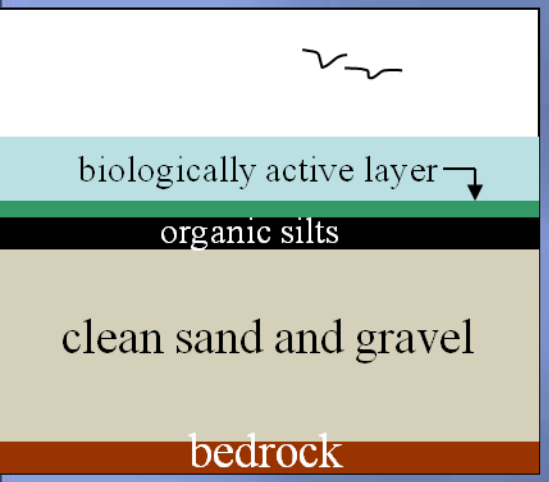
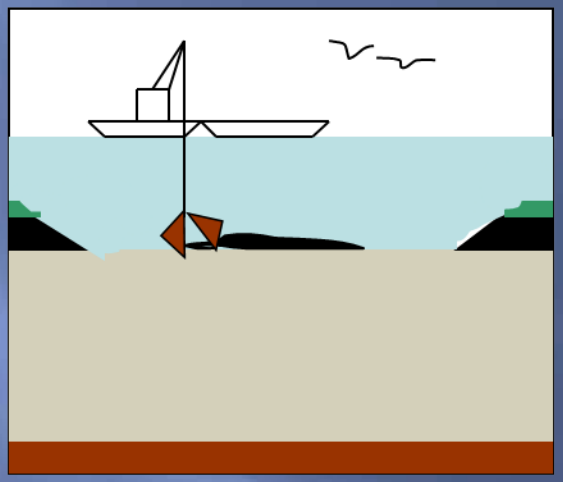
Lower Harbor Confined Aquatic Disposal Cell (LHCC) June 13, 2013

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

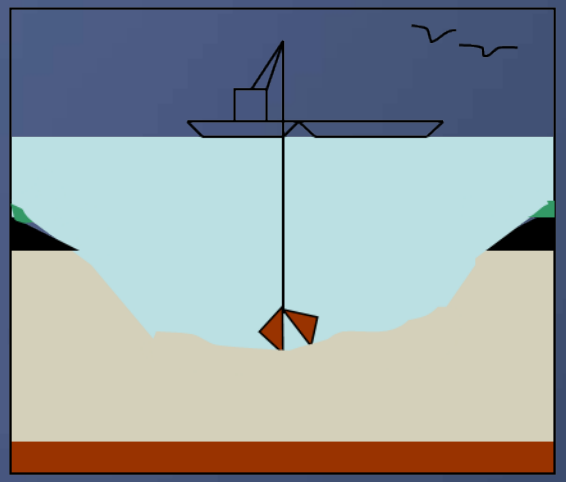
- EPA Superfund Remedy: EPA (federal) lead Lower Harbor CAD cell project to dredge and dispose of 300,000 cubic yards of sediment above the EPA cleanup level south of I-195, generally 50 ppm.
- State Enhanced Remedy: State-lead projects to dredge and dispose of sediment for maintenance of navigation in New Bedford Harbor. South Terminal Project being implemented by Massachusetts CEC is a component of this.



