LOWER HARBOR CAD CELL TECHNICAL WORKING GROUP MEETING

April 25th, 2012: Discussion of Potential Air Impacts

Follow up on Last Meeting

Information to be posted to EPA website soon:

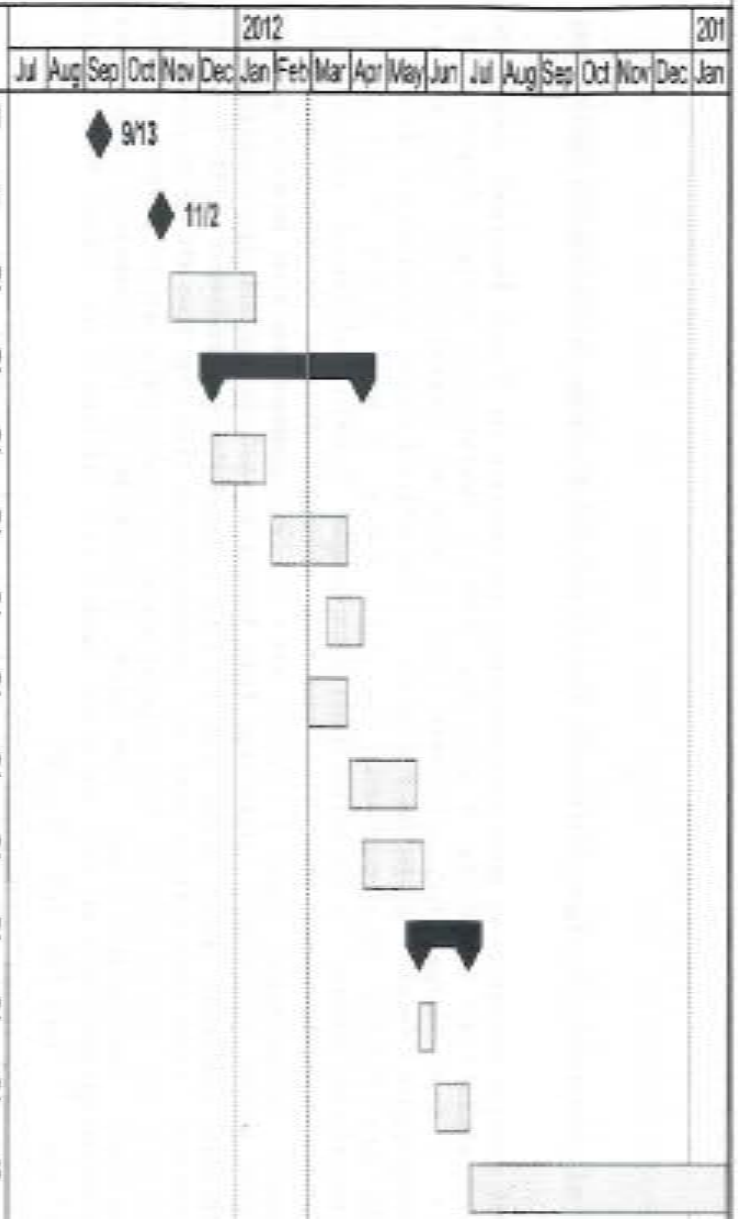
- State Enhanced Remedy (SER) Turbidity Data
- SER Navigational Protocols
- Volumes, Depths, Location Data of Sediment to be Dredged
- Monitoring data from Narragansett EPA Lab and data correlating toxicity testing to turbidity levels.

Current Status of Lower Harbor CAD Cell Design

- Lower Harbor CAD Cell under design under Cooperative Agreement with the New Bedford Harbor Development Commission.
- Anticipate CAD cell draft design in May.
- Contract to construct the Lower Harbor CAD cell will be put out to bid this summer.

