UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Memorandum

DATE: August 22, 2023
SUBJ: 5/5/2023 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: 2023.08.22 13:41:08 -04'00'

This memo documents the visual shoreline inspection of all Upper Harbor (UH) sediment caps performed by D. Dickerson on 5/2/2023. The inspections took place between approximately one hour before and one hour after a -0.2 ft low tide at 1:43 pm that day, since only the intertidal portions of the caps can be seen visually. Wind was approximately 5-10 mph from the north. Two caps, 0-711 and L-114, were completely subtidal and thus could not be seen. At the Parcel 265 cap, only the very top few stones of the cap could be seen (Figure 15). Bathymetric and topographic surveys planned for fall 2023 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. The Parcel 265 cap, located between the pilot CDF shoreline cap and the Cogg-West cap was installed in 2015 as part of the subtidal dredging operations in that area. Not shown on Figure 1 is the Aerovox sediment cap (just to the north of the Figure 1 boundary) that was also visually inspected on 5/5/2023.

Figures 2 through 20 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 only one action item required (an updated placeholder from the May 2022 cap inspection):

- At the Crib cap, when implementing the upcoming West Zone 2/3 remedial action in 2023/2024, consider use of a low-ground-pressure small excavator to create a more uniform, smoother (less undulating) stone surface. This would aid in visually detecting potential stone displacement moving forward during O&M to minimize the need for topographic/bathymetric surveys during O&M. Additional stone could be added if necessary to help create this uniform, smoother surface.

Figure 1: **Sediment Cap Locations**

← 0-711 cap

← Crib cap

← L-014 cap

← L-114 cap

← Pilot CDF shoreline cap

← Parcel 265 stone cap

← Cogg-W and Cogg-E caps

Figure 2: **Aerovox Cap**: Looking west showing the improved east end of the Graham Street drainage swale, with larger stone added. Remnants of the original smaller stone that washed out can be seen.

Figure 3:
Aerovox Cap: Looking north showing the northern portions of the cap. The silt curtain and oil boom are from on-going 21E operations.

Figure 4:
Aerovox Cap: Looking south showing the new South Trench discharge structure in foreground. Emergent salt grass noted in previous inspection remains near outfall.

Figure 5: **Aerovox Cap**: Looking NE showing the Hadley Street storm drain outfall which abuts the southern end of this cap.

Figure 6: **Crib Cap l**ooking north. The white stake is the location of an old storm drain.

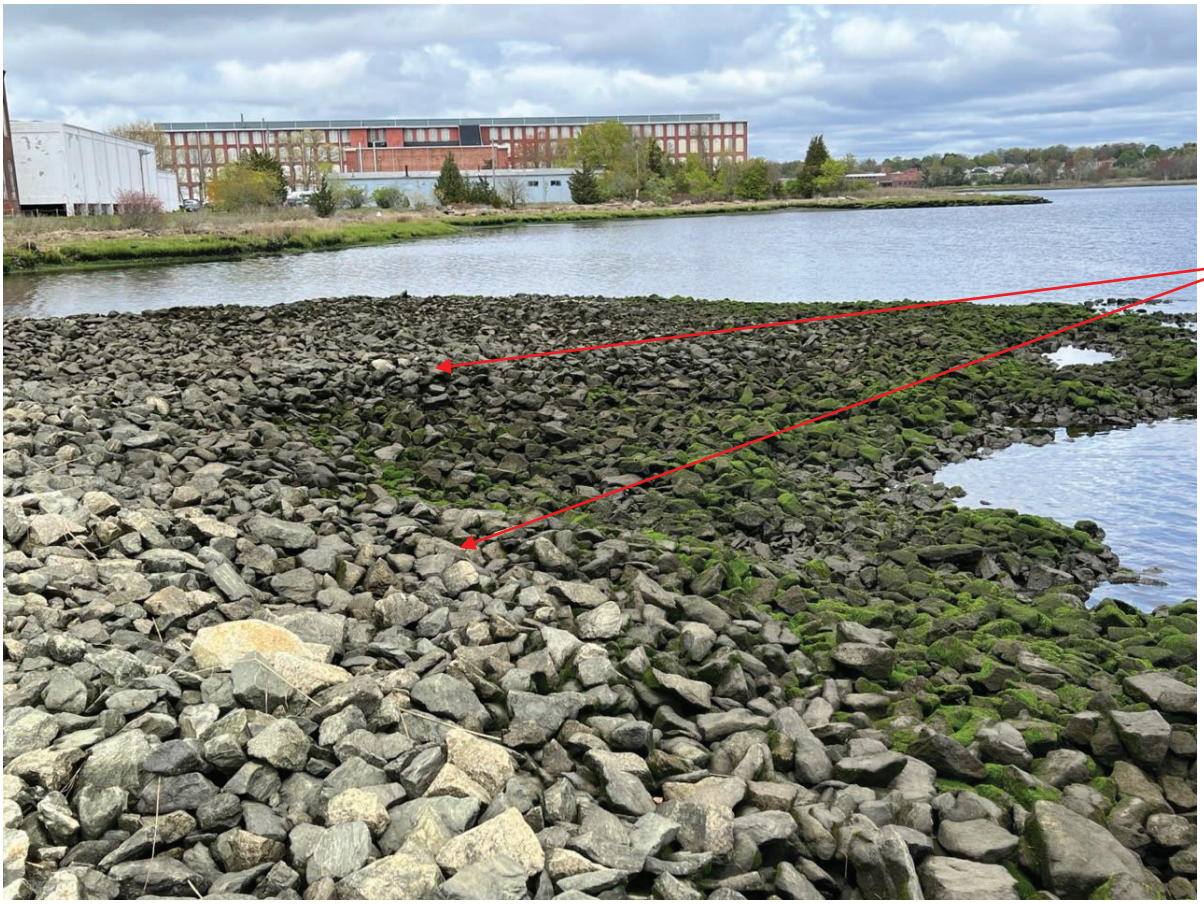

Figure 7: **Crib Cap l**ooking north, showing examples of high spots to be smoothed per the one action item discussed above on p.1.

