



RHODE ISLAND DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER QUALITY

Public Water System
Application for Approval of Plans and Specifications
Guidance Document and Required Forms



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This package includes the forms typically used in the approval of public water systems. Sections 2-4 and Appendix 4 of the Drinking Water Regulations are also included. Additional guidance and the complete Regulations are available from HEALTH in the following publications:

- Small Public Water System Guidance Manual, RI HEALTH, 2001
- Guide for Small Public Drinking Water System Design, RI HEALTH, 1994
- Rules and Regulations Pertaining to Public Drinking Water, RI HEALTH, 2012
- Rules and Regulations Pertaining to the Certification of Public Drinking Water Supply Treatment and Public Water Supply Transmission and Distribution Operators, RI HEALTH, 2012
- Small System Regulatory Requirements Under the Safe Drinking Water Act, EPA 1999
- 50 Cross-Connection Questions, Answers & Illustrations, Watts Industries

Instructions for Submitting an Application for Approval

In accordance with the *Rules and Regulations Pertaining to Public Drinking Water* (the Regulations), an **Application for Approval** must be submitted for a new public water system, or for any existing public water system that is adding a new source, or making substantive changes in pumping, treatment or storage facilities. Please submit two copies of the application and plans. Your application will be assigned to a reviewing engineer in this office. All communication should be through your reviewing engineer.

The approval process for a new public water system is often split into two phases: Source Approval and Final Approval. Under the Source Approval process, the location of the well or other source is selected and submitted for approval in accordance with Section 3.0 of the Regulations. A variance may be required for insufficient control of the well protection radius. If source approval is granted, the Final Approval process commences with the well being drilled. A pump test is performed to determine the safe yield of the well and water quality samples are taken to provide sufficient data for the applicant's engineer to design the pumping, treatment and storage components as needed. Once the design of the water system pumping, treatment and storage components is complete the design and all related documentation is submitted to HEALTH for final approval of the proposed water system.

Final approval will be based on submission and review of plans and specifications for your water system components prepared and stamped by a professional engineer licensed in the State of Rhode Island, receipt of well construction specifications, satisfactory completion of a sanitary inspection by HEALTH staff, and review of initial water quality analyses for compliance with the Rules and Regulations Pertaining to Public Drinking Water (R46-13-DWQ). The system must also develop an Operation and Maintenance manual, a sampling plan, Emergency Response Plan, and log book. Finally the system must select a certified operator, if applicable, and apply for a water system license. There is no application fee, but there is an annual licensing fee for approved water systems.

Requirements

New Water Systems

1. Applications for a new public water system will not be considered if an existing public system is capable of extending service to the facility.
2. Applications for new public water systems shall include a Capacity Assurance or Water Supply Management Plan that demonstrates the financial, managerial and technical capacity to comply with statutory and regulatory requirements.
3. Follow the instructions outlined in the next sections, as appropriate.

New Water Sources

1. Existing water systems seeking a new source must include, at a minimum, an assessment of the financial viability of the water system including a listing of costs relating to capital improvements, treatment, water quality testing, operation and maintenance, as well as the financial resources or revenues necessary to maintain the system in accordance with the Regulations.
2. Submit an appropriately scaled plan of the 1750-foot wellhead protection radius, locating and identifying the proposed source, property lines, property ownership and all existing or proposed potential sources of contamination consistent with Appendix 4 of the Regulations. This plan may be based on available maps such as municipal assessor's plats, USGS topographic quads, aerial photos or other such similar sources suitable to the purpose. After approval, RI DEM will calculate a Wellhead Protection Area (WPA) that may be larger than the 1,750-foot radius circle, depending on the maximum pumping rate. The WPA will not put any further obligations on the owner/operator of the water system, but is meant to provide guidance for future protection of the groundwater source.
3. Submit an appropriately scaled topographic site plan of the inner protection radius, which measures 200 feet for drilled (rock), dug or driven wells or 400 feet for gravel packed or gravel developed wells. This plan must be drawn to scale, prepared and stamped by a professional engineer or land surveyor registered in RI. Topographic contours, property lines, roads, structures, land and water features and all other pertinent information relating to the water system must be clearly shown. In addition, all existing or proposed potential sources of contamination consistent with Appendix 4 of the Regulations shall be accurately located and identified.
4. The water system must maintain direct control over the entire inner protection radius (200 feet for drilled (rock) or driven wells and 400 feet for gravel packed or gravel developed wells) through ownership or recorded easement. If a conservation easement is obtained, a signed copy of the proposed easement must be submitted with the application (see

attachment for sample language). A copy of the recorded easement must be submitted prior to final water system approval.

