



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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October 16, 2020

Andrea Traviglia
Drinking Water Quality and Protection Section
USEPA- Region 1
5 Post Office Square, Suite 100
Mail Code: OEP 06-2
Boston, MA 02109-3912

Subject: Submittal of SFY 2020 –Capacity Development Annual Report (SDWA Section 1420(c)(3))

Dear Ms. Traviglia:

The Massachusetts Department of Environmental Protection (MassDEP) is the agency responsible for administering the provisions of the Safe Drinking Water Act, (the Act) Section 42 U.S.C. § 300g-9 (c)(3). The Act requires MassDEP, the State agency with primacy for the Act, to prepare an annual report showing the progress the agency has made in adopting its Capacity Development Strategy, which is designed to improve the technical, financial and managerial capacity of public water systems in the State.

The attached report fulfills the requirements of the Act by demonstrating that MassDEP has successfully implemented its Capacity Development Strategy and that this initiative has had a direct and positive impact on the quality of drinking water in Massachusetts. A few examples of the work that MassDEP has completed include:

- Registering and evaluating 9 new public water systems (see Appendix B).
- Evaluating 189 public water systems via the sanitary surveys process (see Appendix C).
- Evaluating, categorizing and providing technical assistance and outreach to address the needs of the systems with the 628 technical, financial and managerial “Scheduled Actions” identified during activities such as sanitary surveys, notices of non-compliance, and administrative consent orders (see Appendix D).

If you have any questions, please contact me at 617-292-5857, Michael Maynard at 508-767-2735, or Michael Celona at 617-292-5674.

Sincerely,

Yvette DePeiza
Director - Drinking Water Program
Massachusetts Department of Environmental Protection

cc: EPA: Andrea Traviglia, Jane Downing, Kevin Reilly, Denise Springborg; MassDEP: Michael Maynard, Michael Celona
Y:\DWP\ARCHIVE\BOSTON\EPA-Capacity-Annual Report-SFY20- Final - Report and Cover Letter

Implementation of the Capacity Development Program

Annual Review of Capacity Program Required by SDWA Section 1420

**Period
(July 1, 2019 - June 30, 2020)**

Massachusetts Department of Environmental Protection
Bureau of Water Resources
Division of Watershed Management
Drinking Water Program

October 2020

EXECUTIVE SUMMARY

The Massachusetts Department of Environmental Protection (MassDEP) is the responsible agency for administering the provisions of the Public Health Service Act (Title XIV) also called the Safe Drinking Water Act (SDWA or the Act), Section 42 U.S.C.A. § 300g-9 (c)(3).

Section 1420(c)(2) of the Act required MassDEP to develop and submit a Capacity Development Strategy to EPA by August 2000. MassDEP submitted the Capacity Development Strategy as required and EPA approved MassDEP's Capacity Strategy in December 2000.

Section 1420(c)(3) of the Act required MassDEP to submit to EPA a report annually stating the progress the agency has made in adopting its capacity development strategy. Attached is the required annual report for the period July 1, 2019- June 30, 2020.

If you have any questions concerning the report please do not hesitate to contact Michael J. Maynard at Michael.Maynard@mass.gov or at 508-767-2735 or Michael Celona at Michael.Celona@mass.gov or 617-292-5674.

IMPLEMENTATION OF CAPACITY DEVELOPMENT STRATEGY

MassDEP’s Capacity Development Strategy focuses on improving the technical, financial, and managerial operations of public water systems in the Commonwealth. Section 1420 of the SDWA requires MassDEP to continuously implement its strategy and annually update EPA concerning progress or changes to the strategy. This report should be considered MassDEP’s annual update concerning implementation of the strategy. The implementation of this strategy has contributed to a very effective drinking water program. The following list of accomplishments is indicative of the effectiveness of this program.

MassDEP has the following responses to the EPA Capacity Development reporting requirements for the period July 1, 2019-June 30, 2020:

A. New System Review for Community and Non-Transient Non-Community Systems (as required by SDWA Sec 1420 (c))

- 1. Has the State’s legal authority (statutes) to implement the New Systems Program changed within the previous reporting year? **No***
- 2. Has there been any modification to the State control points? **No***
- 3. List of new Community and Non-Transient Non community systems during SFY 2020. See Figure 1 below for a breakdown of the total number of new PWS during SFY 2020. See Appendix B, for the list of systems that have successfully completed a New System Business Plan (NSBP). Review and approval of a NSBP and/or successful completion of a sanitary survey are required before a new system can become operational in Massachusetts. Appendix B also includes a list of all transient non-community (TNC) systems registered during SFY 2020.*

Figure 1: New Public Water Systems in SFY 2020

Type of Public Water System	Number of Systems
Community Systems	2
Non-Transient Non Community Systems	2
Transient Non Community System	5
Total	9

B. Existing System Review (as required by SDWA Sec 1420 (c))

1. During the previous year, which programs, tools, and/or activities were used, and how did each assist existing PWS in acquiring and maintaining TFM capacity?

MassDEP has improved the technical, financial and managerial ability of PWSs by continuing to integrate the components of the strategy into the daily operations of the drinking water program. Some of the program activities that are used include the following:

- a. Sanitary Surveys - MassDEP Drinking Water Program performs sanitary surveys on all public water systems. During the sanitary survey, staff identifies technical, financial and managerial deficiencies and makes recommendations as to how the systems should improve. Staff also has the option of taking enforcement action if the deficiencies have a direct impact on providing a safe and fit supply of water.

The sanitary survey selection process is based on a three-year cycle for community and non-transient non-community systems and a five-year cycle for transient non-community systems. Figure 2 provides the number of sanitary surveys that were completed at PWS during SFY 2020. A list of all of the systems is included in Appendix C.

Figure 2: Sanitary Surveys Completed in SFY 2020

Type of Public Water System	Number of Completed Surveys
Community Systems	103
Non-Transient Non-Community Systems	64
Transient Non-Community System	22
Total	189

MassDEP Regional Drinking Water Program Chiefs also have the authority to prioritize systems based on public health protection, emergency need or regional prioritization. The prioritization of systems is based on an evaluation of the technical, financial and/or managerial capability of the system.