USEPA LOWER HARBOR CAD CELL
PROJECT TIMELINE
2/27/12

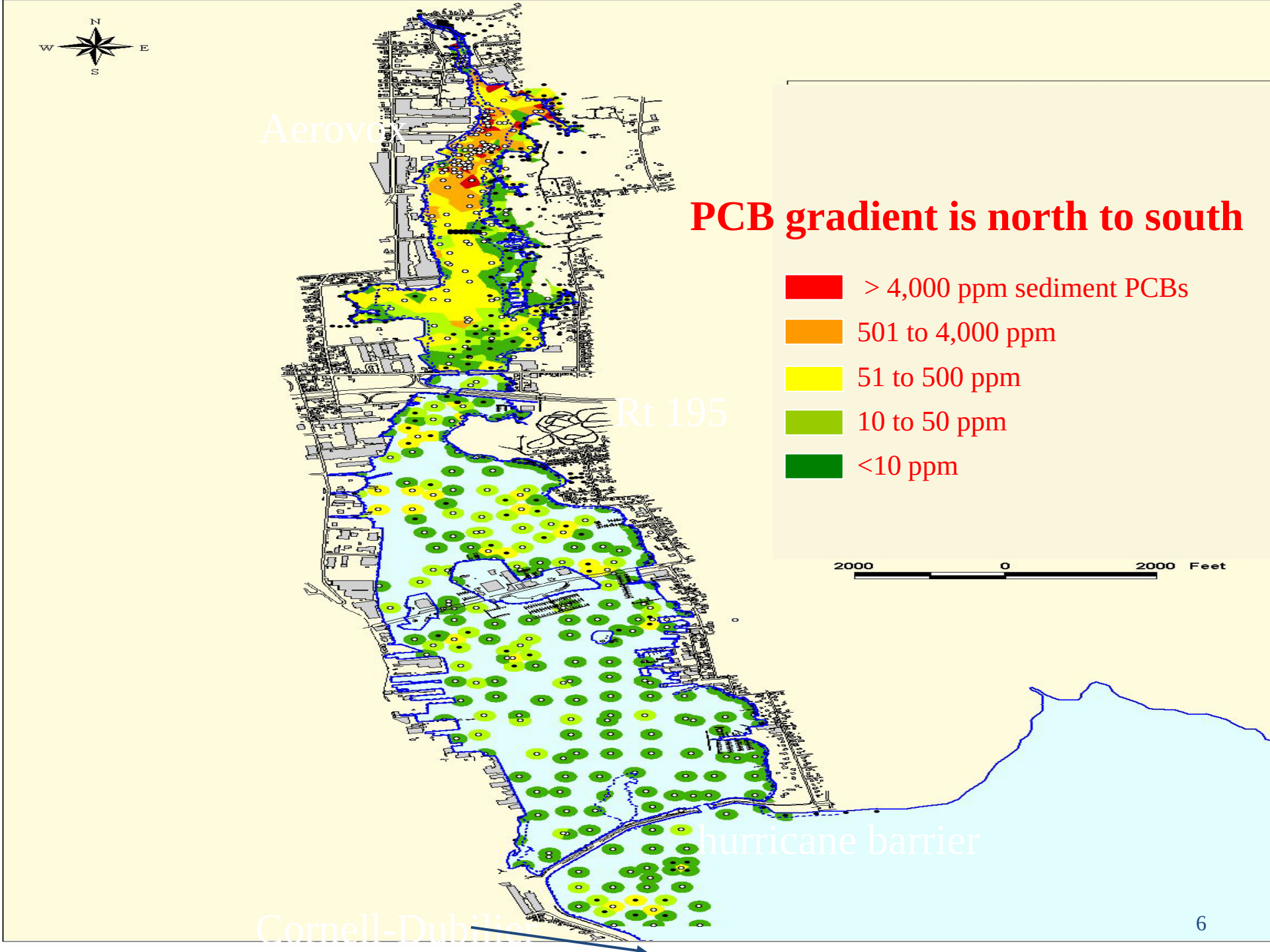
ID	Task Name	Duration	Start	Finish
1	**Cooperative Agreement signed by EPA**	0 days	Tue 9/13/11	Tue 9/13/11
2	Design Contract Finalized	0 days	Wed 11/2/11	Wed 11/2/11
3	**Task 1: Project Plans and CAD Cell Area Bathymetric Survey**	48 days	Thu 11/10/11	Mon 1/16/12
4	**Task 2: CAD Cell Geotechnical Borings and Vibracores**	**87 days**	**Tue 12/13/11**	**Wed 4/11/12**
5	Geotechnical Borings	32 days	Tue 12/13/11	Wed 1/25/12
6	Vibracores	44 days	Tue 1/31/12	Fri 3/30/12
7	Laboratory Analysis	21 days	Wed 3/14/12	Wed 4/11/12
8	**Task 3: CAD Cell Sub-bottom Survey**	23 days	Wed 2/29/12	Fri 3/30/12
9	**Task 4: CAD Cell Design**	40 days	Mon 4/2/12	Fri 5/25/12
10	**Task 5: Offshore Disposal Permitting/ Suitability Determination**	35 days	Fri 4/13/12	Thu 5/31/12
11	**Task 6: Prepare Dredge Contractor Procurement Package**	**30 days**	**Mon 5/28/12**	**Fri 7/6/12**
12	Prepare Procurement Package/Specifications	10 days	Mon 5/28/12	Fri 6/8/12
13	Procurement of Contractor	20 days	Mon 6/11/12	Fri 7/6/12
14	**Task 7: Construction Oversight/ Resident Engineer**	149 days	Mon 7/9/12	Thu 1/31/13

