



# ARKANSAS DRINKING WATER UPDATE



*Lake Maumelle's watershed covers approximately 88,000 acres*

## Central Arkansas Water Petitions for Discharge Ban in Maumelle Watershed

Central Arkansas Water (CAW) petitioned the Arkansas Pollution Control & Ecology Commission in February for a regulation change to ban wastewater surface discharges in the watershed of Lake Maumelle, the principal water source for the utility. The Commission, which is the governing body for the Arkansas Department of Environmental Quality, voted to delay action in order to review hundreds of pages of information submitted with the petition. The Commission is expected to take up the proposal at a future meeting.

CAW's proposal would amend ADEQ's Regulation No. 6 to only allow permitted stormwater discharges in the 88,000 acre basin. There are no permitted sewer discharges currently within the watershed. Approval of the proposal by the Commission is the first step in the administrative procedures process for a regulation change and must include a public hearing and Legislative review. Final approval from the Commission following the public comment period and lawmaker's review must again be sought and is not certain.

In 2007, the CAW Board of Commissioners approved a watershed management plan for Lake Maumelle which drains portions of three central Arkansas counties – Pulaski, Perry and Saline. The management plan was developed after 2 years of work by Tetra Tech, Inc., a consulting firm based in Pasadena, CA, and was guided by input from two stakeholder groups – one for technical and another for policy issues.

The management plan initially established water quality limits for chlorophyll *a*, total organic carbon, water clarity, and fecal coliform which the plan predicted would protect water quality. In order not to exceed those goals, the plan proposed to limit development in the watershed but would allow residential subdivisions using lot sizes of 5 to 10 acres. However, the

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## Surface Sources Undergo Testing for Pathogens

Chris Joyner, Env. Specialist Supv.

Ninety-three public water system sources in Arkansas are currently being monitored for the presence of one or both of two microbial pathogens - *E.coli* and *Cryptosporidium*, as part of an effort to meet the source monitoring requirements of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). That 2006 EPA regulation was designed to strengthen protection against microbial contaminants in public drinking water supplies as mandated under the 1996 Amendments to the Safe Drinking Water Act.

*Cryptosporidium* causes the intestinal illness *cryptosporidiosis*, which can be severe and sometimes fatal in sensitive sub-populations such as infants, immune suppressed patients, and the elderly. While in the environment, *Cryptosporidium* forms a protective outer shell known as an oocyst, which is highly resistant to traditional disinfection practices. The oocyst must be physically removed in the water treatment process in order to make the water safe to drink. Current regulations require filtered water systems to reduce source water *Cryptosporidium* levels by 99 percent, which is sufficient for most systems. However, recent data on the infectivity

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management plan's modeling of that type of development showed that any sewer point discharge would result in the water quality targets in the lake being exceeded.

The proposed regulation change follows a vote in December by the Pulaski County Quorum Court to place a four month moratorium on the approval of any subdivisions in the county, if within the Lake Maumelle watershed. The utility hopes that the moratorium will allow time to revise the Planning Commission's regulations on subdivisions which date to 1972. The current regulations give the Planning Commission no authority over watershed management or related water quality controls. At press time, revisions to the regulations had been drafted and were being reviewed by officials.

In the meantime, CAW and Pulaski County are embroiled in several lawsuits related to developments around the lake. CAW has appealed the county's approval of the first three phases of Canterbury Park, a subdivision near Lake Maumelle, which were reviewed prior to the county's moratorium. The developer has filed suit in circuit court seeking approval to sell lots.

Additionally, a citizens group seeking to protect the lake has filed a suit over CAW's approval of a storm water ditch in another development, Waterview Estates, which will divert water from those lots which are situated within the lake's watershed. ♦

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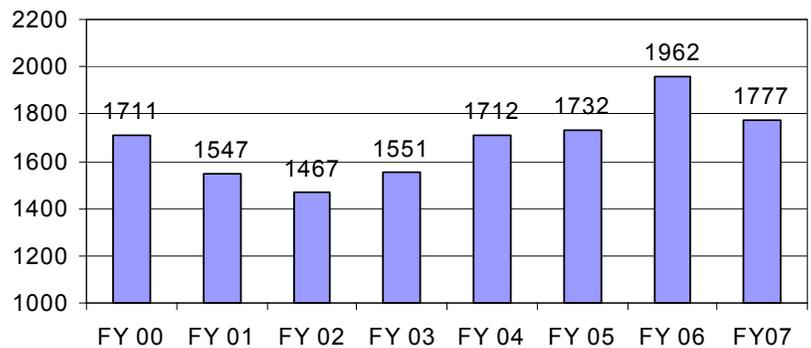
**Plan Review Statistics for Fiscal Year 2007**

Statistics for the plan review workload in the Engineering Section are listed below for Fiscal Year 2007. The Section devotes a major portion of its manpower to reviewing proposals and engineering documents for water and wastewater projects.

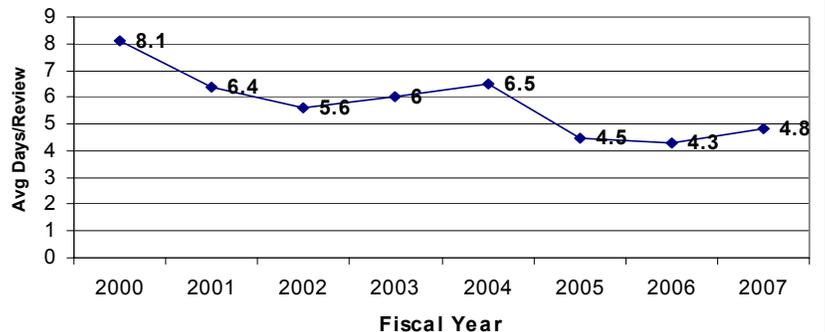
Plan review will be discussed in a technical session presentation by Jeff Stone at the annual AWW&WEA Conference in Hot Springs on April 29. If you have questions about the plan review numbers listed below, contact Jeff Stone or Robert Hart. ♦

Type Project	Number	Percent
Cemetery	19	1.1%
Funding Application	43	2.4%
MHP Public Water/Public Sewer	5	0.3%
MHP Public Water/Septic Tank	4	0.2%
MHP Semi-Pub Water/Septic Tank	1	0.1%
Misc. Reports Water/Sewer	27	1.5%
Other	3	0.2%
Plumbing	2	0.1%
Public Pool	7	0.4%
Sewer Improvemnts(Non-Subdiv.)	111	6.2%
Sewer Treatment	10	0.6%
Sewer Treatment/Extension	17	1.0%
Sub. Private Water/Septic Tank	13	0.7%
Sub. Public Water, Pub Sewer	342	19.2%
Sub. Public Water/Septic Tank	130	7.3%
Water & Sewer Imprvmn(Non-Sub)	270	15.2%
Water - Fire Protection	289	16.3%
Water Improvemnts(Non-Subdiv.)	327	18.4%
Water Quality - Chemical	1	0.1%
Water Source	24	1.4%
Water Source/Treat./Ext.	11	0.6%
Water Source/Treatment	9	0.5%
Water Treatment	10	0.6%
Not Classified	102	5.7%
<b>Total</b>	<b>1777</b>	<b>100%</b>

**Plan Submittals by Year - Engineering Section**



**Avg. Review Time by District Engineers - Days**



of *Cryptosporidium* and its occurrence indicate that additional treatment is necessary for systems with high levels of *Cryptosporidium* in their source water. In order to identify those higher risk source waters, monitoring is required for all public water systems using surface water sources such as lakes, reservoirs, flowing streams, spring water, and wells that are directly influenced by surface water.

Since early monitoring began in January, 2007, over 14 months worth of data for *Cryptosporidium*, *E. coli*, and turbidity has been collected for

Arkansas Long Term 2 Source Monitoring Summary

Large Systems (>10K Population)

- 14 of 24 months of monitoring completed
- 9 of 24 Sources (38%) Positive for *Cryptosporidium*
- 3 Sources (13%) with Bin 2 or higher classification

Small Systems (<10K Population)

- 5 of 24 months of monitoring completed
- 18 of 69 sources (26%) have exceeded *E.coli* triggers

large Arkansas water systems, those serving ≥10,000 population. Of the 24 large system sources monitored across the state, *Cryptosporidium* has shown up in nine of the sources, and three sources have had sufficiently high concentrations (≥ 0.075 oocysts/L) to require additional treatment beyond that currently provided.

To reduce monitoring costs, the EPA regulation allows small water systems, those serving < 10,000 population, to monitor their raw water for only *E. coli* bacteria at a frequency of once per month for 24 months. *E.coli* analysis is less expensive than *Cryptosporidium* analysis, approximately \$50 versus \$500 per sample. Small systems will monitor their source water for *Cryptosporidium* only if their *E. coli* annual average exceeds specified trigger levels. Those triggers are a mean *E. coli* concentration > 10/100 mL for

lakes/reservoirs sources or a mean *E. coli* concentration > 50/100 mL for flowing streams.

