



# ARKANSAS DRINKING WATER UPDATE

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ENGINEERING SECTION – DEPARTMENT OF HEALTH

Summer 2010

## List of impaired water bodies includes drinking water sources

The Arkansas Department of Environmental Quality earlier this year issued its proposed 2010 list of streams and lakes which fail to meet state water quality standards. The intakes for a dozen public water systems are located on or just downstream of those waters classified by ADEQ as impaired.

The list is published every two years as required under Section 303d of the federal Clean Water Act, and is based on water quality monitoring conducted by ADEQ as well as other federal, state and local agencies. Water bodies are placed on the list because they fail to meet one or more of the water standards designed to protect a defined beneficial use including fishable, swimmable, and domestic water use.

For 2010, over 200 proposed stream segments and lakes affecting thousands of stream miles are contained on the list. The list was published earlier this year ([www.adeq.state.ar.us/water/303drprt.htm](http://www.adeq.state.ar.us/water/303drprt.htm)) and is under review by EPA.

Public water systems whose intake is located on or just downstream of an impaired water body include the following:

- Caddo River: Amity and Glenwood
- Little Missouri River: Prescott
- Saline River: Benton and Arkansas Health Center.

See Impaired on page 2



*Lake Maumelle as viewed from Pinnacle Mountain*

*Photo courtesy of Pulaski County Planning & Development*

## Commission enacts prohibition on sewer discharges in Lake Maumelle watershed

The state Pollution Control and Ecology Commission voted on May 27 to approve regulations which prohibit the surface discharge of wastewater within the watershed for Lake Maumelle. The lake is the principal drinking water source for Central Arkansas Water (CAW), the largest water utility in the state and which supplies Little Rock, North Little Rock, and 14 surrounding communities. The Commission is the government body which establishes environmental policy and regulations for the state. Those policies and regulations are then administered by the Arkansas Department of Environmental Quality (ADEQ).

A petition to modify ADEQ's regulations under the National Pollutant Discharge Elimination System of the Clean Water Act in order to prohibit discharges in the Maumelle watershed originated with Central Arkansas Water in 2008. While there are no current discharges in the watershed, because of residential development pressures around the lake CAW commissioned a study on how to protect the lake's high quality. The 2007 study found that preservation of the lake would require that the type and density of development in the watershed be controlled, and that there be no surface sewer discharges in order that the lake's assimilative capacity for nutrients would not be exceeded.

Based on that study, the utility has been successfully working with the Pulaski County Quorum Court on modifications to the county's subdivision ordinances and, in particular, for developments in the Maumelle watershed (see News of Note on page 5). However, a portion of the Maumelle watershed lies in Perry and Saline counties, and the quorum courts in those counties did not indicate a willingness to enact limiting regulations. As a result, CAW petitioned the Commission for a modification of the state regulations to ban any discharge in the watershed.

The ban applies to all surface wastewater discharges except for those permitted under NPDES stormwater regulations. Martin Maner, CAW's Director of Watershed Management and the person spearheading the effort to revise the regulations, was quoted as being "tickled pink" with the decision. The measure passed 11-0 with two Commission members absent. ♦

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# EPA proposes revisions to Total Coliform Rule

EPA Administrator Lisa Jackson signed on June 17 proposed revisions to the Total Coliform Rule (RTCR). The regulation, issued in 1989, is the only microbial regulation that applies to all public water systems. Other regulations, including EPA's surface water treatment rules and ground water rule, are meant to control microorganisms originating in the source water. The proposed rule would become effective in 2013.

The RTCR was developed based on an Agreement in Principle prepared by an advisory committee representing 15 stakeholder organizations. The committee signed the agreement in 2008 and EPA committed to developing the proposed rule in conformance with the agreement.

## Triggered Assessments

The RTCR eliminates the maximum contaminant level (MCL) associated with total coliform. However, it uses the old total coliform MCL criteria as the trigger under the proposed rule for a system to conduct an assessment and take corrective action. Failure to conduct the assessment or the corrective action constitutes a treatment technique violation.

Two levels of assessment are established. A Level 1 assessment is triggered when a system has two or more total coliform positive samples in a month when fewer than 40 samples are collected, or if more than 5% are total coliform positive when 40 or more samples are collected in a month.

A Level 2 assessment is triggered by an E.coli MCL, the failure to collect repeat samples following an E.coli

positive sample, or if two Level 1 assessments are triggered within a rolling 12 month period.

The assessments are meant to identify sanitary defects and it will be up to states to define the forms and criteria for a Level 1 and Level 2 assessment. The RTCR does list the minimum elements that both assessments must evaluate and those include the following:

- Sample site inadequacies;
- Sampling protocol;
- Sample processing;
- Unusual events affecting distribution system water quality;
- Distribution system maintenance and operation changes that could affect distributed water quality, including water storage; and
- Source and treatment considerations that could affect water quality.

Level 1 assessments are to be conducted by the water system. Level 2 assessments must be conducted by the State or by a party approved by the State. If a water system conducts a Level 2 assessment, it must have staff with the certifications or qualifications established by the State. Both types of assessments must be submitted to the State within 30 days of the triggering event. Any corrective action identified in the assessments must be completed by the time the assessment is submitted or in conformance with a schedule determined by the State in consultation with the system.

## Monitoring

The RTCR proposes criteria for both establishing and maintaining reduced compliance monitoring.

A community public water system supplied by ground water and serving a population of 1,000 or less can monitor quarterly. However, to begin that monitoring frequency the system must have a clean bacteriological history of at least 12 months and must meet one or more other criteria determined by the state such as an annual site visit, continuous disinfection, or a cross connection control program. A system on quarterly monitoring must return to

monthly samples if it has an E.coli MCL; if it triggers a Level 2 assessment, two Level 1 assessments, or has two monitoring violations within a rolling 12 month period; or if it has a coliform treatment technique violation.

Community ground water systems serving greater than 1,000 persons and all water systems utilizing a surface source must monitor monthly, the same as the current regulation.

Repeat sampling following a positive coliform sample will not change; that is, at the same site, and at upstream and downstream sites within five service connections.

Of note is a new E.coli MCL if a system fails to collect all required repeat samples following an E.coli positive routine sample.

The comment period for the proposed regulation closes 60 days after publication in the Federal Register which had not occurred at press time. More information can be found at [www.epa.gov/ogwdw000/disinfection/tcr/regulation\\_revisions.html](http://www.epa.gov/ogwdw000/disinfection/tcr/regulation_revisions.html).

## **Impaired** *continued from page 1*

- Lake Columbia: Magnolia
- Lake Winona: Central Arkansas Water
- Fourche La Fave River – Perryville
- Nimrod Lake – Plainview
- Upper Beaver Lake – Beaver Water District
- Illinois River – Siloam Springs
- Petit Jean River - Danville

The water systems were notified by the Engineering Section of their source being on or near an impaired water body, and were encouraged to utilize that information as part of their source water protection efforts.

Comments were also submitted to EPA Region 6. The EPA was encouraged to give drinking water sources a higher priority in the development of TMDLs, if applicable, and in the use of any federal funds for mitigation and remediation work. Increased monitoring of drinking water sources and greater attention in addressing the reasons for water body's impairment were also recommended.

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# Few glitches seen in distribution of Consumer Confidence Reports

Bob Irving, Environmental Health Specialist

Another season of Consumer Confidence Reports (CCRs) is coming to a close, and most of the public water systems in Arkansas did an outstanding job in complying with the guidelines, especially with the new newspaper requirements.

At this time, your CCRs should have been distributed to your customers by posting, mailing, hand delivery or by publishing in the local newspaper. The deadline was June 30<sup>th</sup>. If you have not distributed your CCRs to your customers you are in violation and you must get your CCRs out to your customers as soon as possible in order to return to compliance.

The CCR Certification Form is due October 1<sup>st</sup>, but please do not wait on returning it to the ADH. Once the CCRs have been distributed to your customers, take five minutes and complete the Certification Form and mail it to us together with a copy of the CCR as it was sent out. If it was published, cut out the page from the newspaper and include it with the Certification. If you wait until October 1<sup>st</sup>, the Certification requirement could be long forgotten.

There were some common mistakes we saw this year. One was failing to proofread the CCRs supplied by the Department of Health. Believe it or not, we do make mistakes so check the data. As an example, when one system copied the electronic version of their CCR from their

computer, it came out in gibberish and was mailed out in gibberish as no one proofed it.

