



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

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September 20, 2018

Ms. Kourtney Wunschel, Acting Superintendent  
Attleboro Water Department  
1296 West Street  
Attleboro, MA 02703

RE: ATTLEBORO – Public Water Supply  
Attleboro Water Department  
PWS ID#: 4016000  
Sanitary Survey

Dear Ms. Wunschel:

Attached please find a sanitary survey report for a survey performed at the Attleboro Water Department on August 28, 2018.

As a result of this inspection, your system was found to have an Adequate Capacity rating.

The signature on this cover letter indicates formal issuance of the attached document. Please contact Jim McLaughlin at (508) 946-2805 or [james.m.mclaughlin@mass.gov](mailto:james.m.mclaughlin@mass.gov) if you have any questions concerning this document.

Sincerely,

Richard J. Rondeau, Chief  
Drinking Water Program  
Bureau of Water Resources

JM/encl.

Y:\DWP Archive\SERO\Attleboro-4016000-Sanitary Survey-2018-09-20

cc: Kourtney Wunschel, [water1@cityofattleboro.us](mailto:water1@cityofattleboro.us)  
Attleboro Board of Health, [health@cityofattleboro.us](mailto:health@cityofattleboro.us)

## Public Water System Sanitary Survey

CITY: Attleboro  
PWSID: 4016000  
PWS NAME: Attleboro Water Department

Survey Date: August 28, 2018	Report Date: September 20, 2018
Surveyor: Jim McLaughlin	Affiliation: MassDEP-SERO
Person Interviewed: Kourtney Wunschel	Title: Acting Superintendent
Person Interviewed: Gregory O'Brien	Title: Chief Operator
Person Interviewed:	Title:

### **PUBLIC WATER SUPPLIERS:**

Attached is a Sanitary Survey Report for the above referenced sanitary survey site visit.

At the end of the report is a Water System Compliance Plan which consists of the following (checked items only):

- Table A - Summary of violations and Notice of Noncompliance (if violations were observed during the survey)
- Table B - Summary of deficiencies and required corrective actions
- Table C - Recommendations
- Water supplier response and certification.

**Within 30 days of receipt of this inspection report, you must complete and submit the response form if your system has TABLE A-Violations and/or TABLE B-Deficiencies. Attach a copy of each completed table listing the date that the corrective action was or will be taken by your system and all other applicable documentation. (310 CMR 22.04(12))**

**SYSTEM DESCRIPTION:**

The City of Attleboro Water System (the PWS) includes two surface water treatment plants (WTP), the Russell F. Tennant WTP and the Wading River WTP. The Tennant WTP treats water directly drawn from Orrs Pond or Manchester Pond. A series of impounded reservoirs flow to these sources, with a raw water pump station at Luther Reservoir that either pumps water to Manchester Pond or flows water to Orrs Pond. The Tennant WTP is a conventional surface water plant, while the Wading River WTP directs river water through about 4.5 acres of filter beds and then chemically disinfects and conditions the water to potable quality. Chemical treatment at both plants includes sodium hypochlorite (disinfection), sodium hydroxide (pH adjustment), blended phosphate (sequestration), hydrofluosilicic acid (dental health), along with polyaluminum chloride (coagulation) and optional ozone (oxidation) at the Tennant WTP. Three distribution system storage standpipes supply 14 million gallons of storage. The PWS has approximately 220 miles of water main, 14,219 service connections, 950 testable cross connection protection devices and over 1900 hydrants. The PWS also serves customers in the following towns: 350 in North Attleborough; 60 in Mansfield; and 1 in Rehoboth.

**ADMINISTRATION:**

**General System Information**

Is this correct? Yes  No

PWSID	CLASS	SEASON_START	SEASON_END	POP_SERVED_SUM	POP_SERVED_WIN	Last_Annual_Stat
4016000	COM	101	1231	43593	43593	2017

**Facility Address:**

Is this correct? Yes  No

Name	Address	Town	Phone	Fax	Email	Comments
ATTLEBORO WATER DEPT	1296 WEST ST	ATTLEBORO	7742031850	5082232271	water1@cityofattleboro.us	

**Mailing Address:**

Is this correct? Yes  No

PWS MAIL NAME	MAIL LINE1	MAIL LINE2	MAIL TOWN NAME	MAIL STATE	MAIL ZIP CODE
ATTLEBORO WATER DEPT	1296 WEST ST		ATTLEBORO	MA	027030000