*E. coli* data samples have been submitted from 69 small system sources in Arkansas since October, 2007. Of those 69 sources, 18 have already been triggered into *Cryptosporidium* monitoring due to high *E. coli* counts. Most of those sources triggered during the months of December and February during heavy rainfall events across the state. Once a system has been triggered into *Cryptosporidium* monitoring, that system will be notified by the Department of Health to stop their current source monitoring for *E. coli* and a training date will be established so that onsite training can be provided regarding *Cryptosporidium* sampling, scheduling, and shipping procedures.

In Arkansas, early *Cryptosporidium* monitoring for the 18 triggered systems is scheduled to begin in July, 2008. Like the large systems, *Cryptosporidium* analysis will be outsourced to an EPA approved private laboratory. Also like the large systems, the costs associated with the *Cryptosporidium* monitoring will be incurred under the Department of Health's Public Water System Service Fee.

Once *Cryptosporidium* monitoring is completed for large systems and for the triggered small systems, water systems will be classified into one of four treatment categories (Bins) based on their *Cryptosporidium* concentration results. The majority of systems will likely be classified in the lowest treatment Bin (Bin 1), which carries no additional treatment requirements beyond the current 99 percent removal requirement. Systems classified in higher treatment bins (Bins 2-4) must provide additional treatment for *Cryptosporidium* beyond their current treatment scheme. These systems will select from a wide range of treatment and management strategies in the LT2ESWTR microbial toolbox to meet their additional treatment requirements. These include source protection and management, pre-filtration, treatment performance criteria, additional filtration, and alternative disinfectants.

Systems will be required to conduct a second round of monitoring six years

## Governor Declares May 4 - 10 as Drinking Water Week

Governor Mike Beebe has declared May 4-10, 2008 as Drinking Water Week in Arkansas. In a Proclamation issued in March, the Governor recognized that the people of the state depend on safe, high quality waters for their health, economic well being, and quality of life. He characterized the state's waters as a precious resource of inestimable value and paid tribute to the professionals who ensure dependable and clean water for our homes, farms, businesses, and industries.

The proclamation was a joint request of the Arkansas Department of Health, Arkansas Natural Resources Commission, Arkansas Environmental Academy, Arkansas Waterworks and Water Environment Association, Arkansas Rural Water Association, and Arkansas Water and Wastewater Managers Association. Drinking Water Week is celebrated nationally on the same dates.

A copy of the proclamation can be requested from the Engineering Section or downloaded from [www.HealthyArkansas.com/eng/](http://www.HealthyArkansas.com/eng/).

after completing the initial round to determine if source water conditions have changed significantly. Treatment requirements will then be adjusted accordingly.

For additional information regarding the source monitoring efforts in Arkansas, feel free to contact the ADH Source Protection Staff (Chris Joyner, Don Fiegel, or Lyle Godfrey) at 501-661-2623. For copies of the Federal Register notice of the regulation or technical fact sheets, visit the EPA Safewater website at <http://www.epa.gov/safewater/disinfection/index.html>. ♦

## 2007 Reports to Consumers Due July 1

Jack Wilson, Environmental Specialist

By July 1<sup>st</sup>, all community water systems in Arkansas with at least one calendar year of analytical data must submit a water quality report to their customers and the Arkansas Department of Health, as specified by EPA's Consumer Confidence Report Rule. By October 1<sup>st</sup> of each year, the systems must also certify to the Department that the report has been distributed to customers and that the information contained in the report was correct. Report distribution requirements are based on a system's retail population served.

By now, your water system should have received a letter explaining how to request the Engineering Section's completion of your water system's 2007 CCR. If your system chooses to have the report prepared by the Engineering Section, be sure to carefully read the letter that comes with the CCR when you receive it in the mail. It contains important information about the report's distribution methods and requirements that might be news to you, especially if you are distributing the report by newspaper publication.

When preparing or reviewing your report this year, there are a few new details to consider. As expressed in EPA's revised Lead and Copper Rule (see article page 8), all community water systems must include a statement in their CCRs about lead, its health effects, and ways to reduce lead exposure. Also, additional language is required if yours is one of the few surface water systems that detected cryptosporidium in its source water, or groundwater systems that have had a fecal indicator positive source water sample. These issues are addressed on the template the Engineering Section uses to compose CCRs. If you use the template be sure to ask us for an updated version. It is frequently amended to accommodate new regulations.

If you have questions or have not yet heard from the Engineering Section regarding your water system's CCR, please contact Jack Wilson or Jim Barlow at 501-661-2623. ♦

### DRAFT PVC PIPE POLICY REVISION ISSUED

The Engineering Section of the Arkansas Department of Health has relied upon established industry standards as part of its plan review process. Standards such as AWWA, ASTM, and Ten States Standards are utilized when conducting the plan review process.

In 2007, AWWA revised standard C900 which governs 4-12 inch PVC pipe. The revision of C900 focused on reducing the Factor of Safety used for calculating pressure class and also eliminated a prescriptive surge allowance of 2 feet per second in favor of a more detailed evaluation of surges during the design process. These changes in AWWA C900 required the Engineering Section to propose a revision to its Plastic Pipe Policy for Public Water Systems which had last been updated in 1987.

The relevant standards governing ASTM 2241 pipe utilize a Factor of Safety of 2.0 whereas the previous versions of AWWA C900 utilized a Factor of Safety of 2.5. The previous ADH policy utilized a Factor of Safety of 2.5 for both types and placed them on an even playing field. Now that AWWA has reduced the Factor of Safety to 2.0 for C900 pipe, the ADH policy has been proposed to be revised to utilize the 2.0 factor and parity will still be maintained. The end result is that the new policy will allow higher pressures than previously allowed on PVC water pipe that conforms to either ASTM 2241 or AWWA C900.

The proposed draft policy revision continues to utilize a prescriptive surge allowance as before. However, if a particular application warrants, the ADH can be petitioned to waive the prescriptive surge allowance in favor of a surge analysis outlined in Appendix B of AWWA C900-07, provided the combination of the static pressure and routine pressure surges do not exceed the pressure rating or pressure class.

There are other types of pipe that can be utilized for drinking water systems such as PVCO, HDPE, DI, etc. When these other types of pipe are selected, the appropriate AWWA standard must be followed. It would appear that for most other plastic pipe types, AWWA still utilizes a Factor of Safety of 2.5 and a prescriptive surge allowance of 2 feet per second.

The proposed draft policy is on the opposite page. Your input and comments are requested and will be appreciated. Please send your comments to [Jeffery.Stone@arkansas.gov](mailto:Jeffery.Stone@arkansas.gov) or Jeff Stone, P.E., 4815 West Markham, Slot H-37, Little Rock, AR 72205.

### WATER SYSTEM IMPROVEMENTS

BELLEVILLE: 140,000 L.F. of water line, pump station upgrade and a new 0.30 MG tank.

BENTON-WASHINGTON REGIONAL: 3.5 MG elevated tank.

AUSTIN: 45,000 L.F. of line and a 0.21 MG standpipe located north of US 67 to provide another wholesale connection to Cabot.

CENTERGROVE: 500 gpm well located on the treatment plant site.

GRAND PRAIRIE/BAYOU TWO: four new wells at 500 gpm each.

GRAVETTTE: 4200 L.F. of water line and 1 MG elevated tank.

MADISON CO. WATER: 0.25 MG elevated tank at the Old Alabam site.

HWY 9 WATER: 3500 L.F. of main and a 200 gpm booster pump to provide a second connection to Malvern.

MAUMELLE WATER MANAGEMENT: treatment plant upgrade to include aeration, clarification, and filter improvements.

ROGERS: 2 MG elevated storage tank located near Lilac Street.

SOUTHWEST WATER USERS: 90,000 L.F. of water line and 1.4 MG, 0.5 MG, and 0.25 MG storage tanks to serve additional customers in Saline County.

SPRINGDALE: 3000 L.F. of 24-inch water line for a crossing of I-540.

WASHINGTON WATER AUTHORITY: 50,000 L.F. of water line, booster pump station, and 0.5 MG storage tank located near Toney Mountain.

WEST SALINE WATER USERS: 450 GPM well in the New Edinberg area.

*DRAFT*  
**POLICY STATEMENT: PVC PIPE (AWWA C900 OR ASTM D 2241)  
 FOR USE IN PUBLIC WATER SYSTEMS  
 FEBRUARY 2008**

This policy supersedes the policy issued in September, 1987 and pertains to 2-inch through 12-inch PVC (AWWA C900 OR ASTM D 2241) for public water system pipe. Proposals for over 12-inch pipe will be considered on an individual basis and be expected to conform to applicable AWWA and ASTM standards. Applications utilizing other types of pipe such as DI, CI, PVC0, and HDPE, etc. should be designed in accordance with the applicable AWWA Standard.

PVC pipe should not be installed where soils are or will be exposed to solvents, gasoline, petroleum products, etc. The PVC pipe shall be designed or selected in Accordance with Appendix A of AWWA C-900. The Hydrostatic Design Basis shall be 4,000 psi at 73.4 F and the Factor of Safety shall be 2.0 resulting in a design stress of 2000 psi.

All PVC pipe shall be PVC 1120 pressure pipe made from class 12454 material as defined by ASTM D-1784 with outside diameter dimensions of steel or cast iron pipe. The PVC compounds shall be treated or certified suitable for potable water products by the National Sanitation Foundation (NSF) Testing Laboratory (NSF Standard No. 61).

