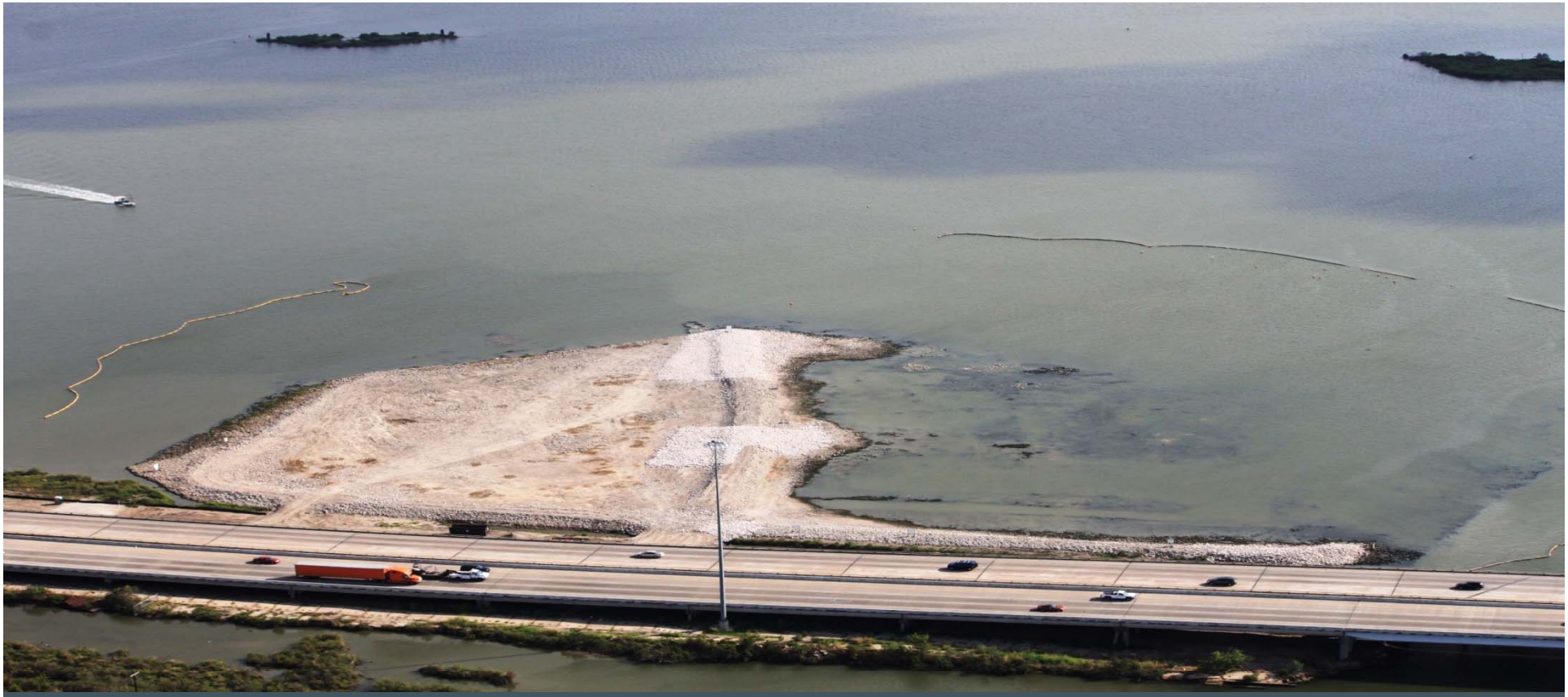

San Jacinto River Waste Pits Superfund Site Overview

September 22, 2011

DRAFT – Do Not Quote or Cite

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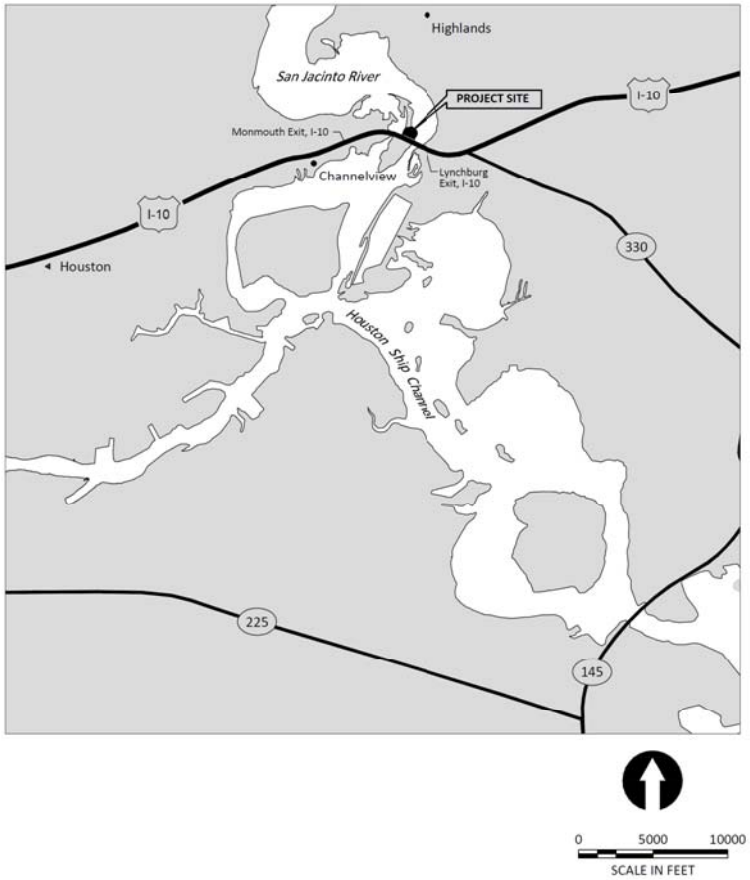
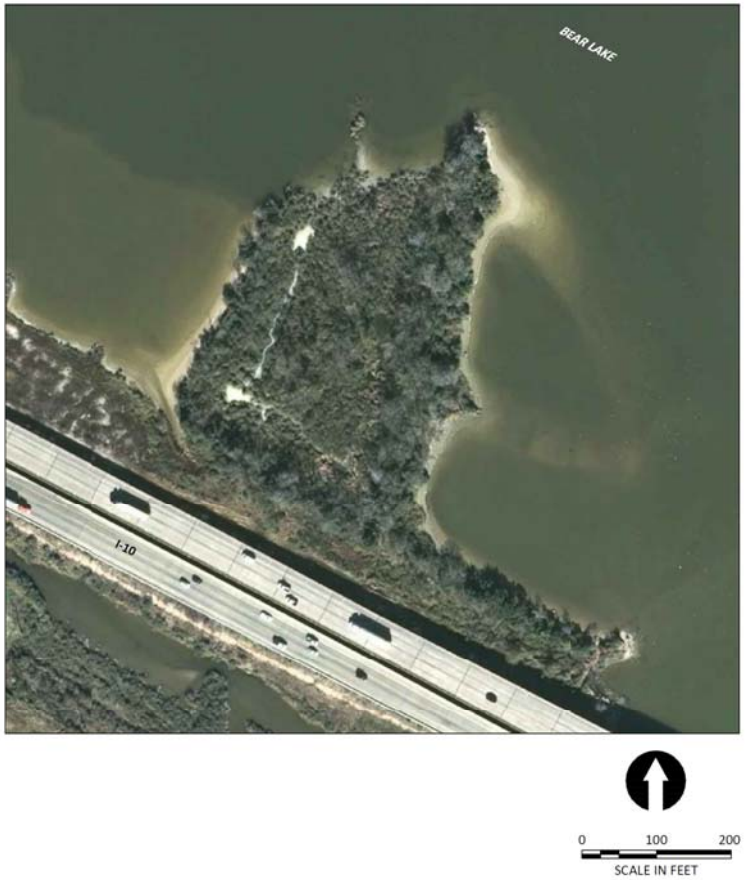
90023650

