

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

June 21, 2016

Town of Uxbridge
105 Blackstone Street
Uxbridge, MA 01569

Re: Town: Uxbridge
PWS: Uxbridge Water Division
PWS ID #: 2304000
Boil Water Order Termination

Dear Public Water Supplier:

On June 21, 2016 MassDEP issued in writing a Unilateral Administrative Order, File No. UAO-CE-16-5D002 ("the Order"), to the Town of Uxbridge ("PWS") as a result of an *E. coli* MCL violation occurring on June 18, 2016. Based upon MassDEP's review of the corrective actions taken by the PWS, MassDEP hereby terminates paragraph 7.A. of the Order that requires "PWS to provide notification to consumers to boil their tap water before using for purposes of human consumption." This termination was verbally issued and effective as of June 21, 2016 and concerns paragraph 7.A. of the Order only.

All other provisions of the Order shall remain in full force and effect, including maintaining the operation of the disinfection system(s) and a residual in the distribution system.

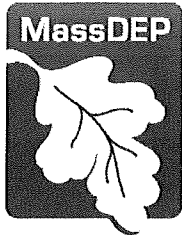
MassDEP commends you for your prompt attention to the Order and cooperation. Please contact me at (508) 849-4036, if you have any questions regarding this matter.

Yours truly,

Robert A. Bostwick
Drinking Water Program Chief
MassDEP Central Regional Office

cc: DEP - Boston - Drinking Water Program Director
DEP - CERO - Drinking Water Program Chief
DEP - CERO - Denise Child, BWR ENF Coordinator (green folder original/certified receipt)
DEP - CERO - Enforcement Book
DEP - CERO - "File Copy" WQTS (Paula Caron)
Board of Health

File Name: Uxbridge-2304000-WQ-ENF(UAO-CE-16-5D002) Boil Order Termination-2016-06-21



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7002 2410 0002 3912 1211

June 21, 2016

Town of Uxbridge
105 Blackstone Street
Uxbridge, MA 01569

Re: Uxbridge
PWS: Uxbridge Water Division
PWS ID #: 2304000
ENF # UAO-CE-16-5D002
BOIL WATER ORDER

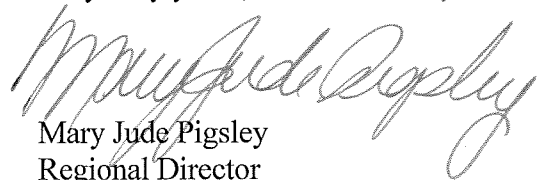
Dear Public Water Supplier:

The Massachusetts Department of Environmental Protection ("MassDEP") has determined that the water from your water system could pose an unacceptable risk to public health unless immediate action is taken. MassDEP, therefore, is issuing the enclosed Boil Water Order to you to ensure that the water provided to consumers is fit for human consumption. Each requirement contained in this Order will remain in effect until terminated by MassDEP in writing. MassDEP will terminate one or more such requirements after you demonstrate that the principal incident or reason for issuance of this Order has been corrected and that such action is no longer necessary.

If you fail to take any action set forth in this Order by the prescribed deadline, or if you otherwise fail to comply with the requirements of this Order, you could be subject to legal action, as described in this Order.

If you have any questions about the contents of this Order, please contact Robert Bostwick at (508) 849-4036.

Very truly yours,



Mary Jude Pigsley
Regional Director

Attachments: Boil Water Order
Public Notice, Consumer Information, Certification Form
Emergency Report – Form 1
Level 2 Assessment Instructions and Form

Town of Uxbridge
UAO-CE-16-5D002
Page 2 of 2

cc: DEP - Boston - Drinking Water Program Director
DEP - CERO - Drinking Water Program Chief
DEP - CERO – Denise Child, BWR ENF Coordinator (green folder original/certified receipt)
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Board of Health

File Name:
Uxbridge-2304000-WQ-ENF(UAO-CE-16-5D002)Boil Order-2016-06-21

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:)

Town of Uxbridge)

BOIL WATER ORDER
UAO-CE-16-5D002
PWS ID # 2304000

I. THE PARTIES

1. The Massachusetts Department of Environmental Protection (“MassDEP”) is a duly constituted agency of the Commonwealth of Massachusetts established pursuant to M.G.L. c. 21, § 7. MassDEP has its principal office located at One Winter Street, Boston, Massachusetts 02108, and a regional office located at 8 New Bond Street, Worcester, Massachusetts 01606.
2. The Town of Uxbridge (“PWS”) is a Supplier of Water, as defined in 310 CMR 22.02, and owns and operates the Uxbridge Water Division (“Facility”) at 105 Blackstone Street, Uxbridge, Massachusetts. The facility is a Community Water System, which is a type of Public Water System, as defined in 310 CMR 22.02. PWS serves a population of approximately 10,500 persons. PWS’ mailing address, for purposes of this Order, is 105 Blackstone Street, Uxbridge, Massachusetts, 01569.

II. STATEMENT OF FACTS AND LAW

3. MassDEP has primary enforcement responsibility for the requirements of the Federal Safe Drinking Water Act, 42 U.S.C. § 300f *et seq.* and the regulations promulgated thereunder by the United States Environmental Protection Agency (“EPA”). MassDEP implements and enforces statutes and regulations of the Commonwealth of Massachusetts for the protection of the public drinking water supply, including, without limitation, M.G.L. c.111, §5G and §160, and 310 CMR 22.00 (“the Massachusetts Drinking Water Regulations”). Pursuant to M.G.L. c.111, §160, MassDEP may issue such orders as it deems necessary to ensure the delivery of fit and pure drinking water by public water systems to all consumers. Pursuant to M.G.L. c. 111, §5G, MassDEP may require the provision and operation of such treatment facilities as it deems necessary to ensure the delivery of a safe water supply to all consumers. Pursuant to M.G.L. c. 111, §2C, MassDEP may issue orders to any person in violation of any law or regulation MassDEP is authorized to enforce.
4. The Massachusetts Drinking Water Regulations apply to all Public Water Systems in the Commonwealth. The regulations define a “Public Water System” as a system for the provision to the public of water for human consumption, through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves an

average of at least 25 individuals daily at least 60 days of the year. Public Water Systems include: (1) any collection, treatment, storage, and distribution facilities under control of the operator of such systems and used primarily in connection with such systems; and (2) any collection or pretreatment storage facilities not under such control that are used primarily in connection with such systems. *See* 310 CMR 22.02.

5. The following facts have led MassDEP to issue this Order:

- A. On Friday, June 17, 2016, PWS was notified that a routine bacteria sample collected on Tuesday, June 14, 2016, was confirmed positive for total coliform and negative for *E. coli*. As a result, PWS collected three repeat samples on June 17, 2016.
- B. On Saturday, June 18, 2016, PWS notified MassDEP that two of the three repeat samples collected on June 17, 2016, were total coliform and *E. coli* positive.
- C. The Massachusetts Drinking Water Regulation at 310 CMR 22.05(8)(a) defines the maximum contaminant level (“MCL”) for Microbiological Contaminants, and compliance with the MCL, as follows:
 - 1) A Public Water System shall be considered to be in compliance with the MCL for *E. coli* for samples taken under 310 CMR 22.05, unless any of the conditions identified in 310 CMR 22.05(8)(a)1. through 4. occurs. For purposes of the public notification requirements in 310 CMR 22.16, the occurrence of any of the following conditions is a violation that may pose an acute risk to health:
 - 1. the Public Water System has an *E. coli*-positive repeat sample following an associated total coliform-positive routine sample;
 - 2. the Public Water System has a total coliform-positive repeat sample following an *E. coli*-positive routine sample;
 - 3. the Supplier of Water fails to take all required repeat samples following an *E. coli*-positive routine sample; or
 - 4. the Supplier of Water fails to test for *E. coli* when any repeat sample tests positive for total coliform.
 - 2) A Supplier of Water shall determine compliance with the MCL for *E. coli* in 310 CMR 22.05(8)(a) for each month in which it is required to monitor for total coliforms.
- D. PWS had an *E. coli*-positive repeat sample following an associated total coliform-positive routine sample as defined in 310 CMR 22.05(8)(a)1. Pursuant to 310 CMR 22.05(11)(a), a Supplier of Water at whose Public Water System any of the conditions identified in 310 CMR 22.05(8)(a)1. through 4. occurs is in violation of the MCL for *E. coli*. This violation may pose an acute risk to health as a result of short-term exposure, and requires immediate public notification in accordance with 310 CMR 22.16.

- E. Violation of the *E. coli* MCL as specified under 310 CMR 22.05(11)(a), is a Treatment Technique trigger as defined in 310 CMR 22.05(4)(a)2., requiring PWS to conduct a Level 2 assessment in accordance with 310 CMR 22.05(4)(b), and perform corrective actions in accordance with 310 CMR 22.05(4)(c).
- F. On Saturday, June 18, 2016, MassDEP verbally informed PWS of the regulatory requirements, and directed PWS to evaluate the cause of the contamination, take corrective action, and notify its consumers to either boil their tap water for at least one minute before consuming, or to consume water from an alternative source approved by MassDEP until further notice. In addition, MassDEP informed PWS at that time that MassDEP was intending to issue this Order.

III. DISPOSITION AND ORDER

- 6. For the reasons stated above, MassDEP hereby ORDERS PWS to take the following actions pursuant to M.G.L. c. 111, §§ 2C, 5G and 160. This Order shall be binding on PWS and on its successors, heirs, and assigns. PWS shall not violate this Order, and shall not allow or suffer its employees, agents, or contractors to violate this Order.
- 7. **PWS is hereby ORDERED to take the following actions:**
 - A. **PROVIDE NOTIFICATION AND INFORMATION TO THE PUBLIC.** As soon as practical but no later than 24 hours after MassDEP verbally notified PWS of the terms of this Order, which occurred on June 18, 2016, notify all consumers served by PWS to boil their tap water for at least one minute before drinking or using for purposes of human consumption, such as cooking, ice-making, dishwashing, and maintaining oral hygiene (e.g., teeth brushing), until further notice. In addition, PWS' notice shall instruct consumers to discard any ice, juice, formula, and uncooked foods that were prepared with water from PWS' distribution system. PWS may instruct consumers to use bottled water or water from a MassDEP-approved alternative source of supply in lieu of boiling. In addition, if PWS sells or otherwise provides drinking water to other public water systems (i.e., to consecutive systems), then PWS shall provide notice to the owner/operator of the consecutive system. The notification required by this paragraph shall conform to the requirements for Tier 1 Public Notice in 310 CMR 22.16(2)(a), (b) and (c), and 310 CMR 22.16(5).
 - B. **PROVIDE NOTIFICATION AND INFORMATION TO LOCAL OFFICIALS.** As soon as practical, but no later than 24 hours after learning of the violation cited above, notify the chief municipal officer(s), water commissioner(s), local board(s) of health, and other emergency personnel, as appropriate, in PWS' service area of the contamination and the planned response. The notification required by this paragraph shall conform to the requirements for Emergency Reporting in 310 CMR 22.15(9).

