



*Presentation to*

**MWRA Board of Directors**

*Deer Island Wastewater Treatment Plant  
Draft National Pollutant Discharge Elimination  
System (NPDES) Permit and  
State Surface Water Discharge Permit  
Comment Letter Overview*

November 15, 2023



# Comment Letter on Draft Deer Island NPDES Permit

- On May 31 EPA issued a draft Deer Island NPDES Permit and MassDEP issued a separate Surface Water Discharge Permit
- Public Comment Period closes November 28
- Comments are made to:
  - Request certain elements be changed
  - Preserve right to appeal

NPDES Permit No. MA0103284 2023 Draft Permit

**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended, 33 U.S.C. §§ 1251 et seq. (the "CWA").

**Massachusetts Water Resource Authority (MWRA)**

is authorized to discharge from the facility located at

**MWRA Deer Island Treatment Plant (DITP)  
190 Tafts Avenue  
Winthrop, MA 02152**

to the receiving water named

Receiving Water	Segment	Outfall
Massachusetts Bay	Undefined, 314 CMR 4.06, Table 23	T01

and

**Four (4) Combined Sewer Overflow (CSO) Treatment Facilities with 5 outfalls  
to the receiving waters named**

Receiving Water	Segment	CSO Treatment Facility Name	Outfalls
Boston Inner Harbor	MA70-02	Prison Point	MWR203
Boston Inner Harbor	MA70-02	Union Park	MWR215
Mystic River	MA71-03	Somerville Marginal	MWR205
Upper Mystic River	MA71-02	Somerville Marginal	MWR205A
Charles River	MA72-38	Cottage Farm	MWR201

and

**Six (6) additional Combined Sewer Overflow (CSO) Outfalls (See Attachment A)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.



# Important Positive Elements of the Draft Permit

- Seasonal Enterococcus limit
- No Nitrogen Limit
- Removed Contingency Plan





# Comment Letter Highlights

- Blending:
  - Important to maximize flows to the plant, needs to be incorporated into the permit
- Co-Permittees
- Storm Event Plans/Adaptation Plans:
  - Significant level of effort, unbalanced with other needs
  - Modified language in recent permits





# Comment Letter Highlights

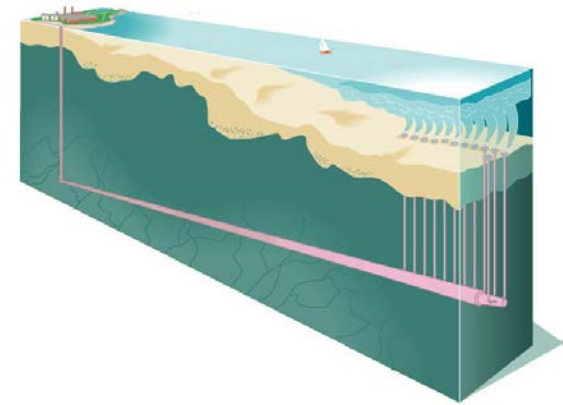
- CSO Program:
  - Concerns with setting LTCP volume and activation goals as limits
- Nuisance and Harmful Algal Bloom Monitoring:
  - Some reductions in MA Bay Monitoring Program
  - But algal monitoring additions are significant
- Pretreatment Program:
  - Report deadlines





# Comment Letter Highlights

- Other Elements
  - Strict Acute Toxicity Test limit
  - Challenging Seasonal Event CSO Sampling Program
  - Costly Outfall Tunnel Video Inspection required
  - Generic Narrative requirements compliance





## After the Public Comment Period Closes:

- EPA will compile all the comments, develop responses, make changes to the permit language, and finalize the permit.
- There is no set time period for going from draft to final – it can take from months to years.
- When the final permit is issued, permit limits generally start approx. 60 days later
- If there is an appeal, it first goes to the EPA Environmental Appeals Board, and then to the First Circuit if the appeal is pursued further.
- Appeal of state Surface Water Discharge Permit first goes to MassDEP's Office of Appeals and Dispute Resolution.