Location





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Site History

- Impoundments, built in the mid-1960s for disposal of paper mill wastes
- Total area within berms is approximately 15.7 acres

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Site History (continued)

- After construction, impoundments to the were affected by subsidence and dredging activities

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January, 2002

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Pre-Superfund Milestones

1960 | 1970 | 1980 | 1990 | 2000

1965-1966
Waste Impoundment Construction and Operation

Mid-Late 1990's
Dredging Impacts to Northern Impoundments

March 19, 2008
Site Added to National Priorities List

Fill placed in and over South Impoundment → Dates uncertain

Subsidence over entire area →

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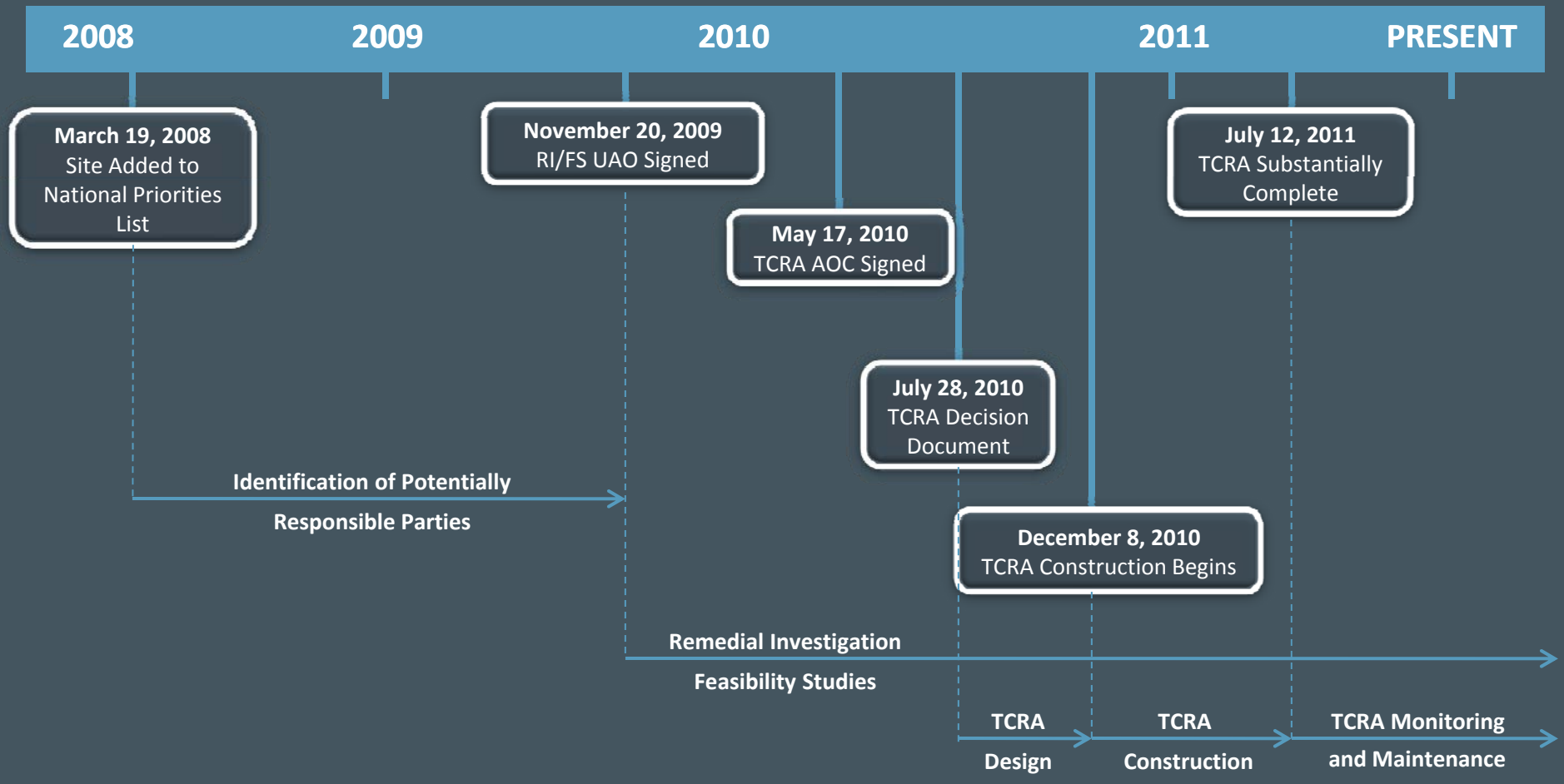
Superfund Timeline and Activities