- b. State Revolving Loan Funds (SRF) Priority Systems

As required by Section 1452(a)(3) of the SDWA, prior to receiving SRF money, systems must demonstrate that they have sufficient technical, financial and managerial capacity or they must demonstrate that the use of the SRF

funds will result in the system developing technical, financial and managerial capacity. The MassDEP Drinking Water Program reviews all systems seeking SRF funding to determine their need for technical, financial and managerial assistance and makes the required capacity recommendations regarding their participation in the SRF program.

- c. Training and Technical Assistance - MassDEP worked with and often provided subject experts to several training and technical assistance providers to provide trainings to PWS: Massachusetts Rural Water Association, RCAP Solutions, EPA Environmental Finance Center and other drinking water and public health associations. Training topics included the Revised Total Coliform Rule (RTCR), annual statistical reporting, regulatory review and updates, rate setting, very small system, T1 & D1 operator training, opening and closing a seasonal system, sampling, drinking water contaminants, Vulnerability Preparedness, Lead & Copper Rule Workshop, Asset Management, SDWA Regulatory Review, Drinking Water Program Updates, AWIA-American Water Infrastructure Act, PFAS Sampling Training and certified operator exam review.
 - i. YouTube training videos - Staff continue to develop training videos on a variety of topics including Lead in Schools and Daycares and PFAS sampling. Also available are previous videos including RTCR, LCR, LCCA, and Source Water Protection. They are posted on MassDEP's YouTube page at <https://www.youtube.com/channel/UCswijd-Vuwa0jMR4EroSm8w>
 - ii. Operator Certification - The Operator Certification program involves activities related to the licensing and continuing education of water treatment and distribution operators. The training provided to certified operators by technical assistance providers noted above supported technical, financial and managerial operations of public water systems.
 - iii. Wellhead Protection Program – MassDEP Drinking Water Program staff provided technical assistance to water supply systems for wellhead and source protection compliance.
 - iv. Planning - MassDEP continued to promote planning for public water systems. Three hundred and twenty-eight (328) planning issues were identified.
 - v. In addition MassDEP continued to promote and identify training opportunities and tools to support the following program elements to improve the technical, financial and managerial capacity of public water systems. Training opportunities were provided in the following areas:

- Chemical Addition Reporting
- Opening & Closing your PWS
- Compliance with the Lead and Copper Rule
- Cross Connections
- PFAS- Emerging Contaminants
- Emergency Preparedness
- Staffing Plan Updates
- Sampling Plan Updates

Specific Tools Used:

- Weekly Distribution of the Program Director emails
- Board of Health & state / local agency referrals
- Use of MassDEP DWP website to distribute program updates
- Use of MassDEP YouTube Channel to broadcast technical meetings
- Weekly conference calls with PWS during COVID-19 emergency.
- Attendance and participation in trainings and workshops:
- Outreach, training, and technical assistance to address Sanitary Survey scheduled actions
- Provision of annual compliance awards to recognize systems that have achieved outstanding performance in the delivery of a clean safe water supply to the public.(Impacted by COVID-19)
- Provision of certified operator outstanding compliance award to a certified operator who went beyond job requirements to ensure safe drinking water. (Impacted by COVID-19)
- Continued discussions and development of joint programs with agencies that can directly affect water quality, including the Department of Public Health, the Board of Certification of Plumbers, the Department of Agricultural Resources, Well Drillers, and Board of Building Regulations and Standards.

2. *Based on the existing system strategy, how has the State continued to identify systems in need of capacity development assistance?*

The state has continued to identify systems in need of capacity assistance via the sanitary survey process, partnerships with technical assistance providers, staff's routine review of system data (database/desk audits), and daily interaction with the public water systems.

Sanitary Surveys:

During the 2020 SFY, MassDEP Drinking Water Program used the sanitary survey process to identify systems in need of capacity development assistance. The Drinking Water Program completed one hundred and eighty-nine (189) sanitary surveys. The total number of surveys completed were impacted by COVID-19. See list in Appendix C. While conducting sanitary surveys and completing Notice of Non-Compliance and Administrative Consent Orders, MassDEP field staff

identified six hundred and twenty-eight (628) technical, financial and managerial “Scheduled Actions”. PWS are required to address these deficiencies during an agreed upon time frame or face the possibility of progressive enforcement and penalties.

Appendix D includes a categorization of some of the six hundred and twenty eight (628) “Scheduled Actions”. Below is a short summary of some of the Actions from SFY 2019 & SFY 2020. (Note: Scheduled Actions are similar from year to year)

- Develop cross-connection plan
- Conduct cross-connection inspections
- Submit staffing plan
- Implement alarm testing protocol
- Perform emergency response event
- Update and submit emergency response plan
- Post emergency contact list
- Install connection for emergency generator
- Revise lead and copper sampling plan
- Create Asset Management Plan
- Install/upgrade backup power generator
- Address supply deficiencies
- Adopt water conservation or restriction bylaw
- Apply for full operator certification
- Update and submit capital improvement plan
- Revise coliform monitoring plan
- Complete a leak detection survey
- Review and update water rates
- Review and update Consumer Confidence Report
- Develop Operations and Maintenance Manual
- Update distribution map
- Inspect and clean tanks
- Submit evaluation of chemical feed process
- Clean well house

Enforcement Targeting Tool (ETT):

MassDEP also used the ETT to identify systems that were in need of specific capacity assistance. Systems that were noted as repeat violators with eleven (11) or more points were targeted for capacity evaluation and action if needed.

3. *Has the state performed a review of the existing system strategy during the previous year, discuss the review and how findings have been or may be addressed? **Yes***

The MassDEP continues to review the existing system strategy and make improvements. In an effort to promote technical, financial and managerial capacity, during this past year, the drinking water staff updated sanitary survey questions, developed a list of financial and managerial “Recommended/Corrective Actions” and provided training materials to staff. The Recommended/Corrective Actions list is used by the DWP staff during sanitary survey write-up, enforcement actions or as a tool for technical assistance. See Appendix D for the List of Capacity Recommended/Corrective Actions.

4. *Did the State make any modifications to the existing system strategy?* **No**

The strategy was not modified but the MassDEP continued to assist PWS in improving the technical, financial and managerial operations by routinely updating tools and providing a list of resources and technical assistance tools on our website at <http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html#3>

These technical assistance tools and other pertinent information are used by MassDEP, public water system staff, and consultants to promote technical, financial and managerial capacity.

