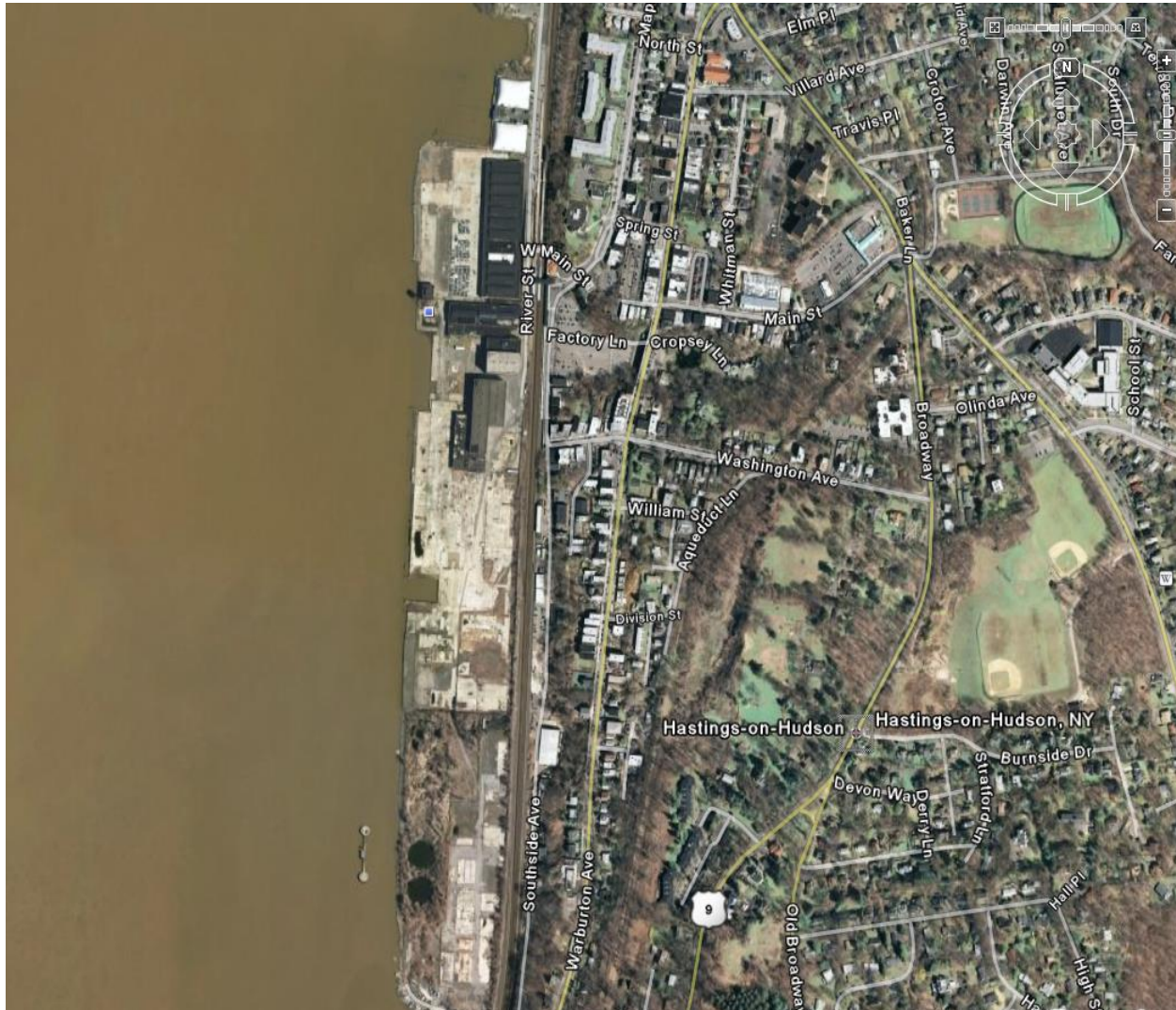


# Welcome Harbor at Hastings Project Update

## June 2015

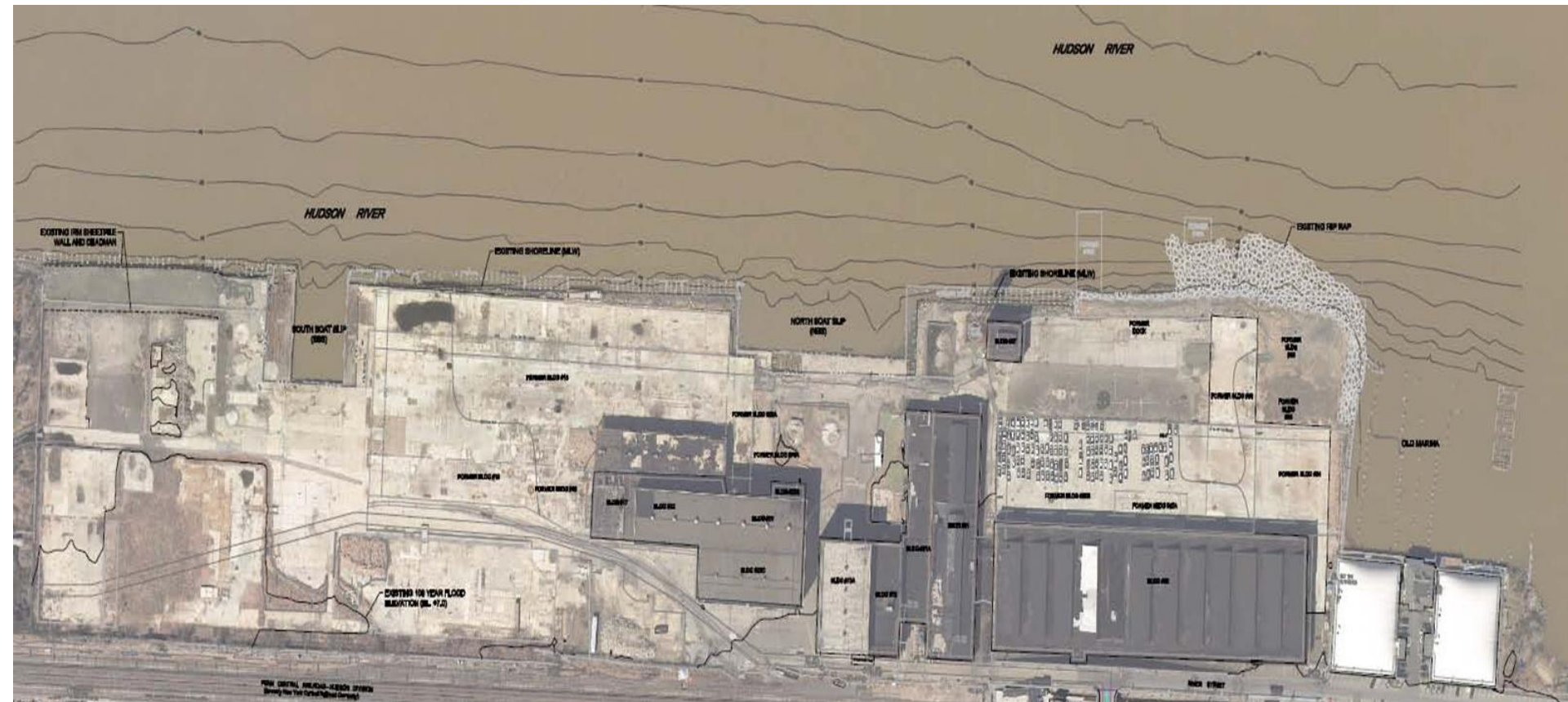


Department of  
Environmental  
Conservation

# Introduction

## Goals of Tonight's Meeting

- Overview of Remedial Design
- Update on Completed Work
- Coordination with USACE, NY Department of State, USEPA
- Mitigation Process
- Next Steps
- Questions and Comments



# The Process

- Investigate the site
- Evaluate alternatives
- Propose remedy and get public comments
- Select remedy (Record of Decision – ROD)
- Design remedy
- Construct remedy
- Operate, monitor and maintain remedy



# Site History and Description

- 28 acre former wire manufacturing facility
- Landmass is historic fill with poor structural properties
- Soils are contaminated predominantly with PCBs and metals
- PCBs used as insulator for high voltage cables
- PCB is found as a separate phase material
  - 35 feet deep beneath the northwest corner
  - 20 + feet deep under northern off shore area
  - Characterized as “Liquid”, “Semi-solid”, “Trace”
- Sediments contaminated with PCBs and metals





# PCB Material Physical States

- Liquid PCB or Dense Non-aqueous Phase Liquid
  - Amber/brown color; Flows into wells
- Semi-solid PCB
  - Grayish-brown color; More viscous than liquid PCB; String-like consistency
- Trace PCB
  - Difficult to visually observe
  - Hair-like filaments



