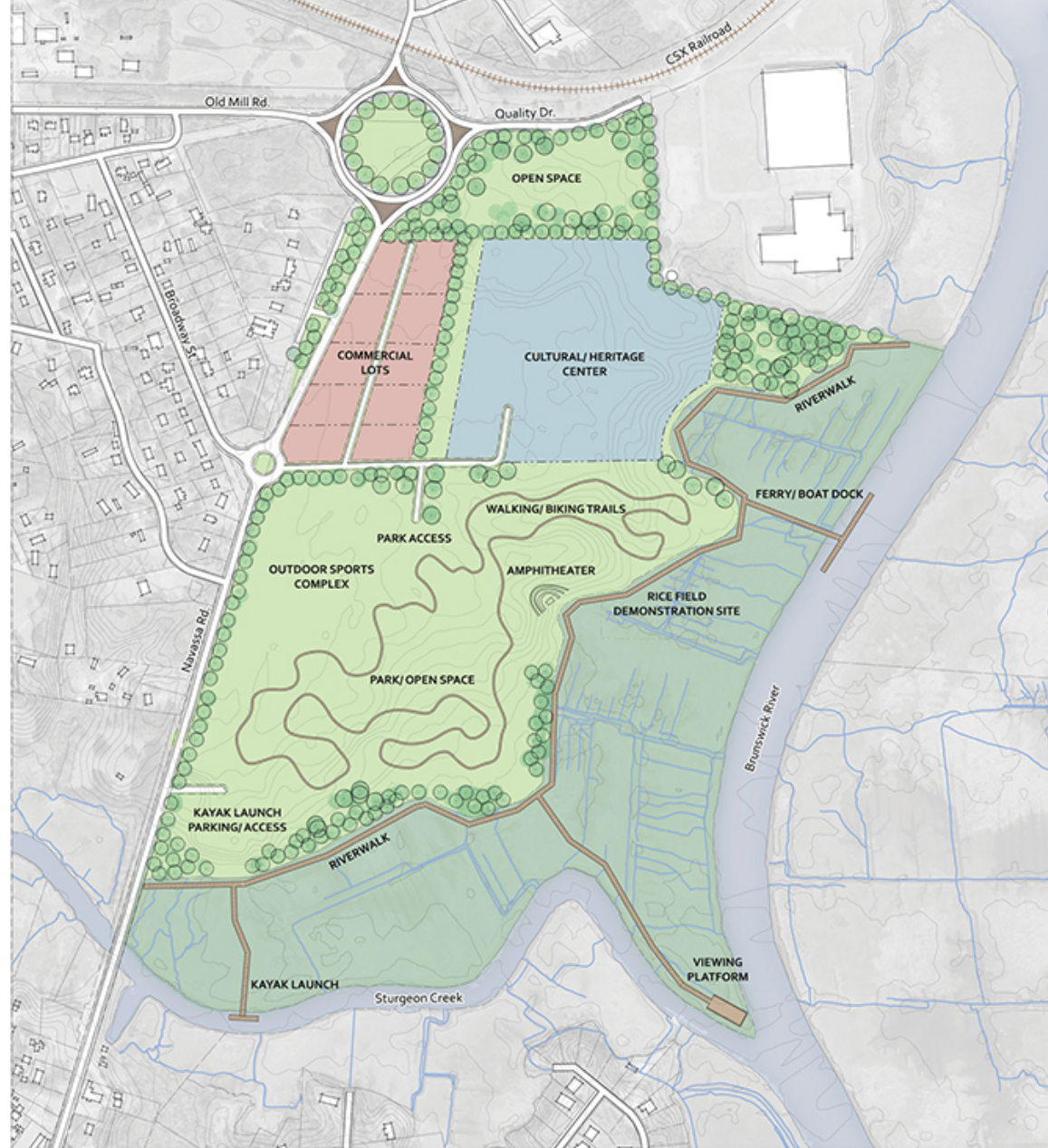
Kerr-McGee Navassa
Redevelopment Planning Initiative

Concept C

0 500 1,000 2,000 Feet



Concept D



Kerr-McGee Navassa
Redevelopment Planning Initiative

Concept D

0 500 1,000 2,000 Feet



Contact Information

- Erik Spalvins, EPA Remedial Project Manager
 - (404) 562-8938, spalvins.erik@epa.gov
- L'Tonya Spencer, EPA Community Involvement Coordinator
 - (404) 562-8463, spencer.latonya@epa.gov
- David Mattison, N.C. DEQ Superfund Section Project Manager
 - (919) 707-8336, david.mattison@ncdenr.gov
- Cindy Brooks, Multistate Trust Managing Principal
 - (617) 448-9762, cb@g-etg.com
- Richard Elliott, Multistate Trust Project Manager
 - (617) 953-1154, re@g-etg.com



Questions and Discussion