5. An administrative variance hearing shall be required if the applicant cannot obtain direct control of all land within the inner well protection radius through ownership or recorded easement. Please submit an **Application for Variance** citing Section 3.2 or 3.3, and Section 3.6 of the Regulations, a list of all abutters within 200 or 400 feet of the proposed well, as appropriate, and a third copy of the application and site plans. The HEALTH Office of Legal Services will schedule the variance hearing and notify the owner, engineer, and abutters.
6. Variances from the Regulations that do not relate to ownership of the inner protection radius may be decided on the staff level and do not require an administrative hearing. Please submit an Application for Variance and cite the Section of the Regulations from which the variance is sought.
7. Application packages must include all available hydrogeologic information regarding the site and results of field testing, including but not limited to test well data, soil data, groundwater table data, and any other records that the engineer or design professional may possess that has any bearing on the site suitability.
8. Well construction materials and methods must be documented on the plans or specifications and must be consistent with ANSI/AWWA A100-90 Standards.
9. After completion of the well, a Source Well Data Form shall be submitted containing pertinent data about the well depth, construction, and pump test results. Also submit a copy of the driller's log or State of RI Well Completion Report
10. If the installation of a new source requires changes in pumping, treatment or storage components, follow the instructions in the next section. At a minimum submit the specifications for the well pump even if an existing approved pump is to be reused.

Pumping, Treatment or Storage Facilities

*Note: An **Application for Approval** is not required for in-kind replacement of existing equipment. An **In-Kind Replacement** form is sufficient to update our records as long as the components are of similar design and technology and have the same rated capacity as the components being replaced.*

1. Plans and specifications for pumping, treatment and/or storage components, prepared and stamped by a Professional Engineer registered in Rhode Island, must be submitted for approval in accordance with Section 4.0 of the Regulations. These plans must be submitted and approved prior to construction.

2. Plans must include a site plan, piping schematic, flow diagram and appropriate details of pumping, treatment and storage components. Specifications for the components or cut sheets from the manufacturer should also be provided.
3. Design consideration must be given to backflow prevention for all applicable facilities.
4. Cross Connections with non-potable water systems are prohibited. If cross-connections or emergency interconnections exist with any other public or private water systems, provide a list and site maps showing locations of the connections.
5. Include pump test results and other calculations to support the anticipated well yield and system demand values used to design pumping, piping and storage components. Make note of any seasonal fluctuations in yield or demand. State whether irrigation needs and/or fire flows have been taken under consideration or will be covered under a separate non-potable system.
6. Submit water quality data, if available, taken from the source well, test well or other available source that is representative of the aquifer. Describe treatment goals, if necessary, and the capability of the chosen technology to achieve those goals.
7. If the treatment system generates any waste materials, estimate the volume and type of waste to be generated, and the anticipated disposal practices and costs.
8. Create an Operation and Maintenance Manual and logbook that include specifications and instructions for all water system equipment, a schedule of routine maintenance, and data forms for tracking operational data and maintenance activities.

Operator Certification

1. Certified operators are required for Community and Non-transient non-community groundwater systems and any system served by surface water or groundwater under the direct influence of surface water. In addition, Transient systems utilizing treatment may be required to maintain a certified operator as a condition of approval. If your water system requires a water system operator, state who the designated operator will be and submit proof of certification. To obtain information about the application, testing or certification of operators, please contact Steven Boudreau at 222-8033.

Sampling Plans

1. Submit a Sampling Plan that lists sampling points, analytical methods and frequency of collection. Include a site map or floor plan showing locations of sampling points. If possible, dedicated smooth nose sampling spigots shall be installed for this purpose, with a minimum clearance of 12" above the floor to provide sufficient clearance for one-gallon containers. Sites must be chosen for raw (untreated) water and representative distribution samples. Each routine distribution sampling point

must also have associated upstream and downstream sampling points for resampling in case of a positive bacteria result.

Emergency Response Plans

1. Complete an Emergency Response Form and submit one copy to HEALTH. Copies of this form must be included in the O&M Manual and posted in a conspicuous place near the Water System controls. The Emergency Response Form should be updated as necessary.

Licensure

1. The Water System must obtain a license to operate and pay an annual fee to the Department of Health. Refer to the Small System Guidance Manual for a schedule of fees. Licensure is contingent upon satisfactory completion of the conformance inspection, initial water quality sampling, and submission of any necessary operator certifications.

*Application Instructions
Revised August 2014*

Checklist

Approval and Licensure of a Public Water System

Source Approval:

- ❑ Submit an Application for Approval signed by owner
- ❑ Submit 1750-foot radius and 200/400-foot radius plans, specifications prepared and stamped by a RI licensed Professional Engineer or Professional Land Surveyor.
- ❑ Submit a Financial Capacity Plan (New Transient water system or new source well for existing system)

Variance:

- ❑ If ownership of the 200/400-foot radius is less than 100%, submit an Application for Variance
- ❑ Submit list of Abutters within 200/400 feet of well.
- ❑ Submit any water quality easements obtained from abutters

Final Approval:

Pumping, Treatment and Storage Components:

- ❑ Submit plans and specifications prepared and stamped by a RI licensed Professional Engineer for the pumping, treatment and storage components of your water system.
- ❑ Complete and return a Source Well Data Form or Well Completion Report.
- ❑ Submit a narrative discussing the need for and design basis of the treatment processes, the capacity of the well relative to demand and the sizing of the storage relative to average and peak flows.
- ❑ Submit a Capacity Assurance Plan with Financial, Technical and Managerial elements (for new Community or Non-Transient Water System)

Upon completion of construction:

- ❑ Submit a Sampling Plan

- ❑ Complete and submit the Laboratory Selection Form
- ❑ Complete the Emergency Response Form
- ❑ Create an O&M Manual and Logbook to be available for review during the conformance inspection
- ❑ If water quality easements were required for the well protection radius, submit copies of the recorded easements, stamped with the book and page numbers from the municipal land evidence records.