CONCLUSION

MassDEP is continuing to implement its Capacity Development Strategy. Even though there is no modification to the EPA approved strategy, the strategy requires the addition of new tools in order to meet the ever-changing needs of public water systems. MassDEP continues to track and evaluate public water systems that have received technical assistance through education, training, and outreach in order to establish a historical baseline of information. By tracking and establishing a baseline, MassDEP is able to demonstrate that the Capacity Strategy continues to promote the public health and the general welfare of the consumers of public drinking water in the Commonwealth.

This report fulfills the requirements of section 1420(c)(3) of the SDWA by demonstrating that MassDEP has successfully implemented its Capacity Development Strategy and that this initiative has had a direct and positive impact on the quality and quantity of drinking water in Massachusetts. MassDEP believes that as a direct result of the technical and compliance assistance, education and outreach programs associated with the Capacity Development Strategy and provided by the MassDEP, the public water systems in Massachusetts have improved their technical, financial and managerial operations and their consumers/customers are drinking water that consistently meets all required federal and state standards. Specifically, Massachusetts exceeds the National Target GPRA Target for GPRA-Population (92%) with a score of 94.4% (see Appendix E). This indicates that 94.4 % of Massachusetts residents served by CWSs will receive drinking water that meets all applicable health based drinking water standards through approaches including effective treatment & source water protection.

The GPRA statistics are calculated each quarter using the most recent 4 quarters of health-based compliance information in SDWISFED for community systems.

APPENDIX A GLOSSARY OF TERMS AND ACRONYMS USED IN THIS REPORT

- Capacity:** Refers to the capabilities required of a public water system in order to achieve and maintain compliance with the drinking water rules. It has three elements:
- Technical:** Technical capacity or capability means that the water system meets standards of engineering and structural integrity necessary to serve customer needs. Technically capable water systems are constructed, operated, and maintained according to accepted quality standards.
- Financial:** Financial capacity or capability means that the water system can raise and properly manage the money it needs to operate efficiently over the long term.
- Managerial:** Managerial capacity or capability means that the water system's management structure is capable of providing proper stewardship of the system. Governing boards or authorities are actively involved in oversight of system operations.
- MassDEP:** The Massachusetts Department of Environmental Protection. This agency is responsible for administering the drinking water rules in our state.
- DWSRF:** The Drinking Water State Revolving Loan Fund. Congress authorized this fund in 1996. In Massachusetts, MassDEP administers the DWSRF.
- EPA:** Environmental Protection Agency. This federal agency oversees state programs, sets MCLs and provides technical assistance. EPA determines when a state's capacity development program is in compliance with the Safe Drinking Water Act.
- MCL:** Maximum Containment Level. This is the maximum allowable level for a given drinking water contaminant.
- PWS:** Public Water System as defined in the Safe Drinking Water Act.
- SDWA:** The Safe Drinking Water Act passed by the US Congress in 1974 and amended in 1986 and 1996.
- TFM:** Technical, financial, and managerial. The abbreviation is used to save space in the report and avoid frequent repetition of these terms.

APPENDIX B
SFY 2020
New Community (COM), Non-Transient Non-Community (NTNC), and
Transient Non-Community (TNC) Public Water Systems Registered

PWSID	PWS_NAME	CLASS
1329009	LIBERTY MANOR INC	COM
1015001	ADAMS FARM SLAUGHTERHOUSE LLC	NTNC
1024022	PHOENIX FRUIT FARM COUNTRY STORE	TNC
1053035	AVERY GENERAL STORE	TNC
1111044	SOMETHING SPECIAL CATERING SERVICE INC	TNC
2125022	WESTWARD ORCHARDS	TNC
2037037	THE TAYLOR SCHOOL	NTNC
2028021	BERLIN ORCHARDS	TNC
3269032	FIELDS AT SHERBORN CONDO TRUST	COM

APPENDIX C

SFY 2019

**List of 189 Sanitary Survey Inspections Completed during the Reporting Period
July 1, 2019 – June 30, 2020**

PWSID #	PWS Name	Class
2017000	AUBURN WATER DISTRICT	COM
2021001	BARRE MHP/WATERWHEEL VILLAGE	COM
2028007	NORTHBROOK VILLAGE I / BERLIN RET.	COM
2028018	NORTHBROOK VILLAGE II	COM
2037007	BROOK VILLAGE CONDOMINIUM	COM
2037036	PADDOCK ESTATES	COM
2039000	BOYLSTON WATER DISTRICT	COM
2054040	WOODLAND WALK APARTMENTS	COM
2077000	DOUGLAS WATER DEPARTMENT	COM
2097000	FITCHBURG DPW, DIV. OF WATER SUPPLY	COM
2101000	FRANKLIN WATER DEPARTMENT	COM
2125002	SAINT BENEDICT ABBEY	COM
2125016	TRAIL RIDGE CONDOMINIUMS	COM
2138000	HOPEDALE WATER DEPARTMENT	COM
2151009	STAFFORDSHIRE COUNTRY ESTATES	COM
2175000	MEDFIELD WATER DEPT.	COM
2179001	MENDON HOUSING AUTHORITY	COM
2185000	MILFORD WATER COMPANY	COM
2187002	SUNNY SPRING/ANN AND HOPE (BLK)	COM
2226007	TORIA HEIGHTS CONDOMINIUM	COM
2226009	MAPLEBROOK APARTMENTS	COM
2280000	SPENCER WATER DEPARTMENT	COM
2282000	STERLING WATER DEPARTMENT	COM
2286000	JUNIPER HILL WATER COMPANY	COM
2287020	STURBRIDGE RETIREMENT COOP. CORP.	COM
2299000	TOWNSEND WATER DEPARTMENT	COM
2316000	WEBSTER WATER DEPARTMENT	COM
2323000	WEST BROOKFIELD WATER DEPARTMENT	COM
2328000	WESTBOROUGH WATER DEPARTMENT	COM
3009000	ANDOVER WATER DEPT	COM
3010000	ARLINGTON WATER DEPT. (MWRA)	COM
3023000	BEDFORD WATER DEPT.	COM
3026000	BELMONT WATER DEPT. (MWRA)	COM