- C. **IMPLEMENT EMERGENCY RESPONSE PLAN.** Immediately begin to implement PWS' Emergency Response Plan (ERP) in accordance with 310 CMR 22.04(13) and take all necessary actions to identify and remedy any actual or potential causes of contamination. PWS shall comply with any expedited actions or additional actions required by MassDEP in the case of an *E. coli* MCL violation in accordance with 310 CMR 22.05(4)(b)4.
- D. **PROVIDE DISINFECTION.** PWS shall immediately place and maintain continuous temporary disinfection on-line at all active sources and distribution locations, including storage tanks in accordance with applicable laws and regulations. PWS shall disinfect at a frequency and dosage levels as may be prescribed by MassDEP; and measure and record the free chlorine residual at each entry point and distribution sampling location to document disinfection. PWS shall immediately disinfect the source and distribution system locations upon completion of any well modifications. Continuous disinfection shall remain on-line, as directed by MassDEP, until MassDEP determines that continuous disinfection is no longer necessary.
- E. **CONDUCT REPEAT MONITORING FOR TOTAL COLIFORM.** As soon as practical, but no later than 24 hours after MassDEP verbally notified PWS of the terms of this Order, which occurred on June 18, 2016, collect repeat samples for total coliform analysis at the locations and frequency approved by MassDEP including raw water, entry point, routine and repeat distribution system locations, or other specified locations, in accordance with 310 CMR 22.03(2). Such samples shall be analyzed in accordance with 310 CMR 22.05(6), provided, however, that method SM 9222B with m-Endo agar shall not be utilized for such repeat monitoring. Samples shall be analyzed using an approved MassDEP presence-absence method for total coliform with results available no later than 24 hours after start of analysis. Such sampling shall continue daily until MassDEP determines that the principal incident or reason for the violation has been corrected and the water no longer poses a risk to health. PWS shall measure and record the free chlorine residual at each sampling location. PWS shall direct the laboratory it engages to analyze the repeat samples to send a copy of the analytical results to MassDEP by facsimile or electronic mail at the same time with providing the results to PWS, and PWS shall immediately notify MassDEP after learning of the analytical results from the laboratory.
- F. **SUBMIT PUBLIC NOTICE CERTIFICATION.** PWS shall submit to MassDEP and the local Board of Health a certification, in accordance with 310 CMR 22.15(3)(b), that it has fully complied with the public notification regulations **within ten days** of completing the public notification requirements under 310 CMR 22.16. PWS shall include with this certification a representative copy of each type of notice distributed, published, posted, and made available to the persons served by PWS and to the media.
- G. **PERFORM LEVEL 2 ASSESSMENT.** PWS, shall ensure that a Level 2 Assessment is completed by a party approved by MassDEP as soon as practical and submit a completed Level 2 Assessment form to MassDEP **no later than 30 days** after the collection date of

the sample that triggered the assessment, which was collected on June 17, 2016, in accordance with 310 CMR 22.05(4)(b). The completed assessment form must: describe any Sanitary Defects detected; describe all corrective actions completed; propose a timetable for any corrective actions not yet completed; describe any interim measures planned for the protection of human health prior to the completion of any corrective actions, including a timetable for performing those interim measures; or state that no Sanitary Defects were identified.

- H. **PERFORM CORRECTIVE ACTIONS.** PWS shall correct Sanitary Defects found through the assessment conducted under 310 CMR 22.05(4)(b) in accordance with 310 CMR 22.05(4)(c). For corrections not completed by the time of submission of the assessment form, PWS shall complete the corrective action(s) in compliance with a timetable approved by MassDEP in consultation with the PWS. PWS shall notify MassDEP in writing when each scheduled corrective action is completed. If MassDEP has specified interim measures for protection of the public health pending MassDEP approval of the corrective action plan and schedule or pending completion of the corrective action plan, or both, PWS shall comply with these interim measures, including any specified schedule, in accordance with 310 CMR 22.05(4)(b)4.d.
- I. **SUBMIT AN EMERGENCY RESPONSE REPORT.** PWS shall complete and submit an Emergency Response Report (ER Report - Form 1) to MassDEP **within 30 days** of the date of this Order, and in accordance with 310 CMR 22.15(9)(c). The Emergency Response Report shall include the following information at a minimum: detailed timeline of the incident and response; evaluation of the incident; recommendations for improvements to emergency response planning, training and communication; recommendations for improvements to water system operations, staffing and budget; timeline for making all recommended changes; and an updated emergency response plan except for those items that are security sensitive. Emergency Report (Form 1) <http://www.mass.gov/eea/docs/dep/water/laws/a-thru-h/erreport.pdf>.
- J. **CCR REPORTING FOR COMMUNITY WATER SYSTEMS.** PWS shall use its next annual Consumer Confidence Report (CCR) to provide information pertaining to this Order to its customers in accordance with 310 CMR 22.16A.
8. All notices, submittals, and other communications to MassDEP required by this Order shall be directed to:
- Robert A. Bostwick, Drinking Water Section Chief
MassDEP
8 New Bond Street
Worcester, Massachusetts 01606
Tel: (508) 849-4036 Fax: (508) 849-4035
9. PWS is advised that if it fails to comply with this Order, M.G.L. c. 111, § 160 provides for fines and civil penalties of up to \$25,000 and by imprisonment for up to one year for each

day during which each violation covered by this Order continues or is repeated. PWS is further advised that if it fails to comply with this Order, M.G.L. c. 21A, § 16 provides for civil administrative penalties of up to \$25,000, plus the economic benefit realized for such noncompliance.

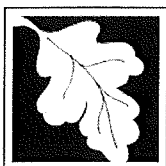
IV. APPEAL RIGHTS AND TIME LIMITS

10. Pursuant to M.G.L. c. 111, §§147 and 163, whoever is aggrieved by this Order may, within three (3) days after service of the Order upon him/her, give written notice of appeal to MassDEP and file a petition for a jury in the Superior Court in the county where the premises affected are located, and, after notice to MassDEP, may have a trial in the same manner as other civil cases are tried by jury. If by mistake of law or fact or by accident such person fails within said three (3) days to apply for a jury, and if it appears to the court that such failure was caused by such mistake or accident, and that such person has not, since the service of the Order upon him/her, violated it, such person may apply for a jury within thirty (30) days of such service. Pursuant to M.G.L. c. 111, §163, any such aggrieved person must comply with this Order while the appeal is pending, unless otherwise authorized in writing by MassDEP.

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: Mary Jude Pigsley
Mary Jude Pigsley, Regional Director
Central Regional Office
8 New Bond Street
Worcester, Massachusetts 01606

Date: 4/21/16



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Drinking Water Program
Emergency Report Form 1
After Action Report

DWP ER Report 1

A. System Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



PWS Name	Date	
PWS ID #	City /Town	
PWS Type: <input type="checkbox"/> COM <input type="checkbox"/> NTNC <input type="checkbox"/> TNC		
Mailing Address		
Phone	FAX	E-mail

B. Certification

I certify under penalty of law that I am the person authorized to fill out this form and the information contained herein is true, accurate, and complete to the best of my knowledge and belief.

Name of PWS certified operator or responsible party:

Signature Date

INSTRUCTIONS: 310 CMR 22.15(9)(c) requires that "a water supplier must file an Emergency Response Report within 30 days of any of the emergencies identified in 310 CMR 22.04(13)(a), a Level III or higher emergency, as described in Massachusetts Drinking Water Guidelines and Policies for Public Water Systems, Appendix O – Handbook for Water Supply Emergencies, or any cross connection problem that results in contamination of the water provided by the public water system." Return this form with all attachments to your regional MassDEP office within 30 days of the start date of the emergency.

This form may also be used to comply with 310 CMR 22.15 (9)(d).

Please number all attachments. Attach pictures wherever helpful.

See sample emergency report on the web at <http://www.mass.gov/dwp/water/drinking/systems.htm#emerresp>.

C. Narrative Checklist

The following checklist is provided to help you submit the information that is required to be in your Emergency Response Report. Check each box to indicate that you have provided the information and any supporting documentation. Your report is not complete unless all of boxes are checked.

1. General Overview of Emergency:

☐ Date(s) of the Emergency: from _____ Date _____ to _____ Date _____

Emergency Level: ☐ I ☐ II ☐ III ☐ IV ☐ V

☐ Provide a brief overview of the nature of the emergency. (What happened?):

Insert text here

2. Detailed Timeline of the Incident and Response:

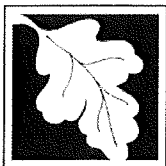
☐ Provide a chronological history of the emergency and its resolution. (If this is not provided you must provide a narrative as to why you did not provide it.)

Insert text here

3. Evaluation of the Incident:

☐ Provide an assessment of the cause of the incident and the response to the incident. (What caused the emergency and how well did your system respond to the emergency?)

Insert text here



Emergency Report Form 1

After Action Report

4. Recommendations for Improvements to Emergency Response Planning, Training, and Communication:

☐ Review lessons learned from the incident. (What did you learn from this incident?)

Insert text here

☐ Recommend needed improvements to the Emergency Response Plan (ERP), if any. If none, enter "None" below.

Insert text here

5. Recommendations for Improvements to Water System Operations, Staffing, and Budget:

☐ Review system deficiencies, if any. If none, enter "None" below.

Insert text here

☐ Recommend needed improvements, if any. If none, enter "None" below.

Insert text here

6. Timeline for Making All Recommended Changes

☐ Provide a schedule for making any recommended improvements. If none, enter "None" below.

Insert text here

7. Updated Emergency Response Plan

☐ If any revisions are needed, provide an updated copy of the ERP. (Attach to this report)

8. Notices

Is notice required? ☐ Yes ☐ No

If yes, select type: ☐ Boil Order ☐ Do Not Drink ☐ Do Not Use

☐ Other (specify): _____

☐ Provide copies of all notices given to the public during the emergency. (Attach to this report)

D. Compliance

I have reviewed my system's deficiencies and identified the following needed improvements and a schedule for completion of these improvements.

