



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100
Boston, MA 02109-3912

Memorandum

DATE: 10/24/2024

SUBJ: 10/16/2024 inspection of Upper Harbor sediment caps, NBHSS

FROM: David Dickerson, Remedial Project Manager

To: Site file (7.5)

DAVID DICKERSON

Digitally signed by DAVID
DICKERSON

Date: 2024.10.24 10:09:46 -04'00'

This memo documents the visual shoreline inspection of all Upper Harbor (UH) sediment caps performed by D. Dickerson on 10/16/2024. The inspections took place between approximately one hour before and one hour after a -0.4 ft low tide at 1:26 pm that day, since only the intertidal portions of the sediment caps can be seen visually. Two caps, 0-711 and L-114, were completely subtidal and thus could not be seen. A bathymetric survey currently being performed for the entire upper harbor, as well as cap-specific bathymetric surveys to be performed next year will augment this visual feature inspection.

Figure 1 below shows the locations of the seven UH sediment caps installed in 2020. North to south, these caps are: 0-711, Crib, L-014, L-114, pilot CDF shoreline, Cogg-East and Cogg-West. Also shown on Figure 1 is the Aerovox sediment cap constructed in 2018 and the Parcel 265 cap installed in 2018 as part of the subtidal dredging operations in that area.

Figures 2 through 21 below are photos of these caps running north to south taken during this inspection.

Based on this inspection the UH sediment caps continue to appear in good shape with no action items noted.