3030000	BEVERLY WATER DEPT	COM
3046000	BROOKLINE WATER AND SEWER DIVISION	COM
3048000	BURLINGTON WATER DEPT	COM
3051021	BENFIELD FARMS	COM
3056001	EAST CHELMSFORD WATER DISTRICT	COM
3071000	DANVERS WATER DEPT.	COM
3073000	DEDHAM WESTWOOD WATER DIST.	COM
3105000	GEORGETOWN WATER DEPARTMENT	COM
3128000	HAVERTHILL WATER DEPT	COM
3176000	MEDFORD WATER DEPT. (MWRA)	COM
3259000	SALISBURY WATER DEPARTMENT	COM
3269028	LELAND FARMS	COM
3274000	SOMERVILLE WATER DEPT. (MWRA)	COM
3288000	SUDBURY WATER DISTRICT	COM
3298000	TOPSFIELD WATER DEPARTMENT	COM
3301002	RIVER CROSSING CONDOMINIUM	COM
3301008	BENCHMARK CONDOMINIUMS	COM
3301027	400 DUNSTABLE ROAD (PINE KNOLL)	COM
3301035	CURTIS HILL CONDOMINIUM	COM
3305000	WAKEFIELD WATER DEPT	COM
3314000	WATERTOWN WATER DEPT. (MWRA)	COM
3317000	WELLESLEY WATER DIVISION	COM
3330000	WESTFORD WATER DEPARTMENT	COM
3330019	HAYSTACK ESTATES	COM
3342000	WILMINGTON WATER DEPT	COM
3347000	WOBURN WATER DEPT.	COM
4018000	TOWN OF AVON	COM
4020002	CENTERVILLE OSTERVILLE MARSTONS MILLS WD	COM
4036011	SCHOONER PASS TRUSTEES CONDOMINIUMS	COM
4044000	BROCKTON WATER COMMISSION	COM
4052025	PINETREE VILLAGE	COM
4052026	CRANBERRY VILLAGE INC	COM
4052044	WATERVIEW PARK LLC	COM
4052067	TOWN OF CARVER	COM
4052070	TOWNHOUSES @ COPPER LANTERN	COM
4075000	DENNIS WATER DISTRICT	COM
4076000	DIGHTON WATER DISTRICT	COM
4076002	NORTH DIGHTON FIRE DISTRICT	COM
4096000	FALMOUTH WATER DEPT	COM
4126000	HARWICH WATER DEPARTMENT	COM
4167000	MANSFIELD WATER DIVISION	COM

4171000	MARSHFIELD WATER DEPARTMENT	COM
4172035	BEECHWOOD POINT CONDOS	COM
4172039	MASHPEE WATER DISTRICT	COM
4173000	MATTAPOISETT WATER DEPARTMENT	COM
4197000	WANNACOMET WATER COMPANY	COM
4211000	NORTH ATTLEBORO WATER DEPT	COM
4221000	OAK BLUFFS WATER DISTRICT	COM
4231000	PEMBROKE WATER DIVISION DPW	COM
4239045	PLYMOUTH WATER COMPANY	COM
4239051	LONG POND REALTY TRUST	COM
4264000	SCITUATE WATER DIVISION	COM
4265000	SEEKONK WATER DISTRICT	COM
4266000	SHARON WATER DEPT	COM
4273000	SOMERSET WATER DEPARTMENT	COM
4285000	STOUGHTON WATER DEPARTMENT	COM
4296000	TISBURY WATER WORKS	COM
4296017	SCOTTS GROVE LLC	COM
4318056	MASSASOIT HILLS TRAILER PARK	COM
4336000	WEYMOUTH WATER DEPARTMENT	COM
4350001	WRENTHAM DEVELOPMENTAL CENTER	COM
4350003	MOUNT ST MARYS ABBEY	COM
6000000	MWRA	COM
2037019	BOXBORO EXECUTIVE CENTER	NTNC
2037020	1300 MASS AVE	NTNC
2037025	COSGROVE REALTY	NTNC
2054070	VERIZON BUSINESS NETWORK SERVICES, INC.	NTNC
2179022	IMPERIAL PLAZA	NTNC
2188004	MILLVILLE ELEMENTARY SCHOOL	NTNC
2257010	HEIFER INTERNATIONAL OVERLOOK FARM	NTNC
2271003	MEMORIAL DR. IND. PARK SITE 1 (RIGR)	NTNC
2271004	MEMORIAL DR. IND. PARK SITE 2 (RIFL)	NTNC
2287012	GREEN ACRES DAYCARE CENTER, INC.	NTNC
2287024	PILOT TRAVEL CENTER	NTNC
2290024	JOHN ROAD INDUSTRIAL PARK	NTNC
3051016	CARLISLE EXTENDED DAY PROGRAM, INC.	NTNC
3269011	PINE HILL ELEMENTARY SCHOOL	NTNC
3269019	SHERBORN TOWN OFFICES; POLICE; LIBRARY	NTNC
3269030	PILGRIM CHURCH	NTNC
4145001	SACRED HEART HIGH SCHOOL	NTNC
4145003	SACRED HEART ELEMENTARY SCHOOL	NTNC
4145007	SACRED HEART EARLY CHILDHOOD CENTER	NTNC

