Northern Flows

Summer

Alaska's Drinking Water Program Newsletter

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The Ground Water Rule

By Cindy Christian

The Safe Drinking Water Act (SDWA) protection of the nation's public drinking water supply. One of the latest most recent rules to be promulgated by EPA under the SDWA is the Ground Water Rule. This rule was finalized in January 2007, with compliance becoming effective in December 2009.

While public water systems (PWSs) using groundwater sources are currently regulated, the Ground Water Rule expands existing requirements. The primary goal of the Ground Water Rule is to identify PWSs using a groundwater source that is susceptible to fecal contamination and to ensure that they take adequate measures to remove or inactivate pathogens in the drinking water they provide to the public. The major requirements of this rule include the following:

- A decrease in the timeframe for periodic sanitary surveys of groundwater systems; the sanitary survey requires the evaluation of eight components of the PWS and the identification of significant deficiencies.

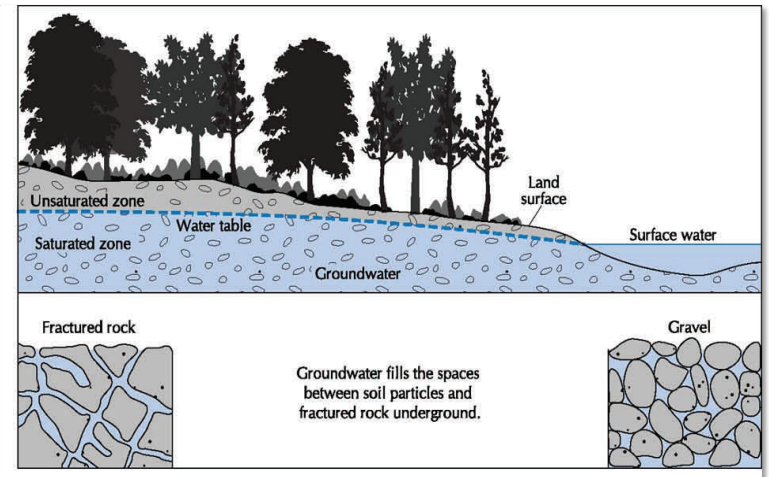

Image adapted from the United States Geological Survey

- Source water monitoring for wells with a positive fecal indicator sample, with corrective action required upon a second fecal indicator-positive sample.
- Hydrogeologic assessments to identify wells sensitive to fecal contamination.
- Source water monitoring for systems that draw from sensitive wells without treatment or that have other indications of risk.
- Compliance monitoring to ensure disinfection treatment is reliably operated.
- Correction of significant deficiencies found during the sanitary survey.

The Ground Water Rule applies to all PWSs served either solely by groundwater or by a combination of surface and groundwater sources where the groundwater is added directly to the distribution system without treatment. Traditionally, groundwater has been considered safe for drinking without treatment to remove microbial pathogens because of the natural filtration provided by soil and aquifer materials. However, studies conducted over many years indicate that this may not be the case. Groundwater can be susceptible to microbial contamination from many different sources, including septic system drain fields, animal fecal matter, agricultural runoff, and improperly drilled or decommissioned wells. Waterborne pathogens, such as bacteria, viruses, and protozoa, are commonly associated with these activities.

Waterborne disease outbreaks are increasingly being associated with groundwater sources. Between 1991 and 2000, a total of 68 waterborne

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Message from the Manager *By James Weise*

Summer is finally here. Our long days and short nights now provide us plenty of time to try to get everything done that we need to do for the year. Well, probably not, but at least we can try.

A new approach the Department of Environmental Conservation (DEC) Drinking Water Program is trying with our quarterly newsletter is to make it a more interesting informational tool that people will actually read or want to read. That means, shorter "Message from the Manager" articles and using the cover page of the newsletter for our theme article, the one major message from the newsletter that we would like our readers to focus on and hopefully remember. Over the next year, we will be featuring articles on the importance of tap water and providing a comparison of tap water versus bottled water. After attending the joint Craig Woolard and Don Degan presentation at the annual AWWMA Conference this past May, I thought "Only Tap Water Delivers", was an important message for the Drinking Water Program to continue to spread this year. So, expect some thought provoking and hopefully life or habit-changing information and articles throughout the year on "Tap Water versus Bottled Water". From the Drinking Water Program's perspective, only tap water really does deliver.