**Contact Information**

Is this correct? Yes  No

PWSID	First	Last	ADDR ESS 1	TOWN	STATE	ZIP	WORK#	PRIMARY
4016000	KOURTNEY	WUNSCHEL					7742031850	Y

**Comments:**

**Certified Operator Information:**

Is this correct? Yes  No

PWSID	First	MI	Last	ADDRESS 1	ADDRESS 2	TOWN	STATE	ZIP	WORK#
4016000	KOURTNEY	J	WUNSCHEL						7742031850

PWSID	DESCRIPTION	First	MI	Last	License#	Grade
4016000	SECONDARY TREATMENT OPERATOR	DAVID	J	PALOMO	25651/25809/25838/25827/26770	1D OIT/2T OIT/4T OIT/3T OIT/2T
4016000	SECONDARY TREATMENT OPERATOR	PETER	J	BLAIS	24317/23814/23362/24241/24242/23930	4D OIT/3T OIT/2T OIT/2D OIT/3D OIT/1D OIT
4016000	SECONDARY TREATMENT OPERATOR	MATTHEW	L	CROTTY	26503/25779/25000/24481	4D OIT/3D OIT/1D/4T
4016000	SECONDARY TREATMENT OPERATOR	MICHAEL	S	EIBEN	25736/24316/24576/24428/24500/25830/25828	2T OIT/1D OIT/3D OIT/1T OIT/2D OIT/4T OIT/3T OIT
4016000	SECONDARY TREATMENT OPERATOR	WILLIAM	E	SLATTERY	7633/3804	4T/3D
4016000	SECONDARY TREATMENT OPERATOR	JOHN	J	CURTIN	26252/12798	1D OIT/4T
4016000	SECONDARY TREATMENT OPERATOR	GREGORY	N	OBRIEN	1987/7828	4D/4T
4016000	SECONDARY TREATMENT OPERATOR	DANIEL	R	O'BRIEN	26645/24554/24524/26514	3D OIT/4T/1D OIT/2D OIT
4016000	SECONDARY TREATMENT OPERATOR	PAUL	A	KENNEDY	23583	4T OIT
4016000	PRIMARY DISTRIBUTION OPERATOR	ROBERT	S	AMADON	22810/23815	3D/3T OIT
4016000	SECONDARY DISTRIBUTION OPERATOR	BRIAN	M	MCLEAN	12756/25203/26780	1D/2D OIT/2D
4016000	SECONDARY DISTRIBUTION OPERATOR	ROBERT	V	MCKEARNEY III	24450	3D
4016000	SECONDARY DISTRIBUTION OPERATOR	MARC	S	VARRIEUR	23866	3D
4016000	PRIMARY TREATMENT OPERATOR	KOURTNEY	J	WUNSCHEL	22274/22662	4T/4D
4016000	SECONDARY DISTRIBUTION OPERATOR	KOURTNEY	J	WUNSCHEL	22274/22662	4T/4D
4016000	GENERAL OPERATOR	MICHAEL		REBELO	20347	1T
4016000	GENERAL OPERATOR	JASON	R	ARSENAULT	26271	1D

PWSID	MaxOITREATMENT CLASS	POPULATION SERVED SUM	DISTRIBUTION CLASS
4016000	IV-T	43593	III-D

- Does the PWS have a certified operator? (Verify that primary operator listed in WQTS is correct PWS operator) Yes  No
- Are operator grades appropriate for system size and/or treatment type? Yes  No
- Does the system have the correct staffing levels for the system size and grade? Yes  No
- Is the certified operator or a backup operator available for emergencies? Yes  No

**Comments:**



**SOURCES:**

PWSID	#Sources	% Ground	%Purch Ground	% SURFACE	%Purch Surface	YEAR	Avg Daily Demand (MGD)	Max Daily Demand (MG)
4016000	18	0	0	100	0	2017	4.14	6.954
4016000	18	0	0	100	0	2016	4.01	8.01
4016000	18	0	0	100	0	2015	4.02	6.969
4016000	18	0	0	100	0	2014	4.04	7.083
4016000	18	0	0	100	0	2013	4.09	7.32