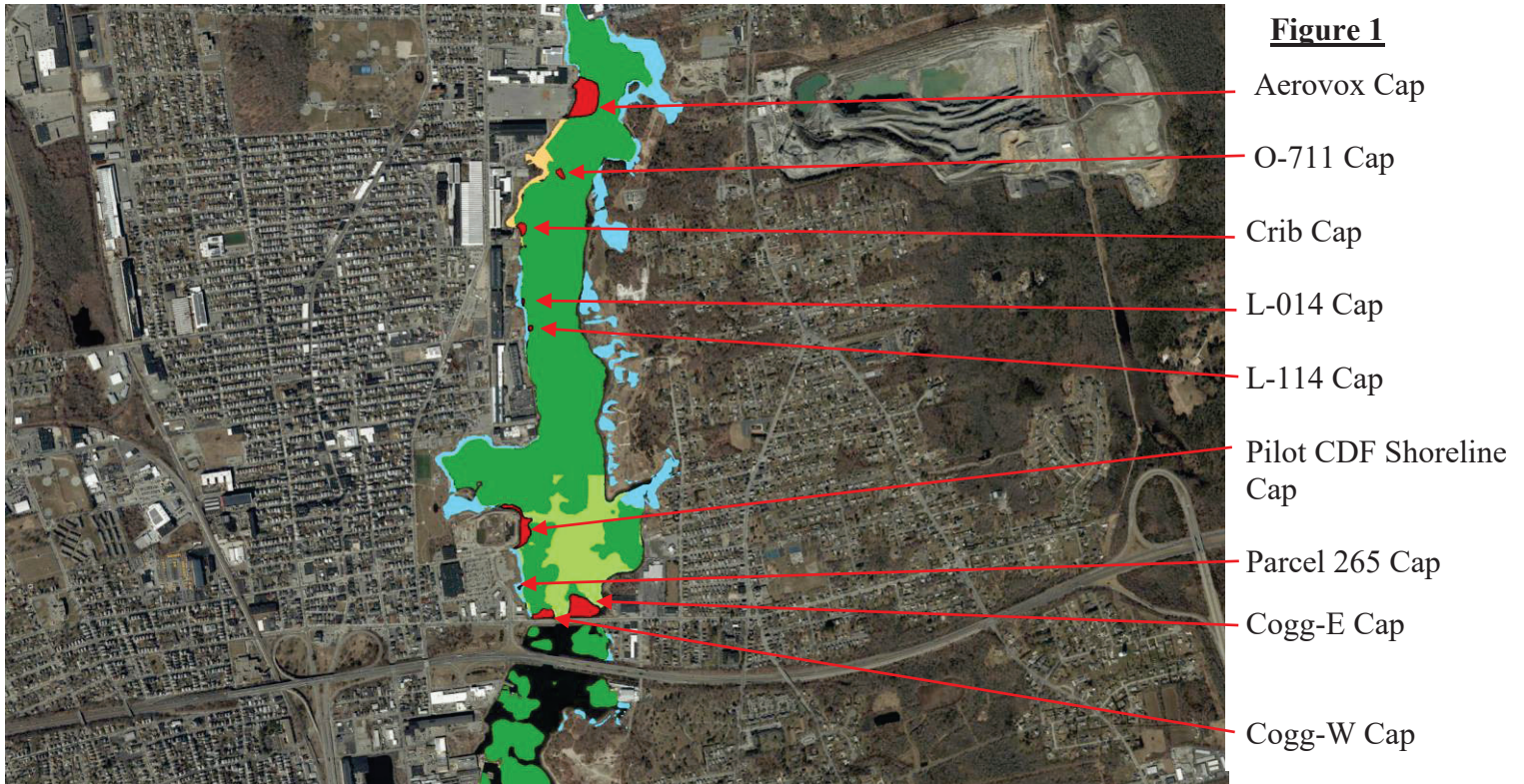




Figure 2:
Aerovox Cap:
Looking north
showing the
northern area of
the cap. In the
foreground is the
North Trench
storm drain outlet
at the toe of
slope.



Figure 3:
**Aerovox
Cap:**
Looking
north
showing
the South
Trench
storm drain
outlet.



Figure 4:
Aerovox Cap:
Looking south
showing the
South Trench
storm drain
outlet in the
foreground.



Figure 5:
Aerovox Cap:
Looking
northeast
showing the
southern area of
the cap and the
abutting Hadley
Street storm drain
swale in the
foreground.



Figure 6: **Crib Cap:** Looking north showing the southern area of the cap and the abutting stone seawall with chain link fence along the left/western side of the cap.



Figure 7: **Crib Cap:** Looking north.



Figure 8: **Crib Cap:** Looking south showing the top of the abutting seawall with chain link fence along the western side of the cap.



Figure 9: **Crib Cap:** Looking west showing the northern east-west trending edge of the cap. The restored WZ2/3 saltmarsh plantings are in the background beyond the cap armor stone.



Figure 10: L-014 Cap: Looking north. Saltmarsh grasses in the photo are the WZ-4 restoration.



Figure 11: L-014 Cap: Looking south. The sandy topsoil in the foreground is topsoil that eroded from the abutting WZ-4 saltmarsh restoration, and NOT the underlying sediment cap isolation layer.



Figure 12: Photo taken looking east at exactly low tide (1:26pm) in the vicinity of the **L-114 cap**. No cap visible even at these extreme low tide conditions. Winds were 8-10 mph from the north which can help keep water levels even lower (*i.e.*, this would have been the best time to see any emergent parts of this cap).



Figure 13: **Pilot CDF Shoreline Cap** looking east showing the southern part of the cap. Note the many oysters that have self-colonized along the toe-of-slope.



Figure 14: **Pilot CDF Shoreline Cap** looking north showing the N/S trending/eastern part of the cap.



Figure 15: **Pilot CDF Shoreline Cap** looking west showing the northern portion of the cap.



Figure 16: **Parcel 265 Cap** looking north. Note that due to the extreme low tide this is by far the most of this cap that has been visible during these shoreline visual inspections.

Also note the many oysters that, as also shown in Figure 13, have colonized this cap and the surrounding area.



Figure 17: **Cogg-West Cap** looking southeast. The City CSO outfall structure can be seen on the right side of the photo.



Figure 18:
**Cogg-West
Cap** looking
west from the
opening of the
Coggeshall
Street bridge.



Figure 19:
**Cogg-East
Cap** looking
east from the
opening of the
Coggeshall
Street bridge.



Figure 20: **Cogg-East Cap** looking north from the Coggeshall Street bridge.



Figure 21: **Cogg-East Cap** looking northwest showing the eastern portion of the cap.