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Site Stabilization (TCRA) Design Objectives

- Stabilize source materials within the original 1966 berm footprint with concentrations at or above 4.5 ng/kg TCDD
- Be capable of withstanding forces generated by the river in a 100 year storm event
- Prevent direct human and aquatic life contact with the waste materials.
- Be consistent with potential long-term remediation strategies that could be developed for the Site

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Site Stabilization Construction Elements

- Site Fencing
- Signs
- Clearing and Site Preparation
  - TxDOT right-of-way improvements
  - Clearing impoundments
  - Off-site stockpile and loading area preparation
- Waterside placement of geotextile and protective capping materials
- Landside placement of geotextile, geomembrane and protective capping materials

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Site Fencing and Access

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Site Fencing

Completed Fence Installation South of I-10

Southwest Corner of Big Star Property Fence Installation

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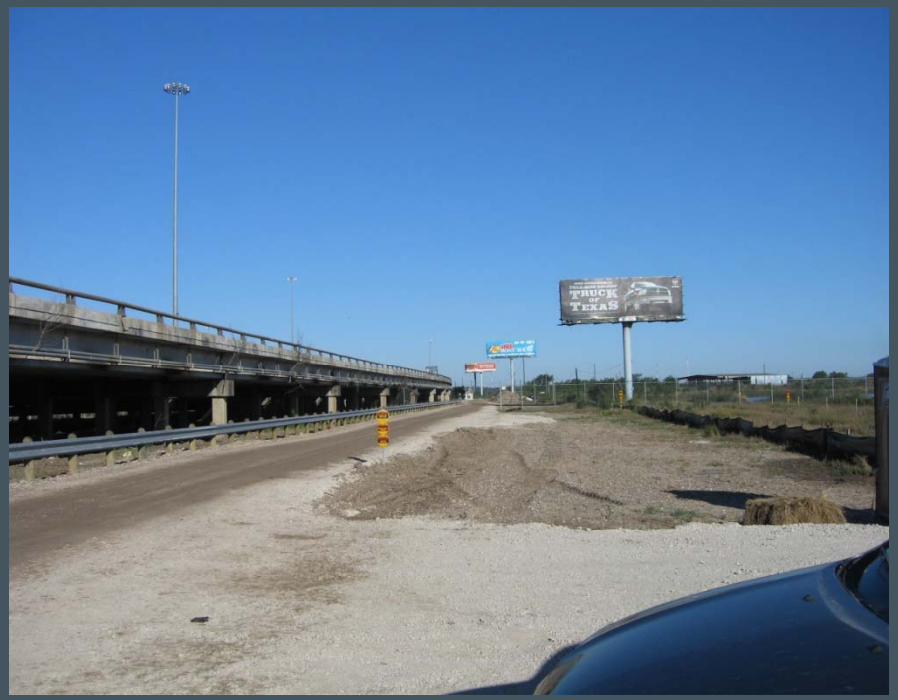
Access Road

Before

After



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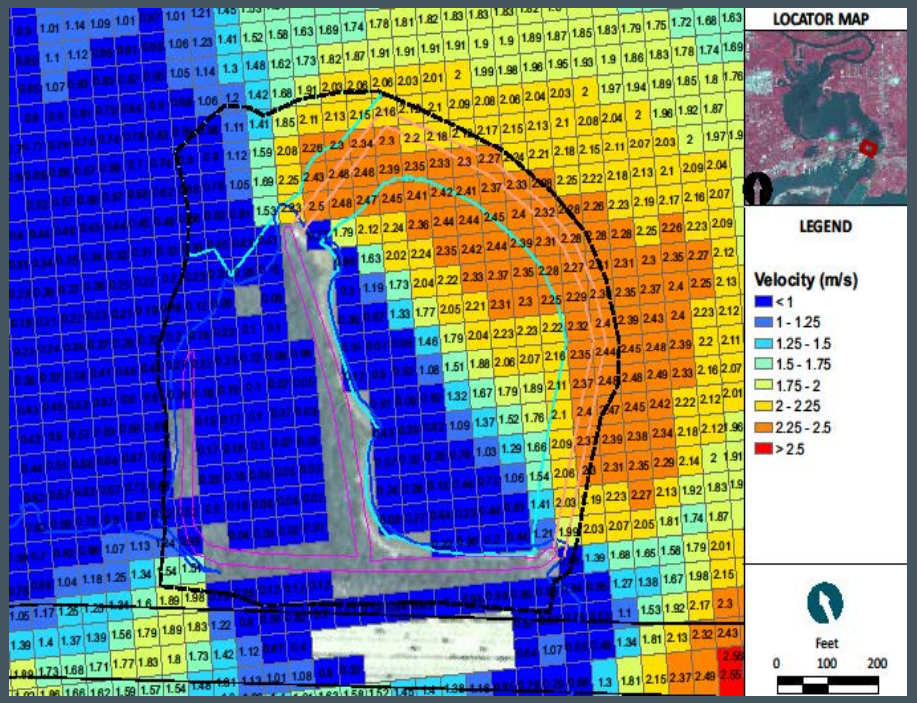
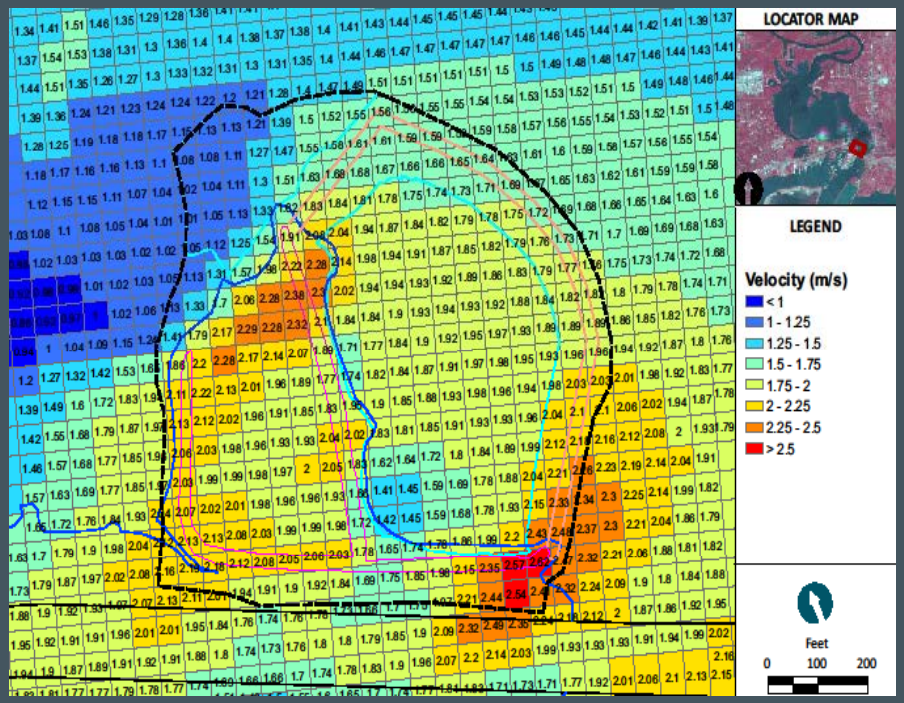
Armored Cap Sizing

