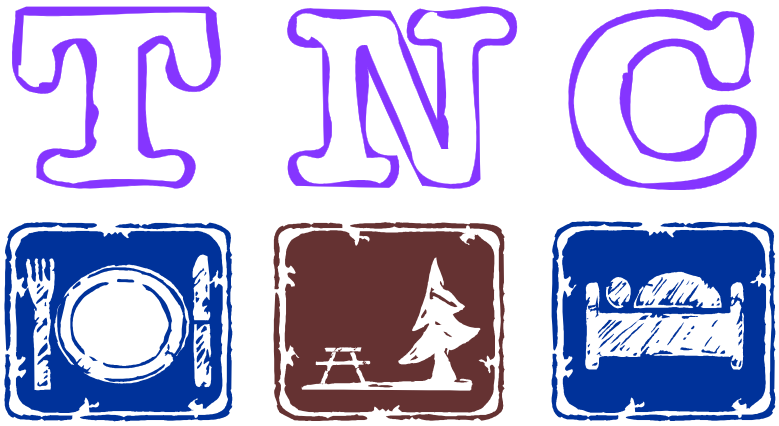



# Managing Your TNC Drinking Water System

## A Guide to the Massachusetts Requirements for Transient Noncommunity Public Water Systems (TNC)

**June 1998**

Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Protection Drinking Water Program

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMEN T OF ENVIRONMENTAL PROTECTION
O N E W I N T E R S T R EE T , B O S TO N , M A 02 1 0 8 6 17 - 2 92 - 5 50 0

ARGEO PAUL CELLUCCI
Governor

TRUDY COXE
Secretary

DAVID B. STRUHS
Commissioner

**Attention: Transient Noncommunity Drinking Water Systems**

June 1998

Dear Owner of Operator:

The Massachusetts Department of Environmental Protection (DEP) has identified your establishment as a Transient Noncommunity Public Water System (TNC). Your system is one of approximately 875 TNCs in the state. Some examples of TNC systems are campgrounds, motels, gas stations, rest stops, restaurants, and golf courses.

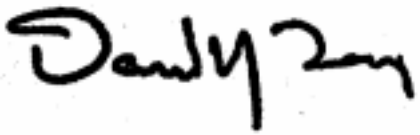
As an owner or operator, it is your responsibility to meet federal and state drinking water standards and provide high quality drinking water for your customers. ***Managing Your TNC Drinking Water System, A Guide to the Massachusetts Requirements for Transient Noncommunity Public Water Supplies*** will help you in complying with Massachusetts Drinking Water Regulations, 310 CMR 22.00. This guide contains information on initial and routine testing, treatment devices, sample reporting forms, and the regulations that apply to TNCs. Additionally there is a directory of sources for assistance and public outreach.

The DEP expects you to keep this guide available for daily use and will be periodically be sending you three hole-punched updates for you to insert. During DEP inspections, staff will review and update this guide with you as needed.

This Guide will be available on the internet at the DEP address; http://www.state.ma.us/dep. Additional hard copies may be purchase through the DEP/ Drinking Water Program, 6th floor, 1 Winter St., Boston, MA 02108 for a fee of $8.00. Checks should be payable to the Commonwealth of Massachusetts.

We encourage you to use this guide in complying with the law and in providing high quality water to your customers. Please contact us if you see something missing from the guide or to offer suggestions for outreach materials. You may reach us at te DEP/ Drinking Water PRogram at 617-292-5770.

Sincerely,



David Y. Terry, Director
Drinking Water Program

cc. DEP Drinking Water Programs, Springfield, Worcester, Woburn, Lakeville

tnccov.doc

## ACKNOWLEDGMENTS

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Additionally, we thank Donovan Bowley, Paula Caron, Tara Gallagher, Darren Hersh, Judith Hutchinson, Elizabeth Kotowski, Yvette dePeiza, Marie Tennant, George Zoto, and the staff of the Water QualityAssurance section .

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This information is available in altermate format upon request to
Bette Stewart, ADA Coordinator, BAS/HR, 4th floor, One Winter Street, Boston, MA 02108

Publication of this information is supported by the Massachusetts Safe Drinking Water Act Assessment

# Managing Your TNC Drinking Water System

A Guide to the Massachusetts Requirements for Transient Noncommunity Public Water Systems

## CONTENTS

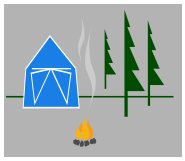


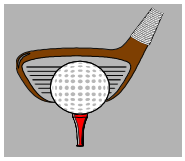
(Any text in the manual that is in *"Quoted Italics"* can be found in the appendices.)

## INTRODUCTION

The Massachusetts Department of Environmental Protection (DEP) has identified your establishment as a **TRANSIENT NONCOMMUNITY (TNC)** public water system. To confirm your system's designation as a TNC, see Appendix B.

A **TRANSIENT NONCOMMUNITY** public water system (PWS) is any publicly or privately owned system that provides piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily for at least 60 days per year. This includes, but is not limited to, campgrounds, motels, gas stations, golf courses, restaurants and roadside rest stops.





Drinking water uses, defined under Federal and Massachusetts regulations, include all sanitary functions in which the public has access to drinking water. This includes, but is not limited to, bubblers, coffee makers, post mixed beverage machines and restroom facilities. Serving bottled water on the premises does not exempt your system from meeting the Massachusetts public drinking water requirements.

As an owner and/or operator of your water system, you should be familiar with the *Massachusetts Drinking Water Regulations 310 CMR 22.00* (See Appendix I) because you are responsible for seeing that your system consistently meets state and federal drinking water quality standards. Compliance with the law provides your customers with added protection against waterborne disease.

This handbook is intended to serve only as a guide and contains material determined to be of most value and interest to the owners and operators of TNC public water systems. It does not relieve you of any other public water supply responsibilities under current state policies and regulations. Complete copies of the regulations and policies can be purchased from the State House Bookstore in Boston and Springfield. See Appendix A.

## GENERAL PURPOSE AND RESPONSIBILITIES

The Massachusetts Drinking Water Regulations are designed to protect the public health and general welfare by ensuring that water systems in Massachusetts provide water that is safe to drink. These regulations took effect on June 24, 1977, and were updated on March 21, 1997.

The Department of Environmental Protection (DEP) is the primary enforcement authority under the federal Safe Drinking Water Act (SDWA).

As the operator/owner of a PWS, it is your responsibility to:

- maintain and provide potable drinking water in compliance with the regulations;
- to report your water quality test results to the DEP; and
- to maintain your system under the supervision of a certified operator.

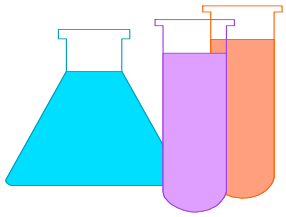
## WATER QUALITY TESTING AND REPORTING

To determine if you are providing water that is safe to drink, all transient noncommunity water supplies must initially test for the contaminants listed in Appendix C . Submit these test results to DEP within 60 days of being registered as a public water supply.

**Routinely test for coliform bacteria, nitrate, nitrite, and sodium** according to the sampling schedule issued to your facility by DEP. Please note, the DEP may require additional testing as needed. An example of a *TNC sampling schedule* is provided in Appendix C.

For a copy of your specific sampling schedule, call your DEP Regional Office.

**Use a Massachusetts-certified laboratory to test for each drinking water contaminant.** DEP will reject all reports submitted by an uncertified laboratory, and will require you to retest. A list of all Massachusetts certified laboratories may be obtained through the DEP's Wall Experiment Station at 978-682-5237 or the DEP home page at: http://www.dep.state.ma.us.



**Submit results to DEP on the required forms.** A certified laboratory will usually report the test results on DEP forms upon request. DEP will reject all results submitted on the incorrect form.

**Report the results of every required test.** Do this within 30 days of receiving test results and no later than 10 days after the end of the reporting period.

**Follow proper collection procedures or the sample results could be invalid.** Samples can be collected by a certified operator, a certified laboratory, or someone who has been properly trained in this proceedure. Please see Appendix C for Proper *"Sampling Procedures"*.

## COLIFORM BACTERIA

Coliform bacteria are fairly common in nature. They are found in the intestines of warm-blooded animals (including humans), and in plants, soil, air, and water. Coliform bacteria are usually not harmful, however their presence in water may indicate that the water is polluted and may contain disease-carrying organisms.

Coliform bacteria samples should be taken at a tap that is representative of the water throughout the distribution system. These sites should be listed on the system's *"Coliform Sampling Plan"* and filed at your DEP Regional Office (see Appendix D). If coliform bacteria are not found in the water sample, you passed the coliform test. Continue performing routine tests as designated by your schedule.

If coliform bacteria are found in your water sample and you have exceeded the MCL, immediately notify your DEP regional office. The DEP will assist you in determining the cause of the contamination and taking the needed steps to comply with the regulations. You should also complete and mail a copy of the *"Coliform Violation Evaluation Survey"* form to your regional DEP office. This form will help DEP to track the cause of the coliform occurrence and help to eliminate its presence. A copy of *"The Total Coliform Rule Summary"* is included for assistance. See Appendix D for these forms.

## NITRATE AND NITRITE

These inorganic chemicals are used in fertilizers, are found in sewage and wastes from humans and farm animals, and generally get into drinking water from these activities. High levels of nitrate and/or nitrite in drinking water have caused serious illness and sometimes death in infants under six months of age.

Nitrate is converted to nitrite in the body. Nitrite interferes with the oxygen carrying capacity of blood. This is an acute disease in that symptoms can develop rapidly, especially in infants. This condition is called methemoglobinemia or "blue baby" syndrome. In most cases, health deteriorates over a period of days. Symptoms include shortness of breath and cyanosis (gray/blue color) of the skin. Expert medical advice should be sought immediately if these symptoms occur.

Nitrate and nitrite must be sampled at the entry point to the distribution system which is representative of each well after any treatment. The U.S. EPA's maximum contaminant level (MCL) for nitrate in drinking water is 10 mg/L, and nitrite is 1.0 mg/L. The MCL for nitrate and nitrite combined is 10 mg/L.

## SODIUM

Sodium is a naturally occurring common element found in soil and water. The DEP guideline is 20 mg/L for sodium. This guideline represents a level of sodium in water that physicians and sodium sensitive individuals, such as those with high blood pressure, should be aware of in cases where sodium intake is being monitored.

Sodium must be sampled at the entry point to the distribution system which is representative of each well after any treatment.

In addition to reporting sodium results to the DEP, you must also notify your local Board of Health and the Massachusetts Department of Public Health (DPH) if your sodium result is greater than 20 mg/L. A sodium *"Notification Form"* is included in Appendix E for your convenience.

## REPORTING REQUIREMENTS

If you fail to comply with any of the monitoring requirements for coliform, nitrate, nitrite, sodium, or any other contaminant that DEP may require, you must contact DEP within 24 hours.

You must submit a completed annual statistical report to the DEP in January. DEP will send you a statistical report form in December of each year. See Appendix F for this form.

## CERTIFIED OPERATOR REQUIREMENTS
### (310 CMR 22.11 B)

Is your water system operated by a state-certified drinking water operator? All public water systems in Massachusetts **must** be managed by a person with a certificate of competency from the Massachusetts Board of Certification of Drinking Water Supply Facilities. This includes very small systems (serving 500 people or fewer), water vending machines, and bulk water operations.

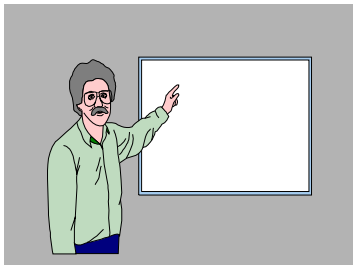
Certified operators are the most important resource for providing a safe supply of water to the public. They are trained in the workings of public water systems as well as the rapidly changing state andfederal drinking water laws.

If your system is not being run by a certified operator, do one of the following:

1. You or a staff person can become certified as a Very Small System (VSS) or Water Vending Machine (VND) operator by taking an examination and meeting certain education and experience requirements; or
2. Hire a certified operator of your choice on a contract basis.

Examinations to become a certified operator are given by the National Assessment Institute (NAI) (508-624-0826) in April, July, and November. More than 80 percent of the people who take the VSS exam pass. There is a fee to take the exam.

After passing the examination, you must apply to the Board for cert-ification. There are fees for application and renewal.



Certified operators must maintain their level of competency and knowledge of the regulations through continuing education. Operators are required to earn five training contact hours (TCHs) each renewal period. See the Appendix A for contact names and numbers.

If you choose to hire an operator, refer to the "Directory of Public Water System Certified Operators for Contract Services" which is available at the State House Bookstore (see Appendix A) or consult the enclosed *"Certified Operator Compliance Handbook",* (see Appendix G). Use the *"Certified Operator Compliance Form"* to record your hiring. Also use the *"Certified Operator Inspection Form"* to ensure that your operator is providing all of the services you need. Please keep copies of these completed and signed forms for DEP review.

In the meantime, you **must** apply for **Temporary Emergency Certification** to keep your system in compliance. This certificate will allow you to designate a person to operate your system for six months while you become certified or hire a certified operator. See Appendix G for a *"Temporary Emergency Certification Application"* form.

## PUBLIC NOTIFICATION REQUIREMENTS

Anytime there is even a slight chance the water you supply could cause a health hazard for your customers, you are required to notify them as soon as possible. The Environmental Protection Agency (EPA) and the DEP require this mandatory notification whenever there is an exceedence of a MCL. For more specific language on this topic please consult The Massachusetts Drinking Water Regulations 310 CMR 22.16 (Copies are available at the Statehouse Bookstore). If you fail to notify your customers you may be subject to civil penalties.

If a public notice is warranted, it must provide a clear and readily understandable explanation of:

- the violation;
- any potential negative health effects;
- the population at risk;
- steps the system is taking to correct the violation; and
- preventative measures the consumer should take until the violation is corrected.

The notice must:

- be clear and conspicuous in design;
- contain non-technical language;
- use print that's easily read;
- contain the phone # of a knowledgeable person; and
- contain multilingual information, where appropriate.

Within 14 days of a violation you must:

- post the Public Notice for a minimum of 3 weeks (or for as long as the violation exists) in at least 2 conspicuous locations in each building that is served by the public water system; and
- mail a copy of the Public Notice to your DEP Regional Office.

The more serious the health risk, the tougher the Public Notification requirements. The timing, required wording, and delivery of public notices vary depending on the seriousness of the health risk involved.

Contact your DEP Regional Office for Public Notification forms for specific violations especially Maximum Contaminant Level (MCL) exceedances. See the Appendix H for a sample *"Public Notification Form"* for monitoring and reporting violations.

## VIOLATIONS

DEP will issue you a Notice of Noncompliance (NON) when you fail to comply promptly with a reporting requirement or a laboratory test that shows an exceedance of the maximum con-taminant level (MCL). This notice explains the nature of the violation, the regulations that were violated, corrective and public notification actions which must be taken, and the deadline for such actions.

Once you respond to DEP on all corrective actions, such as sampling for a contaminant and submitting copies of the public notice, your system will return to compliance.

All violations are kept on record and reported to the United States Environmental Protection Agency (US EPA). If you accumulate four NONs within a 12-month period, your system will be classified as a significant noncomplier (SNC). Before you become a SNC you will be required to submit a plan detailing what specific actions will be taken to prevent any further noncompliance. In addition, you may be subject to federal enforcement action if you become an SNC.

If you fail to take any action required by DEP by the prescribed deadline, or if you otherwise fail to remain in compliance, you could be subject to legal action including criminal prosecution, court-imposed civil penalties, or civil administrative penalties. A civil administrative penalty may be assessed by DEP for every day that you are out of compliance with the requirements.

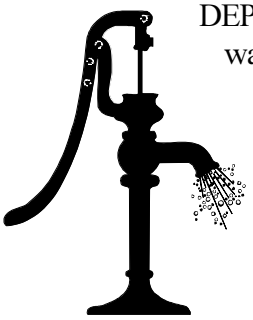
## WELLHEAD PROTECTION REQUIREMENTS

***Zone I***

The primary protection area around a public water system well is known as the Zone I. The Zone I is a 100 to 400 foot protective radius around the well which must be owned or controlled by the water supplier using conservation restrictions. The extent of the protective radius depends on the approved yield of the well.

If you do not know the radius of your Zone I, Contact DEP for assistance.

To protect your well from possible sources of contamination, only activities that are directly related to the PWS and are nonthreatening to the water quality are allowed in the Zone I. Regularly inspect your protection area to be sure the water quality is not being downgraded.



DEP will not approve any new public water supply well which cannot meet Zone I requirements, **and** which is located where another approved public water system can reasonably supply the customers.

Any public water supply well which has come on-line without prior DEP approval since January 1, 1994 and does not meet Zone I requirements must conduct a pumping test, sample for all applicable water quality parameters, and perform other actions as required by DEP.

***Interim Wellhead Protection Area***

The Interim Wellhead Protection Area (IWPA) is based upon the approved yield of the well and ranges from a 400 foot to a one half mile radius. The IWPA represents the recharge area of the well. You do not have to own or control this area around your well; however, be aware of the land use activities as they can affect the water quality of your well. If you do not know the radius of your IWPA contact DEP for assistance.

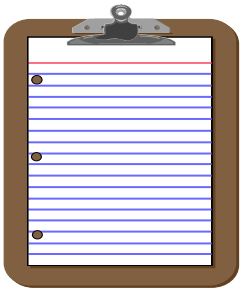
**Requirements:**

- Restrict access to the well.
- Inspect your protection area regularly to be sure that there are no activities that are a potential threat to water quality.
- Ensure the activities of the business or institution served by your PWS are protective of the water supply.
- Slope parking areas and concrete pads under storage areas away from the well; periodically check their condition, and repair any permeable areas.
- Locate maintenance sheds and chemical storage areas outside Zone I.
- Do not use or store pesticides or herbicides in the Zone I .
- Do not locate septic tanks or leach fields in the Zone I. Pump septic tanks every two years. Never dump hazardous substances down drains.
- Inform your staff and water users of potential threats.
- Request a copy of DEP's *"Wellhead Protection Tips for Small Public Water Systems."*
- Seek assistance from your local Board of Health in managing your wellhead protection area.

