MAINE RURAL WATER ASSOCIATION

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Groundwater Rule in Maine, Question & Answer Meeting
November 12, 2009
Maine Drinking Water Program Office, Augusta

Attendance: Carlton Gardner, Dave Braley, Nate Saunders, Daneille Obery, and Tom Bahun

Purpose of Meeting: Alex Wong and Tom Bahun assembled Groundwater Rule (GWR) questions asked during the five MRWA GWR classes held in Caribou, Searsport, York, Mexico, and Wiscasset during the Summer of 2009. Most of the questions pertained to Maine Drinking Water Program's administration of the GWR. Below are these questions with answers determined during the November 12, 2009 meeting and finalized January 19, 2010:

Q1. Did the sanitary surveys completed by Maine Drinking Water Program (DWP) on a Groundwater System (GWS) prior to December 1, 2009 meet the sanitary survey requirements of the GWR (e.g. surveyed the eight required elements)?

A1. Sanitary surveys conducted on GWS by the DWP prior to December 1, 2009 did survey the eight elements (when applicable) identified in the GWR, although, "official/documented" GWR sanitary surveys did not start until December 1, 2009. All GWS will need to be surveyed at the frequency identified in the GWR (Community GWS – every three years and Non-community GWS – every five years) starting December 1, 2009.

Q2. How many Maine Community Water Systems, Non-Transient Non-Community Water Systems, and Transient Non-Community Water Systems are disinfecting and how many are not?

A2. The DWP's Field Inspection Team (FIT) is currently in the process of confirming the reasons why systems are chlorinating. Of the 1900 Public Water Systems (PWS) in Maine, approximately 20-30 systems disinfect with ultra violet light (UV) and 400 PWS are adding chlorine for pre-oxidation and/or disinfection.

Q3. Should GWSs consider installing disinfection in an effort to avoid being required to install 4-log treatment and having to conduct compliance monitoring? What should GWSs consider prior to installing additional treatment including UV?

A3. All PWS should consider assessing potential source/system contaminants and take appropriate action(s) (e.g. eliminated or protect against contaminates, install treatment). Currently, multiple UV systems in series would be necessary to achieve 4 log deactivation of viruses. **Note: PWS must obtain prior approval from the DWP before making any significant water system changes (e.g. changing sources, installing or removing treatment, etc).**

Q4. This question pertains to a GWS conducting Triggered Source Water Monitoring that voluntarily installed disinfection. Is the GWS in noncompliance (e.g. treatment technique violation) if the disinfection treatment system fails? What are the general monitoring and treatment requirements for such a GWS?

A4. No. The GWS would be in noncompliance under the GWR and/or DWP rules if the GWS was required to install disinfection. . General monitoring requirements would include disinfection residual and disinfection by-products for chemical disinfectants according to the type of PWS and the chemical disinfectant used.

Q5. Will Maine Health and Environmental Laboratory (HETL) send out Triggered Source Water Monitoring sample bottles along with TCR recheck sample bottles to GWS?

A5. HETL will not know how many sources a particular GWS may have and which sources need Triggered Source Water Monitoring. It is recommended the GWS consult with DWP to ensure Triggered Source Water Monitoring is done correctly. GWSs (e.g. owner, operator, designated samplers or technical assistance provider) must clearly indicate the type of sample collected (e.g. TCR Recheck or Triggered Source Water Monitoring) on the sample bottle labels and Chain-Of-Custodies.

Q6. Under the GWR, a GWS serving <1,000 population may elect to use one of the four Total Coliform Rule (TCR) Repeats/Rechecks for Triggered Source Water Monitoring if allowed by primacy. Will DWP allow this option?

A6. As for now, GWSs in Maine **will not be allowed to use one of the four rechecks for Triggered Source Water Sampling**. DWP will require systems serving <1,000 population to collect four (4) rechecks from the distribution system under the TCR **and** the applicable number of Triggered Source Water samples under the GWR. This is a change in how DWP originally expected to implement the GWR.

Q7. What is the time limit for GWSs to report Triggered Source Water Monitoring results to the DWP?

A7. E. coli positives should be reported immediately to DWP but no later than 24 hours. All other results must be reported by the 10^{th} day of the following month.

Q8. This question pertains to a GWS with a source/aquifer that has been determined to be contaminated with a fecal indicator. Is a GWS obligated to inform other water systems of an identified contamination whose wells draw from the same aquifer (e.g. other PWSs, private well owners)?

A8. No. There is no requirement under the GWR or the DWP's rules.