**Liquid PCB or Dense Non-aqueous Phase Liquid**





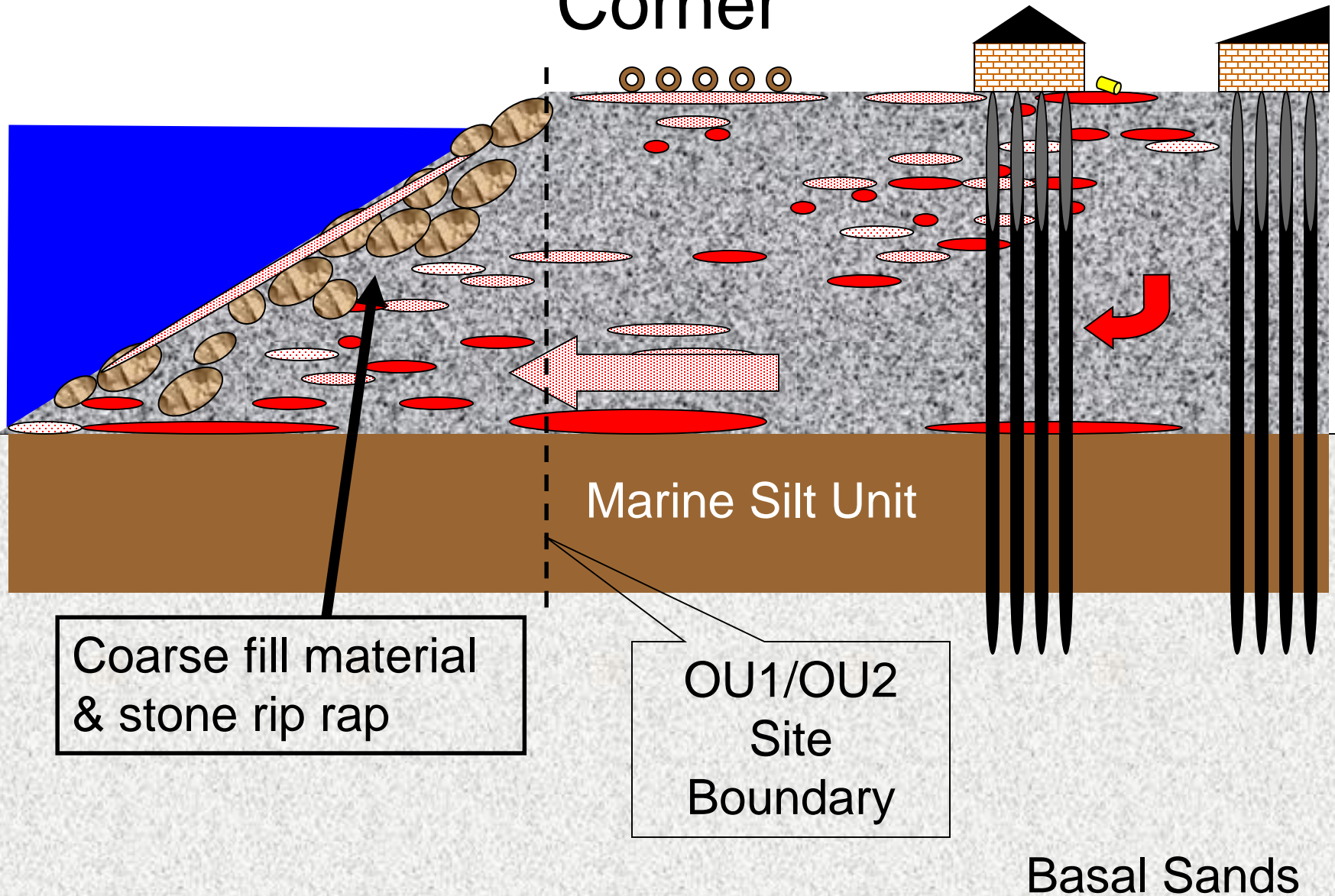
Semi-solid PCB



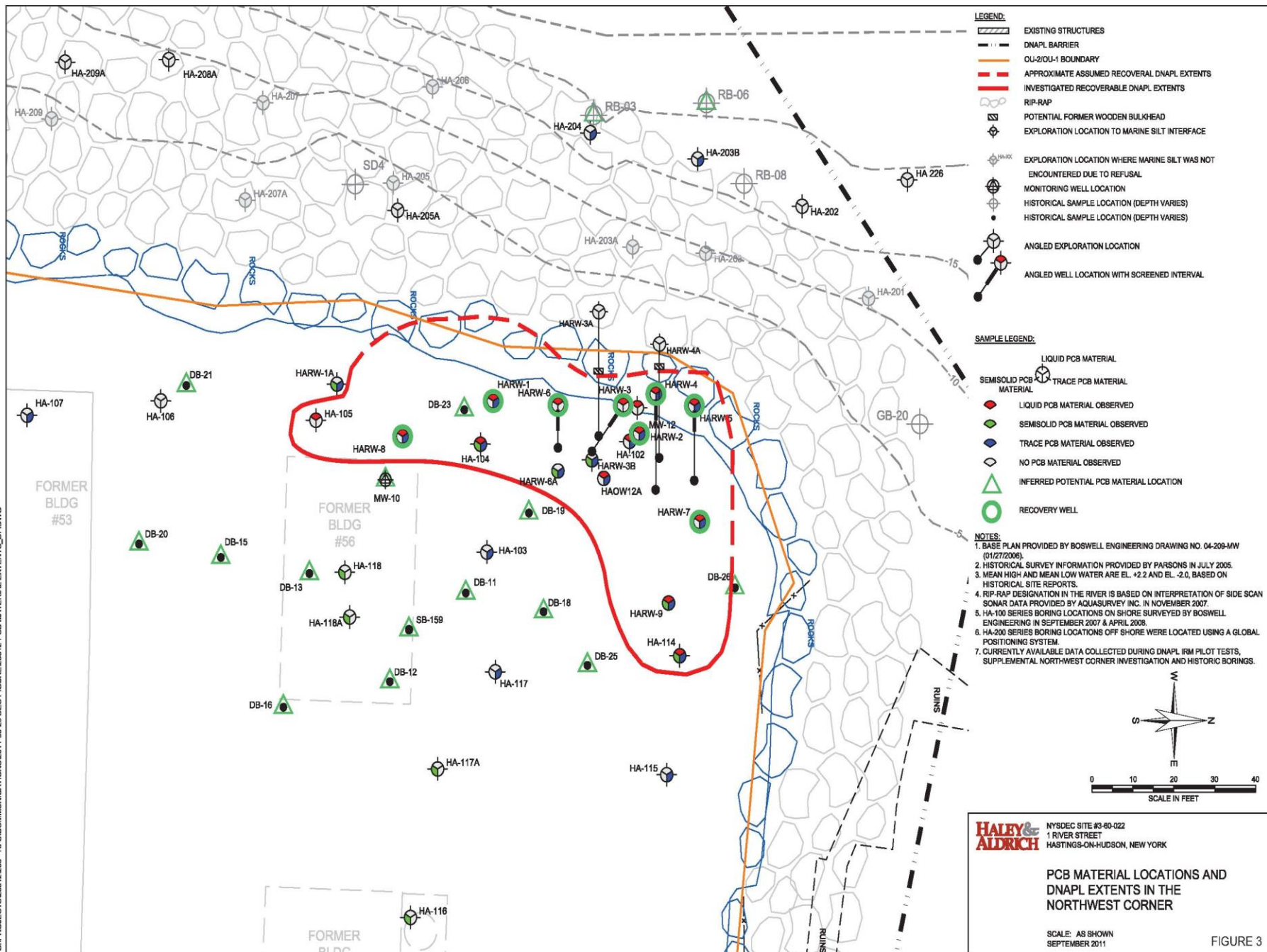


**Trace PCB**

# Conceptual Migration Model – Northwest Corner







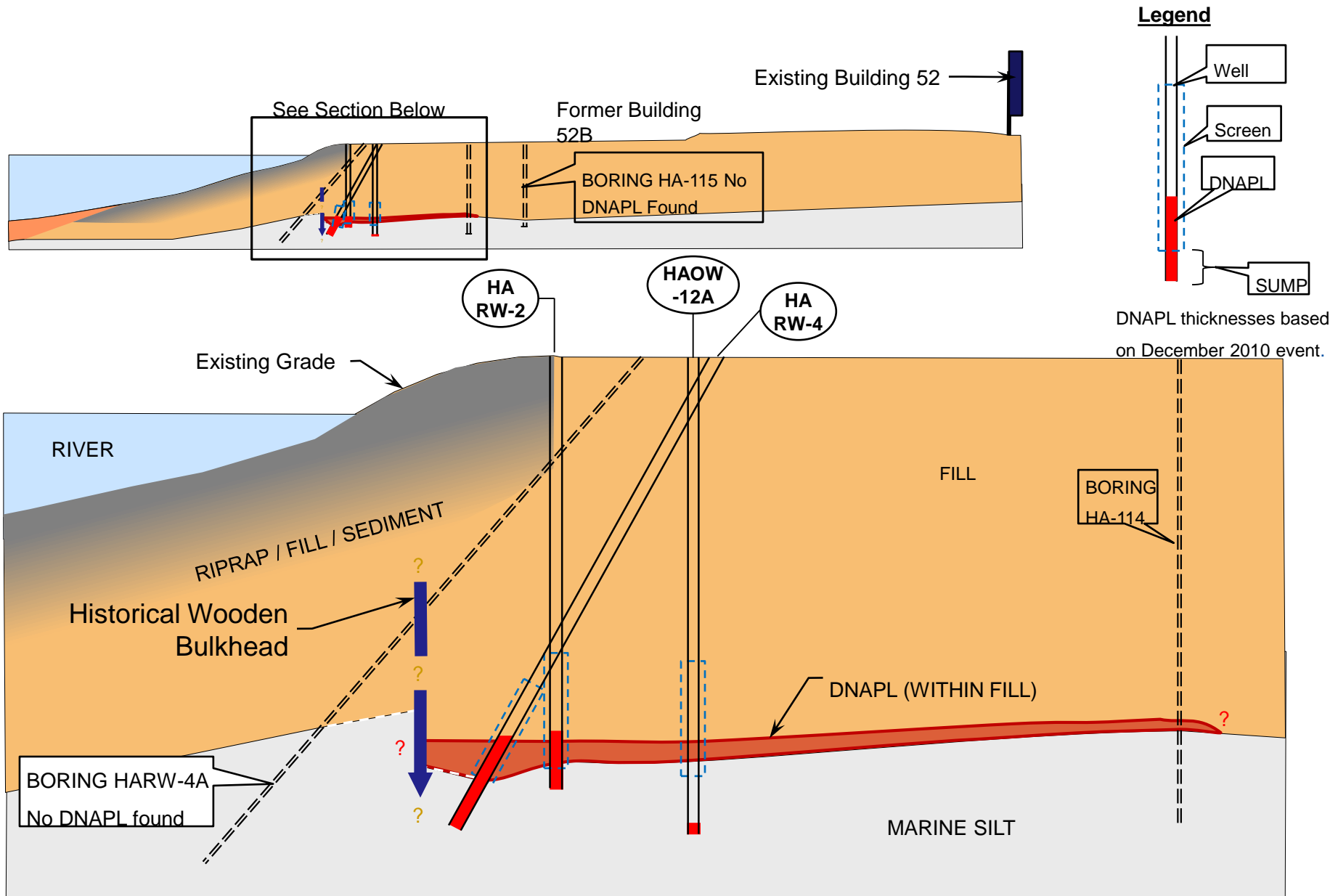


# PCB Liquid Recovery Wells

- PCB Liquid being recovered from 5 wells, vertical and angled wells
- Over 1800 gallons recovered to date
- Bulkhead alignment will be designed to contain liquid PCB



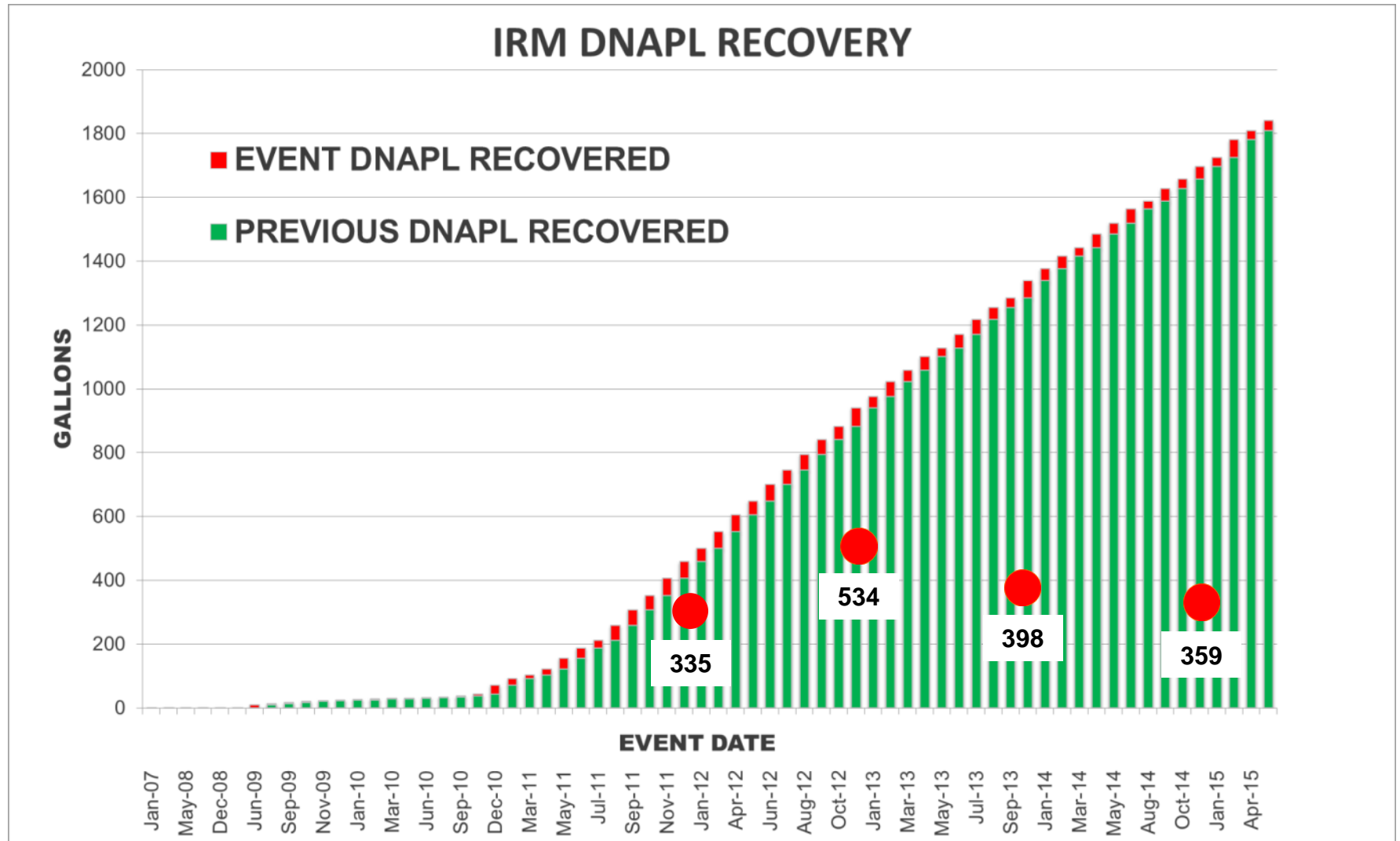
# Northwest Corner and DNAPL







# IRM DNAPL Recovery



## Remedial Elements

- Remedial Design
- Construction of a sheet pile wall offshore to allow recovery of PCB DNAPL
- Mitigation for fill placed into Hudson River
- Further delineation and recovery of PCB DNAPL
- Removal of sediments which contain greater than 1 ppm PCB and metals exceeding background in nearshore areas (60 to 80 feet) to a depth of 6 feet
- Alternative designs for resuspension controls will be evaluated in design

- Dredge targeted deepwater areas at a higher threshold of 50 ppm PCB to a depth of 6 feet
- On-site dewatering of dredged sediment for off-site transportation and disposal
- Soil excavation at the Northwest Corner and Northern Shoreline containing greater than 1 ppm PCB in the top 12 inches and greater than 10 ppm PCB to a depth of 9 feet.
- Excavation of PCB contaminated soil to a depth of 12 feet in other areas
- Excavate “lead hot spots”
- Backfilling/capping of dredge and excavated areas
- Environmental Easement
- Site Management Plan