See Appendix H for the *"Source Protection Sign Order Form."*

## SANITARY SURVEYS

A sanitary survey is an onsite review of the water sources, facilities, equipment, operation and maintenance of a public water system for the purpose of evaluating the adequacy of the system to produce and distribute safe drinking water. All TNCs must conduct a sanitary survey of their system by June 30,1999 and every 5 years thereafter. These are to be conducted by a Massachusetts Certified Drinking Water Operator or other qualified outside contractor. DEP will conduct audits of these surveys as needed. During audits and other inspections DEP staff will review all records including complaint logs. See Appendix H for a copy of the *"Complaint Log"*. DEP will provide you with the appropriate survey form for use by your certified operator.



***Right of Entry***
Employees of the Commonwealth have the authority, upon presentation of their credentials, to enter your facility for the purpose of inspecting, surveying and sampling public water systems.

## CROSS CONNECTIONS

A cross connection is any actual or potential connection between a distribution pipe of potable water from a public water system and any water pipe, soil pipe, sewer, drain or other unapproved source. Cross Connections can cause severe illness and death and must be corrected.

Nonpotable water or chemicals used in equipment or a plumbing system can end up in the drinking water line as a result of back pressure or back siphonage. The outside watering tap and garden hose are common sources of cross connections. The garden hose creates a hazard when submerged in nonpotable water such as a swimming pool or when attached to a chemical sprayer for weed-killing. Businesses such as photo labs, beauty salons, and doctor and dental offices can also be sources of cross connections. Cross connections can also occur in air conditioning or cooling systems, fire protection systems, lawn irrigation systems, and high pressure boilers.

**Requirements:**
1. Have your facility surveyed by a cross connection surveyor to make sure you are not creating a cross connection.

2. Insure that all plumbing changes are approved by the local plumbing inspector.

3. Do not attach any pesticide, chemical, or any other nonpotable liquid applicators to your water line.

4. Install hose bib vacuum breakers on all outside faucets. The hose bib vacuum breaker isolates garden hose applications, protecting your drinking water supply from contaminants that could be drawn into your facility through the hose.

5. Color code all potable lines in dark blue and all nonpotable lines in colors listed in the DEP *Guidelines and Polices for Public Water Systems.*

6. Eliminate every cross connection. If this is not possible, install backflow preventers which are approved by DEP. You must get a DEP permit for these devices.

For further information on cross connection prevention, certified testers and surveyors, call your regional DEP office or the New England Water Works Association (NEWWA) at 978-478-6996.

## NEW CONSTRUCTION OR REPLACEMENT OF A WELL

Contact your DEP Regional Office for guidance and technical assistance if you are constructing a new well or replacing a well. Plans and permits must be submitted and approved by the DEP before a well is drilled and placed on-line. You will also have to document your control or ownership of the Zone I land area. Costs of having your small well approved will include a $700 DEP permit fee for Site Source/ Conduct Pumping Test (BRP WS 13) and an $800 DEP permit for Pump Test Report/Construction Source (BRP WS 15) plus consultant fees.

## TREATMENT DEVICES AND SYSTEM IMPROVEMENTS

Occasionally a water supply may require treatment with a water softener, filter, chemical additives, or system modifications. All devices and major system modifications must have prior DEP approval. Submit plans and specifications, designed by a professional engineer, to the regional office for review and approval. DEP will ensure that a proposed treatment is appropriate for the water supply and that your certified operator is qualified to properly maintain the treatment system. DEP permit fees for these modifications are approximately $200 to $300.

## SALE OF WATER SUPPLY LAND

No supplier of water may sell, lease, assign, or otherwise dispose of, or change the use of, any lands used for water supply purposes without the prior written approval of DEP. The supplier must demonstrate that such action will have no significant adverse impact upon the water supplier's present and future ability to provide continuous adequate service to consumers under routine and emergency operating conditions. Emergencies include contamination of sources, distribution system failure, and shortage of supply (310 CMR 22.24).

## PUBLIC WATER SUPPLY DECLASSIFICATION / RECLASSIFICATION

Your system is currently classified as a TNC public water system because it serves over 25 people a day at least 60 days of the year.

If your system serves at least 25 of the same persons (such as employees) over 4 or more hours per day,

4 or more days per week, at least 180 days (six months) of the year, your system will be reclassified as a Non-Transient Non-Community (NTNC) public water supply. Your system will be required to comply with all additional NTNC regulations and testing requirements. Please call your DEP Regional Office to discuss reclassification guidelines.

If at any time you feel that your system does not meet your current classification criteria (you hook up to municipal water or your business changes and drops below the 25 people served per day) contact your DEP regional office to discuss your situation and request a declassification form.

If DEP determines that you do not meet the criteria for a public water system you will be declassified and no longer subject to the Massachusetts Drinking Water Regulations. Instead, the Local Board of Health will be notified and your private system will be subject to their regulations.

## DRINKING WATER ASSESSMENT

All public drinking water systems are required to pay an annual assessment to the DEP for protection of public water supplies. This assessment is intended to make up the difference between the Federal Safe Drinking Water Act (SDWA) requirements and the funding available through state appropriation and federal grant to implement the required SDWA program. The assessment is billed by DEP to the public water system to be collected from the end user or customer. This money is also used to provide technical assistance and outreach to suppliers who must ensure high quality water for their customers. The assessment also helps suppliers comply with state and federal mandates under the Safe Drinking Water Act. This amount can be reduced if the system installs meters. Most TNCs are assessed at $35.00 per year.

## ESTIMATED ANNUAL COST OF MANAGING A TNC

Start-Up Costs/Permits:
$1500 + Consultant Fees

Initial Water Quality Testing:
$600 - 1600

Routine Water Quality Testing:
$120 - $250

Assessment Fee: $35

Certified Operator Contract:
$200 - $2000
**or**
Self Certification Fees
(Exam/Appl/License): $78

Routine Operation and Maintenance:
$20 - $200

# Appendices

**Appendix A: Technical Assistance and Outreach Directory**

**Appendix B: DEP Fact Sheet**
"Are You a Public or Private Water System?"

**Appendix C: Basic Sampling**
Existing Source-Initial Water Quality Testing
Sampling Procedures
Sample Schedule
DEP Water Quality Testing Forms

**Appendix D: Coliform**
Guidelines for Selecting Coliform Sampling Points
The Total Coliform Rule Summary
Coliform Sampling Plan
Coliform Violation Evaluation Survey

**Appendix E: Sodium**
Sodium Handbook
Notification Form

**Appendix F: Annual Statistic Report for 1997**

**Appendix G: Certified Operator Compliance Handbook**

**Appendix H: Forms**
Public Notification Form
Complaint Log Form
Source Protection Sign Order Form

**Appendix I: Drinking Water Regulations 310 CMR Section 22.00**

# Appendix A

## Technical Assistance and Outreach Directory

# TECHNICAL ASSISTANCE AND OUTREACH DIRECTORY

**GOVERNMENT LISTINGS:**

**DEP Boston (Main Office)**
**617-292-5770**
**Drinking Water Program**
One Winter Street 6th Floor
Boston, MA 02108

**DEP Western Region**
**413-784-1100**
436 Dwight St.
Springfield, MA 01103

**DEP Central Region**
**508-792-7650**
627 Main Street
Worcester, MA 01608

**DEP Northeast Region**
**978-661-7600**
205-A Lowell Street
Wilmington, MA 01887

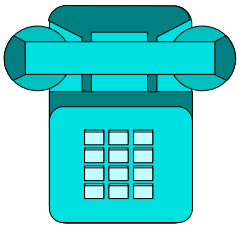
**DEP Southeast Region**
**508-946-2700**
20 Riverside Drive
Lakeville, MA 02347

**DEP Wall Experiment Station**
**978-682-5237**

**DEP Certified Operator Requirements**
**617-556-1191 or 617-292-5770**
*Contact for temporary certification, training certification, and training guidance.*

**DEP Drinking Water Home Page**
**http://www.state.ma.us/dep/brp/dws**
*The Program's Home Page includes links to a variety of other sites, including other DEP bureaus and state environmental agencies.*

**DEP Comment Box**
E-mail the Drinking Water Program with your suggestions or comment on rules or regs by e-mail. The address is: DWP.Comment@state.ma.us



**DEP Home Page**
**http://www.state.ma.us/dep**

**DEP "In The Main"**
**617-292-5534**
*Newsletter published by the DEP, Drinking Water Program to inform PWS officials about new state and federal activities, regulations, training programs, and workshops.*

**US Environmental Protection Agency (EPA)**
**Region 1 - Source Water Protection**
**617-565-3616 or 617-565-4721**
*Contact for New England resource protection issues, cross-state resource protection and national legislation*

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**US EPA Home Page**
**http://www.epa.gov**

**Safe Drinking Water Act Hotline (EPA)**
**800-426-4791 (9:00 AM - 5:00 PM EST)**
*The Hotline's primary function is to assist the regulated community and the public with the regulations and programs developed in response to the Safe Drinking Water Act Amendments. Also contact for information on water quality, drinking water, technical publication, public education materials, and source protection planning.*

**NON-GOVERNMENT LISTINGS:**

**American Water Works Association**
**800-366-0107 or 800-426-4791**
Small System Operational Support
*A service for small water systems serving 1000 connections or less. This service extends and complements other information resources aimed at increasing small system viability and compliance. Services provided: Practical and educational information in water quality, regulations, operations, management, and safety.*

**Massachusetts Water Works Assosication (MWWA)**
**978-692-0199**
*Professional association for waterworks industry. Contact for operator training, educational materials, and newsletter.*

**National Drinking Water Clearing House**
**800-624-8301**
*Services provided: Free Newsletters: "On Tap" and "Water Sense"; Free Telephone Consultations; Computer Bulletin Board; Referrals; Products (educational, government publications, etc.).*

**Natural Resource Conservation Service (formerly Soil Conservation Service)**
**413-253-4350 (Central Ma)**
*Contact for soil conservation assistance and maps.*

**New England Water Works Association,**
**508-478-6996**
*Professional association for waterworks industry. Contact for training courses, cross connection prevention, public information and assistance.*

**Northeast Rural Water Association (NeRWA)**
**802-660-4988**
*NeRWA's primary aims are to help the small system operator provide an adequate supply of quality water to rural residents and to help the system meet the requirements of the Safe Drinking Water Act. NeRWA's free services include certified operator training and on-site assistance with sampling, maintenance, and operations.*

**University of Massachusetts Extension, Natural Resources and Environmental Conservation Program**
**413-545-2188**
*Contact for watershed protection, public education materials, wastewater management, septic systems, capacity building and non-point source pollution.*

**Watershed Associations**
**617-727-1614**
*Contact for watershed resource issues, protection, water sampling, data collection, recreational and educational events. Contact Riverways Program for listing at number above.*

**Rural Community Assistance Program (RCAP)/ RHI**
**978-297-5300 or 800-488-1969**
*Provides training and technical assistance to rural communities on improving their drinking water systems. These services are provided at no cost to the group or community involved.*

**Publications Available At:**
State House Bookstore
State House, Room 116
Boston, MA 02133
617-727-2834

State House Bookstore
21 Elm Street
Springfield, MA 01103
413-784-1376

*Many publications are available including the Massachusetts Drinking Water Regulations (310 CMR 22.00) and 1996 Guidelines and Policies for Public Water Systems, Vol. I and II*

*For a listing of available publications at the statehouse bookstore use the internet at:*
http://www.state.ma.us/sec/spr

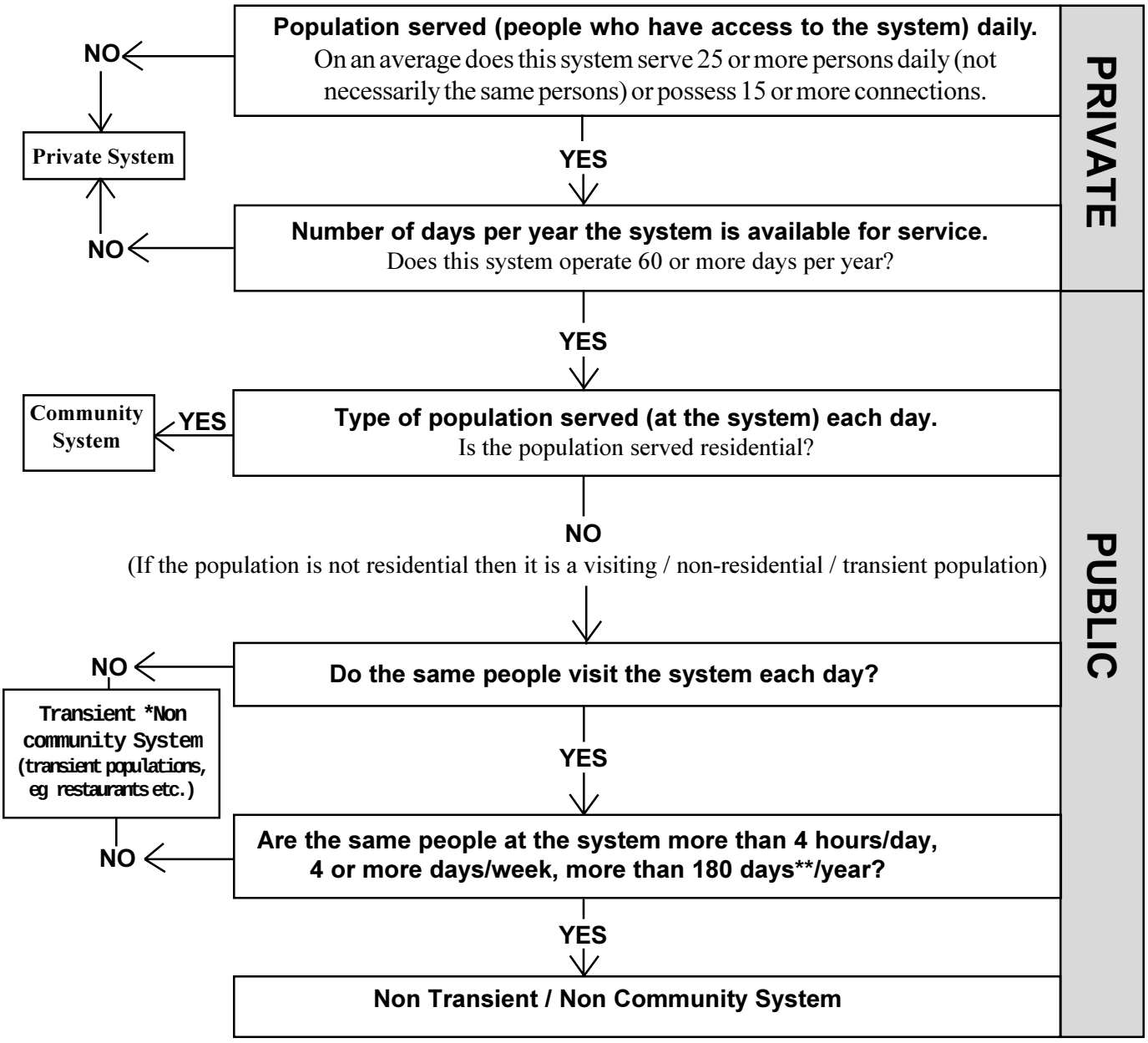
# Appendix B

## DEP Fact Sheet

# Are you a Public or Private Drinking Water System+?

Massachusetts Department of Environmental Protection
Drinking Water Program

## Follow this chart to Determine Your Drinking Water System Type




+ As defined by the Massachusetts Drinking Water Regulations 310 CMR 22.00 and the Federal Safe Drinking Water Act

* If the system (a) employs fewer than 25 people (b) does not use the piped water on its premises for human consumption and (c) bathrooms are not accessible to the general public, DWP Policy 94-02 considers the system to be private and therefore regulated by the Local Board of Health. Please contact the Drinking Water Program at 617-292-5770 for a copy of DWS Policy 94-02.

** 180 days/year of the same person service generally means workers, students, inmates, etc.

# Appendix C

## Basic Sampling

# EXISTING SOURCE
# INITIAL WATER QUALITY TESTING

## Transient Non-Community (TNC)

### INSTRUCTIONS

**Water samples must be collected and analyzed for all applicable parameters within 60 days of registration as a public water supply.** Results must be submitted to the Department as required by Massachusetts Drinking Water Regulations 310 CMR 22.00 and the guidelines and policies for existing sources.

All water quality testing must be done by a Massachusetts Certified Laboratory. For a list of certified laboratories contact the Wall Experiment Station at 508-682-5237 or the web at: http://www.state.ma.us/dep.

The laboratory must be certified in all applicable potable water categories. The laboratory must also use approved methods and be able to achieve all required method detection limits (MDLs). Please note that Massachusetts certified laboratories will put test results on DEP forms upon request.

All data is to be reported on Massachusetts Department of Environmental Protection (DEP) forms and submitted to the regional office for review.

*Test for all contaminants listed in the following categories found in the next section.*

**(B) Bacteriological Report**
**(N) Nitrate Report**
**(NI) Nitrite Report**
**(IOC) Inorganics Report**
**(VOC) Volatile Organic Compound Report**
**(SEC) Secondary Contaminant Report**
**(R) Radionuclide Report (Gross Alpha & Radon)**

*You must also test for Synthetic Organic Compounds if box is marked below:*

☐ **(SOC) Synthetic Organic Compound Report**

Please send two copies of these initial water quality parameters to the appropriate regional office listed below:

**(1) DEP Western Region**
**Drinking Water Program**
**P.O. Box 2410**
**Springfield, MA 01101-2410**

**(2) DEP Central Region**
**Drinking Water Program**
**627 Main Street**
**Worcester, MA 01605**

**(3) DEP Northeast Region**
**Drinking Water Program**
**205 A Lowell Street**
**Wilmington, MA 01887**

**(4) DEP Southeast Region**
**Drinking Water Program**
**20 Riverside Drive**
**Lakeville, MA 02347**

## Quality Sampling Parameters
**1/01/96**

**Report on (B) DEP Form:**
Total Coliform

Fecal Coliform / E. coli

**Report on (N) DEP Form:**
Nitrate

**Report on (NI) DEP Form:**
Nitrite

**Report on (IOC) DEP Form:**

| | | |
|---|---|---|
| Arsenic | Lead | |
| Antimony | | Mercury |
| Barium | Nickel | |
| Beryllium | | Selenium |
| Cadmium | | Sodium |
| Chromium | | Sulfate |
| Cyanide | | Thallium |
| Fluoride | | |

**Report on (R) DEP Form:**
Gross Alpha[1] Gross Beta
Radon

1. If the Gross Alpha result is equal to or greater than 5 pCi/L then Radium 226 and Radium 228 must be tested. If the Gross Alpha result is equal to or greater than 15 pCi/L then Radium 226, Radium 228, and Uranium must be tested.

