



# fact sheet

## Drinking Water Program

# Consecutive Systems

## 1. Background

A Consecutive Public Water System (PWS) is defined by 310CMR 22.02 as “a public water system that receives some or all of its finished water from one or more wholesale systems. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems”. A consecutive public water system that is regulated by the Massachusetts Department of Environmental Protection (MassDEP), Drinking water Program (DWP) is a consecutive public water system which does not meet all the criteria of 310 CMR 22.03(3)<sup>1</sup>, and is physically connected down-line from another PWS which is generally considered the supplying or “parent” system. MassDEP DWP may not be aware of the exact ownership/responsibility arrangements between the parent and its consecutive system until there is a water quality and/or quantity dispute. This Factsheet has been developed to assist in the registration and regulation of consecutive systems. It is also intended to help parent and consecutive PWS comply with the Massachusetts Drinking Water Regulations 310 CMR 22.00 and provide a safe supply of water to all consumers.

## 2. Determining Responsibility

In order to determine the line of responsibility between the parent and the consecutive system, the DWP must determine, at a minimum, which system has primary responsibility for each of the following operational items:

- A. Source Water
  - 1. Quantity of water
  - 2. Quality of water
  - 3. Sampling and/or monitoring requirements
  - 4. Wellhead and Watershed protection
- B. Distribution System
  - 1. Repair of System
  - 2. Maintenance of System
  - 3. Improvements to the system

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<sup>1</sup> 310 CMR 22.03:

- (3) 310 CMR 22.00 shall apply to every public water system in the Commonwealth, except a consecutive public water system which demonstrates to the Department's satisfaction that it meets all the following Criteria:
  - (a) The consecutive system consists only of distribution and storage facilities (and does not have any collection and treatment facilities);
  - (b) The consecutive system obtains all of its water from but is not owned by or operated by, a public water system which is subject to 310 CMR 22.00;
  - (c) The consecutive system does not sell any water to a person;
  - (d) The consecutive system is not a carrier which conveys passengers in commerce; and
  - (e) The consecutive system and the supplying system have entered into a written agreement the addresses the status and responsibilities of the parties for the ownership, operation and maintenance of the combined system, including but not limited to, drinking water sources, treatment facilities, distribution system, storage and water quality sampling.
- (4) If the Department determines that a consecutive public water system is exempt from 310 CMR 22.00 based on the consecutive system meeting the criteria in 310 CMR 22.03(a) through (e), the supplying system shall thereafter be responsible for the compliance of the combined system with 310 CMR 22.00, including the requirement to obtain the Department's approval for a substantial modification to an existing public water system pursuant to 310 CMR 22.04.

4. Sampling and/or monitoring requirements<sup>2</sup>
- C. Operational Safety
  1. Operators
  2. Operation/Maintenance requirements including Emergency Response
- D. Billing
  1. Timely payment
  2. Fairness

### 3. Procedure for Registering Consecutive Systems

During the registration process for a system DWP determines the regulatory status of all parent and consecutive systems. Depending on the ownership/responsibility arrangements between the parent and consecutive system, DWP may regulate the consecutive system and its parent as one or two PWS systems. If the parent system has ownership/responsibility for all system operations, then the parent and the consecutive system are regulated by the DWP as one system with one PWS I.D number. However, if the parent system is responsible for none or some, but not all of the operations noted above, then DWP regulates the parent and its consecutive system as two individual PWS with separate PWS I.D Numbers (See Attachment A).

Consecutive systems that sell water as a secondary aspect of their business only to recover costs (i.e. apartment buildings and commercial establishments) are not generally regulated as a separate PWS by DWP. Generally, unless the parent water supply system assumes responsibility, the consecutive system is responsible for all requirements of applicable drinking water requirements.