# Questions?







*Presentation to*

**MWRA Board of Directors**

*Operation and Maintenance of the  
Fore River Pelletizing Plant  
New England Fertilizer Company  
Contract S592*

November 15, 2023



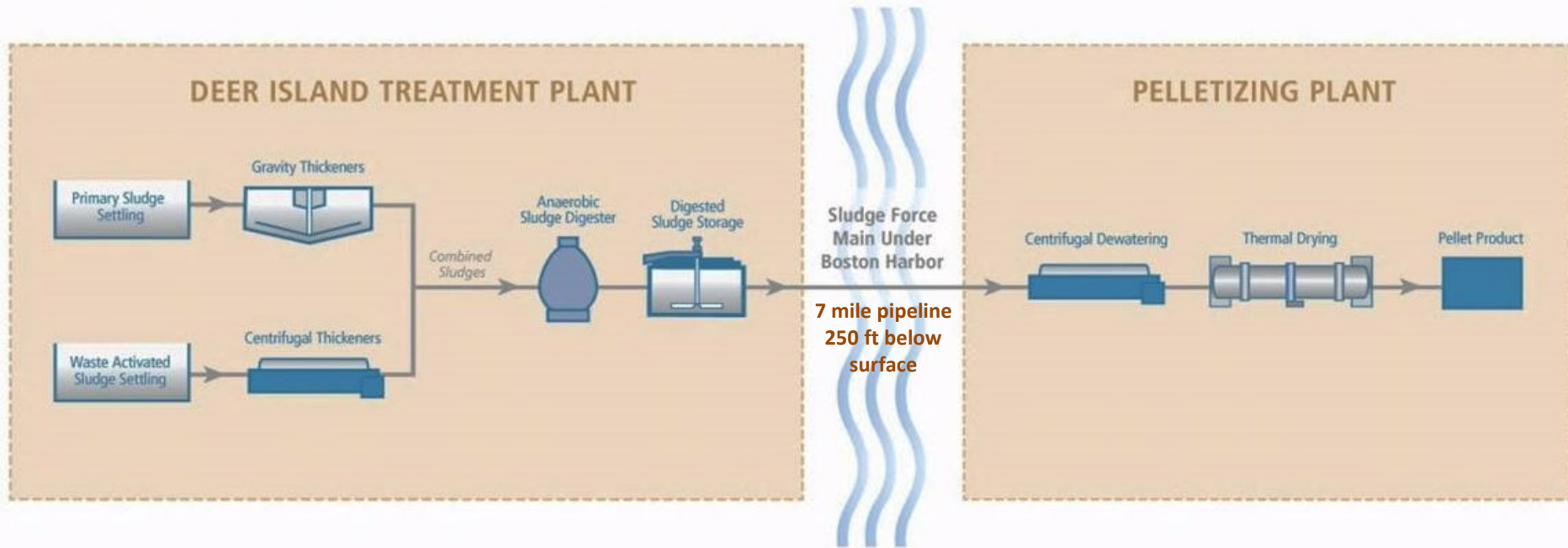
# MWRA Pellet Plant in Quincy, MA

- **Located in Fore River Shipyard**
- **Designed, Constructed & Owned by MWRA**
  - Total cost - \$133 M
- **FY24 Budget - \$20,343,524 (105 dtpd)**
  - Plus \$6,208,643 for landfilling
- **Contract Operation and Maintenance since startup**
  - Contract 1: 1991 – 2001      Competitive Bid – NEFCo
  - Contract 2: 2001 – 2015      Competitive Bid – NEFCo
    - Amendment 1      Negotiated 5-Year Extension (through end 2020)
    - Amendment 2      Loss of remote silos
    - Amendment 3      2 yr extension + 1 optional year