Predicted 10 year flow velocities



Predicted 100 year flow velocities



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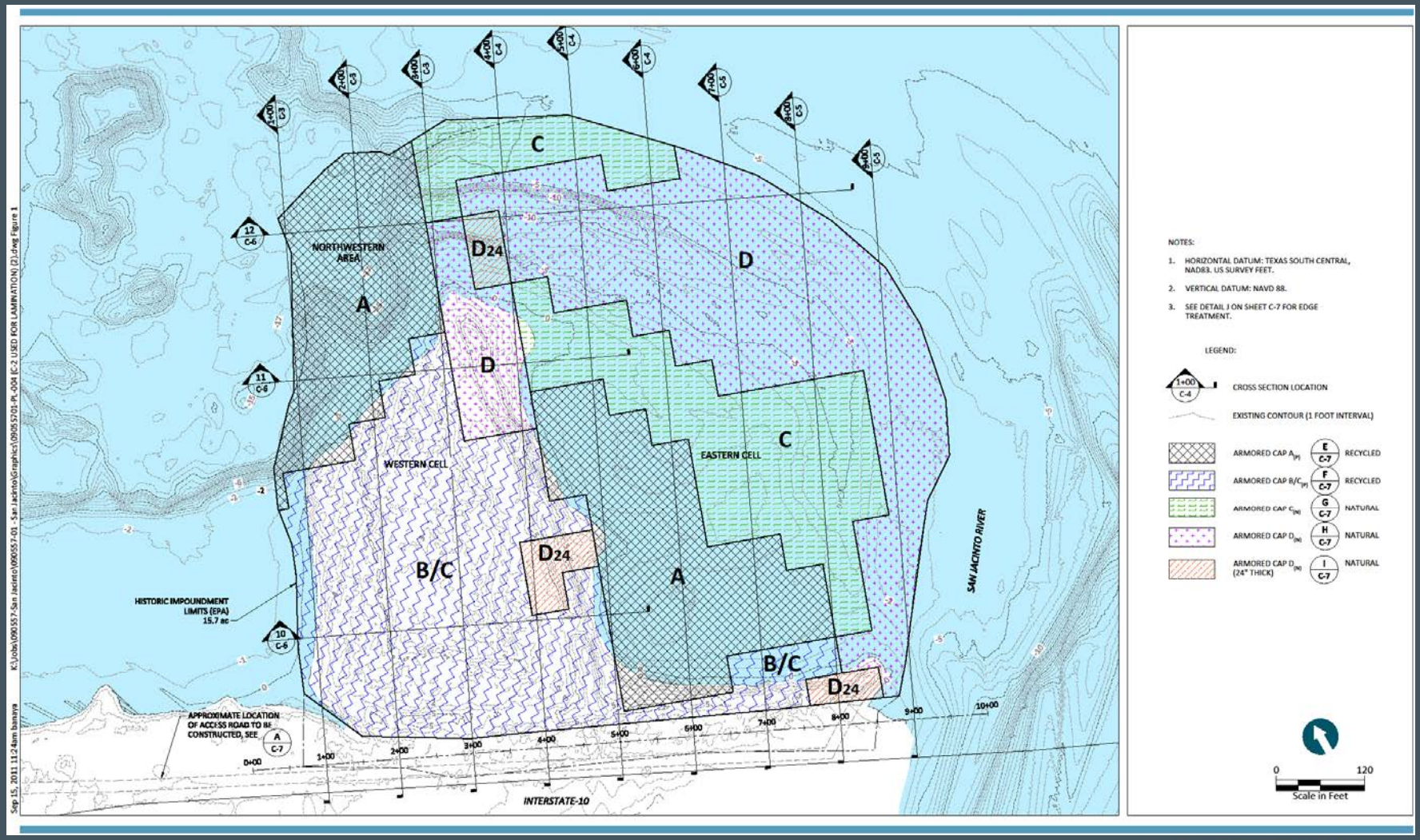
Construction Plans - Armor Cap Areas



