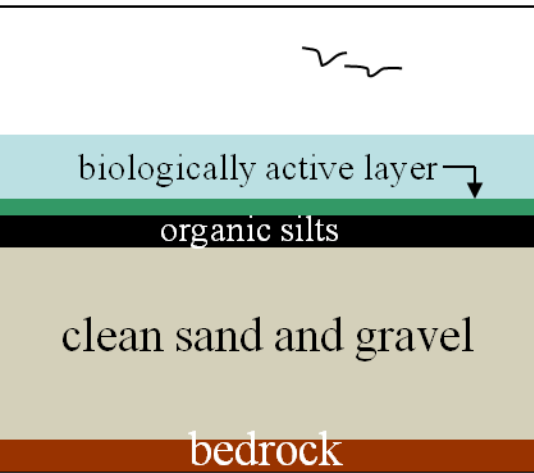
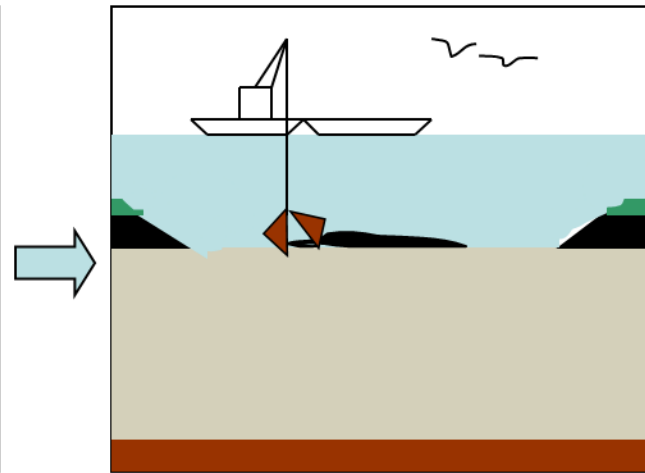


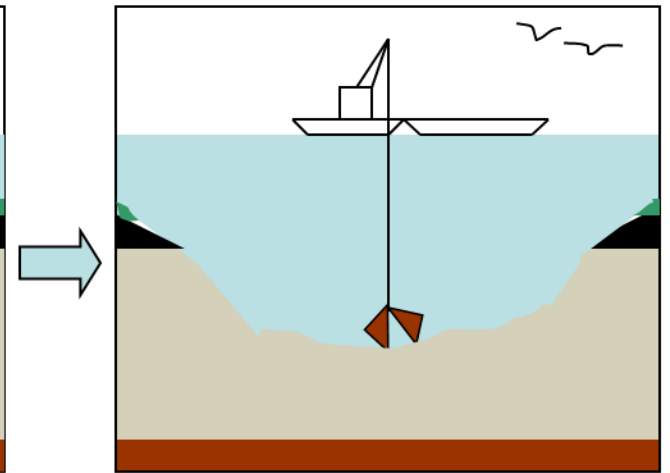
Lower Harbor Confined  
Aquatic Disposal Cell (LHCC)  
March 13, 2014