Figure 8: **Crib Cap l**ooking west, showing the northern edge of this cap.

Figure 9: **L-014 Cap l**ooking north. Light brown color is silt/topsoil deposition from a WZ-4 drainage swale.

Figure 10: **L-014 Cap l**ooking east, showing the WZ-4 drainage swale and related silt and topsoil deposition.

Figure 11: **L-014 Cap l**ooking south, showing silt deposition within the stone cap surface.

Figure 12: **Pilot CDF Cap** looking NE, showing the southern portion of this cap.

Figure 13: **Pilot CDF Cap** looking north, showing the eastern edge of this cap.

Figure 14: **Pilot CDF Cap** looking west, showing the northern edge of this cap.

Figure 15: **Parcel 265 Cap** looking east. Only a few cap stones are visible at low tide at this cap.

Figure 16: **Coggeshall-West Cap** looking SE. City storm drain structure is located at the 90 degree turn of the shoreline.

Figure 17: **Coggeshall-West Cap** looking west. Photo taken from near the bridge opening.

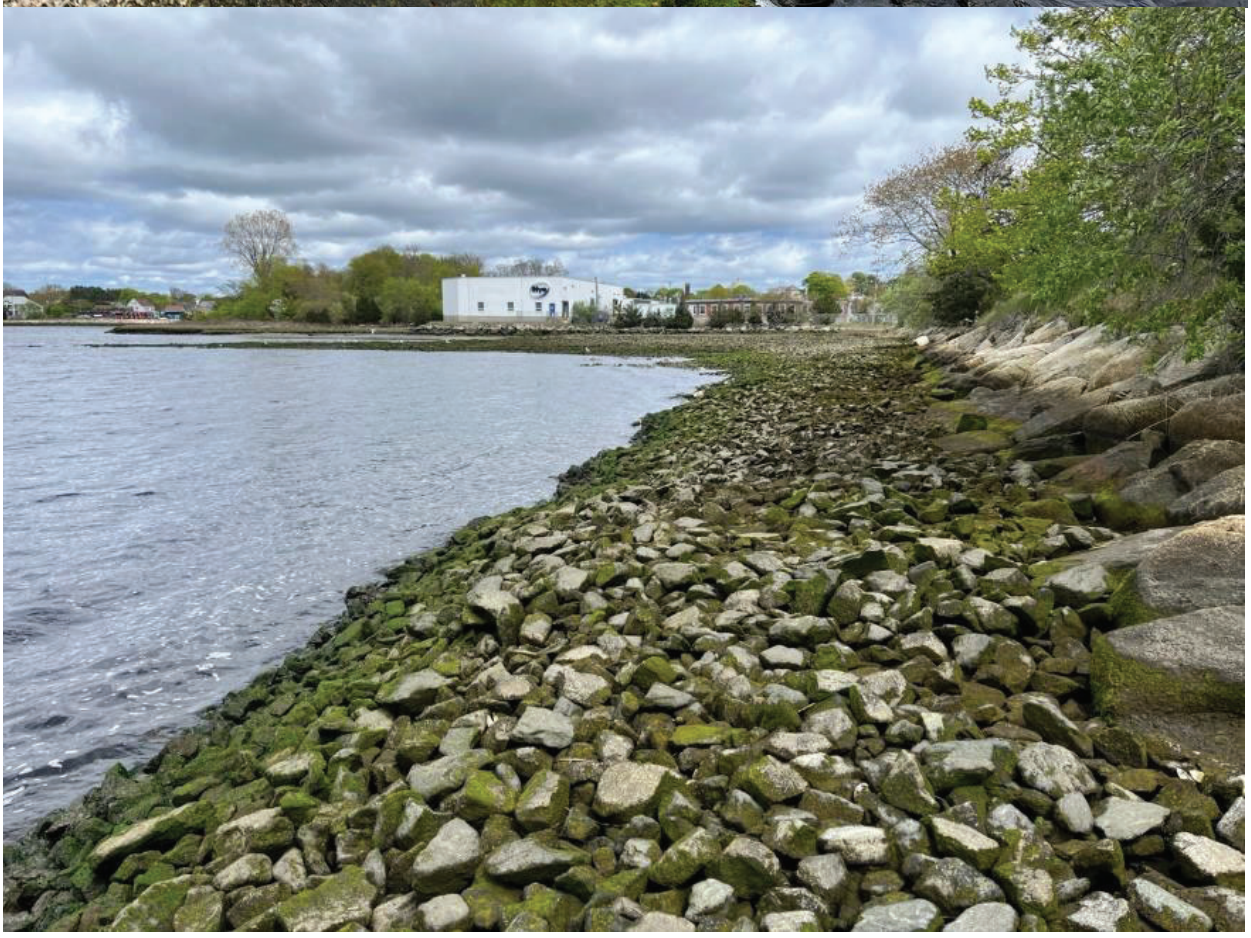

Figure 18: **Coggeshall-East Cap** looking east. Photo taken from near the bridge opening.

Figure 19: **Coggeshall-East Cap** looking north. Photo taken from the Coggeshall Street sidewalk.

Figure 20: **Coggeshall-East Cap** looking NW showing the eastern end of this cap. Photo taken from the Coggeshall Street sidewalk.