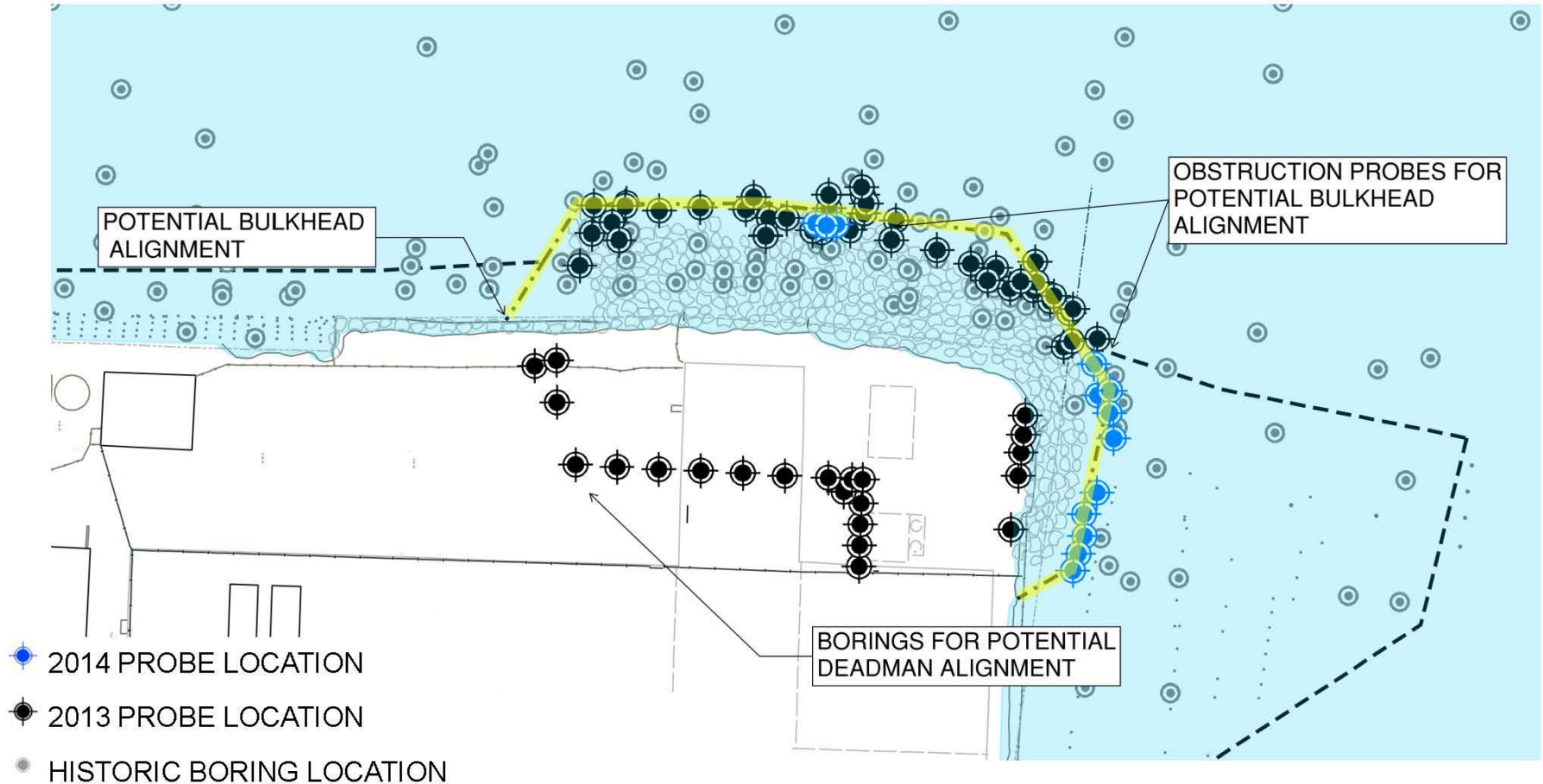




# General Overview of Future Shoreline

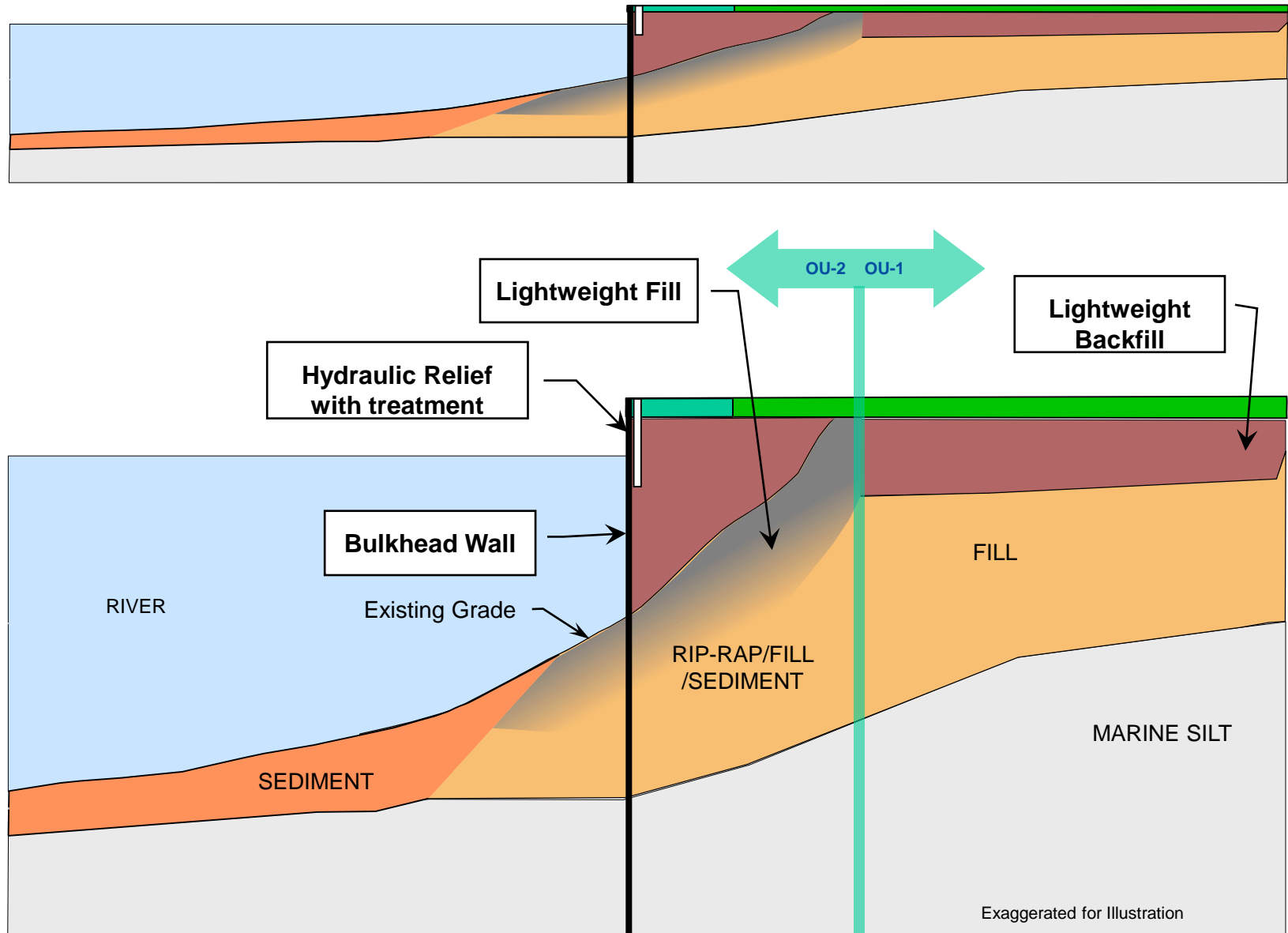


