

**FOX RIVER
ENVIRONMENTAL DREDGING
CONTRACTOR
IMPLEMENTATION**



Fox River 2000 SMU 56/57 PCB Sediment Removal



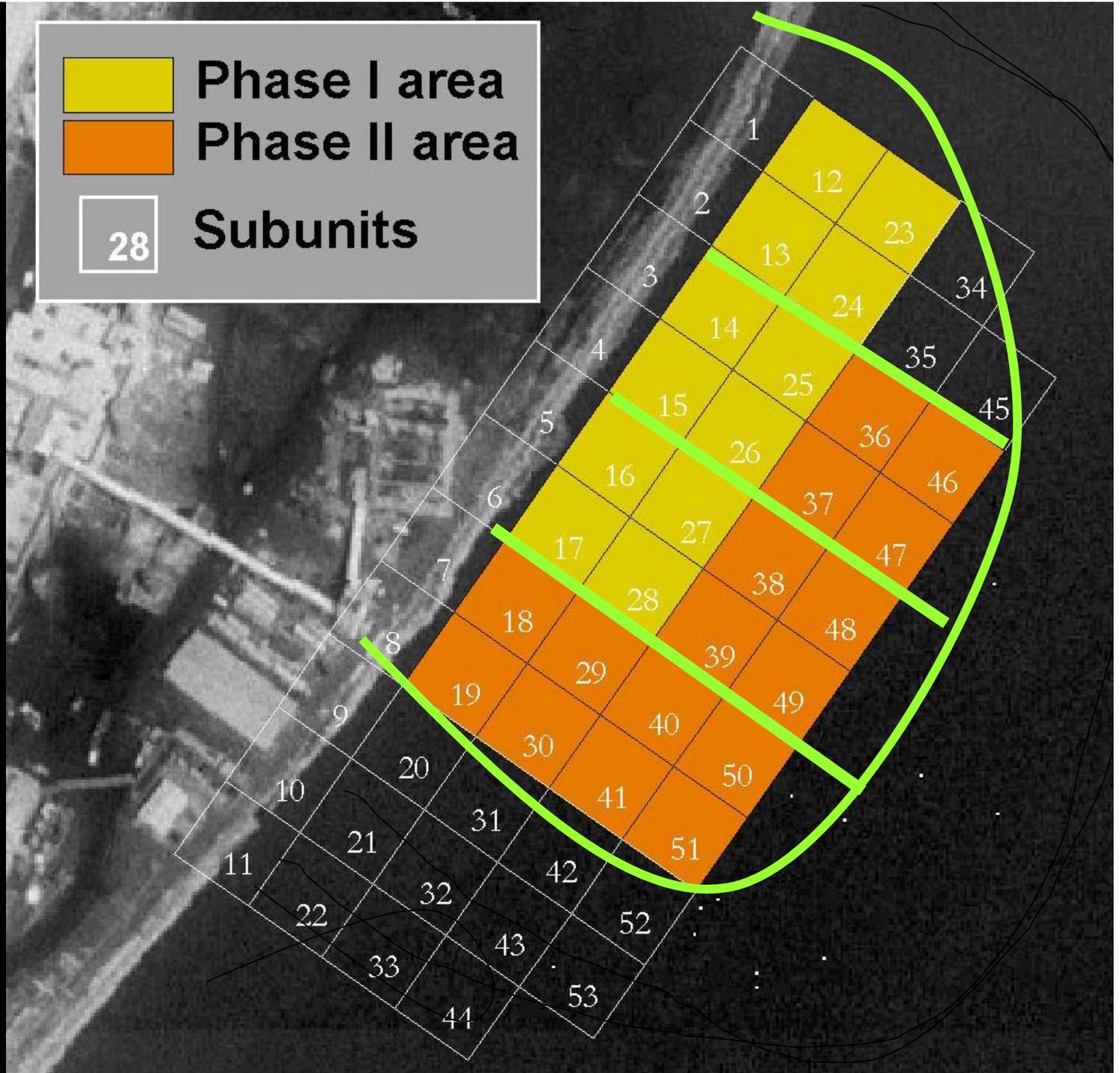
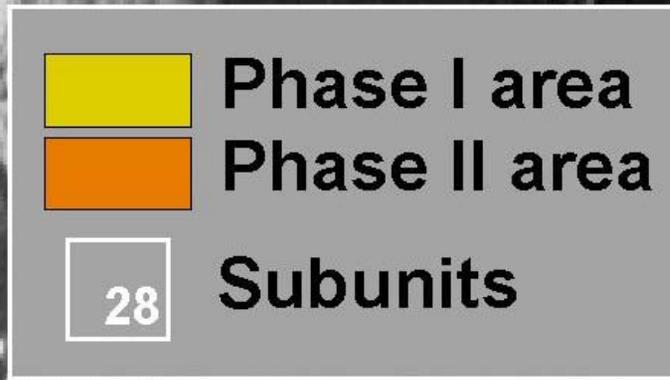
- Dredging & Dewatering
50,000 CY
- Fast Track / EPA
Emergency Response
- Mobilization 25 Days
- 2400 gpm WWTP
- T&D @ Offsite Landfill
- Achieved All Project
Goals & Objectives

