

# **Summary of Proposed Changes to the RI DEM Groundwater Quality Rules November 2018**

The RI DEM Groundwater Quality Rules have been reformatted for consistency with the required new statewide regulation recodification format. In addition, changes in rule language and changes to the groundwater classification map and the wellhead protection area map are proposed. Many minor changes have been made to clarify the Rules that are not highlighted or discussed herein. The more substantive changes are described below.

The June 2010 version of the Groundwater Quality Rules has been reformatted, and track changes was then used on this reformatted version to show proposed language changes from June 2010 to present. All reference to section numbers below is based on the reformatted version.

Section 3.5 Applicability: Abandonment procedures for private drinking water wells are now included in these rules along with the abandonment procedures for other subsurface borings. Abandonment procedures for private drinking water wells are currently in the DEM “Rules and Regulations Governing the Enforcement of Chapter 46-13.2 Relating to the Drilling of Drinking Water Wells.” These Rules are slated for repeal since statutory changes transferred authority for construction of drinking water wells to the RI Contractors Board. The abandonment procedures in the proposed Groundwater Quality Rules are consistent with and no more burdensome than the procedures required by the soon to be repealed DEM “Rules and Regulations Governing the Enforcement of Chapter 46-13.2 Relating to the Drilling of Drinking Water Wells.”

Findings Section has been deleted because this section is not regulatory. Note: Regulatory language typically describes actions that the regulated public must do or must not do and how the agency is going to enforce the regulation.

Section 3.6 Incorporated Materials has been added as required by the new regulation recodification format.

Section 3.7 Definitions: Six definitions are deleted since the terms are either no longer used in the Rules or they are not necessary.

Section 3.8(G): The insertion of “annually” in this text is meant to clarify that if there is a period of time when salt/sand was not stored at the location in question up to April 2005, future storage will be treated as a new activity subject to Section 3.7(F).

Section 3.9(A)(1)(a): Appendix 3 and reference to the document “Policies and Procedures for Mapping Recharge Areas to Groundwater Reservoirs for GAA Classification” are deleted because they are not regulatory.

### Section 3.10 Modification of Groundwater Quality Classification

- Former Section 3.10(A) deleted because it is not regulatory.
- Section 3.10(A): The proposed language specifying submittal requirements for requests for reclassification are what the Department has been requiring since the Rules were first adopted in 1992 in order to support a petition for groundwater reclassification. Specifying these minimum requirements will improve predictability for the applicants.

### Section 3.11 Groundwater Quality Standards and Preventive Action Limits

- Former Section 3.11(A) deleted because it is not regulatory.
- Section 3.11(A)(1): The phrase “source of potable water” has been changed to “source of safe and potable drinking water” to be consistent with language in the statute.
- Section 3.11(A)(2)
  - Table 1 has been deleted since, except as explained below, the numbers in the table reflect the US EPA maximum contaminant levels. No need to reproduce here.
  - The procedure for setting a groundwater quality standard when there is no maximum contaminant level has been specified. DEM will establish an interim standard that is consistent with the RI Dept. of Health. DEM will then initiate rule-making to adopt the interim standard as final within 6 months after making the interim determination.
  - The compounds in 3.11(A)(2)(a) and (b) are those compounds that do not have an EPA maximum contaminant level established, but for which DEM previously established a GAA/GA standard pursuant to section 3.11(A)(2).
  - The two compounds in 3.11(A)(2)(c) through (e) are compounds added to these Rules. DEM adopted these standards by declaration pursuant to former Rule language in this section on October 18, 2017.
- Section 3.11(A)(3) has been added to clarify that taste, odor and color can also be a determinant for potability and as such a GAA/GA standard.
- Section 3.11(B)(2): language has been added to clarify use of preventive action limits. PALs are used to monitor groundwater that may be impacted by approved discharges to groundwater, as well as the discharge itself.