4296005	WEST TISBURY ELEMENTARY SCHOOL	NTNC
4334004	ALICE A MACOMBER PRIMARY SCHOOL	NTNC
1272004	SIRIUS COMMUNITY CENTER	NC
2011001	CAMP WELLVILLE INC	NC
2011005	CAMP WINNEKEAG	NC
2012015	CAMP MIDDLESEX	NC
2028005	BERLIN MUNICIPAL CENTER	NC
2028006	BERLIN COUNTRY CLUB	NC
2028011	LOWES GENERAL STORE	NC
2054030	YMCA CAMP FOSKETT	NC
2162005	CHERRY HILL ICE CREAM	NC
2179008	ALICANTE RESTAURANT AND LOUNGE	NC
2179014	GRAND VIEW	NC
2188005	SAINT AUGUSTINES PARISH	NC
2215004	TOUGAS FARM (BALL HILL REALTY)	NC
2216007	WEST END CREAMERY, INC.	NC
2222002	PINE ACRES FAMILY CAMPING RESORT	NC
2241005	CAPTAIN BOBS RESTAURANT	NC
2241011	HARRINGTON FARMS RESTAURANT	NC
2241012	MOUNTAIN BARN RESTAURANT	NC
2280005	CAMP LAURELWOOD	NC
2286014	STOW BROOK GULF/DUNKIN DONUTS	NC
2286021	BUTTERNUT FARM GOLF CLUB	NC
2304002	MCDONALDS RESTAURANT	NC
2332007	CROCKER POND RECREATION AREA	NC
2348002	ROCKY MT SPRING KIOSK (WORCESTER)	NC
3038022	INGALDSBY BAKERY AND FARM STAND	NC
3039001	ROCKY MT.SPRG.WTR (EVERETT) VND	NC
3051009	KIMBALL BATES FARM	NC
3051012	CARLISLE TOWN HALL	NC
3051017	DCR GREAT BROOK FARM STATE PARK	NC
3164005	POCAHONTAS SPRING WATER (VND)	NC
3262006	PRIMO WATER @ WAL MART #3114 (SAUGUS)	NC
3330024	BUTTER BROOK CROSSING GOLF CLUB	NC
4001002	ABINGTON ICE AND SUPPLY CO.	NC
4001005	ROCKY MOUNTAIN SPRING WATER VENDING	NC
4003007	COUNTRY WHIP	NC
4020021	FIRST LUTHERAN CHURCH	NC
4020023	SANDY NECK BEACH	NC
4027002	DCR DIGHTON ROCK STATE PARK	NC
4036012	PRISTINE SPRING (BOURNE) VEND	NC

4041004	SWEETWATER FOREST INC	NC
4041006	CAMP FAVORITE	NC
4041007	CAMP MITTON	NC
4044003	SPECTRUM GYMNASTICS INC.	NC
4052011	CAPTAIN PAL PRESCHOOL / UNITED PARISH	NC
4052018	TREMONT PLACE	NC
4052047	PRISTINE SPRING (CARVER) VEND	NC
4052048	SIMPSON SPRING (CARVER) VEND	NC
4052065	MAIN STREET COURT CONDOMINIUM TRUST	NC
4052066	OCEAN SPRAY RECEIVING STATION	NC
4055005	PLEASANT BAY VILLAGE MOTEL	NC
4062001	MENEMSHA INN	NC
4062004	BEACH PLUM INN	NC
4072003	RACHELS LAKESIDE	NC
4104003	AQUINNAH RESTAURANT	NC
4146042	ROSE PROFESSIONAL PLAZA	NC
4197008	SURFSIDE BEACH	NC
4245008	PRIMO WATER @ WAL MART #5448	NC
4247008	WINTHROP VILLAGE PLAZA	NC
4292001	AMERICAN AQUAFER	NC
4318095	JB S PIZZA BAR AND GRILL	NC
4334040	V F W POST 8502	NC
4334053	ACOAXET CLUB	NC
4334080	WESTPORT CLUB INC.	NC
1325000	West Springfield Water	COM
1120021	O'Connell Convenience	TNC
1349000	Sweetwood	COM
1260001	Berkshire Rehab	COM
1121010	Vacation Village	NTNC
1132000	Hinsdale Water	COM
1275001	South Hadley District #2	COM
1120001	Wingate at Hampden	COM
1329002	Liberty Manor	COM

APPENDIX D
Capacity Issues Identified as Scheduled Actions

Number and Type of Capacity Issues Identified as Scheduled Actions SFY 2016 – 2020					
Capacity Issues	SFY 2016	SFY 2017	SFY 2018	SFY 2019	SFY 2020
Documentation Submittal	292	439	640	779	280
Public Notification	0	8	0	3	4
Planning	164	180	284	328	70
Collect Samples	5	43	23	62	2
Installation	100	126	156	133	62
Well/Source Issue	92	118	180	243	58
Emergency/ERP	40	57	62	98	39
Treatment/ Distribution	45	38	71	124	32
Meter	34	23	49	50	12
Staffing Plan	27	42	32	38	21
Maintenance Plan/ Program	15	23	38	35	3
Distribution Maps	30	35	33	20	21
Storage/Tanks	107	46	229	72	24
Totals Scheduled Actions	1,120	1,366	1,885	1,985	628

**Typical Planning Issues Identified during
Review of Scheduled Actions in SFY 2020 & SFY 2019**

CREATE COLIFORM SAMPLING PLAN	CREATE MASTER PLAN
DEVELOP A SEASONAL START UP/SHUTDOWN PLAN	EVALUATE AND MAINTAIN PRESSURE TANK IN ACCORDANCE WITH MANUF
PROVIDE ADEQUATE CROSS CONNECTION PROTECTION	DEVELOP STAFFING PLAN
REPAIR OR REPLACE FAILING PRESSURE TANK	SUBMIT REVISED STAFFING PLAN
DEVELOP XCONN PLAN	MAINTAIN RECORDS OF ALARM TESTING, ER ACTIONS, AND CRITICAL
CONDUCT XCONN INSPECTIONS OF ALL BUILDINGS	SUBMIT PREVENTATIVE MAINT PLAN
WRITTEN PROPOSAL FOR LONG TERM MITIGATION OF CHEM STORAGE	SUBMIT CONSERVATION PLAN
CREATE ASSET MANAGEMENT PLAN	KEEP LOG BOOKS ON ALARM TESTING
PROVIDE NOTICE OF SDS FOR ALL CHEMICALS	PRIMARY OPERATOR MUST INSPECT MONTHLY
DEVELOP RATE STRUCTURE BASED ON CAPITAL PLAN	FINALIZE COLIFORM SAMPLING PLAN
CREATE COLIFORM SAMPLING PLAN	UPDATE FLUSHING PROGRAM
PROVIDE PRV ON DISCHARGE OF BOOSTER PUMPS	SUBMIT UPDATED TCR PLAN
PROVIDE ADEQUATE CROSS CONNECTION PROTECTION AT DUMP STATION	REPLACE 1 LEAKING HYDRANT
PREPARE & SUBMIT ACTION PLAN TO OPERATE WITHIN APPRVD RATE	REPLACE OR REMOVE NON FUNCTIONING HYDRANTS
DEVELOP XCONN PLAN	BEGIN MONTHLY INSPECTIONS
IMPLEMENT LEAK DETECTION PROGRAM	MAINTAIN GENERAL HOUSE KEEPING
DEVELOP & IMPLEMENT ANNUAL VALVE EXERCISE PROGRAM	DEVELOP PLAN TO RESURVEY ALL COMMERCIAL UNITS FOR BACKFLOW
REPLACED FAILED CHLORINE CHEMICAL FEED PUMP	IDENTIFY EMERGENCY BACKUP OPERATOR,
SUBMIT UPDATED RTCR SAMPLE PLAN	PRIMARY OPERATOR MUST INSPECT MONTHLY
VERIFY HIGH/LOW LEVEL TANK ALARMS OPERATIONAL	COMPLETE OUTSTANDING SS ITEM - TANK CLEANING