All PVC pipe shall be manufactured to meet the requirements of ASTM D 2241 or AWWA C900, and shall have provision for expansion and contraction at each joint by use of elastomeric gaskets.

The pipe fittings and specials for pipe sizes of 6-inches and above shall conform to AWWA cast iron fittings using a mechanical joint with hardened or duck tipped type of rubber gaskets in accordance with AWWA C-110 and AWWA C-111. The pipe and fittings shall be installed in accordance with the recommendations of the pipe manufacturer and consulting engineer.

Pipe fittings less than 6-inches may be schedule 40 PVC (ASTM D-2466) or schedule 80 PVC (ASTM D-2467) or which meet the requirements of AWWA C-900 may be used in systems having working pressures less than the design fitting class. When the maximum working pressures are 125 psi or less, schedule 40 is permissible; higher pressures require schedule 80. When AWWA C900 pipe is utilized and the working pressures are below 150 psi, fittings that meet the requirements of AWWA C907 (4-inch through 12-inch) are acceptable.

The maximum working pressures of the water system shall not exceed the maximum working pressure in Table 1 for a proposed pipe, except as outlined in the accompanying waiver criteria. The total system pressure (maximum working pressure plus any routine pressure surge) under any circumstances shall be less than the respective pressure rating or pressure class of a proposed pipe. The occasional or "emergency" surges must not be greater than 1.6 times the calculated pressure rating or pressure class of the pipe.

The pipe shall be installed, embedded, leakage tested, and in all ways be in accordance with AWWA C605 and AWWA M23. Where the requirements of AWWA C900 and AWWA M23 conflict, AWWA C900 takes precedence.

The pipe shall be disinfected in accordance with AWWA C-651.

**Criteria For Waiving Surge Allowance**

1. A written request is submitted from the water system management or governing board requesting a waiver from the surge allowance and stating the planned life expectancy for the application, not to be less than 50 years unless justified by unusual circumstances.
2. Documentation and calculations indicating that maximum working pressure plus the occasional or "emergency" surges are not expected to be greater than 1.6 times the calculated pressure class.
3. Documentation and calculations indicating that routine or cyclical surges will not result in pipe fatigue based upon the life expectancy indicated as part of the waiver request. (See AWWA C-900, Appendix B).
4. Documentation and calculations indicating that the total system pressures (maximum working pressures plus routine surge pressures) does not exceed the respective pressure rating or pressure class of the pipe. Routine pressure surges resulting from velocity changes will reduce the allowable working pressures.

**Definitions:**  
Working Pressure: The maximum pressure that a water system exerts on the pipe resulting from the hydraulic grade line established by a tank or prime mover.  
Routine Pressure Surge: The pressure fluctuations that routinely occur as the result of normal (routine) velocity changes in the pipe.  
Occasional (Emergency) Pressure Surge: The pressure surges that occasionally occur due to a malfunction of some type (pump failure, valve failure, improper operation of fire hydrants, etc).  
Total System Pressure: Maximum Working Pressure plus Routine Surge Pressure. ♦  
*Comments on the draft policy should be submitted to Jeff Stone, P.E.*

**Table 1**

Maximum Working Pressure (psi)	ASTM 2241 SDR	C 900 DR	ASTM 2241 Pressure Rating	C 900 Pressure Class
275	13.5		315	
265		14		305
215	17		250	
200		18		235
170	21		200	
135		25		165
130	26		160	

## NATIONAL

\* EPA published in a February 21 *Federal Register* notice the draft Contaminant Candidate List 3. The list of 93 chemicals or chemical groups and 11 microbiological contaminants are those which EPA will consider for future regulation under the Safe Drinking Water Act. The list was developed with input and recommendations from the National Academy of Science's National Research Council and the National Drinking Water Advisory Council. EPA is accepting comments on the draft list until May 21. The contaminant list can be found at [www.epa.gov/ogwdw/ccl/ccl3.html](http://www.epa.gov/ogwdw/ccl/ccl3.html).

\* EPA has decided to drop the development of effluent guidelines for drinking water treatment plants and treatment plant residuals because of budget restrictions and other priorities. The agency was considering the development of national regulations on the issue and had conducted a survey last year of water systems about their treatment and residual disposal practices. While the regulation proposal will not proceed, data gathered from the survey and other research on the issue will be compiled into a technical report to be published by EPA in the future.

\* EPA has published a draft guidance manual on disinfection by product compliance for consecutive systems. The manual discusses requirements for public water systems that receive fully treated water from other public water systems in order to comply with Stage 2 DBPR monitoring and MCLs. The manual can be downloaded from EPA's website [www.epa.gov/safewater/disinfection/stage2/compliance.html#pws](http://www.epa.gov/safewater/disinfection/stage2/compliance.html#pws).

\* The U.S. Small Business Administration (SBA) in February named the EPA's affordability criteria for small communities as one of its top ten rules for review. According to the SBA, the criteria would help ease a federal regulatory burden which is disproportionate for small communities. The affordability criteria, which is supported by National Rural Water Association but opposed by some water industry groups, would

allow EPA to establish less stringent maximum contaminant levels for small communities.

\* An attempt by the federal government to broker an agreement between Alabama, Florida, and Georgia over the sharing of water from two river basins which drain part of each state has failed. Interior Secretary Dirk Kempthorne notified the governors of the three states in March that federal agencies will develop their own solutions. Georgia wants to reserve water in federal reservoirs around Atlanta; however, Florida and Alabama say the city hasn't adequately planned for its growth and

million gallons a day from the lake to meet future water needs.

\* Scotty Boggs, manager for the water treatment division of the Searcy Board of Public Utilities, is credited with developing an innovative control system for peristaltic pumps which allows greater control for the operator and increases the life of the pump components. Boggs developed the system after being frustrated with the equipment that was offered in the marketplace. Boggs's concept has been adopted by a pump manufacturer and written about in a Dutch magazine.

## ENGINEERING SECTION

\* **Teresa Lee, P.E.** has been hired as the Section's Cross Connection Control Engineer. Teresa holds a bachelor's degree in Civil Engineering and is a licensed professional engineer in Arkansas and Mississippi. Her background includes design, construction, and administrative work for commercial and public works projects. She will be implementing the technical assistance, administrative, and plan review aspects of the Section's cross connection control program.



\* **Sandra Chandler** has been hired as the Section's Source Water Protection Program Geologist.



Sandra holds a bachelor's degree in Geology from Arkansas Tech University and a master's degree in Geology from the University of Arkansas at Fayetteville. Sandra's background includes serving as an adjunct faculty member at Arkansas Tech University and at the University of Arkansas at Morrilton. Sandra will be assisting in implementing the Section's Wellhead Protection and Source Water Assessment Programs.

that Atlanta's withdrawals would cause environmental damage in their states. The southeast area of the U.S. continues to suffer from a prolonged drought.

## ARKANSAS

\* The Joint Performance Review Committee of the Arkansas Legislature rejected a proposed resolution that called for greater coordination among state agencies in reviewing natural gas well permits. Legislative hearings held in November on the impact of drilling in the Fayetteville Shale Play resulted in the proposed resolution sponsored by Representative Betty Pickett of Conway. The resolution was defeated in a Committee meeting on March 13. The resolution, had it passed, would not have been binding.

\* The Vicksburg District of the U.S. Army Corps of Engineers notified Hot Springs officials in January that problems discovered in 2005 in the underdrain system for the Lake Ouachita dam prevent the agency from increasing the conservation pool to accommodate a water allocation request from the city. The Corps advised that the dam's underdrain system must be monitored, a process that could take five years. Hot Springs and Mid-Arkansas Water Alliance began work in 2003 to secure 20

## News of Note

## Mandatory Training Course Schedule

Most current listing is at: <http://www.healthylarkansas.com/eng/autoupdates/oper/mandtrngall.htm>.

