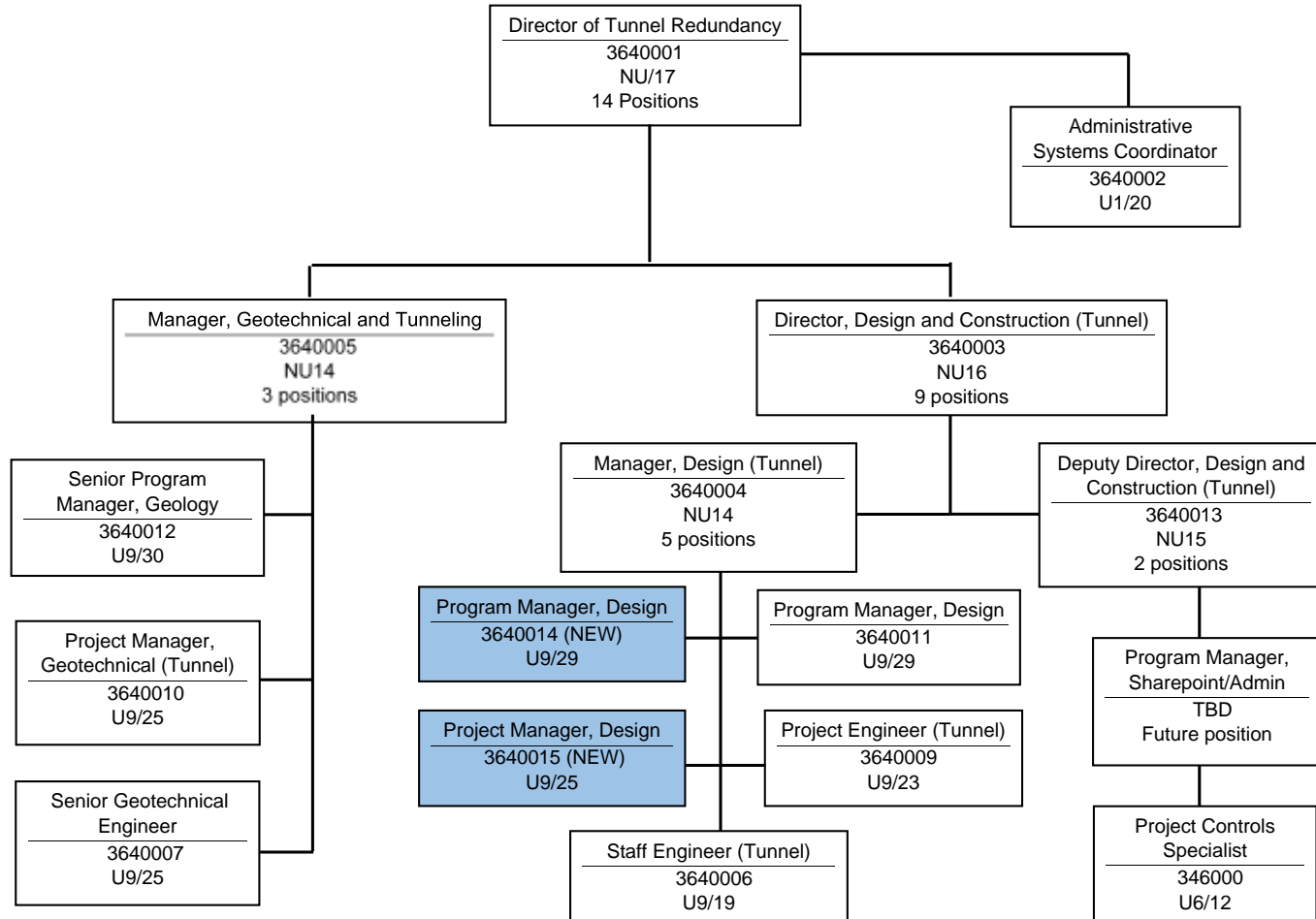




Tunnel Redundancy Org Chart





*Infiltration/Inflow Local Financial Assistance
Program
Annual Update*

February 16, 2022



Infiltration/Inflow (I/I)