# Bulkhead Alignment



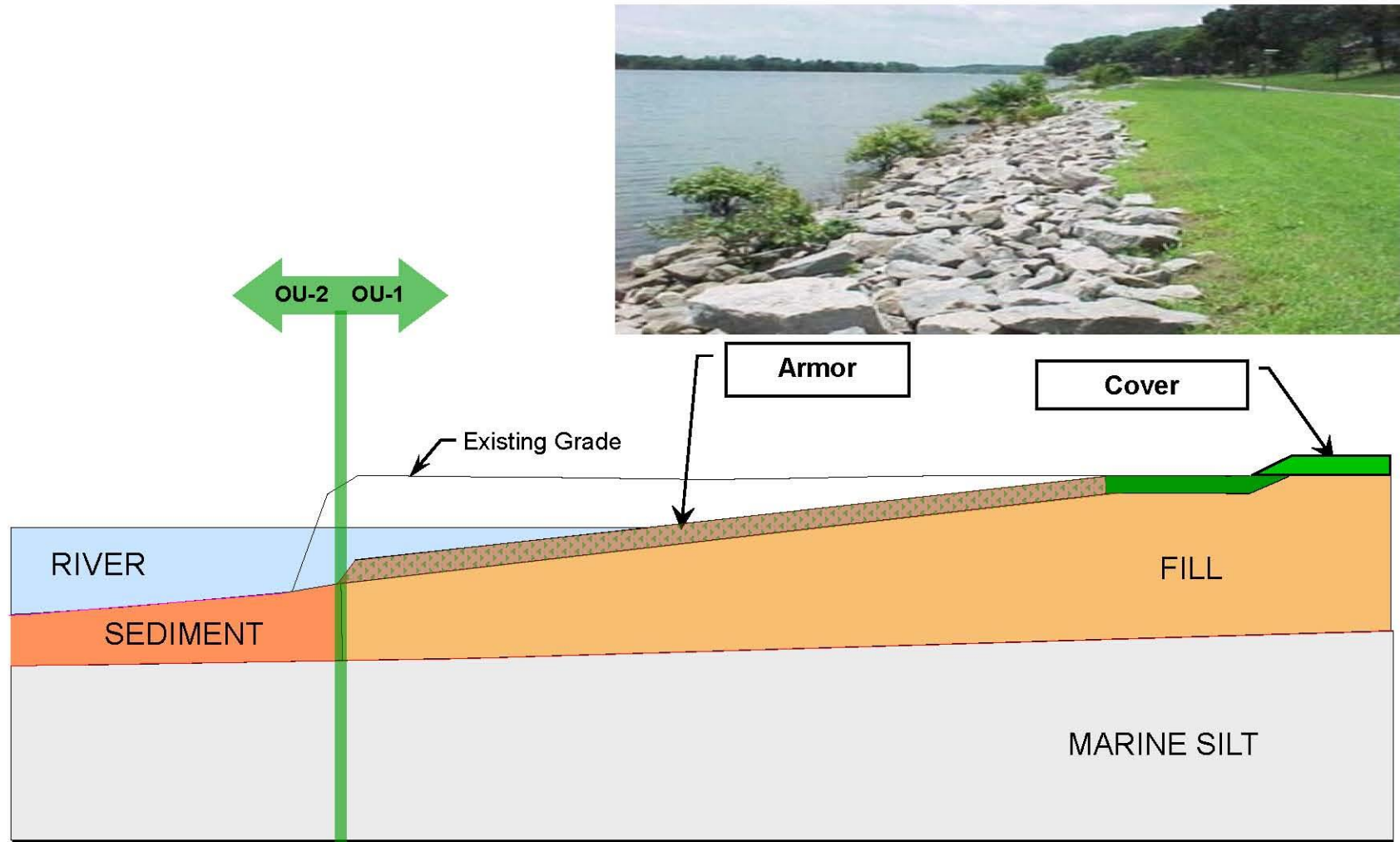
- 22 Onshore obstruction probes
- 60 Offshore obstruction probes

