



CHESTER DRINKING WATER SYSTEM ASSET MANAGEMENT PROGRAM

Chester Water Department – Chester, MA
Colin Powers; Joshua Bouchard, PE; Peter Valinski, PE
July 28th, 2025

ASSET MANAGEMENT GRANT OVERVIEW

- **Develop proactive repair and maintenance program for CWD's water system to maintain level of service.**
- **Total Grant Awarded: \$61,800**

Build Asset Inventory

- Record Plans
- Water System Map
- GIS-Based
- Leverage GIS Apps

Review Critical Infrastructure

- Site visits
- Data collection
- Town staff interviews

Develop prioritized list of improvements

- Replacement
- Maintenance
- Run to Failure

Funding Analysis

- Review past Expenditures & Revenues
- Project enterprise health based on different funding options

TOWN EFFORTS

Items Collected by Town:

- Gate Valve Location
- Fire Hydrant Location
- Curb Stop Locations
- Reservoirs and Treatment Plant Information



ArcGIS

<https://chesterma.maps.arcgis.com/apps/mapviewer/index.html?layers=cc0208ff09a44ca99444cb165a23dd9d>

STAFF TRAINING ON GIS-BASED IPAD APPS

Tighe&Bond

Using ESRI's Mobile Data Collection Apps



ArcGIS Collector

Accurate data collection made easy



ArcGIS Survey123

Smarter forms, smarter data collection



120 Front Street, Suite 7 • Worcester, MA 01608 • Tel 508.754.2201
www.tighebond.com

Chester Water Process Facility Inspection

General Information

Inspection Date: Wednesday, June 11, ...
Time: 2:04 PM
Asset *

Asset Type *

- Piping and Valve
- Pumping System
- Treatment
- Civil/Site Safety and Security
- Other

Facility *

- Chester Water Treatment Plant
- Other

Current State of Equipment

Overall Physical Condition *

Excellent Good Moderate Poor Very Poor or Failing

Condition Photo(s) *
Please include the Asset Nameplate.

Nameplate Photo(s) *
Please include the Asset Nameplate.

Is there corrosion or rust present? *

- Yes
- No

Are there structural concerns with housekeeping pads and/or concrete floors? *

- Yes
- No

Are there unusual noises or vibrations? *

- Yes
- No

STAFF TRAINING ON GIS-BASED IPAD APPS

Chester Water Process Facility Inspection

Excellent Good Moderate Poor Very Poor or Failing

Condition Photo(s) *
Please include the Asset Nameplate.

Nameplate Photo(s) *
Please include the Asset Nameplate.

Is there corrosion or rust present? *

Yes
 No

Are there structural concerns with housekeeping pads and/or concrete floors? *

Yes
 No

Are there unusual noises or vibrations? *

Yes
 No

Consequence of Failure

Redundancy

Full redundancy and workarounds
 Workarounds available, some redundancy
 No redundancy or workaround
 Asset Missing
 Does not apply

Equipment Notes
Please include any operator concerns regarding maintenance, operation, downtime, inefficiencies, or other observations

Water Treatment Plant Daily Log

General Info

Date: Wednesday, June 11, 2025 2:04 PM

Month: [Dropdown]

Water System Name: Chester

PWS ID: 1059000

Daily Main Screen Readings

C1	C2	pH
Temperature	Turbidity	Flow
CW/L	CL2	Hydroxide
RW/GPM	RW/NTU	Gen hrs
FW/Totalizer	FW/Total	

Chemical Treatment Report

Treatment Facility: Austin Brook

Chemical 1 Name

Chemical 2 Name

Volume of Treated Water (gal)	Chemical 1 Volume (gal)	Chemical 1 Dosage (mg/l)
Chemical 2 Volume (gal)	Chemical 2 Dosage (mg/l)	Grab Sample pH

