of DRINKING WATER OPENLINE



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Fall 2011 Volume 22

The Director's Report

EPA's stated purpose for the federally funded State Revolving Fund (SRF) program is to help water systems comply with the Federal Safe Drinking Water Act (SDWA). To address this issue, the Division of Drinking Water has prepared a list of potential water systems that could benefit from utilizing available financial assistance for a construction project. To develop the list, the Division looked at two sources of information: I) those water systems that have significant physical deficiencies found

during sanitary surveys and 2) those water systems that have quality or maximum contaminant level (MCL) violations. These two areas of information are electronically captured in our database. Consequently, a list of potential projects can be generated by developing an electronic query of the pertinent data. We've done this and extended the process to automatically place the list on our web page.



To access the list, go to our web page (http://www.drinkingwater.utah.gov). Once at our web page, scroll down to the banner which reads: "Potential Construction

Projects in Utah". Under this banner are four paragraphs of explanation regarding the list. It is worth reading. In the first paragraph is a phrase that is blue in color and underlined (list of potential construction projects). If you click on this phase it will take you directly to the list.

We've place the list on our web page in the hope that it will encourage drinking water systems, appearing on the list, to contact their engineering consultants. We also hope that consultants, whose clients appear on the list, would initiate a discussion with their clients.

The list on our web page does not contain any information about the nature or extent of a needed project. The instructions on our web page under the banner: "Potential Construction Projects in Utah" directs the reader to request an Improvement Priority System (IPS) report for more information. As explained on our web page the IPS report will list both the quality violations and the physical deficiencies that caused the system to appear on the list. Presumably both quality issues and physical deficiencies could be addressed by a construction project.

The IPS report will list all violation of the Division's Rules. Consequently the IPS report may contain additional violations which a construction project would not fix. Examples include monitoring violation, the lack of a certified operator or missing elements of a cross connection control program. Further, the IPS report does not list all the issues that should be considered when contemplating a construction project.

One of the purposes of any construction project should be to ensure the capability of the water system to consistently provide a safe and reliable supply of drinking water. In order for a water system's consultant to adequately assess a water system's capabilities, the consultant must perform a comprehensive evaluation. Issues that a water system should have their consultant evaluate include: a) water rights, b) critical facility redundancies (such as duplicate pumps), c) fire flow capacities, d) operating pressures, e) potential growth, f) water system component capacities of: source(s), pumping, storage and distribution system piping, and do the evaluation taking into account each of the water system's pressure zones, and g) safety, security and operability of facilities. In essence, the consultant performs a physical exam of the water system and makes recommendation to ensure its continued health.

Relative to water system evaluations, as well as the design and construction of improvements, the Division's staff stand ready to provide technical assistance and financial help. I encourage all to take advantage of our help.

New Division Staff



J.J. Trussell Environmental Program Coordinator

J.J. Trussell joined the Rules Section of the Division of Drinking Water in April of 2011. A recent graduate from Weber State University, he was a Butcher in a small grocery store in Coalville, Utah, and news reporter for the WSU signpost.

J.J. coordinates many Rules Section activities, including the drafting and tracking of enforcement actions and the migration of electronic data into the Safe Drinking Water Information System. One of the most challenging and rewarding parts of his experience with the Division is coordinating with the EPA on enforcement actions.

Colt Smith Environmental Scientist

Colt Smith joined the Rules Section of the Division of Drinking Water in February of 2011. Prior to his coming to the division he attended the University of Utah and worked in Utah Congressman Jim Matheson's Washington DC office. He most recently worked for the Division of Environmental Response and Remediation and the Office of the Executive Director within Utah Department of Environmental Quality.

Colt manages the Consumer Confidence Rule and the Safe Drinking Water Information System (SDWIS) Date Base; He will also be assisting with compliance and enforcement actions. Colt was recently named the National Co-Chair for the Compliance Monitoring Data Public Display Committee that will be working with multiple state agencies and federal interests to develop the next generation of SDWIS.

Colt lives with his wife Maggie in Sugarhouse. In his free time he enjoys cycling, rowing on the Great Salt Lake, tennis, playing bass guitar in a Tom Petty cover band and cooking.

New Construction Assistance Section Manager

Michael Grange, P.E., Manager, Construction Assistance Section

Michael has worked at the Division of Drinking Water since October 2006 as a member of the Construction Assistance Section. Prior to coming to work for the State of Utah, he worked for 14 years in the private sector as a laboratory technician, process engineer, and environmental consultant.

When free time presents itself Michael can be found chasing the light to capture the mood and grandeur of this Great State in photographs.

Treatment Reports Who Me?!!

By Don Lore

According to the R309-105-14 (2) (a): All water systems using chemical addition or specialized equipment for the treatment of drinking water shall regularly complete operational reports. This information shall be evaluated to confirm that the treatment process is being done properly, resulting in successful treatment.

Blah, blah. So what does this mean to me? Basically, it means that if you put anything into your water or use anything to treat it you should be sending regular reports to the Division of Drinking Water (DDW).

Treatment might include blending sources, adding chemicals, or filtration. How often you send these reports to DDW depends on what you use to treat your water. Often a quarterly report is enough to document your efforts. These reports should include the information needed to tell if the treatment is working. This may include the amount of water treated, the amount of chemical used, and the final results. It should include test results to indicate how well the treatment works. This report is just as valuable to you as it is to DDW. This report is your evidence of the work done in case you need it in the future. It also helps you track the progress or changes in the treatment process. It helps you stay focused on the steps that provide health protection to your customers. So, Treatment Reports — Yes Me!!

Grouped Sources - What You Need to Know

Last year DDW created a new policy for grouped sources in order to confirm that all chemical samples are representative of the water consumers are drinking. If your system has a grouped source sampling station then you need to know what kind of station it is, how to apply to keep it, and the deadline for that application to get to DDW. If you do not apply to keep it by the deadline then it will expire and you will have to sample for nitrate, volatile organics, pesticides, radionuclides (for community systems), inorganics and metals and sodium/sulfate/TDS at each individual source.

To find out if you have a grouped source sampling station, request the most current copy of your monitoring schedule from DDW. Directly under Additional Monitoring Requirements on the front page, the schedule lists the chemical samples required for each source in your system. If you have a grouped source sampling

station, it will list a identification code starting with SS, and then be named Grouped Source Sampling Station. At the bottom of the requirements is a list of the sources attributed to that sampling site.

The two kinds of grouped sources are sources grouped based on being in a common aquifer, and sources grouped because they mix at an entry point to the distribution system. If your grouped source sampling station is based on all of the sources drawing from the same aquifer then you need to send in a common aquifer application that contains the following eight items:

- I. Detailed well logs
- 2. A cross section prepared from the well logs which clearly indicates that the wells draw water from the same aquifer
- 3. A review of the chemical data
- 4. A statement signed by the professional geologist or engineer that it is his/her opinion that all the wells are in a common aquifer
- 5. The professional shall stamp the report;
- 6. A signed and dated statement from the water system that the sampling will not threaten public health
- 7. A sampling plan for the sources to be grouped that shows the samples will be rotated through each active source; and
- 8. Copies of data of background chemical samples for each individual source

These eight items are your application to keep your sources grouped based on the fact that they draw water from the same aquifer. Once DDW receives these items, staff will review them and approve or deny the grouped source sampling station status.

If your grouped source sampling station is based on the source waters mixing before serving any customers then you need to fill out a sampling plan for your entry point grouped source sampling station and send it to DDW for approval. The purpose of the sampling plan is to ensure that the chemical data is typically collected at the station and is representative of the sources tracked in that station. A copy of an example sampling plan can be found at: http://www.drinkingwater.utah.gov/documents/compliance/EntryPointSamplingPlan.pdf.



The deadlines for all systems to complete either the common aquifer application or entry point sampling plan are as follows:

System population	Deadline for source grouping application
10,000 and above	December 31, 2011
3,300 and above	December 31, 2012
500 and above	December 31, 2013
less than 500	December 31, 2014

If a water system has not submitted their application or sampling plan to DDW by the above deadlines then the current source grouping will be removed, and chemical samples will therefore be required at each individual source.

Groundwater RuleSignificant Deficiencies & Consequences

The Groundwater Rule (GWR) became effective December 1, 2009. There are four components of this rule; Sanitary Surveys, Source Water Monitoring, Compliance Monitoring, and Corrective Actions for significant Deficiencies and Fecal Contamination. This article will focus on significant deficiencies.

Significant deficiencies are defined as deficiencies that may cause, or have the potential to cause, the introduction of contamination into the finished water. Deficiencies may relate to water system design, operation/maintenance, failures or malfunctions of source treatment, storage, or distribution system. Fecal (*E. Coli*) contamination of the groundwater source is classified as a significant deficiency. Examples of significant deficiencies include, but are not limited to: a water source located near a source of fecal contamination, storage tanks inadequately cleaned and maintained, situations in which negative pressure can result in contamination entering distribution pipes, excessive water loss in distribution systems, excessive water age in finished water storage tanks, and confirmed fecal contamination of a water source.



Further examples include: an inadequate sanitary seal on a well or pitiless adapter, an unsealed opening in a spring collection box, an unsecured source or storage facility, cross-connections, missing screens on vents and overflows, insufficient source/storage capacity, or failing to meet some of the provisions of the Drinking Water Source Protection program (DWSP).

Significant deficiencies are often identified during a routine sanitary survey. Others are identified as a result of positive *E. coli* source sample results (triggered source monitoring) or failure to have and/or maintain a current DWSP. Significant deficiencies are sometimes identified as a result of a non-sanitary survey, site visit, or administrative action. The GWR addresses significant deficiencies identified at a groundwater system. The Division of Drinking Water (Division) has broadened the scope to include significant deficiencies identified for a surface water system as well.

Whenever a significant deficiency has been identified during a sanitary survey, the system must consult with the Division regarding the appropriate corrective action within 30 days of being notified of that significant deficiency. All significant deficiencies must be corrected within 120 days of the date of completion of the survey <u>or</u> the system must enter into a corrective action plan with the Division to address the significant deficiencies. Once any deficiency has been corrected (corrective action), you must notify the Division of that correction within 30 days of completing the correction. Failure to do so will result in a treatment technique violation. Further, you must then provide public notice of the violation.

Once a significant deficiency has been corrected a water system must report the correction to the Division in order to have the deficiency correction recorded. Contact John Oakeson, 801-536-0057, joakeson@utah.gov to resolve and record deficiencies. The correction may be reported using the IPS Deficiency Correction notice available on the Division website http://www.drinkingwater.utah.gov/blank_forms.htm. You can contact John to obtain a copy of the notice by email. Other forms of documentation accepted include an email indicating the facility ID, deficiency code, and the corrective actions taken, or submitting corrections made by marking the deficiencies corrected on an existing IPS report and sending the report to the Division office. Unfortunately, Division staff can't resolve a deficiency with a telephone call. The Division must have some type of documented verification of the correction. When a sanitary survey is conducted, the person conducting the survey is required to report any previous deficiencies listed on the system IPS report that have been corrected to the Division as a part of the survey report submitted to the Division.

If a system desires to enter into a Corrective Action Plan (CAP) it must contact J.J.Trussell, 801-536-4198, <u>itrussell@utah.gov</u>. of the Division staff. The request must include: actions to be taken, and specific milestones and time lines to correct situation. The CAP must be mutually agreed to by DDW and the water system. A CAP is a legal enforcement action.

Many people misunderstand the term "treatment technique". They believe the term only applies to a water treatment process. Under the provisions of the GWR, a "treatment technique" is a required process intended to reduce the level of a contaminant in drinking water. When a significant deficiency has been identified and/or a source water sample is fecal indicator-positive, the system has 30 days to consult with the State. Within I20 days, the system must either complete an appropriate corrective action or be in compliance with a State-approved corrective action plan. The GWR specifies four Corrective Action Options. The options are: I) correct all significant deficiencies, 2) provide an alternate source of water, 3) eliminate the source of contamination, or 4) provide treatment that reliably achieves 99.99% (4-log) inactivation &/or removal of viruses.