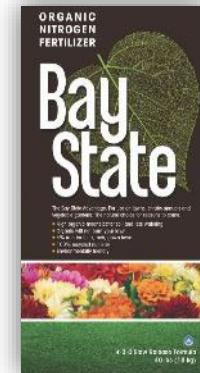
## Existing Solids Process Flow Diagram





# MWRA Pellet Plant

- **Processes liquid sludge from Deer Island**
  - Receives digested sludge
  - Dewateres with centrifuges
  - Dries with thermal dryers
  - Produces Class A EQ Fertilizer Pellet
- **Processes 105 dry tons sludge daily**
  - Contract has 95 dtpd base quantity
- **Markets/distributes 34,000 tons fertilizer pellets**

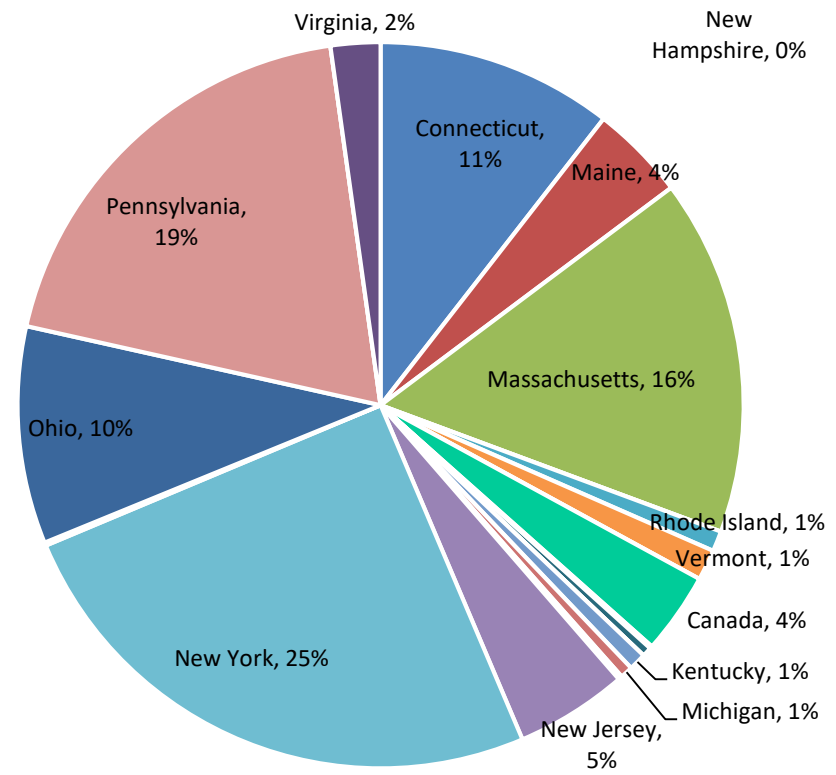




# Pellet Plant O&M Contract: S592

- **Issued as RFQ/P**
  - Operate & Maintain Pellet Plant
  - Contract Duration: 10-years
  - Expected production: 105 dtpd, 95 dptd base
  - Goal: beneficial use
  - Responsible for testing/determine compliance
  - Separate line item for Marketing and Disposal
  - Contractor accepts Title to Biosolids, is responsible for liability and indemnifies MWRA for end use
  - Includes landfill contingency due to PFAS

## MWRA Pellet Distribution - 2022



- **Capital projects – by MWRA**



- **Issued as RFQ/P (April 25, 2023)**
  - 15 Firms Solicited
  - 10 Firms requested RFQ documents
  - May 23, 2023 held pre-proposal conference/tour
  - 3 Firms submitted qualifications statements, 2 deemed qualified received RFP
    - New England Fertilizer Company
    - Veolia Water North America – Northeast, LLC
- **RFP issued June 14, 2023**
  - MWRA received over 150 questions from potential proposers
    - Veolia ultimately did not submit proposal citing risk allocation
    - MWRA received one proposal on September 29, 2023



