

Maine Center for Disease Control and Prevention

An Office of the Department of Health and Human Services

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PURPOSE FOR NEW POLICY/PROCEDURE: This policy is written to provide detail for administering the Maine Rules Relating to Drinking Water regarding the issuance of well to contamination source setback waivers.

ORIGINATOR: Nathan Saunders P.E.

POLICY: Well-to-Contamination Source Setback Waiver Policy for Public Water Systems

DEFINTIONS:

"New Well" is defined as a well that has not been drilled yet or an existing well that has not been regulated as a public water source in the last three (3) years... new to the Maine Drinking Water Program (this includes After the Fact wells).

"<u>Licensed System</u>" is any system with a state license such as a day care, nursery school, convenience store, restaurant, campground, etc.

<u>"Replacement Well"</u> a well that provides a new source of water to a population served by an existing, currently regulated PWS well (which no longer serves the PWS). A replacement well is **not** a redundant or an additional well and may be an existing well. In the case of a well whose volume capacity has diminished over time, an additional well that replaces the lost capacity will be considered a "replacement" well (replacing lost capacity) and the existing, reduced-capacity-well may continue to be used; the reduction in volume capacity must be proven and documented.

REGULATIONS:

From the Maine Rules Relating to Drinking Water [10-144 CMR 231 (3)(G)(2)]

- 1. "New wells shall be located at least 300 feet away from potential contamination sources" [primarily septic system leach fields]
- 2. "If circumstances exist where a proposed well location must be placed closer than 300 feet from a potential contamination source, [e.g. septic system leach field], then the Department may grant a setback waiver on a case-by-case basis."

Public water system owners may be granted a waiver if the following circumstances prevent a 300-foot setback: These circumstances are incorporated directly from Chapter 4 of the Well Drillers Rule, CMR 232, New Water Well Construction.

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- a) the size of the property is not sufficient to allow for the required setback; or
- b) sufficient setbacks from other potential sources of contamination cannot be met; or
- c) excessive slopes prohibit access; or
- d) the location of permanent structures would result in unreasonable impacts or damage to the structures; or
- e) the location of lakes, ponds, streams or wetlands prohibits meeting the required setback; or
- f) the presence of bedrock at or within three vertical feet of the surface would result in unreasonable trenching requirements; or
- g) other requirement as accepted by the Maine Drinking Water Program (DWP) staff.
- h) the new well is a "Replacement Well" as defined by this policy.

SPECIAL WAIVERS FOR STATE-LICENSED SYSTEMS:

Establishments meeting the DWP criteria of a public water system, currently licensed by another State agency (day cares, nursery schools, conveniences stores, restaurants, etc.), and operating continuously from before July 1st, 2009 until present, will be granted a well-to-leach field setback waiver if their separation distance measures between 100 and 300 feet. Such establishments with a well-to-leach field separation distance less than 100 feet will be evaluated for a setback waiver on a case-by-case basis. In contrast, all public water system establishments that began or substantially changed their licensed operation after July, 1st, 2009 will be subject to the standard requirements of this policy. All establishments with a setback less than 300 feet are required to sample according to the policy for Water Quality Monitoring for Insufficient Setbacks (WQM-IS).

REPLACEMENT WELLS

A "replacement" well, as defined above, may be issued a setback waiver without requiring a hydrogeologic study.

For a well drilled to replace a contaminated well (due to oil or other contaminant), additional testing and/or a hydrogeological assessment may be required.

A well that makes up (replaces) the lost volume capacity of a well with diminished output can only be considered a "replacement" well if the diminished output of the well is proven and documented. A well that cannot meet an increased demand does not qualify as a well with diminished output. Therefore, if the growth of a PWS increases the demand on an existing well and the well cannot meet the increased demand, then an "additional" well is required and it cannot be considered a "replacement" well.

Note: when drilling a replacement well close to an existing well, the well-driller/owner should take caution if abandoning the existing well so that the abandonment process does not negatively impact the new well. For example, do not fill up the entire existing well with Bentonite slurry. Instead, fill the well with crushed rock to within 10 to 20 feet of the casing shoe, then fill the remaining well and casing with Bentonite slurry.

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Due to the hydrogeologic complications associated with drilling a replacement well close to an existing well, setback waivers for replacement wells need to be reviewed and signed by the DWP Geologist.