Improvement 1

Completion Date

Improvement 2

Completion Date

Improvement 3

Completion Date

Improvement 4

Completion Date

Improvement 5

Completion Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Drinking Water Program

DWP ER Report 1

Emergency Report Form 1
After Action Report

Improvement 6

Completion Date

Improvement 7

Completion Date

Improvement 8

Completion Date

Improvement 9

Completion Date

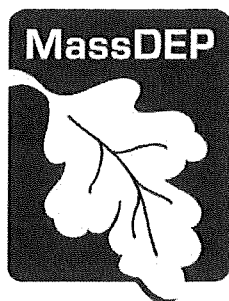
Improvement 10

Completion Date

E. MassDEP Use

Date received

Comments



Public Notice Tier 1 Templates

Total Coliform Rule

Coliform or *E. coli* Template 1-4

Instructions: (template on following page)

Since exceeding the fecal coliform or *E. coli* maximum contaminant level is a Tier 1 violation, you must provide public notice to persons served as soon as practical but within 24 hours after you learn of the violation (310 CMR 22.16(2)(b)). During this time, you must also contact your regional MassDEP office. You should also coordinate with your local board of health or health department. You may also have to modify the template if you also have high nitrate levels or other coliform MCL violations.

Mandatory language on health effects (310 CMR 22.16(5)(d)) for your public notification (PN), which must be included exactly as written, is presented in *italics* in the template.

You must also include the following italicized language in all notices, where applicable. Use of this language does *not* relieve you of your obligation to take steps reasonably calculated to notify all persons served:

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Delivery - You must use one or more of the following methods to deliver the notice to consumers (310 CMR 22.16(2)(c)):

- Radio
- Television
- Hand or direct delivery
- Posting in conspicuous locations
- In addition to one (or more) of the above methods, you must publish the Tier 1 public notice within your local newspaper as a one-day advertisement no later than 14 days after the violation. A copy must be submitted to MassDEP no later than the time published.

You may need to use additional methods (e.g., newspaper, reverse 911 phone calls, e-mail, web posting, delivery of multiple copies to hospitals, clinics, or apartment buildings) since notice must be provided in a manner reasonably calculated to reach all persons served. If you post or hand-deliver, print your notice on your system's letterhead, if you have it.

The template is appropriate for hand delivery or a newspaper notice. However, you may wish to modify it before using it for a radio or TV notice. If you do, you must still include all required elements and leave the health effects language in italics unchanged. This language is mandatory (310 CMR 22.16(5)(d)). See Chapter 8 of the EPA and the Association of State Drinking Water Administrators (ASDWA) *Public Notification Handbook* for a notice designed for posting. If you post or hand-deliver, print your notice on letterhead, if available.

Massachusetts Department of
Environmental Protection
One Winter Street
Boston, MA 02108-4746

Commonwealth of
Massachusetts
Deval L. Patrick, Governor
Timothy P. Murray, Lt. Governor

Executive Office of
Environmental Affairs
Ian A. Bowles, Secretary

Department of
Environmental Protection
Laurie Burt, Commissioner

Produced by the
Bureau of Resource Protection,
Rev. November 2010.
Printed on recycled paper.

This information is available in
alternate format by calling our
ADA Coordinator at
617-556-1057.

Alternative Sources of Water – If you are selling or providing bottled water, your notice should say where it can be obtained. Remember that bottled water can also be contaminated. If you are providing bottled water, make sure it meets the US Food and Drug Administration (FDA) standards. You can contact the Massachusetts Department of Public Health and the bottler and ask for the most recent test results.

Population Served - Make sure it is clear who is served by your water system--you may need to list the areas you serve.

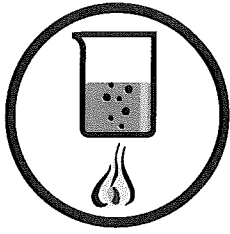
Corrective Action - In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with fecal coliform or *E. coli* violations. Use one or more of the following actions, if appropriate, or develop your own:

- We are chlorinating and flushing the water system.
- We are switching to an alternate drinking water source.
- We are increasing sampling for coliform bacteria to determine the source of the contamination.
- We are repairing the wellhead seal.
- We are repairing the storage tank.
- We are restricting water intake from the river/lake/reservoir to prevent additional bacteria from entering the water system and restricting water use to emergencies.

After Issuing the Notice - Send a copy of each type of notice and a certification that you have met all the public notice requirements to your regional MassDEP office and local board of health within ten days from the time you issue the notice (310 CMR 22.15(3)(b)).

It is recommended that you notify health professionals in the area of the violation. People may call their doctors with questions about how the violation may affect their health, and the doctors should have the information they need to respond appropriately. In addition, health professionals, including dentists, use tap water during their procedures and need to know of contamination so they can use bottled water. It is a good idea to issue a "problem corrected notice" when the violation is resolved. See Template 1-6.

Note - The EPA/ASDWA Public Notification Handbook provides additional aids to help water systems develop notices for violation situations. An electronic copy of the Public Notification Handbook is available at EPA's web site (www.epa.gov/safewater/pn.html). Please note that the EPA/ASDWA Handbook templates are non-state specific so Massachusetts water suppliers are required to use the Massachusetts version of the templates for compliance purposes. Electronic copies of the Massachusetts public notification templates are available on the MassDEP website <http://www.mass.gov/dep/water/drinking/systems.htm#pubnot>.



DRINKING WATER WARNING

Uxbridge DPW water is contaminated with *E. coli*

BOIL YOUR WATER BEFORE USING

We were notified on June 18, 2016 by the laboratory that a sample collected on June 17, 2016 was positive for *E. coli* bacteria. These bacteria can make you sick, and are a particular concern for people with weakened immune systems. Bacterial contamination can occur when increased run-off enters the drinking water source (for example, following heavy rains). It can also happen due to a break in the distribution system (pipes) or a failure in the water treatment process.

What should I do? What does this mean?

- **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST or USE BOTTLED WATER**
- Bring all water to a rolling boil and let it **boil for at least one (1) minute or use bottled water**. You may cool the boiled water before using. Boiled or bottled water should be used for drinking, making ice, food preparation, brushing teeth and washing dishes **until further notice**. Boiling kills bacteria and other organisms in the water.
- Refer to the attached notice for additional precautions you may take. This information is also located on the MassDEP website:
Consumer Information on Boil Orders <http://www.mass.gov/dep/water/drinking/boilordr.htm>
Boil Order Frequently Asked Questions
<http://www.mass.gov/eea/agencies/massdep/water/drinking/boil-water-order-faq.html>
- **Discard** all ice, beverages, uncooked foods, and formula made with tap water.
- **Food establishments** must follow MA DPH procedures and the direction of their local board of health, which may be more stringent than the DPH guide. **MA Department of Public Health - Guidance for Emergency Action Planning for Retail Food Establishments (pg. 19)**
<http://www.mass.gov/eohhs/docs/dph/environmental/foodsafety/emergency-action-plans.pdf>
- *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.
- The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice about drinking water from their health care providers.

What is being done?

The water department has started adding chlorine to the water, and is flushing the system while it investigates potential causes for the contamination. We will inform you when tests show no bacteria and you no longer need to boil your water.

For more information, please contact [name of contact] at [phone number] or [mailing address]. General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

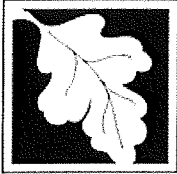
Massachusetts Department of Environmental Protection Drinking Water Program

Public Notice Certification

Make sure to send your MassDEP Drinking Water Program regional office and local Board of Health a copy of each type of notice and a certification that you have met all the public notice requirements **within ten days** after issuing an initial or repeat notice (310 CMR 22.15(3)(b)). When you certify, you are also stating that you will meet future requirements for notifying new units and customers of the violation.

PWSID#:	City/Town:	
PWS Name:	Class: <input type="checkbox"/> Community <input type="checkbox"/> Non-Community	
For Violation(s) or Event(s):	<input type="checkbox"/> Total Coliform Rule: MCL Violation	<input type="checkbox"/> MCL/MRDL Violation
	<input type="checkbox"/> Ground Water Rule: Fecal Indicator Detection	<input type="checkbox"/> Treatment Technique Violation
	<input type="checkbox"/> Other: _____	
Contaminant Detected:	Occurring On (dates):	
The Public Water system indicated above hereby affirms that public notice has been provided to consumers in accordance with 310 CMR 22.16 including: delivery, content, format requirements, notification deadlines and that the Public Water system will meet future requirements for notifying new billing units and new customers of the violation. At least two methods of delivery must be used.		
Consultation with MassDEP on (date):		
Notice Distributed by: (List primary methods)	On (dates):	
Notice Distributed by: (List additional methods)	On (dates):	
<i>I certify under penalty of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best of my knowledge and belief.</i>		
Name (print)	Signature of Owner/Operator	Date

Copies of the Public Notice(s) and the Public Notice Certification form were sent to the following (check all that apply):	
<input type="checkbox"/>	MassDEP Drinking Water Program: Western Regional Office (WERO), 436 Dwight St. 5 th Floor, Springfield, MA 01103
<input checked="" type="checkbox"/>	MassDEP Drinking Water Program: Central Regional Office (CERO), 8 New Bond St., Worcester, MA 01606
<input type="checkbox"/>	MassDEP Drinking Water Program: Northeast Regional Office (NERO), 205B Lowell St., Wilmington, MA 01887
<input type="checkbox"/>	MassDEP Drinking Water Program: Southeast Regional Office (SERO), 20 Riverside Drive, Lakeville, MA 02347
<input type="checkbox"/>	Local Board of Health



Tier 1 Public Notice: Bacteriological Situation or Violation (Coliform, *E. coli*, Enterococci)