MANDATORY COURSE NAME	START DATE	END DATE	OPCERT GRANT ELIGIBLE COURSE	CITY	LOCATION All courses begin at 8 a.m.	SPONSOR
Applied Water Math	04/15/08	04/30/08	Yes	Internet	Contact AEA for Registration	AEA
PWS Compliance	04/16/08	04/16/08	No	Clarksville	Services Center, 400 E. Main	ADH
Intermediate Treatment	04/21/08	04/23/08	Yes	Camden	Arkansas Env Acad, 100 Carr Road	AEA
Intermediate Distribution	04/22/08	04/24/08	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Basic Water Math	04/28/08	04/28/08	No	Hot Springs	AWW&WEA Conf, HS Conv Center	AEA
PWS Compliance	04/29/08	04/29/08	No	Hot Springs	AWW&WEA Conf, HS Conv Center	ADH
Applied Water Math	04/29/08	04/29/08	No	Hot Springs	AWW&WEA Conf, HS Conv Center	AEA
Basic Treatment	05/01/08	05/15/08	Yes	Internet	Contact AEA for Registration	AEA
Basic Treatment (PM Class)	05/05/08	05/20/08	Yes	Van Buren	Crawford Co Adult Ed Center, 605 Alma	AEA
Basic Water Distribution	05/06/08	05/08/08	Yes	Russellville	Tri-County Water , 5306 N AR 7	ARWA
PWS Compliance	05/06/08	05/06/08	Yes	McGehee	Municipal Building, 901 Holly Street	ADH
Basic Water Distribution	05/12/08	05/14/08	Yes	Monticello	Health Unit, 447 West Gaines St	AEA
Advanced Distribution	05/13/08	05/15/08	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Basic Distribution	05/15/08	05/30/08	Yes	Internet	Contact AEA for Registration	AEA
Intermediate Distribution	05/19/08	05/21/08	Yes	Camden	Arkansas Env Acad, 100 Carr Road	AEA
Basic Treatment	05/20/08	05/22/08	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
PWS Compliance	05/28/08	05/28/08	No	Van Buren	Crawford Co Adult Ed Center, 605 Alma	ADH
Intermediate Distribution	06/02/08	06/04/08	Yes	Fayetteville	Ops Center, 2435 S Industrial Dr.	AEA
Intermediate Treatment	06/02/08	06/16/08	Yes	Internet	Contact AEA for Registration	AEA
Basic Water Treatment	06/10/08	06/12/08	Yes	Midway	Baxter Co OEM Bldg, 170 Dillard Dr.	ARWA
Basic Water Math (PM Class)	06/10/08	06/19/08	Yes	Van Buren	Crawford Co Adult Ed Center, 605 Alma	AEA
Intermediate Distribution	06/16/08	06/30/08	Yes	Internet	Contact AEA for Registration	AEA
Advanced Distribution	06/16/08	06/18/08	Yes	Paragould	Paragould LWC, 1901 Jones Road	AEA
Advanced Treatment	06/17/08	06/19/08	Yes	West Fork	Wenzel Com Center, 222 Webber	ARWA
Basic Treatment	06/23/08	06/25/08	Yes	Camden	Arkansas Env Acad, 100 Carr Road	AEA
Basic Water Math	06/24/08	06/24/08	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Applied Water Math	06/25/08	06/25/08	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
PWS Compliance	06/26/08	06/26/08	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ADH
Advanced Treatment	07/01/08	07/15/08	Yes	Internet	Contact AEA for Registration	AEA
Basic Water Math	07/07/08	07/07/08	Yes	Paragould	Ops Center, 2435 S Industrial Dr.	AEA
Applied Water Math	07/08/08	07/08/08	Yes	Paragould	Ops Center, 2435 S Industrial Dr.	AEA
Intermediate Distribution	07/08/08	07/10/08	Yes	Russellville	Tri-County Water , 5306 N AR 7	ARWA
Basic Water Math (PM Class)	07/08/08	07/17/08	Yes	Van Buren	Crawford Co Adult Ed Center, 605 Alma	AEA
PWS Compliance	07/09/08	07/09/08	Yes	Paragould	Ops Center, 2435 S Industrial Dr.	ADH
Basic Water Distribution	07/14/08	07/16/08	Yes	Camden	Arkansas Env Acad, 100 Carr Road	AEA
Advanced Distribution	07/15/08	07/31/08	Yes	Internet	Contact AEA for Registration	AEA
Basic Distribution	07/21/08	07/23/08	Yes	Fayetteville	Ops Center, 2435 S Industrial Dr.	AEA
Intermediate Treatment	07/22/08	07/24/08	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Intermediate Treatment	07/29/08	07/31/08	Yes	Heber Springs	ASU, 71 Cleburne Park Rd, Rm 110	ARWA

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 – Contact Jeremy Rowe or Martin Nutt – (501) 661-2623 – [Jeremy.Rowe@arkansas.gov](mailto:Jeremy.Rowe@arkansas.gov) .

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 – [arkrwa@sbcglobal.net](mailto:arkrwa@sbcglobal.net)

Additional courses are shown on the internet at: <http://www.healthylarkansas.com/eng/autoupdates/oper/opcert/opertrng.htm>

## Implementation of the 2007 Lead and Copper Rule Revisions

Gerald Ward, Environmental Specialist

Seven short-term regulatory revisions for the Lead and Copper Rule (LCR) were finalized by EPA on October 10, 2007 and cover the following areas:

1. Definition for compliance and monitoring periods;
2. Minimum number of required samples;
3. Reduced monitoring criteria;
4. Public education requirements;
5. Reevaluation of lead service lines deemed replaced through testing;
6. Requirements to provide notice of lead tap water monitoring results to consumers who occupy homes or buildings that tested for lead; and
7. Advanced notification and approval requirements for water systems that intend to make long term changes in water treatment or add a new source.

1) Definitions for the compliance period and monitoring period became effective immediately. EPA chose to provide additional clarification of the definitions to prevent further confusion for water systems and primacy agencies. The compliance periods are 6 month, 1 year, 3 year or 9 year time periods. Most water systems within Arkansas are on a reduced monitoring schedule. As such, these water systems collect tap water samples for lead and copper analysis once, during a one year or three year compliance period. The monitoring period for water systems on a reduced monitoring schedule is June through September. Arkansas does not have any water systems that qualify for reduced monitoring on a 9 year cycle. The compliance period and monitoring period for water systems on a routine, initial or a follow up monitoring schedule are the same. These water systems have compliance and monitoring periods that run concurrently from January through June and July through December.

2) The State of Arkansas does not have any water systems at this time with less than 5 sample sites. As such, the LCR changes for water systems with less than 5 sample sites will have

no effect on the Arkansas program at this time.

3) In 2001, Arkansas implemented a reduced monitoring scheme, whereby all systems that exceed the lead or copper action level were placed on a six month routine monitoring schedule, regardless of their water quality parameter results. Large water systems that have 10% or more of their samples above the lead or copper action levels are required to collect water quality parameter samples and tap water samples during the same monitoring period. The collection of tap samples and water quality parameter samples during the same monitoring period provides the State with more detailed information from which to determine optimal corrosion control. EPA's regulatory revisions for reduced monitoring were therefore implemented by the State before the 2007 revision became effective and will have no effect on small or medium size water systems. Large water systems will not be affected unless the action level for lead or copper is exceeded.

4) Changes to the public education requirements and reevaluation of lead services deemed replaced through testing will begin June 10, 2008. The revised public education changes will only affect water systems that exceed the ninetieth percentile level for lead, on or after June 10, 2008.

5) Arkansas has no water systems with lead service lines deemed replaced through testing. As such, this revision will not affect any water systems at this time.

6) Consumer notice of tap sample monitoring results became effective 60 days after the published date of the federal register. As such, water systems receiving tap sample results on or after December 12, 2007 were required to provide consumer notice to consumers and provide certification of said consumer notice to the State. The response from the water systems has been both timely and of a positive nature.

7) Advanced notification and approval requirements for water systems that intend to make long term treatment changes or add a new source will become effective December 10, 2009. More information

## License Suspended for Falsification of Monitoring

The Department of Health suspended the license of a Grade IV water operator in October following an admission by the individual that the location of bacteriological samples and chlorine residuals readings in the water system where employed had been falsified.

The individual worked for a city which purchases water from a regional water supplier. During the course of technical assistance being conducted by Engineering Section staff, discrepancies were noticed between measured chlorine residual readings and those reported in compliance reports to the ADH.

During a formal interview with the ADH, the individual admitted that for one month all bacteriological samples had been collected at the city's master meter rather than throughout the distribution system, and that chlorine residual readings had been falsified. In conformance with the water operator licensing regulations, the individual's license was suspended for falsification of data and notice provided that a hearing would be held on the suspension.

A consent agreement from the ADH whereby the individual's license was suspended for one year was offered and accepted. It is understood that the individual has since retired.

regarding advanced notification and approval requirements will be provided to water systems before the effective date.

For additional information on the Lead and Copper Rule, contact Gerald Ward or Raymond Thompson with the Engineering Section at 501-661-2623, or [Gerald.Ward@Arkansas.gov](mailto:Gerald.Ward@Arkansas.gov) or [Raymond.Thompson@Arkansas.gov](mailto:Raymond.Thompson@Arkansas.gov). EPA's website on the Lead and Copper Rule is found at <http://www.epa.gov/safewater/lcmr/index.html> . ♦