**Typical Installation Issues Identified during
Review of Scheduled Actions in SFY 2020 & SFY 2019**

INSTALL SMOOTH NOSED TAP	INSTALL RAW WATER SAMPLING TAPS UPSTREAM OF SYSTEM CHECK VAL
INSTALL VACUUM BREAKER ON HYDRO TANK TAP	INSTALL A PRESSURE RELIEF VALVE OR REPLACE TANK
INSTALL BACKFLOW DEVICES ON SOFTENER AND DISHWASHER	INSTALL SIGN AND PROTECTIVE GUARD AROUND PUMP SHAFT
INSTALL SCREENED VENT	INSTALL INTERLOCKS AND ENSURE AUTODIALER WORKING
INSTALL HBVB ON ALL THREADED FAUCETS	INSTALL CONTAINMENT PALLET UNDER DAY TANK
INSTALL WATER HAMMER PREVENTION	INSTALL BACKFLOW PREVENTION ON BATHOUSE TAP
INSTALL PROPER BF DEVICE ON IRRIG SPIGOT	INSTALL MIXING DEVICE IN TANK
INSTALL PRESSURE GAUGES ON EACH HYDRO TANK	INSTALL RAW WATER METER BEFORE TREATMENT
STATION 1 INSTALL/UPGRADE ELECTRICAL SERVICE	INSTALL WORKING PRESSURE GAUGE ON 82 TANK
INSTALL UV DISINFECTION OR JASWELL SEAL	INSTALL CHECK VALVE, S.TAP BEFORE IT, INJ PORT AFTER CV
INSTALL OVERFLOW CONTAINMENT AROUND CIP TANK	INSTALL HOSE BIB VACUUM BREAKERS
INSTALL CHECK VALVE, S.TAP BEFORE IT, INJ PORT AFTER CV	INSTALL VACUUM BREAKER ON THREADED FAUCETS
INSTALL HBVBS AND SUBMIT DOC	INSTALL RW SAMPLE TAPS PRIOR TO CK VALVES
INSTALL HARD-PIPED SHOWER AND EYE WASH	INSTALL LOCK ON TREATMENT DOOR
INSTALL LOW PH ALARM PRECLARIFIER @ NOTOWN WTP	INSTALL SCREENED VENT ON WELL
INSTALL AUTO DIALER	INSTALL HI LOW TANK LVL ALARMS
INSTALL FLOOD ALARM AT MASON ST BOOSTER STATION	INSTALL LOCK ON TOWNSEND RD OVERFLOW HATCH
INSTALLED NEW FLOW RESTRICTORS	INSTALL DEHUMIDIFIER IN PUMP HOUSE
INSTALL CONNECTION FOR BULK WATER DELIVERY	ENGINEER INSTALL UIC CHMBR
INSTALL PT-TANK SAMPLING TAP	

**Typical Well/Source Issues Identified during
Review of Scheduled Actions in SFY 2020 & SFY 2019**

REGISTER DRYWELLS WITH UIC PROGRAM	REPLACE WELL CAP
CLEAN THE WELL HOUSE	REPAIR WELLHEAD
UNPROTECTED OPENING IN THE WELL HEAD	PLUG ELECTRICAL OPENING IN WELL CAP
REPLACE ELECTRICAL BOX AT WELL	LOCK WELL VAULT
PICK UP LITTER IN 5 ZONE 1	CLEAN WELL CASING AND APPLY EPOXY PAINT
CUT AND CAP ABANDONED WELLS	SD2-REPLACE WELL CAP
INSPECT WELLHEAD MONTHLY, SUBMIT REPORT TO MassDEP	VERIFY WELL CASING PENETRATIONS ARE PROTECTED
CONDUCT INSPECTION OF 8,000 GALLON ATM TANK WELL 02G	FIX STANDING WATER IN WELL PIT
ELIMINATE RODENT ACTIVITY FROM PUMP HOUSE	REPLACE PIPING COMING OFF WELL 01G
REPAIR CONDUIT ON WELL HEAD	OVERFLOW TERMINATION 12"+ ABOVE GRADE
INVESTIGATE DISCHARGE OF CATCH BASIN AND FLOOR DRAIN	CAMERA INSPECTION ON WELL
MAINTAIN SILICONE ON BOLTS IN WELL CASING	RAISE HATCHES ON RESERVOIR #7 TO MIN OF 24 INCHES
REMOVE GAS CANS FROM ZONE 1	REPAIR LEAK BY BRIDGE, REMOVE LINE FROM WATER POOL
REGRADE AREA AROUND WELL 01G TO DIVERT GROUNDWATER	REPLACE INSULATION
RAISE WELL OUT OF PIT AND INSTALL VENT	CAMERA & CL WELL -WATER ENTERING BELOW CASING
RE-DIRECT AC DISCHARGE AWAY FROM WELLHEAD	INVESTIGATE WATER LINES NEAR SINKHOLE AREA
REPAIR BOOSTER PUMPS	KEEP LOG BOOK AT EACH WELL FOR ALL MAINTENANCE AND WORK
EVALUATE & REPAIR/REPLACE RADON UNIT	PHYSICALLY DISCONNECT UNAPPROVED SOURCE AT CENTRAL BATHHOUSE