Inspections and Sampling:

- ❑ When installation of the water system components is substantially complete, please contact the engineer of review to arrange a date and time for a conformance inspection.
- ❑ Submit initial sampling results. At a minimum, source nitrates/nitrites and distribution bacteria testing is required before the system can begin operation.

Operator Certification and Licensing:

- ❑ Select a certified operator if necessary. Ensure that the operator has a current RI water operator license.
- ❑ Complete the public water system license application and submit it with the annual fee.

*Checklist for Approval and Licensing of a Public Water System.doc
August 2014*



APPLICATION FOR APPROVAL
PUBLIC WATER SYSTEM PLANS AND SPECIFICATIONS

System Name: _____

Address: _____ Phone: _____

City: _____ State: _____ Zip: _____

.....

Official/Owner: _____ Title: _____

Address: _____ Phone: _____

City: _____ State: _____ Zip: _____

Contact Person: _____ Phone: _____

.....

Plans Entitled: _____

Prepared By: _____ [] P.E. [] R.L.S.

Specifications Entitled: _____

Prepared By: _____ [] P.E

Type of Well: [] Drilled [] Driven [] Dug (200-foot protective radius required)
[] Gravel Packed [] Gravel Developed (400-foot protective radius required)

Estimated Well Withdrawal [] less than 10,000 gpd [] more than 10,000 gpd

Number of People Served Daily: _____ Number of Service Connections: _____

Project Description: _____

Treatment (if any): _____

Owner's Signature: _____ Date: _____



RHODE ISLAND DEPARTMENT OF HEALTH
Office of Drinking Water Quality

APPLICATION FOR VARIANCE
PUBLIC DRINKING WATER REGULATIONS

Owner: _____ Title: _____
(Applicant, Person, Corporation, City, or Town)

Mailing Address: _____
No. Street Town State Zip Code Tel. No.

Name of Establishment or Project: _____ Tel. No. _____

Location: _____
No. Street City or Town

Estimated number of people served daily: _____

Plans Entitled: _____

Prepared By: _____ [] P.E. [] R.L.S.

Number of Wells: _____

Type of Wells: [] Drilled rock [] Driven [] Dug (200-foot protective radius required)
[] Gravel Packed [] Gravel Developed (400-foot protective radius required)

Applicable Regulation: _____ Section 3.2 or 3.3 _____ Other (Please Specify)

Explain why a Variance is needed: _____

Owner's Signature: _____ Date: _____

Easement

Know all men by these presents that {Grantor of easement} for and in consideration of the sum of one dollar (\$1.00) paid by {Grantee of easement}, a Rhode Island non-business corporation, the receipt whereof is hereby acknowledged, does hereby grant unto said {Grantee of easement} an easement over the hereinafter described property for the sole and exclusive purpose of protecting the water quality of that certain communal well(s) located on that plan titled "{name of plan showing the easement area}" by {engineer/surveyor} for {Grantee of easement} dated {date} which plat is recorded in the land evidence records of the Town of {Town} and that the undersigned covenant and agree that they will not install in the area hereinafter designated anything which would be considered hazardous or detrimental by the RI Department of Health to the quality of the water located in the communal well(s) as heretofore mentioned. This easement shall not prevent the grantor hereof from using the hereinafter described premises for any and all purposes not deemed by the Department of Health to be hazardous or detrimental to the water supply and which purposed are not contrary to the requirements of Sections 3.2 and 3.3 or their successors of the "Rules and Regulations Pertaining to Public Drinking Water" promulgated by the Department of Health.

"The purpose of this easement is to provide a restricted area for the protection of the water quality of a well which is to be developed as a source of public drinking water. The area covered by this easement shall be subject to the restrictions required by Section 3.0, or its successor, of the Rules and Regulations Pertaining to Public Drinking Water promulgated by the Rhode Island Department of Health, as a condition to the development of a well which will serve as a source of public drinking water. Said restrictions shall include but not be limited to the activities set forth in Appendix four (4) or its successor of said regulations."

State of Rhode Island

County of

In _____ on the _____ day of _____, _____ before me personally appeared the above-named party and known to me to be the party executing the foregoing instrument and he acknowledged the execution of this Easement deed to be his free act and deed.

Notary Public

**Language from Mary Ellen McCabe, Esq., DOH; language must be included in the deed, deed recorded, and evidence of recording submitted to DOH.*
easement.doc



PUBLIC DRINKING WATER SYSTEM

SOURCE WELL DATA FORM

Name of Water System _____

City/Town _____

Well number or identification _____

Describe location of well _____

GPS Coordinates of well (degrees, minutes, seconds) Lat: _____ Long: _____

Name of driller _____ Date drilled _____

Attach Copy of Drillers Log

Information must be complete and accurate

Well Data

Type of Well: Drilled/Driven Dug Gravel Packed Gravel Developed

Drilling Method _____

Depth (ft.) _____

Diameter (in.) _____

Depth to bedrock (ft.) (if applicable) _____ [] N/A

Well Screen (if applicable) [] N/A

Material _____ Manufacturer _____

Diameter (in) _____ Slot Size _____

Length (ft) _____

Gravel Pack (if applicable) [] N/A

Thickness of gravel placement (in) _____

Depth of gravel placed (ft below grade) _____

Size of gravel placed _____

Protective Casing

Diameter (in.) _____ Length of casing (ft.) _____

Casing material _____

Nominal Borehole Diameter (in) _____ Depth (ft) _____

Grouting Material _____

Depth to Top of Grouting (ft) _____ Total Depth of Grouting (ft) _____
Total Amount of Grouting Material (not including water)(cf or lbs) _____

Well Top

Terminates _____(feet) above / below grade / pit floor / pumphouse floor
Pitless Adaptor? Sanitary seal? Bolted cover? Turbine Pump?