INVENTORY AND CONDITION ASSESSMENT



VERTICAL ASSET INVENTORY

Facility	Room	Asset Type	Asset	Quantity	Manufacturer Name	Model Number	Serial Number	Design Parameters	Year of Install	Asset Name - Service Life	Expected Service Life (Years)	Overall PDF Score	Overall CDF Score	Risk Score	Overall Risk
Chester Water Treatment Plant	02 - Raw Water Pumping Room	Distribution Pumps	Raw water pump 1	1	Price Pumps	35A013Q130H3	W1212205885	3HP, 230/460V, 3450/2850RPM	1997	Centrifugal Pump	35	2.4	2.8	6.5	High
Chester Water Treatment Plant	02 - Raw Water Pumping Room	Distribution Pumps	Raw water pump 2	1	Price Pumps	35A013Q130H3	W1212206010	3HP, 230/460V, 3450/2850RPM	1997	Centrifugal Pump	20	2.6	2.8	7.2	High
Chester Water Treatment Plant	02 - Raw Water Pumping Room	Distribution Pumps	Raw water pump 3	1	Price Pumps	35A013Q130H3	W1711015425	3HP, 230/460V, 3450/2850RPM	1997	Centrifugal Pump	20	3.1	2.8	8.6	High
Chester Water Treatment Plant	03 - Process Room	Instrumentation/Monitoring	Turbidimeter	1	Hach			0.01 NTU from 0-40 NTU accuracy, 100-1000 mL/min sample flow rate	2022	Turbidimeter	20	1.1	2.6	3.0	Low
Chester Water Treatment Plant	03 - Process Room	Instrumentation/Monitoring	Pressure Transmitter	1	Endress+Hauser			90-250VAC, 50/60Hz, 40 VA Max	2022	General Meter	30	1.1	2.0	2.2	Low
Chester Water Treatment Plant	03 - Process Room	Instrumentation/Monitoring	Electric Valve Actuator	1	Endress+Hauser			8-30 seconds for 90 degrees, 250 ft-lbs rated torque, 0.26 HP, 0.18 kW	2022	Electric Valve Actuator	10	1.4	2.0	2.7	Low
Chester Water Treatment Plant	03 - Process Room	Instrumentation/Monitoring	Controller	1	Endress+Hauser			100-240 VAC, 50/60Hz, 1A	2022	Controller	10	1.4	1.9	2.6	Low
Chester Water Treatment Plant	03 - Process Room	Instrumentation/Monitoring	Chemical Tank	1	Endress+Hauser				2022	Chemical Tank	10	1.4	2.3	3.1	Medium

VERTICAL RISK BASED ASSET PRIORITIZATION

- **Probability of Failure (PoF)**

Scored 1 through 5 based on:

- Percent of Life Consumed
- Condition (based on Observation)
- Location (based on Observation)
- Capacity
- Regulatory Compliance

- **Consequence of Failure (CoF)**

Scored 1 through 5 based on:

- Asset Specific Implications
- Safety
- Redundancy (Modifier)