Q9. This question pertains to GWSs required by the DWP to install 4-log treatment for viruses and those that are not. Can a GWS providing 4-log treatment for viruses choose to discontinue 4-log treatment or compliance monitoring and conduct Triggered Source Water Assessment Monitoring?

A9. Yes, although prior approval must be obtained from the DWP. Source Water Assessment monitoring, as outlined in the DWP's rules, is 12 months of monthly raw water sampling from each well.

Q10. This question pertains to a GWS not conducting 4-log treatment or compliance monitoring that received a total coliform-positive for a TCR routine compliance sample. Will the DWP allow an exception to conducting Triggered Source Water Monitoring if the GWS provides evidence that the total coliform-positive was due to a distribution deficiency? Also, will the DWP establish criteria for distribution system conditions that would cause total coliform-positive samples?

A10. Yes. The DWP will consider exceptions to conducting Triggered Source Water Monitoring if the GWS provides evidence that the total coliform-positive was due to a distribution deficiency. If the total coliform-positive is invalidated by the DWP, re-sampling must occur within 24 hours of notification of the invalidation. The DWP is currently not planning to establish criteria for distribution system conditions that would cause total coliform-positive samples as defined in the GWR.

Q11. Is it accurate to state the DWP will require a GWS with an E. coli-positive Triggered Source Water Monitoring sample to issue a Boil Water Order and take corrective action within 30 days?

A11 Yes. In Maine, an E. coli-positive Triggered Source Water Monitoring sample will require the GWS to issue a Boil Water Order. The E. coli-positive will be considered a "significant deficiency" under the GWR and the GWS must take corrective action to address the fecal contamination within 30 days.

Q12. Will GWSs in Maine ever be required to conduct the five (5) Additional Source Water Sampling under the GWR?

A12. It is not likely GWSs will ever conduct five (5) Additional Source Water Sampling under the GWR because an E. coli-positive in a Triggered Source Water Monitoring sample will be considered a significant deficiency and require corrective action.

Q13. Is there a minimum distance a Triggered Source Water Sample must be collected from the source?

A13. Triggered Source Water Samples must be collected as close to the groundwater source as possible and before any treatment. There is no distance standard established by DWP. GWSs have been advised to install/establish appropriate source sampling locations before and after the GWR was published. It is critical, that when

sampling a source, the well pump must be running and water is flowing from the appropriate well while the sample is being collected.

Q14. How will HETL distinguish between samples collected under the GWR and TCR?

A14. GWSs must clearly indicate the type of sample collected (e.g. TCR Recheck or Triggered Source Water Monitoring) on the sample bottle labels and Chain-Of-Custodies.

Q15. If a GWS has multiple sources supplying a common water line, will DWP allow the isolation of sources to collect source water samples (e.g. Triggered Source Water Samples) after a manifold?

A15. Yes. Prior approval must be obtained from DWP and the sampling procedure clearly documented. It is imperative the required source water sample is truly representative of only the single source needing to be sampled.

Q16. Will Monthly Operating Reports (MORs) need to be revised to accommodate GWR reporting requirements?

A16. Yes. GWS with 4-log treatment, conducting compliance monitoring will need a revised MOR.

Q17. For sanitary survey purposes, what is the recommended inspection and cleaning schedule for finished water storage tanks?

A17. There are no recommendations under the GWR. The "rule of thumb" is to inspect finished water storage tanks every five years.

Q18. How will removal credits for membrane and UV systems be calculated?

A18. GWS must provide DWP with the appropriate manufacturer's literature certifying removal efficiencies. In addition, treatment systems must meet National Sanitation Foundation (NSF) standards.

Q19. Does the GWR apply to water bottling facilities, bulk water hauling and water vending machines?

A19. GWR does not apply. If a facility is defined as a PWS and its source is groundwater, then the GWR would apply (e.g. water bottling facility whose source is groundwater and is open for 60 or more days per year with 25 or more employees).

Q20. The GWR requires GWSs with large populations of non-English speaking consumers to provide special notices, Consumer Confidence Reports (CCR) and Public Notifications (PN) in the appropriate language(s) as determined by the state. Are there currently water systems in Maine that will be required to provide special notices, PN and CCR to non-English speaking consumers?

A20. Currently, there are no water systems in Maine required to provide special notices, PN and CCR to non-English speaking consumers.

Q21. Should GWSs with multiple groundwater sources, using HETL, consider having extra bacteria water sample bottles on hand for Triggered Source Water Monitoring?

A21. Yes, as HETL will unlikely know how many groundwater sources need Triggered Source Water Monitoring. **Note: Bacteria water sample bottles from HETL have a one (1) year shelf life.**