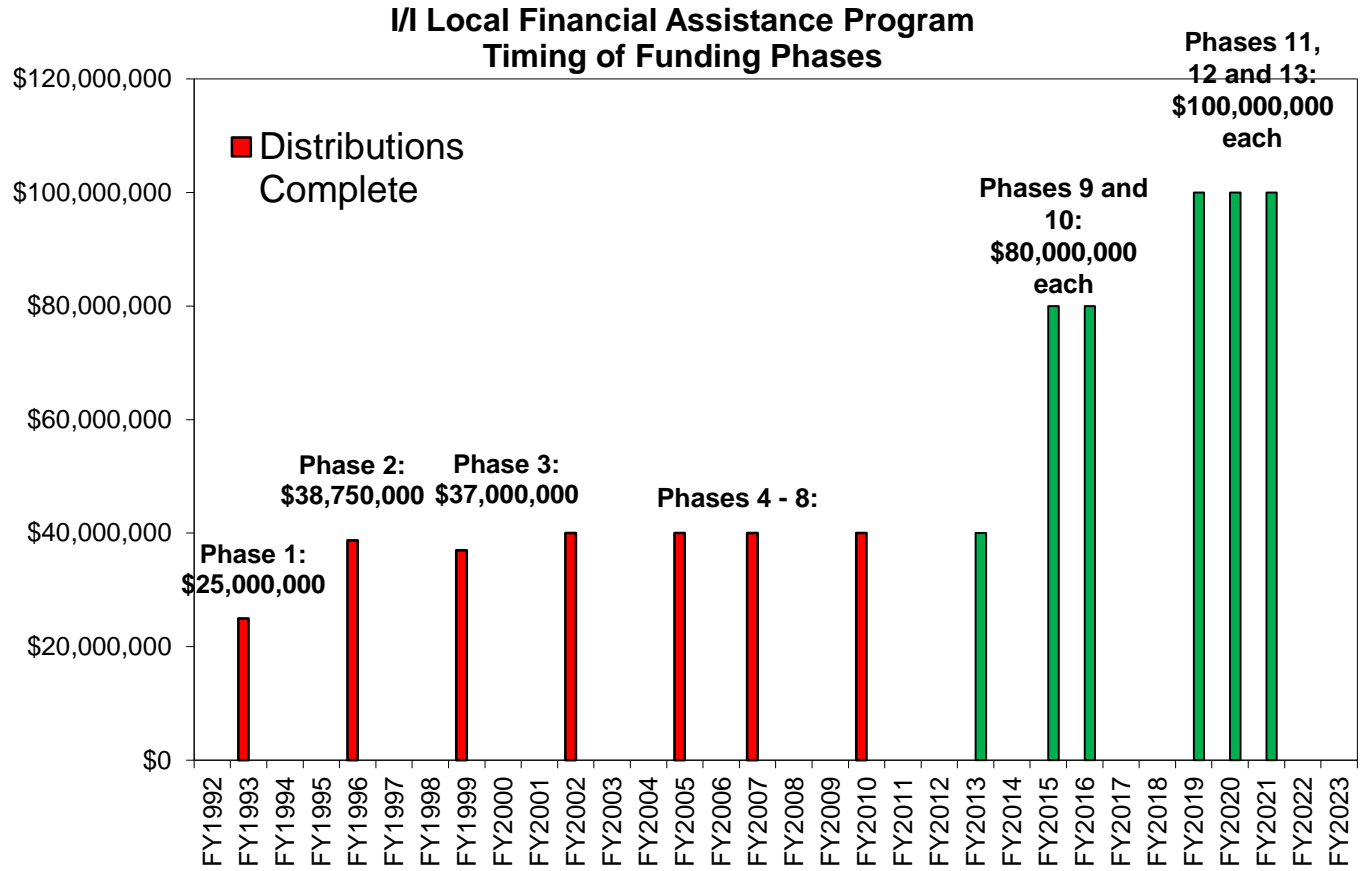
Infiltration
(Groundwater via physical defects)

Inflow
(Stormwater via direct connections)