### 4. Identification Protocol

- A. All existing PWS with consecutive /parent relationships shall have written documents that identified all operations and answer questions on the relationship and responsibility for all operations. The document must include the following:
  - Detailed contact information for both the consecutive system and supply
  - Listing of each operation and regulatory requirement addressed by the systems
  - Number of people served by each system
  - Map of the supply system and consecutive system
  - Sampling plan for each regulatory provision
  - Statement clearly assigning legal responsibility for compliance for each system component or operation
- B. All systems establishing a new parent and consecutive system arrangement must complete and file with DWP, a consecutive system agreement that describes how the consecutive system(s) and the parent system assigns all operational responsibilities. The agreement must include all operations listed in Section 2, the information in Section 4 and a sampling plan that takes into

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<sup>2</sup> See 310 CMR 22.12 Consecutive public water systems and DWP Policy # 88-23 "Consecutive Public Water Systems Bacterial Contamination Validation Sampling" for validation sampling information.

account DWP Policy # 88-23 "Consecutive Public Water Systems Bacterial contamination Validation Sampling".

## 5. Examples of Types of Consecutive Systems

- A. **Facilities on a public water system that meet the definition of a PWS in accordance with 310CMR 22.00 that utilize POE devices** See 310 CMR 22.23

(<http://www.mass.gov/eea/agencies/massdep/water/drinking/point-of-use-and-point-of-entry-devices-regulation.html>)

Point of Entry devices (POE) are water treatment devices that are used at a service connection for treating or altering the quality of the incoming water before distribution to the house, facility or complex. DWP does not generally regulate these facilities. *However to assure compliance with the Drinking Water regulations and to protect public health the DWP may regulate a specific facility.*

- B. **Facilities on a public water system that meet the definition of a PWS in accordance with 310CMR 22.00 that utilize POU devices** See 310 CMR 22.23

<http://www.mass.gov/dep/water/laws/3102223.htm>

Point of Use devices (POU) refer to treatment devices that are attached to faucets directly or under sink facilities. These devices may or may not be limited to filters. DWP does not generally regulate these facilities.

- C. **Water Vending Machines** – See DWP Policy #87-17 – Vending Machines

<http://www.mass.gov/eea/docs/dep/water/laws/numeric/8717.pdf>

Water vending machines are usually self-serving machines/facilities that provide additional treatment to water from a MassDEP DWP regulated public water system before sale to the public. The type of treatment varies with filtration being the minimal treatment installed. DWP routinely regulates these machines.

- D. **Communities Public Water Systems Purchasing and Selling Water to Other Water Systems** See 310 CMR 22.12

These are conventional incorporated community public water systems that contain sufficient infrastructure to sustain themselves while adequately supplying another consecutive system. DWP routinely regulate these systems.

## 6. Evaluation

Due to the many types of consecutive systems in Massachusetts, DWP has established a hierarchy for regulatory evaluation. The evaluation priority is based on whether the consecutive system population is residential/non-residential or transient, the number of people served, the type of monitoring needed, the age of the population served and whether the system is adequately regulated by another state or local agency.

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The evaluation priority includes the following:

- A. Consecutive Community Public Water Systems (Residential) e.g., trailer parks that purchase their water from another PWS, etc.
- B. Vending Machines (100% of this water is used for drinking).
- C. Commercial and Industrial Establishments.
- D. Nursing Homes.
- E. Elementary Schools.
- F. Childcare Centers.

## **7. Consecutive Systems Agreements**

To establish applicability with 310CMR 22.03(3) each parent/consecutive system arrangement shall have written documentation that describes who is responsible for all operations. See Section 4 B. It is the responsibility of the parent and the consecutive system to include the operational elements in Section 2 (A-D) and Section 4 in their written agreement.