# Northwest Extension - Section





# South Sloped Shore - Section

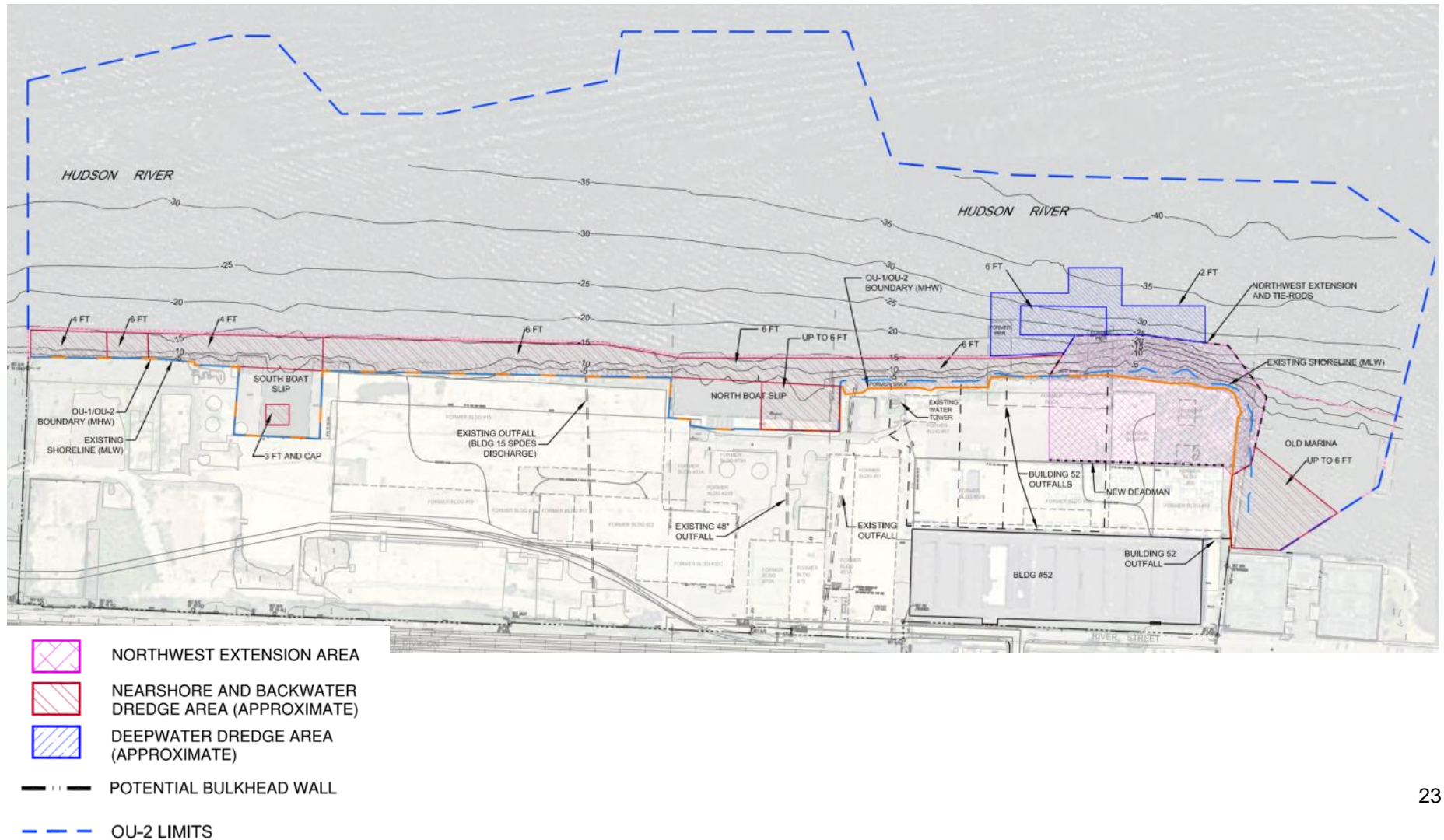


# Pre-Design Activities Summary

Activity	2013 Field Work	2014 Field Work
Monitoring Wells	7	1
Geotechnical Borings/Test Pits	2 Onshore	9 Offshore 5 Test Pits
Offshore Vessels	4	6
Bulkhead Alignment Probes	22 Onshore 40 Offshore	- 20 Offshore
Field Team Personnel	45-50	20-25
Void Survey Probes	133	-
Sediment Borings for Delineation	-	179
Fish Collected	177	250
Soil Borings for Delineation	221	280
PCB and/or Metals Samples Analyzed	416 Soil -	593 Soil 906 Sediment