We have reviewed the 14 written comments received for our proposed Drinking Water Regulations revisions package, DW 2008-1, and plan to prepare a responsiveness summary to send to those who sent written comments. The comment period for these proposed regulations revisions ended on June 9, 2008. We have finalized revisions to the Drinking Water Regulations package DW 2008-1, and we are preparing for our next regulations revision package, DW 2008-2. This latter package will focus primarily on fee revisions for both the Drinking Water Program and Environmental Health Lab Certification group.

Lastly, workforce changes continue within the Drinking Water Program. Carrie Bohan, Environmental Program Specialist in the Juneau office, left the Drinking Water Program in late May for a position within the Ocean and Coastal Management Group with the Department of Natural Resources. Margaret Hansen, the Administrative Clerk in the Anchorage office has left the Drinking Water Program for the Environmental Health Lab. We wish them both well in their new jobs and say "thank you" for their good work with the DEC Drinking Water Program.

Also, please help us welcome the new Environmental Program Manager in the Wasilla office, Jeff Warner. Jeff joins us from the Food Safety and Sanitation Program also within the Division of Environmental Health.

Now, let's enjoy our all too short and very wet summer.

James R. Weise

James Weise
Manager
Drinking Water Program

The Ground Water Rule Cont. *By Cindy Christian*

disease outbreaks have been identified in groundwater systems nationwide. Collectively, the data indicate that source water contamination and inadequate treatment are responsible for the great majority of these outbreaks. The outbreaks were caused by a variety of pathogens, most of which caused short-term gastrointestinal disease.

The Alaska Drinking Water Program staff is currently in the process of assisting those public water systems most likely to be impacted by the Ground Water Rule with planning how they will meet the compliance requirements of the Rule. For further information on the Ground Water Rule, please get in touch with your Drinking Water Program contact; staff names and telephone numbers are located on the last page of this newsletter.

The First Barrier (Drinking Water Protection)

By Charley Palmer

Protecting your source of drinking water from potential contamination is the first step in a multi-barrier approach to maintaining clean and safe drinking water.

Current Events

Source Water Assessments

Drinking Water Protection (DWP) staff continue to work on completing Source Water Assessments (SWA) for new Class A public water system (PWS) sources and URS Corp. continues to work on completing SWAs for Class B (non-community and transient non-community) public water systems (see Issue 33 for more details). As of July 1, 2008, URS had contacted all of the 226 Class B water system owners to verify the location of their source (i.e. well, spring, or intake). They corrected locations for those that responded and assumed the locations were correct for those that did not respond. The location of the source is the first piece of information needed to ensure an accurately delineated drinking water protection area for a PWS SWA. URS has delineated protection areas for 60 PWS sources to date. DWP staff have reviewed most of these delineations to ensure they are consistent with internal delineation methodologies.

2008-2010 SOC/OOC Monitoring Waiver applications

Many of you have asked DWP staff and staff from other sections within the Drinking Water Program about the status of SOC/OOC Monitoring Waiver applications for the 2008-2010 compliance period. Unfortunately, the new application is not available at this time. The primary reason is that it is associated with our propped regulations revision package, which was just out for public comment. At this time we do not have a firm date, but we are hopeful that the new application will be available soon. Please continue to check our website at: ⟶ http://www.dec.state.ak.us/eh/dw/ and future *Northern Flows* issues for updates on the status of the SOC/OOC Monitoring Waiver applications.