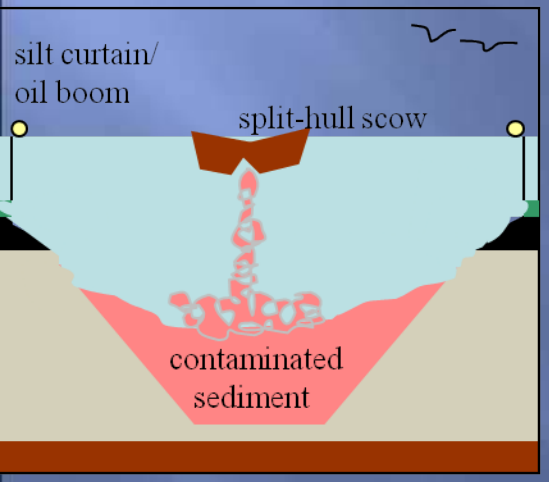
1. Harbor bottom as is



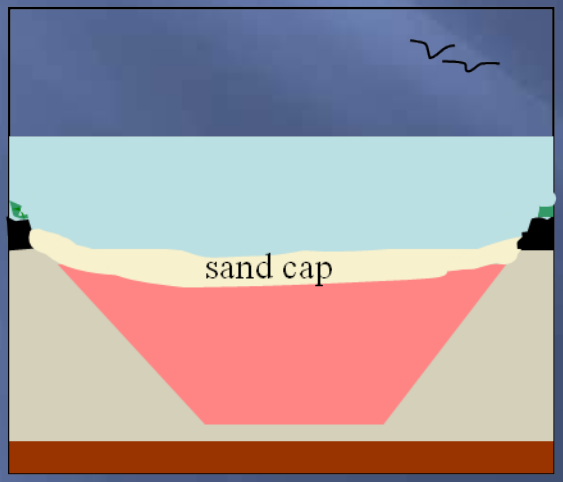
2. Excavation of top silts



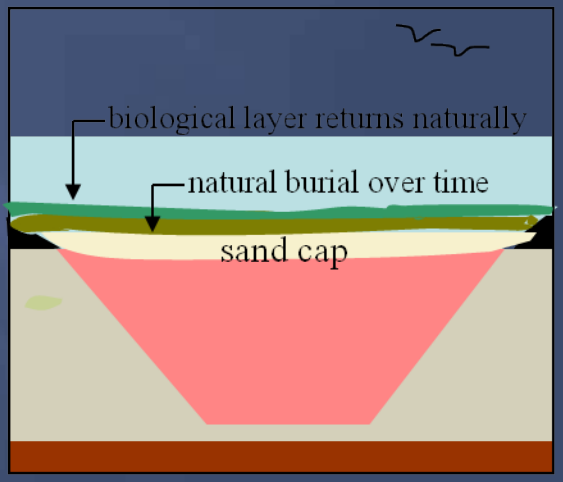
3. Excavation of clean sand



4. Placement of sediments



5. Placement of initial cap



6. Surface fills in over time

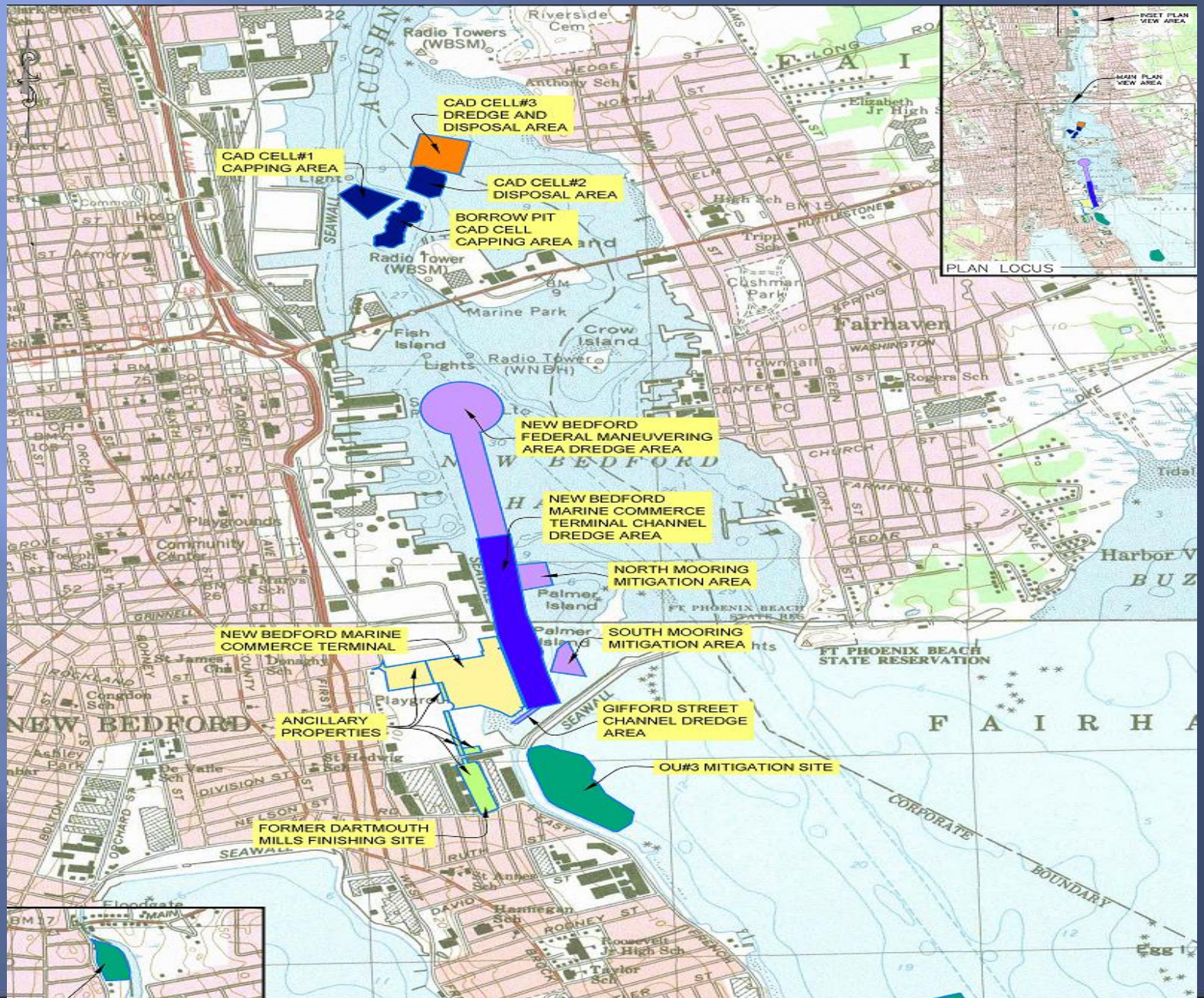
What is a confined aquatic disposal cell?

