Public Water Systems:
A Compliance Guide for Commercial Realtors, Owners, Planners, Lenders, Attorneys & Investors

Prepared by RCAP Solutions for the Massachusetts Department of Environmental Protection Drinking Water Program with Funding from Colonial Convenience Inc.
When you turn on the faucet at your business, do you consider where the water is coming from and who’s ensuring its quality?
Safe Drinking Water

• Requires many to work together: government, business, realtors, lenders, attorneys, water operators, and the public

• Requires outreach, education and awareness of our roles in preserving and protecting public health
Our Intent

• To explain what a public water system (PWS) is

• To help business professionals understand the requirements for operating a PWS in Massachusetts, and

• To discuss other options that might exist before investing in a commercial property that provides drinking water from its own source.
Target Audiences

• Commercial Bankers, Loan Officers & Investors

• Commercial Realtors

• Real Estate Attorneys

• Planners & Building Inspectors

• Chamber of Commerce members
When You Hear the Term “Public Water System” What Comes to Mind?
Public Water System (PWS)

A system for the provision to the public of water for human consumption, through pipes or other constructed conveyances, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year.

US EPA and MassDEP
PWS Basics

- The US has approximately 161,000 public water systems.
- More than two-thirds are privately owned.
PWS Classifications

- Community PWSs = People live there
- Noncommunity PWSs = People don’t live there (two types)

**Nontransient Noncommunity (NTNC) PWS** = The same people return for work or school

**Transient Noncommunity (TNC) PWS** = Different people are just passing through
Many Types of Facilities Can Meet the Definition of a PWS

- Mobile home parks, apartments, day care centers, campgrounds, restaurants, motels, golf courses, nursing homes, fitness centers
- Multiple wells on commonly owned property may be regulated as a PWS
Examples of Privately Owned PWSs in Central Massachusetts

- Holiday Inn, Boxborough
- Heritage Country Club, Charlton
- Foxglove Apartment, Harvard
- Planet Gymnastics, Acton
- Rockport Company, Lancaster
- Mountain Barn Restaurant, Princeton
- Maillet Woods Condominiums, Hopkinton
- McDonalds, Uxbridge
- Country Hills Plaza, Mendon
Questions

1) Have any of you experienced a situation in which you, your clients, or someone you knew tripped the threshold for being a public water system?

2) If so, do you feel you were able to effectively advise clients in this situation?

3) Did it happen because of a change in use?
How Are PWSs Regulated?

• Congress passed the Safe Drinking Water Act (SDWA) in 1974, as well as major amendments in 1986 and 1996, to guide the regulation of public water.

• The US Environmental Protection Agency (EPA) writes rules in accordance with the SDWA and administers them.
Safe Drinking Water Act Highlights

• Authorizes EPA to set enforceable health standards for contaminants in drinking water
  www.epa.gov/lawsregs/laws/sdwa.html

• Requires annual water quality reports to community system customers and public notification of violations
Safe Drinking Water Act Highlights (continued)

• Requires emergency response planning

• Requires disinfection and filtration of most surface water supplies

• Funds state revolving loan programs for water system upgrades

www.mass.gov/dep/water/wastewater/dwsrffs.htm
Safe Drinking Water Act Highlights (continued)

• Requires vulnerability assessments and source protection measures to prevent contamination of drinking water supplies.

• Establishes a federal-state partnership for regulation enforcement
How Are Public Water Systems Regulated in Massachusetts?

• EPA has granted “primacy” to the Commonwealth of Massachusetts.

• The Massachusetts Department of Environmental Protection is the agency that oversees and regulates all PWSs in the state.
Regulations and Guidance for PWSs in Massachusetts

MassDEP Drinking Water Program

- [www.mass.gov/dep/water/drinking.htm](http://www.mass.gov/dep/water/drinking.htm)

Massachusetts Drinking Water Regulations : 310 CMR 22.00

- [www.mass.gov/dep/water/laws/regulati.htm#dw](http://www.mass.gov/dep/water/laws/regulati.htm#dw)
Basic Requirements for PWSs

• Obtain MassDEP approval for the drinking water source and the water system (a PWS ID number will be assigned)