Revitalizing the Wellhead Management Plan CD-ROM

DWP staff created a *Wellhead Management Plan* CD-ROM several years ago to assist PWSs in developing Drinking Water Protection Plans. Plenty of these CDs are still available upon request. Please contact DWP staff if you are interested in obtaining a copy. We typically hand these CDs out at conferences and during our visits to various areas for workshops. If you've received a CD in the past, we encourage you to take another look at it and create a draft Wellhead Protection Management Plan. We've recently gone through the CD with a community in the Alaska Interior and want to emphasize how easy the CD makes developing Protection Plans. Some key points to remember when using the CD:

- Get creative when identifying protection strategies.
- The potential source of contamination that you choose to address does not have to be taken directly from the Source Water Assessment as indicated. For example, you may choose public education as a protection strategy that would cover multiple sources of contamination.
- The Protection Plan is a "work in progress" that will be updated on a regular basis (e.g. annual), so identify strategies that can be reasonably accomplished first and then add in additional strategies during future revisions.

The CD-ROM is not just for wells (despite its name), but can also be used for springs and surface water intakes.

As of now, developing a Drinking Water Protection Plan is voluntary. But, if we don't get a certain level of participation, it could become mandatory. More specifically, our target participation rate by 2011 is 60% of all public water systems statewide. Currently, we fall quite below this target. So, take advantage of this opportunity to individualize a Protection Plan for your community because your options may be more limited if it becomes mandatory. Also, take advantage of the tools we provide, like the *Wellhead Protection Management* CD-ROM, and your Source Water Assessment report. Please contact DWP staff if you have questions or would like to receive a copy of your Source Water Assessment report.

The DEC Drinking Water Protection website is: ⟶ http://www.dec.state.ak.us/eh/dw/DWP/source_water.html

Staff Profile: Paul Gabbert *By Cindy Christian*

Paul Gabbert is an Environmental Engineer II in the Anchorage Drinking Water (DW) Program office. Paul recently joined us as the Dinking Water Program's lead Sanitary Survey Engineer. He will be responsible for a wide range of activities, including oversight of the Sanitary Survey Program, evaluating engineering plans for public water systems and providing technical assistance. The Sanitary Survey Program is an integral part of the compliance and technical assistance that we offer to public water systems. In many cases, the sanitary survey inspection is the only opportunity that we have to be on-site at a public water system. It is an opportunity for both the water system and us (Drinking Water Program staff) to review processes and recordkeeping to assure the water system owner and the State of Alaska that the best water possible is being served to consumers. Because the sanitary survey is so important, we need to be sure that we have processes in place to have the best quality survey possible. With that in mind, Paul will be focusing on quality control for the Sanitary Survey Program. He will be developing and conducting training for DEC staff and third party Sanitary Survey Inspectors, reviewing and improving the current Electronic Sanitary Survey (ESS) form and process, and developing a quality control checklist for completing and reviewing sanitary surveys. Paul sees this program as a critical component for allowing effective optimization of public water systems across Alaska.

Please Note: The monkey on my back is small and doesn't look too mischievous.
— Paul Gabbert

Paul originally came to Alaska from the Pacific Northwest. He grew up in Northern California, Oregon, Idaho, and Montana. He spent summers in Alaska and decided to go to college here. Paul began his college career at Anchorage Community College, and then transferred to University of Alaska Anchorage to the Engineering Program. He graduated from the University of Alaska Fairbanks with a degree in Mechanical Engineering. Paul began working at DEC as an intern in the Village Safewater Program in 1986. He then worked for many years at the Alaska Native Tribal Health Consortium (ANTHC) as a Utility Operations Consultant. Paul brings a wealth of experience in working with public water systems throughout Alaska. He is a very important member of the Drinking Water Program team.

NOTICE:
The Ground Water Rule Training Workshop scheduled for October 23rd and 24th in Anchorage has been cancelled.

AK - WARN *By Leslie Shurtleff*

This June, levees on the bulging Mississippi River held as the worst flooding the Midwest has seen in 15 years wreaked havoc in states spanning from Minnesota to Missouri. Water utilities in Indiana have activated their Water and Wastewater Agency Response Network (WARN) in response to the flooding. According to the Water Information Sharing and Analysis Center (WaterISAC), WARNs in Minnesota, South Dakota, and Nebraska are on standby for possible activation. The operations of several water and wastewater facilities in Iowa, Missouri and Illinois have been severely impacted, evoking concerns as to the availability of clean drinking water throughout the region.