State Enhanced Remedy

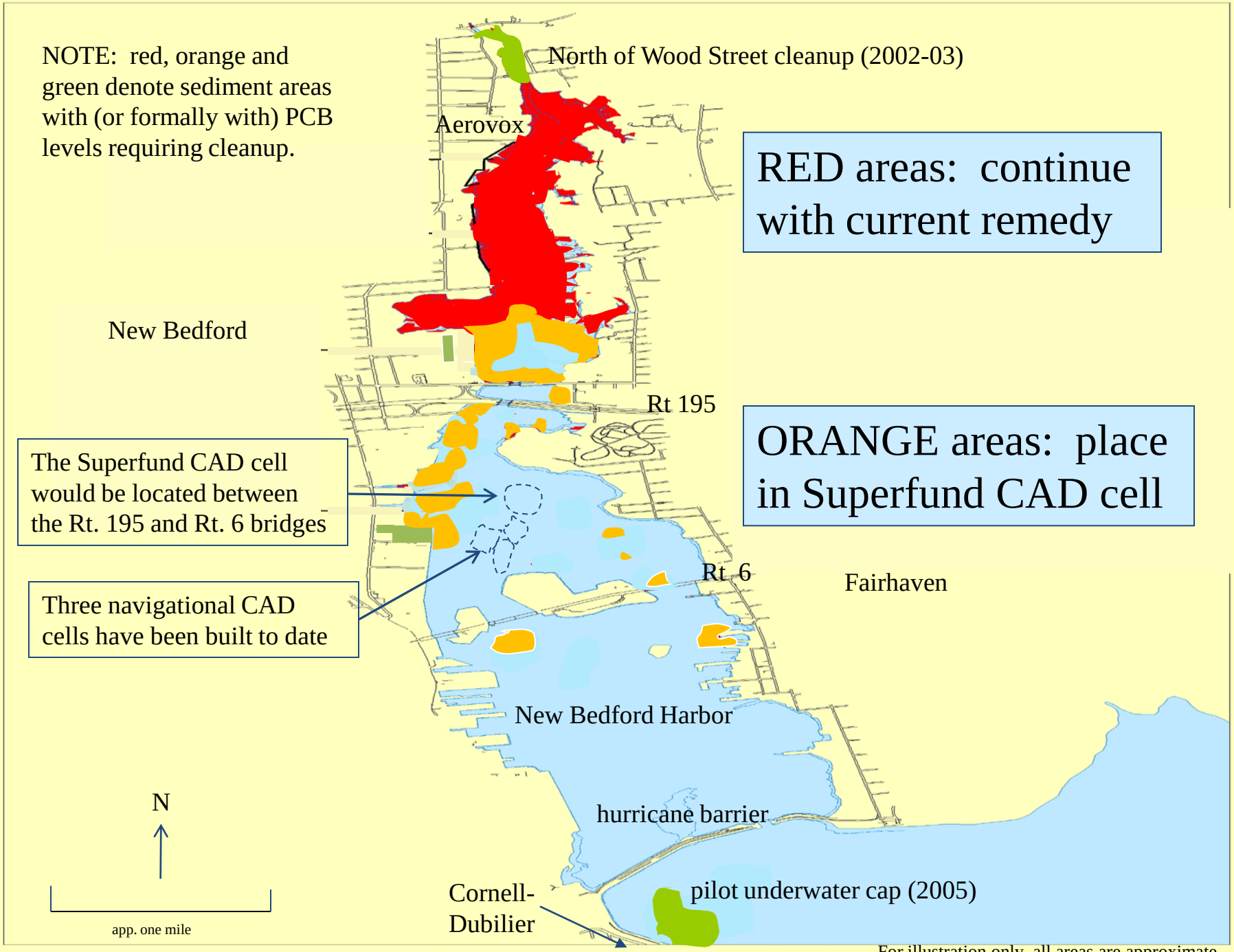
- Two navigational CAD cells, and a 'Borrow Pit'