Goal: Rehabilitation of local sewer systems and long-term reduction of I/I



MWRA's Long-Term Commitment to Fund I/I Reduction





MWRA I/I Local Financial Assistance Program Funding Summary

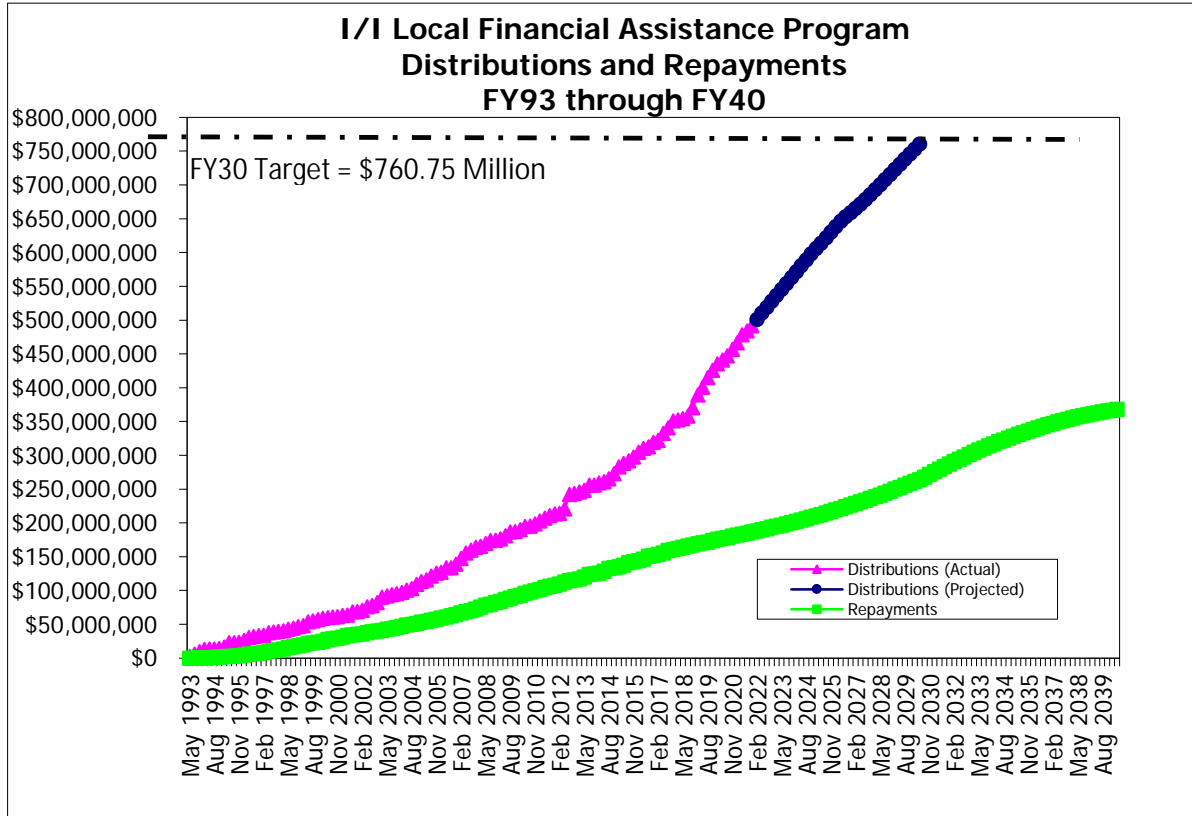
ATTACHMENT 1 MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM FUNDING SUMMARY AS OF DECEMBER 2021