**Report on (SEC) DEP Form:**

| | |
|---|---|
| Alkalinity | Manganese |
| Aluminum | Odor |
| Calcium | pH |
| Chloride | Potassium |
| Color | Silver |
| Copper | Sulfate |
| Hardness | TDS |
| Iron | Turbidity |
| Magnesium | Zinc |

**Report on (SOC) DEP Form:**
Carbofuran
Oxamyl (Vydate)
2,4-D
2,4,5-TP (Silvex)
Dalapon
Dinoseb
Picloram
Alachlor
Atrazine
Chlordane
Endrin
Heptachlor
Heptachlor epoxide
Lindane
Methoxychlor
PCB Arochlor 1016
PCB Arochlor 1221
PCB Arochlor 1232
PCB Arochlor 1242
PCB Arochlor 1248
PCB Arochlor 1254
PCB Arochlor 1260
Pentachlorphenol
Toxaphene
Benzo(a) pyrene
Di(2-ethylhexyl)adipate
Di(2-ethylhexyl)phthalate
Hexachlorobenzene
Hexachlorocyclopentadiene
Simazine
Dibromochloropropane (DBCP)
Ethylene Dibromide (EDB)
Aldicarb
Aldicarb sulfoxide
Aldicarb sulfone
Carbaryl
3-Hydroxycarbofuran
Methomyl
Dicamba
Aldrin
Butachlor
Dieldrin
Metolachlor
Metribuzin
Propachlor

**Report on (VOC) DEP Form:**

Benzene
Carbon Tetrachloride
1,1-Dichloroethylene
1,2-Dichloroethane
para-Dichlorobenzene
Trichloroethylene
1,1,1-Trichloroethane
Vinyl Chloride
Monochlorobenzene
o-Dichlorobenzene
trans-1,2-Dichloroethylene
cis-1,2-Dichloroethylene
1,2-Dichloropropane
Ethylbenzene
Styrene
Tetrachloroethylene
Toluene
Xylenes
Dichloromethane
1,2,4-Trichlorobenzene
1,1,2-Trichloroethane
Chloroform
Bromodichloromethane
Chlorodibromoethane
Bromoform
m-Dichlorobenzene
Dibromomethane
1,1-Dichloropropane
1,1-Dichloroethane
1,1,2,2-Tetrachloroethane
1,3-Dichloropropane
Chloromethane
Bromomethane
1,2,3-Trichloropropane
1,1,1,2-Tetrachloroethane
Chloroethane
2,2-Dichloropropane
o-Chlorotoluene
p-Chlorotoluene
Bromobenzene
1,3-Dichloropropene
1,2,4-Trimethylbenzene
1,2,3-Trichlorobenzene
n-Propylbenzene
n-Butylbenzene
Naphthalene
Hexachlorobutadiene
1,3,5-Trimethylbenzene
p-Isopropylbenzene
Isopropylbenzene
Tert-butylbenzene
Sec-butylbenzene
Fluorotrichloromethane
Dichlorodifluoromethane
Bromochloromethane

# SAMPLING PROCEDURES

## COLIFORM BACTERIA
## NITRATE / NITRITE / SODIUM

This is a brief synopsis of sampling procedures for some common analyses and is not intended to be all inclusive. Further information can be obtained from the latest edition of Standard Methods for the Examination of Water and Wastewater, published jointly by the American Public Health Association, the American Water Works Association and the Water Environment Federation.

**Coliform Bacteria:**

Samples for microbiological examination should be collected in bottles which have been thoroughly cleansed and rinsed, given a final rinse with distilled water and sterilized. For samples expected to have any residual chlorine, the sample bottles should be treated with a dechlorinating agent such as sodium thiosulfate. Usually, the laboratory will provide the sample collector with the properly prepared container.

The water sample should be taken at a tap which is fed from the well. Remove all contamination devices, such as screens, aeration devices, hoses, point-of-use devices, or swiveled faucets. Outside locations are discouraged. The line should be flushed for approximately 2 to 5 minutes prior to sampling. In addition, flaming the tap or a chlorine spray may be used. In all cases, proper aseptic techniques should be observed in order to avoid sample contamination. These include:

- *Keeping sterilized sample bottles closed until just before the sample is to be collected.*
- *Do not touch the lip of the bottle or any other surface which will come into contact with the sample.*
- *Wear rubber gloves, if possible.*
- *Do not contaminate the surface of the cap or inner neck of the bottle.*
- *Fill the container to the proper level without rinsing.*
- *Immediately replace the cap.*

After the tap has been flushed, reduce water flow to permit filling the bottle without splashing. When the sample is collected (approximately 250 mL), make sure to leave an air space of at least an inch to permit mixing by shaking prior to examination.

Samples must be analyzed within 24 hours of collection and must be kept in an iced cooler if they cannot be analyzed within 1 hour of collection. Do not allow samples to become submerged in ice or melted ice water. Upon receipt at the laboratory, the samples should be refrigerated immediately.

**Nitrate / Nitrite / Sodium:**

Collect samples at each entry point to the distribution system and after all treatment processes. Samples must be representative of each water source **AFTER** any treatment, such as water softeners or carbon filters. These contaminants can be sampled in either plastic or glass containers. Minimum sample size for each contaminant is 100 mL. A Massachusetts certified laboratory should provide you with the proper sampling containers and preservatives.

Open the faucet and thoroughly flush the line for at least two to five minutes. Open the container without rinsing or contaminating the inner surface. Fill the container to the proper level. Tightly seal the container for transport. Mail or deliver the samples to the laboratory as soon as possible after collection. The maximum elapsed time between collection of these contaminants and analysis may vary from 48 hours to as much as six months, depending on the contaminant and preservative used. If delivery must be delayed, samples should be refrigerated at 38 F (4 C). Do not allow samples to become submerged in ice or melted ice water.
It is essential that proper procedures are followed. Keep in mind that failure to submit samples at the proper time constitutes a violation of monitoring requirements. Public notification is required when monitoring violations occur.

AWWA's Pocket Guide to Water Sampling, 1991.

Date: 01-NOV-98 

REQUIRED WATER QUALITY SAMPLING SCHEDULE FREQUENCY FOR 1999 TO 2001

PWSID: 1123123 PWS NAME: XYZ RESTAURANT CLASS: NC

******* Bacteria Sampling Summer: ##[1] per MONTH Winter: ##[1] per MONTH Lead and Copper: ##[1] per ******

| LOC ID# | SAMPLE LOCATION | MULT/ SING | R/F | D/S | WAIVER A/Y/N | 1999 QTR1 | 1999 QTR2 | 1999 QTR3 | 1999 QTR4 | 2000 QTR1 | 2000 QTR2 | 2000 QTR3 | 2000 QTR4 | 2001 QTR1 | 2001 QTR2 | 2001 QTR3 | 2001 QTR4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NITRATE | | | | | | | | | | | | | | | | | |
| 10000 | WELL #1 NORTH<br>1123123-01G WELL #1 NORTH | S | R | S | N | X | X | X | X | X | X | X | X | X | X | X | X |
| 20000 | WELL #2 SOUTH<br>1123123-02G WELL #2 SOUTH | S | R | S | N | X | X | X | X | X | X | X | X | X | X | X | X |
| NITRITE | | | | | | | | | | | | | | | | | |
| 10000 | WELL #1 NORTH<br>1123123-01G WELL #1 NORTH | S | R | S | N | | | | | | X | | | | | | |
| 20000 | WELL #2 SOUTH<br>1123123-02G WELL #2 SOUTH | S | R | S | N | | | | | | X | | | | | | |
| SODIUM | | | | | | | | | | | | | | | | | |
| 10000 | WELL #1 NORTH<br>1123123-01G WELL #1 NORTH | S | R | S | N | | | | | | | | | | X | | |
| 10000 | WELL #2 SOUTH<br>1123123-02G WELL #2 SOUTH | S | R | S | N | | | | | | | | | | X | | |



R/F = RAW OR FINISHED DATA; D/S = DISTRIBUTION OR SOURCE SAMPLE Waiver: (A)pplied, (Y)es, or (N)o

MASSACHUSETTS DEP/DIVISION OF WATER SUPPLY **N**

# NITRATE REPORT
(FORM #1B.2)

I. PWS INFORMATION:

1. PWS ID#: _ _ _ _ _ _ _ 2. City/Town: _____

3. PWS Name: _____ 4. PWS Class (circle one): COM, NTNC, NC

| | 5. DEP Source Code/Location ID | 6. Sample Location | 7. Date Collected | 8. Collected by |
|---|---|---|---|---|
| A: | _____ | _____ | _____ | _____ |
| B: | _____ | _____ | _____ | _____ |
| C: | _____ | _____ | _____ | _____ |
| D: | _____ | _____ | _____ | _____ |

9. Is the Source Treated? __ 10. Is the Sample Chlorinated?

11. Was the Sample Collected after Treatment?

12. Manifolded [ ] If applicable, list the connected sources:

_____

13. Routine [ ] Special [ ] (explain below)

Notes: _____

---

II. LABORATORY ANALYTICAL INFORMATION:

Lab Name: _____ Lab Cert.#: _____ Subcontracted? (Y,N)

Sub. Lab Name: _____ Sub. Lab Cert.#:

Composited [ ] If applicable, list the composited sources:

Notes: _____

| | Sample A | Sample B | Sample C | Sample D |
|---|---|---|---|---|
| Result (mg/L) | | | | |
| MCL (mg/L) | 10.0 | 10.0 | 10.0 | 10.0 |
| Detection Limit (mg/L) | | | | |
| Analytical Method | | | | |
| Date Analyzed* | | | | |
| Lab Sample ID# | | | | |

* Holding time for chlorinated samples is 48 hours. Holding time for non-chlorinated samples is 14 days.

Laboratory Director Signature and Date _____

Attention: Mail TWO copies of this report to your **DEP Regional Office** within 30 days of receipt of results and no later than 10 days after the end of the reporting period.

*FOR DEP/DWS USE ONLY: PLEASE INITIAL AND DATE AS COMPLETED*

| Accepted: | Disapproved: | Data entered into WQTS: |
|---|---|---|
| Comments: | | |

MASSACHUSETTS DEP/DIVISION OF WATER SUPPLY **N**

# NITRITE REPORT
(FORM #1C.2)

I. PWS INFORMATION:
1. PWS ID#: _ _ _ _ _ _ _ 2. City/Town: _____
3. PWS Name: _____ 4. PWS Class (circle one): COM, NTNC, NC

| | 5. DEP Source Code/Location ID | 6. Sample Location | 7. Date Collected | 8. Collected by |
|---|---|---|---|---|
| A: | _____ | _____ | _____ | _____ |
| B: | _____ | _____ | _____ | _____ |
| C: | _____ | _____ | _____ | _____ |
| D: | _____ | _____ | _____ | _____ |

9. Is the Source Treated? __ 10. Is the Sample Chlorinated?
11. Was the Sample Collected after Treatment?
12. Manifolded [ ] If applicable, list the connected sources:

_____

13. Routine [ ] Special [ ] (explain below)
Notes: _____

II. LABORATORY ANALYTICAL INFORMATION:

Lab Name: _____ Lab Cert.#: _____ Subcontracted? (Y,N)
Sub. Lab Name: _____ Sub. Lab Cert.#:
Composited [ ] If applicable, list the composited sources:
Notes: _____

| | Sample A | Sample B | Sample C | Sample D |
|---|---|---|---|---|
| Result (mg/L) | | | | |
| MCL (mg/L) | 1.0 | 1.0 | 1.0 | 1.0 |
| Detection Limit (mg/L) | | | | |
| Analytical Method | | | | |
| Date Analyzed* | | | | |
| Lab Sample ID# | | | | |

* Holding time for chlorinated samples is 48 hours. Holding time for non-chlorinated samples is 14 days.

Laboratory Director Signature and Date _____

Attention: Mail TWO copies of this report to your **DEP Regional Office** within 30 days of receipt of results and no later than 10 days after the end of the reporting period.

*FOR DEP/DWS USE ONLY: PLEASE INITIAL AND DATE AS COMPLETED*

| Accepted: | Disapproved: | Data entered into WQTS: |
|---|---|---|
| Comments: | | |

# MASSACHUSETTS DEP/DIVISION OF WATER SUPPLY S

This form is for use by *Transient Non-Community Systems* only

## INORGANICS-SODIUM REPORT
## (FORM #1S.2)

I PWS INFORMATION:

1. PWS ID#: _ _ _ _ _ _ _ 2. City/Town:
3. PWS Name: _____ 4. PWS Class (circle one): COM, NTNC, NC
5. DEP Source Code/Location ID 6. Sample Location 7. Date Collected 8.Collected by

_____ _____ _____ _____

9. Is the Source Treated? __ 10. Was the Sample Collected after Treatment?
11. Manifolded: [ ] If applicable, list the connected sources:

_____

12. Routine [ ] Special [ ] (explain below)
Notes:

_____

---

II LABORATORY ANALYTICAL INFORMATION:

Lab Name: _____ Lab Cert.#:
Subcontracted? (Y,N) __ Lab Sample ID#:
Sub. Lab Name: _____ Sub. Lab Cert. #:
Notes: _____

| Compound | Result mg/L | MCL mg/L | Detection Limit mg/L | Analytical Method | Date Analyzed |
|---|---|---|---|---|---|
| Sodium | | none | | | |

Laboratory Director's Signature and Date

**Attention:**

Sodium reporting: Mail TWO copies of this report to your **DEP Regional Office** within 30 days of receipt of results and no later than 10 days after the end of the reporting period.

Sodium notification: The supplier of water shall report the level of sodium for each source to its local Board of Health and Massachusetts Department of Public Health
by written notice by direct mail within 30 days after the supplier of water first learns of the analytic results which indicate a detection of sodium. Notification of sodium detects should go to the following address at the Massachusetts Department of Public Health: Bureau of Environmental Health Assessment; 250 Washington Street; Boston, MA 02108-4619; ATTENTION: Sodium Notification.

*FOR DEP/DWS USE ONLY: PLEASE INITIAL & DATE AS COMPLETED*

Accepted: Disapproved: Data Entered into WQTS:

Comments:

# DEPARTMENT OF ENVIRONMENTAL PROTECTION

## BACTERIOLOGICAL ANALYSIS REPORT - CONTAMINANT ID#3100

| PWSID# | PUBLIC WATER SYSTEM NAME | TOWN/CITY | LABORATORY NAME & ID#* |
|---|---|---|---|
| | | | |

| | DEP APPROVED SAMPLE SITE | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMP TYPE | LAB. SAMP ID # | CODE# | LOCATION | COLLECTION DATE | COLLECTION TIME | ANALYSIS DATE | CODE# | TCM 100ml** | TOT COLIFORM/ CODE# | FC/ECM 100ml** | FECAL - E. COLI/ OR HPC/ml | CHLOR. RES. SAMPLE COLLECTED BY: |
| | | | | | | | | | | | | |
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| SAMPLE TYPE KEY | TOTAL COLIFORM METHOD(TCM) CODE # | FECAL COLIFORM/ E. COLI METHOD (FC/ECM) CODE # |
|---|---|---|
| RS- ROUTINE SAMPLE | | |
| RO- ORIGINAL SITE REPEAT | MF 3 0 3 | EC 4 0 0 |
| UR- UPSTREAM REPEAT | | |
| DR- DOWNSTREAM REPEAT | MTF 3 0 5 | SWTR-MFC 4 0 1 |
| AR- ADD. REPEAT (DIST SYSTEM) | | raw water |
| RW- RAW WATER | P-A 3 0 7 | |
| SS- SPECIAL | | MMO-MUG 4 0 6 |
| PT- PLANT TAP SAMPLE | ONPG 3 0 9 | |
| | | EC-MUG 4 0 8 |
| | *** 3 1 1 | |
| | | NA-MUG 4 1 0 |

REMARKS:

SUBCONTRACTED LAB (IF APPLICABLE):

ANALYZED BY: _____ DATE: / /
(LAB USE)

AUTHORIZED BY: _____ DATE: / /

(LAB USE)

* LAB ID# ASSIGNED BY STATE CERTIFICATION PROGRAM

** CAN BE EXPRESSED AS #/100ML, PRESENT (P), ABSENT (A), OR TOO NUMEROUS TO COUNT (TNTC)

*** COLISURE METHOD - THIS CAN DO TOTAL COLIFORM and E.COLI SIMULTANEOUSLY, HOWEVER THE SAMPLE MUST BE INCUBATED 28 TO 48 HOURS.

**COPY 1: COPY TO DEP REGIONAL OFFICE; COPY 2: OWNER COPY; COPY 3: LAB COPY**

# Appendix D

## Coliform

# GUIDELINES FOR SELECTING COLIFORM SAMPLING POINTS FOR SMALL SYSTEMS

The following are general guidelines for selecting coliform sample locations. Coliform sample locations should be representative of conditions throughout the distribution system. Each system should identify enough sample locations for compliance with the sample requirements of 310 CMR 22.05 Table 1.