Bacteriological situations or violations that require a Tier 1 public notice include:	
Tier 1 Situations	<ul style="list-style-type: none"> Acute violations of the Total Coliform Rule in the distribution system (i.e. whenever an <i>E. coli</i>-positive repeat sample is detected, or a total coliform-positive repeat sample follows an <i>E. coli</i>-positive routine sample). Fecal indicator positive detections under the Ground Water Rule (<i>E. coli</i> or Enterococci) in the source water. Repeated non-acute bacteria violations or severe violation of the Total Coliform Rule (i.e. widespread total coliform in the distribution system) due to a specific incident or potential source, treatment, storage, cross-connection or other condition, as determined by MassDEP on a case-by-case basis. Waterborne disease outbreak, interruption or equipment failure in treatment or supply, loss of system pressure (water outage or main break) or use of an unapproved source, as determined by MassDEP on a case-by-case basis.
Immediately and no later than 24 hours of your knowledge of a Tier 1 situation or violation, you are required to notify and consult MassDEP, implement your emergency response plan and provide public notification to consumers.	
24 Hour Notification	<p>You must contact and consult with MassDEP by the end of the day that your system has been notified of a positive <i>E. coli</i> or Enterococci result either in the distribution system or at the source.</p> <ul style="list-style-type: none"> If notification is received after the Department is closed, notification may be performed the next business day, or by calling the MassDEP 24 hour emergency response phone number (1-888-304-1133). In no circumstance shall notification be performed more than 24 hours after receiving notification from the laboratory.
Consult with MassDEP	<p>You must consult with (i.e. speak with) MassDEP Drinking Water Program staff. Voice or electronic messages do not meet consultation requirements.</p> <ul style="list-style-type: none"> Tier 1 bacteriological situations or violations may require either BOIL or NON-BOIL public notice, depending upon the specific situation and MassDEP determination. You must provide public notification as soon as practical but within 24 hours after you learn of the violation/situation, even if you are unable to contact anyone at MassDEP.
Initiate Your Emergency Response Plan	<p>Immediately begin to implement your Emergency Response Plan in accordance with 310 CMR 22.04(13) and take appropriate corrective action to resolve the situation as may be directed by MassDEP.</p> <ul style="list-style-type: none"> You should notify local officials of the violation/situation including your local board of health, chief municipal officer(s), and other emergency personnel, as appropriate. Consecutive systems and/or interconnections—Wholesale (or selling) systems and consecutive (or purchasing systems) are required to notify each other of Tier 1 situations within 24 hours and provide public notice to consumers (as applicable). A consecutive system is responsible for providing public notice to the persons it serves.
Bulk Water Delivery	<p>In the event of an emergency, your public water system may need to provide an alternative potable water source such as bottled water or bulk water delivery. A public water system that plans to use trucked (bulk) water in response to an emergency shall first contact the appropriate MassDEP regional office. In some cases, an emergency declaration may be necessary.</p> <p>Only a drinking water supply source that has been approved by MassDEP shall be used as a source to fill tank trucks or trailers during water hauling operations. MassDEP recommends that someone with water treatment expertise be responsible for the operation and management of trucked potable water for use in emergencies. All transported water must carry a free chlorine residual of at least 1 ppm at the beginning of the haul and at least 0.2 ppm free chlorine residual at the end of the haul. The water supplier is responsible for documenting and keeping proper records of the emergency trucked water operation.</p> <p>List of Emergency Bulk Water Providers http://www.mass.gov/eea/agencies/massdep/water/drinking/list-of-emergency-bulk-water-providers.html</p> <p>Procedures for Emergency Tank Truck Bulk Water Hauling http://www.mass.gov/eea/docs/dep/water/drinking/alpha/a-thru-h/blkwfct.pdf</p> <p>Policy 92-07: Bulk Water Suppliers - Sampling and Transport Responsibility http://www.mass.gov/eea/docs/dep/water/laws/numeric/9207.pdf</p>

Public Notification

24 Hour Public Notice	<p>You must issue Tier 1 public notification as soon as practical and within 24 hours after you learn of the violation and comply with any additional public notification requirements as instructed by MassDEP during consultation.</p> <ul style="list-style-type: none"> Tier 1 public notification is required for bacteriological related violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure and requires immediate public notification in accordance with 310 CMR 22.16(2).
Content	<p>Your notice must include:</p> <ul style="list-style-type: none"> Population served, (make sure it is clear who is served by your water system, you may need to list the areas and consecutive water systems you may serve). Unaffected consumers (i.e., people outside of a narrow area impacted who do not need to boil their water) should be told they do not need to take action but have a right to be informed of the problem; A description of the violation or situation and when the violation or situation occurred; Potential adverse health effects, using required language in 310 CMR 22.16 Table 7 must be included exactly as written (presented in <i>italics</i> in the templates); Population(s) at risk and whether alternative water supplies should be used; Actions consumers should take, including when they should seek medical help, if known; Source of contamination (if known); What you are doing to correct the violation or situation and when you expect to return to compliance; Name, business address, and phone number for additional information; Required language encouraging distribution to all persons served, where applicable (presented in <i>italics</i> in the templates); and PWS ID# and date of distribution (located at bottom of notice).
Required Language	<p>You must include:</p> <ul style="list-style-type: none"> Health effects language for the specified contaminant in Table 7 of 310 CMR 22.16, which <u>must be included exactly as written</u>, and is presented in <i>italics</i> in the templates. http://www.mass.gov/eea/docs/dep/water/laws/i-thru-z/table7.pdf Distribution language. The following italicized language must be included in all notices, where applicable, and is presented in <i>italics</i> in the templates. Use of this language does <i>not</i> relieve you of your obligation to take steps reasonably calculated to notify all persons served: <i>Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.</i>
Additional Language	<p>You may need to modify or include additional information in your notice if:</p> <ul style="list-style-type: none"> Your system also has elevated levels of other contaminants where boiling the water for bacteriological safety could subsequently increase levels of other contaminants such as (nitrate, nitrate, perchlorate, arsenic, synthetics, radiologicals etc.). Residents should also be aware that boiling the water <u>would not</u> reduce the elevated levels of other contaminants. <i>Boiling the water will not reduce the level of _____ in your drinking water. If you have concerns, then it is recommended that you contact your doctor to determine what actions you should take to reduce your exposure, such as using bottled water for drinking and cooking.</i> You are a community system that <u>does not</u> currently add chlorine to the water. <i>In response to the recent bacteria detections, we are adding sodium hypochlorite (chlorine) on a temporary basis to achieve a low chlorine residual in the water system. Low levels of chlorine and a slight discoloration may be detected in the water. Aquarium owners and users of kidney dialysis machines are advised to treat or filter the water before use.</i> You are required to provide additional precautions consumers should take when water may be contaminated with bacteria and consumers are directed to boil water prior to using. <i>Please refer to the information below and the attached notice for additional precautions you can take.</i> <p>MassDEP - Consumer Information on Boil Orders http://www.mass.gov/eea/agencies/massdep/water/drinking/consumer-information-on-boil-orders.html Boil Water Order – Frequently Asked Questions http://www.mass.gov/eea/agencies/massdep/water/drinking/boil-water-order-faq.html</p>

	<p>Fact Sheet: Drinking Water Contaminated with Bacteria http://www.mass.gov/eea/docs/dep/water/drinking/alpha/a-thru-h/boilbact.pdf</p> <p>Massachusetts Department of Public Health - Guidance for Emergency Action Planning for Retail Food Establishments http://www.mass.gov/eohhs/docs/dph/environmental/foodsafety/emergency-action-plans.pdf</p> <p>Food establishments must follow MA DPH procedures and the direction of their local board of health, which may be more stringent than the DPH guide.</p> <ul style="list-style-type: none"> • Boil Order - See pg. 19 of the DPH guide for procedures to follow during a Boil Order. • Do Not Drink - See pg. 15 of the DPH guide for procedures to follow during a water interruption incident. <p>EPA Basic Information about <i>E. coli</i> 0157:H7 in Drinking Water http://water.epa.gov/drink/contaminants/basicinformation/ecoli.cfm</p> <p>Cryptosporidium - EPA Guidance for People with Severely Weakened Immune Systems (Fact Sheet) http://www.epa.gov/safewater/consumer/pdf/crypto.pdf</p> <p>US CDC Water Related Emergencies - Community Drinking Water Use http://www.cdc.gov/healthywater/emergency/safe_water/community.html</p> <p>US CDC Boil Water Advisories http://www.cdc.gov/parasites/crypto/health_professionals/bwa/index.html</p> <p>EPA Emergency Disinfection of Drinking Water (English, Spanish, French, Arabic, Vietnamese) http://water.epa.gov/drink/emergprep/emergencydisinfection.cfm</p>	
Corrective Actions	<p>In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with bacteriological situations. Use one or more of the following actions, if appropriate, or develop your own:</p> <ul style="list-style-type: none"> • We are chlorinating and flushing the water system. • We are investigating the source of contamination. • We are disinfecting and inspecting the storage tank. • We are providing an alternate drinking water source. • We are implementing a mandatory water ban to restrict water use during the emergency. • We are increasing sampling for coliform bacteria. • We are repairing the wellhead seal. • The well and/or distribution system has been disinfected. • We have increased disinfection levels. • We are providing emergency disinfection. 	
Format	<p>All public notices must meet certain formatting standards. These requirements help prevent the notice from being "buried" in a newspaper and help ensure that consumers can easily read and understand the notice. Notices must:</p> <ul style="list-style-type: none"> • Be displayed in a conspicuous way (where printed or posted); • Not contain overly technical language or very small print (notice should be the size of a news article or advertisement, legal size publications are not allowed); • Not be formatted in a way that defeats the purpose of the notice; and • Not contain language which nullifies the purpose of the notice. 	
Multilingual Notices	<p>If a large proportion of the population you serve does not speak English, you must provide information in the appropriate language(s) regarding the importance of the notice, or a telephone number or address where consumers may contact the system to obtain a translated copy of the notice.</p> <p>You may wish to provide notices in multiple languages if non-English speaking populations are in your service area, whether or not they constitute a large proportion of your service population. Although you are not required to provide full translations of notices, this is strongly recommended for Tier 1 notices and for other violations that pose a serious health risk.</p> <p>Translations for Public Notification in 28 languages with do not drink graphics (Washington State Department of Health) http://www.doh.wa.gov/ehp/dw/translations/translations.htm</p> <p>Appendix C – Translated Phrases of the EPA Public Notification Handbook http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/upload/PNrevisedPNHandbookMarch2010.pdf</p> <p>Guidelines for Public Water Systems Appendix M, Consumer Confidence Reporting Requirements (pg 65 & 66): Attachment J - Language Translation Requirements per City/Town http://www.mass.gov/dep/water/ccrguide.pdf</p>	
Delivery	<p>For violations and situations requiring Tier 1 notification, you must use one or more of the following methods to distribute notices in a form and manner reasonably calculated to reach <u>all</u> persons served (310 CMR 22.16(2)(c)):</p>	
	<ul style="list-style-type: none"> • Hand or direct delivery • Radio and/or television 	<ul style="list-style-type: none"> • Posting in conspicuous locations • Any other delivery method approved by MassDEP
	<p>In addition to one (or more) of the above methods, large community systems must publish the Tier 1 public notice within the local newspaper as a one-day advertisement (not legal size), no later than 14 days after the violation, unless otherwise directed by MassDEP. A newspaper article published during the event may serve to satisfy this requirement. A copy must be submitted to MassDEP no later than the time published.</p> <p>You may need to use additional methods (e.g., newspaper, delivery of multiple copies to hospitals, clinics, or</p>	