STANDARD POLICY FOR UNLICENSED SYSTEMS OR SYSTEMS LICENSED AFTER JANUARY 1, 2009:

Setback = 300 feet or more:

If a setback measures 300 feet or more, then a waiver is not required. Tables (1) and (2) within the Policy for Water Quality Monitoring for Non-Community PWS Wells with Inadequate Setbacks from Septic Disposal System Leach Fields (WQM-IS) offer monitoring and well construction guidance for Non-Community public water systems. Monitoring and well construction requirements for Community systems are determined on a case-by-case basis.

Setback = 150 to 299 feet:

- 1. A public water system must meet one of the above 8 circumstances that prevent a 300-foot setback from occurring. If none of the above circumstances apply, then the public water system must create a 300-foot-or-greater setback by drilling a well, moving a septic system leach field, or some other method.
- 2. For an existing well that fails to meet one of the above 8 circumstances allowing for a reduced setback, the DWP may allow for reducing the 300-foot setback requirement by 10% (between 270 and 300 feet). If such a waiver is granted, then the public water system would be required to increase monitoring frequency and provide minimum well-casing, per WQM-IS.
- 3. For an existing well with a setback of 150 to 269 feet that fails to meet one of the reduced-setback circumstances, a public water system may hire a certified geologist to render an opinion concerning the risk of the well being contaminated by the leach field, based on the surficial geology between the well and the leach field. An existing well with a setback of 150 to 269 feet may be waivered by a DWP geologist upon review of the information, data, and opinion provided by a certified geologist. Potential remedies to this reduced setback include septic pretreatment and/or well modification (e.g. installation of a Jazwell seal of an appropriate length), as approved by a DWP geologist.
- 4. A waivered non community public water system with a setback between 150 to 299 feet must follow the water quality monitoring and well construction requirements from Table 1 and Table 2 of WQM-IS. Monitoring and well construction requirements for Community systems are determined on a case-by-case basis.

<u>Setback = 100 to 149 feet:</u>

1. A public water system must meet one of the above 8 circumstances that prevent a 300-foot setback from occurring. If none of the above circumstances apply, then the public water system must create a 300-foot-or-greater setback by drilling a well, moving a septic system leach field, or some other method.

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2. A public water system that started operating or was substantially changed after 10/24/2001, per the Maine Rules Relating to Drinking Water:

Must hire a certified geologist to complete a hydrogeological assessment appropriate to the system classification and situation as specified by a DWP geologist. The DWP geologist will approve or disapprove the evaluation. DWP Field Inspectors will instruct the public water system to contact a DWP geologist to discuss the requirements of a hydrogeological assessment. A hydrogeological assessment may be waived if a certified geologist submits an engineered septic and/or well construction proposal that is then approved by the DWP.

3. A public water system that started operating or was substantially changed before 10/24/2001:

Must meet sampling requirements from Table 1 of WQM-IS.

4. A waivered non community public water system with a setback between 100 to 149 feet must follow the water quality monitoring and well construction requirements from Table 1 and Table 2 of WQM-IS. Monitoring and well construction requirements for Community systems are determined on a case-by-case basis.

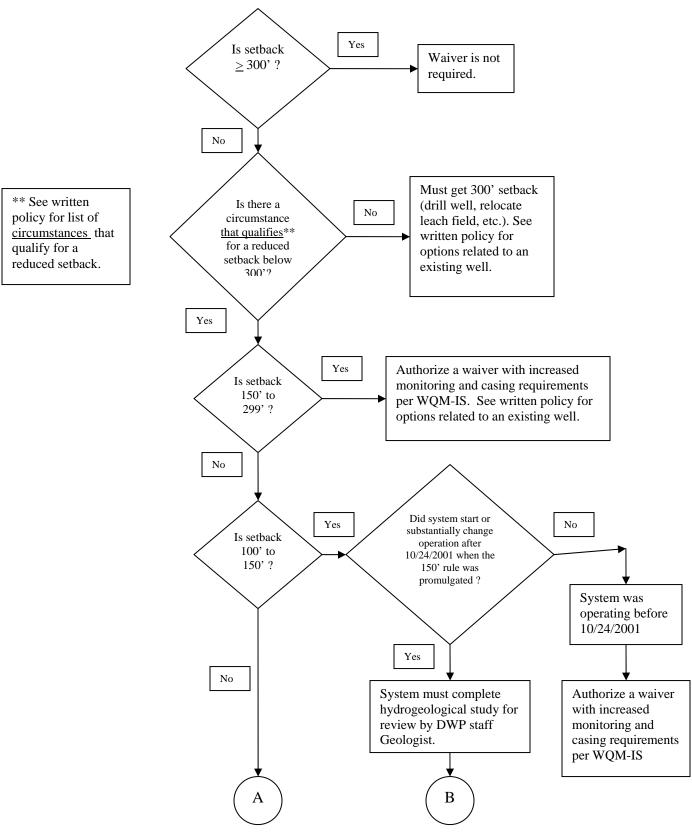
Setbacks < 100 feet:

- 1. A public water system must meet one of the above 8 circumstances that prevent a 300-foot setback from occurring. If none of the above circumstances apply, then the public water system must create a 300-foot-or-greater setback by drilling a well, moving a septic system leach field, or some other method.
- 2. A public water system with a setback of less than 100 feet may only receive a waiver if a DWP geologist reviews and approves such waiver requests. Per Maine Rules Relating to Drinking Water, any system that started operating or was substantially changed after 10/24/2001 must complete a hydrogeological assessment as specified above for setbacks of 100 to 149 feet. A hydrogeological assessment may be waived if a certified geologist submits an engineered septic and/or well construction proposal that is then approved by the DWP.
- 3. A waivered system with a setback of less than 100 feet must comply with water quality monitoring and well construction requirements determined by the DWP.

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Flowchart for the Well to Contamination Source Setback Waiver Policy for Public Water Systems



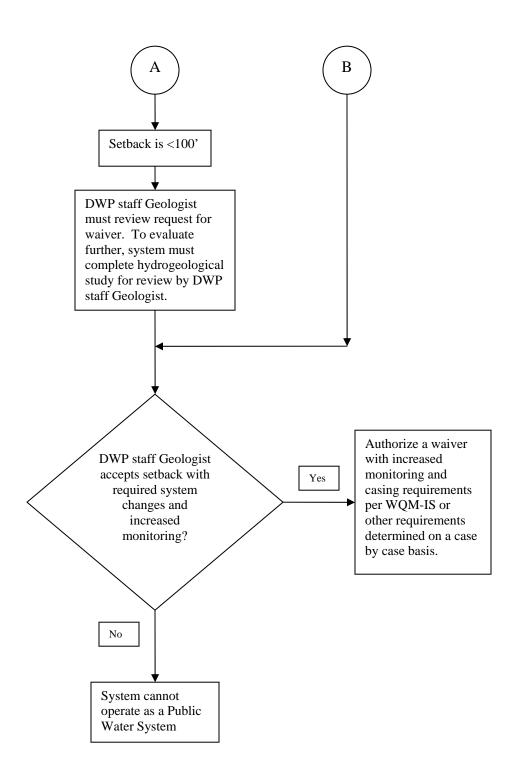
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Maine Drinking Water Program Well to Contamination Source Setback Waiver Form

Field Inspector: Waiver Reviewer:(Field Inspection Team Manager or DWP Geologist:
What is the measured setback the waiver is requested for? (Attach drawings and describe)
What circumstance warrants a setback reduction waiver: Check here if a replacement well
If setback is less than 150 feet, was a hydrogeological study completed by a certified geologist? Yes (attach report) No If No, why was the study not completed? (e.g. septic pretreatment required, study not needed? other?)
Waiver granted?
Record waiver conditions (e.g. septic pretreatment, extended well casing or jazwell seal, monitoring requirements):

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Associated Documents

New System or Well Approval Procedure

Superseded Documents

None

Retention

This document is retained per the DWP Record Retention Procedure

Revision Log

Section	Page	Rev.	Date	Description Of Change	Approved by:
		Original	9/25/06		Nancy Beardsley
		В	1/9/07		Nancy Beardsley
Policy		С	5/11/09	Changed wording of Maine rules to reflect updated rules. Added criteria for state licensed establishments. Reformatted to meet DWP documentation requirements. Used "Certified Geologist" throughout doc.	Roger Crouse
Special Waivers	2	D	8/3/09	Added clarifying language	Roger Crouse
Definitions, Policy	Several	Е	4/16/10	Added definition and policy on "Replacement Wells"	Roger Crouse

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