Project Goals

- **Dredge to 1 ppm elevation**
- **Remove PCBs 10 ppm or more**
- **Cover with sand if concentrations more than 1 ppm**
- **Remove 50,000 cubic yards**
- **Complete project this year**

SMU 56/57

**SILT
CURTAIN**



Hydraulic Auger Dredge



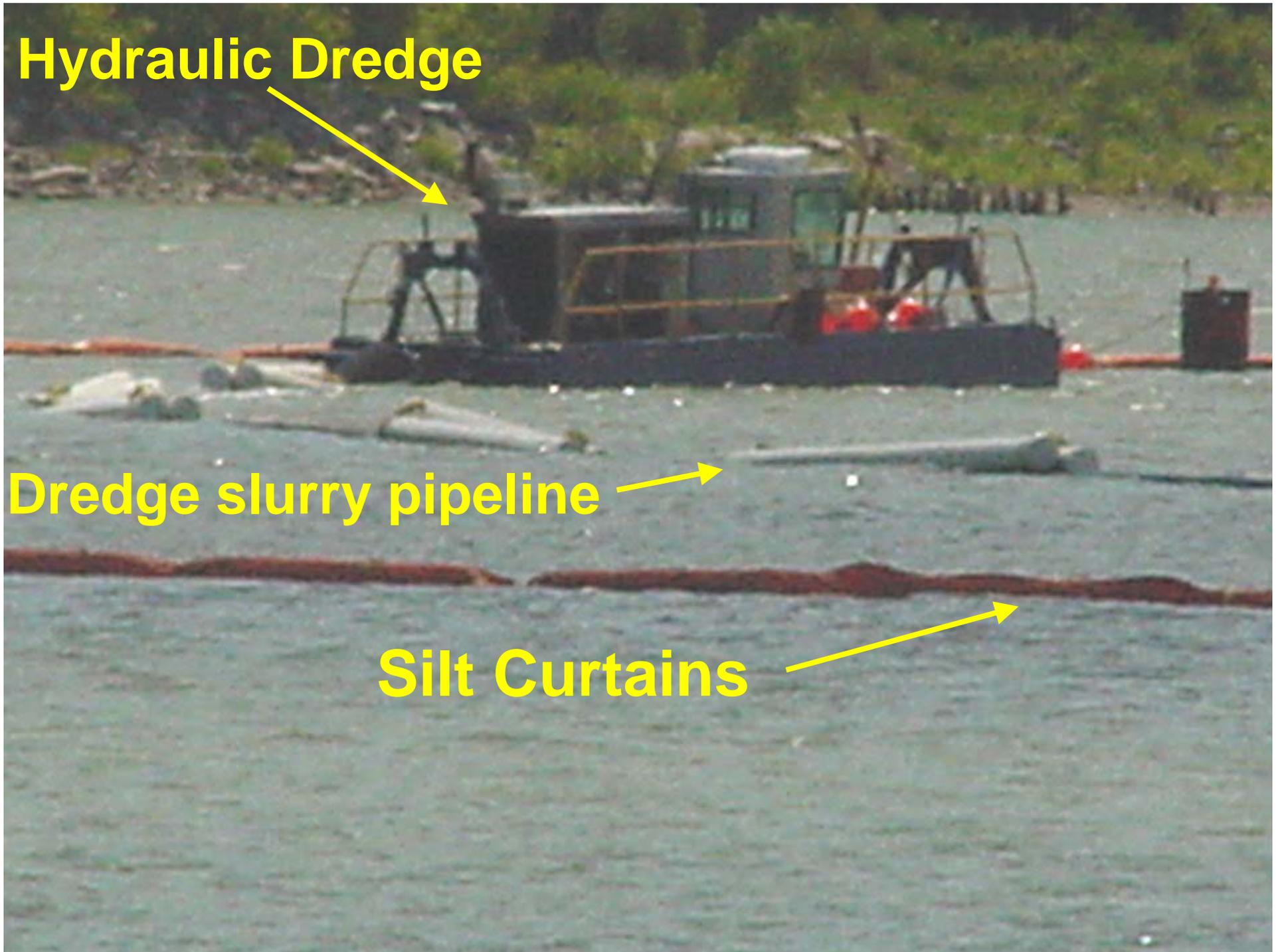
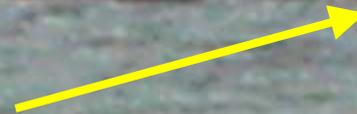
Hydraulic Dredge