	<p>apartment buildings, door hangers, emergency signage, reverse 911, email, internet websites); since notice must be provided in a manner reasonably calculated to reach all persons served.</p> <p>It is recommended that you notify health professionals in the area of the violation. People may call their doctors with questions about how the violation may affect their health, and the doctors should have the information they need to respond appropriately. In addition, health professionals, including dentists, use tap water during their procedures and need to know of contamination so they can use bottled water.</p> <p>MassDEP may allow limited distribution <u>only</u> if the violation is in a portion of the distribution that is either <i>physically</i> or <i>hydraulically</i> isolated from other parts of the distribution system.</p> <p>Automated Messaging and Public Notice http://www.mass.gov/eea/agencies/massdep/water/drinking/automated-messaging-and-public-notice.html</p>
Problem Corrected Notice	<p>It is a good idea to issue a "problem corrected notice" when the violation is resolved and update website information, as applicable. Drinking Water Problem Corrected http://www.mass.gov/dep/water/drinking/pnt16.pdf</p> <p>Flush All Taps When The Boil Water Order Is Lifted</p> <p>When flushing it is important to carefully follow the instructions provided. Flushing your household and building water lines including: interior and exterior faucets, showers, water/ice dispensers, water treatment units, etc. Water heaters may need to be disinfected and flushed to remove any contaminated water. Some types of water treatment devices may need to be disinfected or replaced before being used. Check with the manufacturer for details. Read more about flushing:</p> <p>MassDEP- Instructions for Post Boil Water Orders http://www.mass.gov/eea/agencies/massdep/water/drinking/instructions-for-post-boil-water-orders.html</p> <p>Flushing Water Notice for Non-Bacterial Contaminants http://www.mass.gov/dep/water/drinking/flushing.htm</p>
Certification	<p>Within 10 days from the time you issue the notice, send a copy of each type of notice and a certification that you have met all the public notice requirements to your regional MassDEP office and local board of health (310 CMR 22.15(3)(b)). You must send certifications for both initial and any repeat notices. When you certify, you are also stating that you will meet future requirements for notifying new billing units and new customers of the violation or situation.</p>
Emergency Response Report	<p>Within 30 days of a Tier 1 emergency, complete and submit an Emergency Response Report (ER Report - Form 1) to MassDEP in accordance with 310 CMR 22.15(9)(c), unless otherwise determined by MassDEP.</p> <p>The Emergency Response Report shall include the following information at a minimum: detailed timeline of the incident and response; evaluation of the incident; recommendations for improvements to emergency response planning, training and communication; recommendations for improvements to water system operations, staffing and budget; timeline for making all recommended changes; and an updated emergency response plan except for those items that are security sensitive.</p> <ul style="list-style-type: none"> • Emergency Report (Form 1) http://www.mass.gov/eea/docs/dep/water/laws/a-thru-h/erreport.pdf • Emergency Response Report Guidance http://www.mass.gov/eea/agencies/massdep/water/drinking/emergency-response-reporting-guidance.html
GWR Response	<p>The GWR requires ground water systems at risk of microbial contamination to take corrective action to protect consumers from harmful bacteria and viruses. Notifying the public of potential risks is a key element of this risk-targeted approach. Procedures for notifying the public differ depending on whether a system is a community or a non-community water system (NCWS).</p> <p>Ground Water Rule Factsheet: Public Notification, Consumer Confidence Report, and Special Notice Requirements for Community Water Systems http://www.epa.gov/safewater/disinfection/gwr/pdfs/fs_gwr_grq_cwss.pdf</p> <p>Ground Water Rule Factsheet: Public Notification, Consumer Confidence Report, and Special Notice Requirements for Non-Community Water Systems http://www.epa.gov/safewater/disinfection/gwr/pdfs/fs_gwr_grq_ncwss.pdf</p>
CCR Notice	<p>Community water systems must include information about total coliform MCL violations, fecal indicator detections (<i>E.coli</i> or Enterococci), TT violations, and monitoring violations in their annual Consumer Confidence Report (CCR), including:</p> <p>Total Coliform Rule (regulated contaminant table):</p> <ul style="list-style-type: none"> • The total # of <i>E.coli</i> positive samples – (in the distribution system) • The highest monthly number (or percentage) of positive samples (in the distribution system) <p>Ground Water Rule (regulated contaminant table):</p> <ul style="list-style-type: none"> • The total # and dates of positive samples (in the source water) – <i>E.coli</i> and/or Enterococci
Technical Assistance	<p>The EPA/ASDWA Public Notification Handbook provides additional aids to help water systems develop notices for violations and situations. An electronic copy of the "Public Notification Handbook" and</p>

	<p>"Public Notification Handbook for Transient Non-Community Water Systems" is available at EPA's web site http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/compliancehelp.cfm Please note that the EPA/ASDWA Handbook templates are non-state specific so Massachusetts's water suppliers are required to use the MassDEP version of the templates for compliance purposes.</p>
Templates	<p>MassDEP templates are designed to help operators create public notices for a variety of violations. However, it is important to note that the templates included here are not inclusive and may not be appropriate for all violations and situations. Depending on the severity of your violation or situation, it may be necessary to modify the instructions you give to consumers or to change the timing of the notice. In some cases, MassDEP may provide additional instructions and custom public notice to fit the situation. Electronic copies of MassDEP public notification templates are available on the MassDEP website http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html#20</p> <p>The template notices are appropriate for hand delivery or a newspaper notice. Notices may need to be modified for radio or TV distribution. If you modify the notice, you must still include all required elements and leave the health effects language in italics unchanged. This language is mandatory (310 CMR 22.16(5)(d)). If you post or hand-deliver, print your notice on letterhead, if available.</p>
Do Not Drink Notice 	<p>In cases, where it is not practical for consumers to "boil water", such as users of a non-community system, it may be necessary to modify the instructions you give to consumers, such as a "Do Not Drink" notice and direct consumers to use an alternative source of potable water.</p>
Attachments	<ul style="list-style-type: none"> • Public Notice Certification Form



Massachusetts Department of Environmental Protection
Bureau of Water Resources – Drinking Water Program
Instructions for Level 2 Assessment Form

RTCR-2
Instructions

LEVEL 2 ASSESSMENT OVERVIEW

The Revised Total Coliform Rule (RTCR) requires all public water supply systems (PWSs) to complete a Level 2 Assessment in response to the triggers identified in 310 CMR 22.05(4)(a)2. The purpose of the Level 2 Assessment is to identify the possible presence of sanitary defects and defects in distribution system coliform monitoring practices. This evaluation provides a more detailed examination of the PWS than a Level 1 Assessment.

A sanitary defect is a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place. If a sanitary defect is identified during the assessment, the assessor must describe the sanitary defect, what corrective actions were completed, and a proposed timetable for corrective actions not yet completed.

Level 2 Assessments must be submitted to MassDEP within 30 days of the trigger date identified in the “General Information” section below. If upon review, MassDEP determines that the assessment is insufficient, MassDEP will send the PWS written notification. The system is required to consult with MassDEP within 14 days of receiving notification of an insufficient assessment.

This instruction document is to be used as a companion to the MassDEP Coliform Bacteria Level 2 Assessment Form (RTCR-2). It contains information necessary for completion of the form. For more instructions on performing Level 2 Assessments, assessors are strongly recommended to read the EPA *Revised Total Coliform Rule Assessments and Corrective Actions Guidance Manual* which can be found at <http://www.epa.gov/dwreginfo/revised-total-coliform-rule-assessments-and-corrective-actions>.

If the PWS has detected a fecal indicator in the source water, it may also be required to perform corrective actions and/or develop a corrective action plan under the Ground Water Rule (310 CMR 22.26). In that situation, the Level 2 Assessment Form may be used to report corrective actions taken to comply with the Ground Water Rule, and the Corrective Action Schedule portion of the form may be used to comply with both the Corrective Action Plan requirements of the Ground Water Rule and the RTCR.

WHO MAY PERFORM A LEVEL 2 ASSESSMENT

Unless the PWS is notified that MassDEP will conduct the assessment, the Level 2 Assessment must be conducted by a party approved by MassDEP. The PWS shall consult with MassDEP regarding the identification of the Lead Assessor at the time of notification that the PWS has triggered a Level 2 Assessment. MassDEP considers the following individuals qualified to serve as lead assessor: a person holding a full Drinking Water Operators license of a grade (treatment or distribution) equal to or higher than that of the PWS qualified to be the Lead Assessor, or a technical assistance provider under contract with the state. Other individuals may be approved to perform the role of Lead Assessor at the discretion of MassDEP. Refer to the document *Criteria for Approval of Individuals Allowed to Conduct RTCR Level 2 Assessments*.

GENERAL COMMENTS ON FORMAT AND COMPLETION

The Level 2 Assessment Form is a fill-in-the blank document that meets the requirements of the Level 2 Assessment Report. The form must be completed without changes. The fields in the document will expand as necessary. However, if you have an extensive explanation or need additional space, extra pages can be attached.

The form is designed so that additional pages may be completed as needed for a PWS with multiple sources or other components. When all required pages of the form are complete, the pages should be numbered consecutively for the entire document.

PAGE 1 - GENERAL INFORMATION

LEAD ASSESSOR

The Lead Assessor is the person approved by MassDEP to perform the assessment.

OTHER PARTICIPANTS IN THE ASSESSMENT

Include the names of all parties that participated in the assessment, including engineers, consultants, operators, well drillers, tank inspectors, cross-connection surveyors and testers, etc.

PERSON(S) REPRESENTING THE PWS

If the assessment is performed by a party that is not directly affiliated with the PWS, then indicate the parties that represented the PWS during the assessment. Otherwise, this item may be left blank.

LEVEL 2 TRIGGER

Indicate whether the assessment was triggered by an *E. coli* MCL violation, or by a second Level 1 Trigger in 12 months. If it was a second Level 1 trigger, include the date (month and year) of the previous Level 1 trigger (from the Level 1 Assessment Form).

LISTING OF ALL POSITIVE SAMPLES

For all total coliform positive samples, list in chronological order the sample location and date collected. For ongoing/widespread events, the list of positive samples must include at a minimum the results of the original round of sampling and the first round of repeats, even if the trigger was reached during the original round of sampling. You may be permitted to attach a bacteria analysis laboratory report in lieu of listing all total coliform positive samples. Please contact your regional office for further details and approval. Check the box for all *E. coli* positive samples.

TRIGGER DATE:

Important: the assessment is due to MassDEP no later than 30 days after the trigger date in the table below. The PWS is required to notify MassDEP that a Level 2 Assessment has been triggered within **5 days** of the trigger date. In the event that the trigger is an *E. coli* MCL violation, the PWS must notify MassDEP as soon as possible but no later than the end of the day when the Supplier of Water learns of an *E. coli* MCL violation. Failure to perform the assessment and submit the assessment report is a violation of the RTCR.