### Section 3.12 Determination of Compliance with Groundwater Quality Standards and Preventive Action Limits.

- Section 3.12(A): The phrase “...through analytical tests of groundwater quality” has been changed to “...through analytical tests of unfiltered groundwater samples.” The term “unfiltered” has been added to be better representative of the groundwater that would be withdrawn from a well and consumed.
- Deleted former section 3.12(B) and replaced with the following general statement in order to give the Department and the regulated public more flexibility in sampling and testing groundwater: “Groundwater quality samples shall be collected in a manner to be representative of groundwater quality.”
- Section 3.12 (D)(4) and (5): These provisions formally establish a pollutant discharge zone for discharges from onsite wastewater treatment systems and stormwater treatment systems as

defined by the separation distance to a private well in the respective DEM Rules. This provides clear consistency between the Groundwater Quality Rules and these other regulatory programs. Applicants do not have to apply for a specific pollutant discharge zone designation under the Groundwater Quality Rules as part of the approval of an onsite wastewater treatment system or stormwater treatment system.

- Section 3.12(E): Deleted the reference to preventive action limits when referring to a residual zone since the residual zone is for groundwater remediation activities and PALs are not applicable for remediation goals pursuant to section 3.11(B)(2).

#### Section 3.13 Notification to DEM of Violations of Preventive Action Limits and Groundwater Quality Standards

- Section 3.13(A): References to other Rules are deleted and replaced with the general statement exempting persons subject to “other state or federal rules.” This alleviates the need to keep abreast in these Rules of other notification requirements.
- Section 3.13(B)(4): The addition of the phrase “or any person or entity that may have caused a discharge to groundwater at any location in the state” has been added to capture situations where a discharge is caused by someone other than a facility owner or operator. Examples of this may include, contractor operations at a construction site, lawn care company spilling pesticides, application of fire-fighting foam.
- Section 3.13(B)(4): Reference to violation of a preventive action limit has been deleted because PALs are not applicable to remediating an unapproved discharge or release to groundwater.
- Former section 3.13(D) has been deleted because the certification requirements of this section are not necessary.

#### Section 3.14 Facility Owner or Operator Responses to Violations of Preventive Action Limits and Groundwater Quality Standards.

- Section 3.14(B) has been added to identify the specific actions that the Director may require when a preventive action limit has not been met at a point of compliance. These actions had previously been grouped in with the responses for not meeting a groundwater quality standard
- Deleted former Section 3.14(E) because it is not regulatory. It describes factors DEM may consider in making a decision on response.
- Deleted former Section 3.14(G) in order to create a one-step reporting process that is in Section 3.14(E).
- Section 3.14(E)(1)(g): Added bedrock information to the factors to include in the description of the site’s hydrogeology. This information was required in former Section 3.14(G)(1).

#### Section 3.15 Groundwater Remediation

- Section 3.15(A) added in order to acknowledge that there are other state and federal rules for groundwater remediation that will take precedence over these Groundwater Quality Regulation remediation requirements.
- Deleted former Section 3.15(C) because it is not regulatory. It describes factors DEM may consider in making a decision on remediation.
- Section 3.15(D): Deleted text specifying the means of the Department approval.

Former Section 3.17 Groundwater Quality Certification deleted. This section was superseded by the promulgation of the Groundwater Discharge Rules (Rules for the Discharge of Non-Sanitary Wastewater

and Other Fluid To or Below the Ground Surface) in 2012. Activities that were formerly subject to Groundwater Quality Certification have now been subject to the Groundwater Discharge Rules since 2012.