Community	Total Allocations (Phases 1 - 13)	Total Distributions (Phases 1 - 13)	Percent Distributed	Funds Remaining
Arlington	\$13,703,000	\$10,671,900	78%	\$3,031,100
Ashland	\$3,818,500	\$2,020,060	53%	\$1,798,440
Bedford	\$5,654,600	\$2,843,600	50%	\$2,811,000
Belmont	\$8,255,100	\$5,135,100	62%	\$3,120,000
Boston	\$218,001,200	\$110,768,951	51%	\$107,232,249
Braintree	\$14,419,000	\$10,031,743	70%	\$4,387,257
Brookline	\$21,355,200	\$10,666,200	50%	\$10,689,000
Burlington	\$8,432,800	\$7,322,800	87%	\$1,110,000
Cambridge	\$39,250,100	\$28,830,100	73%	\$10,420,000
Canton	\$6,635,900	\$2,948,500	44%	\$3,687,400
Chelsea	\$11,760,100	\$11,760,100	100%	\$0
Dedham	\$9,220,000	\$8,060,000	87%	\$1,160,000
Everett	\$13,381,500	\$9,061,300	68%	\$4,320,200
Frammingham	\$20,375,000	\$13,671,000	67%	\$6,704,000
Hingham	\$2,802,500	\$2,412,500	86%	\$390,000
Holbrook	\$2,779,600	\$896,562	32%	\$1,883,038
Lexington	\$12,125,300	\$10,565,300	87%	\$1,560,000
Malden	\$20,683,900	\$6,725,900	33%	\$13,958,000
Medford	\$19,637,600	\$7,961,600	41%	\$11,676,000
Melrose	\$10,126,300	\$8,657,300	85%	\$1,469,000
Milton	\$9,014,500	\$9,014,500	100%	\$0
Natick	\$9,332,600	\$6,832,600	73%	\$2,500,000
Needham	\$9,977,600	\$4,018,600	40%	\$5,959,000
Newton	\$34,937,400	\$34,937,400	100%	\$0
Norwood	\$11,589,400	\$6,879,400	59%	\$4,710,000
Quincy	\$32,780,000	\$28,450,000	87%	\$4,330,000
Randolph	\$10,070,800	\$4,971,058	49%	\$5,099,742
Reading	\$7,749,100	\$6,709,100	87%	\$1,040,000
Revere	\$16,940,900	\$5,802,900	34%	\$11,138,000
Somerville	\$25,955,800	\$12,116,900	47%	\$13,838,900
Stoneham	\$7,829,900	\$6,859,900	88%	\$970,000
Stoughton	\$7,902,900	\$6,842,900	87%	\$1,060,000
Wakefield	\$9,806,900	\$8,526,900	87%	\$1,280,000
Walpole	\$6,110,000	\$4,490,000	73%	\$1,620,000
Waltham	\$22,282,400	\$19,214,560	86%	\$3,067,840
Watertown	\$10,155,800	\$7,335,800	72%	\$2,820,000
Wellesley	\$9,249,700	\$4,739,700	51%	\$4,510,000
Westwood	\$4,302,300	\$2,591,300	60%	\$1,711,000
Weymouth	\$19,100,900	\$12,225,900	64%	\$6,875,000
Wilmington	\$4,232,000	\$2,462,000	58%	\$1,770,000
Winchester	\$6,793,000	\$5,923,000	87%	\$870,000
Winthrop	\$5,553,400	\$5,083,400	92%	\$470,000
Woburn	\$16,665,500	\$14,675,500	88%	\$1,990,000
Totals	\$760,750,000	\$491,713,834	65%	\$269,036,166

- \$35 million distributed to 23 communities in CY21
- \$760.75 million approved (13 Phases)
- \$492 million distributed (FY93 - December 2021)
- \$187 million loans repaid to MWRA
- All 43 communities participating
- 639 local projects funded
- 568 projects complete / 71 projects ongoing
- Community allocation based on percent share sewer charge



I/I Funding - Distributions and Repayments





I/I Funding Results of Local Projects

TV Inspection of Sewers: 2,361 Miles





I/I Funding for Rehabilitation of Local Sewers

301 miles of sewer cured-in-place pipe (CIPp) liner installed
and 3,154 sewer spot repairs performed