have been successfully built and filled by the since 2004 in order to remove sediments from navigational channels in the Harbor.

- A new CAD Cell, CAD 3, is currently under construction as part of the South Terminal project.


CAD CELL#3
DREDGE AND
DISPOSAL AREA
CAD CELL#1
CAPPING AREA
CAD CELL#2
DISPOSAL AREA
BORROW PIT
CAD CELL
CAPPING AREA
NEW BEDFORD
FEDERAL MANEUVERING
AREA DREDGE AREA
NEW BEDFORD
MARINE COMMERCE
TERMINAL CHANNEL
DREDGE AREA
NORTH MOORING
MITIGATION AREA
SOUTH MOORING
MITIGATION AREA
NEW BEDFORD MARINE
COMMERCE TERMINAL
ANCILLARY
PROPERTIES
GIFFORD STREET
CHANNEL DREDGE
AREA
OU#3 MITIGATION SITE
FORMER DARTMOUTH
MILLS FINISHING SITE
PLAN LOCUS
INSET PLAN VIEW AREA
MAIN PLAN VIEW AREA
FT PHOENIX BEACH
STATE RESERVATION
NEW BEDFORD
FAIRHAVEN
CORPORATE
BOUNDARY
Radio Towers
(WBSM)
Radio Tower
(WBSM)
Radio Tower
(WNBH)
Fish
Island
Crow
Island
Marine Park
Palmer
Island
Cushman
Park
Playgrounds
Community
Center
Floodgate

EPA Remedy


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
Rt 195
ORANGE areas: place in Superfund CAD cell
The Superfund CAD cell would be located between the Rt. 195 and Rt. 6 bridges
Rt 6
Fairhaven
Three navigational CAD cells have been built to date
New Bedford Harbor
hurricane barrier
N
app. one mile
Cornell-Dubilier
pilot underwater cap (2005)
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

Managing the Construction of the Lower Harbor CAD Cell

EPA has signed a cooperative agreement with the Harbor Development Commission to design and oversee the construction of the Lower Harbor CAD cell, or 'LHCC'.

Lower Harbor CAD Cell Project

- Dredge 300,000 cubic yards of PCB contaminated sediment (mostly) from Lower Harbor;
- Contaminated at levels between 50 ppm and 190 ppm;
- Disposal in Confined Aquatic Disposal Cell (CAD) in Lower Harbor, allowed to consolidate.
- Three foot thick sand cap to cover consolidated material.

Status Lower Harbor CAD Cell

- The current contract is only for the construction of the cell, not its filling/capping.
- Plans and Specifications are out for bid by HDC.
- Bids are due soon.
- Construction start around late summer.
- After the LHCC is constructed, a follow on contract will complete dredging sediment, filling the LHCC, capping the LHCC.

Status Lower Harbor CAD Cell

- Work hours restricted under the contract to 7am-sunset, Monday through Saturday.
- Air monitoring to be conducted during dredging of top-of-CAD material.
- Water Quality monitoring to be conducted
- Construction of the LHCC should take approximately 9 months to complete.


195
44
64
50
Fairhaven

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.