



The Metropolitan District
water supply · environmental services · geographic information

**WATER BUREAU
SPECIAL MEETING
MONDAY, NOVEMBER 23, 2020
4:00 PM**

**IN ACCORDANCE WITH GOVERNOR LAMONT'S EXECUTIVE ORDER #7B
THIS MEETING WILL BE A REMOTE ONLY MEETING
Dial in #: (415)-655-0001; Access Code: 43808661#
[Meeting Video Link](#)**

The general public is welcome to call into the meeting. Everyone on the call will need to mute their phone to limit background noise disrupting the meeting.

Location

**Dial in #: (415)-655-0001;
Access Code: 43808661#
[Meeting Video Link](#)**

Commissioners

Adil	Lewis
Buell	Mandyck
Camilliere	Pane (VC)
DiBella (Ex-Officio)	Petosky
Gardow	Salemi
Holloway	Sweezy (C)
Ionno	Taylor
Lebeau	
Quorum: 8	

-
1. CALL TO ORDER
 2. PUBLIC COMMENTS RELATIVE TO AGENDA ITEMS
 3. APPROVAL OF MEETING MINUTES OF NOVEMBER 17, 2020
 4. CONSIDERATION AND POTENTIAL ACTION RE: 2021 DISTRICT WATER RATES
 5. DISCUSSION RE: COSTS OF WATER MAIN REPLACEMENT
 6. OPPORTUNITY FOR GENERAL PUBLIC COMMENTS
 7. COMMISSIONER COMMENTS & QUESTIONS
 8. ADJOURNMENT

REVISIONS TO DISTRICT WATER RATES

To: Water Bureau for consideration November 23, 2020

The 2021 budget in support of Water Operations calls for the water use rate to increase to \$4.09 per hundred cubic feet (CCF). The changes will become effective January 1, 2021.

A discussion of several rates that comprise the proposed schedule for 2021 and the recommendations pertaining to each follows:

Water Used Charge – Treated Water

Staff recommends that the rate charged for the use of treated water based on actual metered consumption increase from \$3.97 per CCF to \$4.09 per CCF.

CURRENT RATE
\$3.97/100 Cu. ft.

PROPOSED RATE
\$4.09/100 Cu ft.

Customer Service Charge

Revenues from this customer service charge are intended to support a portion of the fixed operating, maintenance and debt costs associated with water operations. There are no proposed changes to the Customer Service Charge for 2021.

<u>SIZE OF METER</u>	<u>MONTHLY BILLING</u>
5/8"	\$14.98
3/4"	\$14.98
1"	\$14.98
1 1/2"	\$48.60
2"	\$77.80
3"	\$145.89
4"	\$243.55
6"	\$486.07
8"	\$771.16
10"	\$1,777.77
12"	\$1,896.38

Surcharge Outside The Metropolitan District

A fixed "surcharge" rate is added to all accounts for service outside the boundaries of the District. The surcharge is based on the size of the meter that serves each delivery point. Revenues from this charge are for the reimbursement of assets deployed. The surcharge rates have been set at the same rates as the Customer Service Charges. There are no proposed changes to the surcharge for 2021.

<u>SIZE OF METER</u>	<u>MONTHLY BILLING</u>
5/8"	\$14.98
3/4"	\$14.98
1"	\$14.98
1 1/2"	\$48.60
2"	\$77.80
3"	\$145.89
4"	\$243.55
6"	\$486.07
8"	\$771.16
10"	\$1,777.77
12"	\$1,896.38

Water Used Charge – Untreated Water

The District provides untreated water to other agencies and water companies for a fixed rate based on actual consumption. The current rate for this untreated or “raw” water is \$1.50 per hundred cubic feet of consumption. It is recommended that the charge for untreated water remain at the rate of \$1.50 per hundred cubic feet.

Surcharge Outside the Metropolitan District for Capital Improvements

A surcharge is added to the water rate to recover the cost of major capital improvements and/or upgrades such as water main extensions, pump stations, etc. in non-member towns. The surcharge is calculated based on the aggregate hydraulic capacity of each meter size in each non-member town.

Private Fire Protection Charge

Rates for private fire protection are charged to all fire service accounts, including combination services, based on the size of the service connection. Staff recommends monthly service charges for the 1”, 2”, 3”, 4”, 6”, 8”, 10”, 12”, 16”, 20” and 24” meters rates increase to \$5.00, \$22.85, \$33.75, \$60.00, \$135.00, \$240.00, \$375.00, \$540.00, \$960.00, \$1,500.00, \$2,160.00 respectively.

Conclusion

Staff believes that the foregoing rate change recommendations are justified, reflect the sound financial administration that has earned the District support among credit rating agencies and financial advisors, and are consistent with the policy direction of the Commission.

After reviewing the information contained herein

It is **RECOMMENDED** that it be

Voted: That the Water Bureau, acting under Section 5-4 of the District Charter, establishes revised water rates effective with the meter readings rendered on and after January 1, 2021, as set forth in the following “REVISIONS TO WATER SUPPLY ORDINANCES.”

Further

Voted: That the following rates shall be charged to all customers and appear as a separate line item on customer bills:

1. State of Connecticut Department of Public Health primacy fee of \$0.16 per month

Further Voted:

That following the public hearing held on November 16, 2020, as required by Special Act 01-3 adopted by the General Assembly of the State of Connecticut, and Section 2-14 of the Compiled Charter of The Metropolitan District, the Water Bureau recommends to the District Board, through the Committee on MDC Government, approval of the following "REVISIONS TO WATER SUPPLY ORDINANCES" by the enactment of said proposed ordinances. (Additions are indicated in red and deletions by strikethrough).