I/I Funding for Rehabilitation of Local Sewers

22,625 manholes rehabilitated / sealed





I/I Funding for Rehabilitation of Local Sewers

1,433 miles of sewer main smoke tested

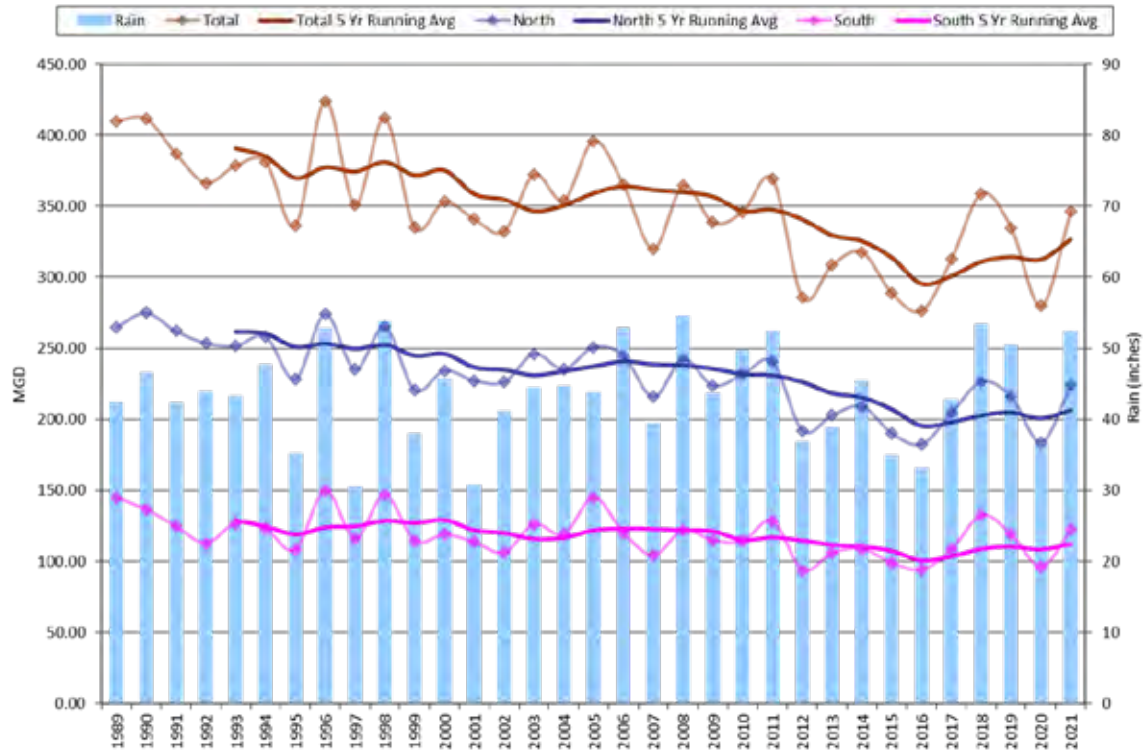
1,089 catch basins disconnected from sewer system





MWRA Long-Term Regional Flow Data – Gradual Decrease

ATTACHMENT 3
MWRA Long-Term Regional Flow Data
NOAA Annual Rainfall at Logan Airport





*Approval of Memorandum of Agreement with
Massachusetts Bay Transportation Authority,
ADA Compliant Bus Offload*

March 16, 2022



Deer Island Public Access Parking Lot





*Preferred Service Agreement for
Deer Island's Combustion Turbine Generators,
Mitsubishi Power Aero LLC*

March 16, 2022



Deer Island Combustion Turbine Generators





*Update on Lead and Copper Rule
Regulatory Issues*

March 16, 2022



EPA Initiated Changes

- With revisions to the LCR, staff anticipated changes after October 2024
- MWRA and Advisory Board community training - May 2021
- EPA has directed MassDEP to accelerate some aspects of the revised LCR to March 2022 – 2 ½ years early
- Affects 5 communities that are sampling now
- Affects all fully supplied with September sampling



Changed Requirements

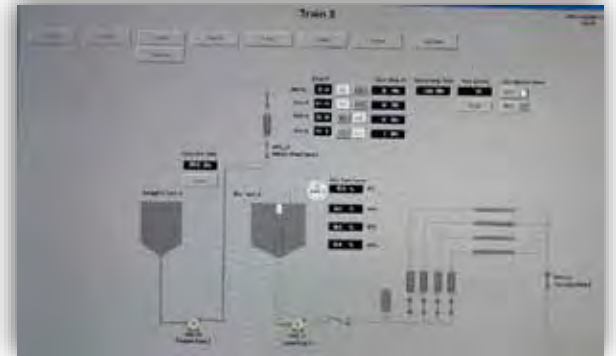
- 33 percent more samples (600 vs 450)
- Sampling only in homes with lead service lines
- Required rapid notification for every sample over the Action Level
- “Find and Fix” required at any site over the Action Level
 - Additional sampling and investigation within the home
- Only credit for full lead service line replacement
- Immediate (24-hour) public notification if a community is over the Action Level
 - Media announcement (similar to a confirmed *E. coli* event)
 - No simple closeout of “event”