#### Section 3.16 Wellhead Protection

- Section 3.16(A)(1) now includes the statement “A DEM approved wellhead protection area will be effective at the time of the well’s approval by the RI Department of Health” to acknowledge the common practice between DEM and DOH. Several public wells are usually brought on line over the course of any given year.
- Section 3.16(A)(1) includes updated wording regarding wellhead protection area maps. Former Section 3.16(C) has therefore been deleted.
- Appendix 5, referenced here in Section 3.16(A)(1), has been deleted since it is not regulatory. It describes the methodology originally used by DEM to delineate wellhead protection areas.
- Section 3.16(A)(1)(a) clarifies that it is no longer DEM’s responsibility to delineate a wellhead protection area for these stratified drift wells. Water suppliers must do the type of studies needed for delineation in order to be approved by DOH or to receive a DEM wetlands permit. DEM will use this same information for approval of a wellhead protection area.
- Section 3.16(C) deletes language deletion that describes factors DEM may consider in making a decision on deleting a wellhead protection area.
- Former Section 3.16(F) “Wellhead Protection Planning” has been deleted. The groundwater protection achieved by the planning in former 3.16(F)(1) and (2) does not require the provisions in this rule. This planning and protection continue under separate authorities.

Section 3.17 Variances: Most of this section has been deleted, retaining only the criteria upon which the Director may issue a variance.

Section 3.20 Superseded Regulations: Former section 3.20(A) has been deleted since it refers the “Rules and Regulations Governing the Enforcement of Chapter 46-3.2 Relating to the Drilling of Drinking Water Wells” which have been repealed.

Section 3.22(Former Appendix 1) Construction Standards for Monitoring Wells and Abandonment Procedures for Private Drinking Water Wells, Monitoring Wells, Piezometers and Other Subsurface Borings:

- As mentioned earlier under Section 3.5 Applicability, abandonment procedures for private drinking water wells are now included in these rules.
- Section 3.22(A): Deleted references to other documents on well standards since these documents are not regulatory in that they are referenced only as a source of further information.
- Section 3.22(D) Deviation from the Standards: The requirement for documentation of all deviations from the standards has been deleted since DEM typically responds verbally and the Office of Water Resources does not have the resources to respond to and enforce this provision.
- Figures for monitoring well construction have been deleted, since they do not provide any information not in the text of Section 3.22.

Former Appendix 3 “Map of Groundwater Reservoirs and the Critical Portions of Their Recharge Areas” and Appendix 5 “Wellhead Protection Area Delineation Methodology” have been deleted because they are not regulatory.

Changes to the Groundwater Classification Map and Wellhead Protection Area Maps:

- Facility specific groundwater reclassification applications pursuant to Section 3.10(E) (Downgrading Groundwater Classified GAA or GA to GB) have been reviewed and approved for 4 facilities over the past few years. This rule update will formalize these changes. These reclassifications to GB will reduce the requirements for site remediation being undertaken pursuant to other Department regulations at these facilities.
- Groundwater reclassification at the RI Resource Recovery Central Landfill – downgrading classification from GA to GB, GA to GC and GB to GC to reflect expanded areas permitted for waste disposal.
- Wellhead protection areas have been revised using information from the following US Geological Survey Reports (Note since these are community water suppliers, this will also involve a groundwater classification change):
  - “Evaluating Prediction Uncertainty of Areas Contributing Recharge to Well Fields of Multiple Water Suppliers in the Hunt – Annaquatucket – Pettaquamscutt River Basins, Rhode Island”, Scientific Investigations Report 2012-5114.
  - “Areas Contributing Recharge to Production Wells and Effects of Climate Change on the Groundwater System in the Chipuxet River and Chickasheen Brook Basins, Rhode Island”, Scientific Investigations Report 2014-5216.
- Wellhead protection areas have also been revised using information on from the RI Department of Health on new wells that have been approved and wells that have been discontinued from service.

Number of Public Wells added to the wellhead protection area map:

- Community = 20
- Non-community = 54
- Total = 74

Number of Public Wells removed from the wellhead protection area map:

- Community = 15
- Non-community = 31
- Total = 46

These public well changes results in the acreage changes below:

- Community wellhead protection areas increased by 2155 acres
- Non-community wellhead protection areas increased by 221 acres

Overall groundwater classification changes:

- GAA – increased by 388 acres
- GA – reduced by 1274 acres
- GB – increased by 62 acres
- GC – increased by 156 acres