For more information on Consecutive Systems contact the Drinking Water Program at [Program.Director-DWP@state.ma.us](mailto:Program.Director-DWP@state.ma.us)

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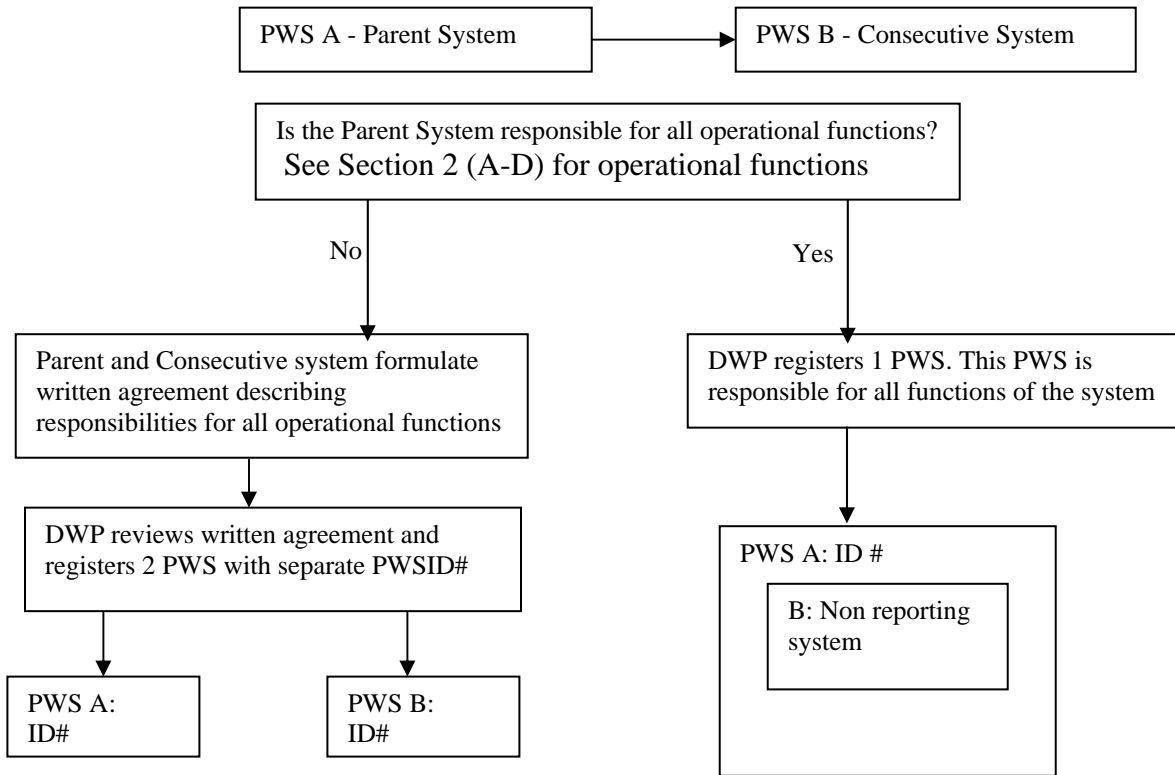
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## Attachment A

A Consecutive PWS is a PWS system which does not meet all of the criteria of 310 CMR 22.02, and is physically connected down-line from another PWS which is generally considered the supplying or "parent" system.

### Registration and Functioning of a Consecutive System



## Example A

### Example of conditions for Memorandum of Understanding for Consecutive Systems

1. All consecutive systems must submit to the parent supplier an acceptable plan of design according to the standards of the parent supplier. Approval of the same plan is necessary before construction begins. It should include:
  - a. Water Demand Analysis Report
  - b. A Water Management Plan with a 5-year projection.
  - c. Proof that no existing or potential water supply source abandoned.
  - d. Complete water use survey identifying all users in terms gallons per day; and,
  - e. The legitimacy of contractors and qualifications to carry work shall ascertain by the consecutive system. The same work to be subject to final approval of the parent supplier.
2. The Consecutive Systems shall work cooperatively with the purveyor in order to obtain, free of charge, water, for the purpose of disinfection of the water lines, where a new distribution system has been laid.
3. The Consecutive System shall adopt a local ordinance for protection of local resources.
4. The PWS or parent supplier shall not provide any additional treatment to the water other than that under the management of its operator.
5. The Consecutive System shall actively participate in conservation programs and seek to retrofit public buildings with water saving devices.
6. All water supplies should be metered.
7. The Consecutive System shall maintain responsibility for all water lines and appurtenants located on the dwelling side of each curb stop.
8. The parent supplier shall be responsible for the maintenance of water mains.
9. The changing water demand of each Consecutive System shall be periodically evaluated. The consecutive system shall submit sufficient substantive justification, the merits of which will be reviewed by the parent supplier.
10. Parent supplier shall charge the consecutive system under this agreement at the prevailing rates of the parent supplier. All billing procedures, due dates and interest charges shall be in accordance with the standard policies and procedures of the parent. Billings shall be made with the expectation that the extent of all debt will be paid for in a timely fashion.
11. Any dispute arising between the parent supplier and the consecutive system, it shall be resolved in accordance to the resolution process set forth at 360 CMR 11.14 and the Administrative procedures set forth at 360 CMR 1.00.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by their duly authorized representatives.