When a water system corrects any significant deficiencies within the I 20 days or remains in compliance with an executed CAP no treatment technique violation will be issued. A treatment technique violation will be issued if the system fails to complete a required corrective action or is found out of compliance with a State approved CAP. A violation will also be issued for failure to maintain 4-log treatment of viruses (more than 4 hours) where applicable. Whenever a treatment technique violation is issued, points will be added to the water system's IPS report.

Any system that receives an *E. coli* triggered positive source sample must issue a Tier I public notice, which includes the potential health effects using USEPA health effects language. Systems are also required to issue a Special Notice to the public of significant deficiencies or source water fecal contamination. A community ground water system that receives notice from the Executive Secretary of a significant deficiency, or notification of a fecal indicator-positive ground water source sample that is not invalidated by the Executive Secretary must inform the public served by the water system of the fecal indicator-positive source sample or of any significant deficiency that has not been corrected. The system must continue to inform the public annually until the significant deficiency is corrected, or the fecal contamination in the ground water source is determined by the Executive Secretary to be corrected. A non-community ground water system that receives notice from the Executive Secretary of a significant deficiency must inform the public served by the water system of any significant deficiency that has not been corrected within 12 months of being notified by the Executive Secretary, or earlier if directed by the Executive Secretary. All systems must continue to inform the public annually until the significant deficiency is corrected.

If you have questions regarding significant deficiencies, treatment technique violations, and/or public notification requirements, please contact John Oakeson at 801-536-0057, joakeson@utah.gov or Elden Olsen at 501-536-4097, joakeson@utah.gov.

Online Sample Quiz and Exam

The Rural Water Association of Utah (RWAU) offers many services free of charge. In addition, the Association has fee based programs such as the Conferences, Operator Certification Courses, and fee-based training. A new fee-based online testing center has recently been implemented, where for a small fee you can take sample quizzes and tests. These cover the same subjects as the Utah Water Operator Certification Exam, so if you are preparing to take this test, the online tests/quizzes can be used to practice for the exam.

Each sample quiz covers one subject from the certification exam and consists of 15 questions, with a score of at least 70% required to "pass" the quiz. If the quiz is passed a certificate is generated by the website and identifies your name, the quiz and the date. For those who want a more comprehensive experience, a 40 question Sample Test for both treatment and distribution is also offered, and cover all of the subjects from the certification exams.

It is important to remember that sample questions were developed separately from the Certification Test and therefore none of the sample questions are identical to the actual test. So do not try to memorize specific answers to specific questions, instead focus on the online testing atmosphere and procedure, and your overall knowledge of the subject.

A "hint" link is included above the answers to each question. Clicking this link will give the reference material location used to write the question, which is where you can go to find the answer. This reference information is also listed after completion of the test so you can look up the answers to any questions you missed.

The following quiz shows examples of the types of questions included in the RWAU question banks that are used to generate the sample quizzes and tests. This quiz includes two questions from each topic – Treatment O&M, Distribution O&M, Math, Rules, Disinfection, Safety/Security and Pumps/Motors.



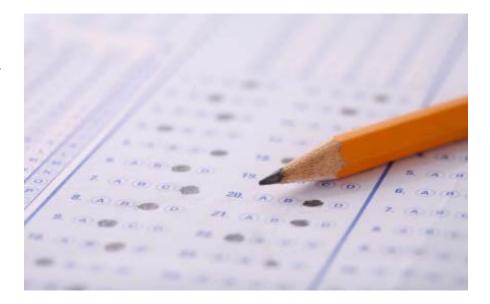
1. Cold water will require a ______ to provide adequate disinfection?

- a) Shorter contact time
- b) Longer contact time
- c) Different technique
- d) Special application
- 2. Chlorine can react with organics in the water to:
 - a) Cause the water to freeze at a lower temperature.
 - b) Raise the vapor point, making cavitation more likely.
 - c) Help the water move through the pipe faster.
 - d) Form disinfection by-products.
- 3. What are two types of displacement meters?
 - a) Piston and Nutating-disc meter
 - b) Flow and Velocity meter
 - c) Vacuum and Venturi
 - d) Pressure and Force
- 4. A ______ contains a system in which a water pump is controlled by the air pressure in a tank partially filled with water.
 - a) Storage Reservoir
 - b) Water Tank
 - c) Clear well
 - d) Hydro-pneumatic tank

- 5. How many gallons will it take to fill a volume of 29 cubic feet?
 - a) 296 gallons
 - b) 200 gallons
 - c) 22 gallons
 - d) 217 gallons
- 6. How many 5-gallon containers are required to paint a storage tank inside and outside, all exposed surfaces, which is 20 feet deep and 65 feet in diameter, if each container will cover 500 sq. ft.?
 - a) 18,113 Containers
 - b) 16 Containers
 - c) 37 Containers
 - d) 72 Containers
- 7. Which valve is installed on the suction side of the pump and is used to hold the prime after shutoff?
 - a) Pressure Regulating Valve
 - b) Foot Valve
 - c) Altitude Valve
 - d) Pressure Relief Valve
- 8. What is the recommended drip rate for a deep well, turbine, oil lubricated pump during normal operating conditions?
 - a) Approximately one drip a minute per 40 feet of column, but at least five drops per minute regardless of the column length.
 - b) Approximately one drip a minute per 100 feet of column, but at least fifteen drops per minute regardless of the column length.
 - c) Never more than five drops per minute.
 - d) Approximately twenty five drops per minute.
- 9. Aluminum Sulfate is a type of:
 - a) Oxidizer.
 - b) Disinfectant.
 - c) Coagulant.
 - d) Fertilizer.
- 10. How does temperature affect the sedimentation process?
 - a) Temperature makes no difference to the sedimentation process.
 - b) The warmer the water becomes, the longer the particles take to settle out.
 - c) The colder the water becomes, the faster the particles settle out.
 - d) The colder the water becomes, the longer the particles take to settle out.



- 11. Who is required to complete the annual Consumer Confidence Report?
 - a) All Community Water Systems
 - b) All Public Water Systems
 - c) All Private Water Systems
 - d) All The Above
- 12. Which of the following is NOT a component of a source protection plan?
 - a) Management Plan
 - b) Inventory of potential contamination sources
 - c) Identification of a designated person
 - d) Conservation Plan
- 13. Which of the following is the most common cause of accidents?
 - a) Unsafe or defective equipment or devices.
 - b) Operator negligence or carelessness.
 - c) Unavoidable acts of nature.
 - d) All of the above.
- 14. Which of the following is not a stage of threat management?
 - a) Possible
 - b) Credible
 - c) Negligible
 - d) Confirmatory



Answers:

1-p' 5-q' 3-9' 4-q' 2-q' 9-c' \(\sigma\)-p' 8-9' 6-c' \(\frac{1}{2}\)-q' \(\frac{1}{3}\)-g' \(\frac{1}{2}\)-q' \(\frac{1}{3}\)-g' \(\frac{1}{2}\)-g' \(\frac{1}\)-g' \(\frac{1}{2}\)-g' \(\frac{1}{2}\)-g' \(\frac{1}{2}\)-g'

Well, how did you do? If you would like to try taking on online sample quiz or test, go to www.rwau.net and click on the red "take an online sample quiz or test" button and follow the instructions. If you have any questions about the online sample quizzes and exams or have trouble registering or paying for a quiz/exams please contact: steel@rwau.net

The DEQ Interactive Map Utah Environmental Information on the Web

by Mark E. Jensen

Did you ever need to take a quick look at your drinking water source protection zones, but you're not in the office? Or want to see a list of potential contamination sources that are near your well? Now you can with the Utah DEQ Interactive Map. The Interactive Map is a geographic information system (GIS) website where water system managers and operators, local planners, and decision-makers can obtain information about their source protection zones. You can find the DEQ Interactive Map on the Utah DEQ website http://www.deq.utah.gov/, then look in Online Services.

The DEQ Interactive Map includes information from the Divisions of Environmental Response and Remediation, Drinking Water, and Air Quality, and includes the layers listed in Figure 1. The Air, Land, and Environmental Protections layers are available to all users, but you must request access to see the Water layers. The Water layers are considered sensitive information because users can see the location of public water sources and other water system facilities. Access to the drinking water layers is granted based on the area of the water system, or the area of concern for a project that may be a potential contamination source.

Information layers from the Division of Drinking Water include the water sources, and three layers of source protection zones. The first step in developing a Source Protection Plan is to delineate the protection zones; then further steps in the source protection program are focused in the delineated zones.

The Ground Water Zones layer includes the Drinking Water Source Protection (DWSP) zones for ground-water sources. These are the drinking water source protection zones for community and non-transient non-community water systems, and for new water sources in transient non-community systems. The Drinking Water Source Protection for Ground Water Sources Rule (R309-600, UAC) applies to these water sources. This layer includes four zones (see Figure 2):

Zone I - 100-foot radius from the wellhead or margin of the spring collection area.

Zone 2 - 250-day ground-water time of travel to the wellhead or margin of the spring collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer.

Zone 3 - 3-year ground-water time of travel...

Zone 4 - 15-year ground-water time of travel...

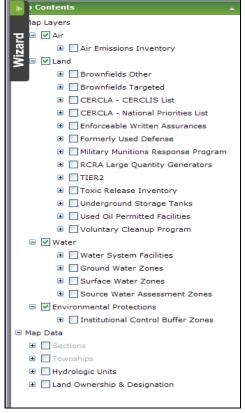


Figure I Layers available in the Interactive Map.

The layer labeled Surface Water Zones includes the surface water protection zones. The Drinking Water Source Protection for Surface Water Sources Rule (R309-605, UAC) applies to these water sources. The four surface-water protection zones are:

Surface Zone 1 - ½ mile on each side measured from the high water mark (HWM), and from 100 feet downstream from the intake to 15 miles upstream, or to the limits of the watershed or to the state line, whichever comes first.

<u>Surface Zone 2</u> – additional 50 miles upstream from the end of Zone 1, or to the limits of the watershed or to the state line, whichever comes first, and 1000 feet on each side measured from the HWM.

<u>Surface Zone 3</u> – from the end of Zone 2 to the limits of the watershed or to the state line, whichever comes first, and 500 feet on each side measured from the HWM.

<u>Surface Zone 4</u> – remainder of the watershed, up to the state line, if applicable.

The Source Water Assessment Zones are for existing public water sources used by transient non-community water systems, like campgrounds, highway rest stops, and so forth. These zones are delineated as part of the Source Water Assessment Program and are delineated using different methods than the four Ground Water Protection zones explained above. Delineation of these protection zones assumes average aquifer characteristics, and uses the local topography to estimate the ground-water flow direction.

Figure 3 – Underground storage tanks in the Salt Lake Valley.

Public water systems can use the Interactive Map to help update their inventory of potential contamination sources. Users search for environmental information by address, county, city, site name, program, or draw a custom shape around the area of interest. The web site then provides a list of the search results, including information about each potential contamination source found in the search.

Local planners and decision-makers can also use the DEQ Interactive Map to determine the public water sources and zones in areas where they may be considering community projects. Drinking Water Source Protection programs are most effective when local planners and decision makers know where the water sources and associated protection zones are, and integrate them into their planning process. They can also implement zoning ordinances to protect their drinking water sources.

The web site is used by geologists and engineers working on Source Protection Plans, and by companies installing facilities such as like roads and pipelines that must avoid the protection zones or take special precautions near public water sources. The DEQ Interactive Map makes the environmental data from the Utah Department of Environmental Quality available to those who need to know.

For more information, please contact Mark Jensen, in the Division of Drinking Water, at mjensen@utah.gov, or 801-536-4199

Update of the LT2 ESWTR

By Mark Hansen

The Long Term 2 Enhanced Surface Water Treatment Rule was finalized by EPA on January 4, 2006. The rule applies to Public Water Systems who use surface water sources, or ground water sources under the direct influence of surface water. One of the key provisions for this Rule includes: source water monitoring for Cryptosporidium, with reduced monitoring requirements for small systems. EPA developed a LT2 ESWTR compliance schedule for monitoring, reporting, and treatment requirements to provide maximum compatibility with the Stage 2 DBP Rule compliance schedule. The compliance schedule is divided into the following four schedules based on population served by systems treating the water.

Schedule I: Systems serving 100,000 people or more

Schedule 2: Systems serving 50,000 - 99,000 people

Schedule 3: Systems serving 10,000 - 49,000 people

Schedule 4: Systems serving fewer than 10,000 people

Large systems (serving 10,000 people or more) that currently provided filtration or that are unfiltered and required to install filtration had to monitor for Cryptosporidium, E. coli and turbidity.

Small systems (serving fewer than 10,000 people) that were currently providing filtration or that were unfiltered and required to install filtration were required to monitor for E-coli.

The first round required:

Schedule 1 systems by July 1, 2006, submit their sampling schedule, or notify the State of the systems intent to submit results for grandfathering data, or notify the state of the systems' intent to provide at least 5.5 - log treatment for Cryptosporidium and by March 31, 2012 systems must install and operate additional treatment in accordance with their bin classification.

Schedule 2 systems by Jan. 1, 2007, submit their sampling schedule or notify the State of the systems' intent to submit results for grandfathering data, or notify the state of the systems intent to provide at least 5.5 - log treatment for Cryptosporidium and by Sept. 30, 2012 systems must install and operate additional treatment in accordance with their bin classification.

Schedule 3 systems by Jan. 1, 2008, submit their sampling schedule or notify the State of the systems intent to submit results for grandfathering data, or notify the state of the systems intent to provide at least 5.5 - log treatment for Cryptosporidium and by Sept. 20, 2013 systems must install and operate additional treatment in accordance with their bin classification.

Schedule 4 systems by July 1, 2008, submit their sampling schedule, or notify the State of the systems intent to submit results for grandfathering data, or notify the state of the systems intent to provide at least 5.5 - log treatment for Cryptosporidium and by Sept. 30, 2014 systems must install and operate additional treatment in accordance with their bin classification or mean Cryptosporidium level.

ROUND 2 REQUIREMENTS:

Note: EPA will not allow grandfathering of any source water monitoring either for Cryptosporidium or E .coli.

<u>Schedule 1 Systems</u>: by Jan. 1, 2015, systems must submit their sampling schedule that specifies the dates of the sample collection and location of sampling.

April 1, 2015 begin source water monitoring.

<u>Schedule 2 Systems</u>: by July 1, 2015, systems must submit their sampling schedule that specifies the dates of the sample collection and location of sampling.

Oct. 1, 2015 begin source water monitoring.

<u>Schedule 3 Systems</u>: by July 1, 2016, systems must submit their sampling schedule that specifies the dates of the sample collection and location of sampling.

Oct. 1, 2016 begin source water monitoring.

<u>Schedule 4 Systems</u>: by July 1, 2017, systems must submit their sampling schedule that specifies the dates of the sample collection and location of sampling.

Oct. 1, 2017, begin source water monitoring for E. coli.

Beginning in the year 2014, the Division of Drinking Water will be holding workshops throughout the state that will cover, in-depth, all the information needed to be in compliance with the Round 2 of the LT2. These workshops will be sponsored by the Division and Rural Water Users Association, so please plan to attend when they become available.

For any questions regarding Round 2 of the LT2 ESWTR, contact Mark Hansen of the Division of Drinking Water at 801-536-4205.

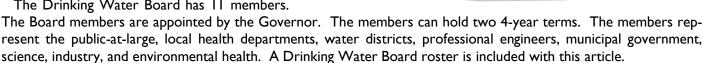
Drinking Water Board

By Linda Matulich Administrative Secretary Division of Drinking Water

THE DRINKING WATER BOARD was established in 1979. The Board governs the Drinking Water Rules.

The Cross Connection Control Commission and the Operator Certification Commission serve the Board. The two Commissions work closely with the water operators throughout the state. The Commissions inform the Board of any changes or anything new that happens in their programs. When a Commission member reapplies or when a new Commission member applies to be on the Commission, their request goes before the Board for approval.

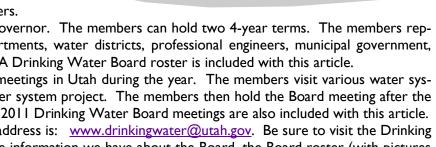




The Drinking Water Board holds various meetings in Utah during the year. The members visit various water systems they have helped with funding on a water system project. The members then hold the Board meeting after the tour. The schedule for the remainder of the 2011 Drinking Water Board meetings are also included with this article.

The Division of Drinking Water's website address is: www.drinkingwater@utah.gov. Be sure to visit the Drinking Water Board's link on our website to see the information we have about the Board, the Board roster (with pictures of the Board members), the meetings, minutes, packets, etc.

If you would like to be added to the e-mail list on any upcoming Board meetings or if you would like any more information about the Drinking Water Board, please call Linda Matulich at (801) 536-4208 or e-mail her at <u>Imatulich@utah.gov</u>. ■



DRINKING WATER BOARD

Date	Place	Tour/Work Meeting	Notes
August 31, 2011	Layton, Utah	Davis County Convention Center	The Drinking Water Board meeting is being held during the Rural Water Association of Utah's Northern Conference
November 9, 2011	Salt Lake City	Board meeting	
January 11, 2012	Salt Lake City	Board meeting	TENTATIVE

The Drinking Water Board may decide to hold another Board meeting for 2011 at the August 2011 Board meeting or the November 2011 Board meeting.

Drinking Water Board Roster

Name/Address	Political Affiliation	Secretary/Phone	Represents	Expiration Date
Paul Hansen, P.E., Chairman paul@paulhansenassociates.com Financial Assistance Committee	(R)	Office: 801-816-9119 Fax: 801-816-9118	Professional Engineers	Second Appointment May 2009 – 2013
Kenneth Lee Bassett, Vice Chairman kbassett@vernalcity.org Financial Assistance Committee	(1)	Office: 435-789-2255 Fax: 435-789-2256	Municipal Gov- ernment	Second Appointment May 2009 – 2013
Terry Beebe, Env. Director terry@utah.gov Operator Certification Commission	(R)	Office: 801-851-7071 Fax: 801-851-7521	Local Health Department	First Appointment May 2009 – 2013
Russell Donoghue Rustyo3@qwestoffice.net	(1)	Phone: 801-733-4133	Public-At-Large	Completing Helen Graber's 2nd term May 2009 – 2013
Daniel Fleming Danielf2368@yahoo.com Cross Connection Commission Financial Assistance Committee	(1)	Office: 435-678-2507 Fax: 435-678-3312	Water District	Second Appointment May 2011 – 2015
Tage Flint, General Manager/ CEO tflint@weberbasin.com	(1)	Office: 801-771-1677 Fax: 801-544-0130	Water District	First Appointment May 2011 – 2015
Heather Jackson, Mayor mayor@emcity.org	(R)	Office: 801-789-6603 Office Main: 801-789-6603 Fax: 701-789-6650	Municipal Gov- ernment	Completing Jay Franson's 2 nd term May 2010 – 2013
Betty Naylor bettynaylor@live.com Financial Assistance Committee	(1)	Office: 801-569-5023	Public-At-Large	First Appointment May 2009 – 2013
Amanda Smith, Executive Director amandasmith@utah.gov	(1)	Office: 801-536-4402 Fax: 801-536-0061	Environmental Health	N/A
David K. Stevens, Ph.D. david.stevens@usu.edu Financial Assistance Committee	(1)	Office: 435-797-3229 Fax: 435-797-3663	Science	First Appointment May 2011 – 2015

Time to Think Stage 2

By Brad Holdaway

The Stage 2 Disinfection Byproducts Rule is fast approaching with the first systems (Schedule 1 Systems) scheduled to begin compliance sampling by April 1, 2012.

In order to determine which "Schedule" your system is on you need to determine the following:

- 1. If your system is part of a consecutive system meaning you buy or sell water to another system then you are required to follow the compliance date for the largest schedule system in your consecutive system network.
- 2. If your system is not interconnected, the population served by your water system determines the schedule (see population listed below)
- 3. However, the number of samples required for your system is based on your system's population.

Here are the dates for compliance sampling to begin based on the Schedule assigned to your water system:

 Schedule I (population 100,000+)
 April I, 2012

 Schedule 2 (population 50,000 - 99,999)
 October I, 2012

 Schedule 3 (population 10,000 - 49,999)
 October I, 2013

 Schedule 4 (population <10,000)</td>
 October I, 2013*

*note: For smaller systems served by surface water or ground water under the direct influence of surface water (systems) required to do

Cryptosporidium monitoring) the date is October 1, 2014

In addition, as part of the Stage 2 rule, water system whose only chlorinated water is purchased (consecutive systems) must now monitor for chlorine residuals within their systems R309-210-8(3). Community and nontransient-noncommunity water systems that receive chlorinated water must measure the residual disinfectant level in the distribution system at the same point in the distribution system and at the same time as total coliforms are sampled as specified in R309-210-5. Water systems shall take addition residuals samples until a minimum of three residual disinfectant level samples each week.

This data is to be recorded and sent to DDW via a quarterly monitoring report which is due by the 10th day of the month following each quarter. The quarterly report is found at drinkingwater.utah.gov under Forms/Disinfection By-Products (DBP) Rule Forms. Quarterly reports should be emailed to ddwreports@utah.gov or can be faxed (801-536-4211) or mailed in.

A water system from any schedule that did an IDSE (Initial Distribution System Evaluation) should retain the sampling plan as outlined in their IDSE Report. Water systems that did not do an IDSE need to have their Stage 2 sampling plans submitted to the State of Utah DEQ before the compliance sampling begin date.

With Stage 2, the MCL for DBP's will now be calculated as a Locational Running Annual Average (LRAA) at each sample station. MCL's for Total Trihalomethanes and Halo Acetic Acids will remain at 80 ppb and 60 ppb, respectively.

Your Stage 2 Compliance Monitoring Plan must include:

Monitoring locations,

Monitoring dates (scheduled from the peak historical month), and

Compliance calculation procedures

Please refer to Table I to determine your system's requirements and monitoring frequency. Look for upcoming training if you need help with Stage 2 Compliance, or you may call Brad Holdaway at the Division of Drinking Water at 801-536-0063.

Table I. (Subpart H = systems which treat or purchase surface water during any part of the year or have ground water under the direct influence of surface water as a source)

Source	Source Population Size N		Distribution System Monitoring Location			
Water Type	Category	Frequency ¹	Total per monitoring period ²	Highest TTHM Locations	Highest HAA5 Locations	Existing Stage 1 DBPR Compliance Locations
S	<500	per year	2	1	1	-
u b	500-3,300	per quarter	2	1	1	-
P	3,301-9,999	per quarter	2	1	1	-
a	10,000-49,999	per quarter	4	2	1	1
r	50,000-249,999	per quarter	8	3	3	2
'	250,000-999,999	per quarter	12	5	4	3
н	1,000,000-4,999,999	per quarter	16	6	6	4
	<u>></u> 5,000,000	per quarter	20	8	7	5
G	<500	per year	2	1	1	-
r	500-9,999	per year	2	1	1	-
u o	10,000-99,999	perquarter	4	2	1	1
n	100,000-499,999	per quarter	6	3	2	1
d	<u>></u> 500,000	per quarter	8	3	3	2

¹ All systems must monitor during the month of highest DBP concentrations.

² Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for Subpart H systems serving 500-3,300. Systems on annual monitoring and Subpart H systems serving 500-3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. Only one location with a dual sample set per monitoring period in deeded if highest TTHM and HAA5 concentrations occur at the same location, and month, in monitored annually.

Prepare for Hydraulic Modeling — Save Time and Money

Ying-Ying Macauley, M.S., P.E.

Drinking Water Rule *R309-550-5(3)* requires a hydraulic analysis to verify whether a distribution system can meet all drinking water rules. Beginning March 2010, the new Hydraulic Modeling Rule, *R309-511*, requires a hydraulic modeling report and engineer's certification for drinking water projects involving water system expansion, new construction, and Master Plans. The requirements in *R309-511* apply to both community water systems and non-transient non-community water systems with high demands.

Compliance with the hydraulic modeling requirements will provide a tool that water systems can use to: properly manage growth, make engineering-based decisions, and reliably supply sufficient water to all customers at adequate pressures. Since many water systems already have professionally prepared hydraulic models in place, and some drinking water projects may not need hydraulic modeling, rule exceptions are available allowing water systems to avoid the necessity to submit hydraulic modeling reports or engineer certifications. Some examples of these "off ramps" are:

- * The proposed projects do not have a negative hydraulic impact, such as adding a new source, adding chlorination or fluoridation at the well head, re-coating of tank interior, adding a new waterline to loop existing dead-end waterlines, etc.
- * A waterline project is part of a pre-approved Master Plan. [To qualify for this, the water system will need to submit (I) the master plan with hydraulic analyses and (2) the water system's construction standards and specifications to the Division for review, and obtain approval for both.]
- * The water system maintains a hydraulic model and has designated a professional engineer who oversees the hydraulic analysis. [The water system will need to send a formal letter to the Division stating that the system has and maintains a hydraulic model and identifying the model method and version, and the name of the professional engineer (and affiliation if applicable).]

Get ready for hydraulic modeling and save cost and money All hydraulic models must be calibrated to fit the individual water system. Hydraulic modeling can be costly and time-consuming if the model cannot be calibrated to adequately represent actual field conditions. You can help the consultants deliver a good product to you, at less cost, by supplying reliable data as described by the following examples:



- I. Update the inventory and map (or schematics) of your water system with accurate information.
- → Pipe location, diameter, material, and length;
- Valve type, location, elevation, and setting;
- Storage tank location, volume, elevation, and setting;
- → Pump sizing, pump curves or specifications;
- Pressure zones location, elevation, and setting;

Source type and capacity

Gather water use data and record demand patterns of your water system. If your water system has SCADA, make sure you verify with the SCADA experts that the SCADA data are backed up and saved for a sufficient period of time. Typically, a minimum of one year of SCADA data is needed for hydraulic modeling. If you don't have SCADA, start to keep detailed records of metered water use data.

If you have done fire flow testing in your system, keep detailed records of the location, flow and pressure data.

Talk to your consultants about what other data they may need for hydraulic modeling so you can begin to gather or compile the needed data.

Talk to your consultants about data gathering, data entry, and data format. Find out whether or not you can gather or compile the data to minimize the amount of the consultants' time. Hydraulic modeling definitely will cost more if the consultants have to spend additional billable time gathering the data, entering the data and formatting the data.

Talk to your consultants about model calibration. Find out how your operators can prepare for and assist with the field testing to make sure model calibration goes smoothly.

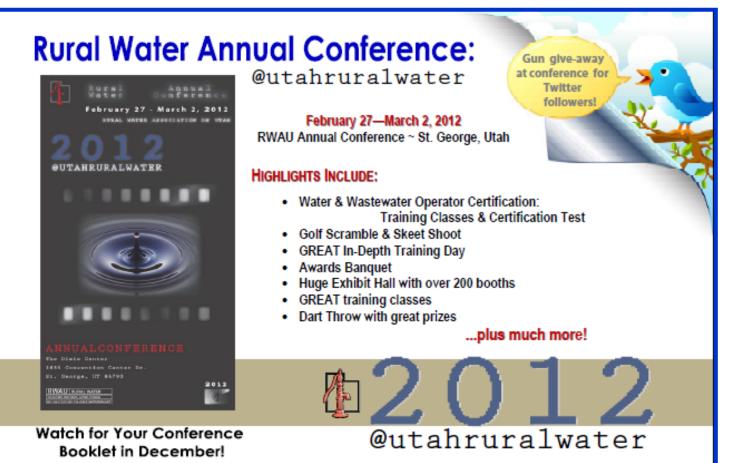
Specify in the contract that the consultant will deliver: a hydraulic model report, the engineer's certification meeting the R309-511 requirements, and an electronic copy of the physical facility data.

Where to find the hydraulic modeling information?

Visit the Division's website http://www.drinkingwater.utah.gov You can find detailed hydraulic modeling information, such as Rule content, report templates, and a checklist, by clicking on "Programs" and "Plan Review." (http://www.drinkingwater.utah.gov/plan_review_intro.htm). You can also call Ying-Ying Macauley, Division Engineering Section, Manager at (801) 536-4188 or ymacauley@utah.gov, for questions regarding hydraulic modeling requirements.

Need funding assistance for master plan and/or hydraulic modeling?

The Division has a State Revolving Fund (SRF) Program to provide funding assistance to public water systems for improving drinking water infrastructure. A master plan with hydraulic modeling is an important tool for water systems to manage growth and prioritize improvement needs, and funding assistance may be available from the Division for master plan and hydraulic modeling. Please contact Michael Grange, Division Construction Assistance Section, Manager at (801) 536-0069 or mgrange@utah.gov if you are interested in obtaining funding assistance for a Master Plan and/or hydraulic modeling of your water system.



Groundwater Rule Monitoring Requirements

The US Environmental Protection Agency (EPA) published the Groundwater Rule (GWR) which the State of Utah has adopted. This rule became effective December I, 2009. One goal of the GWR is to provide increased protection against microbial pathogens, specifically bacterial and viral pathogens, in public water systems (PWS) that use ground-water. Instead of requiring disinfection for all ground water sources, the GWR establishes a risk-targeted approach to identifying groundwater sources that are susceptible to fecal contamination. The GWR requires systems with ground water sources at risk of microbial contamination to take corrective action to protect consumers from harmful bacteria and viruses. Monitoring is a key element of this risk-targeted approach.

What are the Source Water Monitoring Requirements? Assessment Source Water Monitoring Ground Water Systems (GWS) with sources that seem susceptible to fecal contamination (higher risk) may be re-

quired to conduct assessment source water monitoring. Assessment source water monitoring may be required at any time, and may require a GWS to regularly monitor each source (or representative source) on a state-specified schedule (e.g. monthly) for an extended period (e.g., minimum of 12 months). Based on the results of the assessment the source water monitoring for a GWS may have to take corrective action.

Triggered Source Water Monitoring

The purpose of triggered source water monitoring is to evaluate whether or not the presence of total coliform in the distribution system is due to fecal contamination in the ground water source. This type of source water monitoring is triggered by routine total coliform monitoring samples required by the Total Coliform Rule (TCR). Since TCR monitoring is conducted regularly, triggered source water monitoring can occur at any time and thus provides an ongoing opportunity for evaluation of ground water sources.

Within 24 hours of being notified of a positive total coliform result under routine TCR monitoring, a GWS must col-

lect at least one ground water source sample from each source in use when the positive total coliform result under the TCR was collected. If any triggered monitoring sample is also positive for a fecal indicator, the GWS must take corrective action or collect five additional source water samples from the same source within 24 hours of being notified of the fecal indi-cator test result. If any one of the five additional samples is fécal indicatorpositive, the system must take corrective



Small Systems
GWS serving fewer than 1,000 people that have a total coliform-positive result under the TCR may use the triggered source water monitoring sample collected from the ground water source to meet both the triggered source water monitoring re-



quirement of the GWR as well as part of the repeat sampling requirement of the TCR.

Consecutive Systems

A consecutive system with a positive routine total coliform result under the TCR must notify its wholesale system(s) within 24 hours of being notified of the positive sample.

Wholesale Systems

A wholesale system that receives notice from a consecutive system about a positive total coliform result under routine monitoring of the TCR must collect a triggered source water sample from its ground water source(s) and analyze the source water sample(s) for a fecal indicator within 24 hours of being notified by the consecutive system. If the triggered source water sample is positive for the fecal indicator, the wholesale system must notify all consecutive systems served by that source within 24 hours of the positive sample result. The wholesale system and any consecutive systems served by the fecal indicator-positive source must all notify their consumers within 24 hours of learning of the result. The wholesale system must take corrective action or collect five additional source water samples from the same source within 24 hours of being notified of the fecal indicator test result. If any one of the five additional samples is fecal indicator-positive, the wholesale system must take corrective action.

Triggered Source Water Monitoring Exemptions

Any GWS providing at least 99.99 percent (4 log) treatment for viruses (using inactivation, removal, or a state-approved combination of inactivation and removal) of all of the groundwater can notify the state of this treatment and would not be required to conduct triggered source water monitoring. Those systems are, however, required to conduct compliance monitoring to show they are providing consistent and sufficient treatment.

GWS that Have More than One Ground Water Source

Representative Source Water Monitoring

With State approval, any GWS with more than one ground water source may fulfill the triggered source water monitoring requirements by taking a ground water sample at a representative source. Representative source water sampling allows systems to collect samples from the sources that represent (serve) the TCR monitoring site rather than from all sources. The GWS is required to submit a triggered source water monitoring plan that identifies the sources that are representative of its TCR sampling sites.

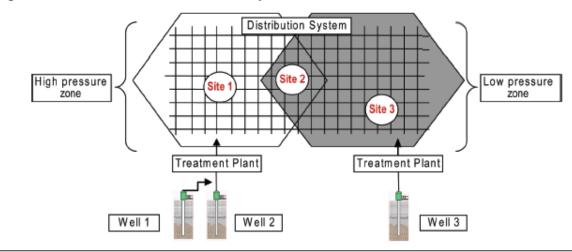
Triggered Source Water Monitoring Plan

A triggered source water monitoring plan should be submitted to the Division of Drinking Water.

Plans must include:

- 1. A map of the water system with location of groundwater sources, location of pressure zones, and location of storage and disinfection facilities,
- 2. A written explanation of how the GWS knows which source feeds which section of the distribution system, and
- 3. Seasonal or intermittent ground water sources and when they are used.

▶ The diagram below provides an example of a system schematic that could be used to determine representative sources and develop a triggered source water monitoring plan, based on where in the distribution system the total coliform-positive sample is found. If approved by the State, the system could sample sources 1 and 2 after a total coliform-positive at Site 1 since Site 1 is in the zone served by those sources. A total coliform-positive at Site 2 would require source sampling from all sources since this area is served by all sources.



Collecting and Analyzing Triggered Source Water Monitoring Samples

When triggered source water monitoring is required, a GWS must:

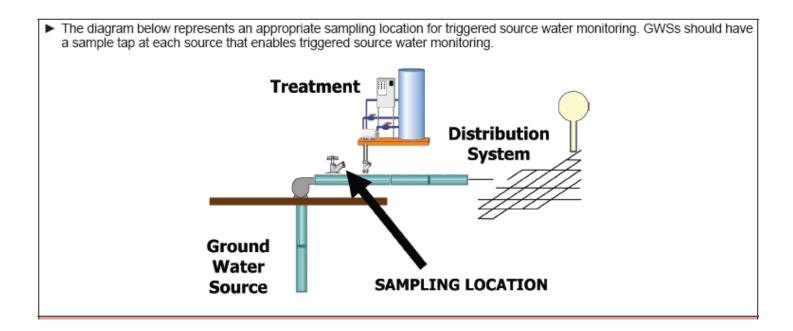
Collect at least one ground water source sample from an approved representative source monitoring location, or at each source in use at the time the total coliform-positive sample was collected.

Samples must be collected within 24 hours of being notified of the total coliform-postitive sample (unless the 24-hour limit is extended by the State)

Sample must be taken before treatment and disinfection or taken at a State-approved location after treatment and disinfection.

Samples must be analyzed for the presence of a fecal indicator (e.g. *E. coli*, enterococci, or coliphage) using an approved GWR method.

If a fecal indicator-positive source sample is invalidated by the State, the GWS must collect another source water sample within 24 hours of being notified by the State of the sample invalidation.



Triggered Source Water Monitoring Plans should be submitted to the DDW.

Water Operator Certification 2012 Exam Schedule

ATTENTION ALL WATER SYSTEM OPERATORS AND MANAGERS, AND ANYONE SEEKING EMPLOYMENT IN THE WATER INDUSTRY. Utah's Department of Environmental Quality, Division of Drinking Water (DDW), is offering operator certification exams for water distribution and treatment systems. All grade levels, including small systems, will be offered:

- ► April 13, 2012, at 16 Utah exam sites (see exam application for list of cities). Exam application deadline: March 23, 2012.
- ►November 9, 2012, at 16 Utah exam sites (see exam application for list of cities). Exam application deadline: October 19, 2012.

ADDITIONAL EXAM DATES AND TRAINING

The Rural Water Association of Utah (RWAU) will sponsor certification exams in conjunction with their annual conferences. IMPORTANT ▶Individuals taking the RWAU-sponsored exams must submit the application and fee directly to the RWAU office.

- ▶Operator Exam: March 2, 2012 (St. George City) → Exam application deadline: February 10, 2012
- ▶The RWAU is offering online exams. To schedule an online exam, contact Vern Steel at 801-756-5123.

For more information, contact RWAU at telephone 801-756-5123, OR the website at http://www.rwau.net.

HOW TO REGISTER FOR AN EXAM

Fill out an official exam application completely and mail it, along with the \$100.00 fee, to: Division of Drinking Water, Operator Certification Program, 195 North 1950 West, P.O. Box 144830, Salt Lake City, Utah 84114-4830. Make the check or money order payable to the "Division of Drinking Water (DDW)."

Examination Fee: \$100.00

APPLY ONLINE at http://www.drinkingwater.utah.gov. You may use the "Shopping Cart" system to submit the application online and pay the fee. The system will accept Visa, Master Card, American Express, and Discover, or you can pay by Virtual Check. The most common mistake made online: Ap-

plicants will pay the fee but forget to submit the exam application. Your name will not be added to the exam list without an application. Please submit your application by email, fax, or regular mail service by the deadline so that your exam booklet and seat can be reserved. FAX number: 801-536-4211. EMAIL: mhand@utah.gov.

Exam Cancellation Policy: Only one cancellation, per applicant, is allowed. An applicant making a written or phone-in cancellation by 9:00 a.m. on the day of the exam may request a refund of the exam fee or take the next scheduled exam. If the applicant should also cancel the next scheduled exam, the exam fee will be forfeited.

New Renewal Notification Post Cards

In an effort to cut down on the cost of postage, the Operator Certification Commission approved the use of post cards instead of the formal letter and packet you've been used to getting for you renewal notices.

These are the sites where you can get the forms and information to renew:

For general water operator information:

http://www.drinkingwater.utah.gov/for certified operators.htm

For other help: http://www.drinkingwater.utah.gov/opcert_application.htm

For forms and online renewals:

http://www.drinkingwater.utah.gov/shopping_cart.htm

You need to check your CEU's at this link to see if you have enough. For Levels 3 and 4 you need 3.0 CEU's minimum and levels 2, I or Small Systems need 2.0 CEU's.

http://www.drinkingwater.utah.gov/documents/compliance/qryOC OpCert CEUs.pdf

IWe will mail you a paper copy if you don't have internet access. Please contact Kim Dyches at 801-536-4202 or kdyches@utah.gov or Margaret Hand at 801-536-4192 or mhand@utah.gov.

Water operators who renewed their certificates in 2010

The following individuals have successfully renewed their certificates. The State of Utah Drinking Water Rules state that these operators must again earn a sufficient number of CEUs during the three-year period January 1, 2011 to December 31, 2013 to be eligible to renew their certificates in 2013.

Type of



Beckstead, Brad

93503

		. / P G G.	
Operator Name	Cert.#	Certificate	Water System
Abrahamson, Shelly A.	23144	D-IV	Draper City
Acree, Jason C.	07121	D-IV	Orem City
Adams, Cason J.	07207	D-IV	Cedar City
Allen, Cole J.	07073	D-IV	Hooper Water Improvement District
Allen, Douglas T.	07208	D-II	Bear Lake Water Company
Allen, Jerry K.	98101	D-IV	Bona Vista Water
Allen, Shanda D.	07186	D-II	Logan City
Allred, Greg S.	98500	D-III	Lehi City
Alvey, Steven L.	21001	D-S	Joseph Town
Ames, Ron B.	95100	D-I	Dangling Rope Marina
Anderson, Alan D.	08256	D-I	Riverside-North Garland
Anderson, Gene	23077	T-IV	Jordan Valley WCD
Anderson, Lynn J.	24001	D-S	Snowville Water Works
Anderson, Nick V.	95101	D-II	West Jordan City
Anderson, Steve D.	89102	D-IV	Jordan Valley WCD
Anderson, Thomas J.	95102	D-III	Tremonton City
Applonie, Paul T.	21047	D-IV	Layton City
Bailey, Kim	20067	D-IV	Magna Water District
Bain, Thomas M.	24500	D-II	Zion National Park
Baird, Mark W.	91101	D-IV	Clearfield City
Baker, Brooks D.	07122	D-I	Mountain Valley Water
Ballard, Bruce J.	07237	D-IV	Saratoga Springs
Balls, Kevin M.	07187	D-II	Hyde Park City
Bancroft, Brandon G.	23079	D-IV	South Salt Lake City
Bancroft, Donald L.	86030	D-I	Murray City
Bankhead, Tara	07211	D-II	Providence City
Banks, James B.	84210	D-IV	Wolf Creek/Liberty Pipeline
Bardwell, Matthew E.	22504	D-IV, T-IV	Weber Basin WCD
Barlow, Benjamin D.	26104	D-IV	Granger-Hunter Improvement District
Barney, Gary L.	21060	D-S	Morton Salt
Barney, Gary Lynn	89500	D-III	Richfield City
Bascom, Robert D.	24036	D-S	Spring Lake Water Works
Batt, Gordon N.	98102	D-IV	Jordan Valley WCD

D-IV

South Jordan City



	07104	5 ") A (III I. G)
Bedeger, Robert R.	07124	D-II	Willard City
Bell, Randy	98504	T-III	Castle Valley Special Service District
Bertelsen, Micheal A.	98103	T-IV	Salt Lake City
Bess. Shaun M.	21055	D-IV	Brigham City
Bjorklund, Eric W.	07076	D-S	Utah Youth Village/Alpine Academy
Blackburn, Ryan W.	99504	D-IV	Vernal City
Blackburn, Tyler H.	21005	D-S	Axtell Special Service District
Blanton, Scott V.	87808	D-IV	Salt Lake City
Blonquist, Axcil B.	07125	D-S	East Canyon Resort
Blonquist, Stacy	22107	D-III	Mountain Regional Water SSD
• •			
Bollwinkel, John E.	89502	D-IV, T-IV	Gorgoza Mutual Water Company
Bond, T. Lynn	24004	D-S	Meadow Town
Bond, Van R.	22108	D-IV	Highland City
Borger, Erin K.	07212	D-IV	Water Specialist
Bowler, Larry W.	21105	D-IV	Sandy City
Boyack, Marvin A.	87697	D-IV	West Jordan
Boyington, Kirk G.	21503	D-IV	Midvale City
Bradbury, Alan Scott	26005	D-S	Great Salt Lake Council/Boy Scouts
Bradshaw, Tom G.	98104	D-II	Milford City
Brady, Ted Dean	21504	D-II	Grand Water & Sewer Service Agency
Brandon, Joe A.	24503	D-S	Ophir Canyon
Brazell, Cory W.	07213	D-II	Farmington City
Brems, Aaron M.			
,	24005	D-III	American Fork City
Brennan, Jason J.	20071	D-IV	South Ogden City
Bretthauer II, Erich W.	24006	D-S	Lions Head Property Owners Assn
Brewer, Kolton	22109	D-IV	West Jordan City
Brewer, Ronald L.	88174	T-IV	Price City
Brinkerhoff, Garth M.	21061	D-S	US Magnesium LLC
Brown, Timothy L.	94109	D-IV	Ogden City
Bryant, Jeffrey J.	86559	D-IV	Jordan Valley WCD
Budge, Jeffrey D.	95506	D-IV	Provo River Water Users Assn
Bullock, Ted C.	98505	D-IV	Ogden City
Bullough, Randy B.	86674	D-IV	Salt Lake City
Bunker, David H.	21505	D-IV	Cedar Hills City
Burgener, Kelvin R.	21109	D-IV, T-IV	•
•			Jordanelle Special Service District
Burningham, Regan L.	07078	D-IV	Logan City
Busch, Steve L.	21571	D-IV	Midvale City
Canfield, Brandon J.	06040	D-IV	St George City
Carlson, Michael S.	88153	D-IV	Centerville City
Carman, Christopher L.	24102	D-IV	Saratoga Springs
Carter, Kevin B.	21046	D-I	Minersville Town
Carter, Robert T.	91106	D-IV	Provo City
Casperson, Frank B.	24008	D-S	American Pacific
Castoldi, Steven F.	21062	D-S	Woodland South Hills Irrigation Co
Catmull, Randy J.	07081	D-S	Boulder Farmstead Water Company
Chanthaphuang, Chaleurn	07128	D-IV	Sandy City
Chatwin, Maurice C.	88811	D-III	Heber City
Chavis, Danna R.	94002	D-IV	Water Specialist
Child, Michael W.	85088	D-IV	Clinton City
Christensen, Kirk L.	21111	D-IV	Duchesne Co/Upper Country Water
Christensen, Kyle T.	07130	D-IV	Highland City
Christensen, Rowdy J.	07217	T-IV	Price City
Clark, Kenneth J.	98108	D-IV	Delta City
Clark, Stephen L.	93110	D-IV	Ogden City
Claypool, Daniel L.	96505	T-IV	Jordan Valley WCD
Clegg, Brady P.	26108	D-IV	Park City
Coleman, Gary W.	21036	D-S	Coleman Mobile Home Court
Collett, Craig W.			Greendale Water Company
	98507	T-II	differidate water Company
Conger, Cory M.		T-II D-II	Stansbury Park ID
Conger, Cory M.	98507		
Conger, Cory M. Cook, Cody C.	98507 07188 07189	D-II D-I	Stansbury Park ID Cedar Fort Town
Conger, Cory M. Cook, Cody C. Cook, Gordon P.	98507 07188 07189 96506	D-II D-I T-IV	Stansbury Park ID Cedar Fort Town Metropolitan WD of SL/Sandy
Conger, Cory M. Cook, Cody C. Cook, Gordon P. Coon, J. Lynn	98507 07188 07189 96506 95510	D-II D-I T-IV T-II	Stansbury Park ID Cedar Fort Town Metropolitan WD of SL/Sandy Metropolitan WD of SL/Sandy
Conger, Cory M. Cook, Cody C. Cook, Gordon P.	98507 07188 07189 96506	D-II D-I T-IV	Stansbury Park ID Cedar Fort Town Metropolitan WD of SL/Sandy