Another common mistake with newspaper publications was either not telling the customers in your pre-publication notice when it was going to be published or having the wrong date of publication in your notice. Next year, get a firm date of publication from your local paper and hold them to it.

Finally, some of you did not make a good faith effort to get the CCR to

## DRINKING WATER. POUR OVER THE FACTS.



The fact is, there's more to your tap water than filling your glass. A short new report from your water supplier will tell you where your water comes from and what's in it. Look for the report, and read it. It will fill you full of facts.



**DRINKING WATER. KNOW WHAT'S IN IT FOR YOU.**

Call your water supplier or the Safe Drinking Water Hotline at 1-800-426-4791.  
Or visit [www.epa.gov/safewater/](http://www.epa.gov/safewater/)

members of your community who do not receive a water bill. This may include tenants of apartment complexes where the landlord pays for the water, residents of nursing homes, and workers who work in your town but live in another.

But mistakes aside, it was a good CCR season and we thank all of you for your cooperation. ♦

## “I want a license, not an operator-in-training”

Martin Nutt, Certification Officer

Can my water Operator-In-Training be converted to a full license? The answer to this frequently asked question is ‘yes’. A completed “Water Operator Experience Update” form submitted to the Water Licensing Program may be all that is needed. The form was furnished to you when your OIT was issued to you. It is also on the Engineering Section’s web site: [www.healthy.arkansas.gov/eng](http://www.healthy.arkansas.gov/eng). This form must be submitted to convert your OIT to a License.

Why is an OIT issued? There are two primary purposes. The OIT allows an operator who does not yet meet the experience requirement to prepare for the license exam, pass the exam, and hold the OIT until the experience requirement is met. The OIT provides system management a basis to increase an OIT operator’s level of responsibilities. It also allows a person who desires to be a licensed operator the ability to prepare for the license exam, pass the exam, and have an OIT issued which should make the person more employable as an operator. The OIT is renewable like a license.

“But I met the experience requirement, why did I get an OIT?”

The OIT is used as the default when an application’s experience section is inadequately completed. Typical reasons for this include:

- Job duties were not properly completed or specifically defined in the application. Don’t use broad generic statements like “operated equipment”, but more specific descriptions such as “adjusted chemical feed rates.”
- The duties were adequately described but they were distribution system duties and the application was for a treatment license, or vice versa.
- No date or signature was included on the application, or the validation signature by the appropriate system representative (manager, mayor, board chair, or contract administrator) was not present.

If you have a question about your application or an OIT, contact Martin Nutt at 501-661-2623. ♦

# Responses needed to asbestos and dioxin questionnaire

Susan Corder, EHS Supervisor

Under the regulations of the Safe Drinking Water Act, monitoring for asbestos and dioxin are required on a nine year compliance cycle for vulnerable system. Thus, every nine years water systems are re-evaluated and appropriate waivers are issued.

In March of this year, each community and nontransient noncommunity public water system in Arkansas was mailed a questionnaire from the Department of Health in order to assist the agency in its evaluation of a water system's vulnerability to these contaminants. The questionnaire asked whether the system's distribution lines contained AC (Asbestos Cement) or Transite pipe, and whether the system had a source or intake within a 1 mile proximity to a facility associated with dioxin. Such facilities were defined in the questionnaire.

Information provided in the questionnaire will enable the Engineering Section to make an accurate determination on the monitoring requirements for these two contaminants, and arrange for the necessary laboratory analyses within the prescribed time frames of the Safe Drinking Water Act.

After Engineering has made a determination, water systems will either receive a letter indicating that a waiver from monitoring has been issued, or that monitoring is required and arrangements will be made with the system to conduct the sampling.

We are requesting that all questionnaires be returned as soon as possible.

If you have any questions regarding your questionnaire, please contact Susan Corder at 501-661-2623. ♦

## Additional AEDC grant funding available for disaster assistance

Supplemental Community Development Block Grant funds from the federal government to address the effects of five presidentially declared disasters in 2008 were released to the Arkansas Economic Development Commission this spring. The AEDC has identified 11 categories for which those funds can be utilized. Two of those categories are the repair of water and wastewater systems, and the procurement of emergency generators. All communities applying for funding must be 51% or more low to moderate income. Also, projects cannot be eligible for reimbursement by other disaster programs such as through FEMA or the Corps of Engineers.

Pre-applications for an emergency generator are due August 1, and the following criteria must be met or the required information included in the pre-application.

- The community must serve a minimum of 300 customers or must seek a waiver of that requirement.
- The generator must be permanent and fixed in place.
- Documentation of frequent outages and related to a disaster.
- Demonstrate the capacity to install and maintain generators.
- Document efforts to obtain funds from other sources.
- Document efforts to prevent future outages.

Pre-applications for the repair of water and wastewater systems are due October 1 and must include the following information.

- Preliminary engineering report, and information on current rate structure and any outstanding loans.
- Proof of capacity to maintain system including names and their qualifications.
- Any consent orders, or recent citations or violations from regulatory agencies applicable to the project.
- Number of customers gained or lost in past five years, age of the system, and any recent problems.
- Description of how the system was damaged by the disaster or how the disaster uncovered the extent of the problem.
- Financial impact of the identified problem and why grant funds are needed to insure long term economic recovery.

Seventy-one of Arkansas's 75 counties are eligible for funding. Pre-applications for this round must be submitted directly to the Grants Management Division of the Arkansas Economic Development Commission. For more information, see <http://arkansasedc.com/grants/cdbq-appropriation-disaster-amendment.aspx> or call 501-682-1211.

## WATER SYSTEM IMPROVEMENTS

DARDANELLE: 2 MGD water treatment plant expansion including aeration, clarification, filtration, and clearwell.

MARVELL: 600 gpm well and 350,000 gallon ground storage tank.

BEE BRANCH: 150,000 gallon elevated storage tank.

JAMES FORK: 3.6 MGD expansion of the water treatment plant including two additional filters, feed equipment and pumps.

SEARCY: 4.3 MGD expansion of the water treatment plant including two new sedimentation basins, four new filters, and raw water and high service pumping improvements.

HORSESHOE LAKE: 15,000 gallon pneumatic storage tank.

## NATIONAL

\* A study released in June by the US Geological Survey found that the effluent from treatment plants receiving wastewater from pharmaceutical manufacturing plants can be a significant source of pharmaceuticals in surface waters. The USGS study found that the effluent from two wastewater plants in New York which received a high percentage of their wastewater from pharmaceutical facilities had concentrations of pharmaceuticals that were 100 to 1000 times higher as compared to the effluent from 24 other wastewater plants nationwide that did not receive pharmaceutical wastes. The study can be found online at [http://toxics.usgs.gov/highlights/P\\_MFs.html](http://toxics.usgs.gov/highlights/P_MFs.html).

\* EPA released in June its draft Strategic Plan for public review and comment. The plan covers the federal fiscal years 2011-2015 and provides the agency's long term direction and strategies to improve the environment and human health. For drinking water, the plan calls for improved financing of public water systems to protect and maintain water quality; strengthening compliance with standards; protection of drinking water sources; developing new and revised standards; and supporting states, tribes and local water systems in their implementation of standards. One performance measurement EPA identified to help implement the plan is for the agency to initiate at least four drinking water standard reviews over the next two years to strengthen public health protection. The draft plan can be viewed at EPA's web site: [www.epa.gov/ocfo/plan/plan.htm](http://www.epa.gov/ocfo/plan/plan.htm).

\* EPA is hosting four public information meetings in July and August on a proposed study examining the potential impact of hydraulic fracturing on drinking water. Hydraulic fracturing is used extensively in the development of natural gas wells in several areas around the country, including



*Governor Mike Beebe was the speaker for the opening session of the 2010 Annual Conference of the Arkansas Water Works & Water Environment Association in Hot Springs in May.*

*Photo courtesy of Letitia Rusch*

## News of Note

Arkansas. The meetings are being held in Fort Worth, TX, Denver, CO, Canonsburg, PA and Binghamton, NY. Information on the study is found at [www.epa.gov/ogwdw000/uic/wells\\_hydrofrac.html](http://www.epa.gov/ogwdw000/uic/wells_hydrofrac.html).

### ARKANSAS

\* Water managers and public water systems recognized at the 79<sup>th</sup> Annual Conference of the Arkansas Water Works & Water Environment Association in April in Hot Springs included the following:  
Water Works Manager of the Year:  
Terry Couch – Caraway Water.  
Outstanding Achievement Awards:  
James Zulpo – Wye Mountain Water Association  
Ronny Bridger – City Water & Light, Jonesboro  
Special Systems Recognition:  
Dierks Water

Big Clifty Water  
Wye Mountain Water  
Marked Tree Water  
Drinking Water Taste Contest  
Winner: Nashville Water

\* Arkansas Rural Water Association will hold its annual Technical Conference and Exhibition in Hot Springs on September 12 – 15. The conference will include four concurrent technical sessions, exhibit hall and golf tournament. Water license exams will be given in the morning of September 15. The conference has been approved for 16 hours of direct water training. For information and registration, see [www.arkansasruralwater.org/Training/Conference.aspx](http://www.arkansasruralwater.org/Training/Conference.aspx)

\* Hot Springs is the host city for the October 31 – November 2 Annual Conference & Exhibition of the Southwest Section American Water Works Association. The conference will include three concurrent technical sessions along with an exhibit hall. A golf tournament will be held on Sunday September 12. The conference is approved for 16 hours of direct training credit for an Arkansas water license. More information, including online registration, is located at [www.swawwa.org/ACE/home.htm](http://www.swawwa.org/ACE/home.htm). The Southwest Section includes the states of Arkansas, Oklahoma and Louisiana.

\* The Pulaski County Quorum Court unanimously approved on June 23 an ordinance adopting a stormwater management manual for subdivisions. The manual is intended to limit the maximum loading rate for phosphorous, suspended solids and total organic carbon contributed by subdivisions built in the county in the watershed of Lake Maumelle, the principal water source for Central Arkansas Water. The county is planning to develop later this year a land use plan that, if approved, would allow zoning in the watershed.

# Operational Evaluation Levels under the Stage 2 Disinfectants / Disinfection By-Product Rule

Christine Kirkendoll, Technical Support Engineer

The Stage 2 Disinfectants and Disinfection By-Product Rule (Stage 2 DBPR) takes effect in 2012 beginning with large water systems. With it will come the implementation of a new requirement: an operational evaluation level (OEL).

An OEL is calculated based on the regulated disinfectant by product levels at each compliance site for the current and past two calendar quarters. Specifically, the formula is:

$$\text{OEL} = [\text{Sum of 2 previous quarter's results} + (2 \times \text{current quarter results})] \div 4$$

If the OEL at a Stage 2 compliance site of a water system exceeds either 80 ppb for TTHM or 60 ppb for HAA5, the system will have to conduct an evaluation of its operational practices. Under the Stage 2 Rule, such an evaluation must consider the factors which may have contributed to the OEL exceedence and what steps could be taken to minimize future exceedences. A written report of the evaluation has to be submitted to the State within 90 days. For each quarter that an OEL is exceeded, an

until April 2012, and later dates for other water systems, a version of the spreadsheet is currently being sent to public water systems for informational purposes. The spreadsheets use the results of investigative analyses from future Stage 2 sampling sites. The Engineering Section letter containing the spreadsheet advises the water system if an OEL exceedence or a LRAA above the maximum contaminant level (MCL) would have occurred based on the results, and provides directions for conducting an operational evaluation.

In the example below, an OEL exceedence occurred in the third and fourth quarters at both sites 001 and 003, and a report would be required for both quarters. However, the system was in compliance with the MCL based on its LRAA.

The purpose in calculating the OEL is to require a system to evaluate its performance in order to prevent a potential MCL violation. The rule outlines minimum requirements for the operational evaluations in Section 141.626: "The operational evaluation

In most waters in Arkansas, the summer season of elevated air and water temperature are when higher levels of disinfection byproducts are formed. However, water temperature should not, by itself, be used as the basis for an OEL report, but, rather, the effect that the temperature had on the treatment of the water. Below are two examples of that effect and how a system might address them.

- Seasonal lake turnover from varying water temperatures caused organics from the bottom of the lake to rise to the source water intake level. The treatment plant injected free chlorine at the intake to oxidize the organics to control taste and odor. As a result, high DBP levels entered the system. A possible corrective action would be to use an alternative oxidant such as permanganate or chlorine dioxide.

- The chlorine residual decay rate increased in the third quarter due to higher water temperature so the system increased its chlorine dose to maintain adequate chlorine residual in the distribution system. As a result, the DBP formation rate increased within the system. A possible corrective action would be to add booster chlorination in those areas where chlorine residuals are harder to maintain in order to avoid increasing

## Total Trihalomethane - Stage 2 LRAA and OEL Calculations

SYSTEM NAME: XXXXXX

PWS ID: 000

Year	Quarter / TTHM (ppb)								First, 2013				
Sample I. D.	Second		Third		Fourth		OEL > 80?	LRAA	TTHM	OEL	OEL > 80?	LRAA	LRAA > 80?
	TTHM	LRAA	TTHM	LRAA	TTHM	OEL	LRAA	TTHM	OEL	LRAA	LRAA	LRAA	
000YD001	57	NA	85	NA	107.0	89	Yes	NA	65	81	Yes	79	No
000YD002	46	NA	55	NA	64	57	No	NA	54	57	No	55	No
000YD003	60	NA	79	NA	106	87	Yes	NA	70	81	Yes	79	No

evaluation report will be required. Failure to submit the report would constitute a reporting violation.

The Engineering Section has developed a spreadsheet for calculating and notifying systems of Locational Running Annual Averages (LRAA) and OEL exceedences (see example above). Even though the Stage 2 regulations do not take effect for the largest public water systems

must include an examination of system treatment and distribution operational practices, including storage tank operations, excess storage capacity, distribution system flushing, changes in sources or source water quality, and treatment changes or problems that may contribute to TTHM and HAA5 formation and what steps could be considered to minimize future exceedences."

the chlorine level in the entire system.

Additionally, a consecutive system may use any similar information obtained from its wholesaler as part of its OEL evaluation, or it may consider separate correctional measures on its

Continued on next page

## OEL continued from page 6

own. An example would be:

- High DBP levels were present at the master meter to a consecutive system. As a result the consecutive system also had high DBP levels. A possible corrective action would be to establish chlorine residual and tank management goals with the wholesale system in order to lower DBP formation prior to reaching the master meter.

The scope of an evaluation may be limited with the permission of the State if the water system is able to identify a specific cause for the OEL exceedence. A system wishing to limit the scope of its operational evaluation must submit a written request to the state. If the state approves the limited scope of the evaluation, the system will receive permission in writing and will need to keep the approval with the completed evaluation report. A request to limit the scope of the evaluation does not extend the schedule for the evaluation report. Engineering Section staff are currently developing a suggested format for an operational evaluation report.

More information about how to identify the cause of an OEL exceedence and the options available for preventing future exceedences can be found in the EPA guidance manual *Stage 2 Disinfectants and Disinfection By-Product Rule Operational Evaluation Guidance Manual (EPA 815-R-08-018)*. The manual can be downloaded from the internet at [www.epa.gov/ogwdw/disinfection/stage2/compliance.html](http://www.epa.gov/ogwdw/disinfection/stage2/compliance.html).

Information on the Stage 2 Rule can be found at [www.epa.gov/safewater/disinfection/stage2/index.html](http://www.epa.gov/safewater/disinfection/stage2/index.html), or by contacting Christine Kirkendoll, Jan Bingaman or Lyle Godfrey with the Engineering Section at 501-661-2623. ♦

## [www.Healthy.Arkansas.gov](http://www.Healthy.Arkansas.gov)

The screenshot shows the homepage of the Arkansas Department of Health website. At the top, there is a navigation bar with links for Agencies, Online Services, and State Directory. Below this is a header with the Arkansas Department of Health logo and a photo of three people. A main navigation menu includes Home, About ADH, Programs & Services, Certificates, Licenses & Permits, News, Local Health Units, and Tobacco Quitline. A search bar is located on the left, and a 'Smart Search' section is also present. A featured article titled 'Heat Survival Kit' is highlighted, with a sub-headline 'We're having a heat wave' and a 'Learn More' button. A 'Top Stories' section lists recent news items, including 'June 25 Illness Linked to Swimming in Saline River' and 'June 24 First Heat-Related Death in Arkansas for 2010'. A 'Forms' section lists various documents like Birth Certificate and Marriage Coupon. A 'Welcome' message from Paul K. Halverson, Director, is also visible.

## ADH website upgraded

The Department of Health rolled out in May a revised and upgraded version of its website. The new site utilizes easier to read fonts and graphics, and is designed to allow users to more quickly locate information. The website is cross referenced and topics can be found by a search query, by alphabetical index, or by the agency program or service. The website template is intended to standardize the look of websites for agencies across state government.

Included in the upgrade was the Engineering Section's website. All of the commonly used functions including plan review status, bacteriological results, and copies of documents are still available. While the address for Engineering's web page did change ([www.healthy.arkansas.gov/programs/Services/environmentalHealth/Engineering/](http://www.healthy.arkansas.gov/programs/Services/environmentalHealth/Engineering/)), the old web address ([www.healthyardarkansas.com/eng/](http://www.healthyardarkansas.com/eng/)) is automatically redirected to the new page.

If you have comments on the website, send an email to [Safewater@Arkansas.gov](mailto:Safewater@Arkansas.gov).

The screenshot shows the Engineering page on the Arkansas Department of Health website. The page has a blue header with the Arkansas Department of Health logo and navigation links. A breadcrumb trail reads 'Home > Programs & Services > Environmental Health > Engineering'. The main content area is titled 'Engineering' and includes a 'Mission Statement' section. The mission statement states: 'The mission of the Engineering Section is to protect the health of all of Arkansas' citizens and visitors by providing technical assistance, analytical services, training, regulation, and public education for the purpose of ensuring that public water systems provide adequate quantities of safe, palatable water and that community sewerage systems dispose of domestic wastes in a safe manner.' Below this is an 'Areas of Responsibility' section, which lists: 'The Engineering Section's primary function is the regulation and oversight of public water systems throughout the state. This program consists of plan review of new water system facility construction, inspection of water system facilities, trouble shooting water treatment and distribution problems, investigating complaints, and collecting and analyzing samples to determine water quality. However, the Section has a number of related functions, such as plan review of new sewer system construction, inspection of proposed cemetery sites, plan review of public swimming pools, and water system operator training and certification.' A small image of a child drinking from a water fountain is also visible.

# USGS study on public wells finds contaminants of health concern; Importance of wellhead protection emphasized

Daniel Smith, P.G., Geologist Supervisor

The U.S. Geological Survey (USGS) published in May an information circular regarding the quality of water from public-supply wells in the United States. The study utilizes data collected from 1993 to 2007 and was conducted with the primary objective of evaluating the following: (1) the occurrence of contaminants in source water from public wells and their potential significance to human health; (2) whether contaminants that occur in source water also occur in finished water after treatment; and (3) the occurrence and characteristics of contaminant mixtures.

The study included a total of 932 public well source waters and 94 public treated waters located in 41 States that withdraw water from 30 regionally extensive aquifers. Nineteen of the studied wells are located in Arkansas and withdraw water from the Mississippi River Valley Alluvial aquifer, Mississippi Embayment aquifer system, and the Ozark Plateaus aquifer.

Contaminants analyzed include 293 man-made organic contaminants and 44 inorganic naturally occurring contaminants. To evaluate the significance of the contaminants to human health the results were compared with Maximum Contaminant Levels (MCLs) defined under the U.S. Environmental Protection Agency (USEPA), Safe Drinking Water Act, and non-regulated contaminants were compared to established USGS health-based screening levels developed by USGS in conjunction with USEPA and others. Collectively, these regulatory and non-regulatory levels were referred to as "human-health benchmarks" for the purpose of this study. The location of the wells and the public water system associated with it were not identified in the report.

According to the USGS, results showed one in five source water samples contained at least one of the above listed contaminants at concentrations greater than the human-health benchmarks.

About 75 percent of naturally occurring contaminants and about 25 percent of man-made contaminants accounted for concentrations higher than human-health benchmarks. The contaminants in the Arkansas wells, when present, were all naturally occurring – manganese, fluoride and radon, and were from untreated well samples.

When collected, treated water analyses often showed the presence of the same contaminants but at much lower concentrations than the human-health benchmarks. The study also revealed that contaminants seldom occurred alone; rather, they co-occurred with other contaminants, particularly for the inorganic, naturally occurring contaminants.

The study can be viewed at <http://pubs.usgs.gov/circ/1346/>.

The study's findings and implications were presented at a Congressional briefing held on May 21, 2010 in Washington, D.C. Two of the findings which have implications for wellhead protection were:

- Contaminants originating from man-made sources were detected in nearly two-thirds of source-water samples taken from predominantly unconfined aquifers and accounted for about 25 percent of the contaminant

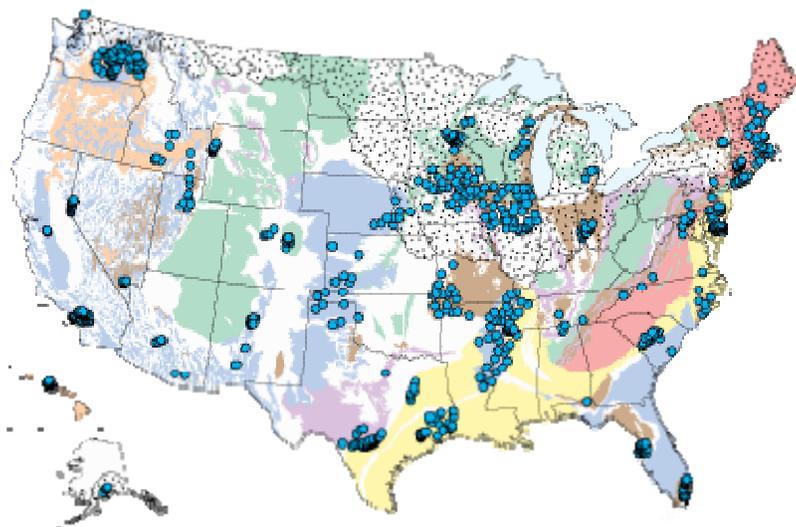
concentrations greater than human-health benchmarks.

- Frequent detections of man-made contaminants indicate the vulnerability of water-supply aquifers to contamination from human activities occurring at the land surface.

The study reminds us of the importance of wellhead protection, including here in Arkansas. As population density increases and energy needs increase, wellhead protection areas are likely to be encroached upon by various land surface activities. These activities have the potential to introduce man-made contaminants into the environment. A substantially implemented wellhead protection program is vital to protecting your source water. Take a moment to review your wellhead protection program and ask yourself what control measures or management strategies are in place to protect your source.

For more information, contact one of the wellhead protection program staff in the Engineering Section at 501-661-2623.

Reference: Toccalino, P.L., and Hopple, J.A., 2010, *The Quality of Our Nation's Waters – Quality of Water from Public-Supply Wells in the United States, 1993-2007-Overview of Major Findings*: U.S. Geological Survey Circular 1346, 58 p. ♦



*A USGS study examined 932 public well sources in 41 states including 19 in Arkansas. A review of the data for the wells in Arkansas showed all of the contaminants to be naturally occurring; specifically, manganese, fluoride and radon. Colors indicate significant regional aquifers.*