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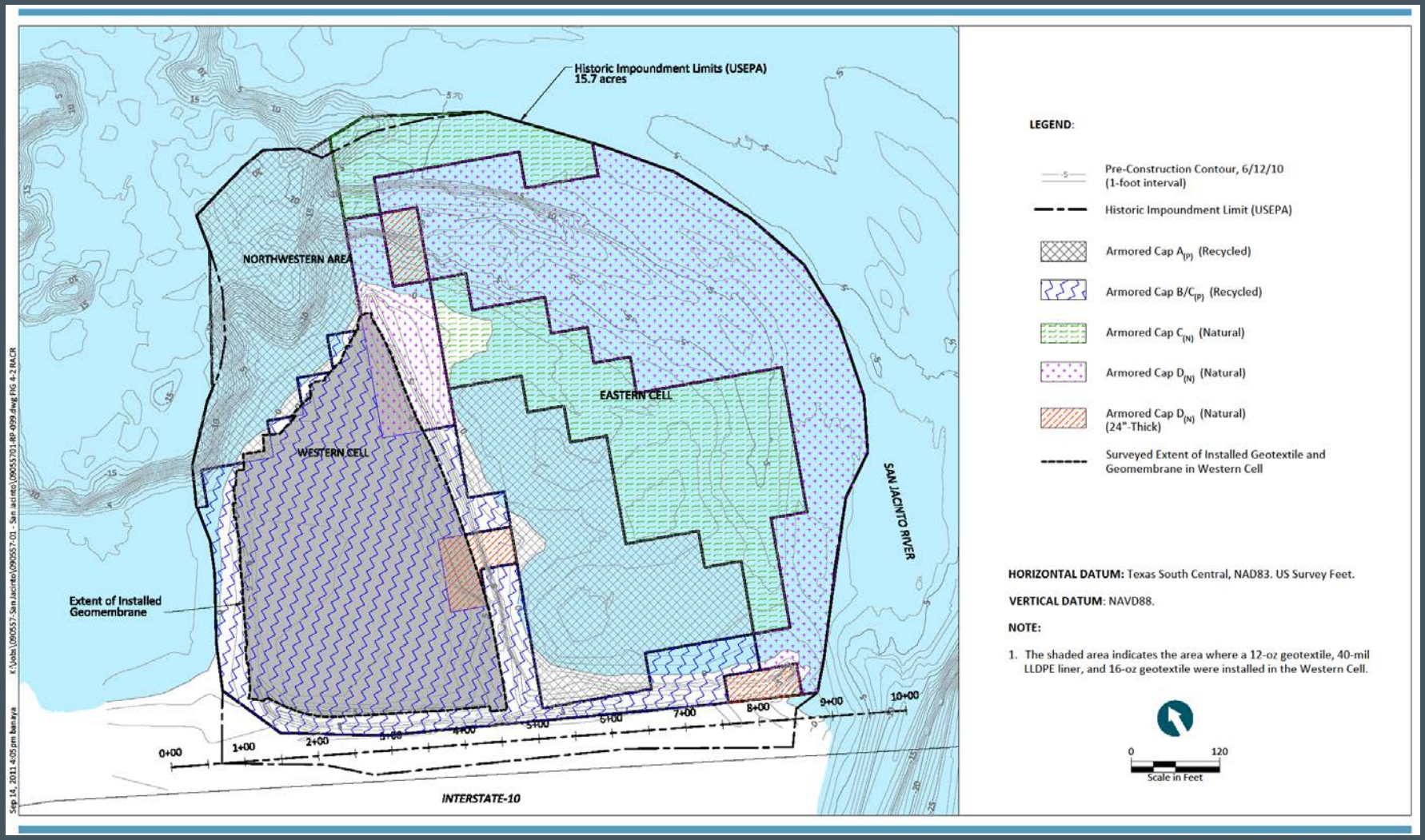
Geomembrane Placement