Corrosion Control Treatment Review

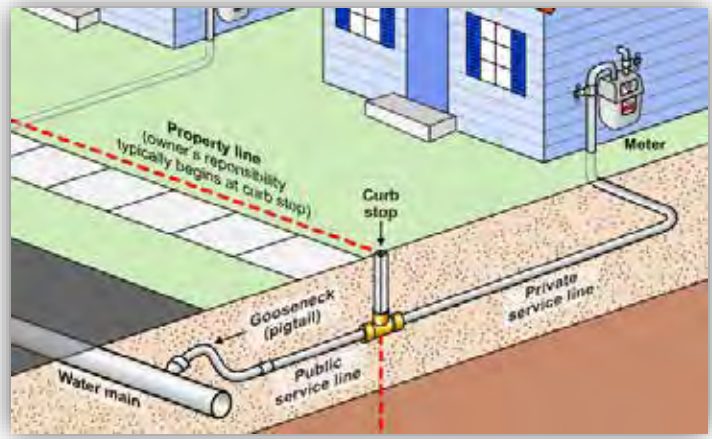
- MWRA proactively initiated planning for review of current corrosion control
- Pipe rig still in acclimation process
- Two meetings of expert panel in 2021-
third this spring
- EPA has requested quarterly updates

- Staff evaluating ways to accelerate
implementation if a change looks
promising





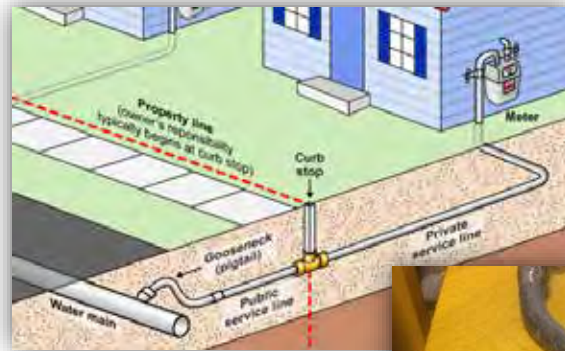
Lead Service Lines (December 2021)



- 2,248 LSL Full Replacements - Lead Loan
- 3,275 LSL Replacements - LWSAP



Lead Goosenecks (December 2021)



- 696 Lead Goosenecks Replaced – Lead Loan
- Not tracked under LWSAP



Lead Loan Participation 2016 - 2022

- \$30 million to 13 communities
- 11 of 18 communities with reported lead service lines
- 4 of 13 with reported lead goosenecks





Cooperative MWRA – MDPH sampling program

- MDPH inspects homes of families with children with elevated blood lead levels
- MWRA provides sampling kits and confidential laboratory services to MDPH
- One of few states with such a program – provides actionable data to MDPH and families
- Over 300 homes tested

Results (ppb)	1st Draws	2nd Draws	Total	Percentage
Less than 1	200	241	441	73%
Between 1-2	44	36	80	13%
Between 2-5	35	15	50	8%
Between 5-15	15	13	28	5%
>15	2	5	7	1%
Total Samples	296	310	606	100%