Dredge slurry pipeline



Silt Curtains







Booster pump for dredge slurry



Excavation.

Dewatering

- Vibrating Shaker Screens
- Hydrocyclones
- Plate & Frame Filter Press
- Process Controls
- Treatability Study

Sand removal tank and debris screen





Hydrocyclones

A photograph of a wastewater treatment plant. The image shows several rows of rectangular storage tanks, each equipped with a yellow metal railing. Large black pipes run along the tanks, with one prominent pipe curving in the foreground. The tanks are situated on a concrete or metal platform. In the background, there are green trees and a multi-story building. The text "Storage tanks" is overlaid in yellow on the left side of the image.

Storage tanks



Polymer & press feed pumps

Plate and Frame Presses



Filter cake (plate and frame presses)



Wastewater Treatment & Material Handling

- Over Design Flow Capacity
- Redundancy in Process
- Continuous Wastewater Discharge
- Segregation of Processes
- Quick Analytical Testing

Water treatment



Treated Dredge Water



Sand placement





**Sand cover
confirmation**

Sediment Sampling and Hydraulic Dredge



Truck loading & washing



Recipe for Success

- Contractor Participation During Design and Constructability
- Site Characterization and Treatability Study
- Team Work
- Communication
- Partnering

Critical Contractor Requirements for a Successful Project

- Construction Background
- Environmental Dredging
- Dewatering (Liquid/Solids Separation)
- Wastewater Treatment
- Materials Handling
- Solidification & Stabilization
- Waste Minimization Experience
- Financial Security
- One Contractor: One Contract

Waste Minimization

- Maximize % Solids in Processed Material
- Screen over-sized Materials
- Separate Sand Fractions
- Decontaminate Debris
- Results in Significant Reduction of TSCA Waste