• Hire (or become) a state-certified water operator of the appropriate grade

• Test the water according to an individualized sampling schedule using a state-certified lab

• Report all laboratory results to MassDEP
Basic Requirements for PWSs (continued)

• Install treatment if water quality requires it

• Report to MassDEP any changes in ownership/management, water and land use

• Make improvements as identified in the MassDEP sanitary survey

• Restrict land uses around the well to prevent impairment of water quality
Water Supply Protection Area Requirements for Small Public Water Systems

Each PWS is expected to own or control the “Zone I” area around the well (a radius of 100-400 feet).

www.mass.gov/dep/water/drinking/wspaglos.htm
Zone I Protection Area

• If a business developer is starting with a new piece of ground and putting in a facility, MassDEP generally requires the developer to own or control Zone I before a well will be approved as a PWS.

• If a business already exists and is trying to become an approved PWS, MassDEP will generally require the owner to make every effort to have a compliant Zone I without threats to the water supply.
Water Quality Testing

Wall Experiment Station, Lawrence MA
Courtesy MassDEP
Water Quality Tests

- Coliform Bacteria
- Sodium
- Nitrate, Nitrite
- Analyze at a MA-certified lab
Water Quality Test Information & Resources

• Volatile Organic Compounds (VOCs)
• Ground Water Rule (GWR) 310 CMR 22.26

• A Business Owner’s Guide to Complying with MA State Drinking Water Rules
  www.mass.gov/dep/water/drinking/tncgguide.htm

• Protecting the Drinking Water You Provide- A Guide for Owners and Operators of Gas Stations
  www.neiwpcc.org/tncgguide.asp
PWS Owners and Operators Must

• Meet water quality standards
• Meet monitoring and reporting requirements
• Meet record keeping requirements, including preparing an emergency response plan, and an annual statistical report
• Meet public notification requirements
• Meet operator certification standards
Certification of Operators of PWSs

- MassDEP maintains factsheets and other information on its website

- The Massachusetts Board of Certification of Operators of Drinking Water Facilities maintains the most current information on certified operators
  
  www.mass.gov/dep/water/drinking/systems.htm#certop
What Can Happen When Someone Changes the Use of a Business?

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• If a business changes its use and provides water from its own source, it can cause the system to be classified as a PWS.

• The business would not be able to operate until all applicable MassDEP standards, permits and approvals have been met.
“Proponents creating any new or potential public water system should be directed by the local board of health, planning board, building department, and other local permitting offices to contact the MassDEP Drinking Water Program before finalizing a site plan or developing the property, as they could be subject to 310 CMR 22.0 and all applicable MassDEP standards, permits and approvals.”

“Constructing and/or Operating Unapproved Public Water Systems” MassDEP
Common Changes in Use

Conversion from offices or stores in a strip mall to a day care facility or fitness center.

Expansion of a gas station and convenience store to include a coffee shop and restaurant.
Case Study: Colonial Convenience Store & Dunkin’ Donuts

- Operated as an unapproved PWS
- Water samples revealed over 2000 ppb MTBE (Methyl-tertiary-butyl-ether)
- Food service shut down & food handling permit revoked
Immediate Actions Required of the Owner

- Tested the gasoline storage and delivery system
- Notified the local board of health and fire department
- Conducted sampling on all drinking water wells (including private wells) within 500 feet of the property
Consequences for Owner

MassDEP & State Attorney General’s Office proceeded with enforcement action against owner for constructing an unapproved PWS

Courtesy of MassDEP
Consequences for Owner (continued)

No public water supply-related activity could take place until a new well was properly sited and all state permits obtained
The owner incurred a substantial penalty and the business was unable to operate for 12 months.
Considerations

Proponents creating any new or potential PWS should contact the MassDEP Drinking Water Program before changing use, finalizing a site plan, or developing a property that will supply its own water to 25 or more employees or visitors a day.

