



NEW BEDFORD FAIRHAVEN HARBOR



Three parts to tonight's presentation:

1. Navigational dredging update
2. Superfund cleanup: background & this year's work
3. Update on EPA's analyses of potential alternatives



hurricane barrier

Rt 195

Aerovox facility

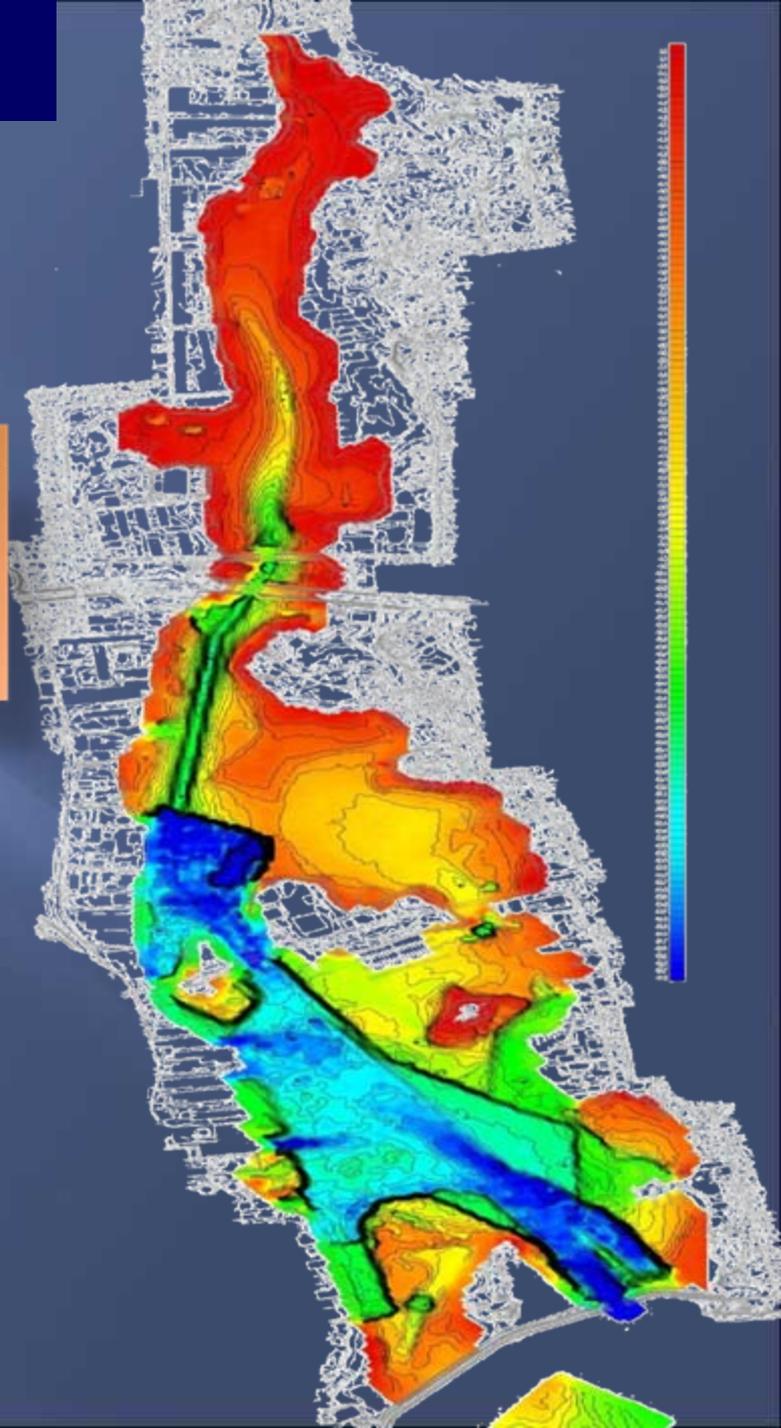
New Bedford/Fairhaven Harbor Navigational Dredging



What is Navigational Dredging?

Why is it important?

Environmental Remedy



Supports Maritime Industries

Over 4,400
Jobs



Commercial Fishing

- Number 1 Value Fish Port; \$1 Billion Industry; 500 vessels
- 65.5 Million pounds of fish valued over \$280 million; 500 Vessels
- 35 Seafood Processing Plants and 25 Whole Sale Companies



Cruise

- Brings ~1,500 People through the Port; 16 Ports of Call in 2009
- 5 Year contract with American Cruise Lines



Ferry

- New England Fast Ferry and Cuttyhunk Ferry bring 120,000 people through the port annually
- Both operations are now moving freight



Freight

- Maritime Terminal: 6 freighters of Moroccan citrus in 2008
- State Pier: Break bulk to Portugal, Africa, Haiti, & Cape Verde
- Sprague Terminal: Home Heating Fuel



Recreation / Excursion

- 8 Marina's in the New Bedford / Fairhaven Harbor; Moorings
- 2007: 1 Sailing Tour; 2008: 3 Sailing Tours; Booking now for 2009
- 3 Charter Fishing Operations

Barge Operations

- 4 Operate out of the Port carrying aggregate to the Islands as well as steel and other project cargo

Shipyards

- Fairhaven Shipyard and Steamship Authority (Fairhaven)
- Major employers and support Commercial Fishing Industry

Supporting Services

- Over 75 supporting businesses
- Ice; Fuel; Vessel Painting; Welding; Electric; Legal; Insurance; Settlement Houses; Salvage

Opportunity for Future Growth

#1 Value Fishing Port in Nation

Industry Growth

(Cruise, Ferry, Shipping, Recreational Boating, Ship Repair)

Trade Expected to Double

Larger Vessels Can Use the Harbor

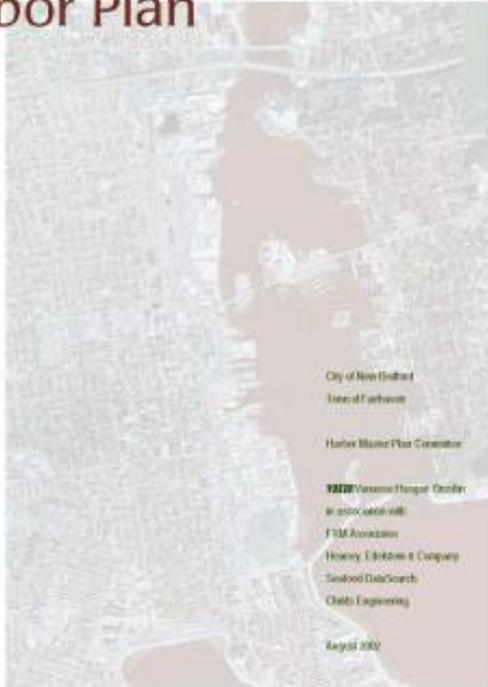
Modern Piloting Rules Dictate Deepening



How Decisions are Made



New Bedford/Fairhaven Harbor Plan

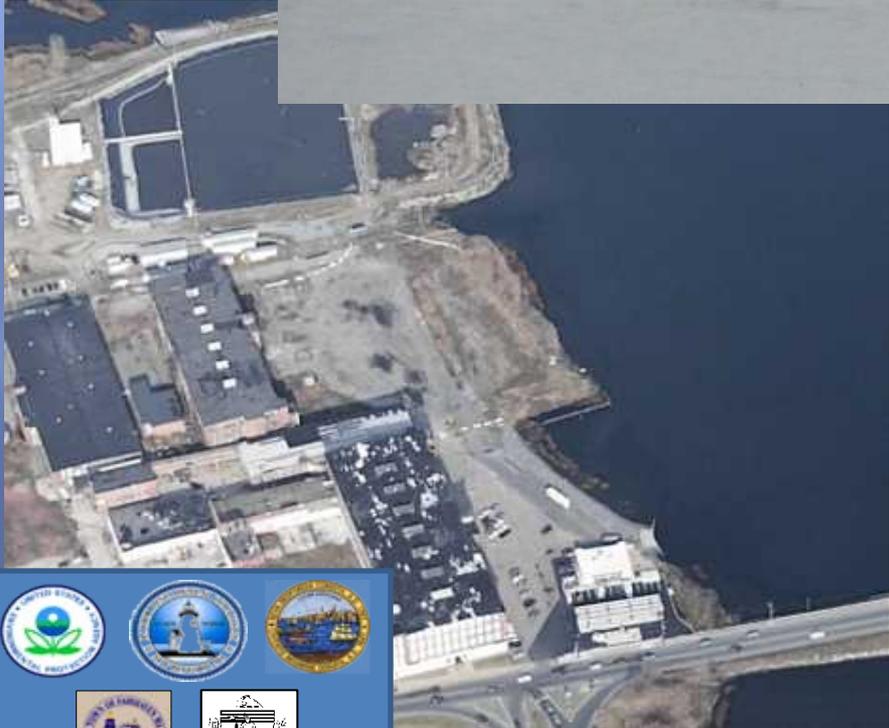


- **Harbor Plan**
- **Dredge Materials Management Plan**
- **Committee of City and Town Officials, and State and Federal Regulators Meets Monthly**