**Surface Water Sources:**

PWSID	PWS Name	SOURCE ID	SOURCE NAME	LOCATION	AVAIL.	Terminal Reservoir ?	Safe Yield (MGD)	Storage Capacity (MG)	Surface Area (Acres)	Watershed Area (mi2)	COMMENTS
4016000	ATTLEBORO WATER DEPT	4016000-03S	LUTHER RESERVOIR PUMP STA	MANCHESTER POND	ACTIVE	N	0	52	17	7.53	THIS IS A FEEDER RESERVOIR TO ORRS POND AND TRANSFER POINT TO MANCHESTER POND.
4016000	ATTLEBORO WATER DEPT	4016000-04S	SEVEN MILE RIVER (ORRS POND)	WEST STREET PUMPING STATION	ACTIVE	Y	0	100	47	7.53	
4016000	ATTLEBORO WATER DEPT	4016000-05S	WADING RIVER (BLAKES POND)		ACTIVE	Y	0	5	8.7		SOURCE WAS FORMERLY IDENTIFIED AS 03G - WADING RIVER WELLS
4016000	ATTLEBORO WATER DEPT	4016000-06S	MANCHESTER POND		ACTIVE	Y	0	1100	252	7.53	TERMINAL RESERVOIR - CAN FEED TO WEST ST WTP OR TO ORRS POND

**Comments:**

Observed intakes at Blakes Pond, Luther Reservoir, and Manchester Pond. Blakes Pond is an impoundment on the Wading River formed by a steel sheet pile wall. Renovation projects of the Blakes Pond dam, filter beds, and Luther Reservoir pump station and dam have been completed since the previous survey. The renovated facilities have been restored to excellent condition.

The PWS is responsible for a number of dams forming their surface water supply system. The dams have been inspected per the Department of Conservation and Recreation's Dam Safety Program, and repair projects are being designed as necessary. The dams are not a subject of this inspection.

The PWS is in the process of permitting an emergency interconnection with the City of Pawtucket. Construction has yet to begin.

**Source Protection:**

- |   |   |  |
|---|---|--|
| Is there excessive use of fertilizers or chemicals in Zone A?   | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Are there any known or potential, sources of pollution observed in the Zone A (other than those listed in the SWAP report)? | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Is there an awareness of threats and an attempt to minimize them?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is protection area posted?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Are source water protection measures adequate?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

**Comments:**

The PWS has a Department-approved Watershed Protection Plan.

Route 95 parallels Manchester Pond. Drainage is diverted away from the Pond. The system has equipment to shut down a culvert flowing towards Orrs Pond if a major accident makes it necessary. Safety procedures are periodically reviewed to be prepared for roadway accidents.

### TREATMENT - GENERAL:

Active treatment plant information listed within Department records:

PWSID	TREATMENT PLANT ID	TREATMENT PLANT NAME	SOURCE ID	SOURCE NAME	S-TYPE	PLANT CAPACITY	TREAT CLASS	AVAILABILITY
4016000	4016000-01T	RUSSELL F. TENNANT WTP	4016000-04S	SEVEN MILE RIVER (ORRS POND)	SSWNP	12	IV-T	ABAND
4016000	4016000-03T	RUSSELL F. TENNANT WTP	4016000-04S	SEVEN MILE RIVER (ORRS POND)	SSWNP	12	IV-T	ACTIVE
4016000	4016000-02T	WADING RIVER WTP	4016000-05S	WADING RIVER (BLAKES POND)	SSWNP	3	II-T	ACTIVE
4016000	4016000-03T	RUSSELL F. TENNANT WTP	4016000-06S	MANCHESTER POND	SSWNP	12	IV-T	ACTIVE

Active treatment process information listed within Department records:

Treatment Plant ID#	Name	Treatment Objective	Treatment Process	Chemical Addition	Comments
4016000-02T	WADING RIVER WTP	CORROSION CONTROL	INHIBITOR, ORTHOPHOSPHATE	BLENDED PHOSPHATE	
4016000-02T	WADING RIVER WTP	CORROSION CONTROL	PH ADJUSTMENT, POST	Potassium Hydroxide	NAOH APPROVED AS OPTION 10/24/2008
4016000-02T	WADING RIVER WTP	CORROSION CONTROL	PH ADJUSTMENT, POST	Sodium Hydroxide	NAOH APPROVED AS OPTION 10/24/2008
4016000-02T	WADING RIVER WTP	DISINFECTION	HYPOCHLORINATION, POST	Sodium Hypochlorite	
4016000-02T	WADING RIVER WTP	OTHER	FLUORIDATION	Hydrofluosillicic Acid	
4016000-02T	WADING RIVER WTP	PARTICULATE REMOVAL	INNOVATIVE TREATMENT PROCESS		FILTER PONDS WITH WELL INTAKE
4016000-03T	RUSSELL F. TENNANT WTP	CORROSION CONTROL	INHIBITOR, ORTHOPHOSPHATE	BLENDED PHOSPHATE	
4016000-03T	RUSSELL F. TENNANT WTP	CORROSION CONTROL	PH ADJUSTMENT	Potassium Hydroxide	
4016000-03T	RUSSELL F. TENNANT WTP	CORROSION CONTROL	PH ADJUSTMENT	Sodium Hydroxide	
4016000-03T	RUSSELL F. TENNANT WTP	CORROSION CONTROL	PH ADJUSTMENT, POST	Potassium Hydroxide	
4016000-03T	RUSSELL F. TENNANT WTP	CORROSION CONTROL	PH ADJUSTMENT, POST	Sodium Hydroxide	
4016000-03T	RUSSELL F. TENNANT WTP	DISINFECTION	HYPOCHLORINATION, POST	Sodium Hypochlorite	
4016000-03T	RUSSELL F. TENNANT WTP	ORGANICS REMOVAL	ACTIVATED CARBON, GRANULAR		
4016000-03T	RUSSELL F. TENNANT WTP	OTHER	FLUORIDATION	Hydrofluosillicic Acid	
4016000-03T	RUSSELL F. TENNANT WTP	PARTICULATE REMOVAL	COAGULATION	Polyaluminum Chloride	
4016000-03T	RUSSELL F. TENNANT WTP	TASTE / ODOR CONTROL	OZONATION, PRE	OZONE	

No Treatment  Treatment listed above is correct  Unapproved treatment installed

• Unapproved treatment is subject to MassDEP permit requirements

If a sediment filter is being utilized how often is the filter replaced? N/A

For sources without permanent disinfection: Is an emergency chemical injection port available? Yes  No  N/A



- Are there any unprotected bypasses in the treatment process that could result in contamination of finished water? Yes  No  N/A
- Is information from the manufacturer available for reference? Yes  No  N/A
- Is chemical storage, containment, and safety equipment adequate? Yes  No  N/A
- Is equipment properly maintained? Yes  No  N/A
- Are "Critical Chemicals" used? Yes  No  N/A
- If so, is an alarm testing procedure written? Yes  No  N/A
- Also, is wiring adequate (twist-locks, HOA, etc.)? Yes  No  N/A
- Are alarms tested and adequate? Yes  No  N/A
- Are chemical treatment forms submitted monthly as required? Yes  No  N/A
- Are they completed properly? Yes  No  N/A
- Is operator familiar with the treatment system and its operation? Yes  No  N/A
- Is the treatment system providing 4-Log inactivation treatment? Yes  No
- Has the system experienced a loss of membrane integrity? Yes  No  N/A

**Comments:**

The two treatment plants were immaculately clean and neat. The chemical treatment areas, chemical injection points, workshops and garage areas were remarkably well maintained.

SCADA controls, testing protocols, logs, and treatment forms were reviewed for both plants. The organization of equipment and records was impressive.

The system has an extensive laboratory facility with qualified technicians. Turbidimeters are calibrated quarterly by in-house staff and annually by the Hach company.

The system has a number of large, multi-million dollar maintenance projects at various stages from design to construction. They have a 5-year capital plan outlook, revised annually, and are executing the plan.

**SAMPLING:**

PWSID	NO_BACTERIA_SAMPLES	BACTERIA_SAMPLE_FREQ	NO_WINTER_BACT_SAMPLES	WINTER_BACT_SAMPLE_FREQ
4016000	50	MONTH	50	MONTH

- Does the system have an approved Total Coliform Sampling Plan? Yes  No
- Have changes been made to the system (population, configuration, storage tanks, etc.) such that the coliform sample plan does not comply with 310 CMR 22.05? Yes  No
- Is the system taking the correct number of bacteria samples?** Yes  No
- Is the system using appropriate coliform sample sites? Yes  No
- Is the system using appropriate source sample sites? Yes  No
- Are raw water sample taps available for all sources? Yes  No

**Comments:**

RTCR plan approved 8/16/2017

**Stage 2 Disinfection By-Products Rule Compliance:**

0.48 mg/l free chlorine distribution average thus far in 2018, all CI forms submitted. THM & HAA5 locational running annual averages at four sites are under the respective maximum contaminant limits.