Drainage

Topography/floor slopes away from well? _____
Pit or Pumphouse floor is earth _____ concrete _____ other _____
Drains by: Floor drain _____ Sump pump _____ Gravity drain _____

Pump Test Data

Date: _____ Performed by: _____
Static water level _____ feet from top of casing / below grade
Pump Depth _____ feet from top of casing / below grade
Pump rate _____ gpm Duration of Test _____ hours
Maximum Drawdown _____ feet from top of casing / below grade
Drawdown Stabilized _____ hours
Safe Yield (gpm) _____ or Specific Capacity (gpm/ft) _____

Pump

Type _____ Powered by _____
Make _____ Model _____
Motor HP _____ Rated Capacity _____ gpm @ _____ ft TDH
Setting Depth (ft) _____ Suction Depth (ft) _____
Station Static Head (ft) _____ Station Discharge Head (ft) _____

Potential Sources of pollution within 1750 feet

Nearest underground disposal of sewage (ft) _____
[] leachfield [] cesspool [] other explain: _____
Nearest detention pond or dry well (ft) _____
[] stormwater [] Industrial discharge [] other explain: _____
Nearest sanitary sewer (ft) _____ Nearest storm sewer (ft) _____
Nearest Waste Disposal Area (ft) _____ [] Lined [] Unlined
Nearest surface water (ft) _____ Name and type _____



IN-KIND REPLACEMENT
PUBLIC WATER SYSTEM EQUIPMENT
PLANS AND SPECIFICATIONS

System Name: _____

Location: _____

Contact Person: _____ Phone: _____

Official/Owner: _____ Title: _____

Mailing Address: _____ Phone: _____

City: _____ State: _____ Zip: _____

Project Description:

Equipment Specifications:

	<u>Old Equipment</u>	<u>Replaced by</u>
Type of Equipment:	_____	_____
Company Make:	_____	_____
Model #:	_____	_____
Serial #:	_____	_____
Horse Power:	_____	_____
Capacity: (gpm):	_____	_____
Volume:	_____	_____

Please submit copies of any additional literature or documentation on new equipment.

Owner's Signature: _____ Date: _____

Emergency Response Planning Guide

Preparing an Emergency Response Plan is an essential part of managing a drinking water system. The Rhode Island Department of Health has made this document available to public water systems in the state to help them develop such plans. The document includes:

1. Emergency Response Planning Guide in fillable PDF an Word format and is available at the link below

<http://web.uri.edu/nemo/drinking-water/emergency-response/emergency-response-planning-materials/>

- Each section of the guide provides background information and instructions for completing the templates in the Emergency Response Plan (Plan) section of this document. The Guide also can be used as an educational tool to help system staff and board members understand the key components needed for a well thought-out Emergency Response Plan.

2. Emergency Response Plan Template is available in fillable PDF an Word format at

<http://web.uri.edu/nemo/drinking-water/emergency-response/emergency-response-planning-materials/>

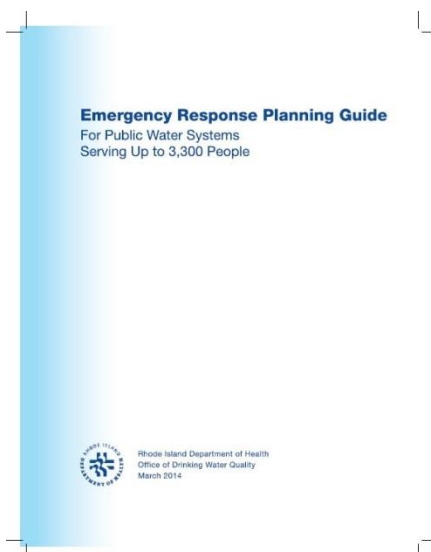
Complete the templates in the Plan section to develop an Emergency Response Plan for the water system. Each section of the Plan refers to a corresponding section(s) in the Guide.

- The Plan contains sections separated by yellow tabs. Each section contains templates to complete and develop the Emergency Response Plan. Each section in the Plan references a corresponding section in the Guide.
- The Resources section is a place to store additional information specific to the water system and its Emergency Response Plan.

Vulnerability Assessment in fillable PDF an Word format

This Security Vulnerability Self-Assessment Guide is designed to help small water systems determine possible vulnerable components and identify security measures that should be considered.

Questions? Call Rhode Island Department of Health (401) 222-6867
Project website: web.uri.edu/nemo/drinking-water/emergency-response



RI Department of Health

Application and Instructions for:



Public Water System License:

- Community
- Non-Transient Non-Community
- Transient Non-Community

**DO NOT DUPLICATE THIS FORM
PLEASE DO NOT REMOVE ANY FULL PAGES FROM THIS BOOKLET**

INSTRUCTIONS

- Please answer all questions. Do not leave blanks. Incomplete forms will be returned to you and your license/permit will not be issued. Please use a ball point pen.
- Attach your check or money order to the front of this booklet and mail to: Rhode Island Department of Health, Division of Drinking Water Quality, 3 Capitol Hill, Room 209, Providence, RI 02908-5097. Do not hand deliver this form to the Department of Health.
- Please send **one** check or money order.