A public water system must collect samples at regular time intervals throughout the month or quarter. All sample locations must be submitted to and approved by the DEP. They will be reviewed and updated by DEP as required. Please note that once your sampling plan is approved all changes must be requested from and approved in writing by your regional DEP office.

When selecting locations for collecting coliforms samples, water suppliers must also identify those locations where they would take repeat samples if the original sample location tested positive for coliform bacteria. Repeat sampling must include samples upstream and downstream of the total coliform positive routine sample site.

**You must submit a map or sketch of your water supply distribution system showing the locations of all bacteria sampling sites, the well and the storage tank.**

---

## Sample location definitions:

**001, 002 etc. The normal Routine Sampling (RS) location** where a coliform bacteria sample is to be taken every month or quarter. This sample tap is typically in the middle of the system and is frequently used. Example: 1st floor-kitchen tap.

**1a, 2a, etc. An Upstream Repeat (UR) sample site location** where a coliform bacteria sample is to be taken if the normal routine sample (001) tests positive for total coliform bacteria. This sample tap is up line from the RS sample site and is usually at or near the storage tank. Example: basement-janitor's sink.

**1B, 2B, etc. A Downstream Repeat (DR) sample site location** where a coliform bacteria sample is to be taken if the normal routine sample (001) tests positive for total coliform bacteria. This sample tap is down line from the RS sample site and is usually near the end of the distribution line. Example: 2nd floor Men's room - left sink.

**If you cannot identify an upstream and/or downstream repeat sample location because you have only one service connection you may use the original sample tap and collect 2 - 200 ml samples on each of two consecutive days.**

---

If a routine sample (RS) is total coliform-positive, you must collect a set of **4 repeat** samples; an RS/UR/DR within 24 hours of being notified of the positive result and an additional RS at a later date in the month. Meanwhile, the laboratory will further analyze your coliform-positive sample to see if fecal or E. coli bacteria are present.

You must continue to take repeat samples every 24 hours at the same sites where the initial repeat samples were taken until one complete set of repeat samples is free of coliform.

You **must** contact your regional DEP office within 48 hours of a positive total coliform sample. The DEP will then provide technical assistance as to the appropriate steps to take to comply with the regulations, such as how many samples to take, where to take the samples, how to determine the cause of the contamination and if public notice is necessary.

# THE TOTAL COLIFORM RULE SUMMARY

As an operator and/or owner of your water supply, you need to be familiar with the Total Coliform Rule since you're responsible for seeing that your system consistently meets state and federal water quality standards. Compliance with the law provides your customers with added protection against waterborne disease.

## ABOUT COLIFORM BACTERIA

Coliform bacteria are fairly common. They're found in the intestines of warm blooded animals (including humans), in plants, soil, air, and water. Coliform bacteria are not generally harmful themselves, but when found in water they indicate the water is polluted and may contain disease carrying organisms.

Fecal coliform and E. coli are two of the many different types of coliform bacteria. Their presence in water is serious because of their association with sewage or animal waste which may contain disease causing organisms.

## SUMMARY OF THE RULE

Under the Total Coliform Rule, and according to your most recent water quality testing schedule, your system is required to collect either monthly or quarterly water samples. The samples must be analyzed by a state certified laboratory to determine the presence or absence of coliform bacteria in your water.

If no coliform bacteria are found in the water sample, it has passed the coliform test. Continue performing routine coliform bacteria tests according to your sampling schedule.

If coliform bacteria are found in your water sample, you are required to take additional samples. If repeat samples are also positive, your water may be contaminated. At this time you are required to notify your DEP regional office and your customers. In addition, you should take immediate action to determine and eliminate the cause of contamination.

## KEY PROVISIONS OF THE TOTAL COLIFORM RULE

***Written Sampling Plan:*** The Total Coliform Rule requires a written Sampling Plan and map showing that routine water samples will be collected at sites which are representative of the water throughout your system. The plan is subject to review and approval by the DEP-Drinking Water Program. If you have not submitted your plan, please complete the enclosed form "Coliform Sampling Plan" and return to your DEP regional office.

## REPEAT SAMPLING

***Repeat Sampling:*** If a routine sample is total coliform-positive (coliform bacteria are present in the water sample), you must collect a set of repeat samples within 24 hours of being notified of the positive result. Meanwhile, the laboratory will further analyze your coliform-positive routine sample to see if fecal or E. coli bacteria are present.

***If Repeat Samples are Coliform Positive:*** If any repeat samples are coliform-positive, your system is in violation of the Total Coliform Rule. You must notify your DEP regional office and your customers. Meanwhile, to protect your customers, you need to:

1. Determine the cause of contamination and correct the problem immediately. Fill out and return to your DEP Regional Office a copy of the *"Coliform Violation Evaluation Survey"* form. See Appendix D.

2. Contact your DEP regional office for advice on what additional samples you need to take.

***Sampling in the Month Following Detection of Coliform in a Sample:*** If you are required to collect less than five routine samples per month or quarter, you must take five (5) samples the following month, unless the requirement is waived by your DEP regional office.

***Public Notification:*** Any time you violate the Total Coliform Rule, you are required to notify your customers so they can take necessary precautions to protect themselves against possible waterborne disease. If only total coliforms are found, you are required to provide notice by hand delivery or posting of notice within 14 days. If fecal or E. Coli bacteria are identified, the notice must be given within 72 hours of being notified of the results by the laboratory.

The Total Coliform Rule is complicated. If you have any questions, please contact your DEP regional office for assistance.

# COLIFORM SAMPLING PLAN

**Massachusetts DEP Drinking Water Program**

Please fill in the highlighted areas and return for approval to your DEP Regional Office

PWS ID _ _ _ _ _ _ _ PWS Name_____ PWS Town _____

Population Winter_____ Population Summer_____ Explain:_____

No. of samples required by 310 CMR 22.05B Table 1:_____ per _____

No. of backup sample sites identified _____ (mark with an asterisk)in case the routine sampling location is not accessible.

| Sample TYPE | DEP CODE # | Approved Sample Site Sampling Point Name or Address | Sampling Frequency |
|---|---|---|---|
| RS | 001 | _____ | _____ |
| UR | 1a | _____ | |
| DR | 1b | _____ | |
| RS | 002 | _____ | _____ |
| UR | 2a | _____ | |
| DR | 2b | _____ | |
| RS | 003 | _____ | _____ |
| UR | 3a | _____ | |
| DR | 3b | _____ | |
| RS | 004 | _____ | _____ |
| UR | 4a | _____ | |
| DR | 4b | _____ | |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | |
| _____ | _____ | _____ | |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | |
| _____ | _____ | _____ | |

RS-Routine Sample site (tap representative of the water system)
UR-Upstream Repeat sample site (tap upline of the RS sample tap)
DR-Downstream Repeat sample site (tap downline of the RS sample tap)

**Also attach a map or sketch of your water supply distribution system showing the locations of the bacteria sampling sites, the well, and the storage tank.**

Public Water Supplier Signature:_____

---

*For DEP use*

Action:_____ Date:_____

DEP Name:_____ Signature:_____

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

# Coliform Violation Evaluation Survey

Use this form to evaluate the cause of a coliform bacteria violation and to provide MassDEP with information on the cause of each coliform bacteria exceedence. This form must be completed by your certified operator and sent to the Drinking Water Program at your MassDEP regional office.

This form will not be used for compliance or enforcement.

## A. Facility Information

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



City/Town _____ PWS Name _____

PWS ID# _____ Phone Number _____ Fax Number _____ Email Address _____

Date PWS became aware of violation _____ Date MassDEP was notified _____

**Please call your MassDEP Regional Office within 48 hours of the coliform finding.**

## B. Coliform Violation

1. Month and year of coliform violation: _____

   Acute MCL violation? ☐ Yes ☐ No Number of samples taken per month _____

2. Number of positive samples: _____

   Date of repeats: _____ Number of repeats positive _____

   Number of repeats collected _____

   Which locations were positive?

   _____

3. Did the repeat test detect:

   Fecal coliform? ☐ Yes ☐ No E. coli? ☐ Yes ☐ No Total coliform? ☐ Yes ☐ No

4. Was total coliform speciated? ☐ Yes ☐ No If yes, what was found?

   _____

5. Did you evaluate the following:

   a. Valve operations in the area of bacteria presence? ☐ Yes ☐ No

   b. Was a cross connection survey done? ☐ Yes ☐ No If yes, what was found?

   _____

   c. Any flushing in the area? ☐ Yes ☐ No

# Coliform Violation Evaluation Survey

## B. Coliform Violation (continued)

6. Have you determined the cause of the coliform violation? ☐ Yes ☐ No

   If yes, please check all that apply:

   ☐ Water entering the distribution system
   ☐ Cross connections (see 5b)
   ☐ Raw water
   ☐ Sample collection error
   ☐ Storage tank
   ☐ Water main break
   ☐ Other (specify): _____

7. What is your plan to prevent similar problems in the future?

   _____

   _____

8. If chlorinating, what is the residual in the system? _____

_____ _____
Certified Operator Signature Date

_____
Printed Name of Certified Operator

# Appendix E

## Sodium

# SODIUM

In Public Drinking Water

(Notification Form)

Massachusetts Department of Environmental Protection

Bureau of Resource Protection

Drinking Water Program

617-292-5770

Updated: February 1998

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Drinking Water Program
December 1997

**Sodium Guideline Changes**
The Department of Environmental Protection (DEP), Drinking Water Program (DWP), has updated its sodium guideline. The Sodium guideline is 20 mg/L. This change brings it in line with the limit applied to bottled water by the United States Food and Drug Administration (USFDA) for low sodium water.

**Sodium Monitoring/Sampling**
Public Water Systems(PWS) must sample for sodium at the entry point to the distribution system or a sampling point representative of each source in accordance with Massachusetts Drinking Water Regulations 310 CMR 22.06A(1) and (2) and the latest PWS sampling schedule which was provided by DEP. See attached 310 CMR 22.06A(3), Sampling Protocol, for the specific sampling requirement. PWSs and their contracted certified analytical laboratories are not allowed to composite samples to be analyzed for sodium.

**Sodium Reporting and Notification**
PWSs must report all results "within the first ten days of the month following the month in which the sample results were received or within the first ten days following the end of the required monitoring period, whichever comes first." Two copies of the report must be submitted on the appropriate DEP required form and sent to your DEP Regional Office.

PWSs must also send copies of all results that show a detection of sodium to their Local Board of Health and The Massachusetts Department of Public Health (DPH) by direct mail within 30 days after the PWS first learns of the analytical result which indicates a level of sodium. (Note: if sodium is not detected, there is no need to notify the Local Board of Health or DPH.) See the attached 310 CMR 22.06A(5) Sodium Notification for the specific requirement.

The DPH can be contacted as follows:

Massachusetts Department of Public Health
Bureau of Environmental Health Assessment
250 Washington Street
Boston, MA 02108-4619
Attention: Sodium Notification

Please use the attached coversheet to forward your results to the Local Board of Health and DPH.
PWSs who do not collect and analyze samples for sodium will be in violation of the Drinking Water Regulations and will be requested to notify their Local Board of Health of their non-compliance.

The DEP/DWP recommends that, in continuing this program, each PWS should contact its Local Board of Health or Health agent to ensure that they understand the program and have copies of the DEP/DWP Public Information Notice on Sodium for distribution to consumers upon request.

**Waivers from Sodium Monitoring**
PWSs can qualify for waivers from monitoring for inorganic contaminants (including sodium) under the Phase II SOC/IOC rule. Eligible PWSs are encouraged to apply for a waiver if they have not already done so. If you have not received a waiver application form, please call the DEP at 617-292-5770.

**Enforcement**
PWSs exceeding the sodium guideline will not be required to treat or initiate additional monitoring (unless specifically requested to do so by the DEP). The DEP/DWP expects PWSs who exceed the guideline to evaluate their system operations to determine the cause and possible remediation measures. In addition, the PWS is required to respond to its consumers by providing appropriate information, e.g., the attached Public Information Notice and/or referring the customer to his/her Local Health Officer or health professional for further discussion on health effects. (PWSs that currently use posting as a form of notification may post the attached notice for general information.) In addition, PWSs may refer customers to the DPH, Bureau of Environmental Health Assessment, which will provide information on the health effects of elevated levels of sodium in drinking water upon request. As part of its Physicians Education Program, the Bureau also provides this information to physicians.

PWSs who do not collect and analyze samples will be in violation of the Drinking Water Regulations and will be required to notify their Local Boards of Health of their noncompliance.

The DEP will continue to monitor the sodium levels of all PWSs and may require additional specific actions as necessary. Please contact the DEP, Drinking Water Program at (617) 292-5770 if you have any questions on this issue.

**310 CMR Section 22.06A , Sodium Regulations:**

Special Monitoring for Sodium Reporting and Analytical Methods and Frequency

(1) Monitoring: All public water systems (community and non-transient, non-community and non-community;) shall monitor for the determination of sodium concentration levels.
(2) Initial Sampling Frequency: Each community and non-transient, non-community and transient community water system is required to monitor for sodium during the first three-year compliance period of each nine-year compliance cycle beginning in the compliance period starting January 1, 1993.
(a) GW Sampling Frequency: Groundwater systems shall take one sample at each sampling point during each compliance period beginning in the compliance period starting January 1, 1993. (once every three years)
(b) SW Sampling Frequency: Surface water systems (or combined surface/ground) shall take one sample annually at each sampling point beginning January 1, 1993.
(3) Sampling Protocol: Monitoring shall be conducted as follows:
(a) Ground Water Sampling Points: Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point) beginning in the compliance period starting January 1, 1993. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
(b) Surface Water Sampling Points: Surface water systems [Note: For purposes of 310 CMR 22.06A(3)(b), surface water systems include systems with a combination of surface and ground sources.] shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point) beginning in the compliance period beginning January 1, 1993. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
(c) Multiple Sources: If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).
(4) Sodium Reporting: The supplier of water shall report to the Department the results of the analyses for sodium within the first ten days of the month following the month in which the sample results were received or within the first ten days following the end of the required monitoring period, whichever comes first.
(5) Sodium Notification: The supplier of water shall report the level of sodium for each source to the local Boards of Health and Massachusetts Department of Public Health by written notice by direct mail within 30 days after the supplier of water first learns of the analytic results which indicate a level of sodium.
(6) Sampling Schedules: Each public water system shall monitor at the time designated by the Department during each compliance period.
(7) Sodium Analysis Analytical Methods: Analysis for sodium shall be conducted using the following method:

SODIUM ANALYTICAL METHODS

| Contaminant | Methodology[4] | Reference (Method Number) EPA[1] | ASTM[2] | SM[3] | Other |
|---|---|---|---|---|---|
| Sodium | Atomic Absorption Direct Aspiration | 273.1 | — | — | — |
| | Atomic Absorption, Graphite Furnace | 273.2 | — | — | — |
| | Flame photometric Method | — | — | 320-A | — |
| | Other | — | D1428-64(a) | — | — |

1 - Methods of Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268 (EPA-600/4-79-020), March 1983. Available from ORD Publications, CERI, EPA, Cincinnati, OH 45268.
2 - Annual Book of ASTM Standards, Vol. 11.01 American Society for testing and Materials, 1916 Race Street, Philadelphia, PA 19103.
3 - "Standard Methods for the Examination of Water and Wastewater," 16th edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1985.
4 - For approved analytical procedures for metals, the technique applicable to total metals must be used.

THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
AND THE DEPARTMENT OF PUBLIC HEALTH PUBLIC INFORMATION

## NOTICE ON SODIUM

(For distribution to consumers upon request)

The principal source of exposure to sodium is from the diet. The average American diet can contain anywhere from 2,000 mg/d to 24,000 mg/d depending on the amount of table salt added to food. Fruits, vegetables, and meats naturally contain sodium. Many foods such as dairy products and processed food products contain higher concentrations of sodium. For example, 2 slices of white bread could contain close to 300 mg of sodium, 1 frankfurter 400- 800 mg, and diet cola 20 mg of sodium. Sodium is often added during food preparation and at the table to food. Drinking water contributes only a small fraction (less than 10%) to the overall sodium intake.

Sodium is a naturally occurring common element found in soil and water. It is necessary for the normal functioning of human systems. Sodium is part of a complex physiological mechanism involved in regulating fluids in human systems. The normally functioning kidney compensates for moderate changes in sodium intake by increasing or decreasing sodium and fluid excretion in the urine. Small changes in the sodium intake do not adversely affect plasma sodium concentrations in the majority of the population. The natural mechanisms of fluid regulation maintain a relatively constant concentration of plasma sodium. Adequate daily total sodium intakes have been estimated to range from 115 to 750 milligrams per day (mg/d) for infants, 325 to 2700 mg/d for children and 1100 to 3300 mg/d for adults.

Some people, however, have difficulty regulating fluid volume as a result of several diseases, including congestive heart failure, kidney failure and hypertension. Some individuals are genetically susceptible to hypertension, a condition which may be enhanced by elevated plasma sodium levels. Monitoring sodium intake in these individuals is important in the management of their particular malady.

The Department of Environmental Protection (DEP) is requiring all water suppliers to notify the local Boards of Health, the Massachusetts Department of Public Health, and the Massachusetts Department of Environmental Protection of the detected concentrations of sodium in drinking water. Notification is required so that individuals who are on sodium restricted diets or who wish to monitor their sodium intake for other reasons will be able to take the amount of sodium in their water into account.

The guideline of 20 milligrams per liter for sodium, when exceeded, does not require treatment of the water to reduce the levels to prevent adverse health effects on public health. Rather, the guideline represents a level of sodium in water that physicians and sodium sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled.