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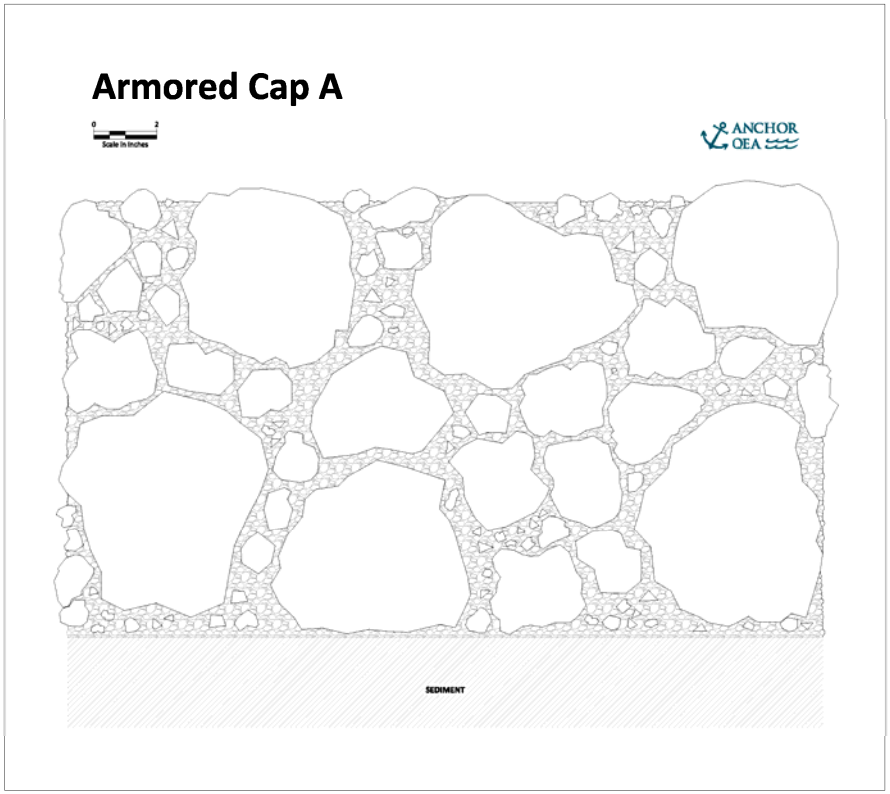
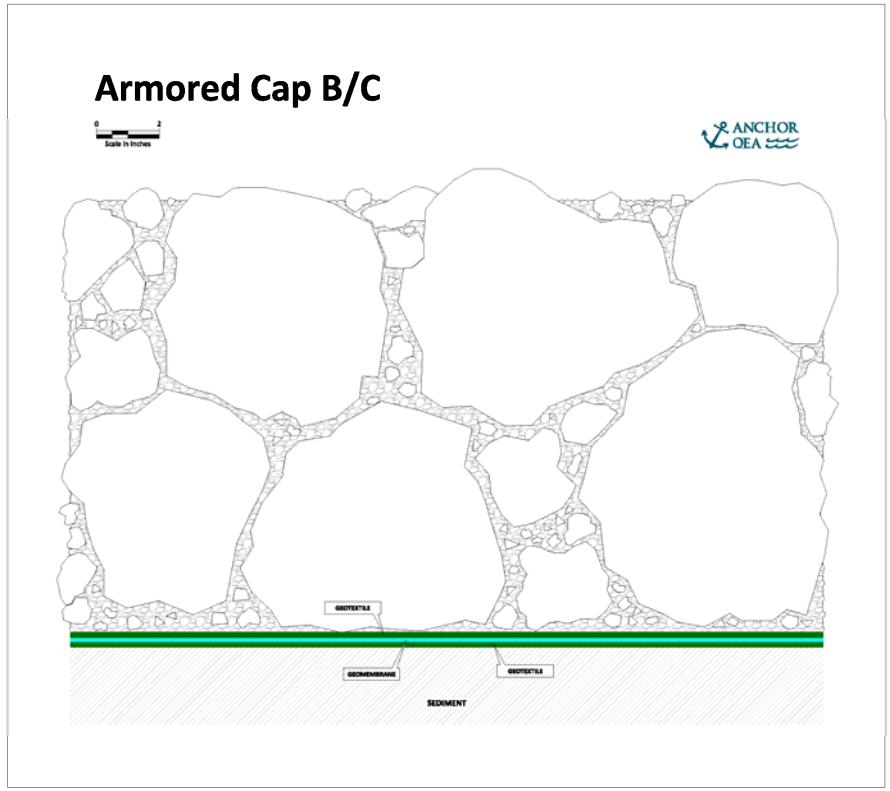
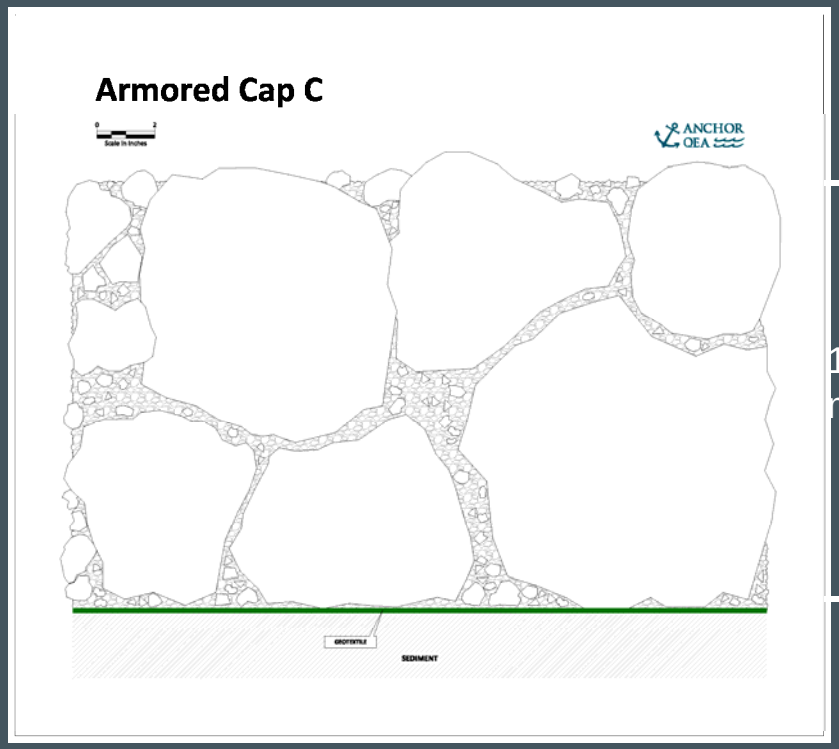
Armor Cap Types A and B/C



12 inch min.

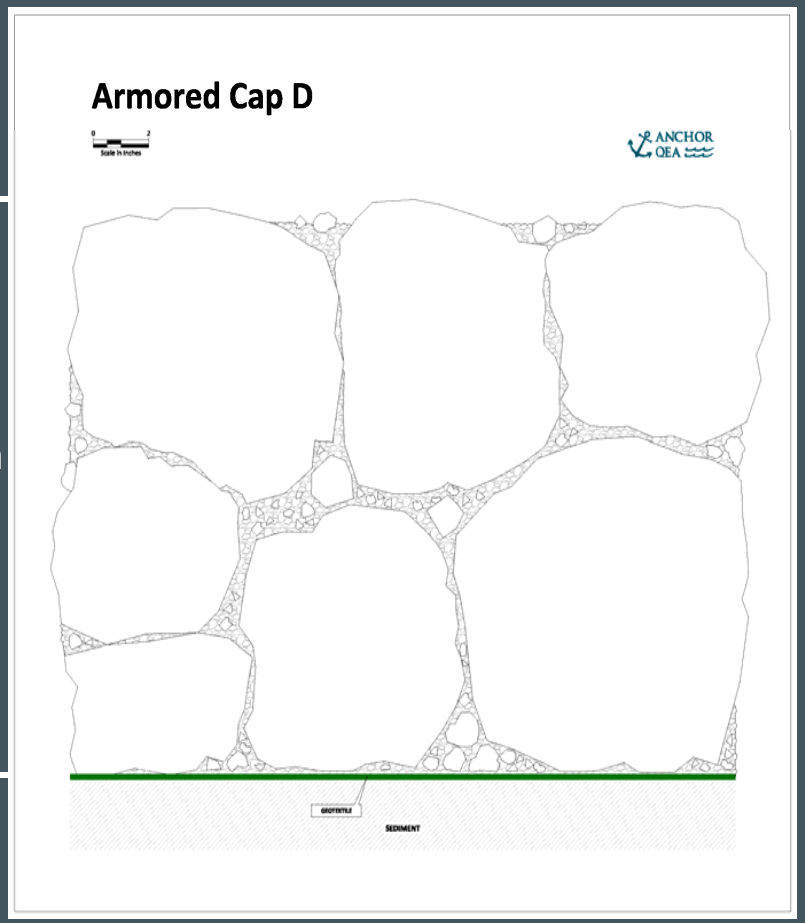


Armor Cap Types C and D



12 inch min.