## Pellet Plant O&M Contract: S592

- **One Proposal: NEFCo**
- NEFCo Proposal Price: **\$229,289,350**
- Engineer's Estimate: **\$189,777,563**
- Total cost including estimated excess quantities and index adjustments: **\$340,768,294**
- Alternate Disposal Option Cost **\$2,825,360 per year**



*Presentation to*

**MWRA Board of Directors**

*Update on Lead and Copper Rule  
Compliance – Fall 2023*

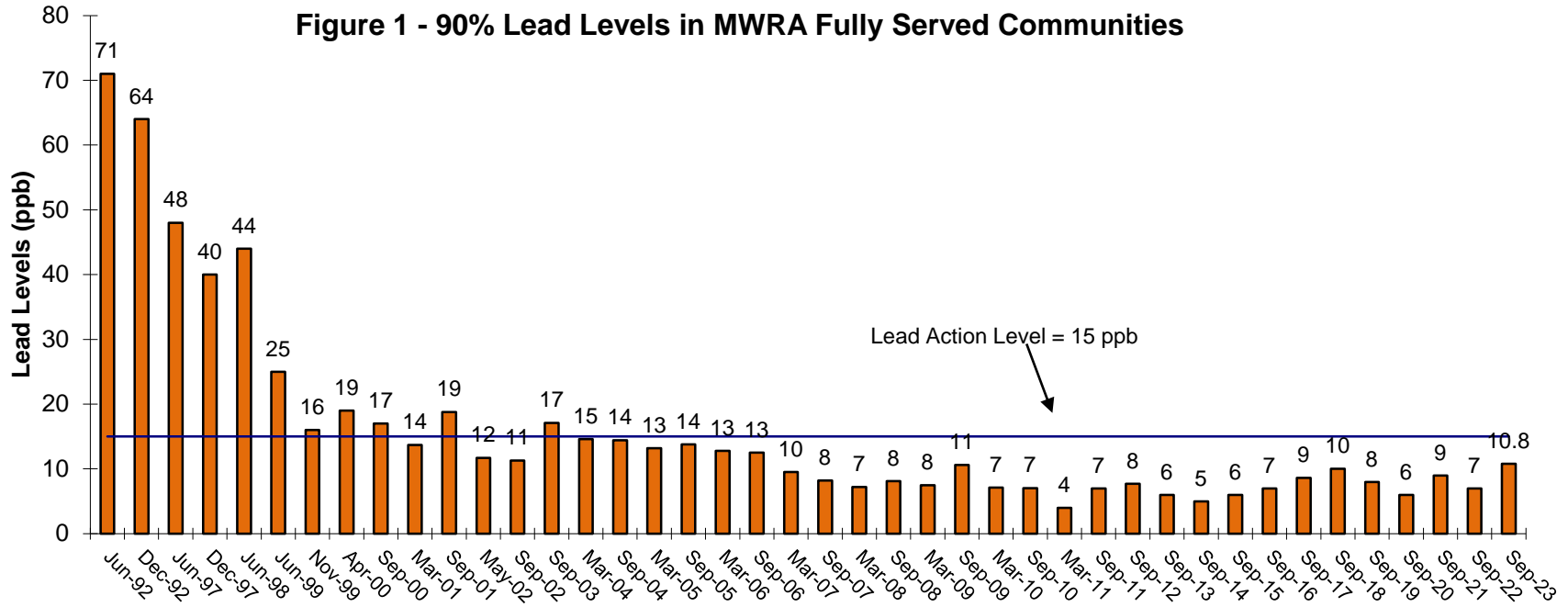