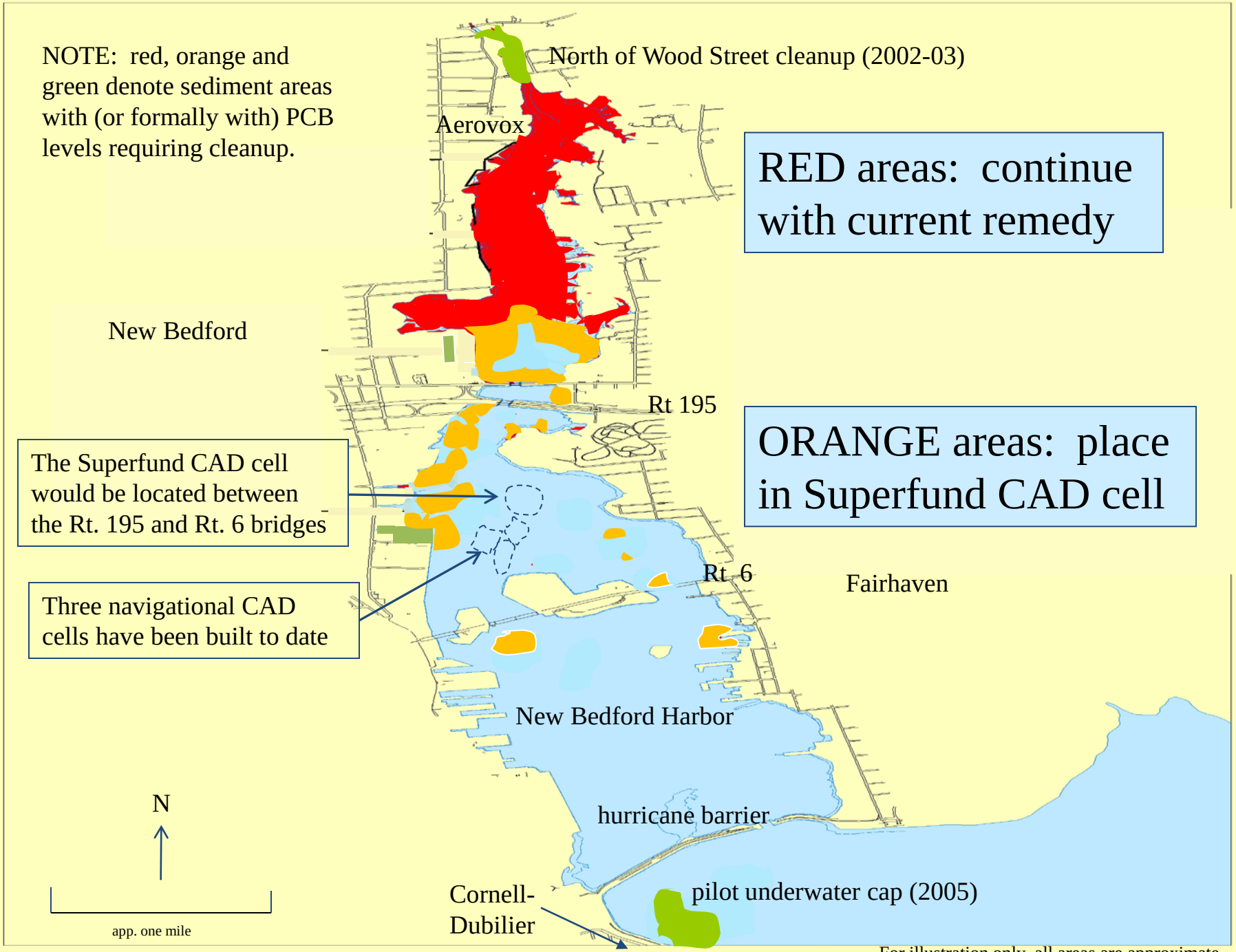


Quick Overview

New Bedford Harbor Website:

http://www.epa.gov/nbh


N
W
E
S
Aerovox
Rt 195
hurricane barrier
Cornell-Dubilier
PCB gradient is north to south
> 4,000 ppm sediment PCBs
501 to 4,000 ppm
51 to 500 ppm
10 to 50 ppm
<10 ppm
2000
0
2000 Feet


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
N
hurricane barrier
app. one mile
Cornell-Dubilier
pilot underwater cap (2005)
For illustration only, all areas are approximate