TO: (Choose One)

[ ] DEP Regional Office

[ ] Massachusetts Department of Public Health, Bureau of Environmental Health Assessment

[ ] _____ Board of Health
(CITY OR TOWN)

[ ] _____
(OTHER)

FROM:_____
(PWS NAME)

_____
(PWS ADDRESS)

(Choose one) [ ] Community PWS
[ ] Non transient noncommunity
[ ] Transient noncommunity PWS

_____
(Name of PWS Owner or Responsible Person Submitting information)

DATE: _____/_____/_____

SUBJECT: Sodium Notification for Massachusetts Public Drinking Water Systems

---

In accordance with Massachusetts Department of Environmental Protection, Drinking Water Program regulations 310 CMR 22.06(A), please find attached the sodium results for the

_____ system, located at
(PWS NAME)

_____
(PWS ADDRESS)

The attached sodium results are for the period _____.
(MONITORING PERIOD)

Please contact _____at_____
(CONTACT PERSON NAME) (PHONE NUMBER)

if you have any questions.

tncsod.doc

# Appendix F

## Annual Statistical Report

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

ARGEO PAUL CELLUCCI
Governor

TRUDY COXE
Secretary

DAVID B. STRUHS
Commissioner

- THIS IS AN IMPORTANT NOTICE -

**1998 TRANSIENT NON-COMMUNITY PUBLIC WATER SUPPLY ANNUAL STATISTICAL REPORT FOR NEWLY REGISTERED SYSTEMS AS OF 1/1/98 *OR* SYSTEMS THAT DID NOT SUBMIT A REPORT FOR 1997**

December 28 , 1998

Dear Public Water Supplier:

Enclosed is your 1998 Transient Non-Community Public Water Supply Annual Statistical Report and Cross Connection Control Program Plan Forms.

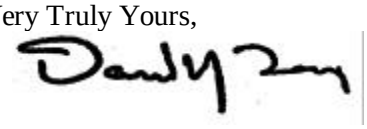
As a public water supplier, you are required to report annually to the Department of Environmental Protection (DEP). Your system has been classified as a Transient Non-Community (TNC) system, because our records show that your water supply has at least 15 service connections OR serves an average of at least 25 individuals daily for at least 60 days of the year. If you believe your system does not meet these criteria, please write a note explaining the reasons your system does not meet this definition, attach the note to this form and return it to the Department by **February 28, 1999.**

**Please read the instructions on the reverse side carefully to complete the Annual Statistical Report and Cross Connection Control Forms.**

By completing and returning the Statistical Report to the Department by February 28, you will have fulfilled your annual reporting requirements as a registered Public Water Supply, in accordance with Massachusetts Drinking Water Regulations CMR 310 22.15. Prompt and accurate submittals also assist the Drinking Water Program in planning and implementing its drinking water programs and establishing your SDWA Assessment. Failure to complete and return these forms as requested will result in enforcement actions.

Thank you for working with the Drinking Water Program to protect Massachusetts' drinking water. **This report form is now available on the DEP Internet site at www.state.ma.us/dep/brp/dws/dwspubs.htm and then click 'forms'. It can be downloaded from the internet, manually completed, and returned by mail to DEP.** If you have any comments or suggestions for improvement, please contact Mr. Hilary Jean at (617) 348-4004 or call the Drinking Water Program's Water Quality Assurance Section at (617) 292-5770.

Very Truly Yours,



David Y. Terry, Director
Drinking Water Program

Attachments

*TNC* *1998*

PWS Name: _____

City/Town: _____

PWS ID#: _____

*Massachusetts Department of Environmental Protection*
*Bureau of Resource Protection - Drinking Water Program*

# 1998 Public Water Supply Annual Statistical Report

For **Transient Non-Community** Public Water Systems Who Are Newly Registered or Who did Not report in 1997
Reporting Period: 1/1/98 - 12/31/98

## *SECTION A: Certification*

I certify under penalty of law that I am the owner or person authorized to fill out this form and that the information contained herein is true, accurate, and complete to the best of my knowledge and belief. I also certify that the cross connections, if any, listed as part of Section C comply with the Department's regulations under 310 CMR 22.22.

Name (print)_____Title_____
Of certifying person

Signature _____ Date_____ Phone Number _____Fax Number _____

Facility owner's name and phone number, if different from above _____

## *SECTION B: Public Water Supply Information*

**1. Facility Name:** _____

**Mailing Address:** _____

**City:** _____ **State:** _____ **Zip:** _____

**Phone:** _____ **Fax:** _____ **E-Mail:** _____

**2. Contact person** (if different from certifying person) _____ Phone #_____

**3. Is this system a not-for-profit organization?** [ ] Yes [ ] No **If yes,** indicate Tax Exempt code _____ _____

**4. Federal Employment Identification Number** (FEIN): _____
If no FEIN, use business/owner's social security # followed by signature

**5. List of Certified Drinking Water Operators** employed by the PWS*****:(Attach a list of additional operators and corresponding license numbers.)

Primary certified operator: Name: _____ Grade: _____ Lic. # _____

If contracted , provide ending date of contract: _____/_____/_____

**6. Indicate the type of facility you operate:** (check one)

[ ] Commercial [ ]. Religious Org.
[ ] Recreational [ ] Vending
[ ] Municipal [ ] Bottled water
[ ] Health Care Facility: Human or Animal
[ ] Other type of Facility: (specify)

**7. Population:** Winter: _____Summer:_____
**Note:** Population = # of visitors + # of employees on a **daily average.**

**8. Facility Operation Schedule:** (check one)

[ ] Seasonal [ ] Year-round

If seasonal facility, what is your primary season:

Start:_____/_____/_____ End:_____/_____/_____
(MM) (DD) (YY) (MM) (DD) (YY)

Facility operates Average # of: Days per Year _____
Hours per Day _____

**YEAR 1998**

# Public Water supply
# Annual Statistical Report

PWS Name: _____
City/Town: _____
PWS ID#: _____

## *SECTION B: Public Water Supply Information (continued)*

**9.** Is your water supply treated or disinfected? (ie. water softener, etc,) Yes [ ] No [ ]

**If Yes,** please specify the treatment purpose, process, and chemicals added:

Purpose:(*ie. disinfection, corrosion control, iron removal*) _____

_____

Process: (*ie. chlorination, pH adjustment, ozonation*)

_____

Chemicals Added: (*ie. chlorine, sodium hydroxide, ozone*) _____

**10.** Does your water system sell water to another Public Water System? Yes [ ] No [ ]
If yes provide names and PWS #s

_____

## *SECTION C: Cross Connection Control Program*

If this Public Water System has a cross connection control program approved by the Department of Environmental Protection answer the questions in this section**. If you don't have an approved cross connection control program, you must complete the enclosed Cross Connection Program Plan Form.**

**1.**Cross Connection Control Coordinator: (This is the owner or full time manager of the facility who has legal authority and responsibility for the facility.)

_____ Phone #

_____

**2.** Has this Public Water System been completely surveyed for cross connections? Yes [ ] No [ ]

**3**. Are all plans for the installation of Reduced Pressure Zone Backflow Preventers (RPs) and Double Check Valve Assemblies (DCAs)

approved by the water system in accordance with 310 CMR 22.22 Yes [ ] No [ ]

**4.** What number of violations have you found this year? _____

**5.** How many RPs are installed on your water system? _____

**6.** How many DCAs are installed on your water system? _____

**7.** Are all testable backflow preventers inspected and tested in accordance with 310 CMR 22.22 (14)? Yes [ ] No [ ] Number tested _____

**8**. Provide a list on an attached sheet of the cross connections that comply with the department's regulationsunder 310 CMR 22.22.
The list must include: location, type of device, and cross connection identification number. If no list attached, check here. [ ]

**9.** Has there been any occurrence of backflow of water into your water system this year? Yes [ ] No [ ]

If yes, provide dates:

_____

## *SECTION D: Emergency Information*

1. **Indicate the action you will take in the event that the facility is unable to provide an adequate quantity or quality of drinking water.**

[ ] Shut down/Close [ ] Provide Bottled Water [ ] Other, Explain below:

## *SECTION E: Water Vending Machines*

**1. Name of Manufacturer** _____

**2. Model Number of Machine**_____

**3. Gallons of water vended annually**_____

**YEAR 1998**

# Public Water Supply
# Annual Statistical Report

PWS Name: _____
City/Town: _____
PWS ID#: _____

## *SECTIONF: Source Information*

**1. Please provide the following information for each source. Use additional sheets if necessary.**

| Source Information | Source # 1 | Source # 2 | Source # 3 | Total |
|---|---|---|---|---|
| A. Source Name (ie. Well # 1) | | | | - - - - - - - - - - - - - |
| B. Source ID# (ie. 4000000-01G) | | | | - - - - - - - - - - - - - |
| C. Type G = Groundwater S = Surface water | | | | - - - - - - - - - - - - - |
| D.a. Does this source have a master meter? (circle one) | YES NO | YES NO | YES NO | - - - - - - - - - - - - - |
| b. If yes, indicate total volume produced in 1998. ***Note**: Estimates are **NOT** acceptable | Volume (gal./yr.) | Volume (gal./yr.) | Volume (gal./yr.) | Total Volume (gal./yr.) |
| c. Date meter installed. | / / | / / | / / | / / |

**2. Under 310 CMR 22.20A, Surface Water Treatment Rule, the DEP must evaluate all TNC public water system wells to determine if their groundwater is under the influence of surface water. To simplify this process and save TNC systems from conducting costly sampling, all TNC systems must complete the following questions about their wells:**

a. Source Name: _____Source ID #:_____
Make additional copies of this section for each source

b. What type of well is this? Gravel Pack [ ] Rock well [ ] Other [ ]

c. What is the depth of the well? _____ ft.

d. Does this well have a sanitary seal? Yes [ ] No[ ] Don't know [ ]

e. What is the elevation of the well casing above the ground? _____ inches

f. How far is the closest surface water body (lake, pond, river, estuary, brook, etc.) to this well? _____ ft

g. Does the surface water body closest to this well contain water year round? Yes [ ] No[ ]

h. Did this well experience more than ONE positive bacteria count within the past three years? Yes [ ] No[ ]

If so, provide date(s) and # of positive counts. _____/_____/_____ ------_____

_____/_____/_____ ------_____

YEAR 1998

# Public Water Supply
# Annual Statistical Report

PWS Name: _____
City/Town: _____
PWS ID#: _____

## *SECTION G: Source Protection Information*

**8. Within your IWPA (Area used in absence of DEP approved Zone II as the territory of an aquifer that contributes water to a well under the most severe pumping and recharge conditions that can be anticipated. Refer to Land Use Inventory Instructions), list the approximate linear distance (In feet) from your water source(s) to any of the following. Indicate distances on the sketch at Section H.**

_____/_____
Property Line Road

_____/_____
Homes Body of Water

_____/_____
Municipal/Commercial Bldg. Type of Building

_____/_____
Sewer Line Surface Drain

_____/_____
Leaching Field/Septic System Fire Hydrant

_____/_____
Parking Area # of Vehicles

_____/_____
Catch Basin Groundwater Discharge Drain

_____
If there is a parking area, is the area paved?

_____
Storage Area (specify above or below ground)

_____
Other Land Uses (specify)

**9. List the distance (in feet) from water source(s) to any of the following, if located within IWPA (Refer to Land Use Inventory Instructions).**

Agriculture _____

Sand/Salt Storage Area _____

Chemical Storage Area _____

Landfill/Dump/Junk Yard _____

Commercial/Industrial Facility (circle one)_____

**10. Fuel Storage - Specify:**

[ ] Oil [ ] Gas

[ ] Above Ground [ ] Below Ground

Distance (ft.) from water source
_____

Location _____

Capacity (Gal.)_____

**YEAR 1998**

# Public Water Supply
# Annual Statistical Report

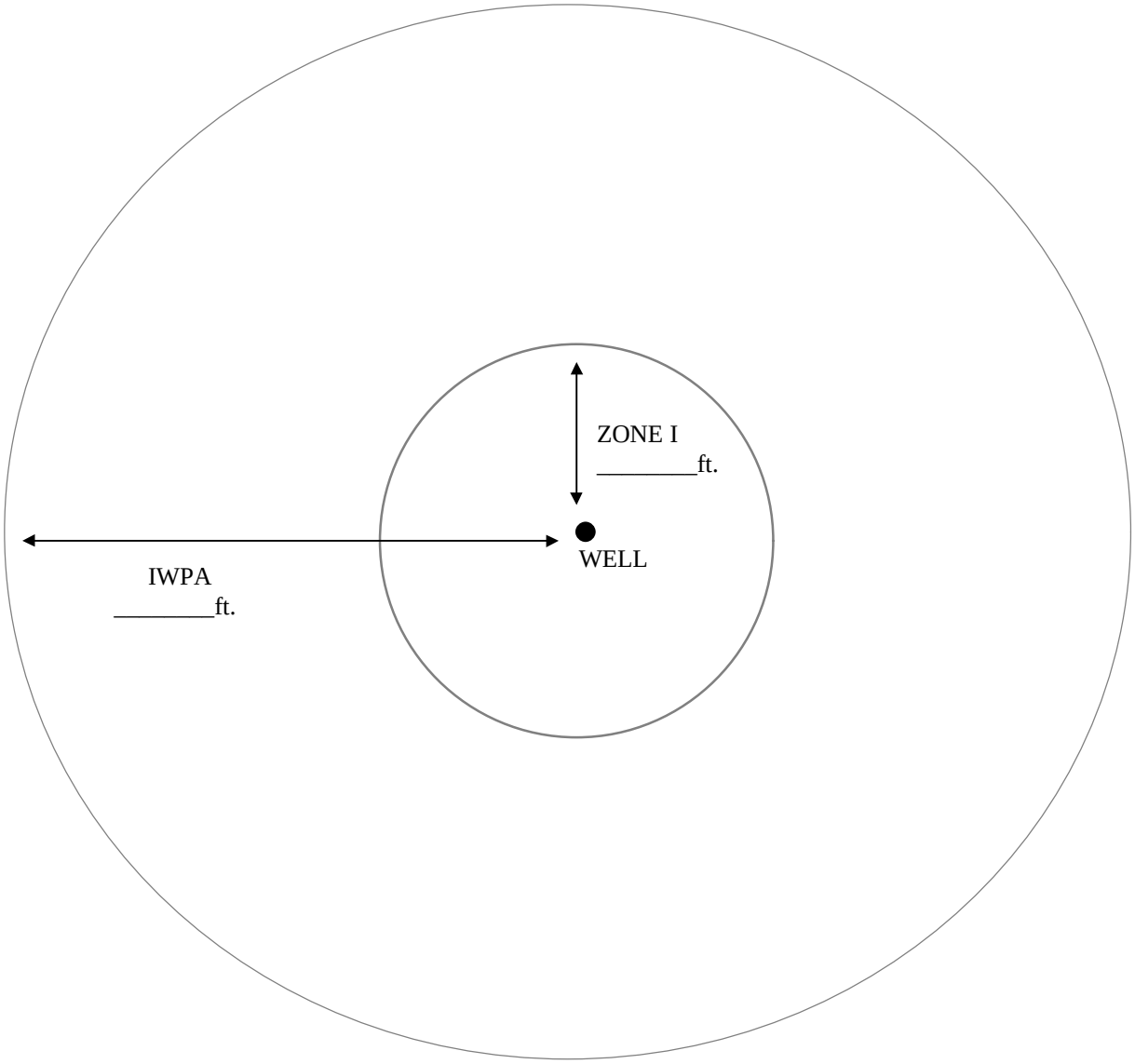
PWS Name: _____
City/Town: _____
PWS ID#: _____

## *SECTION H: Property Drawing*

Please create below or attach a detailed sketch of the property owned by the facility including the locations of the following:

a. Each water source
b. All structures (Refer to item #8 in Section G)
c. Address (if different)
d. Fuel tanks (specify oil/gasoline), ponds, streams, septic tanks/leaching facilities, etc.

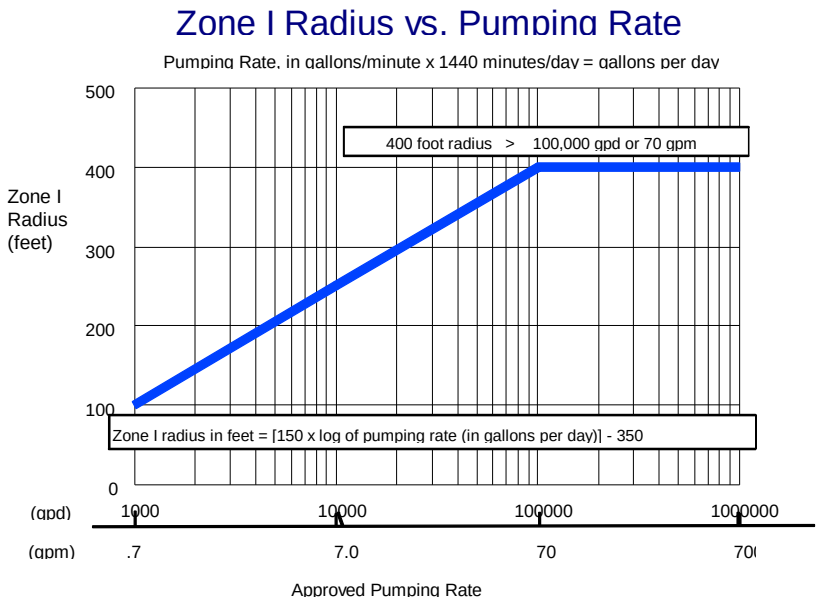
**Please provide a legend and/or clearly label all noted objects.**



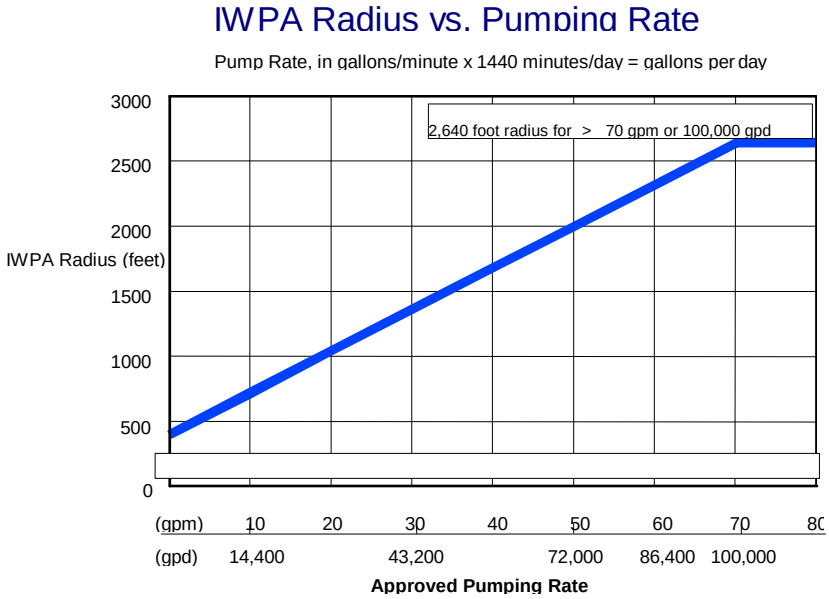

**LEGEND:**

# INSTRUCTIONS FOR LAND USE INVENTORY
## (for use with Sections G/H)

**PROTECT THE RECHARGE AREA OF YOUR WATER SOURCE:** The public water supplier must take an active role in ensuring that each water source is protected and the threat of contamination is minimized. An annual inspection of land uses in the Zone I and Interim Wellhead Protection Area (IWPA) for groundwater sources is an important part of source protection. **Zone I** is the protective radius around a public well or wellfield that must be owned by a water supplier or controlled through a conservation restriction. **IWPA** is used in the absence of a DEP approved Zone II as the area of an aquifer that contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated. **IDENTIFY EACH LAND USE ACTIVITY** that might threaten water quality. Do this by driving or walking through Zones I and IWPA and by contacting the local Board of Health, Fire Dept. or the state DEP for information. Use the list of land uses in **Section G** as a guide. You may also call DEP/DWP at (617) 292-5770 for advice on water supply protection.




**A DEFAULT ZONE I radius of 100 feet may be used for a TNC** well for which there is no metered rate of withdrawal, no DEP-approved pumping rate, OR no DEP-determined radius.




**NOTE:** PUMPING RATE IN GALLONS PER MINUTE (GPM) X 1440 MINUTES/DAY = GALLONS PER DAY (GPD)

**A DEFAULT IWPA radius of 500 feet may be used for a TNC** well for which there is no metered rate of withdrawal, no DEP-approved pumping rate, OR no DEP-determined radius.

# Appendix G

## Certified Operator Compliance Handbook

# Certified Operator Compliance Handbook

For
Noncommunity
Public Water
Systems

Commonwealth of Massachusetts
Department of Environmental Protection
Bureau of Resource Protection
Drinking Water Program
January 1998

# Certified Operator Compliance Handbook

## for Noncommunity Public Water Systems

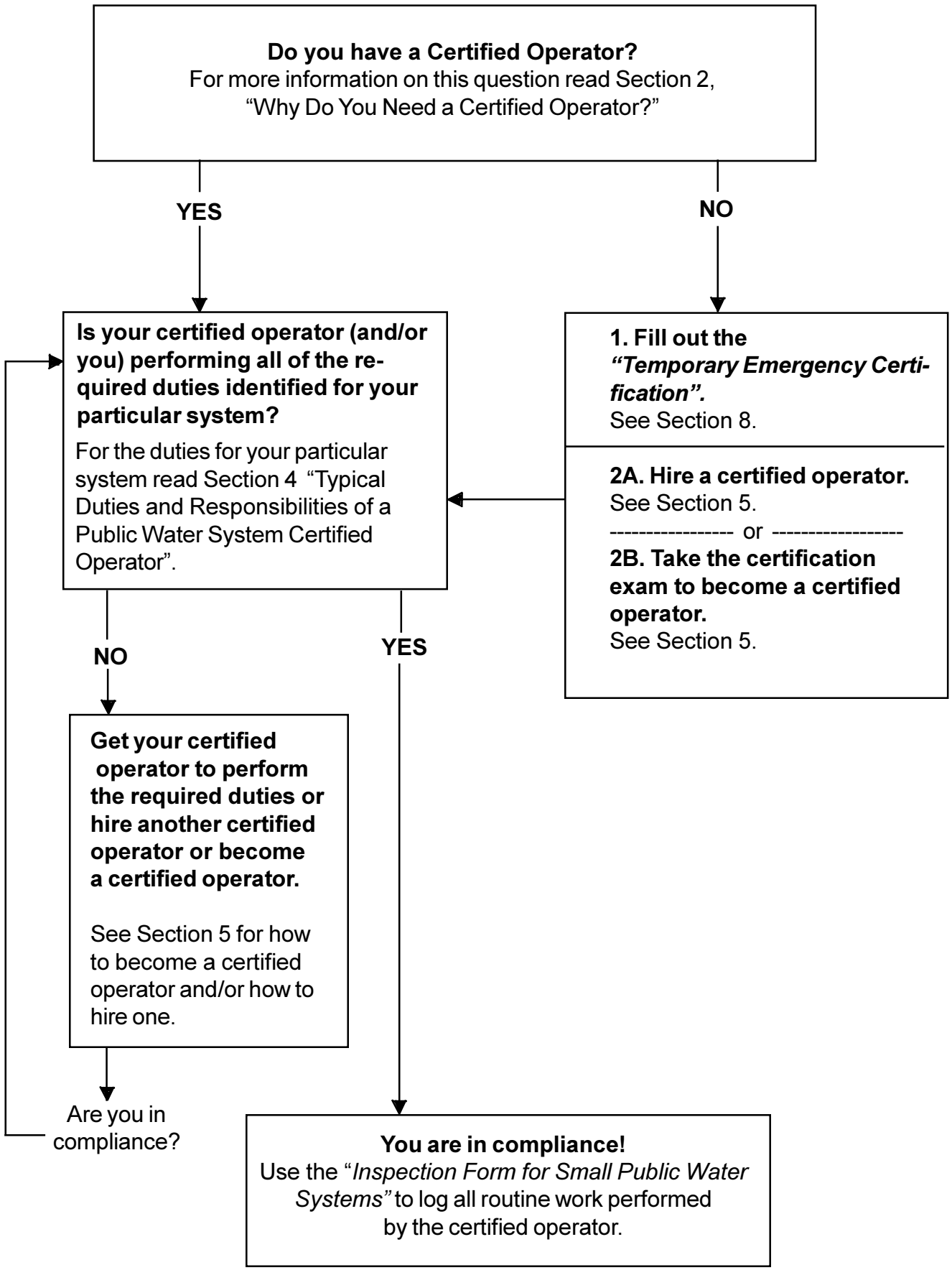
### Contents

# Introduction

This document is intended to help owners and operators of noncommunity public water systems understand the minimum duties and responsibilities as well as the appropriate documentation that are necessary when you are responsible for a drinking water system.

All public water systems are required to have a certified operator and noncommunity systems have two ways to acquire the services of a certified operator. The system can either contract with a certified operator or the owner or a staff member can take and pass the certified operator examination. While the system is working to acquire a certified operator, the system **must** obtain a *Temporary Emergency Certificate* (good for 6 months) to be allowed to continue to operate the system.

This document should help owners and certified operators to make an informed decision on the amount and timing of the duties required to operate a public water system. If the system chooses to contract for a certified operator this document will help in establishing the scope of work and appropriate cost for the contract. This booklet also includes copies of relevant forms including the ***Public Water System Certified Operator Compliance Notice*** (which can be used as the basis of a contract) and the routine *Inspection Form* which DEP is encouraging owners/certified operators to use to document the accomplishments of each site visit.


Do you have a Certified Operator?
For more information on this question read Section 2, "Why Do You Need a Certified Operator?"
YES
NO
Is your certified operator (and/or you) performing all of the required duties identified for your particular system?
For the duties for your particular system read Section 4 "Typical Duties and Responsibilities of a Public Water System Certified Operator".
1. Fill out the "Temporary Emergency Certification". See Section 8.
2A. Hire a certified operator. See Section 5.
---------- or ----------
2B. Take the certification exam to become a certified operator. See Section 5.
NO
YES
Get your certified operator to perform the required duties or hire another certified operator or become a certified operator.
See Section 5 for how to become a certified operator and/or how to hire one.
Are you in compliance?
You are in compliance!
Use the "Inspection Form for Small Public Water Systems" to log all routine work performed by the certified operator.

Instruction Sheet:

1. The following section (6 pages) displays typical duties and responsibilities of public water systems.
2. Select your operational system type from the following 6 (pages) types of sytems:
    1 Seasonal non-community, without treatment;
    2 Seasonal non-community with disinfection;
    3 Seasonal non-community with chemical treatment;
    4 Year round non-community without treatment;
    5 Year round non-community with disinfection;
    6 Year round non-community with chemical treatment.
3. Disregard the rest of the sheets that do not apply to your system.

# TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE:** SEASONAL NON-COMMUNITY PUBLIC WATER SYSTEM
**TREATMENT:** NONE
**GRADE OPERATOR REQUIRED:** VSS (Very Small System)

The certified operator shall:

- be responsible for the **day-to-day** operation and management of the public water system.
- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
- inspect the source, storage facilities and distribution system **prior to start of season and at the end of season**.
- inspect the water system **monthly** during the period that the system is in operation.
- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location and all other appropriate appurtenances.
- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
- report all results to the Department of Environmental Protection **within the time frames specified**.
- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
- notify the Department of Environmental Protection of violations and issue public notices **when necessary**.
- review the sample monitoring schedule and locations **annually.**
- protect the water distribution system and storage facilities from corrosion effects.
- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
- record quantity of water pumped from source **monthly**.
- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety and program, a source protection program plan.
- ensure the accuracy of water meters and other flow measuring devices **annually or as necessary**.
- delineate the wellhead protection zone.
- identify all potential sources of contamination within the wellhead protection zone.
- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
- keep abreast of changes in the drinking water regulations.
- attend training programs and workshops for certification renewal **as needed** .
- accompany regulatory agencies during on-site inspections.
- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
- develop and maintain a complaint log book
- keep accurate records and maintain a filing system for correspondence.
- develop, maintain and keep up to date a public water system standard operational and maintenance manual that contains at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations;
  b) the Department's Guidelines and Policies forPpublic Water Systems; c) the Standard Monitoring Framework; and
  d) other pertinent correspondence or documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **6 to 12 hours** depending on the length of the season. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

**CONTRACT SERVICES:** A public water system may contract for the services of a certified operator to perform all or some of the duties listed above with written approval from the Department of Environmental Protection. A **contracted certified operator** should spend approximately **one hour** per on-site visit to perform the various duties listed above. This time may vary from system to system as will the frequency of visits depending on the specific needs of each system as identified by the Department. In some cases, the certified operator can supervise the operation without being present on a daily basis provided the certified operator has a person working with the system on a daily basis under his or her supervision.

(Cert#1.doc)

# TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE:** SEASONAL NON-COMMUNITY PUBLIC WATER SYSTEM
**TREATMENT:** DISINFECTION PROCESS
**CERTIFIED OPERATOR REQUIRED:** VSS (Very Small System)

The certified operator shall:

- be responsible for the **day-to-day** operation and management of the public water system.
- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
- inspect the source, storage, disinfection process and distribution system **prior to start of season and at the end of season**.
- inspect the water system **daily** during the period that the system is in operation.
- measure and record the chlorine dosage **daily** making dosage adjustments as necessary.
- add chemicals when necessary and rotate stand-by pumps **monthly**.
- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location, disinfection process and all other appropriate appurtenances.
- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
- report all results to the Department of Environmental Protection **within the time frames specified**.
- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
- review the sample monitoring schedule and locations **annually.**
- protect the water distribution system and storage facilities from corrosion effects.
- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
- record quantity of water pumped from source **monthly**.
- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a wellhead protection program plan.
- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
- delineate the wellhead protection zone.
- identify all potential sources of contamination within the wellhead protection zone.
- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
- keep abreast of changes in the drinking water regulations.
- attend training programs and workshops for certification renewal **when appropriate**.
- accompany regulatory agencies during on-site inspections.
- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
- develop and maintain a complaint log book
- keep accurate records and maintain a filing system for correspondence.
- develop, maintain and keep up to date a public water system standard operational and maintenance manual containing at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

**CONTRACT SERVICES:** A public water system may contract for the services of a certified operator to perform all or some of the duties listed above with written approval from the Department of Environmental Protection. A **contracted certified operator** should spend approximately **one hour** per on-site visit to perform the various duties listed above. This time may vary from system to system as will the frequency of visits depending on the specific needs of each system as identified by the Department. In some cases, the certified operator can supervise the operation without being present on a daily basis provided the certified operator has a person working with the system on a daily basis under his or her supervision.

(Cert#2.doc)

# TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE:** **SEASONAL NON-COMMUNITY PUBLIC WATER SYSTEM**
**TREATMENT:** **CHEMICAL TREATMENT**
**GRADE OPERATOR REQUIRED:** **VSS (Very Small system) & 1-T**

The certified operator shall:

- be responsible for the **day-to-day** operation and management of the public water system.
- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
- inspect the source, storage, treatment process and distribution system **prior to start of season and at the end of season**.
- inspect the water system **daily** during the period that the system is in operation.
- measure and record the chemical dosage **daily** making dosage adjustments as necessary.
- add chemicals when necessary and rotate stand-by pumps **monthly**.
- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location, disinfection process and all other appropriate appurtenances.
- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
- report all results to the Department of Environmental Protection **within the time frames specified**.
- conduct a A sanitary survey@ of the public water system **as specified** by the Department of Environmental Protection.
- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
- review the sample monitoring schedule and locations **annually.**
- protect the water distribution system and storage facilities from corrosion effects.
- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
- record quantity of water pumped from source **monthly**.
- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a wellhead protection program plan.
- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
- delineate the wellhead protection zone.
- identify all potential sources of contamination within the wellhead protection zone.
- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
- keep abreast of changes in the drinking water regulations.
- attend training programs and workshops for certification renewal **when appropriate**.
- accompany regulatory agencies during on-site inspections.
- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
- develop and maintain a complaint log book.
- keep accurate records and maintain a filing system for correspondence.
- develop, maintain and keep up to date a public water system standard operational and maintenance manual containing at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guide lines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

**CONTRACT SERVICES:** A public water system may contract for the services of a certified operator to perform all or some of the duties listed above with written approval from the Department of Environmental Protection. A **contracted certified operator** should spend approximately **one hour** per on-site visit to perform the various duties listed above. This time may vary from system to system as will the frequency of visits depending on the specific needs of each system as identified by the Department. In some cases, the certified operator can supervise the operation without being present on a daily basis provided the certified operator has a person working with the system on a daily basis under his or her supervision.

(Cert#3.doc)

# TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE:** YEAR ROUND NON-COMMUNITY PUBLIC WATER SYSTEM
**TREATMENT:** NONE
**GRADE OPERATOR REQUIRED:** VSS (Very Small System)

The certified operator shall:

- be responsible for the **day-to-day** operation and management of the public water system.
- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
- inspect the water system **monthly** (source, storage and distribution).
- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location and all other appropriate appurtenances.
- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
- report all results to the Department of Environmental Protection **within the time frames specified**.
- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
- notify the Department of Environmental Protection of violations and issue public notices **when necessary**.
- review the sample monitoring schedule and locations **annually.**
- protect the water distribution system and storage facilities from corrosion effects.
- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
- record quantity of water pumped from source **monthly**.
- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a source protection program plan.
- ensure the accuracy of water meters and other flow measuring devices **annually or as necessary**.
- delineate the wellhead protection zone.
- identify all potential sources of contamination within the wellhead protection zone.
- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
- keep abreast of changes in the drinking water regulations.
- attend training programs and workshops for certification renewal **as needed** .
- accompany regulatory agencies during on-site inspections.
- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
- develop and maintain a complaint log book
- keep accurate records and maintain a filing system for correspondence.
- develop, maintain and keep up to date a public water system standard operational and maintenance manual which contains at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent correspondence or documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **12 to 24 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

**CONTRACT SERVICES:** A public water system may contract for the services of a certified operator to perform all or some of the duties listed above with written approval from the Department of Environmental Protection. A **contracted certified operator** should spend approximately **one hour** per on-site visit to perform the various duties listed above. This time may vary from system to system as will the frequency of visits depending on the specific needs of each system as identified by the Department. In some cases, the certified operator can supervise the operation without being present on a daily basis provided the certified operator has a person working with the system on a daily basis under his or her supervision.

(Cert#4.doc)

# TYPICAL DUTIES AND RESPONSIBILITIES OF A OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE:** YEAR ROUND NON-COMMUNITY PUBLIC WATER SYTSEM
**TREATMENT:** DISINFECTION PROCESS
**GRADE OPERATOR REQUIRED:** VSS (Very Small System)

The certified operator shall:

- be responsible for the **day-to-day** operation and management of the public water system.
- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
- inspect the water system **daily** (source, storage, treatment and distribution).
- measure and record the chlorine dosage **daily** making dosage adjustments as necessary.
- add chemicals **when necessary** and rotate stand-by pumps **monthly**.
- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location, disinfection process and all other appropriate appurtenances.
- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
- report all results to the Department of Environmental Protection **within the time frames specified**.
- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
- review the sample monitoring schedule and locations **annually.**
- protect the water distribution system and storage facilities from corrosion effects.
- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
- record quantity of water pumped from source **monthly**.
- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a wellhead protection program plan.
- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
- delineate the wellhead protection zone.
- identify all potential sources of contamination within the wellhead protection zone.
- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
- keep abreast of changes in the drinking water regulations.
- attend training programs and workshops for certification renewal **when appropriate**.
- accompany regulatory agencies during on-site inspections.
- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
- develop and maintain a complaint log book
- keep accurate records and maintain a filing system for correspondence.
- develop, maintain and keep up to date a public water system standard operational and maintenance manual which contains at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

**CONTRACT SERVICES:** A public water system may contract for the services of a certified operator to perform all or some of the duties listed above with written approval from the Department of Environmental Protection. A **contracted certified operator** should spend approximately **one hour** per on-site visit to perform the various duties listed above. This time may vary from system to system as will the frequency of visits depending on the specific needs of each system as identified by the Department. In some cases, the certified operator can supervise the operation without being present on a daily basis provided the certified operator has a person working with the system on a daily basis under his or her supervision.

(Cert#5.doc)

# TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE:** YEAR ROUND NON-COMMUNITY PUBLIC WATER SYSTEM
**TREATMENT:** CHEMICAL TREATMENT
**GRADE REQUIRED:** VSS (Very Small system) & 1-T

The certified operator shall:

- be responsible for the **day-to-day** operation and management of the public water system.
- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
- inspect the water system **daily** (source, storage facilities, treatment process and distribution).
- measure and record the chemical dosage **daily** making dosage adjustments as necessary.
- add chemicals **when necessary** and rotate stand-by pumps **monthly**.
- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample - location, disinfection process and all other appropriate appurtenances.
- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
- report all results to the Department of Environmental Protection **within the time frames specified**.
- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
- review the sample monitoring schedule and locations **annually.**
- protect the water distribution system and storage facilities from corrosion effects.
- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
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- record quantity of water pumped from source **monthly**.
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- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
- delineate the wellhead protection zone.
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- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
- keep abreast of changes in the drinking water regulations.
- attend training programs and workshops for certification renewal **when appropriate**.
- accompany regulatory agencies during on-site inspections.
- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
- develop and maintain a complaint log book
- keep accurate records and maintain filing system for correspondences.
- develop, maintain and keep up to date a public water system standard operational and maintenance manual which contains at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

**CONTRACT SERVICES:** A public water system may contract for the services of a certified operator to perform all or some of the duties listed above with written approval from the Department of Environmental Protection. A **contracted certified operator** should spend approximately **one hour** per on-site visit to perform the various duties listed above. This time may vary from system to system as will the frequency of visits depending on the specific needs of each system as identified by the Department. In some cases, the certified operator can supervise the operation without being present on a daily basis provided the certified operator has a person working with the system on a daily basis under his or her supervision.

(Cert#6.wp)

# Step By Step to Becoming A Certified Drinking Water Operator

1 Call or write the National Assessment Institute (NAI), 2 Mount Royal Avenue, Suite 250, Marlborough, MA 01752, 508-624-0826 to receive the Bulletin of Information containing all the necessary information concerning the operator certification examination and a list of study material to prepare for the examination.

2 Fill out the Board of Certification of Operators of Drinking Water Supply Facilities (Board) Education and Experience Worksheet enclosed in the Bulletin of Information to determine which grade of certification examination you should take. (Keep the worksheet for use in completing both the Exam Registration form and Application for Operator Certification).

3 Complete the Commonwealth of Massachusetts Drinking Water Operator Registration Form which is also enclosed in the Bulletin of Information and send it to The National Assessment Institute, 2 Mount Royal Avenue, Suite 250, Marlborough, MA 01752 with a money order, city/town issued check, or cashier's check for $60.00 no less than forty (40) days prior to the test date. (No personal checks will be accepted).

4 NAI will then mail you an exam admission notice, which will indicate the specific date, time and location of the exam.

5 After you have taken and successfully passed the certification examination, NAI will mail you an Application for Operator Certification. Refer to the Education and Experience Worksheet which was enclosed in the Bulletin of Information to determine the grade and status of certification for which you should apply.

6 Complete the Application for Operator Certification and send it along with a $25.00 check for the application and license fee payable to the Commonwealth of Massachusetts to Board of Certification of Operators of Drinking Water Supply Facilities, Division of Registration, Leverett Saltonstall Building, Government Center, 100 Cambridge Street, Room 1406, Boston, MA 02202.

7 The Board will review your application and grant you certification as either a full status or operator-in-training status operator in the grade for which you passed the certification examination.

8 You will receive your operator certification by mail in 6-8 weeks from the time your application is accepted.

9 If you have any questions concerning operator certification please call 617-292-5770.

tncmanua/Stepstep

# Procedures for Contracting a Certified Operator

Federal and state regulations (Massachusetts Drinking Water Regulation 310 CMR 22.11B) require all public water supplies to be operated by a certified drinking water operator. This operator must have a grade of certification that corresponds with the classification of the system. If your system does not have a certified operator, there are two methods for obtaining a certified operator. A staff person of the system can become a certified operator (refer to Step-by-Step to Becoming a Certified Operator) or the system can hire a certified operator on a contract basis.

To hire a certified operator on a contract basis the public water system must:

1 Choose a full status certified operator with a grade of certification that corresponds with the classification of your system. You can choose an operator on your own or refer to the Directory of Public Water System Certified Operators for Contract Services for certified operators in your area that are willing to operate public water systems on a contract basis. The Directory can be purchased at the Massachusetts State Bookstore for $13.15 or mailed for $16.20. Contact or visit the State Bookstore, State House, Room 116, 1st. Floor, Boston, MA 02133 (Boston number 617-727-2834 or Springfiled number 413-784-1376).

2 Come to a contract agreement with the certified operator you have chosen.

3 The certified operator and the person responsible for the public water system must complete the Certified Operator Compliance Notice. (Call 617-292-5770 if a form is needed)

4 Send the completed Certified Operator Compliance Notice to the Board of Certification of Operators of Drinking Water Supply Facilities (Board), Division of Registration, 100 Cambridge Street, Boston, MA 02202 for verification of the certified operator's current status.

5 Upon verification of the certified operator's status, the Board will sign the notice and return it to the system.

6 The public water system must then send the Board verified notice to the DEP, Drinking Water Program regional office, for review and approval.

It is extremely important to note that if a system does not currently have the required certified operator, but is taking action to obtain one, it is necessary to apply to the Board for a Temporary Emergency Certification. The Temporary Emergency Certification allows a system to operate in compliance with 310 CMR 22.11B until a certified operator can be obtained. The Temporary Emergency Certification allows a system to assign someone to operate the facility under the certification for 6 months. This certification is not renewable. Call the Division of Registration at 617-727-3067 or DEP at 617-292-5770 for a Temporary Emergency Certification Application.

Instruction Sheet:

The following 9 pages which include the document, *"Public Water System Certified Operator Compliance Notice (PWSCOCN)",* must be used when hiring a Massachusetts Certified Drinking Water Operator to manage your public water system.

Please note that there are 6 pages of *"Typical Duties and Responsibilities of a Public Water System Certified Operator"* enclosed in the PWSCOCN.
Choose the page that describes your particular system's type. Fill out that form with the operator and include it in this compliance notice. Only that page should be filled out and included with your PWSCOCN.

Commonwealth of Massachusetts
Executive Office of Environmental Affairs
**Department of Environmental Protection**
**One Winter Street, Boston, Ma 02108 617-292-5500**

ARGEO PAUL CELLUCCI
Governor

TRUDY COXE
Secretary

DAVID B. STRUHS
Commissioner

## PUBLIC WATER SYSTEM CERTIFIED OPERATOR COMPLIANCE NOTICE

The following public water system is notifying the Department of Environmental Protection of its intent to retain the services of an independent contractor to serve as its certified operator:

Public Water System: _____ PWSID# _____

Address: _____ City/Town: _____ ZIP: _____

Owner: _____ Title: _____

System Type: ☐ Community, ☐ Non-Transient Noncommunity, ☐ Transient Noncommunity

Population: _____ Distribution Class: _____ Treatment Class: _____

Treatment: Yes ☐ No ☐ Filtration: Yes ☐ No ☐

If yes, please specify: _____

This form constitutes a notice of intent from the above named public water system to the Commonwealth of Massachusetts, Department of Environmental Protection (Department), for the purpose of providing a means whereby said public water system can fulfill its statutory obligation under MGL Chapter 112 Section 87DDDD and 310 CMR 22.11B Massachusetts Drinking Water Regulations, to have said system operated under the supervision of an operator certified by the Board of Certification of Operators of Drinking Water Supply Facilities to ensure the proper management, operation, and maintenance of treatment and/or distribution of a public water system.

Said public water system intends to comply with the above requirements by contracting with (operator's name) _____ (grade)_____ (Cert. #) _____, a Massachusetts Certified Operator. Said operator will function as the (primary, secondary) supervisor as required by law, regulation, policy and/or guidelines; will be available on a regular basis, _____ hours per day, _____ days per (week, month); and will be able to respond to an emergency within _____ minutes.

The certified operator shall be responsible for the operation and management of the public water system to ensure that said system is in compliance with ***310 CMR 22.00, Massachusetts Drinking Water Regulations.*** To ensure proper operation of said public water system, the certified operator in responsible charge agrees to perform the duties as specified within this document including those duties and responsibilities indicated within the "Typical Duties and Responsibilities of a Public Water System Certified Operator" form. In some cases, the certified operator can supervise the operation without being present on a daily basis provided the certified operator has a person working with the system on a daily basis under his or her supervision.

## TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE: SEASONAL NON-COMMUNITY PUBLIC WATER SYSTEM**
**TREATMENT: NONE**
**GRADE OPERATOR REQUIRED: VSS (Very Small System)**

The contracted certified operator or system delegate (public water system owner or employee) under his or her direct supervision shall perform the following duties. Indicate by a check mark in box 1 those duties that will be performed by the contracted certified operator. Indicate by a check mark in box 2 those duties that will be performed by the person who is under the direct supervision of the certified operator. Check box 3 when duties are shared.

1 2 3

❑❑❑ -be responsible for the **day- to-day** operation and management of the public water system.
❑❑❑-ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
❑❑❑- inspect the source, storage facilities and distribution system **prior to start of season and at the end of season**.
❑❑❑- inspect the water system **monthly** during the period that the system is in operation.
❑❑❑- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
❑❑❑- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location and all other appropriate appurtenances.
❑❑❑- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
❑❑❑- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
❑❑❑- report all results to the Department of Environmental Protection **within the time frames specified**.
❑❑❑- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
❑❑❑- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
❑❑❑- notify the Department of Environmental Protection of violations and issue public notices **when necessary**.
❑❑❑- review the sample monitoring schedule and locations **annually.**
❑❑❑- protect the water distribution system and storage facilities from corrosion effects.
❑❑❑- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
❑❑❑- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
❑❑❑- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
❑❑❑- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
❑❑❑- record quantity of water pumped from source **monthly**.
❑❑❑- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a source protection program plan.
❑❑❑- ensure the accuracy of water meters and other flow measuring devices **annually or as necessary**.
❑❑❑- delineate the wellhead protection zone.
❑❑❑- identify all potential sources of contamination within the wellhead protection zone.
❑❑❑- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
❑❑❑- keep abreast of changes in the drinking water regulations.
❑❑❑- attend training programs and workshops for certification renewal **as needed** .
❑❑❑- accompany regulatory agencies during on-site inspections.
❑❑❑- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
❑❑❑- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
❑❑❑- develop and maintain a complaint log book
❑❑❑- keep accurate records and maintain a filing system for correspondence.
❑❑❑- develop, maintain and keep up to date a public water system standard operational and maintenance manual that contains at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guide lines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent correspondence or documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **6 to 12 hours** depending on the length of the season. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

## TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

| | |
|---|---|
| **PWS TYPE:** | **SEASONAL NON-COMMUNITY PUBLIC WATER SYSTEM** |
| **TREATMENT:** | **DISINFECTION PROCESS** |
| **CERTIFIED OPERATOR REQUIRED:** | **VSS (Very Small System)** |

The contracted certified operator or system delegate (public water system owner or employee) under his or her direct supervision shall perform the following duties. Indicate by check mark in box number 1 those duties that will be performed by the contracted certified operator. Indicate by check mark in box number 2 those duties that will be performed by the person who is under the direct supervision of the certified operator. Check box number 3 when duties are shared.

1 2 3

❑❑❑- be responsible for the **day-to-day** operation and management of the public water system.
❑❑❑- ensure the deliver of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
❑❑❑- inspect the source, storage, disinfection process and distribution system **prior to start of season and at the end of season**.
❑❑❑- inspect the water system **daily** during the period that the system is in operation.
❑❑❑- measure and record the chlorine dosage **daily** making dosage adjustments as necessary.
❑❑❑- add chemicals when necessary and rotate stand-by pumps **monthly**.
❑❑❑- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
❑❑❑- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location, disinfection process and all other appropriate appurtenances.
❑❑❑- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
❑❑❑- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
❑❑❑- report all results to the Department of Environmental Protection **within the time frames specified**.
❑❑❑- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
❑❑❑- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
❑❑❑- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
❑❑❑- review the sample monitoring schedule and locations **annually.**
❑❑❑- protect the water distribution system and storage facilities from corrosion effects.
❑❑❑- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
❑❑❑- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
❑❑❑- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
❑❑❑- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
❑❑❑- record quantity of water pumped from source **monthly**.
❑❑❑- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a wellhead protection program plan.
❑❑❑- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
❑❑❑- delineate the wellhead protection zone.
❑❑❑- identify all potential sources of contamination within the wellhead protection zone.
❑❑❑- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
❑❑❑- keep abreast of changes in the drinking water regulations.
❑❑❑- attend training programs and workshops for certification renewal **when appropriate**.
❑❑❑- accompany regulatory agencies during on-site inspections.
❑❑❑- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
❑❑❑- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
❑❑❑- keep accurate records and maintain a filing system for correspondence.
❑❑❑- develop, maintain and keep up to date a public water system standard operational and maintenance manual containing at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

## TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE:** SEASONAL NON-COMMUNITY PUBLIC WATER SYSTEM
**TREATMENT:** CHEMICAL TREATMENT
**GRADE OPERATOR REQUIRED:** VSS (Very Small system) & 1-T

The contracted certified operator or system delegate (public water system owner or employee) under his or her direct supervision shall perform the following duties. Indicate by check mark in box number 1 those duties that will be performed by the contracted certified operator. Indicate by check mark in box number 2 those duties that will be performed by the person who is under the direct supervision of the certified operator. Check box number 3 when duties are shared.

1 2 3

❑❑❑- be responsible for the **day- to-day** operation and management of the public water system.
❑❑❑- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
❑❑❑- inspect the source, storage, treatment process and distribution system **prior to start of season and at the end of season**.
❑❑❑- inspect the water system **daily** during the period that the system is in operation.
❑❑❑- measure and record the chemical dosage **daily** making dosage adjustments as necessary.
❑❑❑- add chemicals when necessary and rotate stand-by pumps **monthly**.
❑❑❑- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
❑❑❑- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location, disinfection process and all other appropriate appurtenances.
❑❑❑-collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
❑❑❑- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
❑❑❑- report all results to the Department of Environmental Protection **within the time frames specified**.
❑❑❑- conduct a sanitary survey of the public water system **as specified** by the Department of Environmental Protection.
❑❑❑- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
❑❑❑- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
❑❑❑- review the sample monitoring schedule and locations **annually.**
❑❑❑- protect the water distribution system and storage facilities from corrosion effects.
❑❑❑ observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
❑❑❑ inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
❑❑❑- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
❑❑❑- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
❑❑❑- record quantity of water pumped from source **monthly**.
❑❑❑- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a wellhead protection program plan.
❑❑❑- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
❑❑❑- delineate the wellhead protection zone.
❑❑❑- identify all potential sources of contamination within the wellhead protection zone.
❑❑❑- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
❑❑❑- keep abreast of changes in the drinking water regulations.
❑❑❑- attend training programs and workshops for certification renewal **when appropriate**.
❑❑❑- accompany regulatory agencies during on-site inspections.
❑❑❑- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
❑❑❑- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
❑❑❑- develop and maintain a complaint log book
❑❑❑- keep accurate records and maintain a filing system for correspondence.
❑❑❑- develop, maintain and keep up to date a public water system standard operational and maintenance manual containing at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

## TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

**PWS TYPE:** SEASONAL NON-COMMUNITY PUBLIC WATER SYSTEM
**TREATMENT:** CHEMICAL TREATMENT
**GRADE OPERATOR REQUIRED:** VSS (Very Small system) & 1-T

The contracted certified operator or system delegate (public water system owner or employee) under his or her direct supervision shall perform the following duties. Indicate by check mark in box number 1 those duties that will be performed by the contracted certified operator. Indicate by check mark in box number 2 those duties that will be performed by the person who is under the direct supervision of the certified operator. Check box number 3 when duties are shared.

1 2 3

❑❑❑- be responsible for the **day- to-day** operation and management of the public water system.
❑❑❑- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
❑❑❑- inspect the source, storage, treatment process and distribution system **prior to start of season and at the end of season**.
❑❑❑- inspect the water system **daily** during the period that the system is in operation.
❑❑❑- measure and record the chemical dosage **daily** making dosage adjustments as necessary.
❑❑❑- add chemicals when necessary and rotate stand-by pumps **monthly**.
❑❑❑- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
❑❑❑- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location, disinfection process and all other appropriate appurtenances.
❑❑❑-collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
❑❑❑- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
❑❑❑- report all results to the Department of Environmental Protection **within the time frames specified**.
❑❑❑- conduct a sanitary survey of the public water system **as specified** by the Department of Environmental Protection.
❑❑❑- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
❑❑❑- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
❑❑❑- review the sample monitoring schedule and locations **annually.**
❑❑❑- protect the water distribution system and storage facilities from corrosion effects.
❑❑❑ observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
❑❑❑ inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
❑❑❑- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
❑❑❑- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
❑❑❑- record quantity of water pumped from source **monthly**.
❑❑❑- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a wellhead protection program plan.
❑❑❑- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
❑❑❑- delineate the wellhead protection zone.
❑❑❑- identify all potential sources of contamination within the wellhead protection zone.
❑❑❑- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
❑❑❑- keep abreast of changes in the drinking water regulations.
❑❑❑- attend training programs and workshops for certification renewal **when appropriate**.
❑❑❑- accompany regulatory agencies during on-site inspections.
❑❑❑- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
❑❑❑- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
❑❑❑- develop and maintain a complaint log book
❑❑❑- keep accurate records and maintain a filing system for correspondence.
❑❑❑- develop, maintain and keep up to date a public water system standard operational and maintenance manual containing at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

(Cert#3c.doc)

# TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

| | |
|---|---|
| **PWS TYPE:** | **YEAR ROUND NON-COMMUNITY PUBLIC WATER SYSTEM** |
| **TREATMENT:** | **DISINFECTION PROCESS** |
| **GRADE OPERATOR REQUIRED:** | **VSS (Very Small System)** |

The contracted certified operator or system delegate (public water system owner or employee) under his or her direct supervision shall perform the following duties. Indicate by check mark in box number1 those duties that will be performed by the contracted certified operator. Indicate by check mark in box number 2 those duties that will be performed by the person who is under the direct supervision of the certified operator. Check box number 3 when duties are shared.

1 2 3

❑❑❑- be responsible for the **day-to-day** operation and management of the public water system.
❑❑❑- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
❑❑❑- inspect the water system **daily** (source, storage, treatment and distribution).
❑❑❑- measure and record the chlorine dosage **daily** making dosage adjustments as necessary.
❑❑❑- add chemicals **when necessary** and rotate stand-by pumps **monthly**.
❑❑❑- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
❑❑❑- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location, disinfection process and all other appropriate appurtenances.
❑❑❑- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
❑❑❑- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
❑❑❑- report all results to the Department of Environmental Protection **within the time frames specified**.
❑❑❑- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
❑❑❑- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
❑❑❑- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
❑❑❑- review the sample monitoring schedule and locations **annually.**
❑❑❑ protect the water distribution system and storage facilities from corrosion effects.
❑❑❑- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
❑❑❑- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
❑❑❑- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
❑❑❑- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
❑❑❑- record quantity of water pumped from source **monthly**.
❑❑❑- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a wellhead protection program plan.
❑❑❑- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
❑❑❑- delineate the wellhead protection zone.
❑❑❑- identify all potential sources of contamination within the wellhead protection zone.
❑❑❑- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
❑❑❑- keep abreast of changes in the drinking water regulations.
❑❑❑- attend training programs and workshops for certification renewal **when appropriate**.
❑❑❑- accompany regulatory agencies during on-site inspections.
❑❑❑- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
❑❑❑- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
❑❑❑- develop and maintain a complaint log book
❑❑❑- keep accurate records and maintain a filing system for correspondence.
❑❑❑- develop, maintain and keep up to date a public water system standard operational and maintenance manual which contains at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

(Cert#5c.doc)

# TYPICAL DUTIES AND RESPONSIBILITIES OF A PUBLIC WATER SYSTEM CERTIFIED OPERATOR

| | |
|---|---|
| **PWS TYPE:** | **YEAR ROUND NON-COMMUNITY PUBLIC WATER SYSTEM** |
| **TREATMENT:** | **CHEMICAL TREATMENT** |
| **GRADE REQUIRED:** | **VSS (Very Small system) & 1-T** |

The contracted certified operator or system delegate (public water system owner or employee) under his or her direct supervision shall perform the following duties. Indicate by check mark in box number1 those duties that will be performed by the contracted certified operator. Indicate by check mark in box number 2 those duties that will be performed by the person who is under the direct supervision ofthe certified operators. Check box number 3 when duties are shared.

1 2 3

❑❑❑- be responsible for the **day-to-day** operation and management of the public water system.
❑❑❑- ensure the delivery of safe drinking water **at all times** by complying with the Drinking Water Regulations of Massachusetts.
❑❑❑- inspect the water system **daily** (source, storage facilities, treatment process and distribution).
❑❑❑- measure and record the chemical dosage **daily** making dosage adjustments as necessary.
❑❑❑- add chemicals **when necessary** and rotate stand-by pumps **monthly**.
❑❑❑- test, flush, clean and disinfect the water distribution system and storage tanks **when necessary**.
❑❑❑- develop, and maintain for accuracy, a site plan showing the water source, a map of the water distribution system and sample location, disinfection process and all other appropriate appurtenances.
❑❑❑- collect or oversee the collection of water samples **as specified** by the Department of Environmental Protection.
❑❑❑- ensure that all samples are delivered to and analyzed by a Massachusetts certified laboratory.
❑❑❑- report all results to the Department of Environmental Protection **within the time frames specified**.
❑❑❑- conduct a "sanitary survey" of the public water system **as specified** by the Department of Environmental Protection.
❑❑❑- complete and submit to the Department of Environmental Protection the Annual Water Supply Statistical Report and all other required forms **in a timely manner**.
❑❑❑- notify the Department of Environmental Protection of a violation and issue public notices **when necessary**.
❑❑❑- review the sample monitoring schedule and locations **annually.**
❑❑❑- protect the water distribution system and storage facilities from corrosion effects.
❑❑❑- observe pump motors to detect unusual noises, vibrations, or excessive heat **routinely.**
❑❑❑- inspect, adjust and clean pump seals and packing glands and any mechanical seals **when necessary**.
❑❑❑- be present during water system repairs and maintenance and/or oversee the maintenance of the public water system conducted by other individuals such as staff or contractors.
❑❑❑- be present **within 24 hours** of fecal or second Total Coliform positive or other water system failures.
❑❑❑- record quantity of water pumped from source **monthly**.
❑❑❑- develop, implement and keep up to date a distribution protection cross connection control program, a preventive maintenance schedule, an operation and maintenance budget plan, an emergency response plan and safety program, and a wellhead protection program plan.
❑❑❑- ensure the accuracy of water meters and other flow measuring devices **as necessary**.
❑❑❑- delineate the wellhead protection zone.
❑❑❑- identify all potential sources of contamination within the wellhead protection zone.
❑❑❑- troubleshoot mechanical equipment, water quality and quantity problems and take corrective actions as necessary.
❑❑❑- keep abreast of changes in the drinking water regulations.
❑❑❑- attend training programs and workshops for certification renewal **when appropriate**.
❑❑❑- accompany regulatory agencies during on-site inspections.
❑❑❑- troubleshoot to locate the causes of water quality complaints and respond to consumer complaints in a **timely fashion.**
❑❑❑- discuss with the water consumers their concerns regarding the quality and quantity of drinking water they receive.
❑❑❑- develop and maintain a complaint log book
❑❑❑- keep accurate records and maintain a filing system for correspondence.
❑❑❑- develop, maintain and keep up to date a public water system standard operational and maintenance manual which contains at a minimum a) the most recent version of 310 CMR 22.00, Drinking Water Regulations; b) the Department's Guidelines and Policies for Public Water Systems; c) the Standard Monitoring Framework; and d) other pertinent documents.

**ESTIMATED TIME:** The annual estimated time required to perform all the duties and responsibilities listed above is approximately **180 to 360 hours**. Exceptions to the staffing requirements may be allowed by the Department. Contact your regional office for further information.

Other Duties of Certified Operator:

_____

_____

_____

Other PWS Responsible Party Duties:

_____

_____

_____

_____

**CONTRACT SERVICES:** A public water system may contract for the services of a certified operator to perform all or some of the duties listed above with written approval from the Department of Environmental Protection. A **contracted certified operator** should spend approximately **one hour** per on-site visit to perform the various duties listed above. This time and frequency of visits may vary depending on the specific needs of each system as identified by the Department.

**PURPOSE:** The duties and responsibilities listed in this document should act as guidelines for very small public water system owners to be used when they employ a contracted certified operator to be the person who is in responsible charge of said public water system. A comprehensive list of recommended duties and frequency is provided to give both the operator and public water system owner a better understanding not only of what is expected, but what is required to operate a public water system and stay in compliance with the Massachusetts Drinking Water Regulations. Operators and owners of public water systems should use this document as a guideline in determining operational requirements of the public water system. Although this is a comprehensive list of duties, it does not necessarily include everything that a certified operator is required to do in the performance of his or her duties.

**Section 1 : Signature of PWS Owner/Responsible Party**

Signature: _____ Title: _____

Print Name: _____ Date: _____

**Section 2: Signature of Certified Operator**

Signature: _____ Date_____

Affiliation/Company: _____ Certification Number: _____

Print Name: _____

Please list the names and PWS ID # number of **all** other systems which you operate (attach list if necessary).

| Public Water System | PWS ID # | Public Water System | PWS ID # |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Section 3:**
**Board of Certification of Operators of Drinking Water Supply Facilities**
The Board reviewed this agreement at its meeting held on _____, 19 _____ and confirms that the operator listed above is currently certified by the Board in the Grade specified.

Chairman's Signature:

_____

Verified ☐ Refuted ☐

Comments: _____

**Section 4: Department of Environmental Protection**
Signature: _____ Title: _____

Print Name: _____ Date: _____

Approved ☐ Denied ☐

Comments: _____

**This agreement is subject to the following conditions:**

1. It is the responsibility of the public water system, acting through its highest level of management, to ensure that the contracted operator maintains a currently valid Massachusetts Drinking Water Operators Certification equal to or greater than the class of the system he or she is operating.

2. Said system recognizes its obligation and assumes the responsibility of notifying the Department of Environmental Protection, in writing, within 48 hours, of the loss of an operator or a change in certified operators.

3. Said system and certified operator shall notify all interested parties of the existence and responsibilities of this agreement.

INSTRUCTIONS:
The original form must be completed by the public water system and certified operator and submitted to the Board of Certification of Operators of Drinking Water Supply Facilities.

The Board will verify the information and return the signed form to the Department of Environmental Protection for review. A copy of the form will be placed in the Department's public water system file.

Once the Department grants approval, the original will be returned to the public water system. The public water system shall keep the original form on file, provide a copy to the operator, and send a copy to the Board of Certification of Operators of Drinking Water Supply Facilities, Division of Registration, 100 Cambridge Street, Room 1406, Boston, MA 02202, where it will be placed in the operator's file.

There are several versions of the form entitled, "Typical Duties and Responsibilities of a Public Water System Certified Operator." Complete only the form that corresponds to your public water system type. Disregard the others.

If you have any questions call the Department of Environmental Protection's regional office in your area. Springfield, 413-784-1100; Worcester, 508-792-7650; Wilmington, 978-661-7600; Lakeville, 508-946-2769.

# Inspection Form: Small Public Water Systems

CERTIFIED OPERATOR INSPECTION FORM

If you are classified as a small water system that serves less than 3300 people, you must perform regular inspections of your system to ensure it is functioning properly. You must also keep records and inspect the Zone I and protection area around your source. This form should be completed by a certified operator and kept with your records. DEP staff will ask to see these forms during routine inspections and sanitary surveys.

***Date of Inspection:***_____ ***Type of System***: *COM / NTNC / TNC* ***Class***: *VSS / DI / DII*

***PWS Name:***_____ ***PWS ID #:*** _____

***Operator:*** _____ ***Grade ID #:***_____

***This inspection must be performed by a certified operator on a routine basis***

Owner/Responsible Party: _____ Present at Inspection: Yes No

Designated Person at Inspection/Position:_____

| SYSTEM COMPONENTS | COMMENTS |
|---|---|
| ☐ Wellhead - Zone 1 | |
| ☐ Storage Facilities | |
| ☐ Chemical Addition System | |
| ☐ Distribution Piping | |
| | |
| **SYSTEM MAINTENANCE** | **COMMENTS** |
| ☐ Review Maintenance Schedule | |
| ☐ Pumps | |
| ☐ Calibrating Instrumentation | |
| | |
| **RECORD KEEPING** | **COMMENTS** |
| ☐ Discuss DEP Correspondence with Owner | |
| ☐ Statistical Reports | |
| ☐ WQ Waiver Applications | |
| ☐ WQ Sample Schedules | |
| ☐ Other | |
| ☐ Record Flow Meter Readings | |
| ☐ Discuss Drinking Water Regulations with Owner | |
| | |

Signature of Operator Performing Inspection:_____Date:_____

***Commonwealth of Massachusetts - Division of Registration***
*Board of Certification of Operators of Drinking Water Supply Facilities*

# Application for Temporary Emergency Certification

*Leverett Saltonstall Building, 100 Cambridge Street - Room 1406, Boston MA 02202*

## A *Applicant Information*

*Name of Public Water System* _____ *PWS ID#* _____

*Classification of System* _____ *Contact Person* _____

*Address* _____ *Work Telephone #* _____ *Home Telephone #* _____

*City/Town* _____ *Zip Code* _____

**Instructions:**

1. If you are assisting a current operator of your system to meet certification requirements, you must contact NAI at (508) 624-0826 to register for the operator examination before applying for temporary emergency certification.

2. Read all instructions and questions before filling out this application.

3. Answer all questions on this form. If a question is not applicable, draw a line in the space or write NA. *Incomplete applications will be returned.*

4. Enclose a check or money order for the amount of $10.00, payable to the Commonwealth of Massachusetts.

5. Send your complete application package to the address at the top of this page.

## B *Temporary Emergency Certification Grade Information*

Grade of temporary emergency certificate applying for (check one):

1. ☐ VSS (very small system)
2. ☐ VND (vending machine) ☐ VND-1D ☐ VND-2D ☐ VND-1T ☐ VND-2T ☐ VND-3T ☐ VND-4T
3. ☐ Distribution ☐1D ☐2D ☐3D ☐4D
4. ☐ Treatment ☐ 1T ☐ 2T ☐ 3T ☐ 4T

**Note:** Temporary emergency certificates are valid for a period of six months from the date of approval by the Board and cannot be renewed.

## C *Staffing Requirement Information*

1. Why is temporary emergency certification necessary for your public water system?

_____

_____

_____

_____

_____

_____

2. Does your public water system plan to hire an operator on a contract basis? ☐ Yes ☐ No

3. Do you plan to become a certified operator? ☐ Yes ☐ No

4. Does your public water system plan to assist a current operator of your system to meet certification require ments? ☐ Yes ☐ No

5. If you answered yes to #3 and #4, please answer the following:

a. Grade of examination operator will be taking:

- ☐ VSS (very small system)
- ☐ VND (vending machine)
- ☐ Distribution ☐1D ☐2D ☐3D ☐4D
- ☐ Treatment ☐ 1T ☐ 2T ☐ 3T ☐ 4T

b. Date on which examination will be taken: _____

c. Is the operator enrolled in an examination preparation training course? ☐ Yes ☐ No

If yes, please list the name(s) of the course(s) and the sponsoring organization(s):

_____

_____

6. Under what capacity would this operator function?
☐ Primary operator ☐ Secondary operator

## D *Experience*

In the following spaces, please furnish information about the operator designated to operate the system under the temporary emergency certification:

*Name*

*Address*

*Title*

*City/Town* *Zip Code*

*Date This Position Began*

*Work Telephone #* *Home Telephone #*

Is this person presently an operator of a PWS, as defined in 236 CMR 2.03? o Yes o No

*Supervisor* *Title*

*Grade(s)*

How long has this person worked as an operator of said system?

*Supervisor's Telephone #*

*Years* *Months*

## E *Affidavit*

"I do solemnly swear (affirm) that I am the person responsible for said public water supply facility and that I have read the contents hereof, and to the best of my knowledge and belief that all statements and answers are true in substance and effect and are made in good faith. I understand that misstatement of material facts may result in forfeiture of all rights to certification as a drinking water operator in Massachusetts."

*Signature of Responsible Party*

*Date*

# Appendix H

## Forms

**Please Post**

# Public Notification

**Monitoring and Reporting Violations**

Town _____
PWS Name _____
PWS ID # _____

This notification is to inform the customers of the _____ (PWS Name)

that the _____ (PWS Name) failed to monitor and/or report the test results

for regulated contaminant,_____ (Name of Contaminant),during_____ (Sample Period)

as required by the Department of Environmental Protection and/or the U.S. Environmental Protection Agency (EPA). This failure to monitor and/or report constitutes a violation of Massachusetts Drinking Water Regulations, 310 CMR 22.15 and/or 22.16, and requires public notification by the public water supplier. The U.S. EPA sets drinking water standards and has determined that the regulated contaminant may pose a health concern at excessive levels of exposure.

The _____ (PWS Name) has taken the following steps to correct the failure to monitor and/or report:

_____

_____

Questions regarding this notice should be directed to: _____ (Owner or Operator) at _____ (Phone Number).

_____ (Date Posted) _____ (Date)

**This notice must be posted for three weeks.**

Send a copy of this notice to your regional DEP Office.

# COMPLAINT LOG

_____

Public Water System Name and ID Number

CALENDAR YEAR_____

| DATE— CALL TAKEN BY | CALLER NAME & ADDRESS | TEL. NUMBER | COMPLAINT taste/odor color quantity/other | ACTION TAKE OR ADVICE |
|---|---|---|---|---|
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***USE THIS LOG to keep a record of complaints from your customers. If you cannot resolve a problem, contact your DEP Regional Office. DEP may request a copy of your complaint log at any time.***

**Pg._____of_____**

# Source Protection Sign Order Form

## Northeast Rural Water Association

Please make check or money order payable to NeRWA
Send to 6 Prim Road, PO Box 622, Colchester, VT 05446
Call 802-660-4988 with any questions.
Fax 802-660-4990

All signs are .12 gauge aluminum

| | | Quantity | | |
|---|---|---|---|---|
| NO TRESPASSING | 11.25" X 7.5" (Black with Blue) | | @ $2.50 = | |
| DRINKING WATER SUPPLY AREA | 11.25" x 11.25" (Blue) | | @ $2.50 = | |
| DRINKING WATER SUPPLY AREA | 18" x 24" (Blue) | | @ $10.00 = | |

Shipping and Handling Charge: (not for 18 X 24 signs)

Order 1 - 14 Add $3.00
Order 15 - 24 Add $4.00
Order 25 - 31 Add $5.00
Order 32 - 50 Add $8.00
Orders over 50 call first

TOTAL

Please Ship To:

Name _____ Phone _____

Address _____

City _____ State _____ Zip _____

# Appendix I

## Drinking Water Regulations

# Department of Environmental Protection

## Drinking Water Program

### 310 CMR 22.00
### Drinking Water Regulations

**Revised March 21, 1997**

One Winter Street • Boston, Massachusetts 02108 • 617-292-5770

\t

# 310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

## 310 CMR 22.00 DRINKING WATER

**Section**



* These sections do not apply to Transient Noncommunity systems

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For the complete text of 310 CMR 22.00 in a PDF format, go to http://www.mass.gov/dep/service/regulations/310cmr22.pdf