November 15, 2023





# 2023 System-Wide Lead Levels are Below the Action Level

Figure 1 - 90% Lead Levels in MWRA Fully Served Communities





*Presentation to*

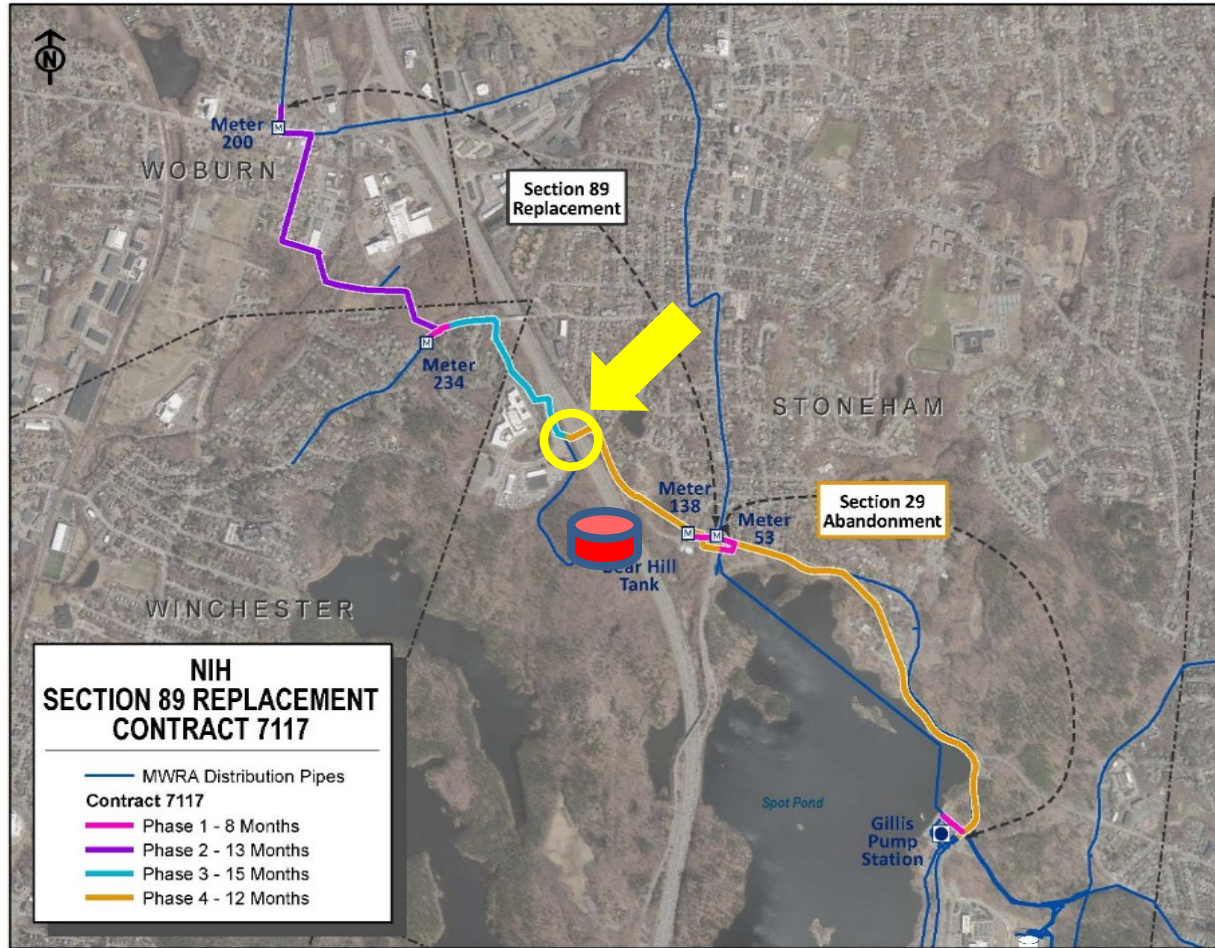
**MWRA Board of Directors**

***Northern Intermediate High Section 89  
Replacement Pipeline  
Contract 7117 – Change Order 5***

November 15, 2023

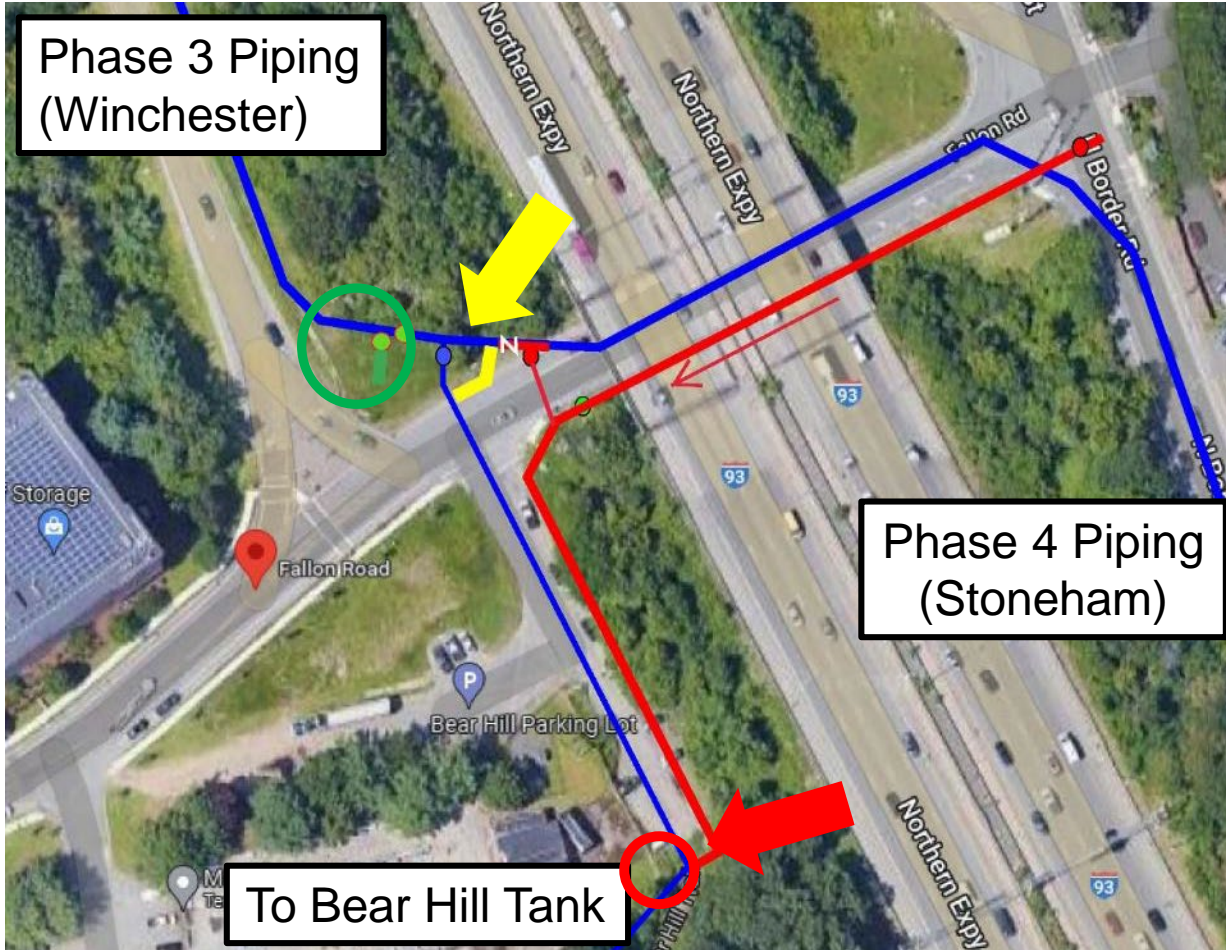






# Contract 7117 NIH Section 89 Replacement





# Bear Hill Tank Bypass Redesign



-  Section 89 Piping
-  Original Bypass Piping
-  Revised Bypass Piping
-  Future BHT Connection



## Pre-stressed Concrete Cylinder Pipe

- Several catastrophic breaks have occurred around the country due to brittle wire issues in Pre-stressed Concrete Cylinder Pipe (PCCP).
- Section 89 pipeline in the MWRA Water System is comprised of PCCP.