Phase III Navigational Dredging Upper Harbor

Complete





Phase III Navigational Dredging: Lower/Inner Harbor



Underway: June 30 target completion date



FAIRHAVEN

CAD CELL

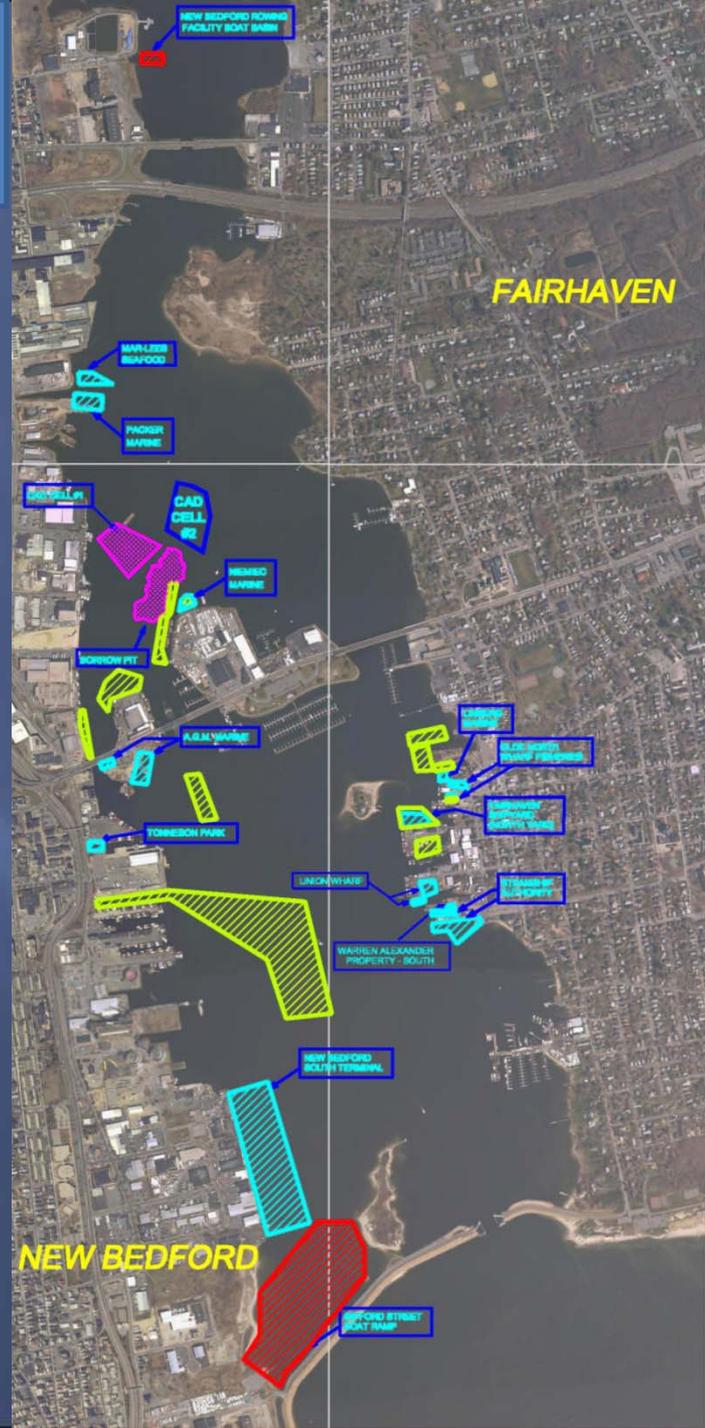
NEW BEDFORD

The Story to Date

Phase I, II, III

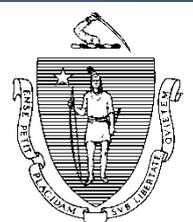
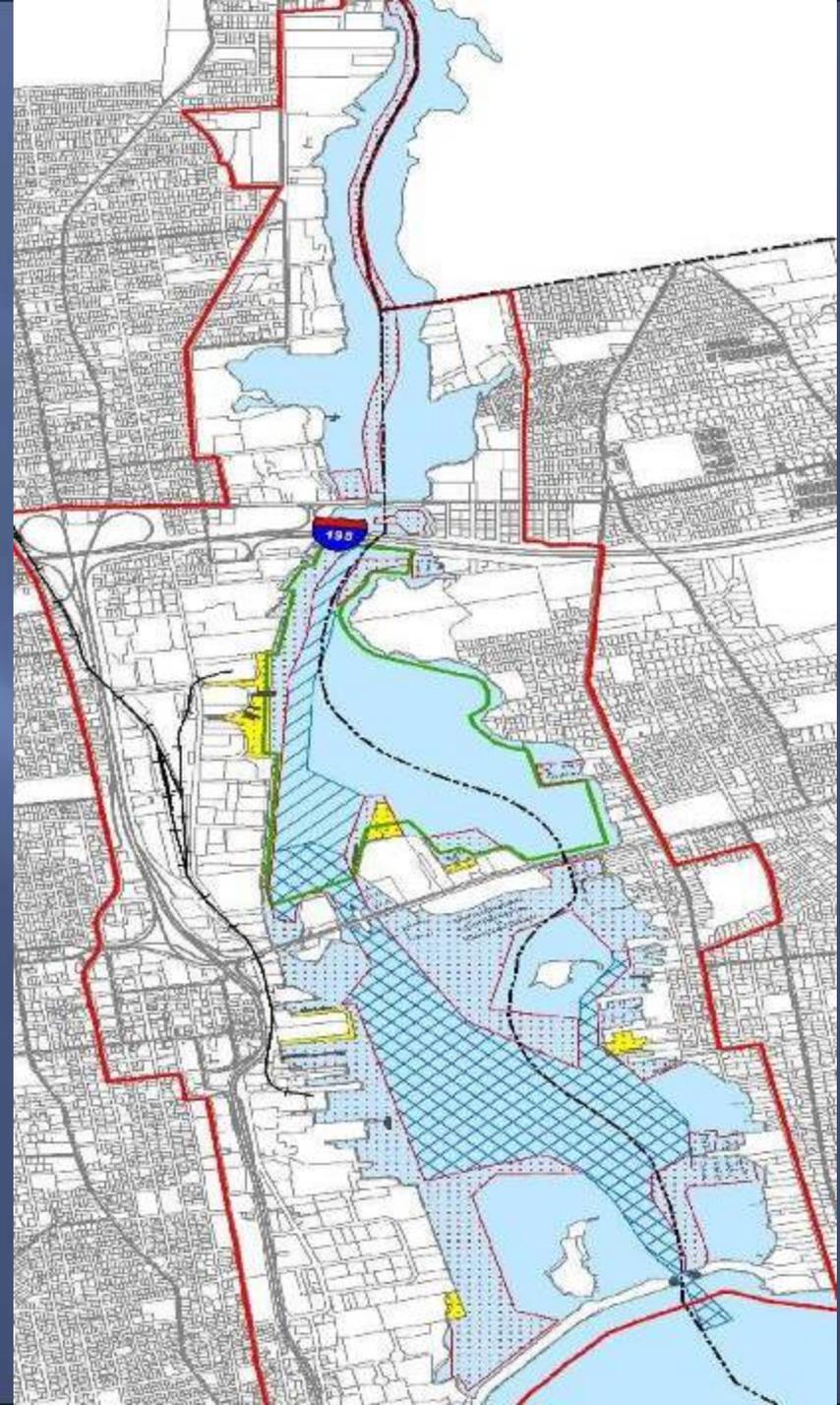


- Industry Progress and Clean-up
- Freighters in Port for the first time in 50 years
- Removed 200,000 cubic yards of contaminated sediment
- Phase III dredging is currently underway, removing another 50,000 cubic yards of contaminated sediment
- 130,000 cubic yards of the material dredged has been placed in CAD cells

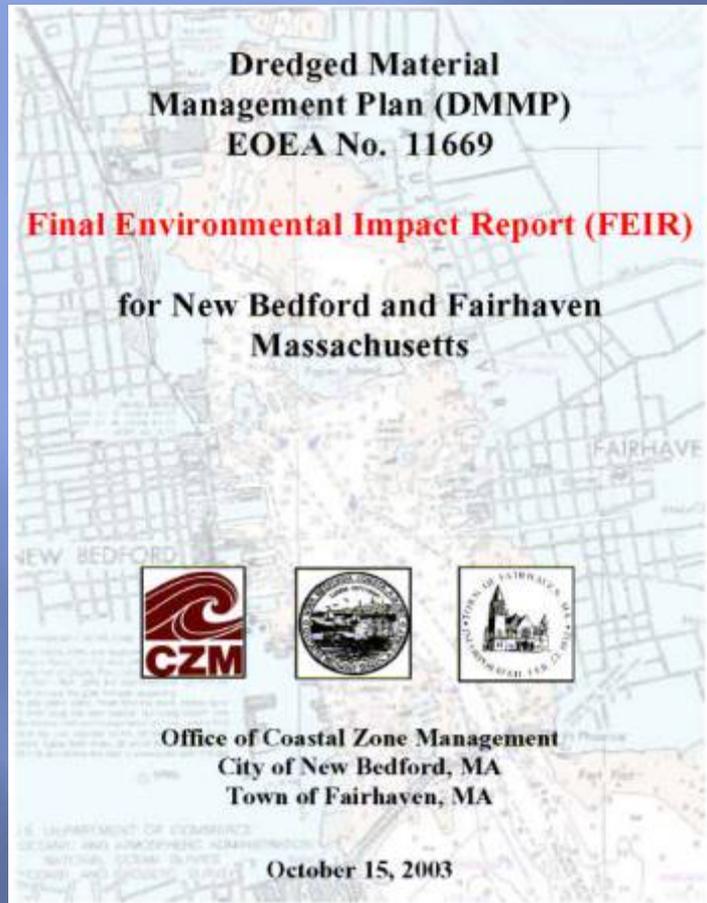




CAD CELL TECHNOLOGY NEW BEDFORD/ FAIRHAVEN HARBOR



Navigational Dredging Sediment Disposal Method Selection Process



Fact: Sediments Throughout the Harbor Contain Some Level of Contamination.

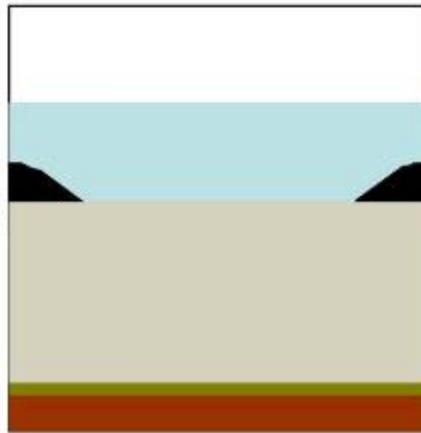
In 2003, DEP and CZM Published a Study called the DMMP:

The Study found CAD Cells to be the best solution for Navigational Dredging.

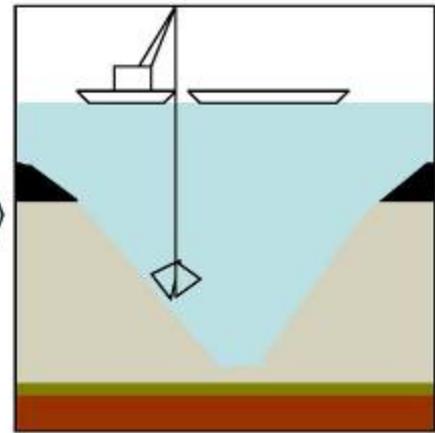




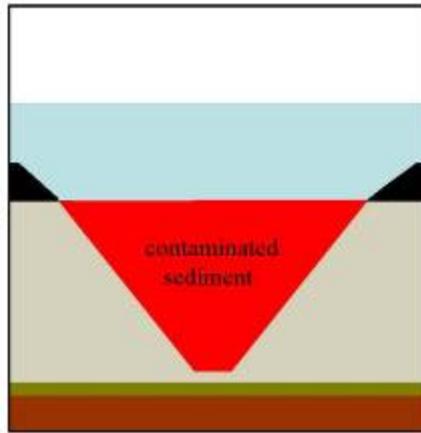
1. Harbor bottom as is



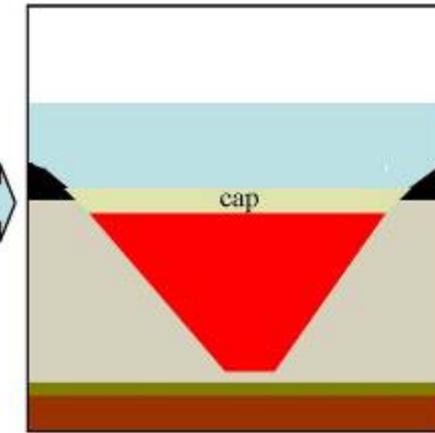
2. Excavation of silts



3. Excavation of sand and gravel



4. Placement of dredged sediments into the CAD cell



5. Placement of clean cap (after consolidation)

WHAT IS A CAD CELL?

- Confined Aquatic Disposal Cell



PUBLISHED REPORTS OF CAD CELL USAGE

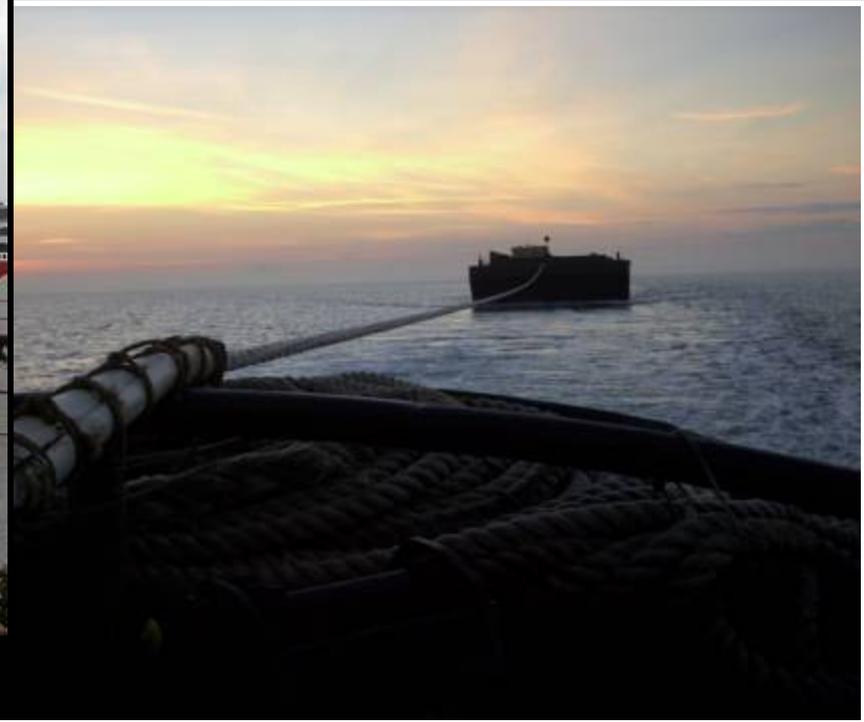


“Environmental and human health risk assessment of the CAD cell alternative has shown that it can provide one of the lowest risk options compared with other alternatives (Kane-Driscoll et al, 2002).”

*From Paper Presented at 2005
3rd International Conference on
Remediation of Contaminated
Sediment, by Thomas J.
Fredette,
US Army Corps of Engineers –
New England District*



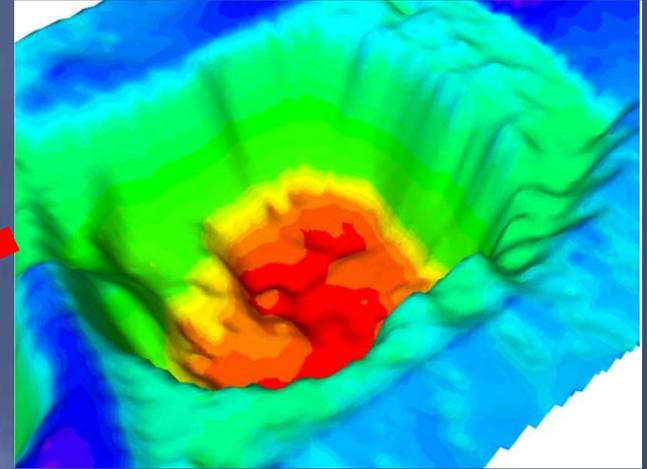
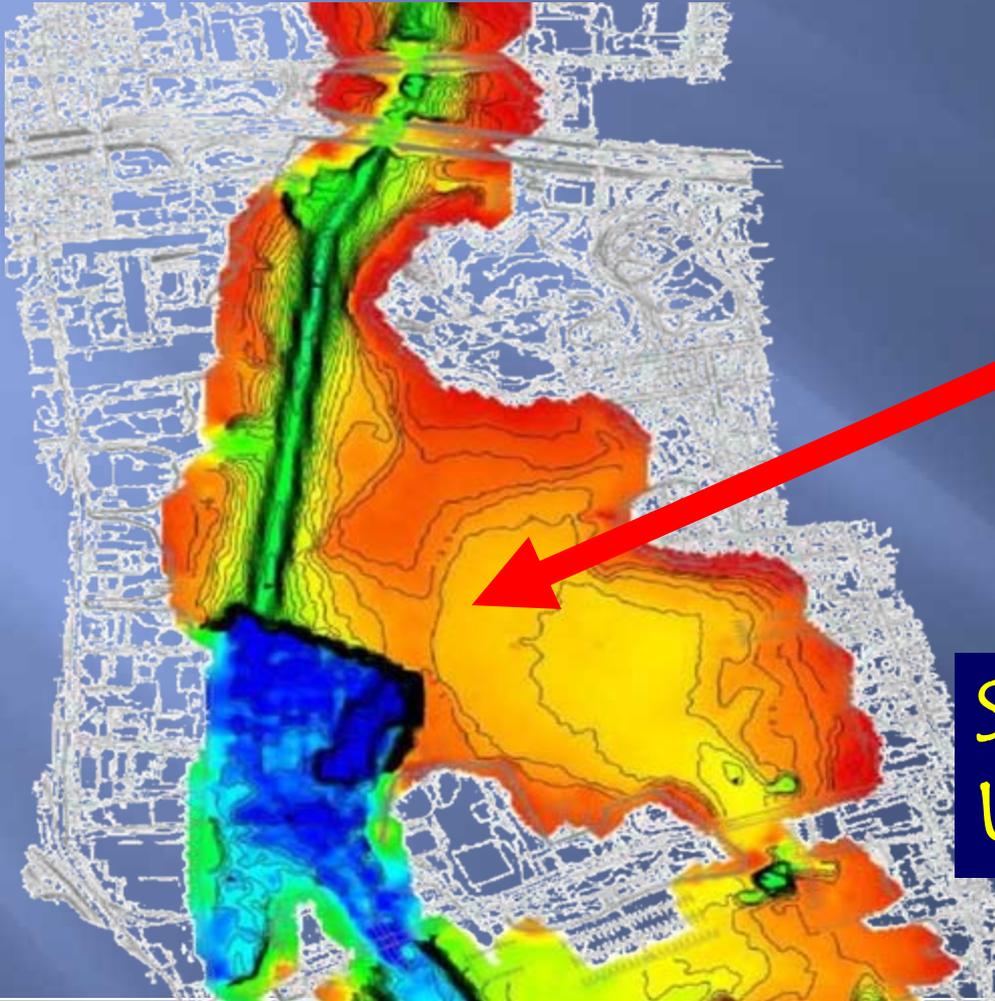
CONSTRUCTION OF CAD CELLS IN NEW BEDFORD/FAIRHAVEN HARBOR



STATUS OF CAD CELLS IN NEW BEDFORD/FAIRHAVEN HARBOR

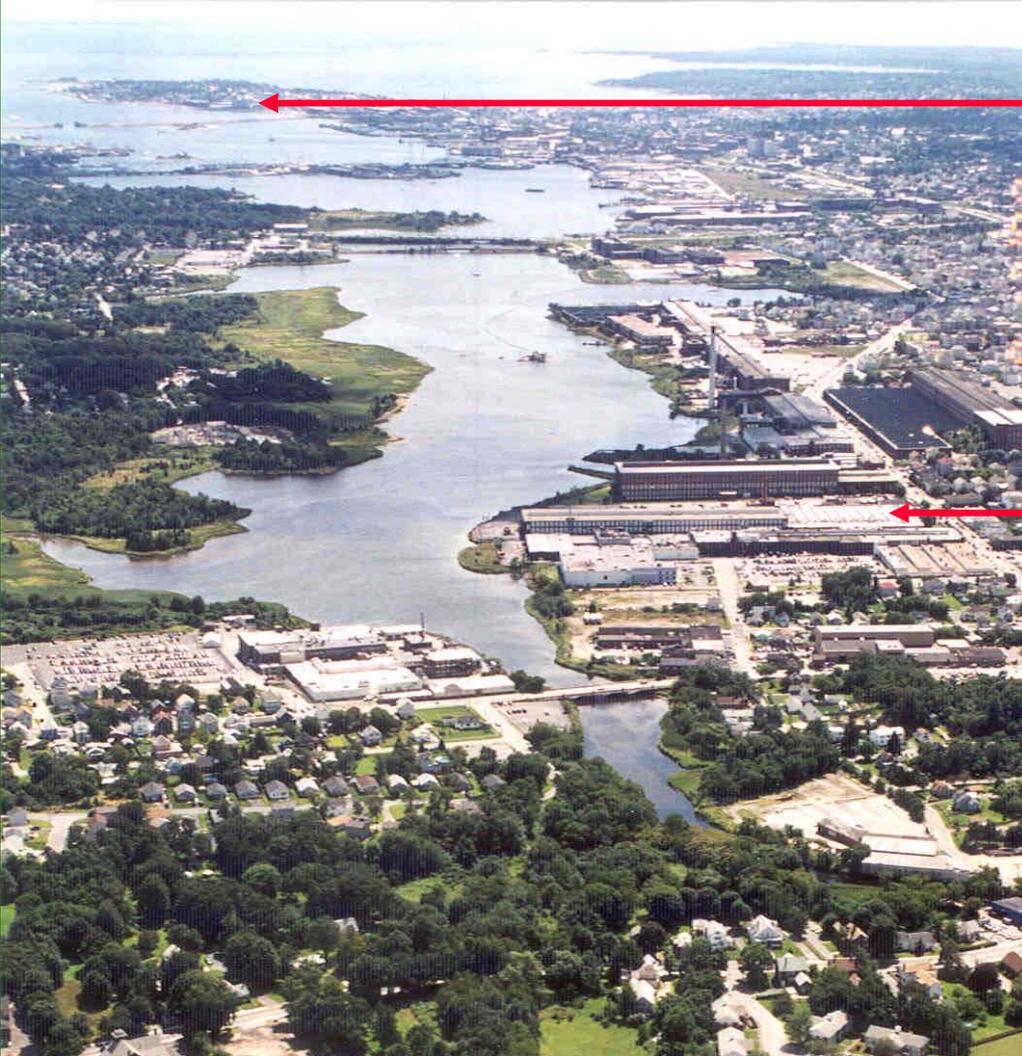


RECENTLY COMPLETED CAD CELL #2



Successful Disposal of
Upper Harbor Material





Cornell-Dubilier

Second capacitor facility
in outer harbor

Aerovox

Electronic
capacitor facility
released an estimated 275
tons of PCBs from the
1940s to the 1970s

Part 2 - the Superfund harbor PCB cleanup



the upper harbor, looking north

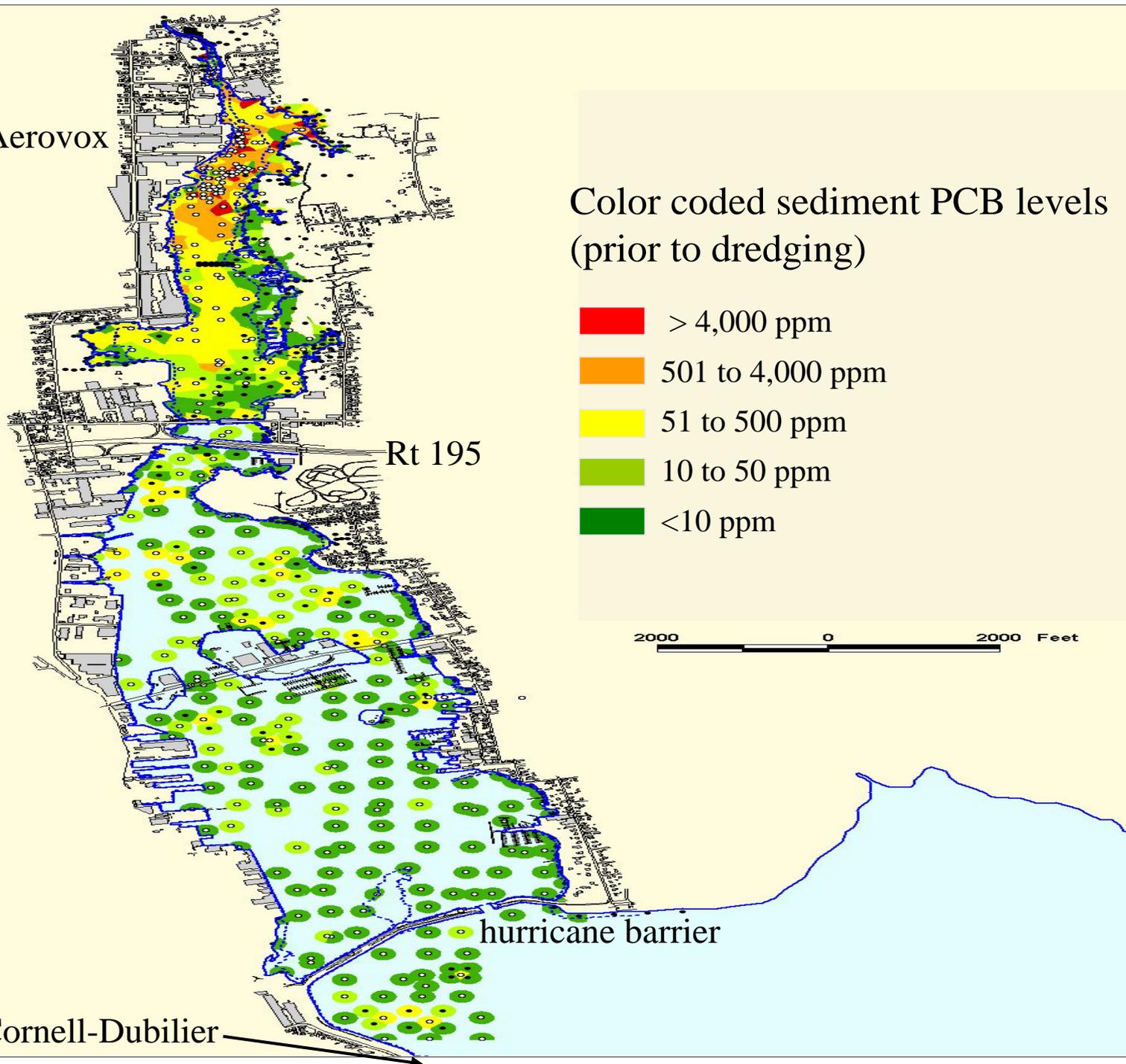
Aerovox



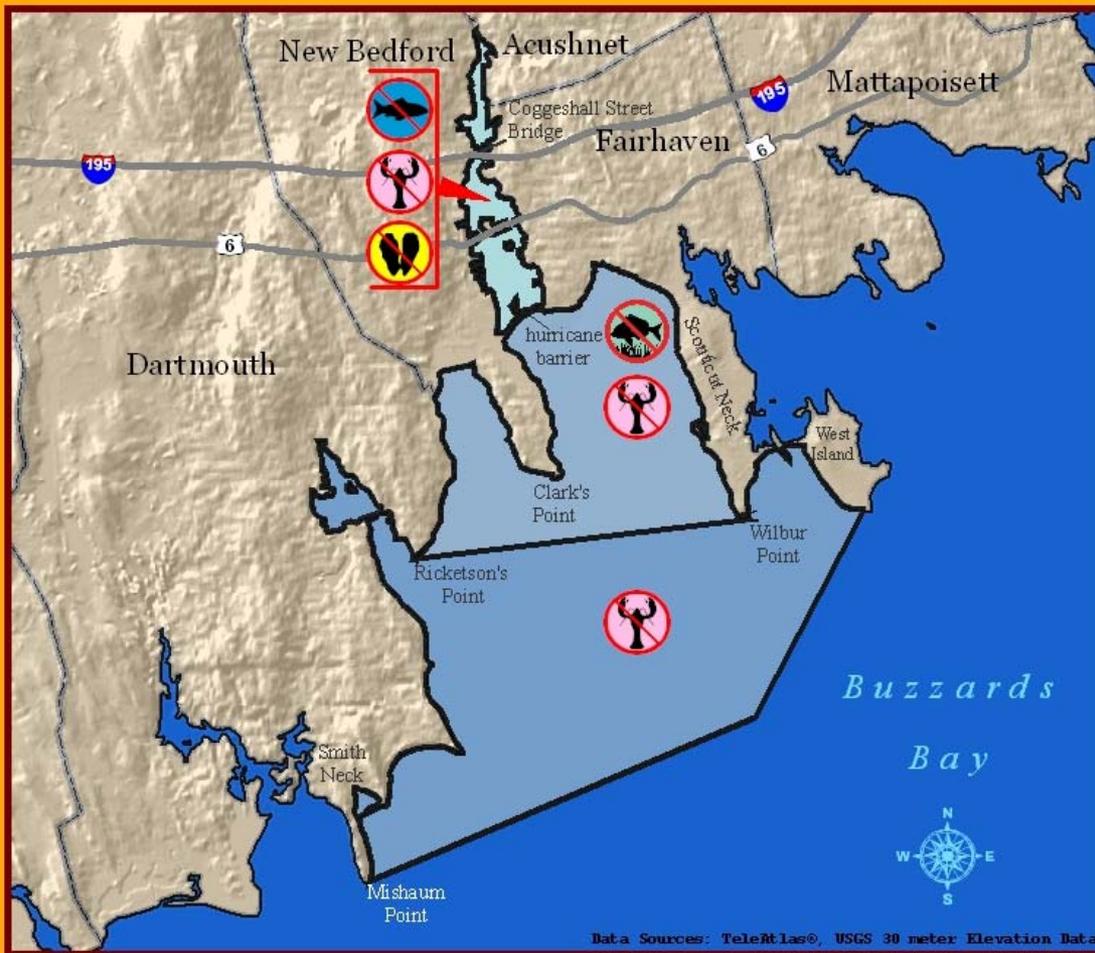
11/10/2003



Aerovox



The 1979 state fishing ban - due to PCBs (covers 18,000 acres)