## WATER OPERATOR LICENSES ISSUED

October 1, 2007 – January 31, 2008

<u>NAME</u>	<u>TYPE/GRADE</u>	<u>PUBLIC WATER SYSTEM NAME</u>
ALSUP KEVIN WADE	D - IV	BENTONVILLE WATER UTILITIES
BAKER JOHN E	D - IV	DIAMOND CITY WATER
BARNES JOHNNY STEVE	D - IV	WARREN WATERWORKS / SW WARREN WATER ASSOCIATION / CORINTH VALLEY
BOILEAU ERIC L	D - I	PALESTINE WATER ASSOCIATION
BOUTZALE CHRISTOPHER T	T - IV	HOT SPRINGS VILLAGE WATERWORKS
BROWN ANTHONY K	T - IV	NASHVILLE WATERWORKS
BUXTON ROBERT T	D - II & T - II	NORMAN WATERWORKS
CATES STEVEN KENT	D - IV	CLINTON WATERWORKS
CHIVERS DANNY LYNN	D - IV	CENTRAL ARKANSAS WATER
CLARK LAVERNE H	D - II	LAKEVIEW-MIDWAY WATER ASSOC
CODY JOHN ANTHONY	D - IV	GARFIELD WATERWORKS
CRUMP ELIZABETH L	D - IV	MAGNOLIA WATERWORKS / FREE HOPE WATER
CRUSE CHRISTOPHER L	D - IV	ROGERS WATER UTILITIES
DONAHUE KEVIN DEAN	D - IV	CLINTON WATERWORKS
DOZIER CLIFFORD D	D - IV	SPRINGDALE WATER UTILITIES
DUNCAN RICKY LYNN	D - IV	CLINTON WATERWORKS
DUNN SAMUEL MARK	D - II	FOUR MILE HILL WATER ASSOC
DURKES BRYAN A	D - IV	SPRINGDALE WATER UTILITIES
ELMORE ARNOLD F	D - II	MANSFIELD WATERWORKS
FAULKNER ANTHONY A	D - IV	PARAGOULD CITY LIGHT WATER
FISHER JON ALLEN	D - IV & T - IV	GRAND PRAIRIE BAYOU TWO PFB
FOSTER JOSEPH L	D - I	WILMOT WATERWORKS
FRACHISEUR BRADLEE O	D - II	GILLHAM REGIONAL WATER DIST
GAITHER MICHAEL J	D - I	HAZEN WATERWORKS
GRAY JACKIE YVETTE	T - II	THORNTON WATERWORKS
GREENE STEVEN JULES	D - III	EL DORADO WATERWORKS
HARDIN CHAD MICHAEL	D - IV	FORT SMITH WATER UTILITIES
HARRIS CHRISTOPHER T	D - III & T - IV	MARSHALL WATERWORKS
HEDDEN GLENN	T - II	SEVIER CO WATER ASSOCIATION
HENDRIX GUY D	D - I	BAUXITE WATER
HOLZKAMPER FRANK W	D - III	GENTRY WATERWORKS / HIGHFILL WATER
HUFHINES BRADLEY W	T - IV	BEAVER WATER DISTRICT
HUNT WILLIAM H	D - II	VAN BUREN COUNTY W U A
INGRAM JASON MONNELL	D - IV	VILONIA WATERWORKS
JACKSON JOHN JOSEPH	T - II	ROCK MOORE WATER AUTHORITY
JONES SHANNON WAYNE	D - IV	FAYETTEVILLE WATERWORKS
JOYNER TIMOTHY DALE	T - IV	CABOT WATERWORKS
KEENER TERRY J	D - IV	HOT SPRINGS WATERWORKS
KELLY JOHN C SR	D - III	NASHVILLE WATERWORKS
KENT CAMERON W	D - I	MAMMOTH SPRING WATERWORKS
KIMERY KEITH E	D - IV	HOT SPRINGS WATERWORKS
LACEFIELD KENNETH M	T - II	SEVIER CO WATER ASSOCIATION
LACKEY DENNIS LYNN	D - IV	TUMBLING SHOALS WATER ASSOC
LANDERS KEARY D	D - III	BATESVILLE WATER UTILITIES
LEWIS JAMES W III	D - III	CENTRAL ARKANSAS WATER
LOWREY MICHAEL	D - III	BALD KNOB WATERWORKS
LUNSFORD JOHNNY D	D - IV	ROGERS WATER UTILITIES
MABRY CHRISTOPHER	D - IV	EAST END WATER
MCBRYDE KATHERINE M	D - III	LADD WATER ASSOCIATION
MCDONALD MARK E	D - III	ROGERS WATER UTILITIES
MELTON CHRIS EDWARD	D - IV	CENTRAL ARKANSAS WATER
MIZE CRAIG S	D - IV	CABOT WATERWORKS
MOBBS CARRIE JO	D - IV & T - IV	TEXARKANA WATER UTILITIES
MONEYMAKER BILLY M	T - I	MARVELL WATERWORKS / MARVELL RURAL WATER
MOREN ROGER L	D - IV	SARDIS WATER ASSOCIATION
MORGAN ROBERT ALLEN	T - IV	BEAVER WATER DISTRICT
MORTENSEN JOHN ALAN	D - IV	SPRINGDALE WATER UTILITIES
MOSS KEVIN MATTHEW	D - I & T - II	SPARKMAN WATERWORKS
NELSON BRANDON DEE	D - IV	WALDRON WATERWORKS
NORBURY KENNETH D	D - II	BARLING WATERWORKS
OLIVER MARK DEWAYNE	D - II	WALDRON WATERWORKS

See Water Licenses page 10

## Water Licenses *con't from pg 9*

<u>NAME</u>	<u>TYPE/GRADE</u>	<u>PUBLIC WATER SYSTEM NAME</u>
OWENS TIFFANY E	T - II	ENTERGY - INDEPENDENCE
PIPKIN JEFFREY DEREK	D - IV & T - IV	KIMZEY REGIONAL WATER DISTRICT
POUNDS DENA MELISSA	D - IV	ROGERS WATER UTILITIES
QUAST KENNY A	T - IV	HOT SPRINGS WATERWORKS
REED JEFFREY ALLAN	D - I	SHANNON HILLS WATER DEPT
RICHARDS MICHAEL EDWIN	D - I	SEARCY WATERWORKS
RILEY DAVID	D - IV	CAMDEN WATERWORKS
RITTER DOYLE R	T - IV	HOT SPRINGS WATERWORKS
SCROGGINS TONY	D - IV	NO PWS OPERATED
SHEPARD GARY R	D - I	4-H CENTER
STEVENS KELLY L	D - IV	PARAGOULD CITY LIGHT WATER
SUTTERFIELD RANDAL T	D - I	BIG FLAT WATERWORKS
TAYLOR MARLON KEITH	D - I	GRANGE-CALAMINE WATER ASSOC
TOWNSEND SUE ANN	D - I	FOUKE WATERWORKS
TROYKE STEVEN ALAN	D - II	DARDANELLE WATERWORKS
VARDAMAN MATTHEW R	D - II	BRYANT WATERWORKS
WELCH WILLIAM PAUL	D - I	STANDARD UMPSTEAD WATER ASSOC
WHITE STEPHEN M	D - I	MAMMOTH SPRING WATERWORKS
WILLIAMS JOHNNY LEWIS	D - II	LAKE VILLAGE WATERWORKS
WILLYARD JEFFREY D	D - III	CENTRAL ARKANSAS WATER
WILSON ANTHONY RAY	T - II	ENTERGY - INDEPENDENCE
WILSON JAMES ALLEN	D - IV	GENTRY WATERWORKS
WRIGHT DENNIS J	T - IV	BEAVER WATER DISTRICT

### AP Publishes Articles on Pharmaceuticals in Water Supplies

The Associated Press published a series of articles in March concerning the detection of pharmaceuticals in drinking water supplies. The articles were picked up by most local media outlets. The Department of Health received several calls from water utilities who had been contacted by their local press as well as some direct inquiries from reporters.

The basic focus of the stories was that the some of the vast array of pharmaceuticals utilized by the public for everything from pain relief to hormone supplements had been found in the source or finished water of a number of major metropolitan areas of the US. The AP story cited the detection of one or more drugs in the water supplies of 24 utilities which supply 41 million Americans.

The presence of pharmaceuticals in water supplies usually result from discharges from wastewater treatment plants or large agricultural operations which are upstream of drinking water intakes. These chemicals typically find their way into water supplies as the result of unmetabolized medications in individuals being excreted into the sewer system, unused medications which are flushed down the toilet, and runoff from agricultural operations where hormones or antibiotics are utilized. Sewer treatment plants are not designed to remove such chemicals from the treated wastewater effluent nor are most drinking water treatment plants equipped to treat for them.

While the levels being detected in water supplies are extremely small – in the parts per billion and parts per trillion range – scientists in the articles expressed concern about the possible impact on human health from prolonged exposure. They based their concern on research involving the exposure of human cells to these chemicals and the observed effects of the chemicals on wildlife.

Currently, the Safe Drinking Water Act does not require testing for pharmaceuticals and has not established maximum contaminant levels for such chemicals. However, research on the occurrence and health impact of pharmaceuticals is ongoing. Information can be found at <http://www.epa.gov/endo/> and at <http://toxics.usgs.gov/regional/emc/>.

In response to the articles, U.S. Senators Barbara Boxer of California and Senator Frank Lautenberg of New Jersey promised to hold hearings on the subject. U.S. Representative Allyson Shwartz of Pennsylvania asked EPA to establish a national task force to investigate the issue and make recommendations to Congress on any necessary legislation.

Water utilities should recognize that consumers have legitimate concerns about the presence of pharmaceuticals in water supplies even though the concentrations found have been extremely small and there is little research demonstrating adverse human health impacts.

The issue also underscores the need to choose a water source which is least impacted by human activity and, once selected, to work vigorously to protect that source through close oversight, best management practices, and regulation.