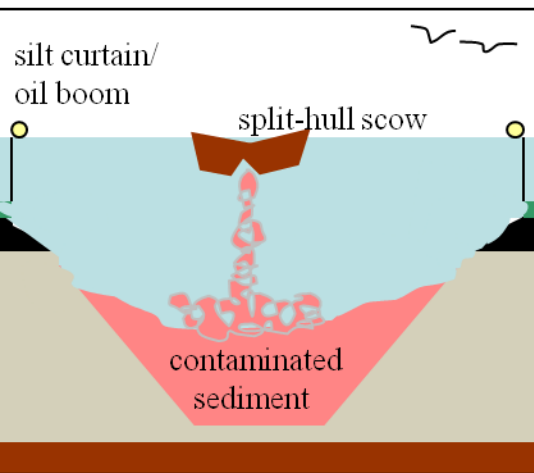
**1.** Harbor bottom as is



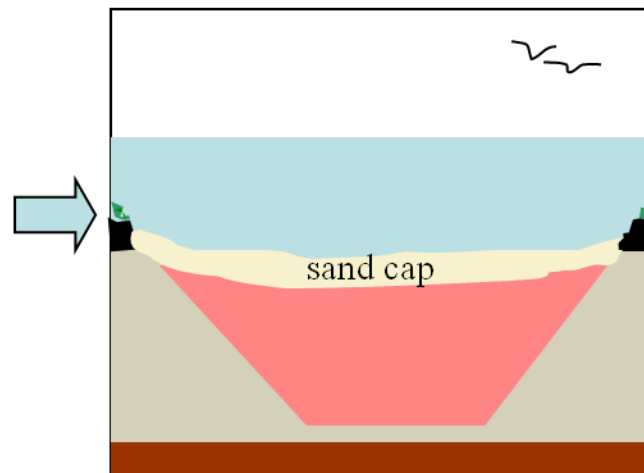
**2.** Excavation of top silts



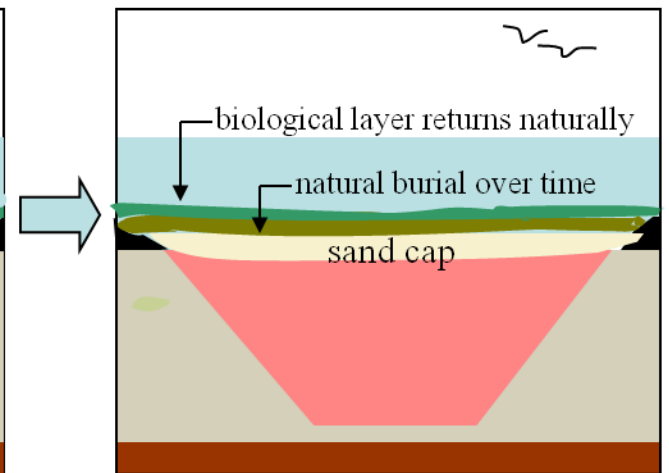
**3.** Excavation of clean sand



**4.** Placement of sediments



**5.** Placement of initial cap



**6.** Surface fills in over time

What is a confined aquatic disposal cell?

# Confined Aquatic Disposal Facility (CAD) Projects in New Bedford Harbor

- EPA Superfund Remedy: EPA (federal) lead Lower Harbor CAD cell project to dredge and dispose of approximately 300,000 cubic yards of sediment above the EPA cleanup levels.
- State Enhanced Remedy: South Terminal & other Navigational Dredging of sediment below EPA cleanup levels.



NOTE: red, orange and green denote sediment areas with (or formally with) PCB levels requiring cleanup.

North of Wood Street cleanup (2002-03)

Aerovox

**RED** areas: continue with current remedy

New Bedford

**ORANGE** areas: place in Superfund CAD cell

The Superfund CAD cell would be located between the Rt. 195 and Rt. 6 bridges

Three navigational CAD cells have been built to date

Rt 195

Rt 6

Fairhaven

New Bedford Harbor

hurricane barrier

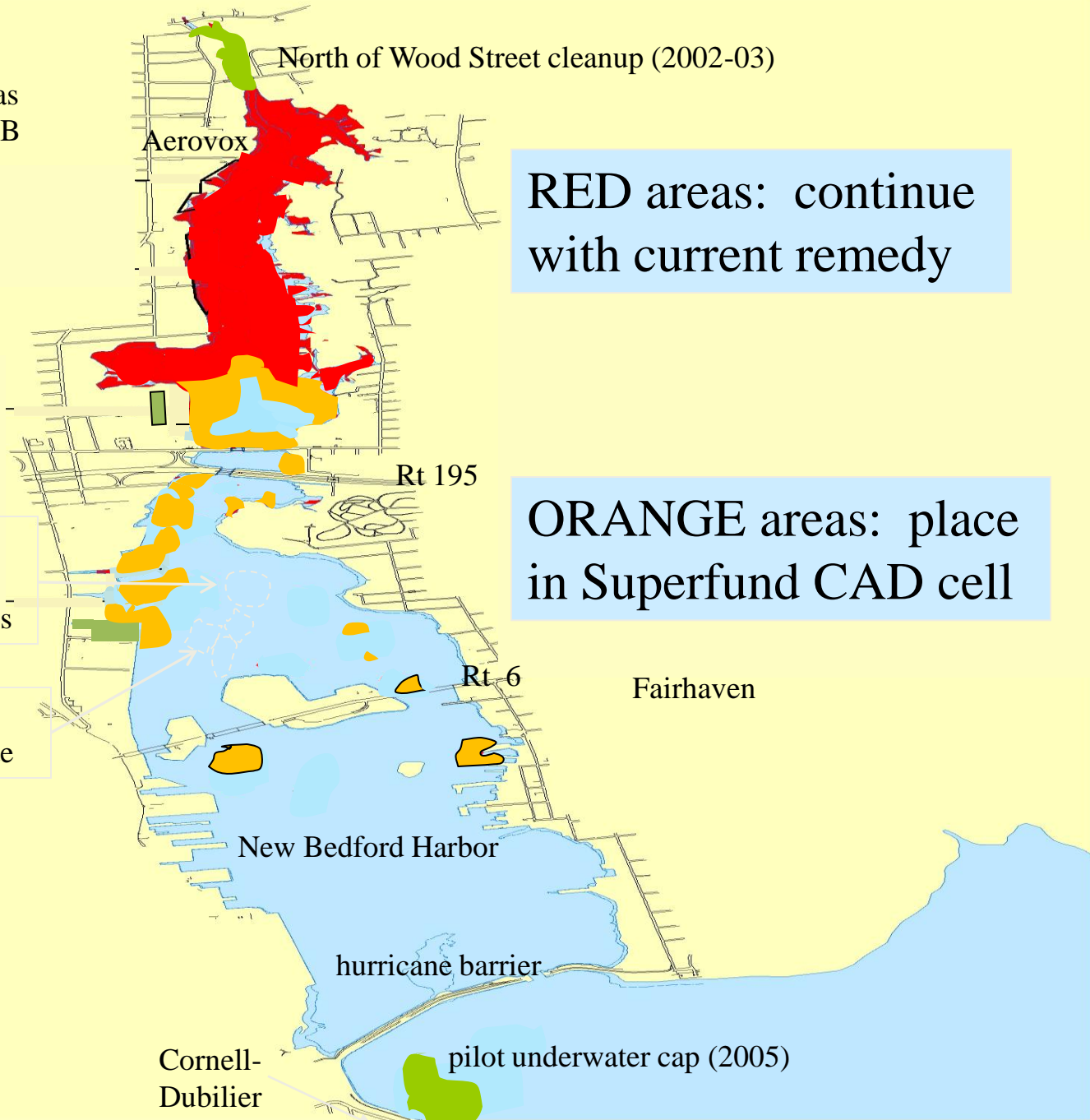
pilot underwater cap (2005)