18 inch min.



Armor Cap Type D-24

24 inch min.

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Waterside Armor Cap Placement

Placement of Armor Cap D Material on Eastern Cell

Placement of Armor Cap D and Geotextile Material on Eastern Cell

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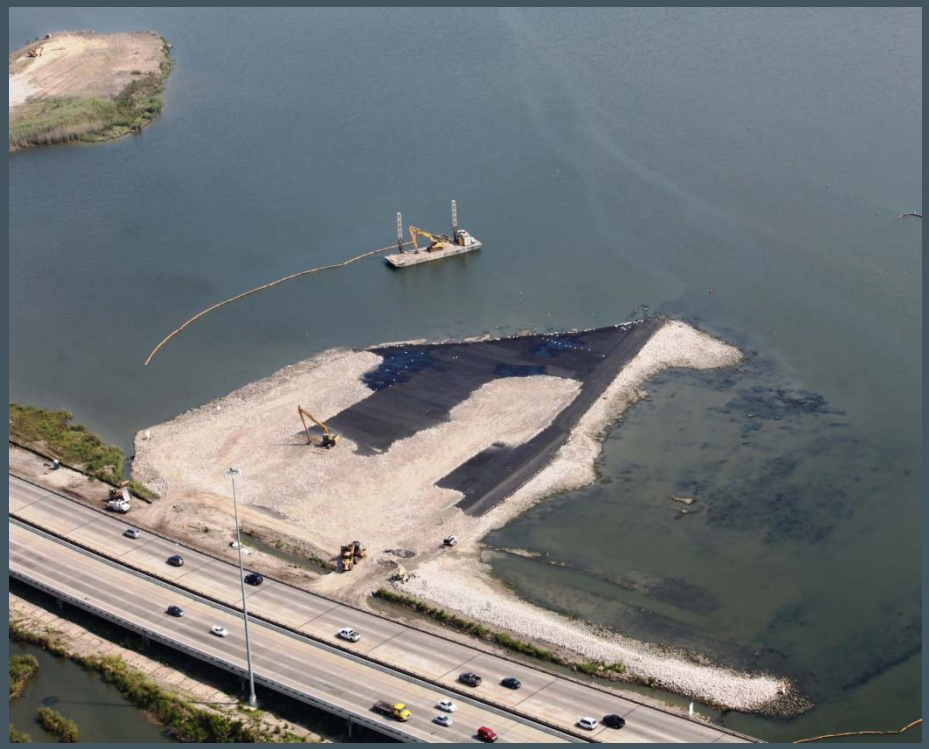
Western Cell Construction

Waste Solidification

Geotextile, Geomembrane and Rock Placement



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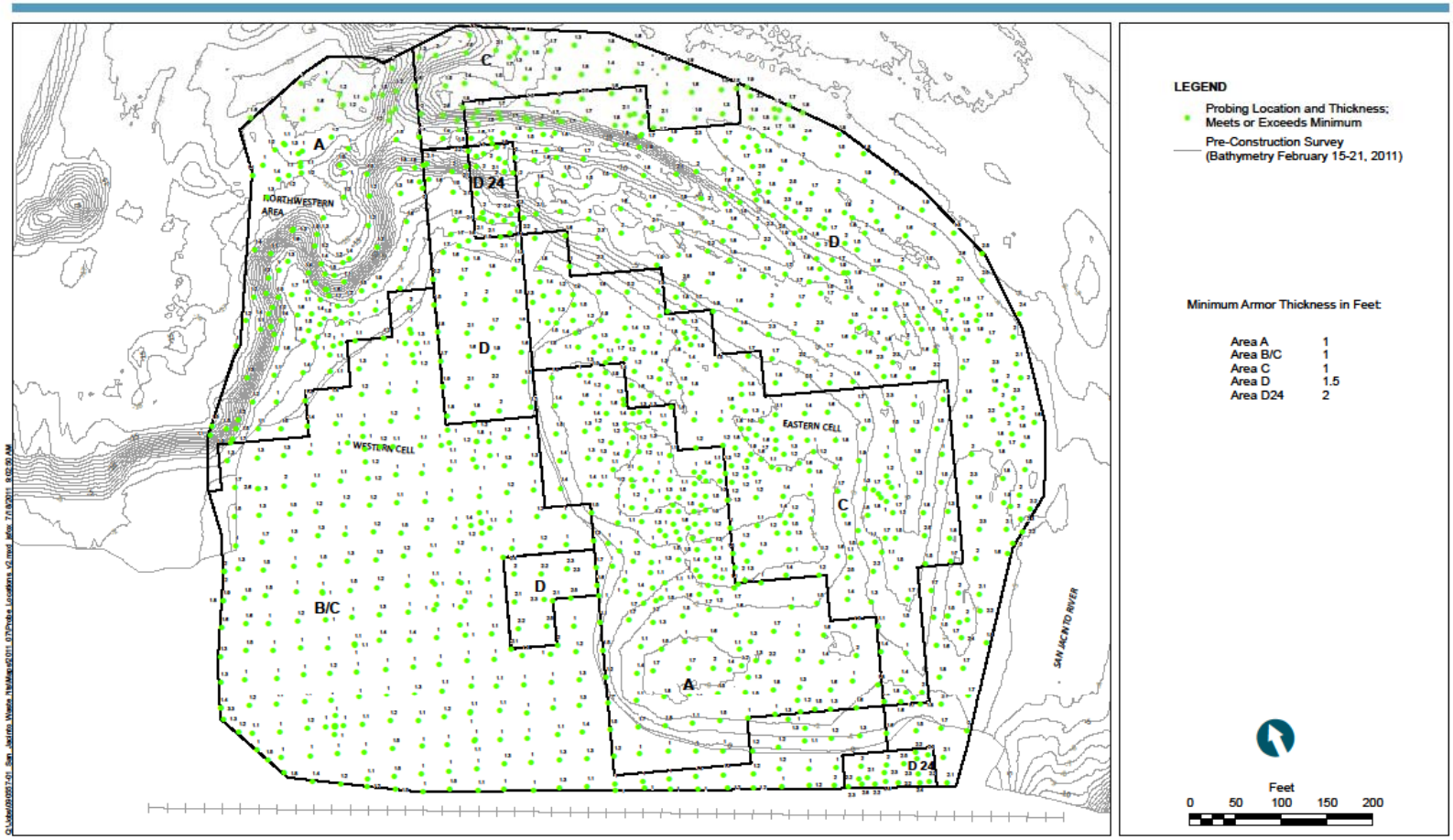
Construction Verification