AWW&WEA's 77<sup>th</sup> Annual  
Conference at Hot Springs,  
April 27 – 30, 2008

Darrell Phillips, 2008 Conference Chair

The 77<sup>th</sup> Annual Conference of the Arkansas Water Works and Water Environment Association will be held at the Hot Springs Convention Center on April 27-30, 2008

Attendees will have more than one hundred technical sessions covering various topics concerning the water and wastewater fields to choose from on Monday and Tuesday, April 28th and 29th.

The Exhibit Hall remains home to over two hundred exhibitors displaying the latest technology important to the industry. While the regular luncheons will be in the Exhibit Hall, the awards luncheons will be held at the Embassy Suites. Be sure to join everyone at the Meet and Greet on Sunday April 27<sup>th</sup> and at Nickel Beer for chances to win money and to watch the Arkansas 2008 Best Drinking Water be crowned.

The very popular Heavy Equipment ROADeo and Operations Challenge can be found competing in Summit Arena. Last year thirty-seven individuals competed in the backhoe and dump truck contests with the winners taking home \$1600 in cash rewards.

If golf is your 'cup of tee' be sure to sign up for the Wednesday Golf Tournament played at the beautiful Hot Springs Country Club.

Changes to this year's conference include bringing the Spouses Program to the Convention Center and the spouse's lunch being provided on Monday as part of the spouse's regular registration.

Tuesday night's banquet will be at the Arlington Hotel, whereby the prestigious Kellogg Award will be bestowed to an individual who has made significant contributions to the water and wastewater industry.

Finally, it is a great time to see old friends and catch up on the latest happenings in the industry.

I hope to see you at the conference!

For information and registration, see our website [www.awwea.org/](http://www.awwea.org/). ♦

## WATER OPERATOR LICENSE EXAMINATIONS

Up to date listing: <http://www.healthyarkansas.com/eng/autoupdates/oper/operexam.htm>

Listed below are the dates and locations of examination sessions as scheduled, as of March 3. 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
4/10/08	Forrest City	Wastewater Plant Training Room	9:00 AM
4/11/08	El Dorado	El Dorado Water Office, 300 South Madison	9:00 AM
4/11/08	West Fork	Wenzel Community Center, 222 Webber St.	9:00 AM
4/24/08	Camden	AR Environmental Academy, 100 Carr Road	9:00 AM
4/25/08	Lonoke	ARWA Training Facility, 240 Dee Dee Lane	9:00 AM
4/30/08	Hot Springs	AWW&WEA Conf, Hot Springs Conv. Center	9:00 AM
5/9/08	Russellville	Tri-County Water, 5306 North Arkansas	9:00 AM
5/15/08	Monticello	Health Unit, 447 West Gaines St	9:00 AM
5/16/08	Lonoke	ARWA Training Facility, 240 Dee Dee Lane	9:00 AM
5/22/08	Camden	AR Environmental Academy, 100 Carr Road	9:00 AM
5/23/08	Lonoke	ARWA Training Facility, 240 Dee Dee Lane	9:00 AM
5/29/08	Van Buren	Crawford Co Adult Center, 605 Alma Blvd	9:00 AM
6/5/08	Fayetteville	Operations Center, 2435 S Industrial Dr.	9:00 AM
6/13/08	Mt Home	Baxter Co OEM Facility, 170 Dillard Dr.	9:00 AM
6/19/08	Paragould	Paragould LWC, 1901 Jones Road	9:00 AM
6/20/08	West Fork	Wenzel Community Center, 222 Webber St.	9:00 AM
6/26/08	Camden	AR Environmental Academy, 100 Carr Road	9:00 AM
7/11/08	Russellville	Tri-County Water, 5306 North Arkansas	9:00 AM
7/17/08	Camden	Arkansas Environmental Academy, SAU Tech	9:00 AM
7/24/08	Fayetteville	Operations Center, 2435 S Industrial Dr.	9:00 AM
7/25/08	Lonoke	ARWA Training Facility, 240 Dee Dee Lane	9:00 AM
8/1/08	Heber Springs	ASU, 71 Cleburne Park Road, Rm 110	9:00 AM
8/7/08	Monticello	Health Unit, 447 West Gaines St	9:00 AM
8/8/08	W. Memphis	Utilities Office, 604 East Cooper	9:00 AM
8/21/08	Russellville	Tri-County Water, 5306 North Arkansas	9:00 AM
8/22/08	Lonoke	ARWA Training Facility, 240 Dee Dee Lane	9:00 AM
8/29/08	McGehee	Municipal Building, 901 Holly Street	9:00 AM
9/11/08	Van Buren	Crawford Co Adult Center, 605 Alma Blvd	9:00 AM
9/19/08	Camden	Arkansas Environmental Academy, SAU Tech	9:00 AM
9/19/08	Jonesboro	CWL Service Center, Johnson & Main	9:00 AM
9/19/08	Lonoke	ARWA Training Facility, 240 Dee Dee Lane	9:00 AM

The above exam session information is subject to change. You should confirm this information just prior to the scheduled examination period. You may confirm the exam session and its location by contacting your District Specialist or Engineer at (501) 661-2623.

Please verify that your license application has been filed with the Engineering Section 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**

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

## Community & Nontransient Noncommunity Public Water Systems

October – December, 2007

AR DEPT CORRECTION –CUMMINS UNIT	Bmon 11	ODEN PENCILL BLUFF WATER	OperLic 10,11,12
AIRPORT ROAD WATER	Bmon 12	OLA WATER	Tmon 10
ALICIA WATER	BMCL 12	OLA WATER	DMCL 10,11,12
ALL SEASONS MHP	Tmon 10,11	OPPELO WATER	BMCL 11
ALMATIS	TMCL 11	OUTSIDE KINGSLAND WATER	OperLic 11,12
ALTHEIMER WATER	BMCL 10	OZARK ACRES WATER	Bmon 10
ALTHEIMER WATER	Bmon 11,12	PANGBURN WATER	DMCL 10,11,12
AMITY WATER	DMCL 10,11,12	PANGBURN WATER	Tmon 10,11
BAUXITE WATER	Bmon 11	PANGBURN WATER	Bmon 11,12
BEAVERFORK WATER	DMCL 10,11,12	PARKIN RURAL WATER	Bmon 12
BELLA VISTA POA WATER	BMCL 11	PARKIN WATER	Bmon 12
BERGMAN WATER	Bmon 12	PARON OWENSVILLE WATER	DMCL 10,11,12
BIRDSON WHITTON WATER	BMCL 10	PATTERSON WATER	BMCL 10
BRADFORD WATER	Bmon 12	PIKE CITY WATER	DMCL 10,11,12
BRANCH WATER	DMCL 10,11,12	PLAINVIEW WATER	DMCL 10,11,12
BRUNO PYATT SCHOOL	Bmon 11	POCAHONTAS WATER	Tmon 10
BUENA VISTA OGE MAW WATER	DMCL 10,11,12	PORTLAND WATER	DMCL 10,11,12
CAMPBELL STATION WATER	OperLic 12	POTLACH CORP	OperLic 11
CASA WATER	DMCL 10,11,12	PRAIRIE GROVE WATER	BMCL 10
CASH WATER	Bmon 10,12	PRESCOTT WATER	DMCL 10,11,12
CHARLESON WATER	BMCL 10	QUITMAN WATER	Bmon 11
CHERRY HILL PFB	DMCL 10,11,12	RATCLIFF WATER	DMCL 10,11,12
CLARENDON WATER	Bmon 10	SDM WATER	RMCL 10,11,12
COVE WATER	BMCL 12	SDM WATER	FMCL 10,11,12
DAMASCUS WATER	DMCL 10,11,12	SEVIER CO WATER	DMCL 10,11,12
DANVILLE WATER	DMCL 10,11,12	SOUTH LOGAN COUNTY WATER	DMCL 10,11,12
DYER WATER	DMCL 10,11,12	SOUTH MOUNTAIN WATER	RMCL 10,11,12
EAST PRAIRIE CO WATER	Bmon 11	SOUTHSIDE PWA	DMCL 10,11,12
EL DORADO CHEMICAL CO	BMCL 10,11	SPARKMAN WATER	DMCL 10,11,12
EL DORADO CHEMICAL CO	DMCL 10,11,12	SUBIACO ACADEMY WATER	DMCL 10,11,12
EL DORADO WATER	BMCL 11	SUMMIT WATER	Bmon 10
FAIRCREST WATER	DMCL 10	TEXARKANA WATER	DMCL 10,11,12
FRENCHPORT WATER	Bmon 12	TOLLETTE WATER	OperLic 12
GILLHAM REGIONAL WATER	DMCL 10,11,12	VAN BUREN COUNTY WATER	DMCL 10,11,12
GREENWOOD WATER	DMCL 10,11,12	VILONIA WATER	DMCL 10,11,12
HATFIELD WATER	DMCL 10,11,12	WABBASEKA WATER	Bmon 12
HIGHFILL WATER	DMCL 10,11,12	WALKER WATER	OperLic 10,11,12
HORSESHOE HOMES WATER	Bmon 10	WEST MEMPHIS WATER	Bmon 10
HOSANNA HEIGHTS WATER	Bmon 12	WHEATLEY WATER	Bmon 11
HWY 4 / 24 WATER	DMCL 10,11,12	WICKES WATER	Bmon 10,11
INDEPENDENCE JACKSON REGIONAL WATER	BMCL 10	WILSON GUN SHOP	Bmon 11
JEFFERSON SAMPLES DEXTER WATER	BMCL 10	WILSON WATER	BMCL 10
LACY LADELLE WATER	BMCL 11	WIRE ROAD WATER	DMCL 10,11,12
LAKE LUCERNE ESTATES	Bmon 12	WKMM RURAL WATER	Bmon 12
LAKE VILLAGE WATER	BMCL 10	WOOSTER	DMCL 10,11,12
LEISURE HILLS MHP	Bmon 12		
LOCKE FERN DOLLAR ROAD PFB	Bmon 11	<u>Supplemental July – September, 2007</u>	
MAGNESS WATER	Dmon 11	AMITY WATER	DMCL 7,8,9
MARIE WATER	BMCL 10,11	BRANCH WATER	DMCL 7,8,9
MARION COUNTY REGIONAL WATER	BMCL 10	BUENA VISTA OGE MAW WATER	DMCL 7,8,9
MAYFLOWER WATER	BMCL 10	CASA WATER	DMCL 7,8,9
MAYFLOWER WATER	DMCL 10,11,12	CHARLESTON WATER	DMCL 7,8,9
MCNEIL RURAL WATER	BMCL 11	FAIRCREST WATER	DMCL 7,8,9
MONTICELLO WATER	BMCL 10	FOUNTAIN HILL WATER	DMCL 7,8,9
MONTROSE WATER	BMCL 10	GILLHAM REGINAL WATER	DMCL 7,8,9
MORNING STAR WATER	FMCL 10,11,12	GREENWOOD WATER	DMCL 7,8,9
MORO WATER	BMCL 11	HATFIELD WATER	DMCL 7,8,9
MORO WATER	Bmon 12	HIGHFILL WATER	DMCL 7,8,9
MOUNT IDA WATER	DMCL 10,11,12	HWY 4 / 24 WATER	DMCL 7,8,9
MOUNT MORIAH WATER	OperLic 11,12	MAYFLOWER WATER	DMCL 7,8,9
MOUNT MORIAH WATER	Bmon10,11,12	MOUNT IDA WATER	DMCL 7,8,9
MOUNT SHERMAN WATER	RMCL 10,11,12		
MOUNT ZION WATER	Bmon 10		
MOUNT ZION WATER	OperLic 11,12		
MULBERRY WATER	DMCL 10,11,12		
MURFREESBORO WATER	DMCL 10,11,12		
NASHVILLE RURAL WATER	DMCL 10,11,12		
NORTHEAST YELL COUNTY WATER	DMCL 10,11,12		
NORTH CAMPUS WATER	Bmon 12		
NORTH PIKE COUNTY RURAL WATER	DMCL 10,11,12		
NORTHWEST ARKANSAS REGIONAL AIRPORT	DMCL 10,11,12		