**Typical Treatment/Distribution Issues Identified during
Review of Scheduled Actions in SFY 2020 & SFY 2019**

USE DRINKING WATER GRADE SODA ASH	PRIMARY TREATMENT C.OP MUST CONDUCT INSPECTIONS
REPAIR OR REPLACE THE CHLORINATOR	PROVIDE RAW WATER SAMPLING TAP
USE NSF CERTIFIED CHLORINE	PROVIDE SECONDARY CONTAINMENT FOR HYPOCHLORITE
KEEP TREATMENT AREA CLEAN	REMOVE UNAPPROVED TREATMENT DEVICE
CONDUCT LEVEL 1 ASSESSMENT	INSTALL PERMITTED MN TREATMENT
SUBMIT O&M MANUAL FOR CALCITE TREATMENT	DISINFECT TANK ABOVE NORM OP LVL
BEGIN HAND DOSE WITH CL UNTIL BUILDING CLOSURE	MAINTAIN MINIMUM PH OF 7.0 IN FINISHED WATER
INVESTIGATE THE UV UNIT, MAINTAIN, REPAIR	REPLACE MEDIA IN ARSENIC FILTER IF IT WAS NOT REPLACED
CLEAN AERATION UNIT	CORRECT POOL DISTRIBUTION VALVE
REPLACE ARSENIC MEDIA [EXT]	FIX DISTRIBUTION VALVES UPSTREAM OF INTERCONNECTION
REMOVE SAND FILTER PRIOR TO TANK	INSTALL TREATMENT FOR MANGANESE
SUBMIT WS34 PERMIT TO REMOVE UNAPPROVED TREATMENT	LABEL ALL PIPES - BATHHOUSE, CENTRAL DISTRIBUTION, TREATMENT
TEST FOR TOC TO EVALUATE ELEVATED CHLORINE DEMAND	SUBMIT LOG OF ALL TREATMENT MAINTENANCE

Typical Sample Collection Issues Identified during Review of Scheduled Actions in SFY 2020 & SFY 2019	
BEGIN MONTHLY COLIFORM SAMPLING	CONDUCT MPA SAMPLING
SUBMIT COMPLETED COLIFORM SAMPLE PLAN	COLLECT POST-TRTMT MAINT/ROUTINE SAMPLES
INSTALL SMOOTH NOSE RAW WATER SAMPLE TAP	BEGIN COLLECTING MONTHLY RAW WATER SAMPLE
DAILY PH GRAB SAMPLES FOR ANALYZER VERIFICATION	SUBMIT REVISED RTRC SAMPLE PLAN
TAKE MONTHLY IRON SAMPLES AND REPORT TO MassDEP	RESAMPLE
BEGIN SAMPLING COLIFORM PRE-TANK EACH MONTH	FLUSH & COLLECT FOLLOW-UP COLIFORM SAMPLES
BEGIN COLLECTING RAW SAMPLES FROM THE RAW SAMPLING TAP	LOCATE A STOR TAP REP OF STORAGE AND BEGIN SAMPLING
COLLECT BACTERIA ONLY FROM RS IN DISTRIBUTION SYS	COLLECT POE BACTERIA SAMPLE
COLLECT STORAGE WATER SAMPLE MONTHLY	COLLECT POE BACTERIA SAMPLE AT WELL #2 PUMP STATION
ID A REPRESENTATIVE TAP FOR STORAGE TANK SAMPLING AND BEGIN	

Typical Emergency/ERP Issues Identified during Review of Scheduled Actions in SFY 2019	
UPDATE THE ERP TO INCLUDE EMERG WATER SOURCES	PROVIDE UPDATED ERP CHECKLIST
UPDATE ERP FOR ALARM CONDITIONS	UPDATE ERP TO INCLUDE NOTIFICATION OF POWER LOSS OF > 2 HOUR
UPDATE ERP WITH OPERATOR INFORMATION	UPDATE THE ERP TO REFLECT NEW EQUIPMENT
UPDATE EMERGENCY RESPONSE PLAN	REVISE ERP TO INCLUDE TREATMENT ACTIONS
PROVIDE ERP AND CONDUCT ANNUAL TRAINING	UPDATE ERP W/GENERATOR,BULK WATER - SUBMIT TO DEP
CONDUCT ANNUAL OPERATOR TRAINING ON ERP	PROVIDE ERP CHECKLIST UPDATING CYBER SECURITY
V-UPDATE ERP WITH POWER OUTAGE ACTION	UPDATE ERP & SUBMIT UPDATED ERP COMPLIANCE CHECKLIST
UPDATE ERP CONTACT LIST AND SUBMIT TO MASSDEP	UPDATE ERP (BULK WATER) & SUBMIT ERP CHECKLIST
UPDATE ERP WITH CL2, BULK DELIVERY. SUBMIT ERP CHECKLIST	UPDATE ERP WITH BULK DELIVERY SOP
KEEP ERP ON SITE	UPDATE ERP WITH NEW CHLORINE FEED AND OPERATOR

Typical Meter Issues Identified during Review of Scheduled Actions in SFY 2020 & SFY 2019	
CALIBRATE THE FLOW METER	REMOVE ALL PRE-METER CONNECTIONS
RECORD MONTHLY METER READINGS AND CALCULATE VOLUMES	CERTIFY METER READ MONTHLY AND SUBMIT WITH ASR
RELOCATE MASTER WATER METER TO RECORD ALL FLOW	CALIBRATE WATER METER
INSTALL METERS TO MEASURE ALL WATER USE	FIX LEAK NEAR METER
PROVIDE NOTICE THAT WATER METERS HAVE BEEN REPLACED PER ACO	CALIBRATE THE SOURCE METER
CHECK WATER METER ACCURACY AND REPLACE AS NECESSARY	INSTALL WATER METER BEFORE FIRST CUSTOMER
REPAIR WATER METER REMOTE READER	CALIBRATE METER
READ BOTH DOMESTIC AND IRRIGATION FLOW METERS	BEGIN TAKING MONTHLY METER READINGS
REPAIR RAW WATER METER	DEVELOP PROGRAM TO REPLACE ALL SERVICE METERS
INSTALL NEW FLOW METERS	

Typical Staffing Plan Issues Identified during Review of Scheduled Actions in SFY 2020 & SFY 2019	
SUBMIT STAFFING PLAN	GET FULL VSS LICENSE & SUBMIT STAFFING PLAN
IDENTIFY EMERGENCY BACKUP OPERATOR, SUBMIT STAFFING PLAN	SUBMIT FINDINGS OF INDEPTH STAFF ANALYSIS
SUBMIT STAFFING PLAN AND REVISE ASR	DOCUMENT STAFF COVERAGE
SUBMIT REVISED STAFFING PLAN	SUBMIT STAFFING PLAN
SUBMIT STAFFING PLAN WITH TIME LOG	SUBMIT UPDATED CERTIFIED OP NOTICE AND STAFFING PLAN
SUBMIT COMPREHENSIVE STAFFING PLAN	RETAIN BACKUP OPERATOR AND SUBMIT STAFFING PLAN
SUBMIT UPDATED STAFFING PLAN	SUBMIT SMALL PWS STAFF & OPS PLAN
SUBMIT UPDATED STAFFING PLAN WITH 2T PRIMARY OPERATOR	SUBMIT STAFFING AND COMP OPS PLAN
SUBMIT UPDATED OPERATOR NOTICE AND STAFFING PLAN	SUBMIT REV STAFF & OP PLAN
SUBMIT A STAFFING PLAN AND CO COMPLIANCE NOTICE	SUBMIT REVISED STAFFING PLAN FOR III-T PLANT (EXAMS PASSED)