Determination of Trigger Date:

Level 2 Trigger Type	Trigger Date
Second Level 1 trigger in 12 months (coliform detection):	
PWS collects 40 or fewer samples per month and had a second TC+ sample in a calendar month	Date the second TC+ sample was collected
PWS collects more than 40 samples per month and more than 5% of total samples were TC+	Date the TC+ sample was collected that exceeded the 5% threshold
Second Level 1 trigger in 12 months (repeat failure):	
PWS failed to collect all required repeat samples after a TC+ sample	2 days after the date the original coliform positive sample was collected
<i>E. coli</i> MCL violation:	
An <i>E. coli</i> positive repeat sample follows an associated total coliform positive routine sample	Date the <i>E. coli</i> positive repeat sample was collected
A total coliform positive (or <i>E. coli</i> positive) repeat sample follows an <i>E. coli</i> positive routine sample	Date the total coliform (or <i>E. coli</i>) positive repeat sample was collected
PWS fails to take all required repeat samples following an <i>E. coli</i> positive sample	2 days after collection date of initial <i>E. coli</i> positive sample
PWS fails to analyze for <i>E. coli</i> when any repeat sample tests positive for total coliform	Date the total coliform positive repeat sample was collected

CHECKLIST OF COMPLETED SECTIONS

Once the assessment is completed, check off all assessment categories that have been completed. Systems without treatment, atmospheric storage tanks, or specific source types do not have to complete those categories. Note that Sections 1.0 through 4.0 and sections 12.0 and 14.0 are required for all systems.

For the positive coliform sample site category, complete one assessment page for each location. For categories such as source, atmospheric storage, and treatment plants, one assessment page is to be completed for each component that was active during the monitoring period when the samples were collected. Indicate the number of individual assessments performed for each of these categories.

INDIVIDUAL ASSESSMENT SECTIONS 1.0 – 11.0
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- These sections are designed to be completed for each active component at the time that the positive samples were collected. If more than one component is present, then a separate page must be completed for each component. Complete each section individually, print, number the pages, and submit all pages together.

- In section *8.0 Source – Well*, elements 8.1 – 8.4 must be answered for all active sources. For sources which have total coliform or *E. coli* positive source samples, the rest of the elements (8.5 – 8.18) must be completed.
- All other sections must be completed in their entirety for each system component. Reduction in scope is not permitted without specific prior MassDEP approval in writing.
- The assessment forms are designed with individual elements phrased as questions pertaining to each category. The majority of the questions are in a yes/no format, with one of the answers being shaded. If you select the shaded box, it is considered an issue that requires a response. Make sure you also answer any follow-up questions that may be included. For those questions that do not have a yes/no option, an answer to the question is required whether it constitutes an issue or not. Any element not reviewed requires an explanation in the issue/description box as to why a review was not conducted.
- At the end of each section is an optional section for “other comments”. Use this space to describe any issues observed that were not addressed in the specific assessment elements. This section is always optional.
- Once the assessment category has been completed, list all corrective actions performed in the box at the bottom with the date completed. For each corrective action, indicate number(s) of the corresponding Assessment Element(s) that the corrective action was intended to address.
- Be sure to include any additional supplemental information requested by MassDEP in support of the assessment (i.e., photographs, tank inspection reports, or cross-connection survey).

Assessment Example:

4.0 Distribution System <i>If the PWS has multiple distribution systems, submit one sheet per system.</i>					
Identify Distribution System (if multiple):					
Assessment Elements For any <u>shaded box</u> checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.				
		Yes	No	Not Reviewed*	
4.1 Is there evidence that the system experienced low or negative pressure in the distribution system prior to sampling? If yes, describe event and when it occurred.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.2 Have there been any water main breaks, repairs, or additions since the last clean sampling event? If yes, when, and what was the repair or addition?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.3 Has there been: a recent fire fighting event, sheared hydrant, construction, etc.?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.4 Are there previously identified unprotected cross connections in the distribution system? If yes, list them and identify if any of them are high hazard?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

4.5	Are there any unsanitary conditions in the pump station(s)?	NA – There are no distribution/booster pumping stations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.6	Are fire hydrants and blow-offs maintained without leaks?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7	Are any fire hydrant/blow offs located in an area with a high water table or in pits?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.8	Are critical components of the distribution system secured to prevent unauthorized access (such as: pump stations, vaults)?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.9	Has there been any significant change in flow direction or demand?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.10	When was the last flushing event? Was it unidirectional? Was the system chlorinating during flushing?	Full-system directional flushing completed in Fall 2014. Area of TC+ last flushed in September 2015. No chlorination utilized during flushing.			<input type="checkbox"/>
4.11	Is there any evidence of intentional contamination in the distribution system? <u>IMMEDIATELY Contact MA State Police and MassDEP</u>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.12	Are there pipe materials, ages, or construction issues that might contribute to TC detections?	Distribution system in the area of the TC+ is old cast-iron pipe.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.13	Are there dead ends or low-flow areas that might contribute to TC issues?	TC+ samples were found in the dead-end area of West St. where there is a history of TC+ samples.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.14	Other comments on the distribution system.				
List all distribution corrective actions taken (including date). Include assessment element number.					
4.13 – West St. area hydrants were flushed on 4/23/2016 in response to TC+ samples.					

12.0 WATER QUALITY REVIEW

Water quality data should be compiled and evaluated as part of all Level 2 Assessments. The data to be reviewed will vary for each situation, but may involve special purpose coliform samples, chlorine residuals, disinfection by-products, or HPC among others. For a detailed description of the water quality data that should be reviewed, refer to EPA *Revised Total Coliform Rule Assessments and Corrective Actions Guidance Manual, Section 4.5.2.2*.

When completing the assessment form, check off which types of water quality data were reviewed or collected as part of the assessment. Attach a summary of the data to the assessment form. Any findings that are relevant to the coliform situation should be discussed in the box at the bottom.

13.0 ADDITIONAL COMMENTS OR ISSUES IDENTIFIED

This is an optional section for other issues that may have been identified at the PWS that are not addressed in other sections of the assessment form.

14.0 SUMMARY OF INCIDENT LEADING TO/RESULTING FROM THIS LEVEL 2 TRIGGER

This section must be completed for every Level 2 Assessment. Compose a summary of the bacteriological incident that resulted in the Level 2 trigger. Include a chronological list of the sampling rounds and any intermediate corrective actions. Include the date that a clean round was finally collected (if a clean round was collected prior to submitting the assessment report).

In the event that the Level 2 assessment trigger resulted from the PWS failing to collect repeat samples after a TC+ sample or analyze for *E. coli*, include a description of the follow-up sampling and activities that were conducted after the date of the missed repeats or analysis.

Example Summary of Incident:

14.0 Summary of Incident leading to/resulting from this Level 2 trigger:

Include the date that a clean round of samples was ultimately collected (if collected prior to assessment submittal).	4/25/2016
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4/19/16 – Collected monthly round of TC samples for April.
4/20/16 – Notified by the lab that the RS002 sample (147 West St.) was TC+/EC-
4/21/16 – Collected a set of repeat samples: RS002, UR02a, DR02b, RW-01G and RW-02G
4/22/16 – Notification from the lab that two samples were positive – RS002 and UR02a
4/23/16 – Distribution system was flushed in the area of the positives.
4/25/16 – Second repeat round collected.
4/26/16 – Notification that all samples collected were clean.

CORRECTIVE ACTION SUMMARY/CORRECTIVE ACTION SCHEDULE

This section is divided into three parts. The first part, the Corrective Action Summary, must list all corrective actions taken prior to the submission of the assessment report, with the dates the actions were completed. This list must include all corrective actions that were conducted in response to the assessment. Therefore, all items listed at the bottom of the individual assessment categories (i.e. 4.0 Distribution System, 7.0 Treatment Process, etc.) must be summarized in this table. In addition, any interim corrective actions that were required by MassDEP prior to submission of the assessment report (such as activate emergency disinfection) should also be listed.

The second part of the section is the Correction Action Schedule, which is to be filled out if the PWS has not completed all corrective actions prior to submitting the assessment report. In this section, list all planned corrective actions to address sanitary defects identified during this assessment. For each planned corrective action, a proposed completion date must be provided. This corrective action schedule will be reviewed by MassDEP to determine if the schedule is sufficient. Note that once this

schedule has been approved by MassDEP, failure to meet this schedule constitutes a Treatment Technique (TT) violation, which requires Tier 2 Public Notice (PN) per 310 CMR 22.16(3). It is important that you proceed with scheduled corrective actions as soon as possible, and not wait for MassDEP approval of your Corrective Action Schedule to take action. (Note that any modifications that require permits must still be done in accordance with the MassDEP permitting requirements).

Finally, the last part of the section contains a statement that no sanitary defects were found. If after the assessment, the lead assessor believes that no sanitary defects were present in the water system, then they may check this box. Note that if a PWS has triggered multiple assessments, MassDEP may not consider this to be a sufficient assessment result.

Example Corrective Actions Page:

Corrective Actions	
Corrective Action Summary List all corrective actions performed prior to submitting this assessment, including any interim corrective actions directed by MassDEP.	
Corrective Action Performed:	Date Completed:
Flushed distribution system in the West St. neighborhood.	4/23/2016
Corrective Action Schedule List all PLANNED corrective actions to address sanitary defects identified during this assessment with proposed completion dates. Note once this schedule has been approved by MassDEP, failure to meet this schedule constitutes a Treatment Technique violation which would require public notification.	
Planned Corrective Action:	Planned Completion Date:
Install blow-off at the end of the dead end on West St.	6/1/2016
Implement quarterly flushing program in the West St. neighborhood.	6/1/2016
Have engineer's study performed of the West St. neighborhood to evaluate potential for looping or pipe replacement to prevent TC issues.	12/31/2016
Statement of No Sanitary Defects Found	
<input type="checkbox"/> No sanitary defects were identified during the course of this assessment	

CERTIFICATION

All complete Level 2 Assessment Forms must be signed by the Lead Assessor (the MassDEP approved party identified on Page 1 of the form).

In the event that the Level 2 Assessment Form contains a Corrective Action Schedule, the owner or responsible party for the PWS must also sign the form, certifying the timelines in the schedule.

APPROVAL/DETERMINATION OF SUFFICIENCY

Once the completed Level 2 Assessment Form has been submitted to MassDEP, the assessment and corrective actions will be reviewed. If the assessment is deemed sufficient, the form will be approved and the timelines for any future corrective actions will be enforceable deadlines.

If MassDEP determines that the assessment is not sufficient, the PWS will be notified, and will be required to have a consultation with MassDEP regarding the assessment. A revised assessment must be submitted within 30 days of the date of consultation.

FOLLOW-UP ACTIONS

CORRECTIVE ACTION SCHEDULES

If you submit a Corrective Action Schedule as part of the assessment, for any corrective actions not completed at the time the Assessment Report is submitted, you must complete the corrective actions by the date specified in the approved Corrective Action Schedule. It is required that you notify MassDEP in writing when each scheduled corrective action is completed.