VERTICAL ASSET MANAGEMENT STRATEGIES

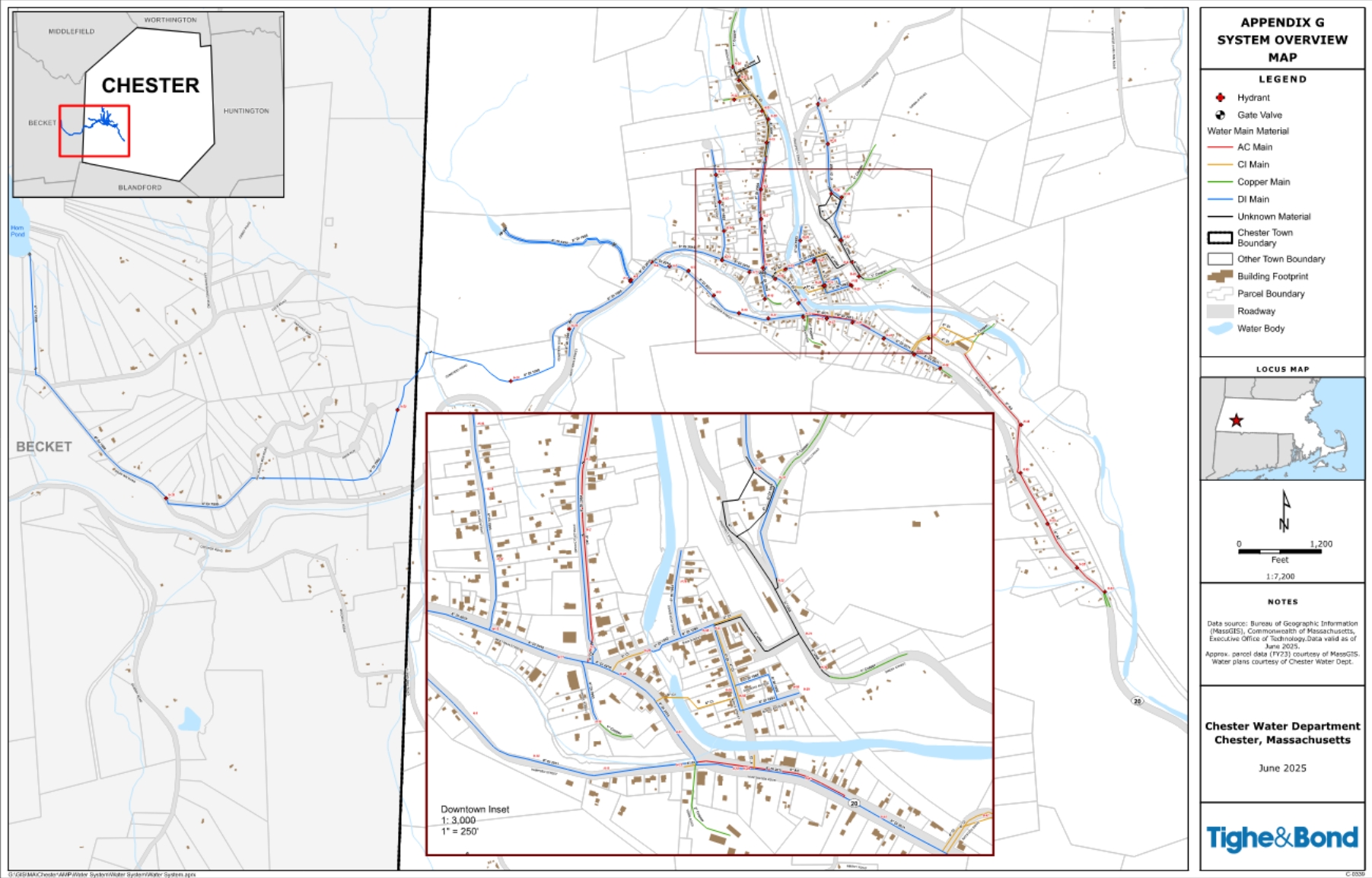


A	Critical Replace/Repair
B	Priority Replace/Repair
C	Opportunistic Replace/Repair
D	Priority Maintenance
E	Routine/Preventative Maintenance
F	Run to Failure

PRIORITY VERTICAL ASSET RECOMMENDATIONS

Project #	Project Type	Project Description	Location	Project Cost	Project Start
1	Safety	Hoist Replacement	Austin Brook	\$24,000	FY26-FY31
2	Safety	Access Improvements	Austin Brook	\$48,000	FY26-FY31
3	Upgrade	Screen Upgrade	Austin Brook	\$48,000	FY26-FY31
4	Maintenance	Inlet Pipe Inspection	Horn Pond	\$24,000	FY26-FY31
5	Maintenance	Inlet Line Replacement/Repair	Horn Pond	\$80,000	FY26-FY31
6	Safety	Lands/Property Purchase Around Pond	Horn Pond	\$80,000	FY26-FY31
7	Upgrade	Screen Upgrade	Horn Pond	\$80,000	FY26-FY31
8	Maintenance	Replacement of Raw Water Check Valve	Raw Water	\$24,000	FY26-FY31
9	Maintenance	Replacement of Raw Water Pre-Filter	Raw Water	\$24,000	FY26-FY31
10	Report	Austin Brook Engineering Pumping Report	Raw Water	\$25,000	FY26-FY31