See Violations page 14

**KEY:** Bmon = Bacti Monitoring; BMCL = Bacti MCL; Dmon = Disinfection By Product Rule Monitoring; DMCL=Disinfection By Product Rule MCL or Treatment Technique; Tmon = SWTR Major Monitoring; TMCL = SWTR Treatment Technique; SWTR= Failure to Filter; RMCL = Radiochemical MCL; FMCL = Fluoride MCL; SMCL = Synthetic Chemical MCL; OperLic = Operator Licensing; 7=Jul,8=Aug, 9=Sep, 10=Oct, 11=Nov, 12=Dec.

## Public Health Lab To Change Analytical Method for TTHM

Beginning in the second quarter of 2008, analyses for Total Trihalomethanes by the Department of Health's Public Health Laboratory will be conducted utilizing EPA Method 524.2 instead of the previously utilized Method 551.1.

Management in the Public Health Laboratory decided to switch to the Method 524.2 following a series of analyses of duplicate samples last fall from several Arkansas water systems. The samples were analyzed by both the Public Health Laboratory and by a certified private laboratory using both Methods 551.1 and 524.2.

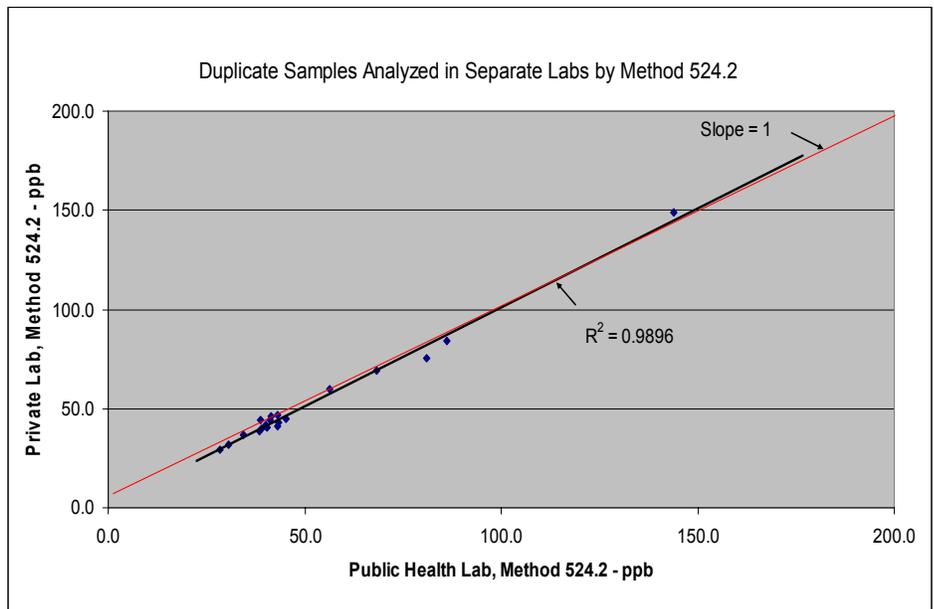
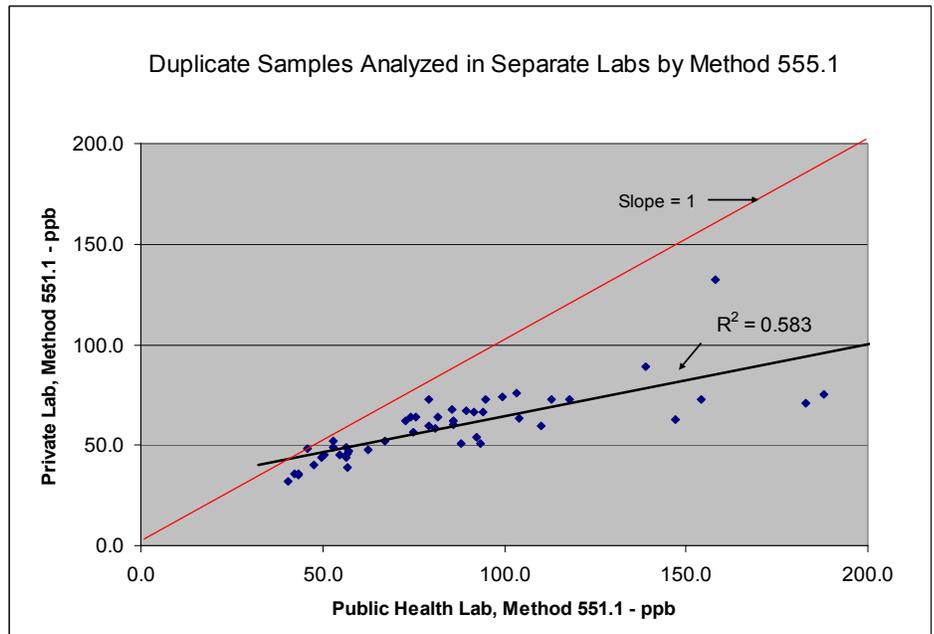
Method 551.1 utilizes a liquid-liquid extraction and gas chromatography with electron-capture for detection and analysis. Method 524.2 uses purge and trap gas chromatography / mass spectrometry for its detection and analysis.

Discrepancies in the levels of TTHMs found in duplicate samples analyzed by Method 551.1 by the private laboratory and those analyzed by the same method by the Public Health Laboratory resulted in several inquiries by Arkansas water systems. Following a series of meetings with the water systems, a methodology was developed by the Engineering Section to systematically examine the sample containers, preservatives, sampling techniques, analytical method, and other potential variables that might account for the discrepancies.

Over the course of about five months, multiple sites were monitored and samples analyzed by the separate labs each using both Method 551.1 and Method 524.2. A comparison of the results from those analyses are shown in the adjacent graphs.

The decision to switch to Method 524.2 for TTHMs will require an initial cost of about \$65,000 for column detectors, software, autosampler, and related equipment. Additional costs may be required next year. The initial costs will be paid by the Public Water System Supervision Fees.

As a result of statistically significant differences of some TTHM values in 2007 from the same site for the same



quarter as compared to previous years where there had been no change in treatment or raw water quality, some water systems' TTHM analyses have been invalidated by the Engineering Section. Individual water systems have been notified of those decisions as well as the impact of the invalidation on their compliance status.