Crabtree, Marshall R.	07132	D-IV	Taylorsville-Bennion ID
Cracchiolo, Eduardo M.	07133	T-IV	Jordan Valley WCD
Cramer, Dan J.	24104	D-II	West Jordan City
-			
Crittenden, Matt	23089	T-I	Kamas City
Crockett, Alden W.	89110	D-III	Ukon Water Company
Crofts, Jackson A.	88815	D-IV	Central Utah WCD
Crofts, James D.	07083	D-II	Washington City
Cummings, Douglas W.	98111	D-III	Clearfield City
Cunningham, Steve R.	20512	D-IV	WaterPro
Dalley, Max Robert	07191	D-I	Brian Head Town
Dallin, Gaylon V.	89111	D-II	Springville City
Dalton, Lester C.	24010	D-IV	Washington City
Dansie, Boyd W.	21051	D-S	Dansie Water Company
Dansie, Erik B.	07134	D-IV	Draper City
Dansie, J. Rodney	21052	D-S	Dansie Water Company
Dansie, Richard P.	21053	D-S	Dansie Water Company
Davenport, Brian D.	99116	D-IV, T-IV	Mt Regional Water SSD
Davis, David Guy	89112	T-IV	Energy West Mining
Davis, Eric S.	21115	D-IV	Jordanelle Special Service District
Davis, Jack W.	24506	D-IV	Water Specialist
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Davis, Robert C.	21511	D-I	Interlaken Mutual Water
Day, Jerry L.	98510	D-II	Hill Air Force Base
DeJong, Britt A.	85612	D-IV	Weber Basin WCD
Denison, Robert E.	21512	D-IV	West Jordan City
Devey, Daryl L.	87804	T-II	Central Utah WCD
DeVries, Michael J.	98511	T-IV	Metropolitan WD of SL/Sandy
Dewey, Brad J.	92111	D-IV	Murray City
Didericksen, Deveron J.	06042	D-IV	Murray City
Dodge, Craig A.	89506	T-IV	Salt Lake City
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Domonoske, Matthew A.	07218	T-IV	Water Specialist
Dorman, Richard	21063	D-S	Morton Salt
Dotson, Timothy M.	24545	T-II	St George City
Doyle, Jason J.	22117	T-IV	Kennecott Utah Copper
Draper, Doug M.	21514	T-I	Canyon Fuel/Skyline Mine
Drewes, Karl D.	97116	D-IV	Brigham City
Duce, Bart C.	95111	D-II	Logan City
Duke, Gaylon L.	21116	D-II	Taylorsville-Bennion ID
Dumpert, Eric A.	23091	D-IV	Water Specialist
•	97117		
Dunn, Ronald L.		D-IV	Ogden City
Earley, Gary G.	96110	D-IV	South Jordan City
Eckenbrecht, Kurt H.	97119	D-III	Washington Terrace City
Edmunds, Clair	24013	D-II	Mt Pleasant City
Edwards, Justun D.	24510	D-IV	Herriman City
Elliott, A. Ray	07084	D-S	Aspen Creek Water Company
Ellis, Mitchell L.	94121	T-IV	Salt Lake City
Evans, Doug W.	00756	D-III	Mountain Regional Water SSD
Evans, Michael A.	24047	D-I	Canyonlands-Maze District
Ewell, Dallin D.	84039	T-IV	Metropolitan WD of SL/Sandy
Fairchild, C. Richard	06012	D-II	Mountain Regional Water SSD
Fearn, Robert B.	86659	D-IV	Weber Basin WCD
Fillmore, Richard P.	98119	D-IV	South Salt Lake City
Folkman, Mike S.	21517	D-IV	Summit Water Distribution Company
Frandsen, David R.	20520	D-IV	Murray City
Frank, Brad V.	21120	D-I	Elwood Town
Frisk, Aron J.	20521	D-IV	Murray City
Frost, Melvyn P.	21518	D-II	Riverside-North Garland Water Company
Fuell, Henry L.	98121	D-IV	Granger-Hunter Improvement District
Fullmer, Alonzo C.	07136	D-IV	Orem City
Gagon, Darel L.	24050	D-IV, T-IV	Metropolitan WD of SL/Sandy
Gale, Lyle	95113	D-I	Elsinore Town
Galloway, Nick	2405 I	D-IV	Benson Culinary WID
Gardner, Dana D.	97519	T-I	Dugway Facilities
Gardner, David A.	00466	D-IV	WaterPro
Garner, Gary L.	99124	D-IV	Kaysville City
Gibson, Brandon S.	07193	D-S	Delta Egg Farm
Giles, David B.	24511	T-IV	Weber Basin WCD
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Gilgen, Dustin K.	07194	T-IV	Salt Lake City
Gill, Michael D.	97520	T-IV	Salt Lake City
Gillette, Charles R.	07085	D-IV	lvins City
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Gines, Rick G.	21124	D-IV	Mountain Regional Water SSD
Giordano, Randy L.	21041	D-I	West Warren-Warren Water District
Glazier, Jay A.	93516	T-IV	Park City
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Glover, Shawn E.	96116	D-IV	Cedar City
Gonzales, Michael G.	07224	D-IV	Jordan Valley WCD
Goodliffe, Colby K.	07195	D-IV	Utah State University
Goodrich, Kenneth	92505	T-IV	Ashley Valley Water & Sewer ID
Goodrich, Ryan L.	07086	D-II, T-II	Tridell-LaPoint Water ID
Goodsell, Bryan V.	24108	D-I	Clarkston Town
Goodwin, Bret	21521	T-IV	Metropolitan WD of SL/Sandy
Goss, Bill D.	86679	D-IV	
			Water Specialist
Grandpre, Jamie E.	97125	D-IV	Morgan City
Greer, Kyle S.	07137	D-IV	Hooper Water Improvement District
Griffin, Ronald K.	21523	D-II	Grantsville City
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Grunig, Michael L.	92506	D-II	Hyde Park City
Gubler, Curtis G.	07196	D-S	Apple Valley Water Company
Gwynn, Brett T.	99129	D-IV	Clinton City
•	22125	D-IV	
Hadfield, Larry A.			Lehi City
Hans, Paul D.	99524	D-I	Springdale Town
Hansen, Timothy M.	07225	D-I	Huntsville Town
Hanson, Keith J.	89510	D-III	Salt Lake County Service Area #3
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Hanson, Virgil V.	21526	D-IV	Sandy City
Hardy, David K.	0073 I	T-IV	Weber Basin WCD
Hardy, David Kay	85013	D-IV, T-IV	Central Utah WCD
Hatch, Tracy B.	23519	D-IV	Bountiful City
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Hatfield, Richard R.	96123	D-IV	Mapleton City
Hawkins, John D.	98515	D-I	Silver Spurs Water
Hawkins, Richard P.	21527	D-II	Spanish Fork City
Haws, Steven L.	93114	D-IV	Provo City
Healey, Jay C.	95519	D-III	Alpine City
Heinze, Garry G.	08260	T-I	Glen Canyon NRA-Dangling Rope
Hellstrom, Fred C.	88132	D-IV	Pleasant View City
Hennessee, Mickey W.	86207	D-III	Sunset City
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Hensley, Robin D.	21528	D-II	Grantsville City
Herbert, Thomas L.	07141	D-II, T-IV	Intermountain Power Service Corp
Herring, Daren K.	89511	D-IV	Provo City
Hilbert, Richard W.	86213	D-III	
*			Park City
Hill, D. Scott	88119	D-IV	Riverton City
Hill, Gregory G.	22127	D-IV	Murray City
Hoagland, Karen L.	98125	D-IV, T-IV	Sandy City
Hobbs, Jason R.	24110	D-IV	
			Draper City
Hobbs, Travis R.	24111	D-II	Garden City
Hohnbaum, Chris D.	97531	D-IV, T-IV	Elk Meadows Ski Resort
Holland, Dennis L.	00589	D-IV	Salt Lake City
		D-IV	
Holmstead, Cal D.	87748		Lehi City
Honey, Randall B.	2 4 018	D-IV	American Fork City
Houser, Lance E.	24112	D-IV	Logan City
Hoyt, Jason R.	07144	T-IV	Central Útah WCD
Hoyt, Monica B.	95502	T-IV	Central Utah WCD
Huffman, Kendall	94133	D-IV	West Jordan City
Hughes, Ralph S.	24055	D-I	Glen Canyon NPS-Halls Crossing
Illum, Mark D.	21530	D-II	IM Flash Technologies LLC
Isbell, John D.	89118	D-IV	West Jordan City
Israelsen, Harold J.	00405	D-IV	Water Specialist
Jackson, Andrew P.	07227	D-IV	Draper City
Jackson, John C.	07090	D-S	Weber-Meadow View Ranch
Jacobson, Adam D.	24020	D-IV	Water Specialist
Jacobson, John R.	24056	T-IV	Weber Basin WCD
James, Keith R.	95123	D-II	Centerfield City
Jarvis, Waco V.	07197	D-II	Springville City
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Jaterka, Robert A.	20101	T-IV	Magna Water Company
Jenkins, Jeremy R.	22190	D-IV	Gorgoza Mutual Water Company
Jensen, Andrew J.	95124	D-I	Maddox Ranch House

Jensen, Darrin L.	98521	D-II	WaterPro
Jensen, Dennis	89119	D-I	Salem City
Jensen, Jeff M.	21531	D-IV	Ephraim City
Jensen, Jonathan P.	99139	T-II	Ogden City
Jensen, Scott L.	86586	D-IV	Price River Water ID
Jeppson, Bradley L.	08257	D-IV	Granger-Hunter Improvement District
	07091	D-IV D-S	·
Jerome, Pat			Glenwood Town
Jessop, Gerold W.	07092	D-S	Austin Community SSD
Jetté, Dee	94135	T-IV	Huntsville Town
Johnson, Gregory S.	21016	D-II	Water Specialist
Johnson, Harper L.	95557	D-l	Mantua Town
Johnson, John L.	94525	D-II	Canyonlands National Park Service
Johnson, Lewis E.	07094	T-II	Huntsville Town
Johnson, Matthew G.	24058	T-IV	Weber Basin WCD
Johnson, Micheal N.	07147	D-IV	Herriman City
Johnson, Robert S.	88516	D-IV, T-IV	Jordan Valley WCD
Jones, Kenneth J.	24059	D-II	Grand Water & Sewer Service Agency
	24518	D-II	
Jones, Levi G.			Moab City
Jones, Richard D.	23527	D-IV	St George City
Jones, Terry M.	24117	D-I	Alpine Cove Water SSD
Judd, Michael B.	22134	D-IV, T-IV	Mountain Regional Water SSD
Kammerer, Joni K.	07095	D-IV	St George City
Karbakhsh, Abraham	07185	T-IV	Salt Lake City
Kell, Lee R.	07148	D-IV	St George City
Kelsey, Roger L.	97537	D-IV	Salt Lake City
Kennedy, Brett J.	07149	T-IV	Weber Basin WCD
Kennedy, Travis M.	98523	D-IV	West Jordan City
Kesler, Larry D.	94528	D-IV	South Jordan City
Ketten, Theodore L.	93561	D-IV	Sandy City
Kidd, Ronald G.	84017		, ,
•		D-IV, T-IV T-IV	Jordan Valley WCD
Killpack, Andrew B.	20108		Salt Lake City
King, Jeffrey L.	85014	D-IV	Jordan Valley WCD
Knight, Gary L.	21135	D-IV	St George City
Kozak, Kevin B.	98132	T-IV	Weber Basin WCD
Kuwada, Dennis H.	24060	D-IV	Salt Lake City
Lahammer, Shawn T.	07150	D-IV	St George City
Lambson, Ivan G.	21136	D-I	Kennecott Utah Copper
Lambson, Ivan G.	21136	D-I	Kennecott Utah Copper
Lammert, Branden L.	21137	D-II	Maeser Water Improvement District
Lane, William W.	21017	D-I	Mountain Springs Water Company
Langston, Nathan W.	97540	D-IV, T-IV	Monticello City
Larsen, Gary M.	8405 I	D-III	Millville City
Larson, Brad P.	90516	D-II	West Jordan City
Laub, Samuel G.	94530	D-IV	St George City
Lawless, James G.	07096	D-II	Tooele City
•	87822	T-IV	Hill Air Force Base
Lawrence, Daniel J.			
Lawrence, Patrick A.	07151	T-IV	Salt Lake City
Lawson, John S.	96519	D-IV	Kearns Improvement District
Layton, Zachery T.	96134	D-III	Clearfield City
Lee, Ralph J.	07152	D-IV	St George City
Lee, Robert E.	07198	D-II	Monroe City
Lee, Scott C.	23115	D-IV	West Jordan City
Leonard, Doug W.	95129	T-IV	Jordan Valley WCD
Lloyd, Darren M.	07228	D-IV	Orem City
Long, Chris D.	07154	D-II	Mount Pleasant City
Long, Christopher D.	07154	D-II	Mt Pleasant City
Longman, Steve D.	06052	D-IV	Taylorsville-Bennion ID
Loock, Max G.	89122	D-II	Taylor-West Weber WID
Lowe, Martell C.	07156	D-II	Hyrum City
	20036	D-IV	, ,
Ludvigson, Curtis K.			Water Specialist
Lund, Scott M.	97543	D-IV	South Davis Water District
MacArthur, Kyle P.	24521	D-IV	Park City
Magleby, Devin B.	89517	T-IV	Monroe City
Malmgren, Van L.	07099	D-I	Mayfield Town
Maloy, Richard A.	07231	D-IV	South Jordan City
Manglona, Pedro Jose	21043	T-II	Hill Air Force Base

Mangum, David C.	84020	D-IV, T-IV	Castle Valley SSD
Marquez, Michael C.	21142	D-S	Sunnyside City
Marti, Todd B.	07232	D-IV	
			Jordan Valley WCD
Martin, Rick L.	20532	D-IV	Hooper Water Improvement District
Martinez, Feliberto J.	84055	D-IV, T-IV	Water Specialist
Martinez, Zachary C.	21540	D-IV	Clinton City
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Mascher, Leonard F.	98142	D-IV	Jordan Valley WCD
Mastin, Troy R.	87824	T-IV	Price River WID
Matthews, Chris	24522	D-IV	Price River WID
Maughan, Kevin R.	97546	D-IV	Hyrum City
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Maughan, Perry N.	89142	D-III	Wellsville City
Maxwell, Robert B.	21541	D-I	Kearns Improvement District
McDaniel, Roy B.	07158	D-S	LDS Church, Physical Facilities
McLaughlin, John M.	26120	T-II	Hill Air Force Base
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Mecham, Austin Quay	21019	D-S	Canyon Fuel Company
Mecham, David G.	95528	T-IV	Jordan Valley WCD
Metzner, Richard H.	07103	D-I	Mountain Springs Water Company
	07233	D-IV	
Mickelsen, Richard A.			Brigham City
Miller, Dennis	89126	D-II	Duchesne City
Miller, Wyatt G.	97549	D-IV	Cedar City
Mills, Ryan R.	07161	D-IV	Syracuse Ćity
Millward, Glen R.	88137	D-II	Grantsville City
Mitchell, Kenneth G.	99151	T-IV	Park City
Moffitt, Jarod S.	97550	T-IV	Jordan Valley WCD
Montoya, Frank J.	88150	T-IV	Jordan Valley WCD
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Montoya, Orlando R.	25544	T-IV	Metropolitan WD of SL/Sandy
Moore, Douglas V.	84352	D-S	Cluff Ward Pipeline
Morris, Wesley C.	24065	D-III	Jordanelle Special Service District
Mortensen, Matthew J.	08258	D-IV	Timpanogos Special Service District
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Moss, David H.	87780	D-IV	Bountiful City
Moulding, G. Lynn	84354	D-III	Riverdale City
Moya, Keri L.	07206	D-I	Logan City
Muir, Jerry D.	24125	D-I	Manila Town
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Munns, Michael R.	21144	D-IV	West Jordan City
Murdoch, Jeff T.	07234	D-IV	Highland City
Murphy, Troy T.	21545	D-IV	West Jordan City
	07235	D-I	Circle Four Farms
Myers, David W.			
Myers, Kurt R.	92512	D-IV	Central Utah WCD
Necaise, Ricky J.	20120	D-IV	Granger-Hunter Improvement District
Nelson, Trevor B.	23058	D-IV	Brigham City
	93123	T-IV	WaterPro
Nielson, Jerry O.			
Nielson, Kurt A.	20123	D-IV	Cedar City
North, Kirk D.	24127	D-I	Uinta-Wasatch-Cache National Forest
Nostrom, Jacob	06058	D-IV	Springville City
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Noyes, Norman K.	95136	D-II	Sunset City
Nuttall, David V	21146	D-II	Fairview City
Obray, Randell G.	21020	D-S	Cove Special Service District
Olsen, Scott C.	88734	D-IV	Jordan Valley WCD
Olson, Jed A.	07162	D-II	Logan City
Oman, Kirk G.	93533	D-IV	Jordan Valley WCD
Opfar, Paul D.	24066	D-II	Provo City
Orton, Kenneth W.	84282	D-II	Highland Water
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Owens, Christopher S.	06059	D-IV	St George City
Owens, Kory B.	21147	D-II	Panguitch City
Owens, Marie E.	97152	D-IV	Jordan Valley WCD
Pace, D. Lee	00701	D-IV	West Jordan City
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Pace, James A.	00416	D-IV, T-III	Orem City
Palmer, Brett	95137	D-IV	Stansbury Park ID
Palmer, Robert D.	24067	D-IV	Sandy City
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Parduhn, Justin B.	97554	D-IV	Highland City
Park, Colten T.	98150	D-II	Stansbury Park ID
Parker, Jason R.	07240	D-IV	Lindon City
Parker, Stephen C.			•
	86661	D-IV	American Fork City
	8666 I	D-IV	American Fork City
Parkinson, Timothy A.	95531	D-II	Zion National Park
Parkinson, Timothy A.	95531	D-II	Zion National Park

Parslow, Douglas K.	87830	D-IV, T-IV	Weber Basin WCD
Pattee, Brian	96140	D-IV	Logan City
Payne, Matthew M.	07164	D-II	Logan City
Payne, Ronald D.	23537	D-IV	Metropolitan WD of SL/Sandy
Pearce, Aaron P.	07201	T-IV	Weber Basin WCD
Pedersen, Mark L.	95532	T-II	Deseret Power
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Pei, Jeffren T.	07165	D-S	Hanksville Town
Pentz, Steve	24129	D-III	Croydon Pipeline
Perkins, Shane F.	96142	D-IV	Logan City
Persico, Mark C.	96143	D-IV	Hill Air Force Base
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Peters, Jonathan H.	91129	T-I	Metropolitan WD of SL/Sandy
Petersen, Douglas K.	92142	D-III	Smithfield City
Peterson, Craig K.	92143	D-IV	West Jordan City
Peterson, Devan E.	22146	D-III	Lehi City
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Peterson, Justin C.	21150	D-I	USDA Forest Service
Peterson, Van O.	0710 4	D-S	Canyon Fuel Company/Skyline Mine
Pierpont, Paul S.	21548	D-IV	Central Utah WCD
Pierson, Dale F.	84442	D-II	Water Specialist
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Pierucci, Armand C.	07105	D-II	Helper City
Poll, Bart M.	97557	D-IV	Riverdale city
Pollock, Troy S.	21550	D-II	Panguitch City
	21151	D-S	
Pope, Jim R.		-	Spring Creek Water Users
Poulsen, Todd R.	24131	D-S	Canyon Fuel Company/Skyline Mine
Powell, William E.	94162	T-IV	Salt Lake City
Prescott, Brandon J.	07241	T-IV	Ogden City
•	99166		· · ·
Proulx, Cory C.		D-IV	Draper City
Pugsley, Tyler D.	96145	T-II	Brigham City
Purissimo, Lorena D.	24532	T-IV	Jordan Valley WCD
Purser, Jeff N.	07166	D-IV	Riverton City
Quigley, John F.	24071	D-I, T-II	Glen Canyon NRA-Bullfrog
Quinn, Edward D.	87677	D-IV	Tremonton City
Rackham, Scott D.	92517	T-IV	Weber Basin WCD
Rager, Gary	88835	D-IV, T-IV	Sandy City
Raines, Mark	96527	D-IV	Water Specialist
Ramos, Vincent P.	96528	D-IV	Ogden City
Ramulic, Uzeir	07167	D-IV, T-IV	Metropolitan WD of SL/Sandy
Ranck, Russell S.	94544	T-IV	Salt Lake City
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Randall, Wilford K.	07106	D-S	Ticaboo SSD, Eastland SSD
Rasmussen, Dan L.	87406	D-II	Aurora City
Raventos, Nicholas A.	07242	D-IV	Draper City
Reidling, Andy	06064	D-IV, T-IV	Metropolitan WD of SL/Sandy
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Reynolds, Mark A.	21551	D-S	Energy West Mining/Deer Creek
Rhodes, Nathan J.	90524	D-IV	St George City
Richards, Thomas K.	07108	D-S	Bryce Canyon National Park
		D-IV	
Richins, Kim R.	21153		Mountain Regional Water SSD
Robbins, Brett F.	24084	D-II	WaterPro
Roberts, Ed W.	21154	D-IV	Spanish Fork City
Roberts, Frank L.	08261	T-IV	Jordan Valley WCD
Robertson, Michael J.	96146	D-IV	Price River WID
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Robinson, Alan H.	92166	D-II	Springville City
Rodriguez, Fred T.	97002	D-IV	Sandy City
Roper, John B.	24072	D-II	Axtell Community Service Distribution
	87737	D-II	
Ross, Lanny W.			Johnson Water District
Ross, Ray W.	95145	D-IV	Central Iron County WCD
Roth, David B.	22149	D-IV	Metropolitan WD of SL/Sandy
Roundy, Bradley C.	97181	D-IV	Mapleton City
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Roundy, Daxon W.	07243	D-II	Water Specialist
Roundy, Michael P.	97160	T-IV	Logan City
Rowberry, Darin	24073	D-IV	South Jordan City
Rufener, Edward L.	85001	D-IV	South Salt Lake City
Russell, Boyd A.	21553	T-II	Deseret Power
Sabey, Rick C.	93129	T-IV	Wallsburg Town
Sadler, Dennis Wayne	20545	T-II	Mountain Regional Water SSD
Saunders, Jon A.	07245	D-S	Central Culinary Water Company
Saunders, Kurtis	94189	D-IV	Logan City
Saunders, William D.	21157	D-II	Nibley City

