



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

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## Implementation of Zone I Requirements

Effective Date: 3/10/2008

Amended Date: 5/01/2011

Program Applicability: All BRP Programs

Supersedes Policy #: 94-03A

DWP Policy 94-03  
(BRP Policy # BRPP-2011-01)

Approved by: *Ann Lowery* 4/13/2011

Ann Lowery, Acting Assistant Commissioner, BRP

## Purpose

Policy 94-03 provides guidance on the implementation of the Zone I<sup>1</sup> requirements established under MA Drinking Water Regulation, 310 CMR 22.21. This regulation requires public water systems (PWS) to own or control the Zone I of their wells and to limit activities to those directly related to the provision of the water supply, or to activities that will have no significant adverse impact on drinking water quality.

**All methods to control the Zone I, in lieu of ownership, as described in this Policy require prior approval from MassDEP.**

This policy amends Policy 94-03A by removing the 1994 date for grandfathering newly identified unregistered wells. This policy applies to existing wells, newly discovered wells and proposed new wells where specified. This policy also incorporates and amends Policy 95-04 “*Control of Zone I Within Publicly Owned Lands.*” This policy should be used in conjunction with MA Drinking Water Regulations 310 CMR 22.00 and MassDEP’s “*Guidelines and Policies for Public Water Systems.*”

<sup>1</sup> The Zone I is a 100’ – 400’ protective radius around the wellhead that must be owned or controlled by the PWS.

IT IS THE POLICY OF THE MASSDEP TO USE THE FOLLOWING INFORMATION WHEN DETERMINING THE APPROVAL STATUS OF A PUBLIC DRINKING WATER WELL.

**A.1 When the Zone I is privately owned and the PWS is a non-profit entity, the following in order of preference, are the options for controlling the Zone I:**

- (1). Ownership of the Zone I by the PWS
  
- (2). Control of the Zone I through a land use Restriction and Easement pursuant to M.G.L. c.184 s. 32 (listed in order of preference):
  - (a). **Conservation Restriction** AND easement granting the PWS access to and across the Zone I in order to install, operate, monitor, repair and maintain a public drinking water well and to perform other water supply related activities necessary for the system's compliance with 310 CMR 22.00. The Conservation Restriction must run in favor of the PWS and limit activities and uses within the Zone I to those directly related to the provision of the public water system in accordance with 310 CMR 22.21(3)(b). Conservation Restrictions must be approved by MassDEP and the Executive Office of Energy and Environmental Affairs (EEA).
  
  - (b). **Watershed Preservation Restriction** AND easement granting the PWS access to and across the Zone I in order to install, operate, monitor, repair and maintain a public drinking water well and to perform other water supply related activities necessary for the system's compliance with 310 CMR 22.00. The Watershed Preservation Restriction must run in favor of the PWS and limit activities and uses within the Zone I to those directly related to the provision of the public water system in accordance with 310 CMR 22.21(3)(b). Watershed Preservation Restrictions must be approved by MassDEP and the MA Division of Conservation Services.
  
  - (c). **Agricultural Preservation Restriction** AND easement granting the PWS access to and across the Zone I in order to install, operate, monitor, repair and maintain a public drinking water well and to perform other water supply related activities necessary for the system's compliance with 310 CMR 22.00. The Agricultural Preservation Restriction must run in favor of the PWS and limit activities and uses within the Zone I to those directly related to the provision of the public water system in accordance with 310 CMR 22.21(3)(b). Agricultural Preservation Restrictions must be approved by MassDEP and the MA Department of Agricultural Resources.

**A.2 When the Zone I is publicly owned (by a municipal, federal or state governmental body) OR when the Zone I is privately owned AND the PWS is a non-public or for-profit entity (such as a condo association or business) the following, in order of preference, are the options for controlling the Zone I:**

- (1). Ownership of the Zone I by the PWS
- (2). When ownership of the Zone I is not possible; the PWS may, **with MassDEP approval**, use one of the following options to control the Zone I in order to satisfy the Zone I requirement:
  - (a). **Easement**<sup>2</sup> granting the PWS the right of access to and across the Zone I in order to install, operate, monitor, repair, maintain, and protect a public drinking water well and to perform other activities necessary for compliance with MA Drinking Water Regulations 310 CMR 22.00. Such easements must restrict any activity inconsistent with the use of the area as a public water supply<sup>3</sup>. Easements must be approved by MassDEP prior to execution.
  - (b). **Long Term Lease** This option requires the PWS to demonstrate to that option A.2(2)(a) is not possible. A long term lease from the land owner (as lessor) to the PWS (as lessee) whereby the PWS has possession of the property comprising the Zone I and the right to install, operate, monitor, repair, maintain and protect a public drinking water well and to perform other activities necessary for compliance with MA Drinking Water Regulations 310 CMR 22.00. The minimum time period for such a lease shall be 30 years. The long-term lease shall be renewable and shall prohibit any activity inconsistent with the use of the area as a public water supply.