11	Enterprise	GIS Yearly Subscription	Water Enterprise	\$1,000*	FY26-FY41
12	Enterprise	On-Call GIS Water Department	Water Enterprise	\$4,000*	FY26-FY41
13	Safety	Replacement of Pipe Supports	Water Treatment Plant	\$24,000	FY26-FY31
14	Report	Phase I Dam Inspection	Austin Brook	\$10,000	FY31-FY36
15	Maintenance	Structural Rehab	Filter/Clearwell	\$100,000	FY31-FY36
16	Upgrade	Site Lighting Upgrade	Filter/Clearwell	\$24,000	FY31-FY36
17	Maintenance	Building Sealing	Former Chlorination Building	\$16,000	FY31-FY36
18	Report	Horn Pond Maintenance/Access Evaluation	Horn Pond	\$40,000	FY31-FY36
19	Report	DBP Study	Water Treatment Plant	\$30,000	FY31-FY36
20	Safety	Replacement of Back Flow Preventer	Water Treatment Plant	\$7,000	FY31-FY36
21	Maintenance	Reservoir Maintenance	Austin Brook	\$24,000	FY36-FY41
22	Report	Structural Inspection of Filters and Clearwell	Filter/Clearwell	\$20,000	FY36-FY41
23	Report	Pre-Oxidant Study	Horn Pond/Austin Brook	\$40,000	FY36-FY41
24	Maintenance	Surface Prep and Paintings of Valves	Water Treatment Plant	\$16,000	FY36-FY41