Alaska has not established a WARN; however, the concept of launching a WARN in Alaska has been seriously explored for over a year. For those unfamiliar, a WARN is a network where water, wastewater, and public works agencies can receive emergency assistance from member utilities in the form of personnel, equipment, materials, and other associated services. The objective of a WARN is to provide rapid, short-term deployment of emergency services to help recover from natural and manmade disasters. It is a network of "Utilities Helping Utilities," developed and managed by water and wastewater systems. WARN is an *intra*state program where both private and public utilities may participate, it is not a corporation or a governmental unit. The backbone of a WARN is the non-binding Mutual Aid and Assistance Agreement signed by interested utilities. WARN was born from the common sense belief that utility operations are specialized, and the best possible aid originates from knowledgeable peers.

Today, 29 states have established a WARN, and 7 states have an agreement pending. Alaska faces a diverse set of potential disasters -- earthquakes, tsunamis, volcanoes, freezing, and flooding to name a few. These challenges, combined with Alaska's separation from the lower 48, make a clear case for strengthening intrastate mutual aid. As such, Alaska has made recent strides to establish AK-WARN. On May 8, 2008, a training workshop was held during the annual Alaska Water Wastewater Management Association (AWWMA) conference. Representatives from utilities across the state attended, setting a baseline interest for the program. To initiate the founding of a successful AK-WARN, a kickoff teleconference was held on May 22nd, during which a Leadership Team was solidified, including Anchorage Water & Wastewater Utility (AWWU), the largest PWS in the state. Growth of the Leadership Team is anticipated, as multiple utilities have expressed interest in joining the network. The next significant step in the establishment of AK-WARN is drafting the Mutual Aid and Assistance Agreement, where provisions for network activation, reimbursement, liability and other issues are mutually agreed upon by participating utilities. During the summer months, the Leadership Team will be contacting utilities across the state to include as many utility representatives as possible during the drafting of the Mutual Aid and Assistance Agreement scheduled for this fall. Additionally, the Leadership Team is in the process of generating a comprehensive AK-WARN website which will be completed in the near future. In the meantime, for more information regarding WARNs, including a sample draft agreement, visit: →

http://www.awwa.org/Government/Content.cfm?ItemNumber=3837&navItemNumber=3838

Keep in mind, there is no direct cost associated with becoming a member of AK-WARN, and as a member, there is no obligation to respond or to provide aid; however, the strength of a WARN is participation. If you would like to learn how you can participate in AK-WARN, please contact Hilary Currey with the Alaska Rural Water Association at: akwarn@gmail.com.

EPA Drinking Water Rules

By Wendy Marshall, U.S. EPA Region 10

Stage 2 Disinfectants and Disinfection Byproducts Rule

If you are a community water system that adds a chemical disinfectant to the water in any part of the drinking water treatment process, or if you are a community water system that delivers water to which a chemical disinfectant has been added, and you have not yet submitted an Initial Distribution System Evaluation (IDSE) standard monitoring plan or a 40/30 certification to the Environmental Protection Agency (EPA), please do so immediately. These materials were due to EPA on April 1, 2008, so you are now in violation. EPA will be contacting violating systems soon. If you have any questions, you may contact Wendy Marshall at the Environmental Protection Agency in Seattle at (206) 553-1890 or 1-800-424-4372.

Long Term 2 Enhanced Surface Water Treatment Rule

If you use surface water or ground water under the direct influence of surface water and have not yet submitted to the Environmental Protection Agency (EPA) an *E. coli* Source Water Monitoring Plan, Intent to Provide Maximum Treatment Form, Intent to Monitor for *Cryptosporidium* Instead of *E. coli* Form, or Intent to Grandfather Data Form, please do so immediately. These materials were due to EPA on July 1, 2008, so you are now in violation. EPA will be contacting violating systems soon.

If you have any questions, you may contact Wendy Marshall at the Environmental Protection Agency in Seattle at (206) 553-1890 or 1-800-424-4372.

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