Public Water System Fee Schedule

Transient Non-Community-\$200
Nontransient Non-Community-\$330
Community-\$1.50 per service connection
(\$330.00 minimum-\$32,500 maximum)

NOTE: Please do not enclose payment for water sampling and analytical services with this license application booklet. Payment for sampling and analytical services must be mailed separately.

- Make your check/money order payable to "General Treasurer, State of Rhode Island". Do not send cash.
- If you have any questions concerning this application, call the Department of Health, **Office of Drinking Water Quality** at (401) 222-6867.
- Licensure application materials are public records as mandated by Rhode Island law and may be made available to the public, unless otherwise prohibited by State or Federal law.

<p>Drinking Water Operator:</p> <p>*Must be provided for Community and Non – Transient Non - Community Systems</p>	<p>Name: _____</p> <p>License Number: _____</p>
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State of Rhode Island and Providence Plantations Department of Health

Facility Name:

Please provide the name of the water system for which this license will be issued.

Name: _____

Facility Contact Person:

Please provide the name and telephone number of a person we can contact concerning this facility.

Name: _____

Phone Number: () _____

Facility Mailing Information:

Please provide the mailing information for all communication regarding this license.

(Not published on HEALTH website).

Address Line 1 _____

Address Line 2 _____

Address Line 3 _____

Address City, State, ZipCode _____

Address Country _____

Phone: _____

Fax: _____

Email Address: _____

Facility Location Information:

Please provide the location information for this facility.

(Published on HEALTH website).

Address Line 1 _____

Address Line 2 _____

Address Line 3 _____

Address City, State, ZipCode _____

Address Country _____

Phone: _____

Fax: _____

Email Address: _____

Ownership Type:

Please check ONE

Corporation

Limited Liability Company

Governmental Entity

Sole Proprietorship

Partnership

Limited Partnership

Partner

Ownership Information:

Please provide the ownership information for the Sole Proprietorship, Partnership, Limited Partnership, Corporation, Limited Liability Company or

LIST ONE ONLY - DO NOT SUBMIT ATTACHMENTS

Name: _____

DBA: _____

Governmental Entity.	
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Ownership Address Information: Please provide the address and telephone number(s) of the Sole Proprietorship, Partnership, Limited Partnership, Corporation, Limited Liability Company or Governmental Entity.	Address Line 1 _____ Address Line 2 _____ Address Line 3 _____ Address City, State, Zip code _____ Phone: _____ Fax: _____ Email Address: _____
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FEIN Number: (Federal Employer Identification Number) Note: If you are a sole proprietor this number may be your Social Security Number.	<p>Pursuant to Chapter 75 of Title 5 of the Rhode Island General Laws, as amended, any person applying for or renewing any license, permit, or other authority to conduct a business or occupation within Rhode Island must have filed all required state tax returns and paid all taxes due the state or must have entered into a written installment agreement to pay delinquent state taxes that is satisfactory to the Tax Administrator.</p> <p>Please provide below SSN/FEIN for this license:</p> <hr/> <p>SSN/F.E.I.N. Number: _____</p>
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Affidavit of Applicant Read, sign, and date this affidavit.	<p><u>AFFIDAVIT AND SIGNATURE</u></p> <p><u>This Application Must be Signed</u></p> <p>I have read carefully the questions in the foregoing application and have answered them completely, without reservations of any kind, and I declare under penalty of perjury that my answers and all statements made by me herein are true and correct. Should I furnish any false information in this application, I hereby agree that such act shall constitute cause for denial, suspension or revocation of this License in the State of Rhode Island.</p> <p>I understand that this is a continuing application and that I have an affirmative duty to inform the Rhode Island Department of Health of any change in the answers to these questions after this application and this Affidavit is signed.</p> <p>_____</p> <p>Signature of Authorized Person</p> <p>_____</p> <p>Printed Name of Authorized Person</p> <p>_____</p> <p>Title of Authorized Person</p> <p>_____</p> <p>Date of Signature (MM/DD/YY)</p>
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The following excerpts are from the Rules and Regulations Pertaining to Public Drinking Water (R46-13-DWQ). For a copy of the complete regulations please contact the Rhode Island Department of Health Office of Drinking Water Quality at (401) 222-6867.

SECTION 2.0 - COVERAGE

2.1 These regulations apply to any PWS unless a PWS meets all of the following conditions:

- (a) The system consists only of distribution or storage facilities (and does not have any collection or treatment facilities);
- (b) The system obtains all of its water from a PWS to which these Regulations apply; and
- (c) The system does not sell water to any person.

2.2 General Requirements

- (a) No person shall develop, maintain, or operate a public water supply system unless said system is approved by the Director. Further, all public water supply systems must be developed, operated and maintained in accordance with the requirements and provisions of these Regulations in order for a public water supply system to maintain approval by the Director.
- (b) Should the Director find that a public water supply system is not developed, maintained, or operated in compliance with regulatory provisions, s/he may revoke, suspend or otherwise limit the approval previously granted.
- (c) The Director is authorized to enter at all reasonable times in or upon any private or public property for the purpose of carrying out the provisions of these Regulations or making an inspection or investigation of a condition which the Director believes may be hazardous to the health of the consumers serviced by any public water supply system or in violation of the regulations or orders promulgated under Chapter 46-13.

2.3 Licensing Requirement

(a) Applicability

Pursuant to the provisions of Section 46-13-2.1 of the General Laws of Rhode Island, as amended, no person shall operate or maintain a public water supply system unless the system is licensed by the Director under the provisions of this subsection.

Persons subject to licensure shall be assessed initial and annual renewal licensure fees in accordance with the fee schedule listed for each category of PWS in §2.3(c)(2).

(b) License Application

- (1) To apply for a license, a PWS shall submit a completed application to the Director on forms provided for this purpose. The application shall include all information required by these Regulations, as well as by the form and the

accompanying instructions. Applications for a new community or non-transient non-community PWS shall include a water system management plan that demonstrates the financial, managerial, and technical capacity to comply with statutory and regulatory requirements.

- (2) The Director may at any time after filing of the original application require further information in order to determine whether the application should be approved or denied.
- (3) Each application for a PWS license shall be signed by the applicant or a person duly authorized to act on behalf of the applicant.
- (4) No new PWS shall be licensed until: the application has been approved, the PWS has been constructed in accordance with the approved plans and the water has been sampled and found to be in compliance with the requirements of these Regulations.

c) **License Fees**

- (1) Pursuant to the provisions of Section 46-13-2.1 of the General Laws of Rhode Island, as amended, the Director shall grant a license to a PWS that meets the licensure requirements set forth in these Regulations and upon submission of the license fee as listed in §2.3(c)(2) of these Regulations made payable by check to the General Treasurer, State of Rhode Island. Said license, unless sooner suspended or revoked, shall expire on the 30th day of June following its issuance and must be renewed from year-to-year.
- (2) Effective July 1, 2009 the annual fee for licensure shall be as follows:
Transient non-community water system: two hundred dollars (\$200.00).
Nontransient non-community water system: three hundred and thirty dollars (\$330.00).
Community water system: one dollar and fifty cents (\$1.50) per connection:
 minimum fee = three hundred and thirty dollars (\$330.00).
 maximum fee = thirty two thousand-five hundred dollars (\$32,500.00).

(d) **Denial of License**

- (1) The Director may deny an application for a license if s/he determines that the applicant has not demonstrated the ability to comply fully with the applicable requirements established by the Act and/or by these Regulations.
- (2) An applicant whose application is denied may request a hearing in accordance with the Administrative Procedures of the Rhode Island Department of Health.

(e) **Suspension or Revocation of a License**

The Director may, for cause or for violation of these Regulations, suspend or revoke any license issued under this subsection. The Director may also review the current status of any license with regard to current use of the water supply and any change of use of the PWS.

(f) **Renewal of License**

- (1) All licenses shall expire on the 30th day of June following its issuance except as provided in §2.3(f)(5).
- (2) A renewal application must be filed with the Director by the 31st day of May of each year on forms provided for this purpose.
- (3) The appropriate licensing fee must accompany the renewal application.
- (4) Updated and complete contact information must accompany the renewal application, including names, phone numbers, address fax number and e-mail address (if available). Contact information must be updated using forms designated by the Director, in a timely manner, whenever a change occurs.
- (5) Renewal of a license shall be based upon: satisfactory compliance with the regulations and timely submission of a renewal application and fee.
- (6) In any case in which a PWS not less than 30 days prior to expiration of an existing license, has filed a renewal application and fee in proper form for renewal, such existing license shall not expire until final action on the application has been taken by the Director.
- (7) Penalties for Late Renewals
 - (i) Any license granted under §2.3 whose renewal, accompanied by the prescribed fee, is not filed on or before the expiration date of such license shall be automatically lapsed.
 - (ii) The Director may, in his/her discretion and upon the payment by the license holder of the current license fee, plus an additional fee of fifty percent (50%) of the renewal fee or five hundred dollars (\$500.00), whichever is less, reinstate any license lapsed under the provisions of §2.3.
- (g) Licenses shall be issued only for the public water supply system and persons named on the application and shall not be transferable or assignable. Existing PWSs which have significant change of use of the water supply shall be reviewed and modified as deemed appropriate by the Director.

SECTION 3.0 - NEW WATER SOURCES

- 3.1 No source of water shall be developed for a PWS until a site plan prepared by a professional engineer or land surveyor registered in accordance with Chapter 5-8 of General Laws of Rhode Island, 1956, as amended, has been approved by the Director.
 - (a) Approval of plans and specifications granted an applicant shall expire within two (2) years if construction of the approved source has not begun within that period.
 - (b) Expired approvals may be renewed if the data provided in the application is unchanged and attested to by the applicant; and the plans conform with all construction standards and testing requirements in effect at the time of application for renewal.
- 3.2 In the case of a proposed gravel packed or gravel developed well, the site plan shall contain pertinent information within of the proposed well including, but not limited to, the location of existing and proposed sewage disposal systems and any other existing or proposed potential sources of pollution including, but not limited to, those listed in

Appendix 4. Generally, the land within four hundred (400) feet of such wells shall be reserved for protection of the water quality of the well, and shall be delineated on the site plan by a topographic mapping of the four hundred (400) foot area to an appropriate scale. This distance may be modified at the discretion of the Director taking into consideration such factors as the volume and type of waste material to be disposed or stored in close proximity to the land area reserved for protection of the well, the projected yield of the well, the depth below grade to impervious formation, the depth below grade to the water table, the type of soil in the area, or any other factors the Director deems pertinent.

- 3.3 In the case of a proposed drilled (rock), driven, or dug well, the site plan shall show pertinent information within of the proposed well including, but not limited to, the location of existing and proposed sewage disposal systems and any other existing or proposed potential sources of pollution including but not limited to those listed in Appendix 4. Generally, the land within two hundred (200) feet of such wells shall be reserved for protection of the water quality of the well, and shall be delineated on the site plan by a topographic mapping of the two hundred (200) foot area to an appropriate scale. This distance may be modified at the discretion of the Director taking into consideration such factors as the volume and type of waste material to be disposed or stored in close proximity to the land area reserved for protection of the well, the depth below grade to impervious formation, the depth below grade to the water table, the type of soil in the area, or any other factors the Director deems pertinent.
- 3.4 In the case of a proposed surface water source, the site plan shall show pertinent information within the entire watershed of the proposed surface water supply, but not limited to the location of existing and proposed sewage disposal systems and any other existing or proposed potential sources of pollution including, but not limited to, those listed in Appendix 4. The portion of the watershed owned or controlled by the water purveyor shall be clearly indicated. All surface water sources shall be provided with water treatment consisting, as a minimum, of coagulation, sedimentation, filtration and disinfection.
- 3.5 All revisions to approved plans must be submitted to the Director for approval. The Director may require a new application and/or site plan if the revisions are deemed significant.
- 3.6 Land reserved for the protection of the well as (indicated on the plan) approved by the Director must remain under the direct control of the water supplier by either continued ownership or recorded easement unless written permission to modify this area is granted by the Director.
- 3.7 It is the responsibility of the water supplier to maintain the protective well area free from potential sources of contamination as listed in Appendix 4.
- 3.8 Connection to another public water supply - A new public water supply shall not be approved for use at any facility if another community public water supply is reasonably accessible to such facility as determined by the Director, and permission to connect can be obtained from the authority having jurisdiction.

3.9 Applications for approval of new water sources must be accompanied by an assessment of the financial viability for said water system to maintain compliance with the requirements of these Regulations. The assessment shall include a discussion of operation costs including: operation, maintenance, monitoring, anticipated future improvements, debt repayment, and unforeseen emergencies or system breakdowns, and a discussion of how the necessary revenues to pay for these costs will be raised.

SECTION 4.0 - APPROVAL OF TREATMENT WORKS, STORAGE AND PUMPING FACILITIES

4.1 No new water treatment works or water storage or pumping facilities shall be constructed or such existing works or facilities substantially altered until design plans and specifications prepared by a professional engineer registered in accordance with Chapter 5-8 of the General Laws of Rhode Island, as amended, and a plan for operation and maintenance have been approved by the Director. The design of water treatment works, water storage or water pumping facilities should reflect the guidance contained in *(Ten State Standards) Recommended Standards for Water Works: Policies for the Review and Approval of Plans and Specifications for Public Water Supplies*¹ (most recent edition), where applicable. These facilities shall also be installed and constructed in accordance with applicable American Water Works Association (AWWA) Standards with reference to materials used and construction procedures to be followed. Exceptions from this requirement may be granted by the Director.

- (a) Any chemical or substance added to a public water supply, any materials used in the manufacture of public water supply components or appurtenances, or any pipe, storage tank, valve, fixture or other materials which come in contact with water intended for use in a public water supply shall meet American National Standards Institute/NSF International standards, specifically ANSI/NSF Standard 60 (most recent edition) and ANSI/NSF Standard 61 (most recent edition) which are hereby adopted by reference.

Only products which meet the standards adopted in or pursuant to this Section shall be used by a supplier of water in a public water supply. Certification that a product meets the standards adopted pursuant to this Section by an organization having a third-party certification program accredited by American National Standards Institute, the American Association for Laboratory Accreditation, or the International Accreditation Service, Inc. or equivalent to test and certify products shall be prima facie evidence that a product meets the standards.

Product Type	Standard
Drinking Water Treatment Chemicals	60
Pipes and Related Products	61
Protective (Barrier) Materials	61
Joining and Sealing Materials	61
Process Media	61
Mechanical Devices	61
Plumbing Devices	61

- (b) NSF Standards have also been developed for certain Drinking Water Treatment Units. Units meeting these criteria may be considered for approval, if deemed appropriate by the Director.