Schmidt, Steve J.	24533	D-IV	Jordan Valley WCD
Scown, Nathan F.	07169	D-IV, T-IV	Metropolitan WD of SL/Sandy
Seamons, Chris D.	21555	D-IV	Smithfield City
Shurtleff, Charles D.	85457	D-IV, T-IV	Ogden City
Siddoway, Gary N.	22541	T-II	Kamas City
Siddoway, Steve H.	21159	D-II	Draper City
Sieverts, Luke D.	24027	D-IV	Herriman City
Sigler, Michael C.	92107	D-IV	Water Specialist
Skogerboe, Matt	96531	D-IV	Magna Water Company
Slagowski, Mark E.	84300	T-IV	Bountiful City
Smith, Alan F.	21557	D-II	Lewiston City
Smith, Bryan J.	072 4 7	D-IV	Jordan Valley WCD
Smith, Gerald D.	94551	D-IV	Manila Town
Smith, Kelly D.	21161	D-IV	Orem City
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Snook, Kenneth H.	00561	D-II	Price River WID
Snow, John A.	87789	D-IV	Granger-Hunter ID
Snyder, Cody L.	24134	D-S	Woodenshoe Water, Peoa Pipeline
Snyder, Robert	24028	D-I	Rockville Pipeline Company
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Soper, Greg B.	20139	D-III	Lehi City
Sorensen, Eric S.	07171	T-IV	Metropolitan WD of SL/Sandy
Sorenson, Mitchell K.	07172	T-IV	Weber Basin WCD
Spivey, Don G.	94169	D-IV	Provo City
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Squire, Robert P.	98153	T-IV	Jordan Valley WCD
Stansfield, Clyde	21056	D-III	Roosevelt City
Staples, James E.	95539	D-III	University of Útah
	98535	D-II	
Stapley, Michael J.			Logan City
Steadman, Chad P.	24535	D-IV	Jordan Valley WCD
Stevens, Todd A.	88532	T-IV	Ogden City
Stewart, Benjamin W.	21163	D-II	Milford City
Stewart, Shirl A.	07113	D-S	Utah County - Lincoln Beach
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Stockdale, Richard A.	20551	D-I	Stockton Town
Stones, Kelly B.	98156	D-II	Parowan City
Stoyanoff, Jack J.	86645	D-IV	North Emery Water Users SSD
Strand, Robin P.	94170	D-II	Hill Air Force Base
Stubbs, Tyler D.	07114	D-IV	St George City
Sujudi, Wahid A.	07174	D-IV	Kearns Improvement District
Summers, Lynn C.	07116	D-I	Eden Water Works Company
Sutherland, Mark W.	21560		• • •
		D-IV, T-IV	Central Utah WCD
Tabor, Robert W.	25078	T-I	Dugway Facilities
Taylor, Darrin B.	95148	D-IV	Layton City
Taylor, George C.	92164	T-IV	Ogden City
Taylor, Jared	07250	D-II	Washington City
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Taylor, Melvin B.	21164	D-II	Woods Cross City
Taylor, Paul Y.	99174	D-IV	Spanish Fork City
Terry, Jacob D.	23545	D-IV	St George City
Terry, Shazelle	98538	T-IV	Jordan Valley WCD
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Testa, Michael E.	24076	D-I	Park City Mountain Resort
Thomas, Darrell J.	98159	D-II	Kamas City
Thomas, Landon K.	24031	D-S	Escalante Valley School
Thomas, Rob A.	94556	D-IV	Provo City
Thompson, Christopher L.	91521	T-III	NPS Bullfrog/Hite/Halls Crossing
Thompson, David Z.	24137	D-S	Cedar Ridge Distribution Company
Thompson, Stephen M.	07175	D-I	Mountain Valley Water
·	98539	T-IV	•
Tietje, Matthew J.			Metropolitan WD of SL/Sandy
Timm, Randy V.	95150	D-II	West Jordan City
Tom, Pat	24538	T-IV	Metropolitan WD of SL/Sandy
Totten, Robert S.	25552	D-I	Springdale Town
	07117	D-I	
Townsend, Trevor S.			Pine Meadows Mutual Water Company
Tuft, Wade T.	94561	D-IV	Jordan Valley WCD
Turner, Duff G.	89140	D-IV, T-IV	Jordan Valley WCD
Underwood, Brian C.	24138	D-S	Tintic School District
Varney, Chance Z.	07251	D-IV	Saratoga Springs City
•			
Varney, Jon M.	95153	D-III	American Fork City
Vercimak, Michael V.	24032	D-IV	Hurricane City
Waite, Michael D.	97566	T-IV	Syracuse City
Walker, Kent E.	89522	D-IV, T-IV	Washington County WCD
vallet, Nelle L.	0/322	□ -17, 1-17	Trasmington County TTCD

Wall, Shawn R.	94177	T-II	Magna Water Company
Wallace, Landon G.	22552	D-IV	Alpine City
Wallentine, Max V.	21039	D-S	Bradford Acres Water Association
Wangsgard, Paul M.	07178	D-I	Trenton Town
Wardle, Billy L.	94558	D-IV	Price City
Wareham, Kit C.	98163	D-IV	Cedar City
Warnick, Kenneth R.	21167	D-IV	West Jordan City
Washburn, Kevin E.	95548	T-IV	Canyon Fuel Company
Watkins, Clyde R.	91144	T-IV	Water Specialist
Wayas, Wayne A.	95549	D-IV	Orem City
Webster, Tyler G.	21169	D-IV	Layton City
Whatcott, Bart A.	07205	D-S	Kanosh Town
Whisenant, Hal D.	07179	D-II	Uintah Highlands ID
Whisenant, Jason E.	06070	D-IV	South Ogden City
White, David F.	84063	D-IV	Water Specialist
White, Gordon	95156	D-III	Payson City
White, Ray B.	92161	D-II	Farmington City
White, Sam A.	88175	D-IV, T-IV	Price City
Wichmann, Jason M.	07253	T-IV	Price City
Wilcox Jr., Richard E.	07254	D-II	Washington City
Wilde, Douglas D.	21035	D-S	Holcim (US), Inc.
Williams, David C.	89141	D-III	Clinton City
Williams, Mark B.	00763	D-IV	Sandy City
Wilson, Steven D.	85604	D-IV	Granger-Hunter ID
Wiser, Daniel R.	07255	D-III	Providence City Corporation
Withers, Rhonda B.	07180	D-IV	White City
Wittwer, Landon W.	07119	D-IV	St George City
Wood, Brett G.	24081	D-IV	Herriman City
Woodcox, Gregory H.	96001	D-III	Pleasant Grove City
Woolsey, Blake K.	98166	T-IV	Jordan Valley WCD



Division Website

With the invention of the computer a lot of information is available to us via the internet. You can find out just about anything by searching Google or Wikipedia. The Division of Drinking Water is no different about disseminating information to our customer agencies and operators.

Most of the information you need to know about your water system standards, rules, cross connection control or operator certification can be found on the division's website: http://www.drinkingwater.utah.gov.

You can also find out information about your CEU's now on the web at: http://www.drinkingwater.utah.gov/opcert_ceus.htm.

If you need training or want to know exam dates you can find them on our training calendar at: <a href="http://www.calendarwiz.com/calendars/calendar.php?crd=uwwt.calendar.php.

If you have a water emergency you can get help by going to: http://www.drinkingwater.utah.gov/emergencies.htm

If you want to renew your license, register to take an exam, reinstate your license, get reciprocity or get a citizenship ID form by going to: http://www.drinkingwater.utah.gov/shopping_cart.htm

If you need help finding something, you can contact the division staff by going to: http://www.drinkingwater.utah.gov/ddw_staff_directory.htm

If you haven't already checked out the division website, please do so. If there is something you feel would be valuable to you as a customer, let us know.

Water Operator Disciplinary Actions

For the most part, the certified operators in the State of Utah are very conscientious with the manner to which they operate their water systems. However, from time to time, it is necessary to remind some of the consequences of not following the rules. The operator certification rules state the following 5 items on operator disciplinary actions:

I. When the Secretary is considering the suspension or revocation of an Operator's or Specialist's certificate, the individual shall be so informed in writing. The communication shall state the reasons for considering such action and allow the individual an opportunity for a hearing.



- 2. Grounds for suspending or revoking an Operator's or a Specialist's certificate shall be any of the following:
- (a) demonstrated disregard for the public health and safety;
- (b) misrepresentation or falsification of figures and reports, or both, submitted to the State;
- (c) cheating on a certification exam.
- 3. Suspension or revocation will be possible when it can be shown that the circumstances and events were under an Operator's or a Specialist's jurisdiction and control. Disasters or "acts of God" which could not be reasonably anticipated will not be grounds for a suspension or a revocation action.
- 4. Following an appropriate hearing on these matters, the Commission will take formal action. This action shall include a description of the findings of fact to be placed in the Operator's or the Specialist's certification file and mailed to the Operator or the Specialist involved. This communication shall also state the lengths of suspension or revocation, and the procedures to reapply for certification at the end of the specified disciplinary period.
- 5. Any suspension or revocation may be appealed to the Drinking Water Board by filing a request for a hearing with the Executive Secretary. The Executive Secretary shall place this matter on the agenda of the next regular meeting and so inform the appellant. The request for a hearing must be received by the Executive Secretary at least 14 calendar days prior to a scheduled Board meeting in order to be placed on the Board's agenda.

Referring to item 2, the grounds for revocation or suspension of a license can be one of the three items mentioned. Items b) and c) are pretty much self-explanatory. Item however, a) demonstrated disregard for the public health and safety; gets a little more broad in its terminology. Item 3 states: Suspension or revocation will be possible when it can be shown that the circumstances and events were under an Operator's or a Specialist's jurisdiction and control. So in effect an operator can receive disciplinary action for not taking samples which are in the operator's control. Things such as lack of storage aren't necessarily in the operator's control and would not be grounds for disciplinary action. For all intents a purposes these actions are done on a rare basis. It should be noted that we all need to stay diligent in our duties as operators in protecting the public's health.

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Name	Phone	Section	Duties
Bertelson, Mark	801-536-0087	Engineering	Water Treatment, Plan Review
Bobb, Heather	801-536-0093	Construction Assistance	Grant Contract Specialist
Bousfield, Ken	801-536-4207	Division Director	Division Director
Brenchley, Steven (MILITARY LEAVE)	801-536-4201	Engineering	Plan Review
Cassady, Rachael	801-536-4467	Rules	Chemical Quality
Cobleigh, Julie	801-536-4197	Construction Assistance	Financial Assistance Programs; Plan Review
Crowther, Bill	801-536-0074	DEQ IT	Desktop Support
Dev, Nagendra	801-536-0098	Engineering	Plan Review, Capacity Development.
Dyches, Kim	801-536-4202	Section Manager Field Services	Operator Certification; Emergency Response; Openline Newsletter
Fauver, Patti	801-536-4196	Section Manager Rules	Rule Compliance
Fritz, Carolyn	801-536-4190	Administrative Services	GRAMA Request/Records/ Secretary
Georgeson, Michael	801-536-0092	Engineering	Plan Review
Grange, Michael	801-536-0069	Section Manager Construction Assistance	Financial Assistance Programs
Hand, Margaret	801-536-4192	Field Services	Operator Certification Program
Hansen, Dave	801-536-4203	Field Services	Sanitary Surveys; Rating System
Hansen, Mark	801-536-4205	Rules	Surface Water Treatment Rule; Monthly Water Treatment Plant Reports
Hart, Bob	801-536-0054	Engineering	Surface Water Treatment Rule; Plar Review
<u>Heath, Cherie</u>	801-536-0070	Rules	Data Entry for Bacteriologic Sam- pling and CEUs
Holdaway, Brad	801-536-0063	Rules	Disinfection Byproducts Rule; Quarterly Reports
Jensen, Mark	801-536-4199	Administrative Services	Ground Water Source Protection; GIS Development
<u>Johnson, Jesse</u>	801-536-4195	Construction Assistance	Financial Assistance Program; Plan Review; STAG Financial Assistance Program
Johnson, Kate	801-536-4206	Section Manager Administrative Services	Administrative Services & Source Protection
Keers, Pete	801-536-4150	Field Services	Sanitary Surveys
Kobzeff, Gary	801-536-0099	Construction Assistance	Financial Assistance Program; Plan Review

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		1	
Lee, Janet (Keller)	801-536-0088	Rules	Total Coliform Rule
Lore, Don	801-536-4204	Rules	Chemical Monitoring; Lead/Copper Rule.
Macauley, Ying-Ying	801-536-4188	Section Manager Engineering	Plan Review and Operating Permits
Martin, Jim	801-536-4494	Administrative Services	Groundwater Source Protection
Matulich, Linda	801-536-4208	Administrative Services	Administrative Secretary
Moss, Michael	801-536-0089	Field Services	Backflow Technician Certification; Cross Connection Control; Outreach Training Seminars
<u>Nieminski, Eva</u>	801-536-4189	Administrative Services	Rule Development; Special Studies; Technical Assistance to Water Treat- ment Plants
Oakeson, John	801-536-0057	Rules	Ground Water Disinfection Rule
Olsen, Elden	801-536-4097	Field Services	Cross Connection, Vulnerability Assessments
Onysko, Steve	801-536-0096	Engineering	Plan Review
Peterson, Rich	801-536-4035	Construction Assistance	Financial Assistance Programs, Plan Review, Database Development, Website Development, Document Management
Pett, Sandy	801-536-4212	Administrative Services	Accounting, Loan Program
Reidhead, Amanda	801-536-4224	Administrative Services	Receptionist
Smith, Colt	801-536-0097	Rules	SDWIS database, CCRs
Trussell, J.J.	801-536-4198	Rules	Enforcement Tracking; Data File Coordinator
Yee, Jennifer	801-536-4216	Rules	Secretary

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