Do NOT eat any fish

No coma pescado
Não coma peixe



Do NOT eat any lobster

No coma langosta
Não coma lagosta



Do NOT eat bottom feeding fish

No coma pescado de fundo:
Não coma peixe de fundo:

- flounder
- linguado
- solha
- scup
- sargo
- sargo
- tautog
- tautoga
- bodião da ostra
- eel
- anguila
- anguila



Do NOT eat any shellfish

No coma mariscos
Não coma mariscos

1998 Superfund Cleanup Plan:

Sediments in red require cleanup.

app. 900,000 cubic yards

app. 270 acres



QUICK look at progress to date



Acushnet shoreline cleanup – 1999-2000



NSTAR Power Cable Relocation – 2001

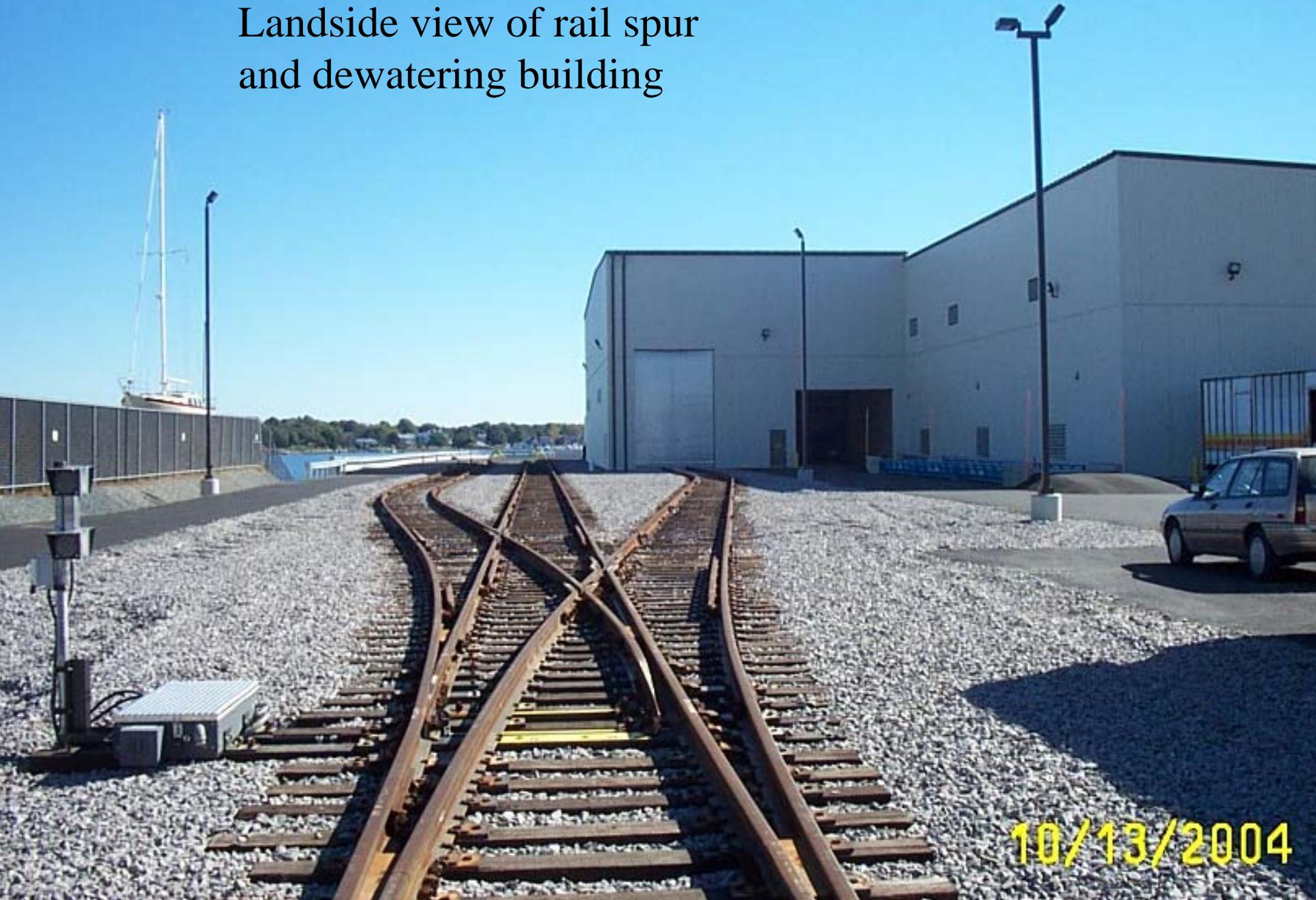
Dewatering facility bulkhead - 2002/03



Dewatering facility and rail spur - 2002-04



Landside view of rail spur
and dewatering building



10/13/2004



Combined sewer overflow (CSO) pipe relocations
to make room for the dewatering facility - 2002-04

Demolition and removal of derelict vessels to allow shoreline business relocation - 2002





North of Wood Street cleanup – 2002/03

The restored river and stream banks (2008)



2005 - pilot underwater cap near Cornell-Dubilier mill



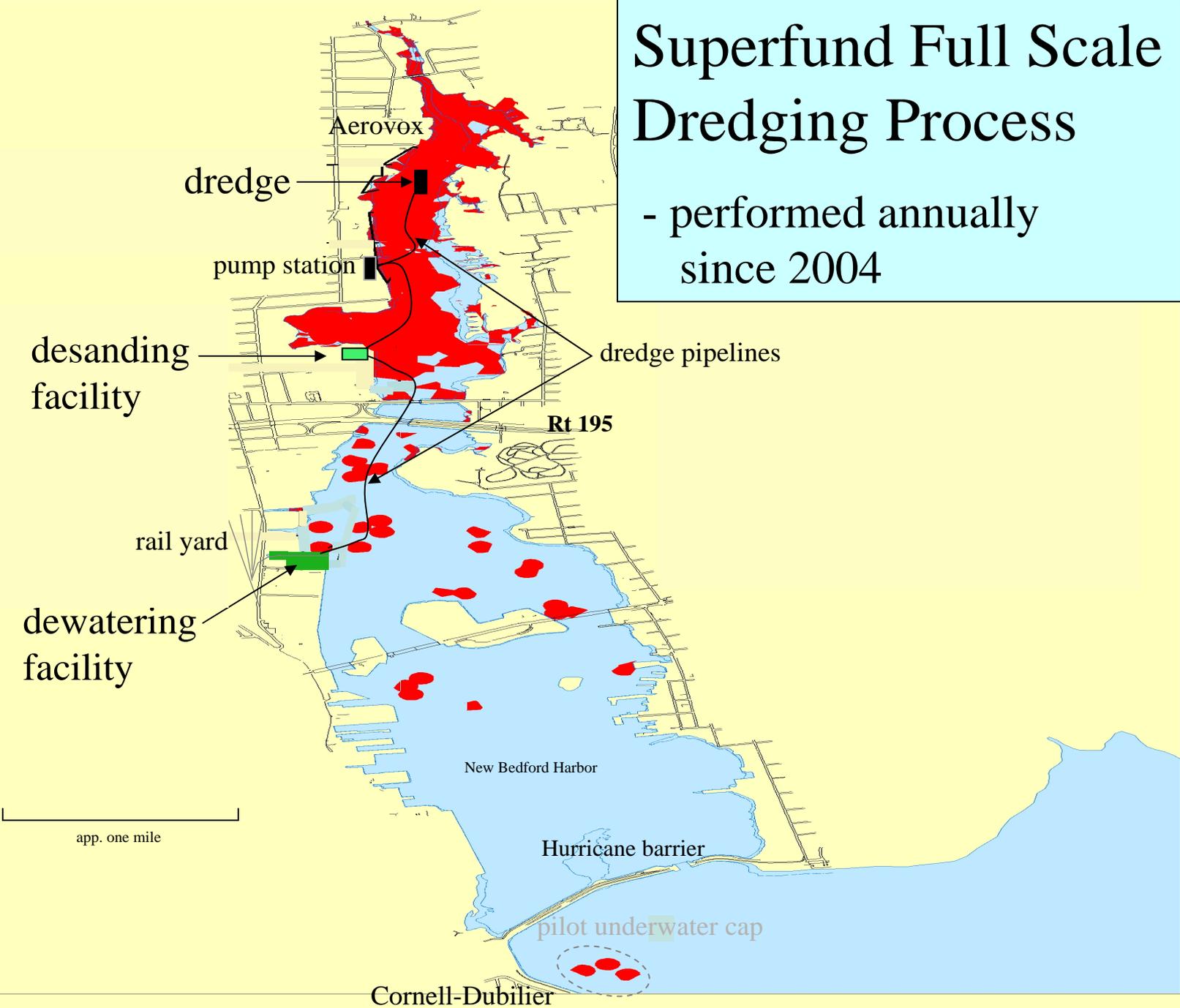
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Aerovox shoreline cleanup - spring/summer 2008