HORIZONTAL ASSET INVENTORY



HORIZONTAL RISK BASED ASSET PRIORITIZATION

- **Probability of Failure (PoF)**

Scored 1 through 5 based on:

- Pipe Material
- Age by Material
- Corrosion of Concrete
- Drainage Class

- **Consequence of Failure (CoF)**

Scored 1 through 5 based on:

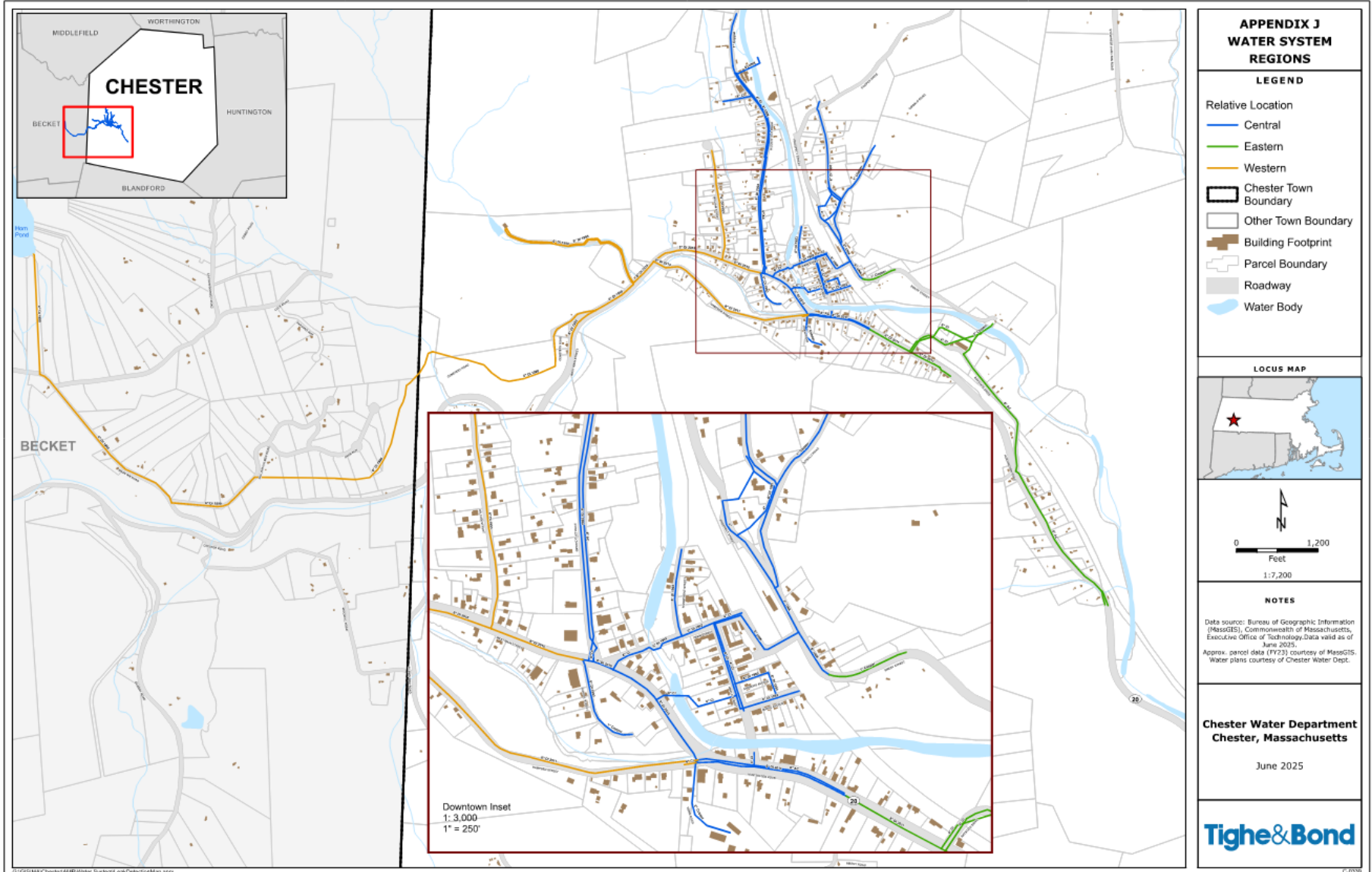
- Pipe Size
- Critical Locations (based on Land Use Codes)

HORIZONTAL ASSET MANAGEMENT STRATEGIES



A	Critical Investigation
B	Priority Investigation
C	Opportunistic Investigation
D	Priority Maintenance
E	Routine/Preventative Maintenance
F	Run to Failure

DISTRIBUTION SYSTEM REGIONS



PRIORITY HORIZONTAL ASSET RECOMMENDATIONS

Project #	Project Type	Project Description	Location	Project Cost	Project Start
1	Distribution	Central Chester Leak Detection & Inspection	Central Chester	\$6,000	FY26-FY31
2	Distribution	Eastern Chester Leak Detection & Inspection	Eastern Chester	\$5,000	FY26-FY31
3	Distribution	Western Chester Leak Detection & Inspection	Western Chester	\$10,000	FY31-FY36
4	Distribution	Annual Water Main Replacement	System Wide	\$67,000*	FY36-FY41

FUNDING ANALYSIS

- **Three Alternatives**
 - All capital projects done within 3-year timeframe
 - All capital projects done within 15-year timeframe
 - All capital projects (*except enterprise improvement projects*) funded by debt starting FY27
- **FY24 & FY25 Expenses/Revenues used to estimate Enterprise Fund**

3-YEAR TIMEFRAME



Water Enterprise

	Budget FY23	Budget FY24	Budget FY25	Projected FY26	Projected FY27	Projected FY28	Projected FY29	Projected FY30
Operating Expenses								
Salaries & Wages	\$ 44,805	\$ 65,765	\$ 75,822	\$ 65,237	\$ 68,499	\$ 71,924	\$ 75,520	\$ 79,296
Operation & Maintenance	\$ 43,000	\$ 45,150	\$ 75,000	\$ 57,103	\$ 59,958	\$ 62,956	\$ 66,103	\$ 69,408
Purchase Of Services	\$ 24,000	\$ 25,200	\$ -	\$ 25,830	\$ 27,122	\$ 28,478	\$ 29,901	\$ 31,397
Prior Year Expenses	\$ -	\$ 5,888	\$ 621	\$ 3,254	\$ 3,254	\$ 3,254	\$ 3,254	\$ 3,254
Budget Surplus	\$ -	\$ 13,083	\$ 15,000	\$ 14,744	\$ 15,481	\$ 16,255	\$ 17,068	\$ 17,921
Subtotal	\$ 111,805	\$ 155,086	\$ 166,443	\$ 166,168	\$ 174,313	\$ 182,866	\$ 191,847	\$ 201,277
<i>Delta Previous</i>		▲ 38.7%	▲ 7.3%	▼ 0.2%	▲ 4.9%	▲ 4.9%	▲ 4.9%	▲ 4.9%
Capital Expenses								
Capital Outlay			\$ -	\$ 368,000	\$ 169,000	\$ 221,000	\$ 92,000	\$ 92,000
Existing Debt Service	\$ 29,479	\$ 29,479	\$ 120,100	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
New Debt Service		\$ -	\$ -	\$ 20,040	\$ 33,496	\$ 32,502	\$ 31,508	\$ 30,514
Subtotal	\$ 29,479	\$ 29,479	\$ 120,100	\$ 418,040	\$ 232,496	\$ 283,502	\$ 153,508	\$ 152,514
<i>Delta Previous</i>			▲ 307.4%	▲ 248.1%	▼ 44.4%	▲ 21.9%	▼ 45.9%	▼ 0.6%
TOTAL EXPENSES	\$ 141,284	\$ 184,565	\$ 286,543	\$ 584,208	\$ 406,809	\$ 466,368	\$ 345,354	\$ 353,790
		▲ 30.6%	▲ 55.3%	▲ 103.9%	▼ 30.4%	▲ 14.6%	▼ 25.9%	▲ 2.4%
	<i>Actual</i>	<i>Actual</i>	<i>Actual</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
RATE REVENUE	\$ 122,586	\$ 137,537	\$ 214,471	\$ 508,296	\$ 508,296	\$ 508,296	\$ 508,296	\$ 508,296
NON-RATE REVENUE	\$ -	\$ 73,914	\$ 34,229	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
		<i>Revenue Increase</i>	▲ 0%	▲ 137%	▲ 0%	▲ 0%	▲ 0%	▲ 0%
Fund Balance (Beginning)	\$ 22,982	\$ 114,073	\$ 76,230	\$ 25,318	\$ 151,806	\$ 218,734	\$ 406,676	\$ 406,676
Net Revenue	\$ 26,886	\$ (37,843)	\$ 317,089	\$ 295,487	\$ 287,928	\$ 279,942	\$ 271,506	\$ 271,506
Capital Outlay	\$ -	\$ -	\$ (368,000)	\$ (169,000)	\$ (221,000)	\$ (92,000)	\$ (92,000)	\$ (92,000)
Fund Balance (End)	\$ 49,868	\$ 76,230	\$ 25,318	\$ 151,806	\$ 218,734	\$ 406,676	\$ 586,182	\$ 586,182
(as % OpEx)		32%	46%	15%	87%	120%	212%	291%
Days of OpEx as Enterprise Reserve		98.6	97.1	55.6	317.9	436.6	773.7	1063.0
Months of OpEx as Enterprise Reserve		3.3	3.2	1.9	10.6	14.6	25.8	35.4

15-YEAR TIMEFRAME



Water Enterprise

	Budget FY23	Budget FY24	Budget FY25	Projected FY26	Projected FY27	Projected FY28	Projected FY29	Projected FY30
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Operating Expenses

Salaries & Wages	\$ 44,805	\$ 65,765	\$ 75,822	\$ 65,237	\$ 68,499	\$ 71,924	\$ 75,520	\$ 79,296
Operation & Maintenance	\$ 43,000	\$ 45,150	\$ 75,000	\$ 57,103	\$ 59,958	\$ 62,956	\$ 66,103	\$ 69,408
Purchase Of Services	\$ 24,000	\$ 25,200	\$ -	\$ 25,830	\$ 27,122	\$ 28,478	\$ 29,901	\$ 31,397
Prior Year Expenses	\$ -	\$ 5,888	\$ 621	\$ 3,254	\$ 3,254	\$ 3,254	\$ 3,254	\$ 3,254
Budget Surplus	\$ -	\$ 13,083	\$ 15,000	\$ 14,744	\$ 15,481	\$ 16,255	\$ 17,068	\$ 17,921
Subtotal	\$ 111,805	\$ 155,086	\$ 166,443	\$ 166,168	\$ 174,313	\$ 182,866	\$ 191,847	\$ 201,277
<i>Delta Previous</i>		▲ 38.7%	▲ 7.3%	▼ 0.2%	▲ 4.9%	▲ 4.9%	▲ 4.9%	▲ 4.9%