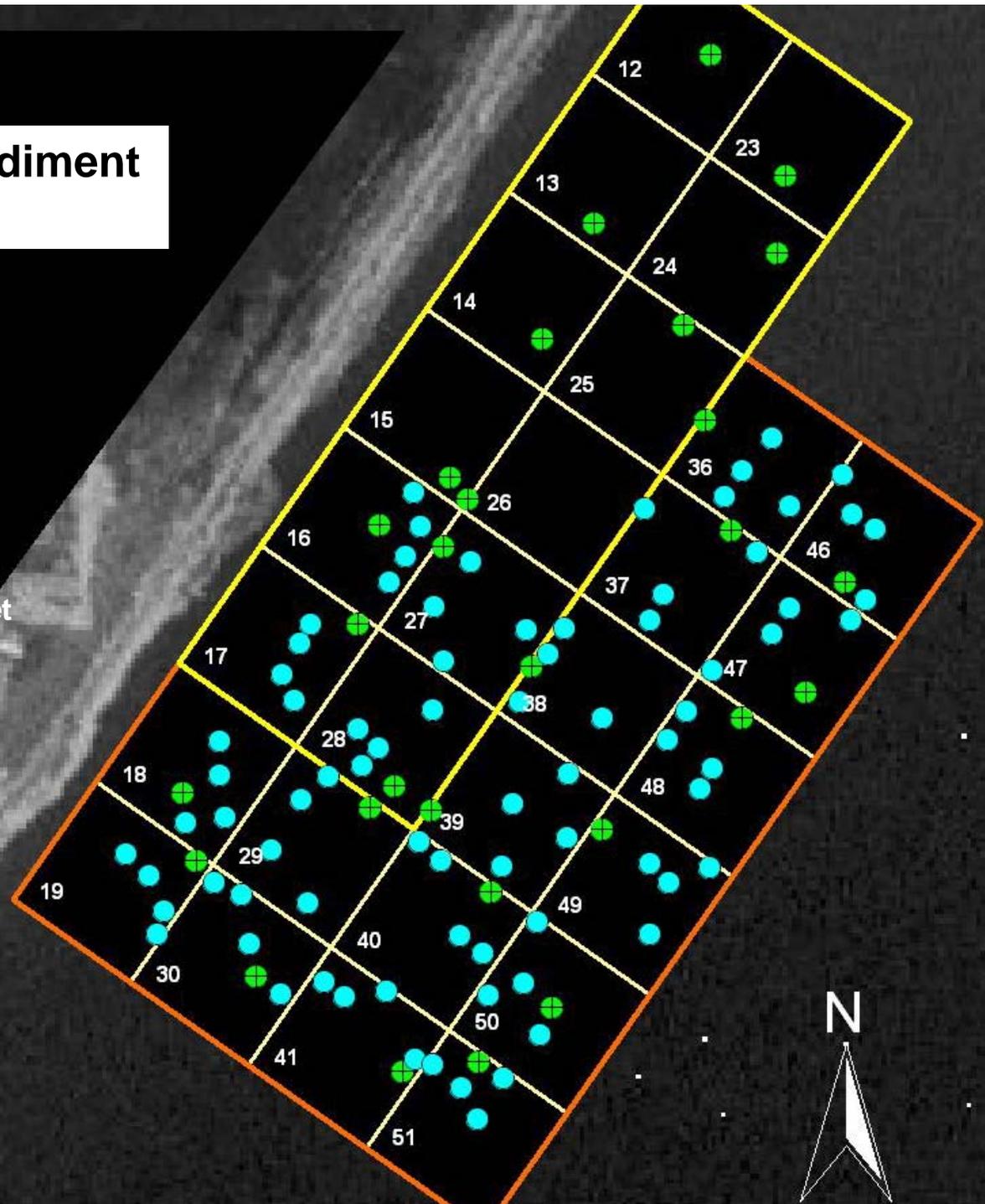
2000 All Surface Sediment Sample Locations

- Primary Sample
- Secondary Sample
- Phase 1 Boundaries
- Phase 2 Boundaries
- Subunit Boundaries