**Lead & Copper Rule Compliance:**

No lead or copper results above the action levels during 2015 sampling at 30 sites.

**Sodium:**

The PWS has reported sodium levels over 100 mg/l during 2018.

MONTHLY REPORTING FORMS	
FORM	SUBMITTED
Bact	Y
Cl	Y
C-ADD: NaOCl	Y
C-ADD: NaOH	Y
C-ADD: Ortho Polyphosphate	Y
C-ADD: polyaluminum chloride	Y
C-ADD: LOX Ozone	Y
Wading SWTR: F, G, I	Y
West SWTR: TT, TOC, BrO3, F, G, I, J	Y
LT2 sampling	Y

**STORAGE:**

**Maintenance and Condition**

PWSID#	Storage Tank Name	Storage Type	Tank Material	Capacity (MG)	Last Inspection Date	Last Cleaned Date	Structural Integrity-Condition(1)
4016000	IDES HILL STANDPIPE 3	ELEVATED STORAGE TANK	STEEL	3	10/16/2017	2012	GOOD
4016000	IDES HILL STANDPIPE 5	ELEVATED STORAGE TANK	STEEL	5	10/16/2017	2012	GOOD
4016000	OAK HILL STANDPIPE	ELEVATED STORAGE TANK	STEEL	6	2016	2016	GOOD

- MassDEP recommends storage tanks be inspected and cleaned every 5 years.

**Protection and Safety**

PWSID	STORAGE TANK NAME	Proper Overflow Structure?	Covered and Locked?(3)	Vented/Screened?(4)	Sample Tap?	High-Low Level Control Alarms?	By-pass for Repair-Cleaning?	Protected from Flooding (>50 ft) or Runoff?(2)	Fenced?
4016000	IDES HILL STANDPIPE 3	Y	Y	Y	Y	Y	Y	Y	Y
4016000	IDES HILL STANDPIPE 5	Y	Y	Y	Y	Y	Y	Y	Y
4016000	OAK HILL STANDPIPE	Y	Y	Y	Y	Y	Y	Y	Y

- The storage tanks have nearby injection ports to allow emergency disinfection. Yes  No
- The storage tanks are adequately protected against vandalism. Yes  No
- (1) Are there any holes or failures in the tank roof or structure? Yes  No
- (2) Have any tanks been identified as subject to flooding or run-off? Yes  No
- (3) Are all the tanks protected from unauthorized entry? Yes  No
- (4) Is proper screening in place on all overflow pipes and vents? Yes  No
- Are monthly storage tank inspection reports available for review? Yes  No
- Are annual rooftop inspections conducted? Yes  No

**Comments:**

Oak Hill Tank renovation completed in 2017 and made repairs to the Ides Hill Tanks during that contract.

**PUMPING STATIONS:**

PWSID	Pump Stn Name	#of Pumps	Location	Avail	Water Type	GPM	Emerg Power?	Motor HP	Motor Type
4016000	WADING RIVER WTP FINISHED	3	250 BALCOM STREET, MANSFIELD	ACTIVE	F	3819	Y	75	GE KS
4016000	RUSSELL F. TENNANT WTP RAW	4	1296 WEST STREET, ATTLEBORO	ACTIVE	R	11111	Y	50	US MOTORS
4016000	WADING RIVER WTP FILTERED	2	250 BALCOM STREET, MANSFIELD	ACTIVE	R	1800	Y	10	SUBMERSIBL
4016000	RUSSELL F. TENNANT WTP FINISHED	4	1296 WEST STREET, ATTLEBORO	ACTIVE	F	11111	Y	300	US ELECTRI
4016000	LUTHER PUMPING STATION	2	TODD DRIVE, ATTLEBORO MA	ACTIVE	R	13000	N	50	US MOTORS

- Are all pump stations recorded in WQTS? Yes  No
- Is there flooding or standing water in the pump house? Yes  No
- Does the air/water relief valve discharge have an air gap? Yes  No
- Are there any open floor drains in the facility? Yes  No
- Are pump stations adequately maintained? Yes  No

**Comments:**

Floor drains discharge to sewer. Luther pumping station has been renovated to "like new" condition.

**DISTRIBUTION/TRANSMISSION:**

- Has the system submitted a distribution map to MassDEP Yes  No
- Are valve locations known or identified? Yes  No
- How many distribution systems are there? 1
- Is adequate pressure being maintained (20-60 psi)? range is 40 - 116 psi Yes  No
- The distribution system has many dead ends which are flushed As needed, plus 9 bleeders
- List distribution system weaknesses or problems Pipe installation technique
- Date of last leak detection survey: June, 2018 Percent of system surveyed?: 100
- Are distribution valves exercised regularly? Yes  Frequency? 25%/yr TBD No
- Is there a hydrant maintenance program? Yes  No
- Is there an adequate flushing program? Yes  No

- The Department recommends that the distribution system be flushed twice a year.

**Comments:**

The PWS uses Utility Cloud to schedule and track its maintenance. Pipe breaks are documented along with photos. Pipes are cast iron and ductile iron, with tuberculation not reported to be a problem. Some areas with high main breaks appear to be due to poor bedding techniques of the original installation. Strength testing of cast iron pipe has shown the pipe to retain strength. Capital planning is used to schedule pipe lining and replacements. A valve exercise program is due to begin in fall, 2018, with a goal of 25% of the valves per year. Full system is flushed every 1.5 to 2 years.

**CROSS-CONNECTIONS / BACKFLOW PREVENTION:**

PWSID	DEP APPROVED X-CONN PLAN?	X-CONN SURVEY CONDUCTED?
4016000	Y	Y

CROSS-CONNECTION/BACKFLOW PREVENTION				
Year of last system-wide Cross Connection Survey: 2016				
Have all high hazard facilities been:	Identified? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Inspected? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Properly protected? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
<i>[If no to any of the above, flag as a GWR significant deficiency] (Table A 310 CMR 22.22(3)(c))</i>				
Does the PWS maintain the Cross Connection Documentation on the premises in a readily accessible form? If yes, confirm the following: <i>(If no, Table A 310 CMR 22.22(3)(d))</i> A schedule of all facilities inspected and surveyed: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> A list of all high hazards and date identified: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Records of all device locations (including all testing of devices): Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Related correspondence, including notices of violation: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> List of Surveyors/testers and certificate number: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
Does PWS conduct appropriate enforcement action? <i>(If no, Table A NON Table A 310 CMR 22.22(3)(l))</i>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
Is there a cross-connection educational program directed toward residential customers? If yes, how is it administered: <input checked="" type="checkbox"/> CCR; <input checked="" type="checkbox"/> separate pamphlets; <input type="checkbox"/> hose-bib vacuum breaker distribution; <input checked="" type="checkbox"/> other: <u>website</u> <i>(If no, Table A NON Table A 310 CMR 22.22(3)(f))</i>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
Has PWS established a standard practice for controlling the hook-up to a fire hydrant by persons other than a water department employee or a member of the fire department? <i>(If no, Table C – Guidelines 9.10.8)</i>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	
Are there Hose Bib vacuum breakers on all threaded faucets in facilities owned by the PWS? <i>(If no, Table A NON Table A 310 CMR 22.22(2)(b))</i>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>	

**Comments:**

The Department's Boston Office received the PWS's Cross Connection Control Program Plan on May 11, 2012. The PWS reported that the system-wide cross connection survey had not been fully completed, and projected completion would occur by 1/1/2022 (507 total facilities). The PWS prioritized the surveys and completed the system-wide survey in 2016. Re-surveys are now on a 5-year schedule.

**OTHER ISSUES OBSERVED:**

ABBREVIATED WATER MANAGEMENT ACT REVIEW:						
WMA Registration Number	WMA Permit Number	Basin	Reg. vol. (MGD)	permit vol. (MGD)	total WMA vol. (MGD)	WMA authorized withdrawal sources
42501602	9P42501601	Taunton	1.62	0.47	2.09	Wading River
42701601	9P242701601	Ten Mile	3.67	0.18	3.85	Orr's Pond, Manchester Reservoir

The PWS has been pursuing an emergency interconnection with the neighboring City of Pawtucket. The Department granted approval to conduct a pilot study of the interconnection on January 24, 2018.

An outdoor police gun range is located within the Orrs Pond watershed. Treatment operators are notified when police enter the range. The PWS employs a Watershed Tender who has a variety of duties including patrolling the watershed, enforcing activity restrictions, vegetation management, and keeping areas clean.