Capital Expenses

Capital Outlay			\$ -	\$ 7,000	\$ 7,000	\$ 139,000	\$ 172,000	\$ 161,000
Existing Debt Service	\$ 29,479	\$ 29,479	\$ 120,100	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
New Debt Service		\$ -	\$ -	\$ -	\$ -	\$ 12,120	\$ 11,767	\$ 11,413
Subtotal	\$ 29,479	\$ 29,479	\$ 120,100	\$ 37,000	\$ 37,000	\$ 181,120	\$ 213,767	\$ 202,413
<i>Delta Previous</i>			▲ 307.4%	▼ 69.2%	▲ 0.0%	▲ 389.5%	▲ 18.0%	▼ 5.3%

TOTAL EXPENSES	\$ 141,284	\$ 184,565	\$ 286,543	\$ 203,168	\$ 211,313	\$ 363,986	\$ 405,613	\$ 403,690
		▲ 30.6%	▲ 55.3%	▼ 29.1%	▲ 4.0%	▲ 72.2%	▲ 11.4%	▼ 0.5%

	Actual	Actual	Actual	Projected	Projected	Projected	Projected	Projected
TOTAL REVENUE	\$ 122,586	\$ 137,537	\$ 214,471	\$ 233,773	\$ 257,151	\$ 282,866	\$ 316,810	\$ 354,827
NON-RATE REVENUE	\$ -	\$ 73,914	\$ 34,229	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
		<i>Revenue Increase</i>	▲ 0%	▲ 9%	▲ 10%	▲ 10%	▲ 12%	▲ 12%

Fund Balance (Beginning)	\$ 22,982	\$ 114,073	\$ 76,230	\$ 131,835	\$ 202,673	\$ 146,552	\$ 82,749	\$ 82,749
Net Revenue	\$ 26,886	\$ (37,843)	\$ 62,606	\$ 77,837	\$ 82,879	\$ 108,196	\$ 137,137	\$ 137,137
Capital Outlay	\$ -	\$ -	\$ (7,000)	\$ (7,000)	\$ (139,000)	\$ (172,000)	\$ (161,000)	\$ (161,000)
Fund Balance (End)	\$ 49,868	\$ 76,230	\$ 131,835	\$ 202,673	\$ 146,552	\$ 82,749	\$ 58,886	\$ 58,886
(as % OpEx)		32%	46%	79%	116%	80%	43%	29%
Days of OpEx as Enterprise Reserve		98.6	97.1	289.6	424.4	292.5	157.4	106.8
Months of OpEx as Enterprise Reserve		3.3	3.2	9.7	14.1	9.8	5.2	3.6