# Sediment Delineation

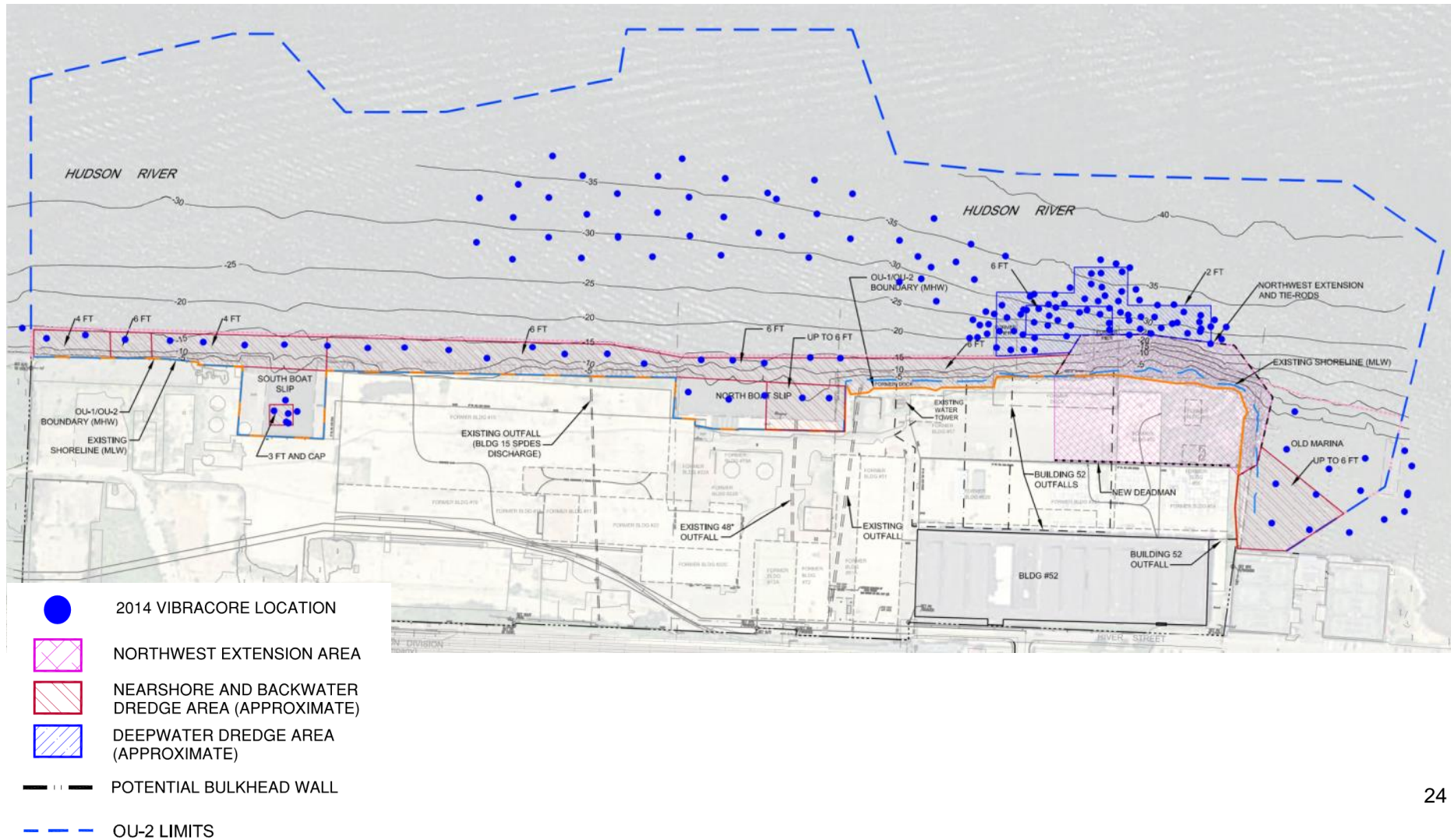
## 2012 Record of Decision





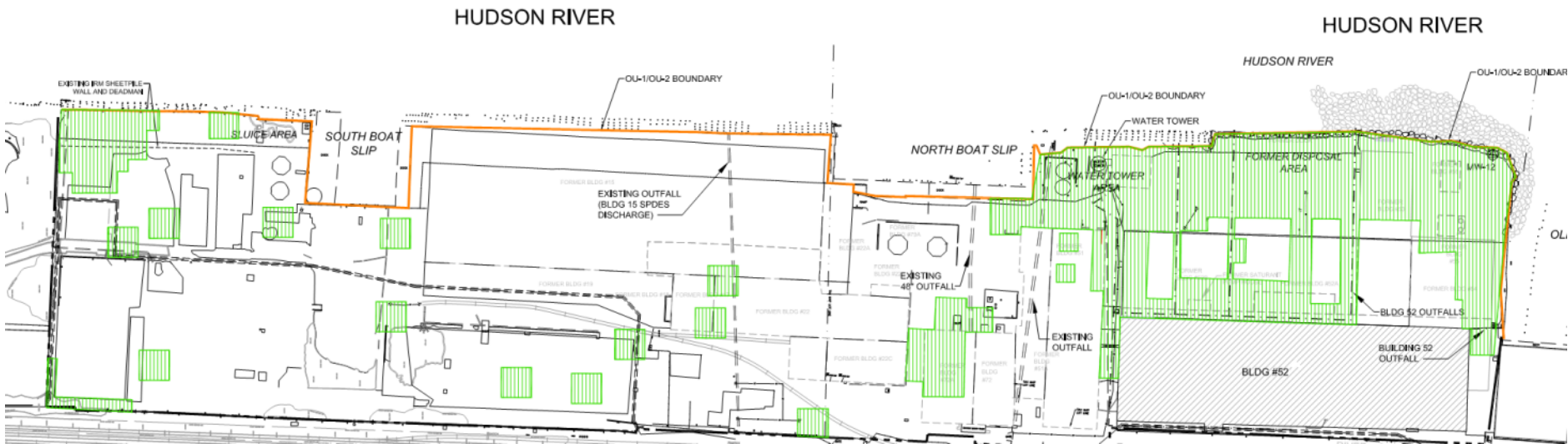
# Sediment Delineation

## 2014 PDI Sediment Boring Locations



# Soil Delineation

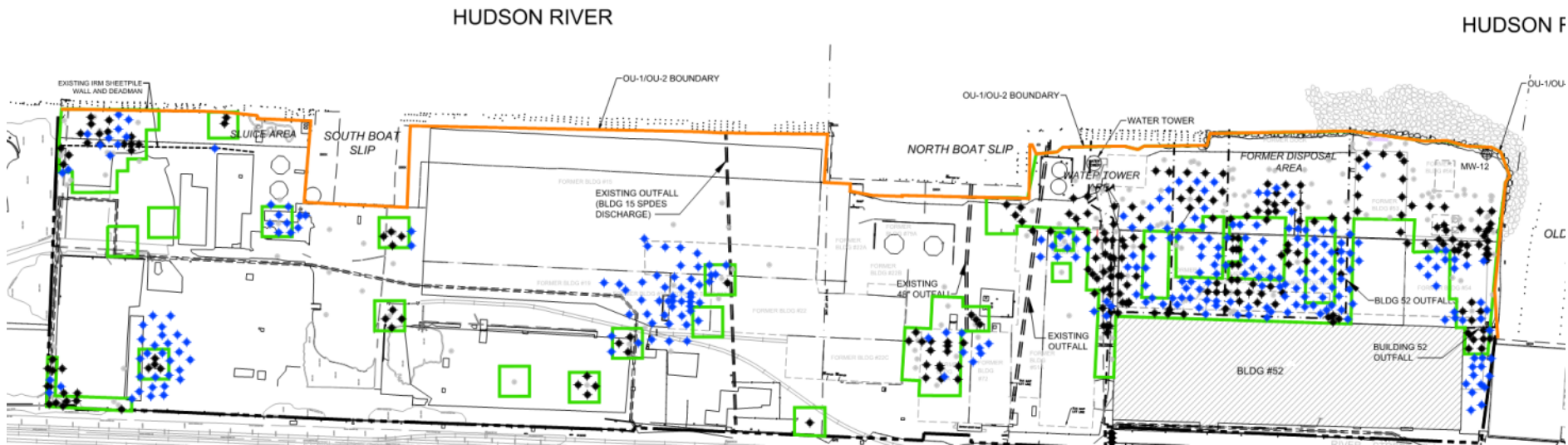
## 2011 Revised Feasibility Study



APPROXIMATE OU-1 EXCAVATION  
AREA (DEPTH VARIES)

# Soil Delineation

## 2013-2014 PDI Soil Boring Locations



2014 SAMPLE LOCATION



2013 SAMPLE LOCATION



HISTORIC LOCATION



APPROXIMATE OU-1 EXCAVATION  
AREA (DEPTH VARIES) 2011



# Permits and Substantive Requirements

- Local Permits
- Federal Permits (Army Corps of Engineers)
- Toxic Substance Control Act (TSCA) EPA
- State permits generally are not required, but design will need to comply with substantive technical requirements

# Mitigation Process

Mitigation Plan will be part of the Remedial Design and it will identify a project(s) to compensate for habitat lost resulting from the construction of the northwest corner extension.

# Mitigation Process

The Mitigation Plan will include:

- Objectives
- Site Selection Criteria
- Site Protection Instruments (e.g., conservation easements)
- Baseline Information (for impact and compensation sites)
- Credit Determination Methodology
- Mitigation Work Plan
- Maintenance Plan
- Ecological Performance Standards
- Monitoring Requirements
- Long-term Management Plan
- Adaptive Management Plan





## Next Steps

- Submit Pre-Design Investigation Report  
August 2015
- Submit the 50 Percent Design Report April 2016
- Integrated 100 Percent Remedial Design for OU1  
and OU2 December 2016

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Conservation

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Conservation



# Questions and Answers









# Equipment Decontamination



2006 2 15



# Dust and Vapor Controls







JOHN DEERE

JOHN DEERE

**DANGER**  
CONSTRUCTION SITE  
NO TRESPASSING