The long-term lease shall not be renewed if the well has been formally abandoned with MassDEP approval or the well has not served as a source of public drinking water for five or more years, unless the PWS demonstrates a commitment to reactivating the well within a time frame that is acceptable to MassDEP and the lessor. If the PWS does not demonstrate a commitment to reactivating the well, MassDEP will require the PWS to officially abandon the source.
  - (c). **Memorandum of Understanding (MOU)**<sup>4</sup> or Memorandum of Agreement (MOA) between the PWS and the owner of the property within the Zone I. At a minimum such documents shall be notarized and include the following:
    - i. Provision for the PWS to enter and cross the Zone I as needed in order to install, operate, monitor, repair, maintain and protect a public drinking water well and to perform other activities necessary for compliance with MA Drinking Water Regulations 310 CMR 22.00;

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<sup>2</sup> An easement is a legally enforceable agreement (contract) between two or more parties that creates an obligation to do or not do particular things. These types of easements must be renewed after a specified period of time. These easements do not require EEA approval

<sup>3</sup> A Model Easement is available from MassDEP at <http://www.mass.gov/dep/water/drinking/sourcewa.htm#info>

<sup>4</sup> MOUs and MOAs are legal documents expressing a convergence of will between parties indicating an intended common line of action but do not necessarily imply a legal commitment. These types of agreements are formal alternatives to 'Letters of Intent' but lack the binding power of a contract.

- ii. A stated agreement that the land owner will not allow or engage in activities or land uses that are inconsistent with the use of the land as a public drinking water supply or pose a threat to water quality; and
- iii. Renewal language

#### **B.1 When the PWS is in Non-Compliance with the Zone I Requirement**

- (1). All PWS with newly discovered wells or existing wells that do not meet the Zone I requirements will be informed of their non-compliance status during the source approval process or at the time of a sanitary survey or inspection or whenever MassDEP has such information available. **See endnote on page 6 of this policy for non-compliance notification language to be used with sanitary surveys or inspections.** MassDEP will notify the PWS in writing that they will not be allowed to expand or modify their system without first obtaining MassDEP approval AND that such approval will be contingent upon meeting the Zone I requirements. MassDEP will send copies of this notice to the local Board of Health, Planning Board, Building Inspector and other local entities. In accordance with 310 CMR 22.04(1)(a)(6), MassDEP may require that the PWS record at the appropriate Registry of Deeds a certified affidavit describing the PWS status and specific expansion limitations, if any. An affidavit template is available in Appendix B of MassDEP's '*Guidelines and Policies for Public Water Systems*'.
- (2). If the PWS with a newly discovered well does not meet the Zone I requirements the PWS will be required (as a condition of a MassDEP enforcement and/or permit action) to explore specific options, including: removing potential sources of contamination, connecting to municipal water or another MassDEP approved PWS, buying more land and/or relocating the well. In the event that these options are infeasible, MassDEP will conduct a susceptibility evaluation of the well to determine if the source can be approved with additional monitoring or with treatment and increased monitoring. Based on the susceptibility evaluation and the potential risk to public health, MassDEP will determine if the well is approvable.

#### **B.2. Waiver of the Zone I Ownership/Control Requirements<sup>5</sup>**

- (1). For newly discovered wells or for existing wells where a PWS cannot obtain ownership or control of the entire Zone I and the options outlined in Sections A.1 and A.2 of this policy have been determined by MassDEP to be infeasible; MassDEP may waive the Zone I ownership/control requirement cited in 310 CMR 22.21(3)(b). The decision to grant a waiver will only be made when it is determined that additional requirements will minimize threat to water quality. Additional requirements may include:
  - (a). A Memorandum of Understanding or Memorandum of Agreement as described in Section A2(c) of this Policy.
  - (b). Additional monitoring at the source or installation of a monitoring well(s) at a MassDEP specified location(s);
  - (c). Drainage requirements;
  - (d). No salt requirements for existing roads within the Zone I;

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<sup>5</sup> MassDEP approval of a Zone I waiver is not an indication of full compliance with the Zone I requirements, 310 CMR 22.21(3)(b). Therefore, PWS that receive a Zone I waiver are not allowed to expand the capacity of their facility or to increase water withdrawals in exceedance of the assigned MassDEP approved pumping rate.