## Water Operator Licenses Issued

March 1 through May 31, 2010

Licensee Name	Grade/Type	Water System Name
ALESHIRE MICHAEL	D - II	ACORN RURAL WATER ASSN
ARMAN ROBERT	D - IV & T - IV	BENTON-WASHINGTON REGIONAL PWA
ARREDONDO MICHAEL	D - III	PEA RIDGE WATERWORKS
BENTLEY JONATHAN	T - III	WHITE HALL WATERWORKS
BILLINGSLEY ROBBIE	D - IV	CENTRAL ARKANSAS WATER
BLAGRAVE JAMES	T - III	HOPE WATER LIGHT COMM
BREWER JASON	D - II	MULBERRY WATERWORKS
BRYANT TERRY	D - I	CAMDEN WATERWORKS
BURKS JOHN	D - VSS	SW REGION WILDERNESS CAMP
CALDWELL JAKE	D - I	JUNCTION CITY WATERWORKS
COFFEE KATHRYN	D - IV	JACKSONVILLE WATERWORKS
COLSTON EMORY	T - II	NASHVILLE WATERWORKS
CORBETT KURT	D - IV & T - IV	MOUNTAIN HOME WATERWORKS
DAY JOSEPH	T - I	DANVILLE WATERWROKS
DICKEY DAVID	D - I	CAMDEN WATERWORKS
ESTEP II ROY	D - I	US FOREST SERVICE
FREEMAN JOSHUA	D - IV	NO WATER SYSTEM PROVIDED
FRIZZELL PATRICK	T - IV	BEAVER WATER DISTRICT
GLASS JERRY	D - I	MARYSVILLE WATER ASSOCIATION
HAMILTON JAMES	D - I	EAST LAKE WATER USERS ASSN & MOUNTAINBURG WATER AND SEWER
HARRIS GERALD	D - III	BRANCH WATER WORKS
HAWK WILLIAM	T - IV	CABOT WATERWORKS
HICKS RONNIE	D - III	PEA RIDGE WATERWORKS
HICKS STEPHEN	D - IV & T - IV	CALICO ROCK WATERWORKS
HILL JAMES	T - I	BOONEVILLE DEVELOPMENT CENTER
HILL RICHARD	T - III	HOT SPRINGS UTILITIES
HOLDEN JONATHAN	D - I	MINERAL SPRINGS WATERWORKS
HUTCHCRAFT GARY	D - I & T - II	NO WATER SYSTEM PROVIDED
IMPSON MEGAN	D - VSS	US FOREST SERVICE
IRWIN HEATH	D - II	MAYFLOWER WATERWORKS
JACKSON JOHN	D - IV	ROCK MOORE WATER AUTHORITY
JOHNSON ZECHARIAH	D - IV & T - IV	BEEBE WATERWORKS
JONES GARY	D - I & T - I	BROOKLAND WATERWORKS MALVERN WATERWORKS
JONES HOWARD	D - IV	NORTHERN MALVERN WATER ASSN HWY 9 WATER ASSOCIATION POYEN WATERWORKS & TULL WATER
KASINGER JERRY	D - IV & T - IV	MOUNTAIN HOME WATERWORKS
LANIER GEORGE	T - I	LOCKESBURG WATERWORKS & COTTONSHED WATERWORKS
LEFLORE RILEY	D - II	WEST MEMPHIS WATERWORKS
LUNSFORD JIMMY	D - II	WHITE HALL WATERWORKS
MANER CARL	T - IV	CENTRAL ARKANSAS WATER
MASON TOMMY	D - II & T - III	GOSNELL WATER ASSOCIATION
MASON WILLIAM	D - II	SALEM WATER ASSOCIATION & SOUTHWEST WATER ASSOCIATION
MATTINGLY JAMES	T - I	HOT SPRINGS UTILITIES
MAUPIN RICKY	D - II	OSCEOLA WATERWORKS
MCCULLOUGH GRAHAM	D - IV	NO WATER SYSTEM PROVIDED

Licensee Name	Grade/Type	Water System Name
MCKENZIE CHRIS	D - I	BENTON CO WATER
MEYER SAM	D - IV	SPRINGDALE WATER UTILITIES
MURPHY TERRY	D - I & T - II	ADC - TUCKER UNIT MAINT
NASH CHARLES	T - I	LOCKESBURG WATERWORKS
NEWTON SAMUEL	D - II	ADC - CUMMINS UNIT MAINT
NICHOLS MARK	D - III	HWY 71 WATER DISTRICT #1 PWA
NIDA MICHAEL	D - IV	PEA RIDGE WATERWORKS
OTT DARRELL	D - III	COMMUNITY WATER SYSTEM
PEARSON BARRY	T - IV	EUDORA WATERWORKS & READLAND-GRANDLAKE WATER ASSOC
QUATTLEBAUM DAVID	T - IV	ARKANSAS RURAL WATER ASSOCIATION
ROARK ADAM	D - IV	SILOAM SPRINGS WATERWORKS
ROBINSON BRUCE	D - IV	UNITED WATER ARKANSAS
RUSSELL DONDY	T - II	ALEXA SPRINGS WATER COMPANY
SEHORN NICKY	D - II	WALDRON WATERWORKS
SIMON WILLIAM	D - I	PARKIN WATERWORKS
ST CLAIR DAVID	T - IV	MAUMELLE WATER MANAGEMENT
STEELY BRADLEY	D - III	COMMUNITY WATER SYSTEM
STEWART ERNESTINE	D - VSS	RUSSELLVILLE- RWPSID2INC
WELLS BRADLEY	D - I & T - I	BOONEVILLE DEVELOPMENT CENTER
WESTON TEDDY	T - IV	MONTGOMERY CO REGIONAL PWA MOUNT IDA WATERWORKS
WHITE TIMOTHY	D - VSS	OSCEOLA WATERWORKS
WILLIAMS BOBBY	D - I	BROOKLAND WATERWORKS

## WATER OPERATOR LICENSE EXAMINATIONS

Up-to-date listing: [www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm](http://www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm)

Listed below are the dates and locations of examination sessions. All Treatment and Distribution exam grades will be available at the sessions. Acceptable photo identification (Drivers License or equivalent) will be required to sit for an Exam. Cell phones and other electronic communication devices are not allowed in exam sessions. Non-programmable calculators are allowed.

DATE	CITY	LOCATION	TIME
8/6/2010	West Fork	Wenzel Community Center, 222 Webber	9:00 AM
8/13/2010	North Little Rock	CAW Maryland Complex, 1500 West Maryland Ave	9:00 AM
8/13/2010	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
8/27/2010	Clarksville	CLW, Operations Center, 710 East Main (Hwy 64 E)	9:00 AM
8/27/2010	Van Buren	Best Western Inn, 1903 N 6th St, I-40 & Hwy 59	9:00 AM
9/3/2010	Fayetteville	Clarion Hotel, 1255 South Shiloh Drive	9:00 AM
9/3/2010	Paragould	Paragould LW&C Service Center, 1901 Jones Road	9:00 AM
9/10/2010	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
9/24/2010	Clarksville	CLW, Operations Center, 710 East Main (Hwy 64 E)	9:00 AM
9/24/2010	Fayetteville	Clarion Hotel, 1255 South Shiloh Drive	9:00 AM
9/24/2010	North Little Rock	CAW Maryland Complex, 1500 West Maryland Ave	9:00 AM
10/8/2010	Fayetteville	Clarion Hotel, 1255 South Shiloh Drive	9:00 AM
10/8/2010	West Fork	Wenzel Community Center, 222 Webber	9:00 AM
10/15/2010	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
10/22/2010	N Little Rock	CAW Maryland Complex, 1500 West Maryland Ave	9:00 AM

The above exam session information is subject to change and should be confirmed just prior to the scheduled examination period at the above web site or by contacting your District Specialist or Engineer at 501- 661-2623.

Please verify that your license application has been filed with this office and that the required exam fee for each exam has been paid. The license exams require significant preparation prior to sitting for the exam. The preparation must include extensive study utilizing the study guide and recommended reference materials. Credit for the mandatory Certification Training Courses must be obtained prior to sitting for an exam.

**PREPARATION = SUCCESS**

## Mandatory Training Course Schedule

Most Current Listing is at: [www.healthy.arkansas.gov/eng/autoupdates/oper/mandtrngall.htm](http://www.healthy.arkansas.gov/eng/autoupdates/oper/mandtrngall.htm) (Courses begin at 8:00 a.m.)

MANDATORY COURSE NAME	START DATE	END DATE	OPCERT GRANT ELIGIBLE COURSE	CITY	LOCATION All courses begin at 8 a.m.	SPONSOR
Basic Distribution	08/03/10	08/05/10	Yes	West Fork	Wenzel Community Center, 222 Webber	ARWA
Basic Treatment	08/10/10	08/12/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Intermediate Treatment	08/10/10	08/12/10	Yes	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Basic Distribution	08/24/10	08/26/10	Yes	Van Buren	Best Western Inn, 1903 N 6th St, I-40 & Hwy 59	AETA
Advanced Distribution	08/24/10	08/26/10	Yes	Clarksville	CLW, Operations Center, 710 East Main	ARWA
Advanced Distribution	08/31/10	09/02/10	Yes	Paragould	Paragould LW&C, 1901 Jones Rd	ARWA
Basic Treatment	08/31/10	09/02/10	Yes	Fayetteville	Clarion Hotel, 1255 South Shiloh Drive	AETA
Intermediate Treatment	09/07/10	09/09/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Math	09/14/10	09/14/10	Yes	Paragould	Holiday Inn Express, 3502 Linwood Dr	AETA
Applied Math	09/15/10	09/15/10	Yes	Paragould	Holiday Inn Express, 3502 Linwood Dr	AETA
PWS Compliance	09/16/10	09/16/10	Yes	Paragould	Holiday Inn Express, 3502 Linwood Dr	ADH
Intermediate Distribution	09/21/10	09/23/10	Yes	Fayetteville	Clarion Hotel, 1255 South Shiloh Drive	AETA
Advanced Treatment	09/21/10	09/23/10	Yes	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Basic Treatment	09/21/10	09/23/10	Yes	Clarksville	CLW, Operations Center, 710 East Main	ARWA
Intermediate Distribution	10/05/10	10/07/10	Yes	West Fork	Wenzel Community Center, 222 Webber	ARWA
Advanced Distribution	10/05/10	10/07/10	Yes	Fayetteville	Clarion Hotel, 1255 South Shiloh Drive	AETA
Basic Math	10/12/10	10/12/10	Yes	Camden	AETA, 100 Carr Road	AETA
Advanced Distribution	10/12/10	10/14/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Applied Math	10/13/10	10/13/10	Yes	Camden	AETA, 100 Carr Road	AETA
PWS Compliance	10/14/10	10/14/10	Yes	Camden	AETA, 100 Carr Road	ADH
Basic Math	10/19/10	10/19/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Distribution	10/19/10	10/21/10	Yes	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Applied Math	10/20/10	10/20/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
PWS Compliance	10/21/10	10/21/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ADH
Intermediate Distribution	11/02/10	10/04/10	Yes	Maumelle	Maumelle WWTP Training Rm, 425 B Hyman Dr.	AETA
Intermediate Treatment	11/02/10	11/04/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Math	11/08/10	11/08/10	Yes	Russellville	Tri-County Water District Office, 5306 N Hwy 7	AETA
Applied Math	11/09/10	11/09/10	Yes	Russellville	Tri-County Water District Office, 5306 N Hwy7	AETA
PWS Compliance	11/10/10	11/10/10	Yes	Russellville	Tri-County Water District Office, 5306 N Hwy 7	ADH
Advanced Distribution	11/16/10	11/18/10	Yes	West Fork	Wenzel Community Center, 222 Webber	ARWA
Basic Distribution	11/16/10	11/18/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Treatment	11/16/10	11/18/10	Yes	Camden	AETA, 100 Carr Road	AETA
Intermediate Treatment	11/30/10	12/02/10	Yes	Arkadelphia	Recreation Center, 2555 Twin Rivers Dr	AETA
Intermediate Distribution	11/30/10	12/02/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Advanced Treatment	12/07/10	12/09/10	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Treatment	12/14/10	12/16/10	Yes	Russellville	Tri-County Water District Office, 5306 N hwy 7	AETA

\*OpCERT Grant Eligible Course – Meal and lodging expenses may be reimbursed for operators from Community or Non-Transient Non Community Public Water System serving a population of 3300 or less. The course may be space limited, with eligible system operators given preference. All courses require pre-registration. The course sponsor must be contacted to register for each course and to confirm course information that is subject to change or cancellation. Contact information for the sponsors is shown below.

ADH – Arkansas Department of Health and Human Services – Contact Jessica Clay or Martin Nutt – (501) 661-2623

AEA – Arkansas Environmental Academy – Contact Letitia Rusch – (870) 574-4550 – [lrusch@sautech.edu](mailto:lrusch@sautech.edu)

ARWA – Arkansas Rural Water Association – Contact Carol Shaw – (501) 676-2255 – [info@arkansasaruralwater.org](mailto:info@arkansasaruralwater.org)

Additional courses are shown on the internet at: <http://www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm>

# Fewer Arkansas customers drank noncompliant water in 2009

Based on the population served, Arkansas community public water systems generally improved their compliance with EPA health based drinking water regulations for calendar year 2009 according to the Annual Compliance Report (ACR) published by the ADH Engineering Section.

The report contains information on maximum contaminant level (MCL) and treatment technique violations, also known as health based standards. SDWA health based standards include any numerical MCL or treatment technique requirement, an example of which is the 0.3 NTU limit on treated water turbidity from surface sources. Health based drinking standards utilize a risk model which assumes an individual drinks two liters of water each day for 70 years. The maximum probability of illness from a regulated contaminant in drinking water cannot exceed 1 in 10,000 and oftentimes is much less.

In 2009, the total number of customers supplied water with a health based violation was lower. This was in spite of an increase in population affected by the Lead & Copper Rule and the Surface Water Treatment Rule, and the percentage of systems not complying with the Total Coliform Rule increasing from 10% in 2008 to 12% in 2009.

A number of large water systems had a Total Coliform MCL in 2008 causing an increase in the population affected to almost a half million. Several of those MCLs were believed to have been the result of systems lowering their chlorine residuals as a way to control disinfection by-products. Based on the increase in 2009 of the number of systems with a Total Coliform MCL, that trend appears to have continued. However, fewer large systems had a violation, so the population impacted was less. Moreover, the efforts to control disinfection by-products appear to be making headway since both the number of systems complying with the Stage 1 regulation and the population they serve have improved each year.

Based on proposed revisions to the Total Coliform Rule (see article page 2), most of the MCL violations for 2008 and 2009 would no longer be included in the ACR.

The affected populations listed in the table below can be misleading because a reader might conclude that a consumer was exposed to noncompliant water throughout the entire year. However, the great majority of health based violations are temporary, typically only lasting from one to three months.

A more accurate measure of accessing exposure to noncompliant water is to consider both time and

population, or 'person-months' exposure. With this measurement, a water system, for example, that served 100 persons and had one violation lasting one month produced a risk of 100 person-months. The total risk possible for this system is 1200 person-months and the compliance rate in one year would be 91.6%  $[(1200-100)/1200]$ .

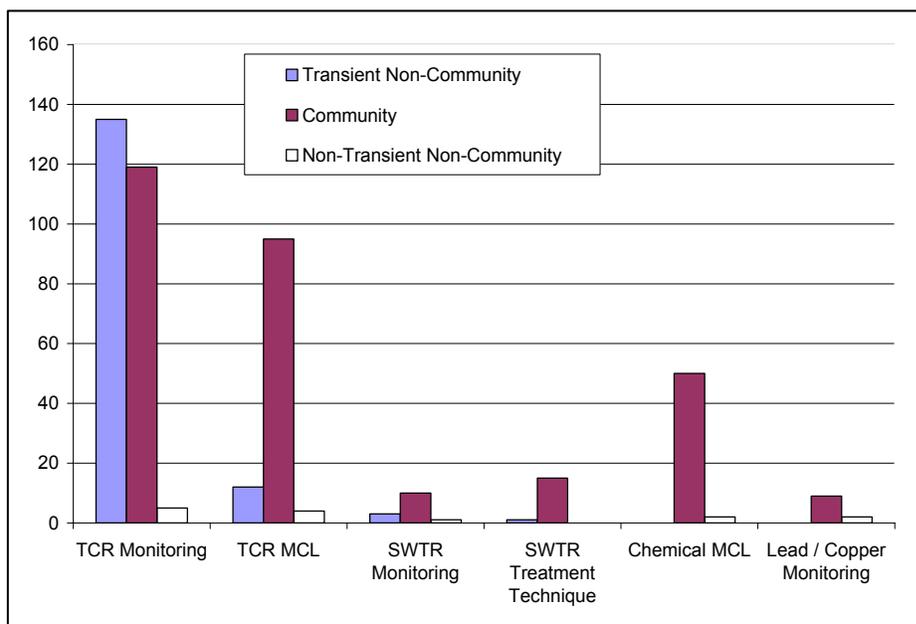
Using the person-months exposure measurement, Arkansas had compliance rates of 95.9% for 2009 for health base standards, up from 93.6% in 2008. Compliance rates in 2009 for monitoring and reporting using the same measurement were 99.8%.

The ACR is published in June of each year as a requirement of receiving EPA grant funds. A copy of the report can be found at:

[www.HealthyArkansas.com/eng/](http://www.HealthyArkansas.com/eng/) ♦

SDWA Regulation	2007		2008		2009	
	% of Systems	Population affected*	% of Systems	Population affected*	# of Systems	Population affected
Stage 1 Disinfection by Products Rule	9.9%	260,457	9.3%	208,649	5.6%	157,080
Total Coliform Rule	9.1%	195,847	10%	455,265	12%	250,550
Surface Water Treatment Rules	1.7%	12,570	2.1%	39,135	1.3%	43,495
IOC/SOC/RAD	< 1%	3,868	< 1%	19,347	< 1%	6,263
Lead/Copper	< 1%	4,748	< 1%	4,748	1.8%	12,954

\*Populations are not additive. See article for explanation on length of exposure. Arkansas has an estimated population of 2.6 million persons served by public water systems.



Violations By Type Of Water System

# Major Monitoring, MCL, Treatment Technique, & Licensing Violations

Community & Nontransient Noncommunity Public Water Systems January - March, 2010

ALICIA WATER	OperLic 1,2,3	McGEHEE WATER	OperLic 1
ALICIA WATER	GWRmon 2	MILTOWN-WASHBURN WATER	DMCL 1,2,3
ALMA WATER	DMCL 1,2,3	MOCKINGBIRD HILL WATER	Bmon 3
ARK STATE PARK – MOUNT MAGAZINE	DMCL 1,2,3	MONTGOMERY CO REGIONAL WATER	DMCL 1,2,3
BEAVERFORK WSD	DMCL 1,2,3	MORNING STAR WATER	FMCL 1,2,3
BIRDSONG WHITTON WATER	OperLic 2,3	MOUNTAIN DEVELOPMENT WATER	FMCL 1,2,3
BOWSER WATER	OperLic 1,2,3	MOUNT SHERMAN WATER	RMCL 1,2,3
BRADFORD WATER	OperLic 1,2,3	NORTH GARLAND CO REGIONAL WATER	DMCL 1,2,3
CABOT WATER	BMCL 1	NAIL-SWAIN WATER	BMCL 3
CAMPBELL STATION	OperLic 1,2,3	NORPHLET WATER	BMon 1
CASA WATER	DMCL 1,2,3	NORTH JACKSON COUNTY WATER	OperLic 1,2,3
CLINTON WATER	DMCL 1,2,3	OAK GROVE WATER	BMCL 2
COMPTON WATER	Bmon 1	OLA WATER	DMCL 1,2,3
COTTON PLANT WATER	Bmon 2,3	OMAHA WATER	Bmon 1
DELIGHT WATER	DMCL 1	PARON-OWENSVILLE WATER	DMCL 1,2,3
DELL WATER	Bmon 2	PIKE CITY WATER	DMCL 12,3
FELSENTHAL WATER	OperLic 1,2,3	SOUTH PIKE COUNTY WATER	DMCL 1,2,3
FORDYCE WATER	GWRMCL 1	SOUTH PIKE COUNTY WATER	BMCL 1,3
FOUKE WATER	OperLic 2	SDM WATER	RMCL 1,2,3
FRENCHPORT WATER	Bmon 1	SDM WATER	FMCL 1,2,3
GENERAL DYNAMICS PLANT#1	Bmon 1	SOUTH MOUNTAIN WATER	RMCL 1,2,3
GREENBRIER WATER	DMCL 1,2,3	ST FRANCIS RIVER REGIONAL WATER	Bmon 1
GREENWAY WATER	Bmon 1	STUTTGART WATER	GWRMCL 1,2,3
GREENWOOD WATER	DMCL 1,2,3	SUBIACO ABBEY WATER	DMCL 1,2,3
HOSANNA HEIGHTS WATER	OperLic 1,2	SW WARREN WATER	Bmon 2
HOSANNA HEIGHTS WATER	Bmon 3	TALL OAKS MHP WATER	IMCL 1,2,3
HUMNOKE WATER	Bmon 2	TUCKERMAN WATER	OperLic 1,2,3
HWY 4 & 24 WATER	Bmon 2	WALDRON WATER	DMCL 1,2,3
INDEPENDENCE JACKSON REGIONAL WATER	BMCL 3	WILSON WATER	BMCL 1
JUNCTION CITY WATER	Bmon 2		
LAKE CITY WATER	BMon 1		
LAKESIDE WATER	DMCL 1,2,3		
LEATHERWOOD VIEW ESTATES	OperLic 3		
LITTLE RIVER COUNTY RDA WATER	DMCL 1,2,3		
MALVERN WATER	DMCL 1,2,3		
MARIE WATER	BMCL 1		
MAYFLOWER WATER	DMCL 1,2,3		

**KEY:** Bmon = Bacti Monitoring; BMCL = Bacti MCL; Dmon = Disinfection By Product Rule Monitoring; DMCL=Disinfection By Product Rule MCL or Treatment Technique; GWRMCL=GWR Treatment Technique; GWRmon=GWR Monitoring or Reporting; Tmon = SWTR Major Monitoring; TMCL = SWTR Treatment Technique; SWTR= Failure to Filter; RMCL = Radiochemical MCL; FMCL = Fluoride MCL; IMCL=Inorganic Chemical MCL; SMCL = Synthetic Chemical MCL; OperLic = Operator Licensing; 1=January, 2=February, 3=March

## EPA seeks input on water strategy

Cynthia Dougherty, head of EPA's Office of Ground Water and Drinking Water, hosted the first of several 'listening sessions' on the agency's drinking water strategy at the annual conference of the American Water Works Association in Chicago in June. The new strategy was announced by EPA Administrator Lisa Jackson in March and included four objectives:

- Address contaminants as a group rather than one at a time so that enhancements of drinking water protection can be achieved cost-effectively.
- Foster development of new drinking water technologies to address health risks posed by a broad array of contaminants.
- Use the authority of multiple statutes to help protect drinking water.
- Partner with states to develop shared access to all public water systems monitoring data.

According to an AWWA summary of the Chicago session, the predominant sentiment expressed to EPA was to control contaminants before they reach source waters. Other issues raised included the advantages and disadvantages of grouping contaminants for regulation; the development, reliability and cost of technology; and the availability and correct interpretation of data.

Dougherty said the EPA will hold three more listening sessions and will seek input through its web site. Information on the strategy can be found at [www.epa.gov/ogwdw000/sdwa/dwstrategy.html](http://www.epa.gov/ogwdw000/sdwa/dwstrategy.html).

# Arkansas Drinking Water Advisory and Operator Licensing Committee

A. Martin Nutt, Training and Certification Officer

The quarterly meeting of the Arkansas Drinking Water Advisory and Operator Licensing Committee was held on April 14, 2010 at Arkansas Rural Water Association's headquarters in Lonoke.

All Committee members were present: Rodney Williams, P.E., Chair, University of Arkansas at Fayetteville; Matthew Dunn, P.E., Crist Engineers, Inc.; Susan Merideth, P.E., Jonesboro City Water and Light; Terry House, Grand Prairie Bayou Two PFB; Scott Borman, Benton Washington RPWA; Steve Di Cicco, City of Benton Water Utility; and Robert Hart, P.E., Executive Secretary, Arkansas Department of Health (ADH).

ADH staff and guests present were: Martin Nutt, Training and Certification Officer, ADH; Jessica Clay, Training Coordinator, ADH; Ida Hampton, Administrative Specialist, ADH; Gary Oden, SAU Tech representing Arkansas Environmental Training Academy; and Jeff Ford, Arkansas Rural Water Association. Williams called the meeting to order.

## Standing Business

Nutt provided an update on the EPA operator certification grant and expressed the need for invoices from training contractors to be kept current. He indicated that he expected the current training contract, which expired July 1, would be renewed for the next state fiscal year.

Hart gave an update on the Legislative Task Force on Water Source Protection established by Act 1177 of 2009. He said a draft report from the Task Force had been issued in December and recommended that Committee members obtain a copy and read it. He stated he was unaware as to whether Rep. John Edwards, Co-Chair of the Task Force, was considering any follow-up legislation for the 2011 Legislature. Hart said that some water systems had indicated they thought it might be a good time to propose some type of source water protection legislation. He stated that any such legislation would need the backing of an industry wide work group.

Hart also discussed the status of the Legislative Task Force on Water Quality established by Act 1184 of 2009. He said the Task Force and was being chaired by Representative Mike Burriss and Senator Steve Farris and had recently met. Hart stated the meeting focused on the overall high quality of Arkansas' water resources and the Task Force members' desire to protect that resources. He said the Task Force was still evaluating where to focus its efforts.

## Old Business

Nutt addressed the previously tabled proposed Annual Conference Credit Tracking Guideline. He provided a revised guideline which addressed concerns expressed by Harold Seifert, Executive Director - Southwest Section AWWA, about the definition of the term 'conference training session'. He said Seifert had sent an e-mail agreeing with the revised wording. The revised guideline defines a training session as each morning and afternoon group of classes. At Hart's request, Nutt updated the Committee about the AWW&WEA Board which had indicated at its last meeting a preference to move towards tracking individual sessions. The Committee discussed the guideline, "Conference Training Credit AWW&WEA, ARWA, AW&WMA State Meetings and Other Training Programs", and approved it.

Hart addressed the revision of the ADH's Rules & Regulations Pertaining to Public Water Systems. He said the administrative procedures process had been completed and the regulations became effective on April 1, 2010. He noted the regulations' requirement that emergency plans must address the loss or failure of electric power, and indicated that the issue would be addressed by Engineering Section staff during sanitary surveys. He also noted that during presentations on the regulation changes, he had promised the industry and legislators it would be implemented with the knowledge that time is needed to afford compliance.

Nutt and Dunn attended the 2010 Association of Boards of Certification Annual Conference held in

Jacksonville, Florida, in January. Nutt noted the conference had been insightful on several topics and asked Dunn about his experience at the ABC Conference. Dunn stated the ABC Conference was a good conference for all new Committee members to attend. He specifically mentioned one of the workshops he attended on exam question development and the large effort behind writing a valid question. Dunn noted he was very impressed by the ABC Conference as a whole.

Nutt addressed the License Exam Development Workshop and provided possible dates to hold the workshop. The Committee decided to hold the workshop on August 16 thru August 20, 2010. Nutt indicated the date would need to be coordinated with the trainers and he would also begin the process of inviting randomly selected licensed operators to participate.

The Committee was provided an update on the appointment of a new Committee member (see article on page 15).

Nutt reported that the Engineering Section provided and staffed an exhibit booth at the Arkansas Municipal League Winter Conference. He indicated that participation was better than past years with many good interactions with those attending the conference.

## New Business

Nutt addressed suggested changes to the recommended Exam Reference Materials List. He noted the most significant change was the elimination of the CSUS Treatment Volumes from the distribution list and the elimination of the CSUS Distribution volume from the Treatment List. He stated that the Association of Boards of Certification had made a concerted effort to align exam items to the list of books as shown on the new list. He stated he was continuing to list the CSUS Small System volume on both lists primarily for the groundwater chapter. Discussion followed, several security references were suggested to be included in the section for additional references. The Committee concurred with the suggested changes to the list.

Nutt provided a draft copy of the AWW&WEA annual report to be presented at the general meeting of the AWW&WEA on Sunday, May 2. Nutt briefly reviewed the report noting the number of active operators had remained relatively stable over the last several years. After discussing the report and making a couple of corrections, the Committee concurred with the report's content.

#### **Committee Reports**

Hart relayed in his Section Director's report that the ADH management had finalized its changes in the indirect cost percentage charged against revenue for individual programs within the agency. The agency increased the indirect cost by a fairly significantly amount but changed the budget items that the cost would be applied against. Hart felt that when both changes were considered, the section's budget would not be significantly impacted.

In a general program update, Hart reported attending a meeting in early March 2010 in Washington DC with his counterparts from around the nation as well as the EPA, AWWA, and other organizations. He discussed several proposed federal rule changes and other possible upcoming issues. Borman and Hart briefly discussed proposed federal chemical security legislation. Hart mentioned that the Engineering Section's work area at the Department of Health was receiving a much needed makeover with the replacement of 30 year old cubicle walls and new carpet.

Nutt in his Training & Certification Officer's Report reviewed the provided Water License Exam Report. He indicated ABC is grading exams and Hampton is processing exam results and license applications in a timely manner. Nutt stated ABC implemented in January a significant reorganization of its Board makeup resulting in a reduction of its size. ABC has also had several key position staff changes.

Nutt presented a list of systems with pending enforcement actions and discussed Allport Waterworks' becoming compliant by becoming a part of Grand Prairie Regional Water District. He reported that the Licensing Program was fully staffed with the hiring of Jessica Clay as

## **Edwards Appointed to Licensing Committee**

At its April meeting the state Board of Health appointed Dr. Findley Edwards, Ph.D., P.E., to the Arkansas Drinking Water Advisory and Operator Licensing Committee. Dr. Edwards is an Associate Professor of Civil Engineering in the College of Engineering at the University of Arkansas at Fayetteville. He brings to the Committee a strong background in the water industry and will be a valued member of the Committee.

Nominations were requested from the: Arkansas Water and Wastewater Managers Association, Arkansas Rural Water Association, Arkansas Water Works and Water Environment Association, Arkansas Environmental Training Academy Advisory Board, Arkansas Society of Professional Engineers, University of Arkansas, and Arkansas State University. Statutory language requires that this committee position be "an engineer on the teaching staff of any state-supported institution of higher education who shall either be a sanitary engineer, civil engineer, environmental engineer, or chemical engineer with expertise in the drinking water field."

Outgoing Licensing Committee Chair, Dr. Rodney Williams, Ph.D., P.E., whom Edwards is replacing, was presented with a plaque at the Committee's April meeting for his six years of service to the Committee.

The Committee advises the Department of Health and its Engineering Section on matters affecting Public Water Systems and the administration of the Water Operator Licensing Program.

## **Training travel cost assistance available through EPA grant**

Assistance with meal and lodging expenses is available for all mandatory water license exam training courses for community and nontransient noncommunity systems serving fewer than 3300 persons. Contact the training organizations listed on page 11 to determine your grant eligibility and to register for eligible courses. Backflow repair and backflow tester courses, including registration fees, are eligible. Registration should be done well in advance of attending a course.

**Free Study Manuals:** If you are an operator for an eligible system, a complete set of exam reference manuals may be available, free of charge. Please contact the ADH water licensing program at (501) 661-2623.

Training Coordinator, and concluded by noting that efforts to prepare and scan old inactive water operator documents was finally seeing some significant progress.

Oden reported for the Arkansas Environmental Training Academy, and said that since January 1, 2010 the Arkansas Environmental Training Academy had held 12 classes. He said that they were seeing larger attendance and that the backflow classes continued to see good attendance. He closed by mentioning AETA had changed their invoice billing practices to keep current with OpCert invoice billing.

Ford reported for the Arkansas Rural Water Association stating that Dennis Sternberg, Executive Director, was in Washington, DC. He passed

out a handout to the Committee on water courses the organization had sponsored during the first quarter of 2010 and noted a total attendance of 191. Some discussion followed on renewal training courses and the erratic attendance levels for the courses.

#### **Other Business**

On behalf of the Committee members and the Department, Hart presented a plaque to Williams for his six years of service on the Committee.

No other business was brought before the Committee. The next meeting date was set for July 14, 2010. ♦

AWW&WEA District Meetings

See also the Division's web site [www.healthyarkansas.com/eng/](http://www.healthyarkansas.com/eng/) for updates.

DATE	TIME	CITY	LOCATION	SPONSOR
<b>July 2010</b>				
1	5:45PM	Benton	Brown's Restaurant	Central District, AWW&WEA
1	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
8	5:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
8	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
8	5:30PM	Marvell	Fire Training Bldg.	Eastern District, AWW&WEA
20	6:30PM	Monticello	Q & Y House	Southeast District, AWW&WEA
21	9:00AM	Pea Ridge	Emergency Services Bldg.	Northwest District, AWW&WEA
15	12:30PM	Jonesboro	Ron's Catfish	Northeast District, AWW&WEA
22	6:00PM	El Dorado	Water Utility Meeting Room	Southwest District, AWW&WEA
<b>August 2010</b>				
5	5:45PM	Benton	Brown's Restaurant	Central District, AWW&WEA
5	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
12	5:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
12	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
12	5:30PM	Des Arc	Dondie's Riverboat Restaurant	Eastern District, AWW&WEA
17	6:30PM	Crossett	Chen Chen Restaurant	Southeast District, AWW&WEA
18	9:00AM	Siloam Springs	to be announced	Northwest District, AWW&WEA
19	12:30PM	Jonesboro	Western Sizzlin	Northeast District, AWW&WEA
26	6:00PM	Ashdown	Fish Bowl Restaurant	Southwest District, AWW&WEA
<b>September 2010</b>				
2	5:45PM	to be announced	to be announced	Central District, AWW&WEA
2	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
9	5:30PM	Helena	Wild Hog Saloon	Eastern District, AWW&WEA
9	5:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
9	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
15	9:00AM	Springdale	Jones Center	Northwest District, AWW&WEA
16	12:30PM	Jonesboro	Ron's Catfish	Northeast District, AWW&WEA
21	6:30PM	Hamburg	to be announced	Southeast District, AWW&WEA
23	6:00PM	Camden	Ross Center	Southwest District, AWW&WEA
<b>October 2010</b>				
7	5:45PM	to be announced	to be announced	Central District, AWW&WEA
7	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
14	5:30PM	West Memphis	Water Office	Eastern District, AWW&WEA
14	5:30PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
14	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
20	9:00AM	Eureka Springs	Best Western Inn of the Ozarks	Northwest District, AWW&WEA
21	12:30PM	Paragould	Service Center Bldg.	Northeast District, AWW&WEA
19	6:30PM	Monticello	Western Sizzlin	Southeast District, AWW&WEA
28	6:00PM	Waldo	The Ole Feed House	Southwest District, AWW&WEA

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