*Local Water System Assistance Program
Annual Update*

March 16, 2022



MWRA Local Water System Assistance Program Funding Summary

MWRA LOCAL WATER SYSTEM ASSISTANCE PROGRAM
ALLOCATION AND FUND UTILIZATION BY COMMUNITY
THROUGH DECEMBER 2021

Community	Community Total Allocation Phases 2 and 3	Total Distributions Phases 2 and 3	Percent Distributed	Funds Remaining
Arlington	\$11,912,000	\$6,900,000	58%	\$5,012,000
Ashland*	\$319,000	\$0	0%	\$319,000
Bedford*	\$6,095,000	\$2,118,000	35%	\$3,977,000
Bellingham	\$7,124,000	\$5,977,000	84%	\$1,147,000
Boston	\$91,341,000	\$79,634,324	87%	\$11,706,676
Brookline	\$8,011,000	\$660,000	8%	\$7,351,000
Burlington*	\$817,000	\$0	0%	\$817,000
Camden*	\$6,187,000	\$5,716,000	92%	\$471,000
Chelsea	\$8,853,000	\$6,325,700	71%	\$2,527,300
Dedham/Westwood*	\$1,352,000	\$1,352,000	100%	\$0
Dorset	\$10,979,000	\$7,191,200	66%	\$3,787,800
Framingham	\$15,163,000	\$10,017,900	66%	\$5,145,100
Leicester	\$6,001,000	\$1,145,215	19%	\$4,855,785
Lynnfield Water Dist.	\$3,274,000	\$1,156,000	35%	\$2,118,000
Malden	\$17,877,000	\$6,724,000	38%	\$11,153,000
Marlborough	\$5,349,000	\$5,259,000	98%	\$90,000
Martineau*	\$5,426,000	\$1,202,000	22%	\$4,224,000
Medford	\$17,759,000	\$1,297,000	7%	\$16,462,000
Melrose	\$10,854,000	\$6,734,000	62%	\$4,120,000
Milton	\$10,899,000	\$4,764,000	44%	\$6,135,000
Nobus	\$1,325,000	\$1,640,100	124%	\$1,864,900
Needham*	\$2,068,000	\$1,131,165	55%	\$1,936,835
Newton	\$31,239,000	\$15,625,700	50%	\$15,613,300
Northborough*	\$2,096,000	\$960,800	46%	\$1,135,200
Northwood	\$10,491,000	\$7,543,000	72%	\$2,948,000
Peabody*	\$3,844,000	\$3,844,000	100%	\$0
Quincy	\$21,757,000	\$19,000,200	87%	\$2,756,800
Reading	\$5,216,000	\$5,646,000	108%	\$1,430,000
Revere	\$10,144,000	\$7,160,000	70%	\$2,984,000
Rosary	\$16,309,000	\$7,242,994	44%	\$9,066,006
Somerville	\$18,113,000	\$5,398,134	30%	\$12,714,866
Southborough	\$3,482,000	\$0	0%	\$3,482,000
Southwick	\$7,081,000	\$1,199,000	17%	\$5,882,000
Stoughton*	\$4,083,000	\$2,506,000	61%	\$1,577,000
Stoughton	\$5,081,000	\$5,069,468	100%	\$11,532
Warefield*	\$5,681,000	\$1,125,000	20%	\$4,556,000
Wareham	\$25,197,000	\$5,530,300	22%	\$19,666,700
Watertown	\$6,781,000	\$1,478,000	22%	\$5,303,000
Wendell*	\$5,618,000	\$241,565	4%	\$5,376,435
Weston	\$1,920,000	\$1,113,997	58%	\$806,003
Wilmington*	\$1,917,000	\$41,000	2%	\$1,876,000
Winchester*	\$2,276,000	\$775,000	34%	\$1,501,000
Woburn	\$7,431,000	\$7,231,500	97%	\$199,500
Worcester*	\$6,096,000	\$3,391,000	56%	\$2,705,000
SUBTOTAL	\$479,544,800	125,732,764	26%	\$353,812,036
Chicopee	\$15,927,000	\$5,183,400	33%	\$10,743,600
South Hadley FD. 1	\$3,564,000	\$1,338,000	37%	\$2,226,000
Wilburham	\$3,509,000	\$0	0%	\$3,509,000
SUBTOTAL	\$23,000,000	\$6,521,400	28%	\$16,478,600
TOTAL	\$502,544,800	132,254,164	26%	\$370,290,636