- (e). Additional treatment of the source as necessary;
- (f). A requirement that the PWS obtain an amount of upgradient acreage equal in area to that portion of the Zone I which the PWS is unable to own or control;
- (g). Capacity requirements, such as maintaining emergency funding in an escrow account; and
- (h). Other source protection tools as determined appropriate and necessary.

### **B.3. Passive Recreational Use of Zone I**

- (1). MA Drinking Water Regulation 310 CMR 22.21(3)(b) requires current and future land uses within the Zone I to be limited to those directly related to the public water supply well or those activities demonstrated to have no significant adverse impact on water quality. MassDEP requires that all passive recreational activities have no significant adverse impact on drinking water quality.
- (2). Passive recreation is defined as walking, hiking, cross-country skiing, and bicycling. **Other recreational activities may be considered on a case-by-case basis and require MassDEP written approval.** No picnic areas may be established or maintained in a Zone I due to MassDEP's desire to avoid concentrated human activity in the Zone I.
- (3). **MassDEP approval requires the PWS to demonstrate that the proposed activity will have no significant adverse impact on water quality.** MassDEP approval may include requirements such as the PWS posting signs identifying the Zone I as a water supply protection area and/or providing public educational information.
- (4). For new and existing wells, **the PWS must notify MassDEP in writing of any plans to introduce land uses in a Zone I.** MassDEP reserves the right to reject any such proposals or require modifications on PWS controlled lands. All decisions by MassDEP will be made in writing and copied to the appropriate municipal officials.

### **B.4. Change in Zone I Ownership or Land Use**

- (1). In accordance with 310 CMR 22.24, a PWS **must obtain MassDEP approval** for any change in ownership or use of the Zone I land including obtaining MassDEP's approval for conveyance of any portion of the land.
- (2). If the PWS owns or controls land outside the Zone I and that land was acquired for water supply purposes, these same requirements apply.

### **B.5. Utility Easements in Zone I**

- (1). Pursuant to 310 CMR 22.24(3), MassDEP will not approve any grant of easement (in which the PWS is the Grantor) for pipelines, or other conduit, carrying liquid petroleum products within a Zone I.
- (2). For other public utility easements within a Zone I, MassDEP may require as a condition of an express perpetual prohibition, the use of fertilizers, pesticides, herbicides, and other non-mechanical means of vegetation control within the easement area.

**B.6. Monitoring of Newly Discovered Wells**

If the PWS with a newly discovered well is able to meet the Zone I requirements, the initial baseline testing for applicable water quality contaminants will be required as soon as possible after identification of the well as a public water supply source. Additional monitoring may be required as deemed necessary by MassDEP due to water quality problems or land use concerns.

**B.7 Sewer Lines in Zone I**

This Policy is consistent with MassDEP Policy WS P03-1 which prohibits the installation of sewer lines within a Zone I unless necessary to eliminate existing or potential sources of contamination to a public drinking water well.

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**ENDNOTE**

For a PWS with a Zone I non-compliance status, MassDEP will add the following language to sanitary survey reports, Consent Orders, or other compliance documents as appropriate.

(1) When the Zone I is not Owned or Controlled by the PWS

Please note that the (*PWS Name*) lacks ownership or control of the required (*# of feet*) Zone I protective radius around Well/Source (*ID#*). Pursuant to 310 CMR 22.21(3)(b), 310 CMR 22.21(1)(a) and 310 CMR 22.04(1), the owners or designated representative of (*PWS Name*) must notify MassDEP prior to a change in facility ownership, or a change in landuse within the Zone I, or any change that can impact the quality or quantity of the drinking water supply. The owners or designated representative of (*PWS Name*) must obtain MassDEP approval prior to modifying or expanding the facility, or replacing any well or source. MassDEP will not approve any proposed modifications or expansions resulting in water withdrawals that exceed the designated MassDEP approved pumping rate.

(2) When Inappropriate Land Uses are Located in an Owned/ Controlled Zone I

The (*PWS Name*) is hereby notified that Well (*ID#*) is in non-compliance with MassDEP's requirement, 310 CMR 22.21(3)(b), that Zone I activities be limited to those directly related to the provision of public water or will have no significant adverse impact on drinking water quality. Well/Source (*ID#*) will remain in non-compliance status until (*specify action to be performed*). Pursuant to 310 CMR 22.04(1) and 310 CMR 22.21(1)(a), the owners or designated representatives of (*PWS Name*) must notify MassDEP prior to a change in facility ownership or a change in landuse within the Zone I, or any change that can impact the quality or quantity of the drinking water supply. The owners or designated representative of (*PWS Name*) must obtain MassDEP approval prior to modifying or expanding the facility, or replacing any well or source. MassDEP will not approve any proposed modifications or expansions resulting in water withdrawals that exceed the designated MassDEP approved pumping rate.