\_\_\_\_\_  
NAME OF PARENT SUPPLIER

\_\_\_\_\_  
NAME OF COMMUNITY OR SYSTEM

Witness by: \_\_\_\_\_

Witness by: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

## Example B

### Example of Conditions for Memorandum of Understanding for Consecutive Systems

**WHEREAS,**

The owners of \_\_\_\_\_ (Customer's Name) have expressed a desire to connect a water distribution system to \_\_\_\_\_ (Parent Supplier) water main to provide potable water to its \_\_\_\_\_ (# of) residents.

The \_\_\_\_\_ (Parent Supplier) has agreed to authorize connection of \_\_\_\_\_ (Customer's Name) water distribution system that complies with the \_\_\_\_\_ (Parent Supplier) standards.

**THEREFORE,**

This memorandum of understanding has been created to assure that both parties have an understanding of the principle requirements and cost associated with the proposed \_\_\_\_\_ (Customer's Name) connection, as presently designed. This memorandum does not require an exchange of value does not constitute a contract and may be cancelled by either part, at will.

1. The owners of \_\_\_\_\_ (Customer's Name) understand that it must provide the \_\_\_\_\_ (Parent Supplier) with an acceptable plan of design for all water related work that will take place in association with providing water and that all said work will meet the published standards of the \_\_\_\_\_ (Parent Supplier). The \_\_\_\_\_ (Parent Supplier) approval of the design plan is required before construction commences and will not be unreasonably withheld.
2. All water service must be metered.
3. The \_\_\_\_\_ (Parent Supplier) will maintain ownership and responsibility of repair for all water lines and appurtenances located on the dwelling side of each curb stop.
4. The \_\_\_\_\_ (Parent Supplier) will maintain responsibility for repairs of water mains and appurtenants as they appear on the proposed design.
5. The owners of \_\_\_\_\_ (Customer's Name) agree to provide \_\_\_\_\_ (Parent Supplier) with copies of related recorded easements.
6. The owners of \_\_\_\_\_ (Customer's Name) understand that all water lines installation work, including connection to \_\_\_\_\_ (Parent Supplier) distribution main must be accomplished by a locally approved installer and must be inspected by a representative of the \_\_\_\_\_ (Parent Supplier). All cost related to the inspection will be at the expense incurred by the \_\_\_\_\_ (Customer's Name).
7. Both parties understand that the following is a list of \_\_\_\_\_ (Parent Supplier) charges pertinent to this project, based on current conceptual design:

System development charge	\$	_____
Meter installation fee	\$	_____
Estimated inspection fee	\$	_____
8. The purveyor/parent supplier will provide, at no charge, sufficient water disinfection and flushing. No additional water shall be provided to the project unless and until all water service construction is complete and all applicable fees have been paid.

**IN WITNESS WHEREOF,**

The parties have caused the memorandum of understanding to be executed by the duly authorized officers as of the date first written above.

\_\_\_\_\_  
CUSTOMER/CONSECUTIVE SYSTEM

\_\_\_\_\_  
PURVEYOR/PARENT