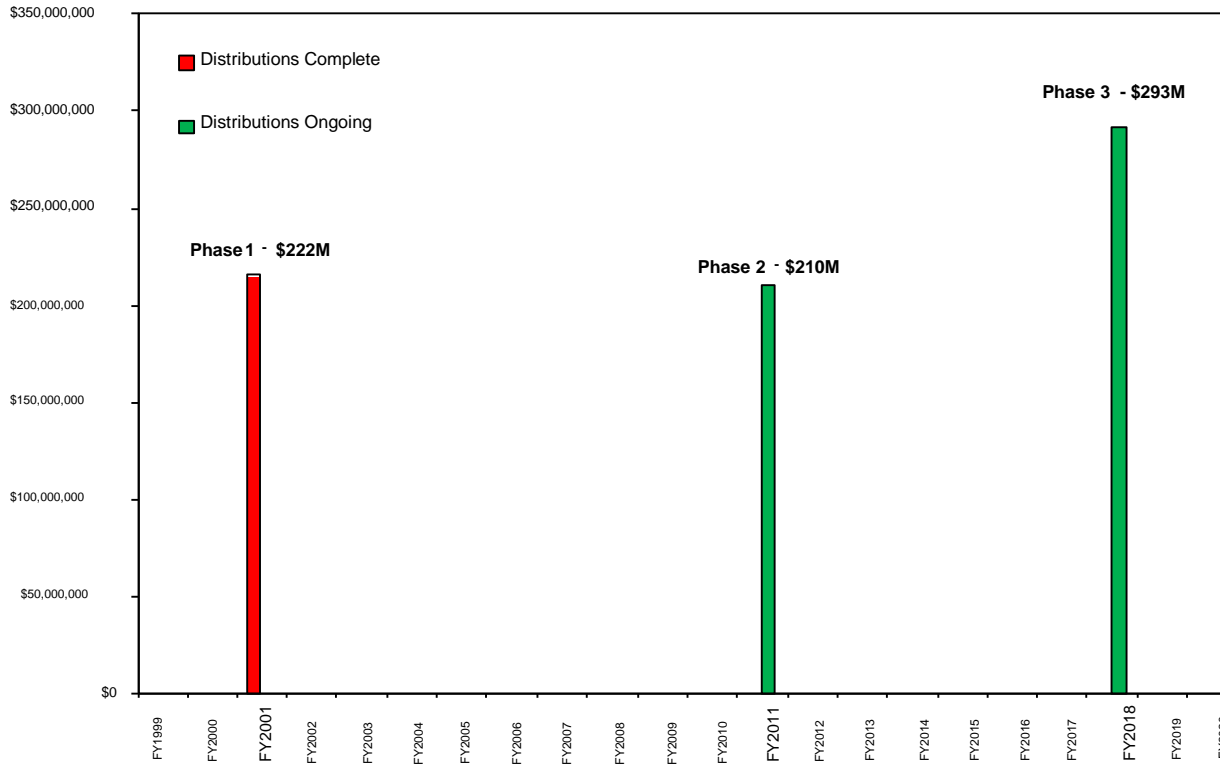
- \$28 million distributed to 18 communities in CY21
- \$725 million approved (3 Phases)
- \$483 million distributed (FY01 - December 2021)
- \$329 million loans repaid to MWRA
- 43 communities participating
- 493 local projects funded
- 427 projects complete / 66 ongoing
- Community allocation based on % share water charge and % share unlined pipe

*Partially Served Communities



MWRA's Long-Term Commitment to Fund Local Water System Rehabilitation

Local Water System Assistance Program
Timing of Funding Phases





MWRA Funding for Local Water Projects



Water Main Replacement Construction

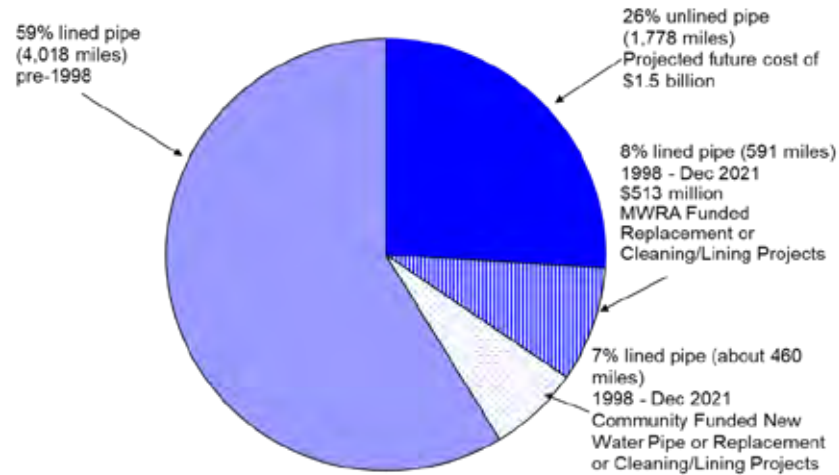


Water Storage Tank Rehabilitation



Funding for Local Water Projects and Future Needs

Regional Water System Lined and Unlined Pipe
6,847 Miles of Community Water Mains
Updated through December 2021



Remaining Unlined Pipe Represents a \$1.5 Billion Future Cost