Typical Maintenance Plan Issues Identified during Review of Scheduled Actions SFY 2020 & SFY 2019	
KEEP LOGS OF O AND M AT THE PUMP HOUSE	PROVIDE O AND M PLAN FOR TREATMENT SYSTEM
KEEP A LOG OF MAINTENANCE	UPDATE THE O AND M PLAN AS REQUIRED
POST WRITTEN MAINTENANCE PLAN FOR FILTER REPLACEMENT	POST WRITTEN MAINTENANCE PLAN
KEEP MAINTENANCE LOG FOR SOFTENER	PROVIDE MAINTENANCE PLAN FOR FILTER REPLACEMENT
POST MAINTENANCE PLAN AND LOG FOR SEDIMENT FILTER	POST MAINTENANCE PLAN FOR SEDIMENT FILTER
DEVELOP A WRITTEN MAINTENANCE PROGRAM	DEVELOP HYDRANT MAINTENANCE PROGRAM
SUBMIT GENERATOR MAINTENANCE PLANS & SCHEDULE	DEVELOP MAINTENANCE SOP FOR ARSENIC MEDIA REPLACEMENT
DEVELOP SOP WITH FIRE DEPT FOR HYDRANT MAINTENANCE	SUBMIT IMPLEMENTED MAINT PLAN & AGRMT
DEV. HYDRANT MAINTENANCE & FIRE TESTING	DEVELOP O&M MANUAL FOR SOFTENER
PLAN AND SCHEDULE FOR TANK MAINTENANCE	IMPROVE PREVENTATIVE MAINT PROGRAM & DOCUMENTATION

Typical Distribution Map Issues Identified during Review of Scheduled Actions SFY 2020 & SFY 2019	
PROVIDE COPY OF DISTRIBUTION MAP	SUBMIT CURRENT DISTRIBUTION MAP
SUBMIT UPDATED DISTRIBUTION MAP WITH VALVES	UPDATE DISTRIBUTION MAP WITH NEW DEVELOPMENTS
DRAW NEW DISTRIBUTION MAP WITH SEDIMENT FILTERS	SUBMIT CURRENT TC SAMPLING/DISTRIBUTION MAP
SUBMIT DISTRIBUTION MAP W/ COLIFORM SITES	SUBMIT UPDATED DISTRIBUTION MAP FOR EACH WELL
UPDATE DISTRIBUTION MAP	DISTRIBUTION MAP FOR ALL SOURCES
PDF OF DISTRIBUTION MAP	SUBMIT DISTRIBUTION MAP W/ COLIFORM SITES

Selection of Storage Tank Issues Identified during Review of Scheduled Actions in SFY 2020 & SFY 2019	
PROVIDE A SECURE LOCKED ACCESSWAY FOR PUMPS & STORAGE TANK	PROVIDE COPY OF STORAGE TANK INSPECTION REPORT
HAVE ATMOSPHERIC STORAGE TANK INSPECTED	INSTALL VACUUM BREAKER ON HYDRO TANK TAP
LOCATE STORAGE TANK OVERFLOW	EVALUATE PRESSURE TANKS IN BASEMENTS
REMOVE BEE'S NEST FROM STORAGE TANK VENT	REMOVE TREES THREATENING STORAGE TANK
HAVE STORAGE TANKS INSPECTED AND CLEANED	LABEL NAOCL DAY TANK
CONDUCT INSPECTION OF PRESSURE STORAGE TANK	CONFIRM IF THERE ARE HI LEVEL SHUT OFF IN DAY TANKS
NOTIFY OF ANNUAL STORAGE TANK ROOFTOP INSPECTION	SECURE STORAGE TANK OVERFLOW SCREEN`
CLEAR AREA AROUND STORAGE TANKS	PROVIDE COPY OF STORAGE TANK STRUCTURAL INSPECTION
RECOAT TANK INTERIOR, OR SOONER IF DEWATERED	COMPLETE TANK REPAIRS IDENTIFIED PER TANK INSP. REPORT
CLEAN PLASTIC STORAGE TANK	START COMPLETING MONTHLY TANK INSPECTION REPORTS
LABEL DAY TANK AND CHEMICAL LINES	SUBMIT DOC NEW HATCH GASKET & VENT SCREEN-OVERLOOK TANK
SUBMIT PLAN TO GET ANTENNAS OFF TANK FOR TANK REHAB	PERFORM 5 YR TANK INSPECTION, SUBMIT RPT & DEFICIENCY STATUS

APPENDIX E

Government Performance and Results Act (GPRA)
2nd QUARTER Results - FY 2020
MASSACHUSETTS DRINKING WATER SYSTEMS & POPULATION IN
COMPLIANCE WITH HEALTH-BASED STANDARDS

The Government Performance and Results Act (GPRA) statistics are calculated each quarter using the most recent 4 quarters of health-based compliance information in SDWISFED for community systems.

	GPRA- COMMUNITY SYSTEMS	GPRA- POPULATION
National Target	87%	92%
'20 Actual Region I	94.3%	95.8%
'20 MA	95.1%	94.4%

The primary goal of the Drinking Water Program is to ensure that the water delivered to customers meets all health-based standards, which are defined by compliance with Maximum Contaminant Levels (MCLs), Maximum Residual Disinfectant Levels (MRDLs) and Treatment Techniques (TTs).

The GPRA statistics indicates that Massachusetts exceeds the National GPRA Target for GPRA-Population (92%) with a score of 94.4%. This indicates that 94.4% of Massachusetts population served by CWSs will receive drinking water that meets all applicable health based drinking water standards through approaches including effective treatment & source water protection.