At any time during the corrective action phase, you may request a consultation with MassDEP to determine appropriate actions to be taken. No changes to the approved Correction Action Schedule and timeline may be made without prior approval of MassDEP.

CCR REPORTING

For any Level 1 or Level 2 assessment that is triggered for a Community system, a special statement and health effects language must be included in the CCR regarding the assessment(s). Additional language is also required for any Treatment Technique violations or *E. coli* MCL violations. Refer to The Drinking Water Regulations 310 CMR 22.16A(8)(h) for specific requirements.

EMERGENCY REPORTING REQUIREMENTS

In the event that the PWS experiences an emergency as defined in 310 CMR 22.15(9) Emergency Reporting, the PWS will be required to follow all emergency notification requirements as well as submit an *Emergency Response Report Form 1* within 30 days. Emergencies that may be identified as part of the assessment process include vandalism, *E. coli* contamination, or loss of pressure in the distribution system. Refer to *Guidelines for Public Water Systems Appendix O – Handbook for Water Supply Emergencies* found at <http://www.mass.gov/eea/agencies/massdep/water/regulations/guidelines-for-public-water-systems.html> for more information on emergency reporting requirements.



Massachusetts Department of Environmental Protection
Bureau of Water Resources – Drinking Water Program
Coliform Bacteria Level 2 Assessment Form

RTCR-2

PWS ID#:		PWS Name:		City/Town:	
System Class: <input type="checkbox"/> COM <input type="checkbox"/> NTNC <input type="checkbox"/> TNC					
Lead Assessor:				Affiliation:	
Other Participants in the Assessment:					
Person(s) representing PWS:				Phone:	
MassDEP Personnel Consulted for Assessment:					
Compliance Period: Month		Year		Date Assessment Completed:	
Level 2 Trigger	<input type="checkbox"/> <i>E.coli</i> MCL violation				
	<input type="checkbox"/> 2 nd Level 1 trigger in 12 months				
		Date of last Level 1 trigger:			
Complete for All Positive Samples (list in chronological order)		Location ID/Name	Date Collected	<i>E. coli</i> Present?	
	1.			<input type="checkbox"/> <i>E. coli</i>	
	2.			<input type="checkbox"/> <i>E. coli</i>	
	3.			<input type="checkbox"/> <i>E. coli</i>	
	4.			<input type="checkbox"/> <i>E. coli</i>	
	5.			<input type="checkbox"/> <i>E. coli</i>	
	6.			<input type="checkbox"/> <i>E. coli</i>	
	7.			<input type="checkbox"/> <i>E. coli</i>	
	8.			<input type="checkbox"/> <i>E. coli</i>	
	9.			<input type="checkbox"/> <i>E. coli</i>	
	10.			<input type="checkbox"/> <i>E. coli</i>	
Trigger Date?	Refer to 'RTCR-2 Instructions; Instructions for Level 2 Assessment Form' for guidance on how to determine trigger date. Assessment form is due to MassDEP no later than 30 days from the trigger date.				

Check all sections completed and provide number of individual assessments within each category. Sections in **BOLD** are required for all PWSs:

- | | |
|---|---|
| <input type="checkbox"/> 1.0 Sample Site Evaluation ____ | <input type="checkbox"/> 8.0 Source – Well ____ |
| <input type="checkbox"/> 2.0 Sample protocol followed and reviewed. | <input type="checkbox"/> 9.0 Source - Surface Water Supply ____ |
| <input type="checkbox"/> 3.0 Operational, Environmental, or Security Events | <input type="checkbox"/> 10.0 Source – Spring ____ |
| <input type="checkbox"/> 4.0 Distribution System ____ | <input type="checkbox"/> 11.0 Source – Purchased ____ |
| <input type="checkbox"/> 5.0 Atmospheric Storage Facilities ____ | <input type="checkbox"/> 12.0 Water Quality |
| <input type="checkbox"/> 6.0 Hydropneumatic Storage Tanks ____ | <input type="checkbox"/> 13.0 Other Issues Identified |
| <input type="checkbox"/> 7.0 Treatment Process ____ | <input type="checkbox"/> 14.0 Summary of Incident |

**1.0 Sample Site Evaluation** Complete one form for each positive coliform sample location (routine or repeat)

Identify sample site location:

Location Code:

E.coli positive? ☐ Yes ☐ No**Chlorine Residual?** ____ mg/L ☐ Free ☐ Total ☐ Combined
(at the time of collection) ☐ Not measured ☐ No chlorination**Assessment Elements**

For any shaded box checked, it should be considered an issue and a description must be included.

Issue and/or Description

* If any element has not been reviewed, you must include an explanation.

Yes

No

Not Reviewed*

1.1 What is the regular use of the sample site? (janitor sink, hand washing, dedicated sample station, laundry sink, etc.)				<input type="checkbox"/>
1.2 Describe the location and condition (physical and sanitary) of the tap.				<input type="checkbox"/>
1.3 Were there any recent plumbing breaks, changes, or construction in vicinity of sample site? If yes, describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Is the sample location in a pit or a vault? If yes, are there issues with flooding?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Were there any low pressure events or changes in water pressure in the premises plumbing? If yes, when?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Are there any identified cross connections in the premises plumbing? Describe if present.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Were all backflow prevention devices at the sample location operational, maintained, and tested according to required schedule?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Are there any treatment devices (point of entry and/or point of use) in the premises of the sample site? If yes, describe.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Does this location have a history of positive TC samples?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Other comments on sample site?				

List all sample site corrective actions (including date). Include assessment element number.

**2.0 Sample protocol followed and reviewed***If more than one person collecting samples, use multiple tables***Person who collected samples:****Location Code(s)/Date(s):**

For more guidance of proper sampling protocol, refer to the *New England States' Drinking Water Sample Collection and Preservation Guidance Manual* (pages 36-37) found at:

<http://www.epa.gov/sites/production/files/2015-06/documents/NE-States-Sample-Collection-Manual.pdf>

Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description * If any element has not been reviewed, you must include an explanation.			
		Yes	No	Not Reviewed*
2.1 Were samples collected according to the approved Coliform Sampling Plan?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Was the tap flushed prior to sampling?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Was the tap properly disinfected prior to sample collection? (not flaming)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Were there any suspected issues with the sample containers?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Was appropriate preservative used?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Was the aerator removed from the tap?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.7 Were proper storage procedures used? (temperature, kept on ice during transport to lab)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.8 Was chain of custody properly completed and accurate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.9 Other comments on sample collection procedures.				
List all sample protocol corrective actions (including date). Include assessment element number.				

**3.0 Operational, Environmental, or Security Events***Have any of the following occurred at relevant facilities prior to the collection of TC samples?*

Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.			
		Yes	No	Not Reviewed*
3.1 Were there any operation and maintenance activities that could have introduced total coliform/ <i>E. coli</i> ? (e.g. pump maintenance). If yes, was appropriate disinfection performed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Has there been vandalism and/or unauthorized access to facilities? <u>IMMEDIATELY contact Mass State Police and MassDEP</u>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Have there been any additional/special/voluntary samples collected (including source samples) which were TC+?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4 What is your normal disinfection range?				<input type="checkbox"/>
3.5 Have there been any distribution sites with lower than normal chlorine residual?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6 Were disinfectant residuals in the distribution system lower than approved levels (0.1 mg/L if not approved level)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7 Have any other measured water quality parameters been out of normal ranges?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8 Has there been a past history of TC+ or <i>E. coli</i> in distribution system (especially in the last 24 months)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.9 Have there been any reports of community illness suspected of being waterborne (e.g., does the community public health official indicate that an outbreak has occurred.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.10 Has there been heavy rainfall / flooding / rapid snowmelt?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.11 Have there been changes in available source water (e.g., significant drop in water table, well levels, reservoir capacity, beaver activity, turnover)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.12 Have there been extremes in heat or cold?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.13 Have there been any interruptions to electrical power?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.14 Have any new sources or inactive/seasonal/emergency sources recently been introduced into the system (including bulk water or interconnections)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.15 Is there evidence of any potential sources of contamination (i.e. main breaks, low pressure, high turbidity, loss of disinfection)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



3.16 If it is a seasonal system, were there any problems during the most recent start-up procedure?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.17 Other environmental, operational, or security events?				
List all corrective actions taken (including date). Include assessment element number.				



4.0 Distribution System <i>If the PWS has multiple distribution systems, submit one sheet per system.</i>					
Identify Distribution System (if multiple):					
Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.				
		Yes	No	Not Reviewed*	
4.1 Is there evidence that the system experienced low or negative pressure in the distribution system prior to sampling? If yes, describe event and when it occurred.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.2 Have there been any water main breaks, repairs, or additions since the last clean sampling event? If yes, when, and what was the repair or addition?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.3 Has there been: a recent fire fighting event, sheared hydrant, construction, etc.?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.4 Are there previously identified unprotected cross connections in the distribution system? If yes, list them and identify if any of them are high hazard?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.5 Are there any unsanitary conditions in the pump station(s)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.6 Are fire hydrants and blow-offs maintained without leaks?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.7 Are any fire hydrant/blow-offs located in an area with a high water table or in pits?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.8 Are critical components of the distribution system secured to prevent unauthorized access (such as: pump stations, vaults)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.9 Has there been any significant change in flow direction or demand?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10 When was the last flushing event? Was it unidirectional? Was the system chlorinating during flushing?				<input type="checkbox"/>	
4.11 Is there any evidence of intentional contamination in the distribution system? <u>IMMEDIATELY Contact MA State Police and MassDEP</u>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.12 Are there pipe materials, ages, or construction issues that might contribute to TC detections?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.13 Are there dead ends or low-flow areas that might contribute to TC issues?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.14 Other comments on the distribution system.					
List all distribution corrective actions taken (including date). Include assessment element number.					