Product Type	Standard
Cation Exchange Water Softeners	44
Drinking Water Distillation Systems	62

- 4.2 All newly constructed PWSs or additions to existing systems shall be flushed, adequately disinfected, and the water examined for the presence of coliform organisms in accordance with Appendix 1. No system shall be placed in use until such examination discloses the absence of coliform organisms. Any newly constructed or recoated water storage tank shall be tested for volatile organic compounds (VOCs) prior to being put into service. If VOCs reported are above the laboratory detection limit and/or background source limit, the water system shall flush and/or drain the tank, refill and analyze for VOCs until such time as the concentrations reported are below the laboratory detection limit. An alternative to refilling and retesting shall be to submit documentation acceptable to the Director that the tank coating was NSF Standard 61 approved, was mixed properly and has cured properly. Any waste water resulting from disinfection must be disposed of in accordance with applicable Federal, State and Local regulations, and with the proper permits.
- 4.3 All revisions to approved plans must be submitted to the Director for approval. The Director may require a new application and/or site plan if the revisions are deemed significant.

4.4 Use of Non-Centralized Treatment Devices

- (a) Criteria and procedures for PWSs using point-of-entry devices.

- (1) PWSs may use point-of-entry devices to comply with maximum contaminant levels only if they meet the requirements of this Section and are approved by the Director.
- (2) It is the responsibility of the PWS to operate and maintain the point-of-entry treatment system.
- (3) The PWS must develop and obtain the Director's approval for a monitoring plan before point-of-entry devices are installed for compliance. Under the plan approved by the Director, point-of-entry devices must provide health protection equivalent to central water treatment. "Equivalent" means that the water would meet all MCLS and would be of acceptable quality similar to water distributed by a well-operated central treatment plant. In addition to the VOCs, monitoring must include physical measurements and observations such as total flow treated and mechanical condition of the treatment equipment.
- (4) Effective technology must be properly applied under a plan approved by the Director and the microbiological safety of the water must be maintained.

- (i) Adequate certification of performance and field testing must be provided as required by the Director.

- (ii) NSF Standards have been developed for certain point of entry and point of use treatment systems. Certification of compliance with these standards shall be considered adequate certification of performance. Units meeting these standards may be considered for approval, if deemed appropriate by the Director.

Product Type	Standard
Drinking Water Treatment Units – Aesthetic Effects	42
Drinking Water Treatment Units – Health Effects	53
Reverse Osmosis Drinking Water Treatment Systems	58
Ultraviolet Microbiological Water Treatment Systems	55
Shower Filtration Systems – Aesthetic Effects	177
Microbiological Water Purifiers	P231

(iii) The design and application of the point-of-entry devices must consider the tendency for increase in heterotrophic bacteria concentrations in water treated with activated carbon. It may be necessary to use frequent backwashing, post-contractor disinfection, and Heterotrophic Plate Count monitoring to ensure that the microbiological safety of the water is not compromised.

(5) All consumers shall be protected. Every building connected to the system must have a point-of-entry device installed, maintained, and adequately monitored. The Director must be assured that every building is subject to treatment and monitoring, and that the rights and responsibilities of the PWS customer convey with title upon sale of property.

4.5 Use of Bottled Water or Point of Use Treatment Devices. PWSs shall not use bottled water or point-of-use devices to achieve compliance with an MCL. Bottled water or point-of-use devices may be used on a temporary basis to avoid an unreasonable risk to health, and only with prior approval of the Director.

(a) Where bottled water is used, the PWS is fully responsible for the provision of sufficient quantities of bottled water to every person supplied by the PWS. The water system must use an approved bottled water supply.

(b) Where a point of use device is used, it must comply with the requirements of §4.4.

APPENDIX 4

List of Potential Sources of Groundwater Contamination

- Agricultural related activities (pesticide and fertilizer storage and application, machinery maintenance and fueling)
 - Airports-commercial (maintenance and repair, fuel storage)
 - Animal care and holding areas (stables, kennels, pet shops)
 - Asphalt, coal, tar and concrete companies
 - Automotive repair shops
 - Automotive body shops
 - Auto parts stores
 - Beauty salons
 - Boat builders and refinishers
 - Bus and truck terminals
 - Chemical manufacturers
 - Construction sites
 - Dredge disposal sites
 - Dry cleaners
 - Food processors (meat packers, dairies, bakeries)
 - Fuel oil distributors (product storage, equipment maintenance and storage)
 - Funeral homes and cemeteries
 - Furniture strippers, refinishers
 - Golf courses
 - Hotels and motels
 - Industrial manufacturers
 - Junkyard and salvage yards
 - Land application of sewage sludge
 - Landfills and dumps
 - Laundromats
 - Machine shops
 - Medical facilities (hospitals, clinics, laboratories)
 - Metal and drum cleaning/reconditioning
 - Military facilities (past and present)
 - Nurseries
 - Nursing homes
 - Paint shops
 - Photographic processors
 - Pipelines (oil and sewer)
 - Printers and blueprint shops
 - Prisons
 - Railroad yards
 - Repair shops (engines, appliances, etc.)
 - Research laboratories
 - Residential development (lawn care, septic systems)
 - Restaurants and taverns
 - Retail shopping centers, malls
 - Road salt storage
 - Rust proofers
 - Sand and gravel mining operations
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List of Potential Sources of Groundwater Contamination • Sawmills

- Schools, colleges and trade centers
- Service stations (gas stations)
- Storm water management facilities (leaching systems)
- Transmission line rights of way
- Transportation corridors (road deicing, materials transport)
- Utility substations/transformers
- Waste storage, treatment and recycling (hazardous and non-hazardous)
- Water transfer stations
- Wastewater treatment plants (past or present sludge disposal)
- Wood preservers