REVISIONS TO WATER SUPPLY ORDINANCES W-1 WATER RATES

SEC. W1a WATER USED CHARGE (TREATED WATER)

For customers which do not resell treated water, the WATER USED CHARGE is the quantity of water used as read at the meter, as follows:

<u>BILLS RENDERED</u> <u>MONTHLY</u>	<u>RATE</u> \$3.97 \$4.09 per 100 Cubic Feet
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The WATER USED CHARGE for such customers subject to § S12x of The Metropolitan District Sewer Ordinances who purchase more than 802ccf of water per day, as averaged over a monthly billing period, as follows:

For each of the first 802ccf of water used per day:

<u>BILLS RENDERED</u> <u>MONTHLY</u>	<u>RATE</u> \$3.97 \$4.09 per 100 Cubic Feet
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For each ccf of water used per day in excess of 802ccf:

<u>BILLS RENDERED</u> <u>MONTHLY</u>	<u>RATE</u> \$3.18 \$3.30 per 100 Cubic Feet
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For customers which, by agreement with the District or otherwise, resell treated water, the WATER USED CHARGE is the quantity of water used as read at the meter, as follows:

<u>BILLS RENDERED</u> <u>MONTHLY</u>	<u>RATE</u> \$3.97 \$4.09 per 100 Cubic Feet
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SEC. W1f SURCHARGE OUTSIDE THE METROPOLITAN DISTRICT FOR CAPITAL IMPROVEMENTS

In towns outside the limits of The Metropolitan District for which capital improvements or layout and assessment projects are constructed, in addition to the charges set forth in SEC. W1a, W1b and W1c, there shall be a surcharge on the water rates determined from the size of the meter installed on the premises, as follows:

1. On or before the end of each fiscal year, The Metropolitan District shall determine the actual cost of each capital improvement constructed for each non-member town and the net cost (cost less assessments) of layout and assessment projects constructed for each non-member town. The costs and/or net costs, as applicable, shall be allocated to the towns for which the work was performed and shall be a surcharge on the water rates of the users located in such towns.

2. The annual surcharge to be added to each user's water rate shall equal the total amount of the costs and/or net costs, as applicable, allocated to the town in which such user is located [excluding costs which the town has paid as set forth in Section W1f(3)] amortized over a twenty year period using an interest rate computed by the District which approximates the District's long-term cost of funds for its General Obligation Bond portfolio-multiplied by the percentage of hydraulic capacity of each user's meter size (based on the American Water Works Association meter size capacity) of the aggregate hydraulic capacity of all meters in such town. The surcharge shall be billed in either quarterly or monthly installments, as applicable, commencing with the first bill sent out in the fiscal year succeeding the fiscal year in which the work was performed and continuing over the twenty year period.

3. The District shall, as soon as possible after the completion of each capital improvement project or separate phase thereof, provide to the non-member towns for which a capital improvement was constructed a compilation of the costs associated with the construction of such project(s). If, on or before the end of the District's fiscal year in which such construction was completed, a non-member town agrees to pay and does in fact pay all or a portion of the cost of a capital improvement constructed for such town, then the amount paid by such town shall be deducted from the total amount of costs and/or net costs allocated to such town as described in Section W1f(1) and used to calculate the individual surcharges as set forth in Section W1f(2).

Farmington

<u>SIZE OF METER</u>	<u>MONTHLY BILLING</u>	<u>MONTHLY BILLING</u>
5/8"	\$1.07	\$2.23
1"	\$2.14	\$4.47
1 1/2"	\$4.27	\$8.94
2"	\$80.13	\$167.53
3"	\$186.97	\$390.91
4"	\$320.53	\$670.13
6"	\$427.37	\$893.50
8"	\$1,068.43	\$2,233.76

Glastonbury

<u>SIZE OF METER</u>	<u>MONTHLY BILLING</u>	<u>MONTHLY BILLING</u>
5/8"	\$1.57	\$1.81
3/4"	\$2.35	\$2.71
1"	\$3.13	\$3.62
1 1/2"	\$6.26	\$7.23
2"	\$117.44	\$135.59
3"	\$274.03	\$316.37
4"	\$469.77	\$542.34

South Windsor

<u>SIZE OF METER</u>	<u>MONTHLY BILLING</u>	<u>MONTHLY BILLING</u>
5/8"	\$0.34	\$0.34
3/4"	\$0.67	\$0.51
1"	\$1.01	\$0.67
1 1/2"	\$1.35	\$1.35
2"	\$25.29	\$25.27
3"	\$59.00	\$58.96
4"	\$101.15	\$101.07
6"	\$134.86	\$134.76

Manchester

<u>SIZE OF METER</u>	<u>MONTHLY BILLING</u>	<u>MONTHLY BILLING</u>
5/8"	\$2.43	\$2.89
1"	\$7.29	\$5.78
3"	\$425.28	\$506.04
6"	\$972.07	\$1,156.66

SEC. W6f CHARGES FOR PRIVATE FIRE PROTECTION SERVICE

Charges for metered or unmetered connections to water mains supplying water for fire protection including combination services, shall be in accord with the following table:

<u>SIZE OF CONNECTION</u>	<u>MONTHLY CHARGE</u>	<u>MONTHLY CHARGE</u>
1"	\$5.00	\$5.00
2"	\$22.85	\$22.85
3"	\$29.74	\$33.75
4"	\$44.64	\$60.00
6"	\$74.88	\$135.00
8"	\$240.00	\$240.00
10"	\$375.00	\$375.00
12" & Larger	\$540.00	\$540.00
16"		\$960.00
20"		\$1,500.00
24"		\$2,160.00

Respectfully Submitted,



Scott W. Jellison
Chief Executive Officer

PROPOSED AMENDMENT

REVISIONS TO DISTRICT WATER RATES

To: Water Bureau for consideration November 23, 2020

From: District Clerk

The proposed 2021 water rates as shown below in redline were published on November 6, 2020 in advance of the District's public hearing held on November 16, 2020. At a meeting of the Board of Finance on Monday November 9, 2020, the Board of Finance passed several resolutions altering the proposed 2021 budget and subsequently the proposed water rates. In order to implement the budget changes made by the Board of Finance, the District Clerk hereby recommends the following proposed amendments shown in blue:

SEC. W1a WATER USED CHARGE (TREATED WATER)

For customers which do not resell treated water, the WATER USED CHARGE is the quantity of water used as read at the meter, as follows:

<u>BILLS RENDERED</u> <u>MONTHLY</u>	<u>RATE</u> \$3.97 \$4.09 per 100 Cubic Feet	<u>PROPOSED AMENDMENT</u> \$4.05 per 100 Cubic Feet
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For each of the first 802ccf of water used per day:

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For each ccf of water used per day in excess of 802ccf:

<u>BILLS RENDERED</u> <u>MONTHLY</u>	<u>RATE</u> \$3.18 \$3.30 per 100 Cubic Feet	
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<u>BILLS RENDERED</u> <u>MONTHLY</u>	<u>RATE</u> \$3.97 \$4.09 per 100 Cubic Feet	<u>PROPOSED AMENDMENT</u> \$4.05 per 100 Cubic Feet
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Respectfully Submitted,

John S. Mirtle, Esq.
District Clerk

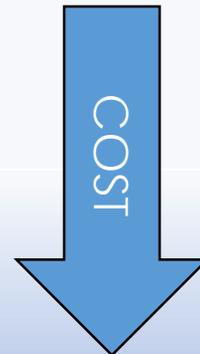
MDC Water Main Replacement Program



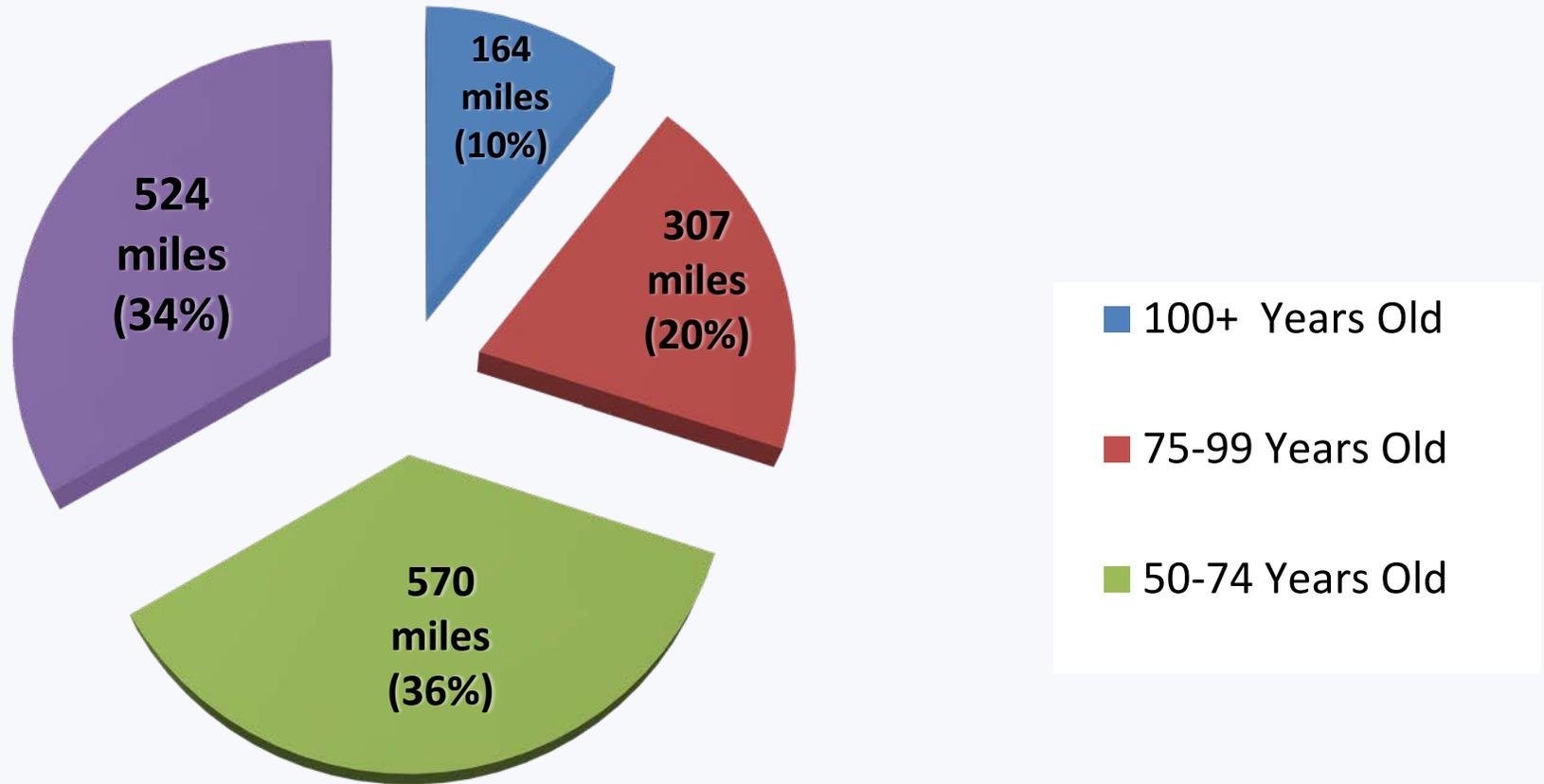
Water Bureau Meeting
November 17, 2020

Program Goals

- ✓ Cost effectively manage assets
- ✓ Maintain acceptable level of service
- ✓ Increase from an average 2 miles/year replacement rate to 10 miles/year by 2020