0 100 200 Feet

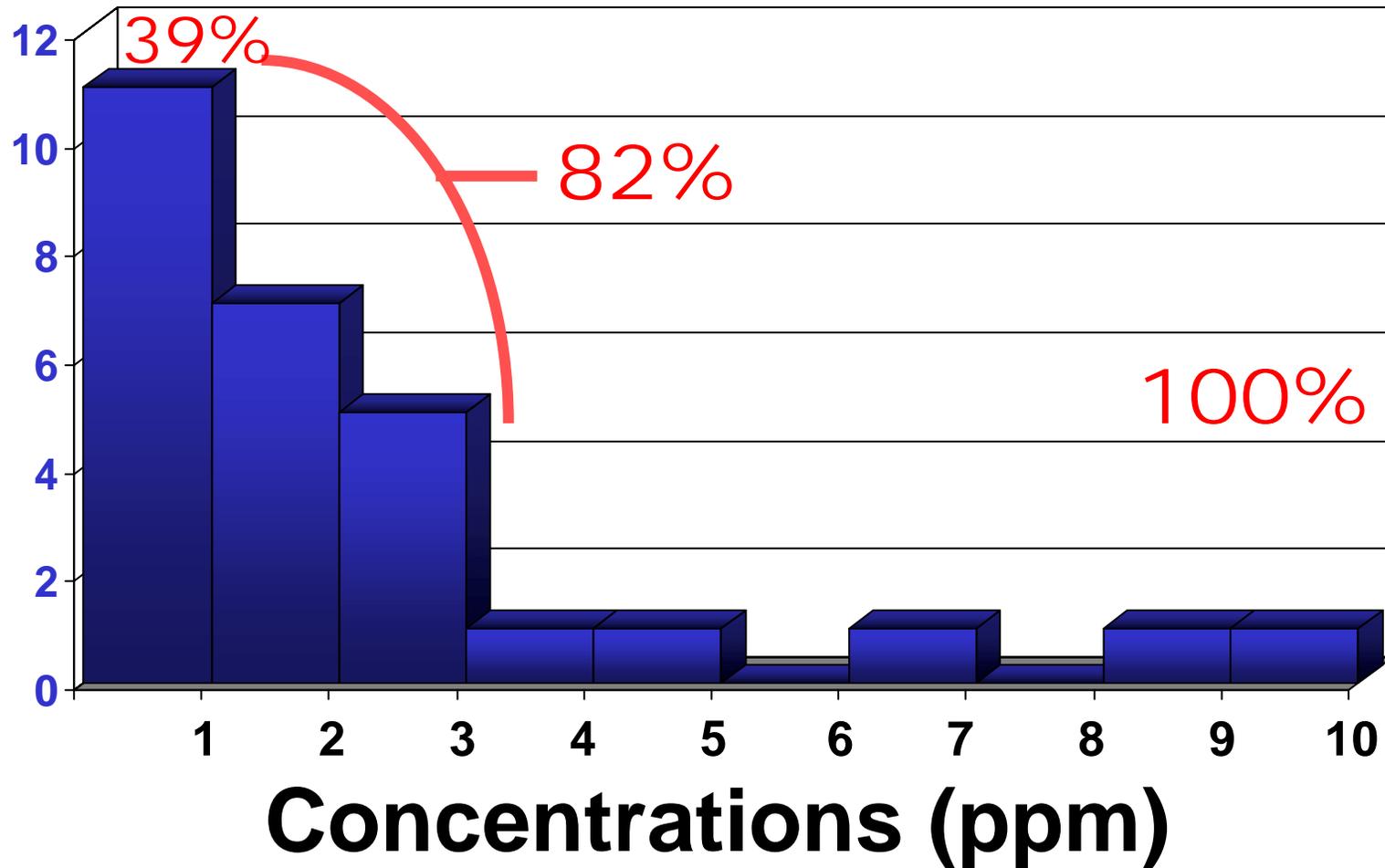
Average Concentration
1.87 ppm

SMU 56/57 FOX RIVER



Post-Dredging Concentrations*

Number of subunits



* Fort James data

Successful Project Summary

- Meeting All Goals & Objectives
- No Safety Infractions
- No Environmental Incidents
- Completion Ahead of Schedule
- Under Budget