DEBT FUNDED



Water Enterprise

	Budget FY23	Budget FY24	Budget FY25	Projected FY26	Projected FY27	Projected FY28	Projected FY29	Projected FY30
Operating Expenses								
Salaries & Wages	\$ 44,805	\$ 65,765	\$ 75,822	\$ 65,237	\$ 68,499	\$ 71,924	\$ 75,520	\$ 79,296
Operation & Maintenance	\$ 43,000	\$ 45,150	\$ 75,000	\$ 57,103	\$ 59,958	\$ 62,956	\$ 66,103	\$ 69,408
Purchase Of Services	\$ 24,000	\$ 25,200	\$ -	\$ 25,830	\$ 27,122	\$ 28,478	\$ 29,901	\$ 31,397
Prior Year Expenses	\$ -	\$ 5,888	\$ 621	\$ 3,254	\$ 3,254	\$ 3,254	\$ 3,254	\$ 3,254
Budget Surplus	\$ -	\$ 13,083	\$ 15,000	\$ 14,744	\$ 15,481	\$ 16,255	\$ 17,068	\$ 17,921
Subtotal	\$ 111,805	\$ 155,086	\$ 166,443	\$ 166,168	\$ 174,313	\$ 182,866	\$ 191,847	\$ 201,277
<i>Delta Previous</i>		▲ 38.7%	▲ 7.3%	▼ 0.2%	▲ 4.9%	▲ 4.9%	▲ 4.9%	▲ 4.9%
Capital Expenses								
Capital Outlay			\$ -	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000
Existing Debt Service	\$ 29,479	\$ 29,479	\$ 120,100	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
New Debt Service		\$ -	\$ -	\$ -	\$ 116,040	\$ 112,656	\$ 109,271	\$ 105,887
Subtotal	\$ 29,479	\$ 29,479	\$ 120,100	\$ 37,000	\$ 153,040	\$ 149,656	\$ 146,271	\$ 142,887
<i>Delta Previous</i>			▲ 307.4%	▼ 69.2%	▲ 313.6%	▼ 2.2%	▼ 2.3%	▼ 2.3%
TOTAL EXPENSES	\$ 141,284	\$ 184,565	\$ 286,543	\$ 203,168	\$ 327,353	\$ 332,522	\$ 338,118	\$ 344,163
		▲ 30.6%	▲ 55.3%	▼ 29.1%	▲ 61.1%	▲ 1.6%	▲ 1.7%	▲ 1.8%
	<i>Actual</i>	<i>Actual</i>	<i>Actual</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
TOTAL REVENUE	\$ 122,586	\$ 211,451	\$ 248,700	\$ 253,674	\$ 261,284	\$ 271,735	\$ 282,605	\$ 293,909
NON-RATE REVENUE	\$ -	\$ 73,914	\$ 34,229	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
		<i>Revenue Increase</i>	▲ 0%	▲ 2%	▲ 3%	▲ 4%	▲ 4%	▲ 4%
Fund Balance (Beginning)	\$ 22,982	\$ 114,073	\$ 110,458	\$ 185,964	\$ 144,895	\$ 109,108	\$ 78,595	\$ 53,340
Net Revenue	\$ 100,800	\$ (3,615)	\$ 82,506	\$ (34,070)	\$ (28,787)	\$ (23,513)	\$ (18,254)	\$ (18,254)
Capital Outlay	\$ -	\$ -	\$ (7,000)	\$ (7,000)	\$ (7,000)	\$ (7,000)	\$ (7,000)	\$ (7,000)
Fund Balance (End)	\$ 123,782	\$ 110,458	\$ 185,964	\$ 144,895	\$ 109,108	\$ 78,595	\$ 53,340	\$ 27,832
(as % OpEx)	80%	66%	112%	83%	60%	41%	27%	
Days of OpEx as Enterprise Reserve	244.8	140.7	408.5	303.4	217.8	149.5	96.7	
Months of OpEx as Enterprise Reserve	8.2	4.7	13.6	10.1	7.3	5.0	3.2	

NEXT STEPS?

- **Final Water AMP grant reimbursement**
- **Pursue additional funding to offset need for raising rates**
 - *Drinking Water Funding Opportunities*
 - *Massachusetts DEP*
 - *Massachusetts Division of Conservation Services*
 - *Massachusetts Community One Stop Program*
 - *Massachusetts EEA*
 - *USDA Rural Development Loans and Grants*
 - *USEPA*
 - *US Department of Housing and Urban Development*
 - *Others*

FUNDING OPPORTUNITIES

- **Massachusetts DEP**
 - Drinking Water State Revolving Fund (DWSRF)
 - Asset Management Planning Grant Program
- **Massachusetts Division of Conservation Services**
 - Drinking Water Supply Protection Grant Program (DWSP)
- **Massachusetts Community One Stop Program**
 - MassWorks Infrastructure Program Grant
 - Rural Development Fund
 - Massachusetts Downtown Initiative Program
- **Massachusetts EEA**
 - Drinking Water Protection Grant
- **USDA Rural Development Loans and Grants**
 - Water and Waste Disposal Loan and Grant Program
 - Special Evaluation Assistance for Rural Communities (SEARCH Grants)
 - Pre-Development Planning Grants (PPG Grants)
 - Household Water Well System Grants
 - Circuit Rider Program - Technical Assistance for Rural Water Systems
- **USEPA**
 - Water Infrastructure Finance and Innovation Act (WIFIA)
 - Emerging Contaminants (EC) in Small or Disadvantaged Communities Grant (SDC)
- **US Department of Housing and Urban Development**
 - Community Development Block Grants (CDBG)
- **Other**
 - Betterment Assessments
 - Management Districts
 - CDS - Congressionally Directed Spending
 - Tax Base



THANK YOU – QUESTIONS