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Completed Cap (July 14, 2011)

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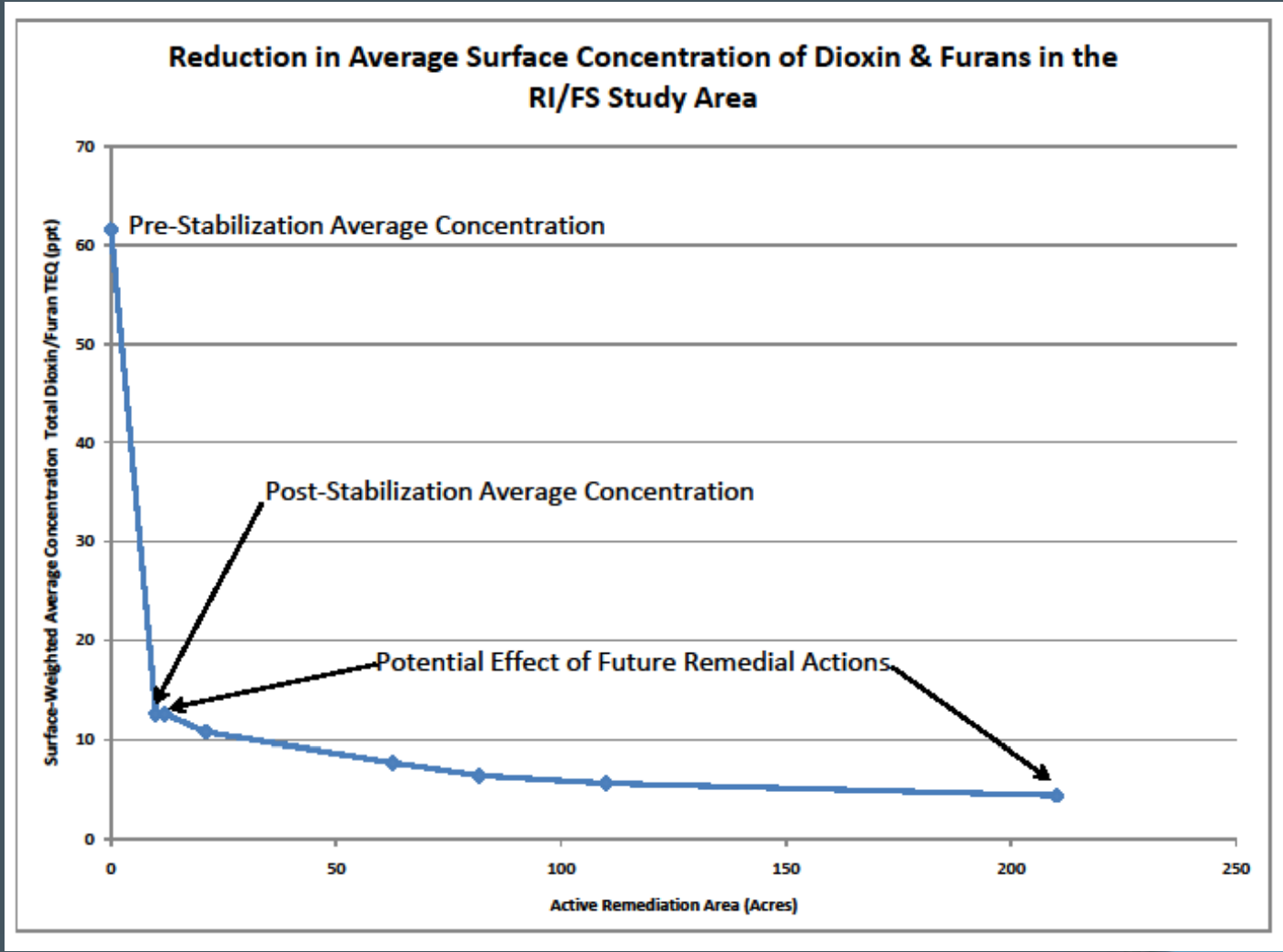
Armored Cap Benefits



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Monitoring and Maintenance

- 5,700 linear feet of perimeter fence
- 15 warning signs
- 59,000 tons of armored cap rock
  - 15.7 acre area
  - Approximately 3.2 acres in Western Cell

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Monitoring Schedule

- Quarterly, Semi-Annually, Annually
- Following major flow events

Interval	Schedule
Baseline Bathymetric and Topographic Survey	August 2011
Quarterly	January 2012
	April 2012
	July 2012
	October 2012
	January 2013
	April 2013
	July 2013
	December 2013

Interval	Schedule
Semi-Annually	April 2014
	October 2014
	April 2015
	October 2015
	April 2016
	October 2016
Annually	Each July beginning in 2017
25-Year Flow Event	Following first such event
100-Year Flow Event	Following each such event

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