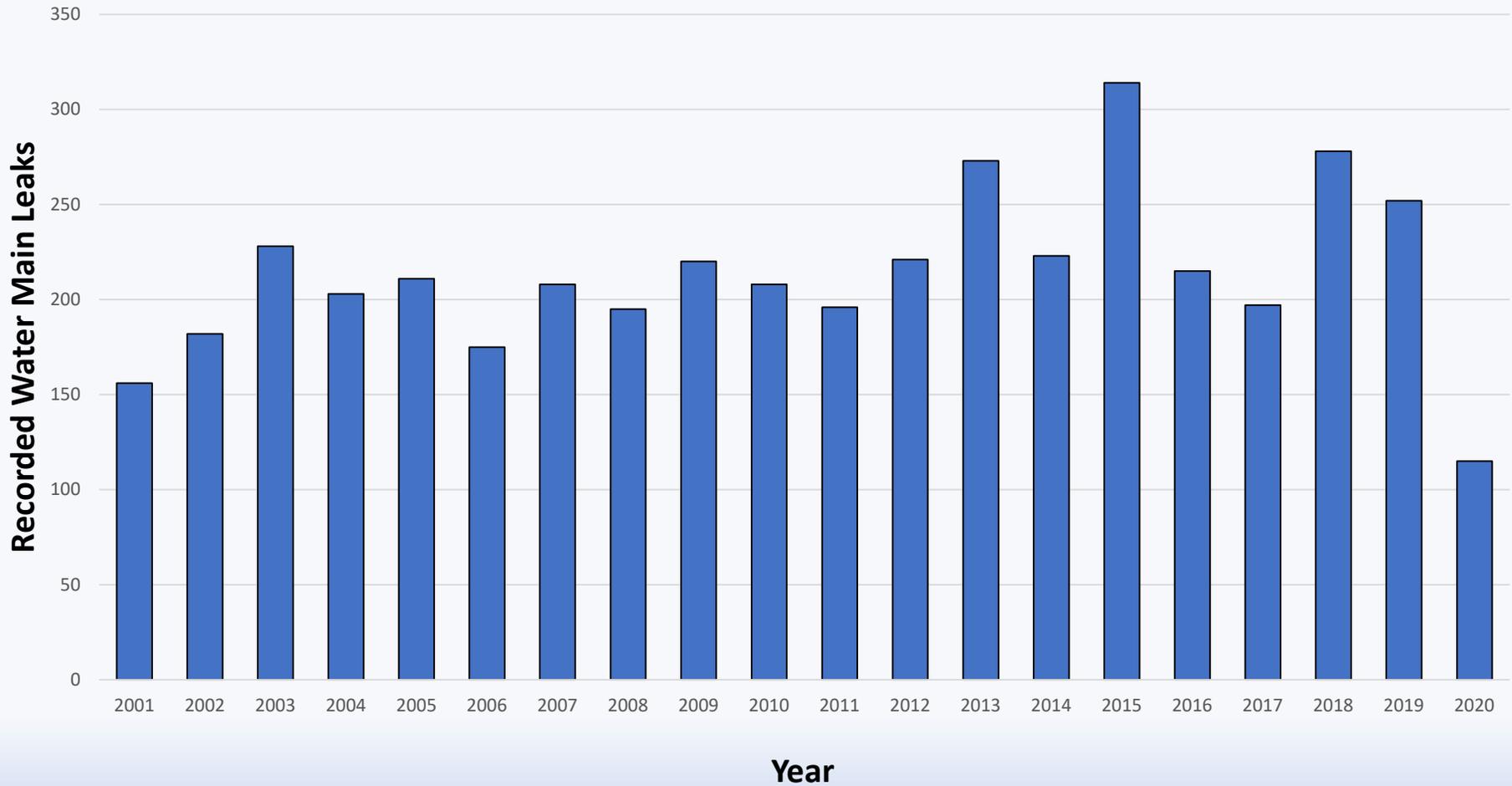


Age of Existing System



Annual Leak History

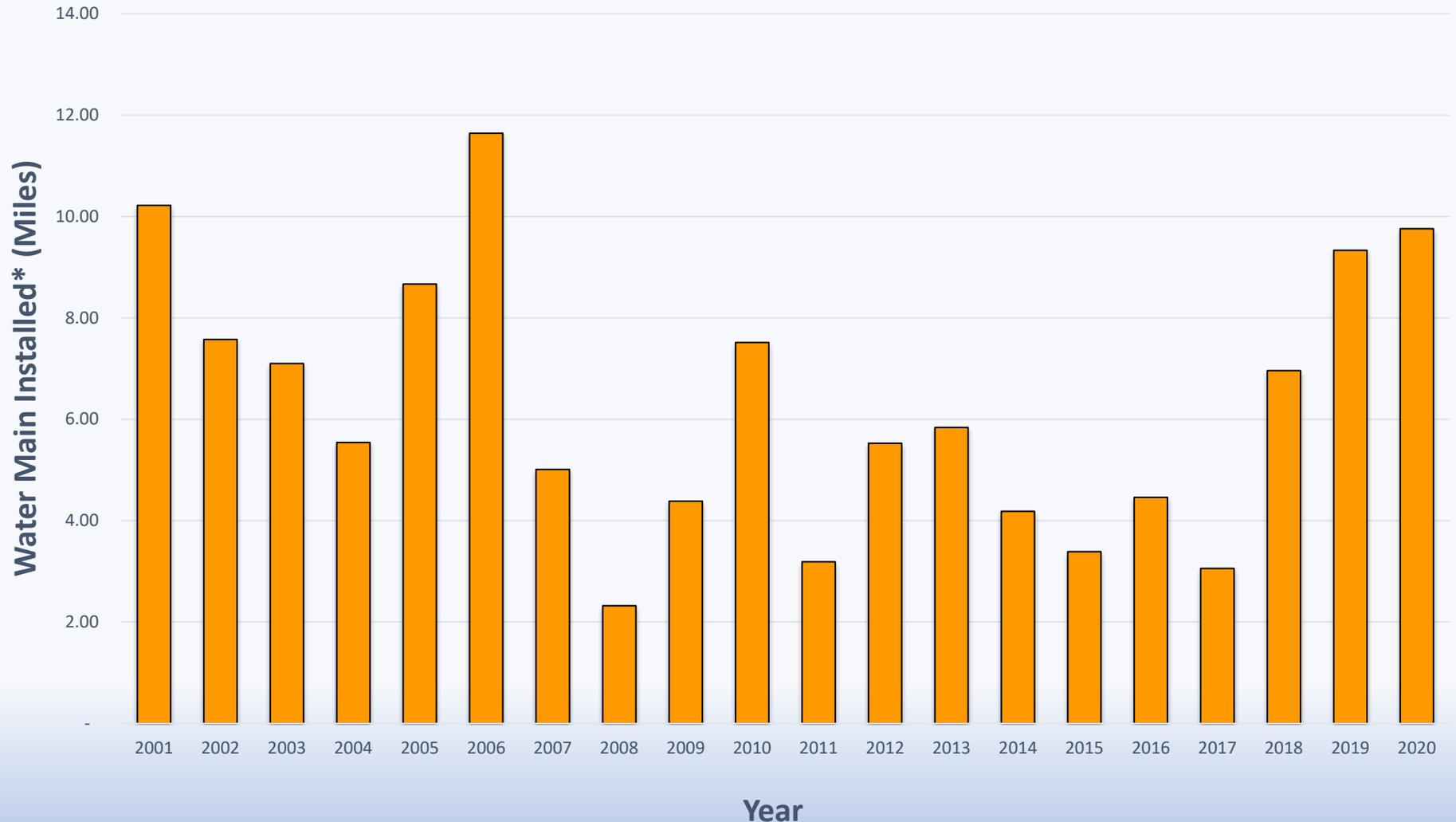
Water Main Leaks per Year, 2001-2020



* Through September 2020

Annual Installation History

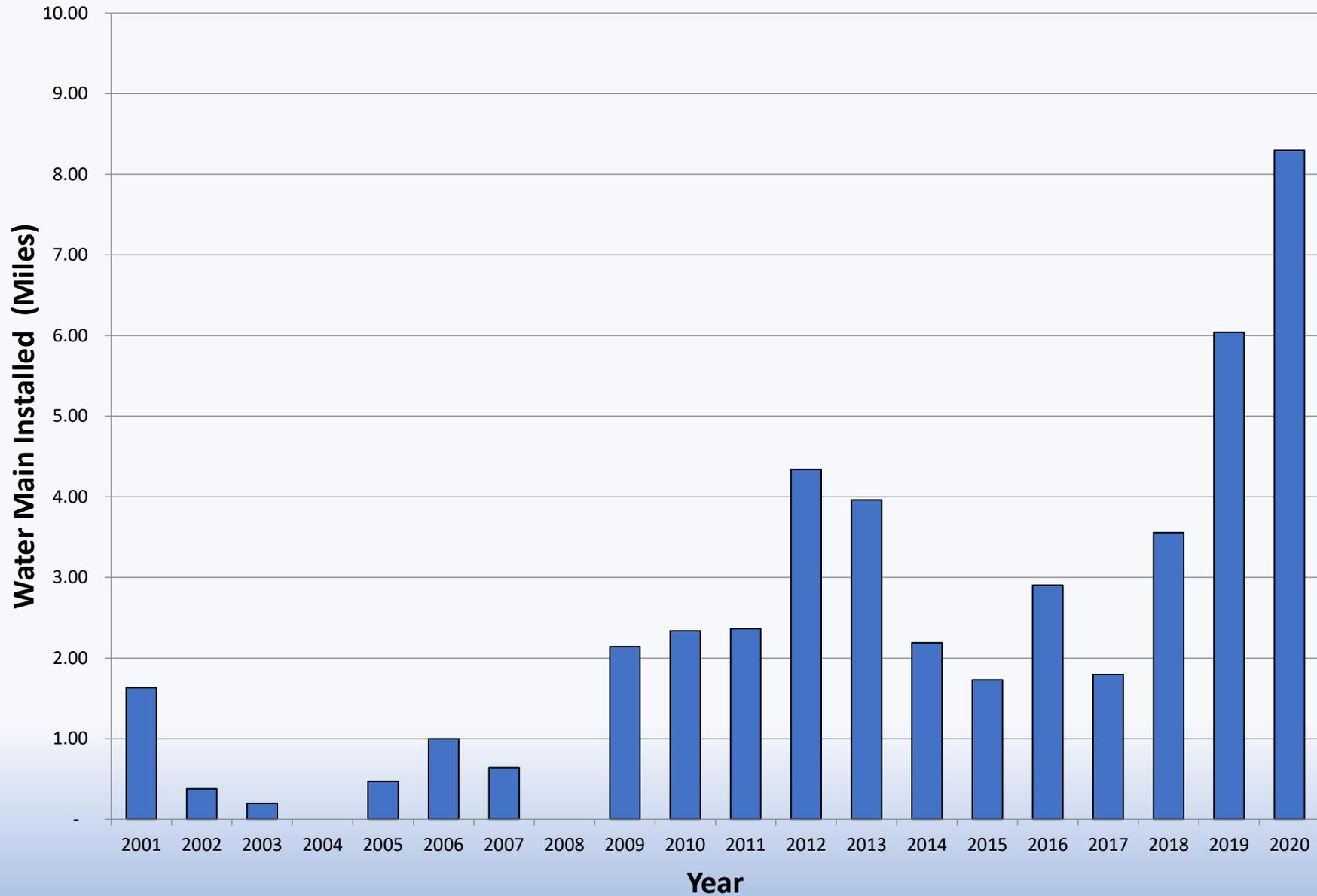
Total Installation per Year, 2001-2020



*Includes DPAs, extensions and replacements
6 Miles/Year Average