**5.0 Atmospheric Storage Tanks** Complete one form for each atmospheric storage tank.**Storage Tank Name:**Date of last complete storage tank inspection. _____ ☐ Interior ☐ Exterior ☐ Cleaned

List any unaddressed recommendations or noted deficiencies from that inspection:

As part of this Level 2 Assessment, identify what was evaluated for this storage tank:

☐ Exterior (ground level) ☐ Top ☐ Interior ☐ Other

Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.			
		Yes	No	Not Reviewed*
5.1 Were any concerns or deficiencies noted in the monthly (last 12 months) or annual tank inspection report? If yes, have they been addressed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Is the facility secured to prevent unauthorized access?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Is there any evidence of intentional contamination and/or unauthorized access at the storage tank? IMMEDIATELY Contact MA State Police and MassDEP		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.5 Does the drain/overflow line terminate at a minimum of 12" air gap?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.6 Are the overflow and vents properly screened (24-mesh non-corrodible)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.7 Is the vent turned down and does it maintain an approved air gap at the termination point?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.8 Were there any observed leaks?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.9 Are there any unsealed openings in the storage facility, such as access doors, vents or joints? Does the access have the appropriate gasket?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.10 Was there any observed physical deterioration of the tank? Could the physical condition of the tank be a source of contamination?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.11 Has there been any recent tank maintenance (i.e. painting/coating)? If yes, when? If yes, was disinfection performed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.12 Is there a mixer? If yes, is it being used continuously?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.13 Is lack of mixing or turnover an issue in the tank? Does excessive storage or variable demand contribute to turnover issues?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.14 What was the measured chlorine residual (total/free) of the water exiting the storage tank on the date of the assessment?				<input type="checkbox"/>



5.15 Where is the sample tap located? If it is a location representative of the tank, how far away is it from the tank?				<input type="checkbox"/>
5.16 Was the sample collected when the water was exiting the tank? Does the PWS have procedures to ensure that samples are collected when the tank is emptying?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.17 Other comments on the storage tank?				
List all storage tank corrective actions taken (including date). Include assessment element number.				

**6.0 Hydropneumatic and Pressure Storage Tanks** *Complete one form for each tank.
One form may be completed for multiple hydropneumatic storage tanks in the same location.***Source Name/Location:**

Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.			
		Yes	No	Not Reviewed*
6.1 Is the facility secured to prevent unauthorized access?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Is there any evidence of intentional contamination at the storage tank? IMMEDIATELY Contact MA State Police and MassDEP		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.3 Were there any observed leaks?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4 Was there any observed physical deterioration of the tank? If yes, could the physical condition of the tank be a potential source of contamination?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.5 Is the pressure tank maintaining an appropriate minimum pressure (per manufacturer's specifications)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.6 Has there been any recent tank maintenance (i.e. painting/coating)? If yes, when? Was disinfection performed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.7 Is there evidence of the tank being waterlogged?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.8 Were samples representative of the water from this tank collected? If so, what were the results?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.9 What was the measured chlorine residual (total/free) of the water exiting the storage tank on the date of the assessment?				<input type="checkbox"/>
6.10 Other comments on the storage tank?				

List all hydropneumatic tank corrective actions taken (including date). Include assessment element number.



7.0 Treatment Process *If applicable.*
PWS with multiple treatment plants may choose to complete multiple sheets.

Briefly describe the treatment process(es) at the PWS:

Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.			
		Yes	No	Not Reviewed*
7.1 Were there any interruptions in treatment (lapses in chemical feed, turbidity excursions, disinfection)? If yes, provide details for which part, when and for how long? Were alarms triggered during the treatment interruptions?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2 Are treatment devices or filter media operational and properly maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.3 Are any chemicals past their expiration dates?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.4 Were unsanitary conditions observed in the treatment plant or in chemical storage areas?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.5 Has there been any recent installation or repair of treatment equipment? If yes, was proper disinfection performed?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.6 Were there any recent changes in the treatment process (e.g., addition of a process, change in chemical or dosage, change in pH)? If yes, provide details for the change and when it occurred.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.7 What was the chlorine residual measured at the entry point? Is it within the normal range?				<input type="checkbox"/>
7.8 If the PWS uses phosphate, is there a chlorine residual in the chemical tank of at least 10 mg/L? (not applicable to zinc)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.9 If the PWS uses phosphate, is there a chlorine residual being maintained in the distribution system?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.10 Are the test kits and instruments calibrated appropriately? Are kits being used prior to expiration date?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.11 Did a review of the filtered water turbidity reveal any anomalies? (SWTR forms F and J)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.12 Were there any failures to meet the CT requirements? (SWTR and GWR only)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.13 Were the water flow rates through the treatment plant above the rated capacity of the plant (e.g. filter loading rates, clearwell approved rates, backwash frequency, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.14 If a sediment filter is present, when was the last time it was changed?				<input type="checkbox"/>
7.15 Other comments on the treatment system.				
List all treatment corrective actions taken (including date). Include assessment element number.				



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**8.0 Source – Well** *Use one sheet per active groundwater source*

Source Name:		Source ID:		
Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.	Yes	No	Not Reviewed*
8.1 Any unsanitary conditions observed in or around the well (insect or animal activity)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Are there any potential cross connections or interconnections impacting the source?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.3 Where is the raw water sample tap located in relation to the well? Is it prior to storage, treatment, and all other system components (including check valves)?				<input type="checkbox"/>
8.4 Has sampling of the raw water indicated total coliform in the well? If yes, answer the additional questions below.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.5 Has there been a change in the pumping conditions of the well (volume or rate)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.6 Is the well cap properly sealed and water tight? Are there any observable failures in the cap, conduit, or well casing?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.7 Is the well cap vented and is the vent screened?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.8 Do the vent and any discharges terminate in an approved air gap?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.9 How far does the casing extend above grade?	Height:			<input type="checkbox"/>
8.10 Was there evidence of standing water or flooding having occurred near the wellhead?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.11 Is the ground properly graded to shed water away from the wellhead?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.12 Is the wellhead secured to prevent unauthorized access?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.13 Have there been any activities or land uses in the Zone I that may have contributed to positive bacteria samples?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.14 Is the well in a pit? If yes, is the pit gravity drained, or is there a sump? If it is an automated pump, is it functional?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.15 If the well is a flowing artesian well, is the discharge directed downgradient from the wellhead?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.16 Is there an abandoned well nearby that may be impacting this well?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



8.17	Was the line pressure-tested to determine if there was a failure in the service line or pitless adapter?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.18	Has the well construction been evaluated (i.e. by camera in the well)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.19	Other comments on the well.				
List all well corrective actions taken (including date). Include assessment element number.					

**9.0 Source - Surface Water Supply** *Use one sheet per active source*

Source Name:		Source ID:		
Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.	Yes	No	Not Reviewed*
9.1 Have there been any activities or land uses in the Zone A that may have contributed to positive bacteria samples (i.e. fertilizer applications, discharges, or stormwater overflow)?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Have there been any algal blooms?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.3 Is the intake screened?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.4 Has the intake screen been cleaned and maintained within the last year?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.5 Any other changes in source water quality that might affect the treatment process or distribution water quality?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.6 Other source water comments				
List all surface water source corrective actions taken (including date). Include assessment element number.				

**10.0 Source – Spring** *Use one sheet per active source***Source Name:****Source ID#:**

Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.			
		Yes	No	Not Reviewed*
10.1 Are there any unsanitary conditions in the spring or the surrounding area?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Is the construction of the spring's water collection and storage system adequate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 Is the spring secured to prevent unauthorized access?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.4 Other comments on the spring system.				

List all spring corrective actions taken (including date). Include assessment element number.

**11.0 Source – Purchased** *Use one sheet per active source*

Location of Interconnection:		Source ID#:		
Wholesale PWS:				
Assessment Elements For any shaded box checked, it should be considered an issue and a description must be included.	Issue and/or Description *If any element has not been reviewed, you must include an explanation.			
		Yes	No	Not Reviewed*
11.1 Have discussions with the wholesaling system revealed any issues that might have contributed to bacteriological contamination?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2 Has sampling of the interconnection indicated total coliform in the water being supplied from the wholesaling system?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.3 Is there an issue with incompatible disinfection or treatment chemicals between the wholesaler and purchasing system?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.4 Is the sample collection location at the interconnection? If not, is it collected from a "representative" location further downstream?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.5 Has the direction of flow changed through the interconnection?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.6 Is there evidence of flooding in the meter vault?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.7 Other comments on the purchased source?				
List all purchased source corrective actions taken (including date). Include assessment element number.				

**12.0 Water Quality Review:**

Indicate what additional water quality data was reviewed or collected as part of this assessment (attach analytical results for additional sampling collected as part of the assessment).

- | | |
|--|--|
| <input type="checkbox"/> Chlorine residual | <input type="checkbox"/> Heterotrophic Plate Count |
| <input type="checkbox"/> Turbidity | <input type="checkbox"/> pH |
| <input type="checkbox"/> Coliform bacteria | <input type="checkbox"/> Customer complaint logs |
| <input type="checkbox"/> Other: | |
| <input type="checkbox"/> Other: | |

Discuss any relevant findings or issues identified

13.0 Additional Comments or Issues Identified: *Complete if necessary***14.0 Summary of Incident leading to/resulting from this Level 2 trigger:**

Include the date that a clean round of samples was ultimately collected (if collected prior to assessment submittal).	
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**Corrective Actions****Corrective Action Summary**

List all corrective actions performed prior to submitting this assessment, including any interim corrective actions directed by MassDEP.

Corrective Action Performed:	Date Completed:

Corrective Action Schedule

List all **PLANNED** corrective actions to address sanitary defects identified during this assessment with **proposed completion dates**. Note that once this schedule has been approved by MassDEP, failure to meet this schedule constitutes a Treatment Technique violation which would require public notification.

Planned Corrective Action:	Planned Completion Date:

Statement of No Sanitary Defects Found

☐ No sanitary defects were identified during the course of this assessment

**Certification:**

I certify under penalty of law that I am the person authorized to fill out this form, and the information contained herein is true, accurate and complete to the best of my knowledge and belief.

**INDIVIDUAL WHO HAS BEEN AUTHORIZED BY MASSDEP TO PERFORM THIS LEVEL 2
ASSESSMENT (LEAD ASSESSOR)**

Print Name: _____ Title: _____
Signature: _____ Date: _____
Email: _____ Phone #: _____

**PWS OWNER OR PWS RESPONSIBLE PARTY (MUST ALSO COMPLETE THE FOLLOWING
CERTIFICATION IF THIS ASSESSMENT INCLUDES A CORRECTIVE ACTION SCHEDULE):**

Print Name: _____ Title: _____
Signature: _____ Date: _____
Email: _____ Phone #: _____

MassDEP Review *To be completed by MassDEP.*

	Yes	No	Comments
Has assessment been successfully completed?	<input type="checkbox"/>	<input type="checkbox"/>	
Likely reason for bacteriological occurrence has been found.	<input type="checkbox"/>	<input type="checkbox"/>	
PWS has other open violations or deficiencies that may have contributed to this incident.	<input type="checkbox"/>	<input type="checkbox"/>	
PWS has corrected the problems.	<input type="checkbox"/>	<input type="checkbox"/>	

Additional Comments: _____

Assessment is deemed ☐ Acceptable ☐ Deficient

Corrective Action Plan ☐ Approved ☐ Denied ☐ Approved with changes (attached)

Name of MassDEP reviewer: _____ Date: _____

☐ WQTS data entry complete ☐ Approval/deficiency notice sent: