



*Section 4 Walnut Street Bridge
Pipe Restraint Replacement
MWRA Contract 7483
Change Order 3*

October 19, 2022

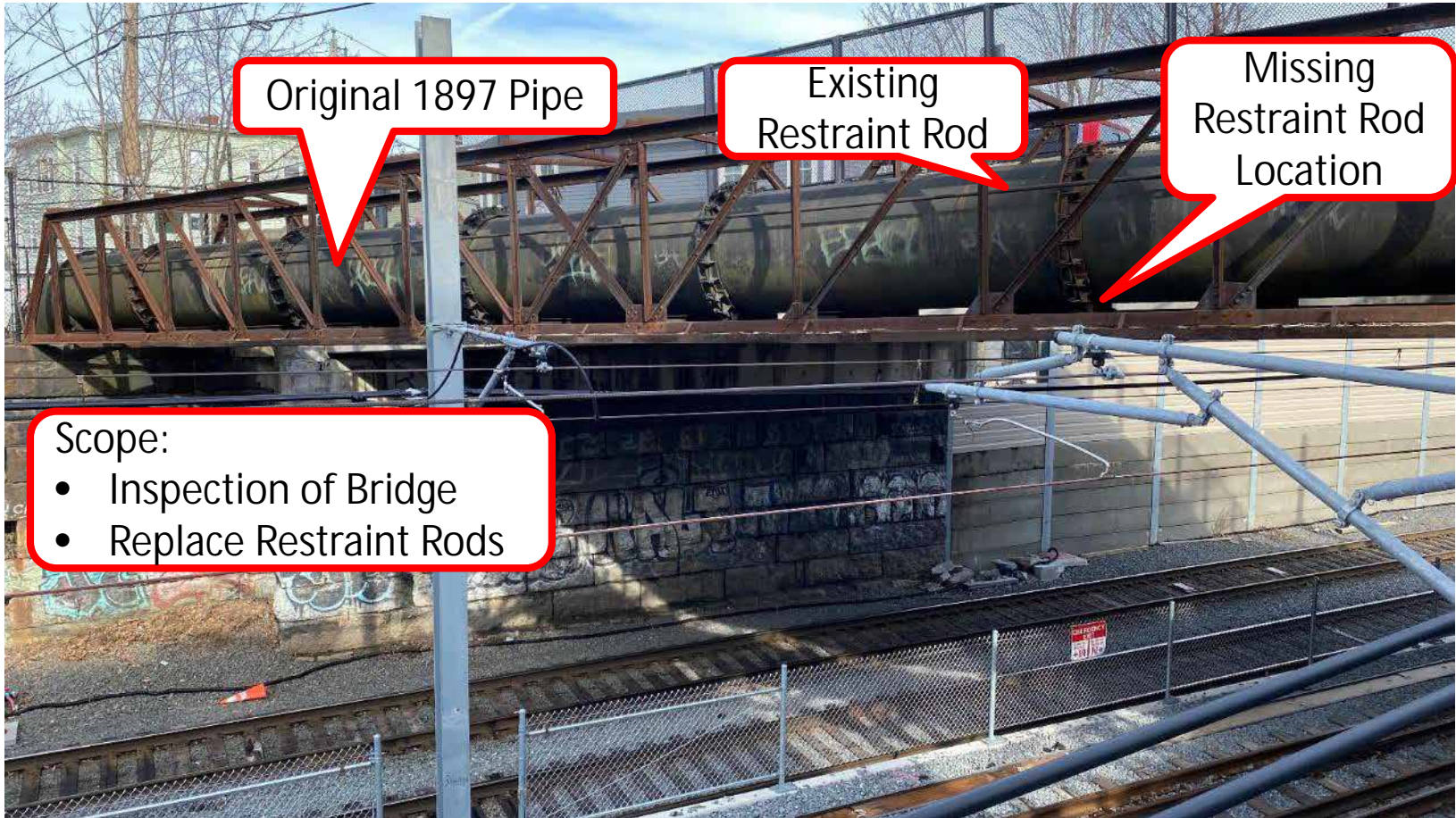


Project Surroundings





Pipe Bridge





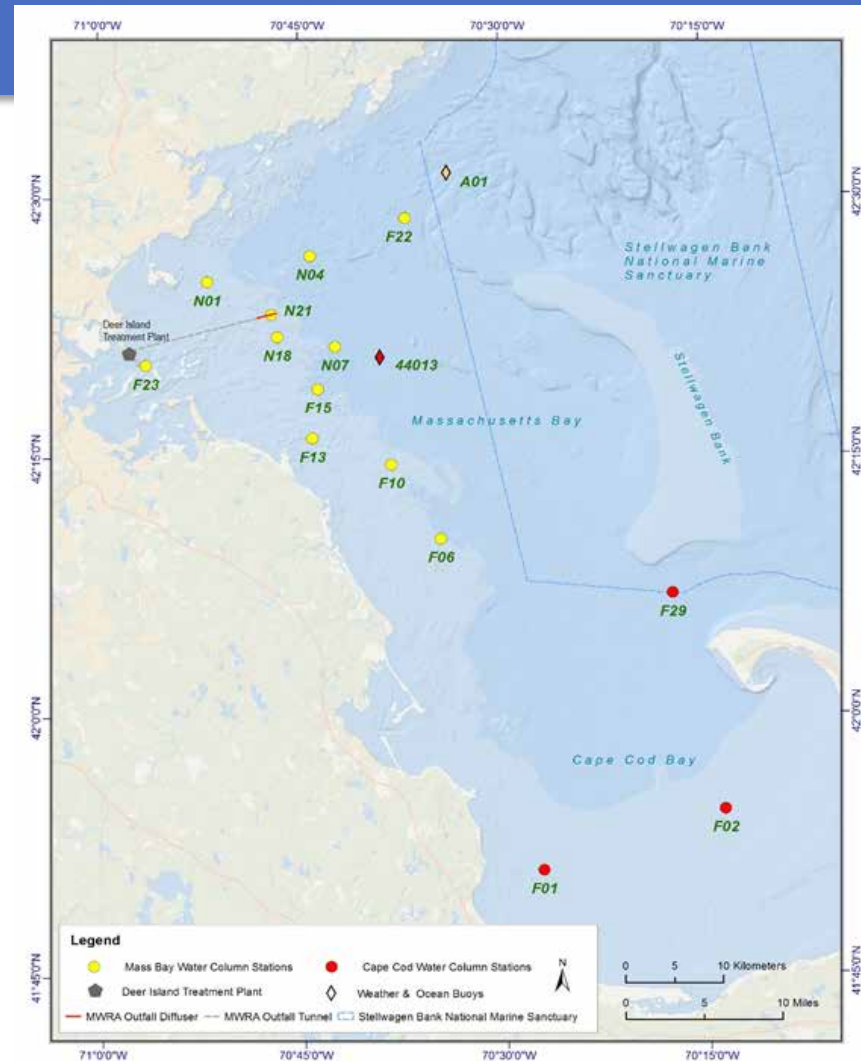
*MWRA's Outfall Monitoring Overview
2021 Results*

October 19, 2022



MWRA Ambient Monitoring

- Annual report to regulatory agencies and the public required November 15
- Moving discharge from Harbor to Bay in 2000 caused environmental concerns.
- Comprehensive monitoring required
- Monitoring has been reduced over time as issues have been addressed.
- OMSAP reviews the results of this program.





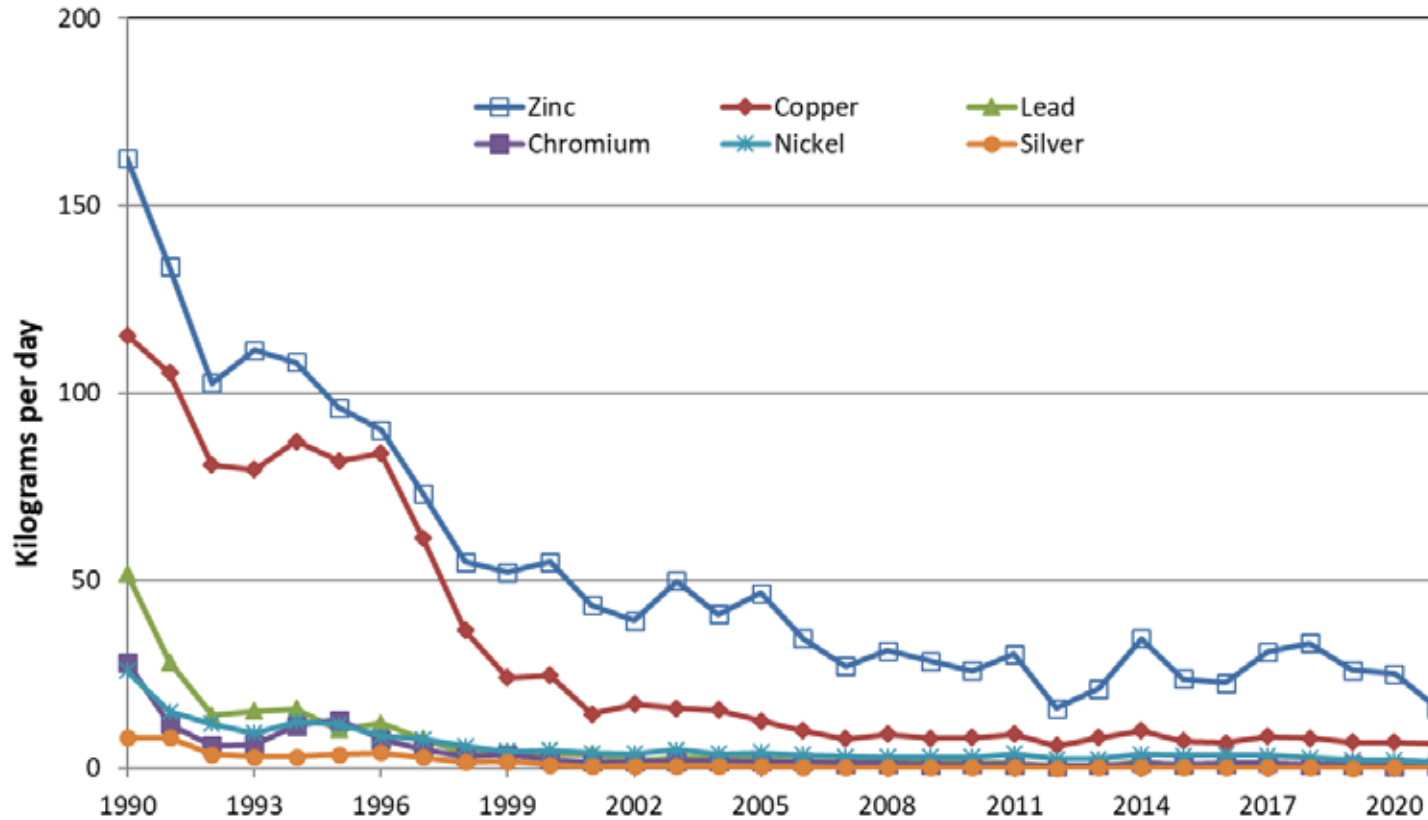
Outfall Monitoring Overview 2021 Highlights

- Effluent quality excellent (Platinum 15 award from NACWA)
- No adverse impacts of the outfall discharge on environmental quality in Massachusetts or Cape Cod Bays
- Water quality remains good. Plankton communities remain diverse and normal. Flounder liver disease remains low
- Some Contingency Plan threshold exceedances of dissolved oxygen and *Alexandrium*
- There were no other Contingency Plan threshold exceedances of the 46 other thresholds in 2021