Superfund Full Scale Dredging Process

- performed annually
since 2004



1. Dredging in upper harbor



2. Desanding



Superfund dredging and disposal operations

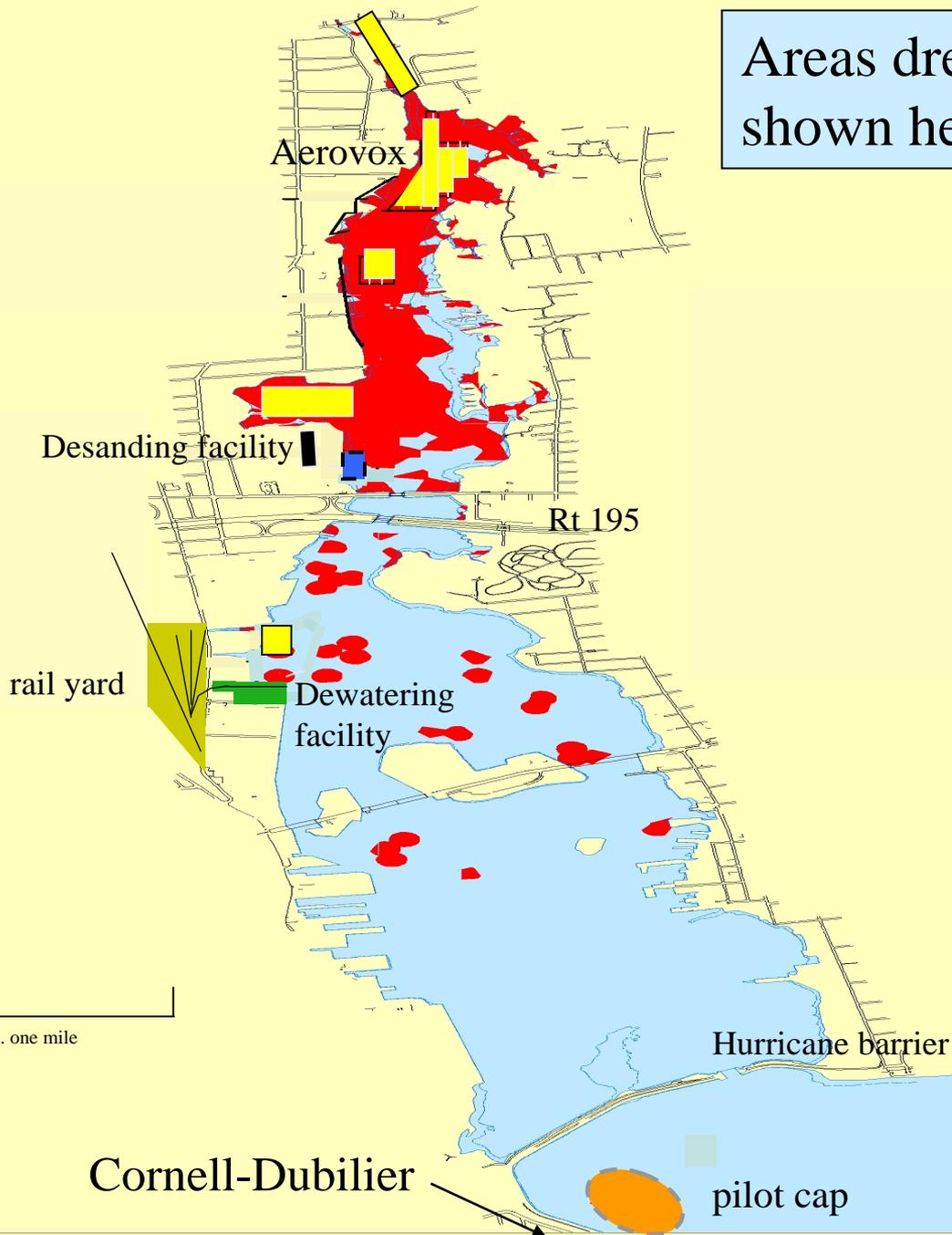
3. Dewatering



4. Loading to rail for offsite disposal

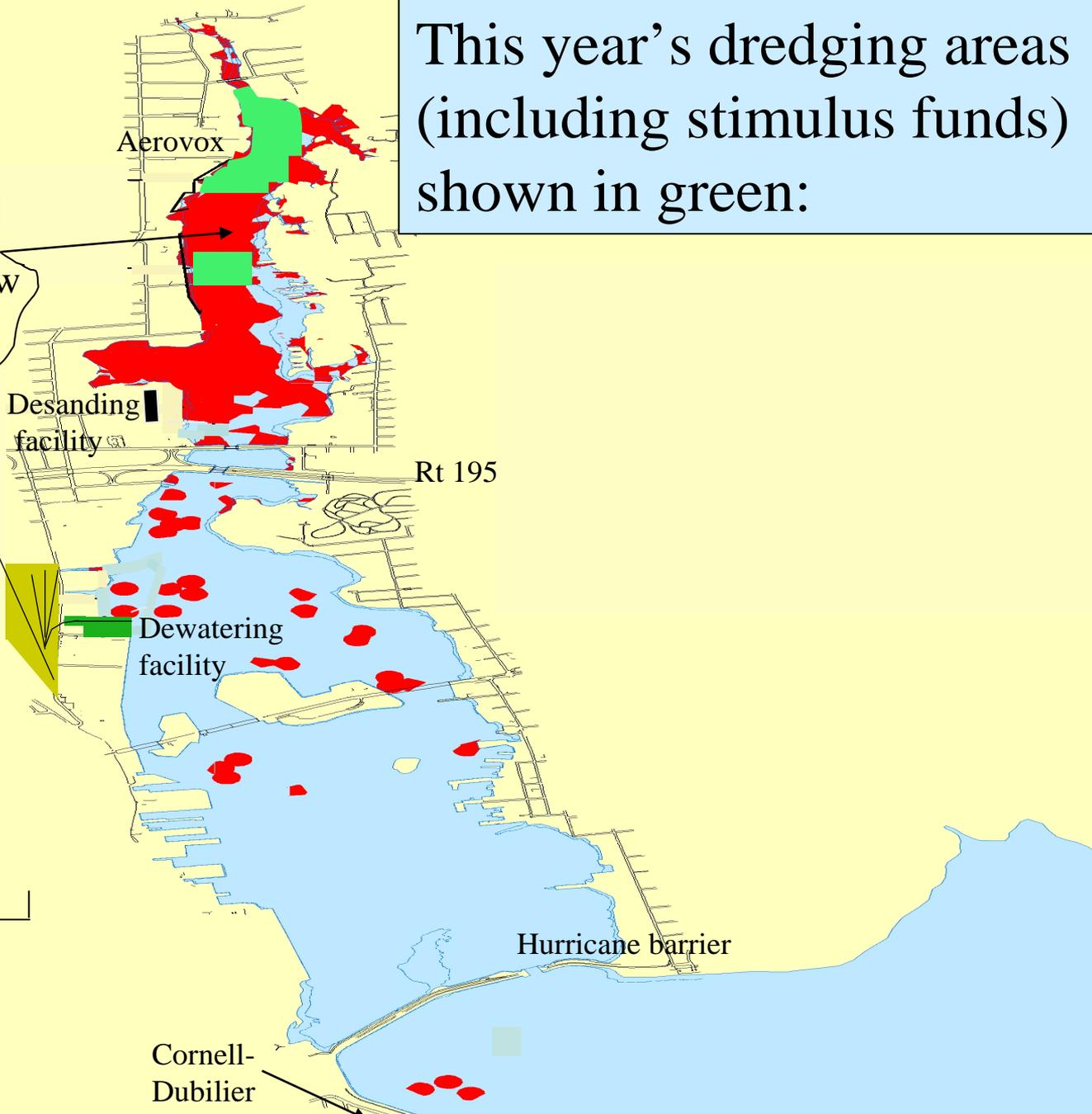


Areas dredged to date
shown here in yellow



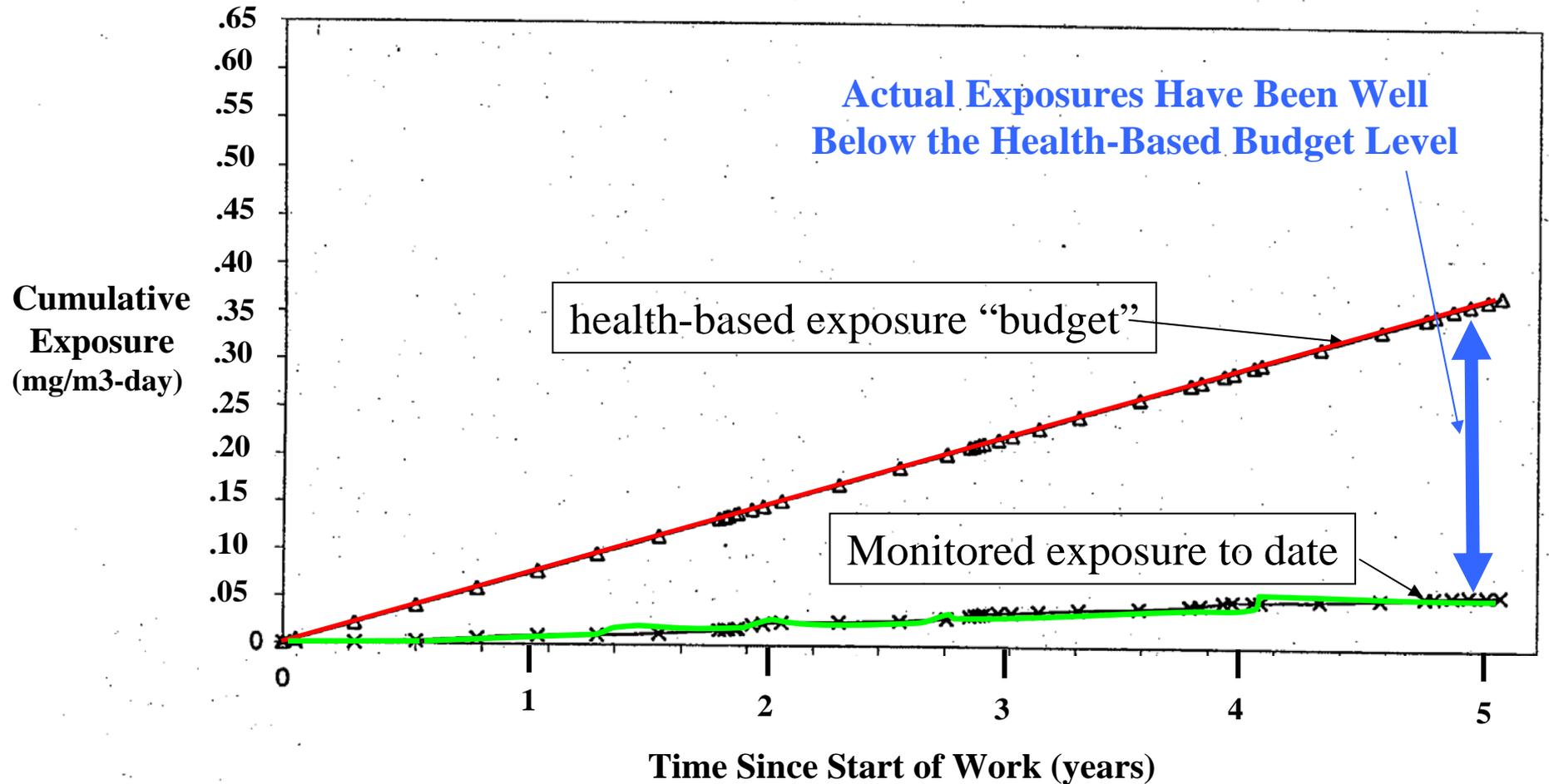
This year's dredging areas (including stimulus funds) shown in green:

Will also relocate submerged high voltage cables to allow dredging in this area



app. one mile

Comparing Coffin Ave air monitoring data to health-based “budget”



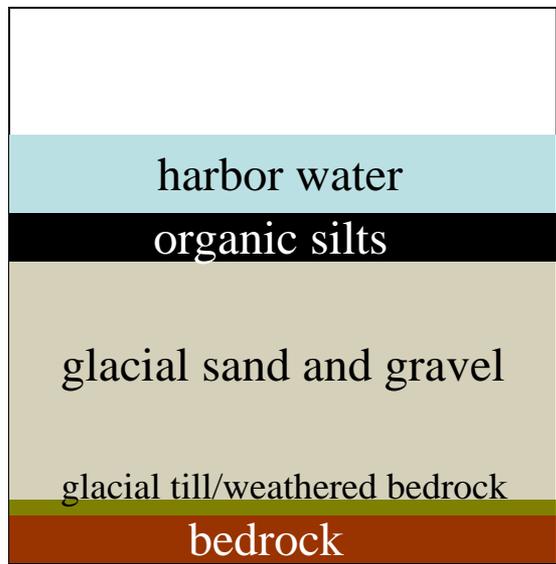
Section 3

Update on EPA's Evaluation of Potential Alternatives

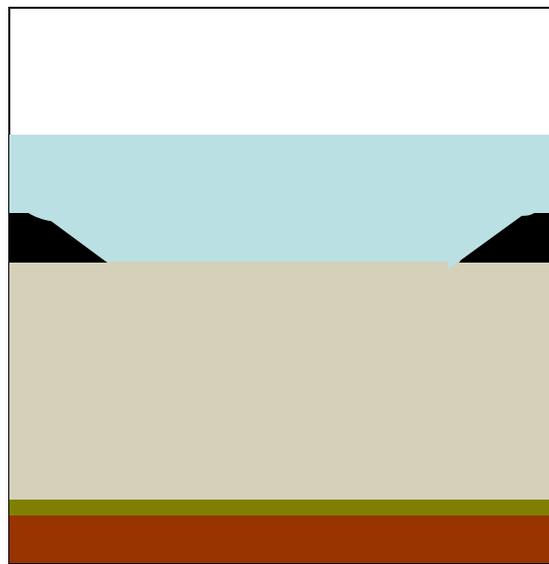
Cost and Schedule Estimates for Current Approach

3.5% annual inflation assumed; 2006 dollars

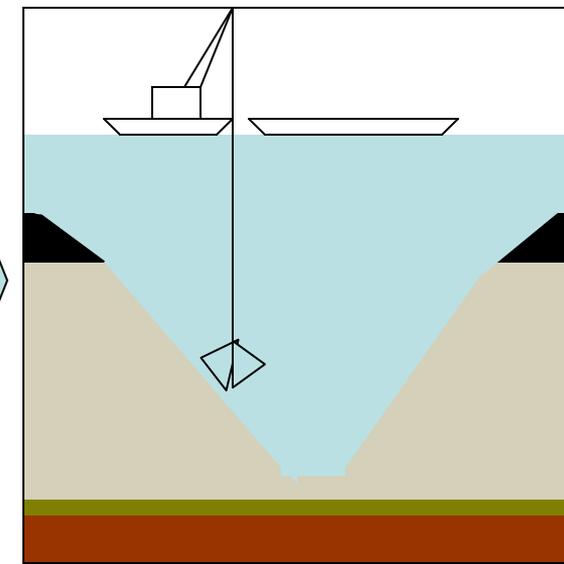
<u>Annual funding level</u>	<u>Years to complete</u>	<u>Cost to complete</u>
\$80 million	4 to 5	\$341 million
\$30 million	18	\$540 million
\$15 million	38	\$1,056 million



1. Harbor bottom as is

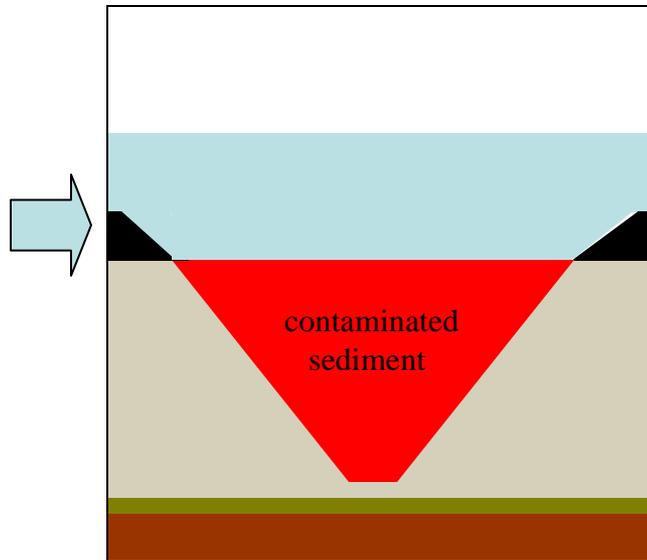


2. Excavation of silts

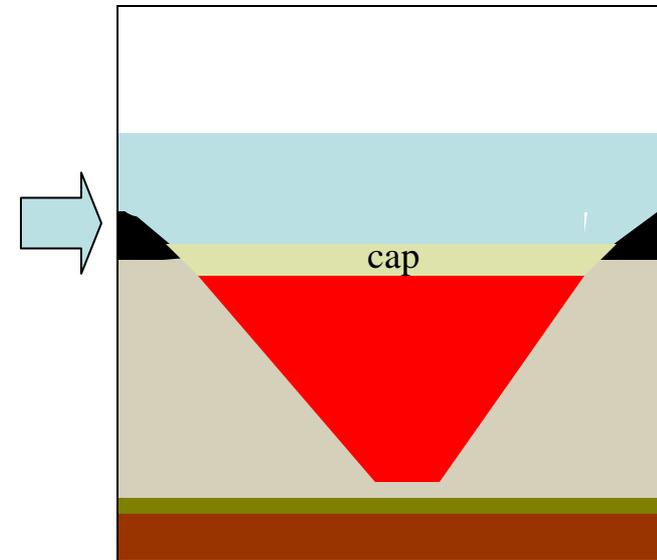


3. Excavation of sand and gravel

One alternative:
use CAD
cells to
dispose of
some of the
sediment.