Keep in mind that every case will be different because every water source and every water system is different.
Considerations

• Existing businesses should explore connecting to a municipal water supply
• Proposed businesses should identify a property location where there is a municipal water supply
• Is an expansion or a new business enterprise going to trip the threshold for becoming a PWS?
Specific Information for Lenders, Realtors, Attorneys, and Planners
Commercial Lenders and Realtors

- Identify if water quality has been monitored
- Identify with clients if water supply will be used as Public Water System
- Title 5/ Septic Systems Inspections within 2 years of sale
- MGL c.21E (State Superfund Law)
Commercial Lenders & Realtors

• Assess financial resources of clients for improvements/upgrades to PWS as result of change in use of establishment
• Identify full costs of water quality testing and retention of a certified operator as well as repairs/upgrades as part of the overall property costs
• Advise clients on responsibility for meeting water quality standards, monitoring and reporting
Commercial Lenders & Realtors

• Additional financing options for small businesses through USDA
  www.rurdev.usda.gov/ma/BD.htm

• Small Business Loan Program through RCAP Solutions Financial Services
  Contact Donna Warshaw, Executive Director
  www.rcapsolutions.org/financial_services.htm
Attorneys

Massachusetts Drinking Water Regulations
310 CMR 22.0

www.mass.gov/dep/water/laws/regulati.htm
Attorneys

• If a proposed or existing facility has access to a municipal water line connection, advise clients to pursue municipal connection.

• Clients with a municipal option should take steps to complete that connection in order to mitigate costly fees, permitting and penalties.
Attorneys

• Advise clients to contact MassDEP if changing the use of an establishment that may trip the threshold for the PWS

• Advise clients that MassDEP can assess substantial fines and penalties for unapproved public water systems and failure to comply with 310 CMR 22.00
Attorneys

- Clients must protect the drinking water system to safeguard the health of their employees, customers and neighbors.

- Clients may be held accountable for making upgrades and improvements in accord with regulations of Mass DEP.

- Clients are responsible for meeting all water quality standards, monitoring and reporting and public notification requirements of MassDEP.
Local Planning Officials
Local Building Departments

Is there to be a change in use of the establishment that would cause the system to be classified as a public water supply?
Advise proponents to contact MassDEP Drinking Water program before finalizing site plan or developing the property.
Condominium Developments & PWS Requirements

• Some types of construction, such as residential or business condominium developments, proposing to use 2 or more wells to serve the on-site facilities, may be considered public water systems.

• Refer the applicant to MassDEP for a written determination of public or private water system status during the design phase, and/or prior to issuance of local permits.

• Communicate with local planning office, planning board, building inspector’s office and the applicant
From 310 CMR 22.02 Definition of a Public Water System

MassDEP “…reserves the right to evaluate and determine whether two or more wells located on commonly owned property, that individually may serve less than 25 people, but collectively serve more than 25 people for more than 60 days of the year should not be regulated as a public water system, taking into account the risk of public health.”
Local Planning Officials
Local Building Departments

Any proposed PWS well or newly identified PWS must meet DEP permitting approval requirements.
Local Planning Officials
Local Building Departments

Review permitting practices for conformance with state permits prior to issuing local building, occupancy or food-handling permits.
Technical Assistance Resources in Massachusetts

• MassDEP Central Regional Office Drinking Water Program
  Liz Kotowski  508-767-2779

• RCAP Solutions, Inc
  Tunde Baker  508-723-4067
  Jim Starbard  978-502-0227

• MCSSA (Massachusetts Coalition for Small System Assistance)
  www.massmallwatersystem.org
www.mass.gov/dep

Headquarters in Boston, MA
Central Region, Worcester
Western Region, Springfield
Northeast Region, Wilmington
Southeast Region, Lakeville
www.rcapsolutions.org

• Headquarters in Worcester, MA
• Corporate Center in Gardner, MA with additional offices in northeastern states, Puerto Rico and Virgin Islands
• Member of the RCAP Network
• President and CEO Karen Koller
Summary

• Introduced the concept of a PWS and provided examples
• Identified the requirements for operating a PWS in Massachusetts
• Provided information and resources to assist you to aid clients to investigate all options before investing in commercial property that provides drinking water from its own source.
Questions

1) When you experience a situation in which you, your clients, or someone you know could potentially trip the threshold for being a public water system, what will you advise them to do?

2) What tools and resources will you use to effectively advise clients in this situation?
Acknowledgements

Massachusetts Department of Environmental Protection Drinking Water Program

RCAP Solutions Community Resources Program