**PRIOR OUTSTANDING ACTIONS**

**Enforcement Actions - NONE**

**Inspection Actions - NONE**

MANAGERIAL & FINANCIAL QUESTIONS FOR THE SANITARY SURVEY			
<p><b>1. Does the system actively perform <b>Asset Management</b> which includes the minimum information noted below:</b></p> <p><input checked="" type="checkbox"/> an inventory of their infrastructure  <input checked="" type="checkbox"/> the estimated useful life of their assets  <input checked="" type="checkbox"/> a schedule and a yearly cost estimate for maintaining their assets and  <input checked="" type="checkbox"/> a long-term replacement plan (sometimes called <b>Capital Improvement Plan</b>) for their assets with a schedule and estimated costs?  <b>If yes, does the <b>Capital Improvement Plan</b> or other acceptable capital planning document including items such as:</b></p> <p><input checked="" type="checkbox"/> a long-term replacement plan for large equipment purchases or construction projects that will be needed over the next 20 years  <b>If yes, is it followed?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  <input checked="" type="checkbox"/> analysis and planning for the future operations, development, improvement, and long-term sustainability of the water system  <b>If yes, is it followed?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>(If no, and there are Table A violations of 310CMR 22.00 – Add to other Table A corrective actions            If no and no Table A violations of 310CMR 22.00 – Add to Table B Deficiency - Chapter 11 - Capacity Development and Standard Operation Procedures)</i></p>	<p>Yes <input checked="" type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>NA <input type="checkbox"/></p>
<p><b>2. Does the system produce a yearly <b>Annual Budget</b> or other document that includes the minimum information noted below?</b></p> <p><input checked="" type="checkbox"/> personnel                                   <input checked="" type="checkbox"/> training (time &amp; resources)                   <input checked="" type="checkbox"/> testing supplies  <input checked="" type="checkbox"/> operating expenses                       <input checked="" type="checkbox"/> contract services                               <input checked="" type="checkbox"/> repairs  <input checked="" type="checkbox"/> a reserve fund to cover capital improvements                   <input checked="" type="checkbox"/> debt service payments  <input checked="" type="checkbox"/> an emergency fund</p> <p><i>(If no, and there are Table A violations of 310CMR 22.00 – Add to other Table A corrective actions            If no and no Table A violations of 310CMR 22.00 – Add to Table B Deficiency - Chapter 11 - Capacity Development and Standard Operation Procedures)</i></p>	<p>Yes <input checked="" type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>NA <input type="checkbox"/></p>
<p><b>3. Does the system have a written regular <b>Preventive Maintenance Program</b> plan that includes (as necessary): valve maintenance, hydrant testing, water main flushing, pump repair, storage tank inspection and cleaning, regular master meter calibration, and checking the condition of the source well?</b></p> <p><b>If yes, is it followed?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p><i>(If no, and there are Table A violations of 310CMR 22.00 – Add to other Table A corrective actions            If no and no Table A violations of 310CMR 22.00 – Add to Table B Deficiency -Chapter 11 - Capacity Development and Standard Operation Procedures)</i></p>	<p>Yes <input checked="" type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>NA <input type="checkbox"/></p>
<p><b>Optional: Other useful questions</b></p> <p>✓ Does the system have an enterprise fund? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>            ✓ What are the water rates? Flat rate            ✓ Are the rates sufficient to cover the true cost of producing and delivering water? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>            ✓ Are rates adjusted periodically in order to adequately fund the budget? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>            ✓ Is PWS spending more money than they generate? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>            ✓ Annual Revenue <i>approximately \$7 million</i>            ✓ Annual Expenses            ✓ Reserve Account Balance            ✓ Rate of Saving every year</p>			

## **SUMMARY OF RECOMMENDATIONS**

### **Table A – Violations – NONE FOUND**

### **Table B – Deficiencies – NONE FOUND**

### **Table C - Recommendations**

MassDEP has made note of items with a recommended course of action, summarized in Table C. It is strongly encouraged to follow the recommended actions in order to improve ability to provide a safe supply of drinking water. Failure to do so could eventually lead to violations of the regulations.

		TABLE C - RECOMMENDATIONS
1.	F/M	Implement valve exercise program.
2.	F/M	Flush full distribution system at least once per year.

**T/F/M = Technical/Financial/Managerial aspects of Capacity**