Lower Harbor CAD Cell Project

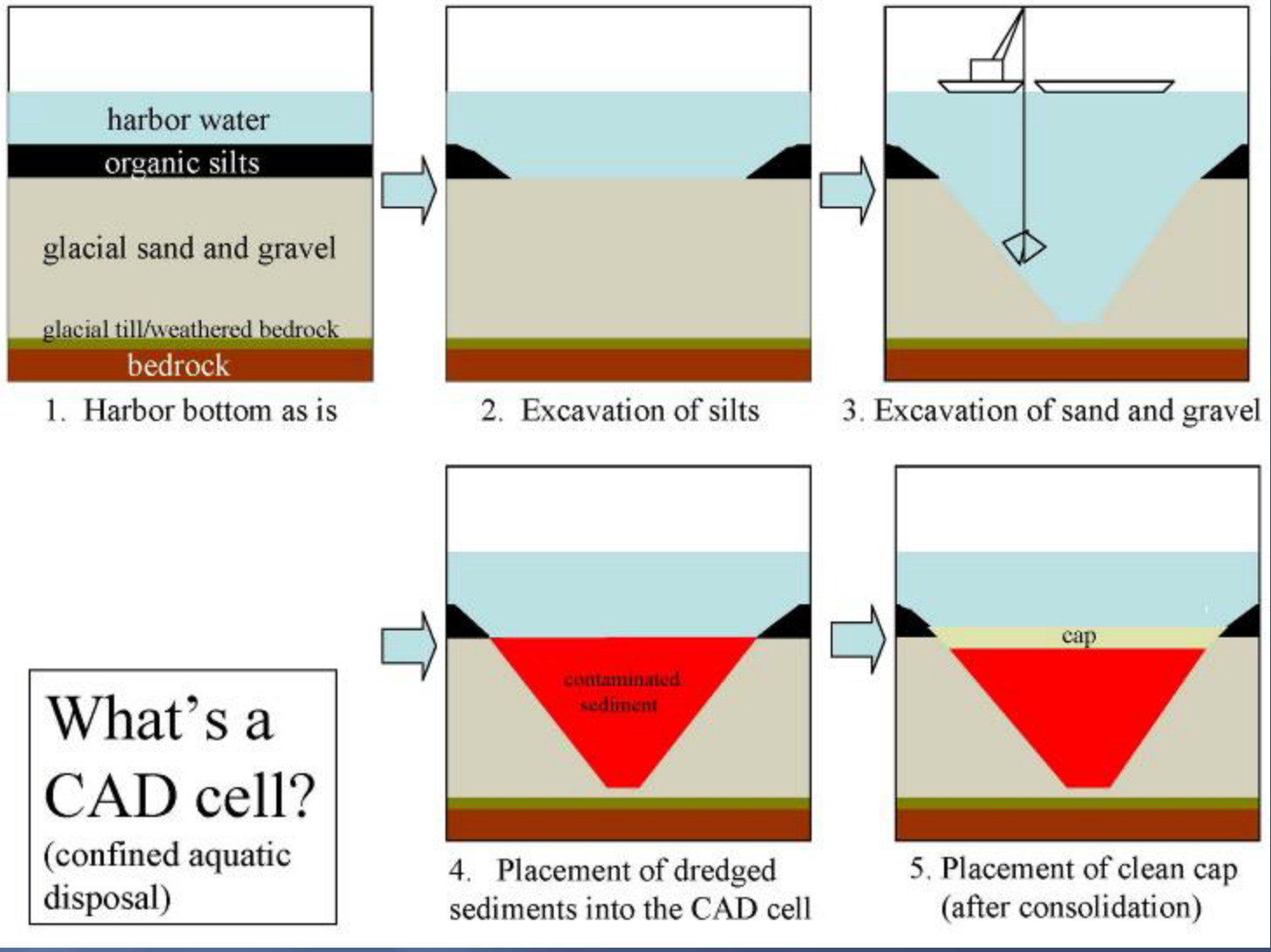
- Dredge 300,000 cubic yards of PCB contaminated sediment (mostly) from Lower Harbor;
- Contaminated at levels between 50 ppm and 190 ppm;
- Disposal in Confined Aquatic Disposal Cell (CAD) in Lower Harbor, allowed to consolidate.
- Three foot thick sand cap to cover consolidated material.

ESD: Lower Harbor CAD Cell Can be Safely Implemented

- Can be safely implemented (four separate site-specific lines of evidence demonstrate this:
  - Lower Harbor's ecological quality significantly improved since navigational CAD cells implemented
  - State-of-the-science real-time water quality monitoring water quality performed showing protective results
  - Air and water quality modeling supports safe and effective implementation
  - 2005 underwater pilot cap outside the hurricane barrier continues to be protective

Bases of Changes Contained in LHCC ESD

- Evaluation of Short and Long Term Impacts was supportive of the change
- Siting, construction, and O&M can be performed protectively.
- Disposal in LHCC reduces time and cost to complete the harbor cleanup
- Collaboration with navigational dredging may increase cost-effectiveness.
- Potential for beneficial reuse of clean fill from LHCC construction.


harbor water
organic silts
glacial sand and gravel
glacial till/weathered bedrock
bedrock
1. Harbor bottom as is
2. Excavation of silts
3. Excavation of sand and gravel
What's a CAD cell?
(confined aquatic disposal)
contaminated sediment
4. Placement of dredged sediments into the CAD cell
cap
5. Placement of clean cap (after consolidation)

Dredged Material Management Plan Area

Air Aspects of ESD

- Air monitoring will be performed during dredging of contaminated material:
  - During construction of LHCC, air monitoring will be performed during dredging of and placement of top of CAD material
  - Not performed during dredging of clean material for CAD cell.
- Dredged materials will not be allowed to dry out prior to placement to avoid generation of airborne dust.
- Significant air quality impacts are not expected due to results of air modeling.
- Results of air monitoring to be posted on EPA website.

Speakers

- Steve Fox, Jacobs: Air Monitoring
- Dave Lederer, US EPA: Air Modeling
- Margaret McDonough, US EPA: Risk Assessment