Cornell-Dubilier

N

app. one mile

For illustration only, all areas are approximate





LOWER HARBOR  
CAD CELL  
PHASE II

LOWER HARBOR  
CAD CELL  
PHASE I

CAD CELL 3

CAD CELL 2

BORROW PIT  
CAD CELL

CAD CELL 1

POPE'S  
ISLAND

ROUTE 18

HERMAN MELVILLE BLVD

ROUTE 6



# Phase I: Lower Harbor CAD Cell (LHCC)

- Harbor Development Commission (HDC) has cooperative agreement with EPA to design and oversee the construction of the Lower Harbor CAD cell, or 'LHCC'.
- Phase I of the LHCC construction contracted to Cashman Dredging and Marine Contracting.
- Phase I of the LHCC under construction since November 2013; scheduled to be complete this spring.

# Phase I Status: LHCC

- Approximately 28,000 yards of top of CAD material
- Approximately 15,000 yards removed from bottom of CAD thus far.
- Monitoring:
  - Water Turbidity monitoring on-going
    - Results well below project limits
- Phase I air monitoring completed
  - Results well below levels of concern





Legend

# Phase II: Lower Harbor CAD Cell Project

- Phase II scheduled to be constructed during the second half of 2014
- No 24/7 dredging allowed; No work on Sunday
- Work hours restricted to 6:30am-10:30pm; Monday through Saturday
- Air monitoring to be conducted during dredging of top-of-CAD material.
- Water Quality monitoring

# Next: Dredging the Lower Harbor

Tentative Schedule (subject to change)

2015-2016: Dredging and disposal

2018: Capping of the Lower Harbor CAD Cell (LHCC)

Station 4A

Station 15

Station 30

Station 35

Sampling Period <sup>(1)</sup>	Taber	Pilgrim	Area D Downwind <sup>(2)</sup>	Tripp Dredge	Duplicate	Blank	Comments
	PCB Concentration (ng/m <sup>3</sup> ) <sup>(2)</sup>						
26-Mar-2013	1.1	1.8	0.49	Not Sampled	1.8	ND	Duplicate sample at Pilgrim
20-Nov-2013	1.64	1.68	3.55	6.21	2.00	0.13	Duplicate sample at Pilgrim
4-Dec-2013	3.31	2.16	0.643	3.57	3.06	0.09	Duplicate sample at Taber
19-Dec-2013	2.35	3.16	3.53	1.22	3.04	0.17	Duplicate sample at Area D - Unvalidated Data

# Benefits to New Bedford Harbor of the Lower Harbor CAD Cell

- The Superfund cleanup of sediment (non-navigational) will be complete in the 80% of the Harbor comprising the lower harbor.
- Continued improvements in ecology measured in long-term monitoring.
- Potential for beneficial reuse of the clean CAD cell material.

# Benefits to New Bedford Harbor of the Lower Harbor CAD Cell

- Lower flux of contaminated sediment to Buzzard's Bay, currently estimated at about 95 pounds per year.
- Modeling indicates that the project will have negligible impact on air quality during construction.