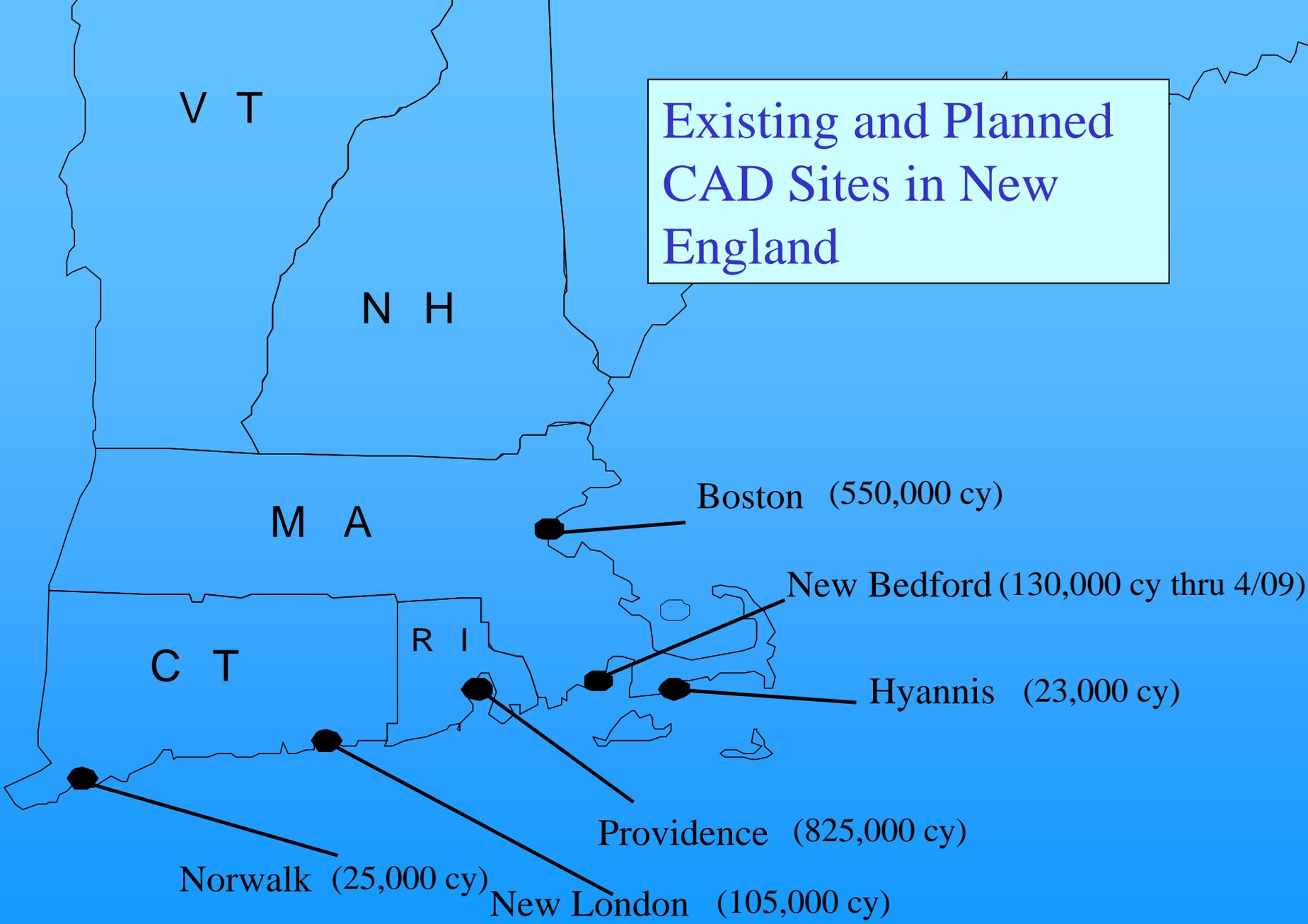


4. Placement of dredged
sediments into the CAD cell



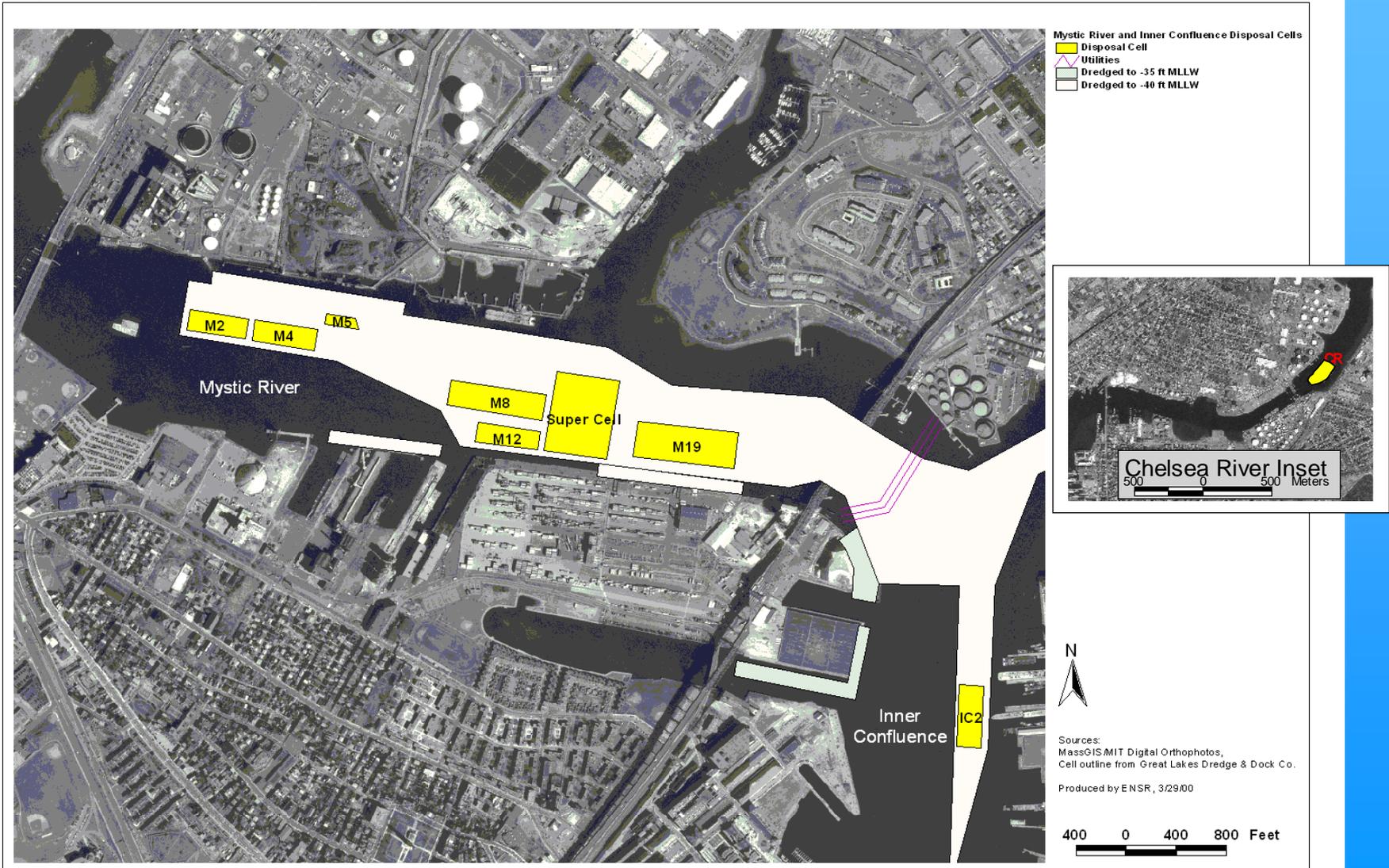
5. Placement of clean cap
(after consolidation)

Existing and Planned CAD Sites in New England



Boston Harbor CAD Cells

Figure 2: Boston Harbor Navigation Improvement Project, Mystic River and Inner Confluence Disposal Cells





Providence In-Channel CAD Locations



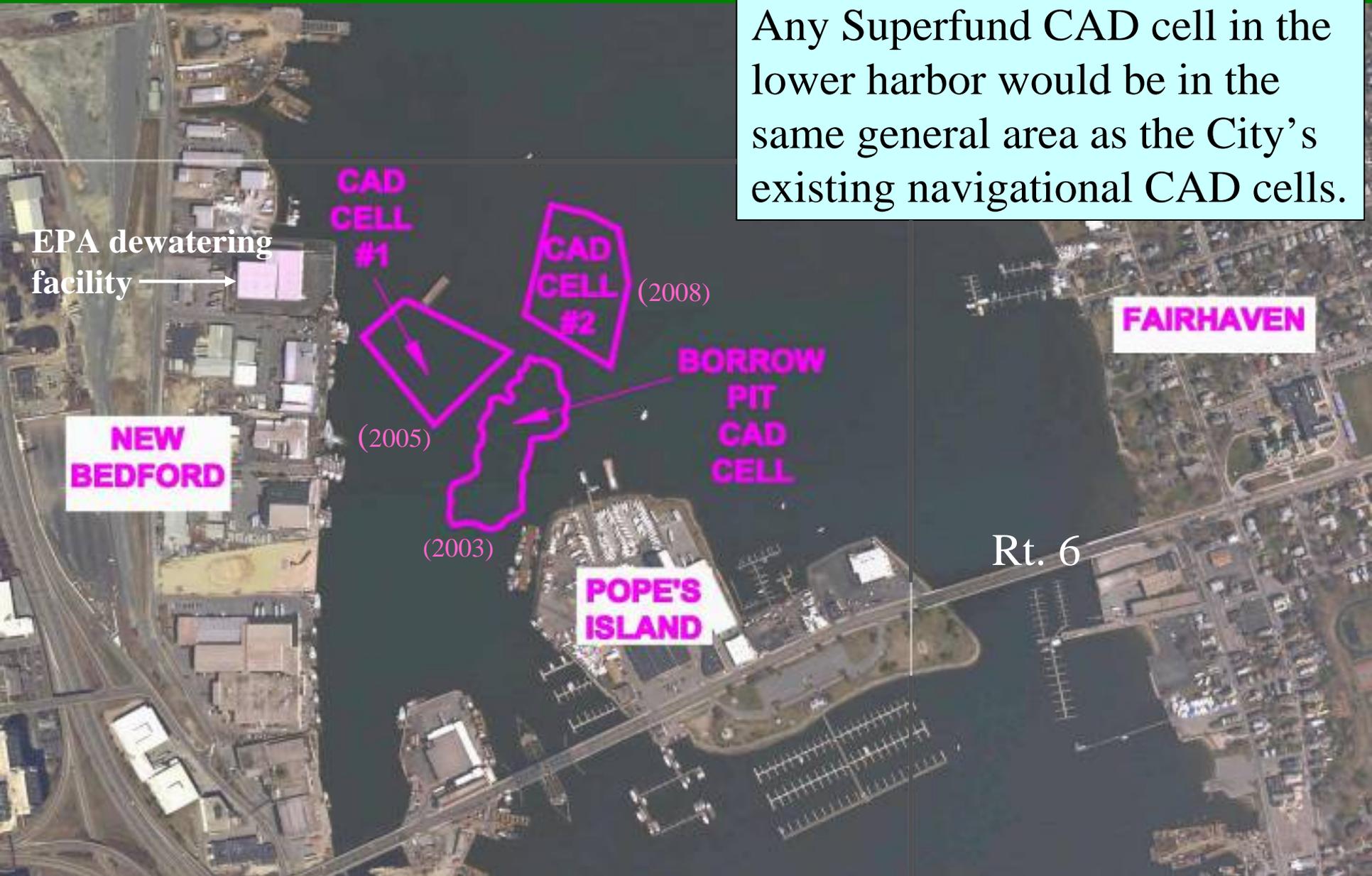
New Bedford's CAD cell "#1" being excavated in 2005
(for navigational dredging)



On-going CAD cell evaluation: preliminary results

- Significant savings in time AND cost to complete
- Other urban harbors have successfully used CAD cells
- computer modeling will evaluate protectiveness
- environmental monitoring of City's navigational CAD cell (work in progress)

Any Superfund CAD cell in the lower harbor would be in the same general area as the City's existing navigational CAD cells.



Next step for public comment and decision making for any changes to the harbor cleanup:

- Winter 2009/2010 for potential lower harbor CAD cell

(again, still in the evaluation phase)

Questions?