Annual Replacement History

Total Replacement per Year, 2001-2020

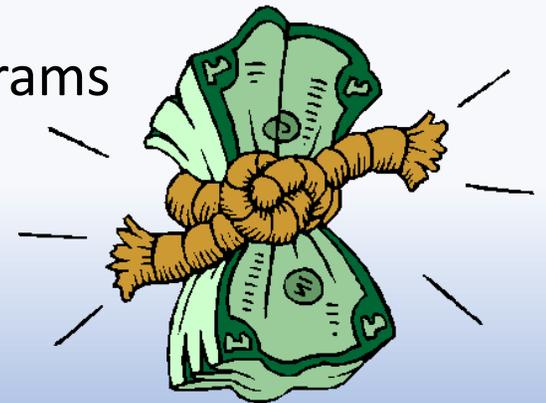


*Replacement Avg 2 Miles/Year

Cost Saving Measures

MDC Engineering and Construction have been executing a number of cost saving measures over the past 2 years to drive down the cost of each new installation, which include:

- Soil Disposal Handling
- Pavement Restoration via State Contracts
- Accelerated Contracts/Minimized Design
- Materials Procurement Contracts
- Use of Flagging Services
- Coordinating replacements with Town Paving Programs



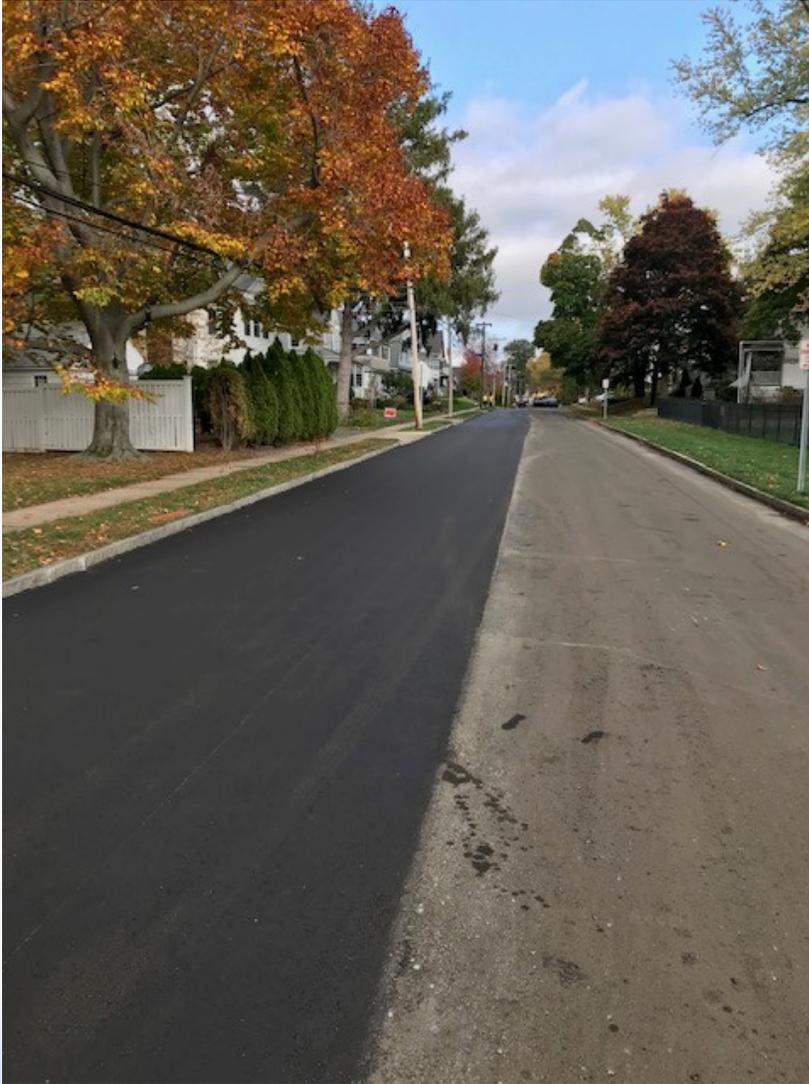
Soil Disposal Handling

- \$2.4 Million in estimated program savings to date
 - Over \$1 Million saved due to soil re-use