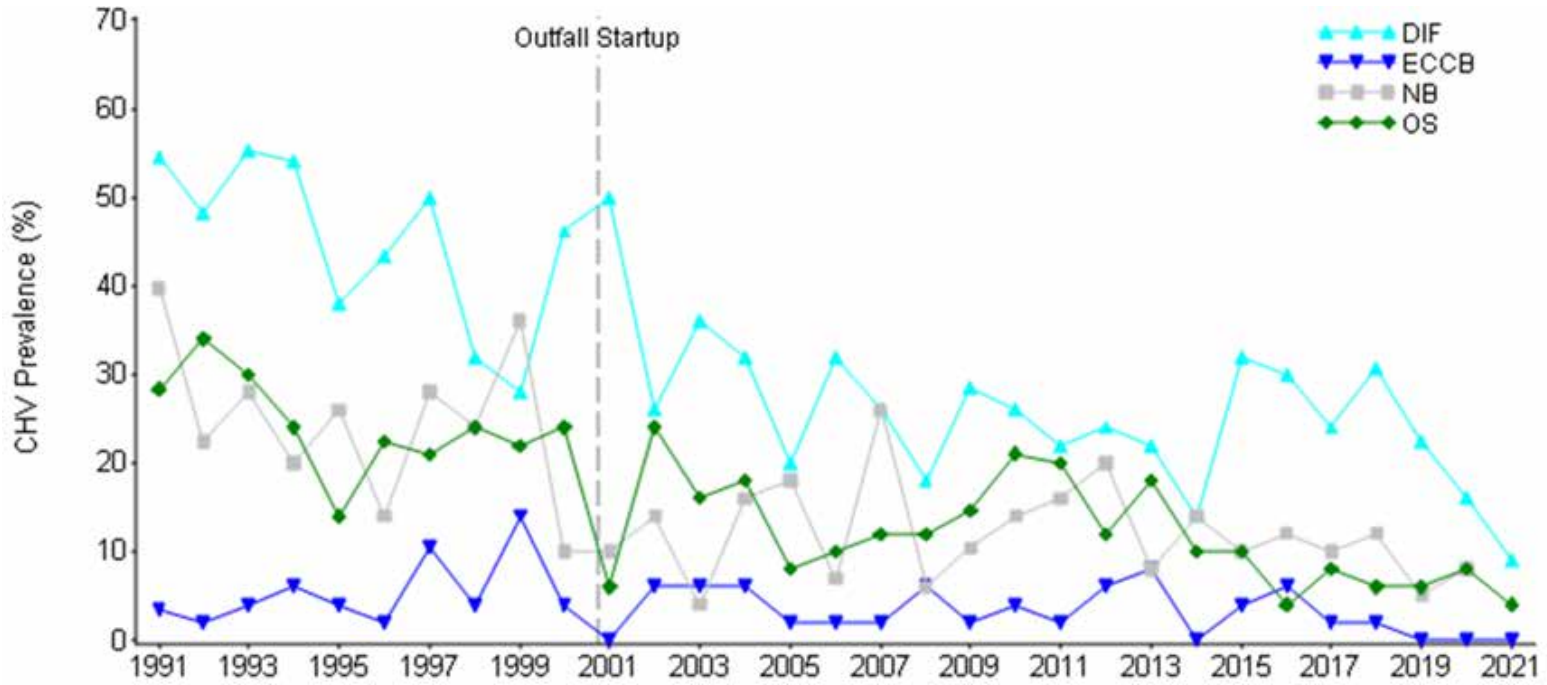


Metals Discharges Remain Low





Flounder Health Remains Excellent



DIF = Deer Island Flats; ECCB = East Cape Cod Bay; NB = Nantasket Beach; OS= Outfall Site



Contingency Plan Threshold Exceedances: 2021 and 2022

- Contingency Plan thresholds were
 - designed to signal changes from pre-outfall conditions
 - not to warn of imminent environmental harm
- Exceedances in 2021 and 2022 – mostly at Stellwagen Basin, but one in the outfall nearfield
 - Dissolved oxygen: September and November 2021, August and September 2022
 - *Alexandrium* (red tide): June 2021, July 2022
- Outfall not believed to be linked to exceedances. Exceedances may be related to region-wide, long term trends.



Contaminants of Emerging Concern

- MWRA participating in several studies examining both effluent and Massachusetts Bay waters. As of fall 2022, none of the studies have released final results

EPA sponsored pilot study	EPA sponsored pilot study	Woods Hole study
	Two Water Research Foundation projects	

- Effluent monitoring requirements for PFAS are standard in newly issued NPDES permits



Video From Outfall Diffuser: July 2020

(Outfall Diffuser Video)



*MOU and FAA with BWSC
for
Implementation of the Fort Point Channel
and Mystic/Chelsea Confluence CSO
Control Projects*

October 19, 2022



CSO Program Improvements

Major CSO Program Achievements:

- 35 Court Ordered Projects Completed by 2015
- \$912 million spent to date
- 3.3 billion gallons of CSO (late 1980s) reduced to 414 million gallons today, an 87% reduction
- 70 of the original 86 CSO meet goals, including 40 closed or 25-year control level
- 93% of remaining CSO volume is treated

Continued commitment to improvements:

- For 16 CSOs not meeting goals
 - design/construction underway for 6 CSO (Chelsea, East Boston, Somerville Marginal),
 - design/construction proposed through MOU & FAA with BWSC for 4 CSO,
 - continue to explore alternatives on 6 challenging CSOs (All in Variance Waters).



Mystic/Chelsea Confluence CSO Control Project





Fort Point Channel CSO Control Projects





Proposed Financial Assistance Agreement

- Provides up to \$10 million for design and construction of proposed CSO improvements, paid in annual grant disbursements
- Agreement from November 1, 2022 through June 30, 2025
- BWSC hired Stantec for design, construction services, and resident inspection on October 3, 2022 (\$1.75 million)
- Substantial completion by December 2024 to align with extension of Court Order and submittal of final Supplemental Report.