True Blue Environmental, Hartford

Pavement Restoration

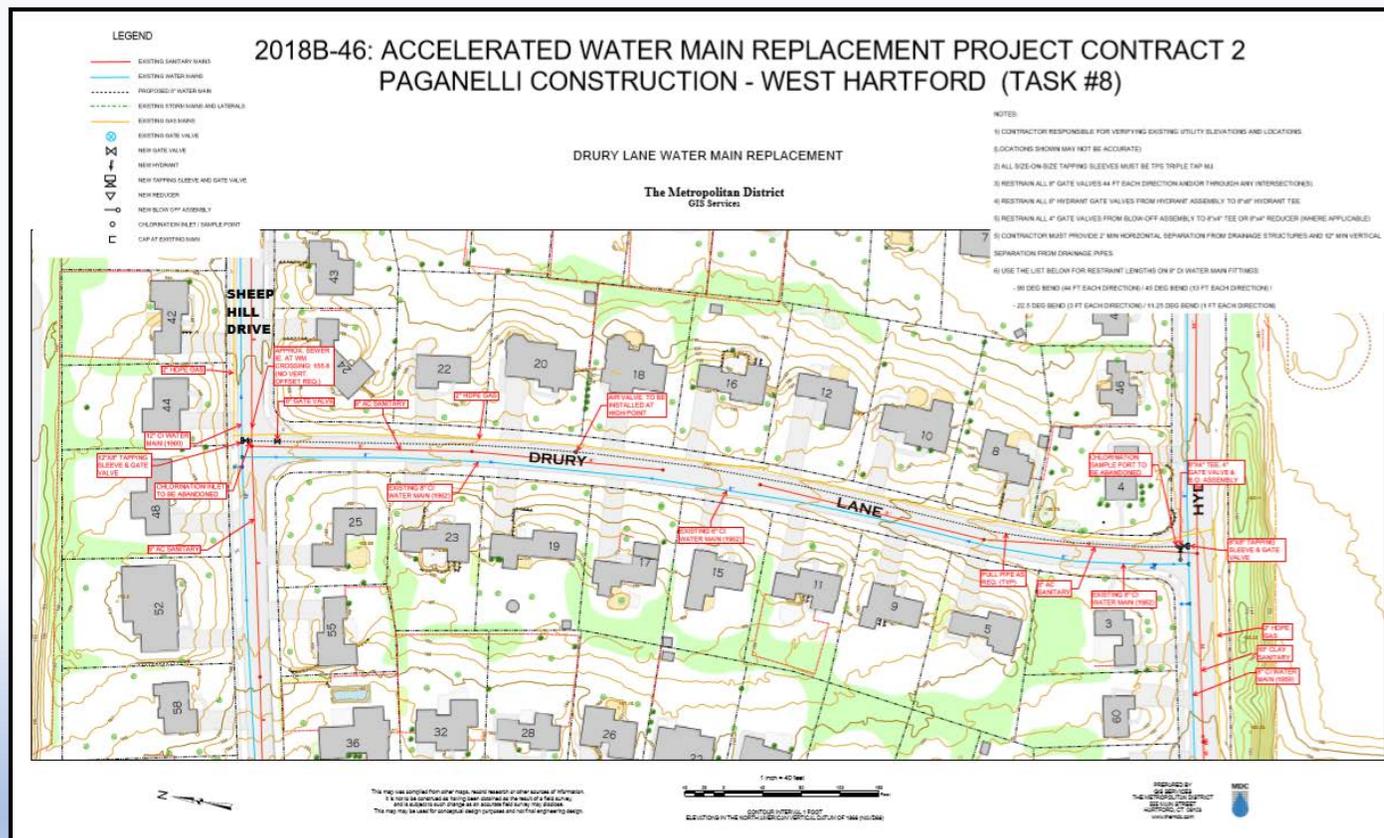


Kingswood Rd, WH one lane mill and overlay

- Using the State Contract, capability to perform curb to curb or single lane mill and overlay vs. permanent trench restoration.
- Cost of mill and overlay in single lane is less expensive than permanent trench restoration
- Town and residents more satisfied with final product
- Potential to coordinate cost sharing with Towns - possible savings \$100,000's per project

Design

- Recent project averages = \$66 per foot to design with consultant
- Estimated \$4.3M in design savings since 2018 using the Accelerated Contracts and MDC Forces with simplified designs on less complex roads.



Materials Procurement

- Direct contract with pipe vendors via competitive bid; similar process utilized by other CT water utilities
- This program will be piloted in contracts to be bid this year for construction in 2021



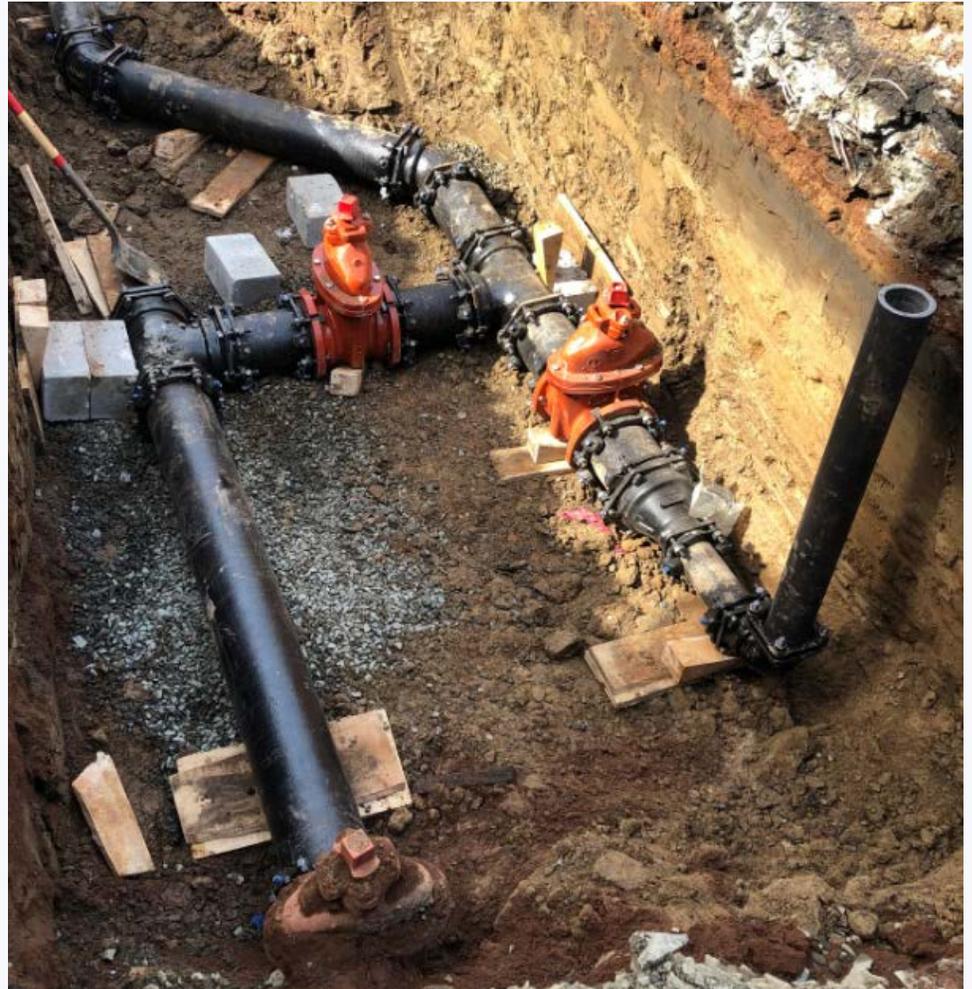
Other Cost Saving Measures

- Flagging Services (where allowable)
 - Police Officer \$600-\$1,300 per day vs. Typical Flagger \$300-400 per day
 - Flaggers in lieu of police where allowed by individual towns and reduction to minimum required - estimate in 2020 alone a savings of over \$800K
 - Use of flaggers by Operations, Annual savings: \$300k+
- Coordination with Town Paving Programs
 - Annual Meetings with Towns
 - Factored into asset management planning
 - Potential cost sharing
 - Reduced paving expenses when performing service renewals and main replacements.



MDC Operations Support

- As part of the Accelerated Water Main Program, MDC installs portions of mains including new main line taps in difficult intersections as this work is typically completed by MDC or requires MDC Operations oversight
- Renew water services in advance of contract work to stay ahead of potential leaks, typical for Town paving projects.
- Performing all prep and close-out work for 10 miles of new water main
 - 1,069 service taps on new mains through October 2020
 - 2017 (pre-program) 280 new service taps for the whole year!
 - Significant increase in coordination of crew assignments to support increased construction activity.



Prep work for Buckingham Street

Accelerated Water Main Contracts



Tabacco & Sons, Dudley Road, Wethersfield

- Four contracts awarded to date (2017-2020)
- 10 miles (53,000 LF) installed to date, including Glastonbury petition projects
- Average \$365 per LF construction cost (includes pavement and other related construction costs)
- Estimated \$9M in construction savings compared to \$535 per LF cost typically seen for similar replacements
- Estimated over \$12.5M savings, including design fees saved

Accelerated Water Main Contracts

Water Main Installations Average Cost Comparisons	
<u>Water Main Contract Type</u>	<u>Average Cost per Foot</u>
Design-Bid-Build Contract (Overall Average)	\$620
Design-Bid-Build Contract (Simple/Residential Roads)	\$535
Accelerated Contracts	\$365*

*Costs per foot are all inclusive of any design and construction costs associated with these replacements

*Includes Service Installations that average approximately \$125/FT and Hydrant Installs that average \$7,000/EA

Contractor vs. MDC Forces Construction Costs

Typical 8-inch Water Main Replacement Project (Mainline Only)*

*Excludes Service Renewals, Hydrant Replacements, Traffic Control and Soil Management

Scope Items	Price Per Foot	
	Contractor	MDC
8-12IN Main Line Pipe Installation		
All-Inclusive Pipe Installation (minus Pipe Material)	\$ 130.00	\$ -
Mobilization, Gen Req, Bond, Permits, Etc.	\$ 6.66	\$ -
Labor (Includes Payroll Additive and General Overhead)	\$ -	\$ 104.42
Equipment	\$ -	\$ 45.40
Material	\$ 30.00	\$ 60.11
Temporary Pavement (4.5FT Wide, 4IN Class 1)	\$ 18.80	\$ 9.60
Soils (Same Costs)	\$ -	\$ -
Project Management, Engineering and Inspection	\$ 15.00	\$ 5.00
Police/Flaggers (Same Costs)	\$ -	\$ -
Total	\$ 200.46	\$ 224.53
Total - Adjusted for Efficiency (PTO)	\$ 200.46	\$ 245.42

Payroll Additive and General Overhead provided MDC Finance	
Labor Fringe Benefits	Administrative Costs
Health Insurance	Payroll Support
Dental Insurance	Management & Supervision Support
Workers Compensation	Human Resources Support
Pension Contribution	Finance and Procurement Support
OPEB	
Life Insurance	

Number of Crews Utilized to Install Mains (Adjusted for MDC PTO)*		
	Contractor	MDC
Crew Size	7	7
Availability due to PTO	100%	83%
Adjusted Crew Size for Paid Time Off	7	8.43
Increased % per FT of Pipe Installed (Labor)	0%	20%

*An AWM contractor was able to replace 5 miles of main in 1.5 year period while utilizing on average 3-4 crews (4-7 workers; 8 mo./yr) to complete the 5 miles. Based on internal production capabilities and calculated availability of staff, MDC would need to hire 69 employees to meet the 10 mile/yr goal.

Current and Upcoming Priorities for MDC Operations

- Support of Water Main Replacement Program
 - Taps, Insertion Valves, Cut-ins, Cut-offs, Service Renewals
- Service Renewals
 - Town Paving Programs
 - Service Replacement Program
- Sewer Lateral Replacement
 - Current Backlog: 900+/9,000 laterals
 - Annual Failure Rate: 60+/- laterals identified from dye tests and CCTV
- Large Diameter Valve Program (>16IN)
 - Ensure the operability of valves, replace as needed
- Pressure Regulating Valve Program
 - Rehabilitation and Replacement of 127; training of staff, improved maintenance program
- Meter Replacement Program
 - Replacement of C&I larger meters with Ultrasonic Type
 - Transition to Meter Boxes/Pits
 - Completion of RF Program with unresponsive customers
- Sewer Maintenance Program
 - CMOM Requirements
 - Siphon Maintenance
 - CCTV Inspections (ROW)
- Hydrants
 - Replacement of Hydrants >50 y.o.; Count = 1,985+/10,156

Management and Supervision Priorities

- Improved Utilization of Staff and Multi-Use Positions
- Prioritize Maintenance Activities to improve the Availability of Critical Assets and System Uptime

Questions?