Water systems with questions about their disinfection by-product results can contact Jan Bingaman or Lyle Godfrey with the Engineering Section at 501-661-2623. ♦

### Violations *cont' d from page 13*

MULBERRY WATER	DMCL 7,8,9
MURFREESBORO WATER	DMCL 7,8,9
NASHVILLE RURAL WATER	DMCL 7,8,9
NEW LONDON WATER	DMCL 7,8,9
NE YELL COUNTY WATER	DMCL 7,8,9
N PIKE CO RURAL WATER	DMCL 7,8,9
NW AR REGIONAL AIRPORT	DMCL 7,8,9
OLA WATER	DMCL 7,8,9
PANGBURN WATER	DMCL 7,8,9
PARON OWENSVILLE	DMCL 7,8,9
PIKE CITY WATER	DMCL 7,8,9
PRESCOTT WATER	DMCL 7,8,9
SEVIER COUNTY WATER	DMCL 7,8,9
S LOGAN COUNTY WATER	DMCL 7,8,9
SOUTHSIDE PWA	DMCL 7,8,9
SPARKMAN WATER	DMCL 7,8,9
SUBIACO ACADEMY	DMCL 7,8,9
VAN BUREN CO WATER	DMCL 7,8,9
WIRE ROAD WATER	DMCL 7,8,9
WOOSTER WATER	DMCL 7,8,9

REPORT OF THE  
Arkansas Drinking Water Advisory and Operator Licensing Committee

A. Martin Nutt, Training and Certification Officer

Quarterly meetings of the Arkansas Drinking Water Advisory and Operator Licensing Committee were held on November 7, 2007 and January 30, 2008. Members present at both meetings were: Les Patterson, P.E., Chair; Charles Nickle, P.E., Vice-Chair; Robert Hart, P.E., Executive Secretary; and Terry House. Rodney Williams, P.E., and Scott Borman were present for the November. Steve Di Cicco was present for the January meeting. ADH colleagues present at both meetings included Reggie Rogers, Martin Nutt and Jeremy Rowe. Guests present at both were: Dennis Sternberg, ARWA; Gary Oden, SAU Tech; and Vicky Prewitt, ADEQ. Guests present at the November meeting were Jonathan Richardson, AEA; Cindy Garner, ADEQ; James Busbee, Mayor, and Jimmie Blair, City of Marshall; and Brian Whitworth and Alan Rogers, City of McCrory. Randy Harper, AEA, was present for the January meeting.

#### **Standing Business**

In November, the Committee reviewed the High School Waiver Request of Jimmie Blair, City of Marshall, and Alan Rodgers, City of McCrory. Both requests were approved.

The Committee, at both meetings, heard updates on ongoing efforts to electronically track operator attendance of training. The January meeting update indicated that both the Department of Health's Water Licensing Program and the Department of Environmental Quality's Wastewater Licensing Program would be issuing training cards by early April. The cards would have the operators unique training ID bar-coded on the card. Operators holding both license types would have the same training number on both cards and could use either card to record training attendance. The bar-coded cards will allow trainers to begin using barcode scanners to record attendance. Patterson reported that AWW&WEA and its districts were progressing on obtaining scanning equipment and

developing electronic databases to record attendance. Sternberg, Harper, and Prewitt indicated their organizations were going to obtain scanners.

At both meetings, Hart reported progress on a proposed Section policy addressing licensure recommendations of Engineering Staff. He reported at the January meeting that he considered the policy completed now that it had been furnished to and discussed with the Section's staff. The policy encourages the licensure of all Section staff but does not require it. The level of licensure encouraged in the policy is based on level of responsibility within the Section.

House updated the Committee, at both meetings, on the Committee's ad hoc sub-committee on Service Fee Pro-Active Education. In the November meeting, the Committee addressed which water industry related groups would be considered stakeholders on this topic. Stakeholders specifically identified to be invited to participate were ARWA, AEA, ADH, Mayors/municipal governments (Arkansas Municipal League), county judges/county government (Association of County Judges), engineers (Arkansas Society of Professional Engineers), water system managers (Water and Wastewater Managers Association and water operators (Arkansas Water Works and Water Environment Association). House reported in January that all stakeholders had been contacted about participating and he hoped to have the first meeting in March.

The Committee, during both meetings, approved additional courses to be included in the EPA funded OpCert Training Grant. The grant reimburses meals and lodging expenses for eligible operators attending approved courses. To be eligible the operator must operate a community or non-transient non-community public water system with a service population less than 3,300. Approved courses now include all AEA

or ARWA mandatory water licensing courses, ARWA Two Day School (water related day), ARWA Water Expo (registration only), ARWA Backflow Tester Certification (meals, lodging and registration), ARWA Backflow Tester Re-Certification (meals, lodging and registration), AEA Backflow Assembly Tester Technician (meals, lodging and registration), AEA Backflow Assembly Tester Recertification (meals, lodging and registration), and AEA Cross-Connection Control Program Specialist (meals, lodging and registration). Operators should contact the training providers for grant conditions and to apply for training under the grant.

#### **Old Business**

In the November meeting, Nutt advised the Committee that a list of operators that had not renewed their license had been published in the winter edition of this newsletter, and the publishing of the list would be the last effort made by the Licensing Program to remind operators to renew. Nutt stated at the January meeting that the published list had reminded several operators to renew and had uncovered a couple of file errors.

#### **New Business**

Hart informed the November Committee that the Section was investigating a bacteriological sampling concern and that it would include an enforcement action against an operator's license. In the January meeting, Hart outlined to the Committee the particulars of the improper sampling actions that had occurred and the Section's action against the involved system and the operator, including the suspension of the operator's license for one year. The Committee indicated they supported the level of action taken and the timeliness of the action. (See article page 8.)

The November Committee concurred with the Section's request to send the newest Committee member to the Association of Boards of Certification's Annual Conference in

mid-January 2008 in San Antonio. House and Nutt reported, at the January meeting, on their attendance of the conference. House felt he gained insight into concerns about the declining numbers of licensed operators, the efforts required to replace those operators, and how pay would be a critical factor. Nutt reported that he gained insight from presentations and networking sessions in the areas of minimum system staffing, the shrinking workforce, the success some states were having with computer based licensure testing, and other states' licensure enforcement concepts.

### **Reports to the Committee**

Hart, in his November Engineering Section Chief's report, reviewed the implementation of the finalized service fee increase, disclosed that sampling for small system under the Long Term 2 Enhanced Surface Water Treatment Rule had begun, that preparations were being made for the UCMR2 sampling to start January 2008, and that concerns had arisen over DBP Rule sampling results. In his January report, he discussed the moving of the Section's Sampling Technicians from capacity development grant funding to being solely supported by the Service Fees with yearly costs of approximately \$250,000. Unregulated Contaminant Monitoring Rule 2 sampling had commenced with expected service fee expenditures of about \$120,000 dollars for large system monitoring. Small system monitoring expenditures under the rule would be covered by EPA. He addressed recent discrepancies in disinfection by-product analyses performed by Arkansas's Public Health Laboratory. (See article page 13.) Hart reported on his attendance of the EPA Region 6 meeting, briefly covering new rule implementation, data reporting, and compliance issues experienced by participating states. Hart concluded by reporting on staff changes. Bob Arthur had been promoted to the supervisor position for Engineering Districts 7 and 8; the District 9 Engineer position, vacated by Arthur, had been laterally filled by Ed Craig, the current Cross-Connection Control Engineer; and

## **OpCert Training Grant Expansion**

The Arkansas Environmental Academy and the Arkansas Rural Water Association have both been allowed to expand their course offerings that are OpCert Grant eligible for the reimbursement of an operator's course registration (if applicable), meals, and lodging while attending. All Mandatory Courses are included in the expansion as well as Backflow Prevention Courses offered by both organizations and ARWA's Two Day Schools (water related day) and their Expo (registration only).

The latest listing of courses eligible for grant reimbursement can be found on the Engineering Section's website at: [www.healthyarkansas.com/eng/autoupdates/oper/opcertlinks.htm](http://www.healthyarkansas.com/eng/autoupdates/oper/opcertlinks.htm). Contact the training provider of the course to determine your grant eligibility and to register for the grant. Registration should be done well in advance of attending a course.

The Arkansas Department of Health received the EPA OpCert grant in 2003. It is to be used to improve operator training for eligible Community and Non-Community Non-Transient Public Water Systems. To be eligible the system must serve fewer than 3300 persons. The grant is expected to expire September 30, 2010. The most notable part of the grant for water systems is its assistance in covering registration, meals and lodging cost when attending an eligible course to either obtain a license or license renewal hours. Reference manual sets are also available through the ADH for eligible systems.

Karen Howard, the Section's IT Supervisor, had resigned.

In his Certification Officer's report, for both meetings, Nutt discussed exam passage rates remaining stable and reviewed on-going license enforcements efforts. In January he noted Walker Water System was being scheduled for an administrative hearing. In his general program information update, he reported, at both meetings, the persistence of a significant lag time in application and exam processing times due to additional financial duties assigned to licensing staff members. In January, he reported most of the monetary duties had been removed from the program January 1 and improvements in turn around times would be the expected outcome except Debbie Bertrand, the programs Administrative Assistant, was resigning.

Oden reported in November that Dr. Steve Franks, Chancellor of SAU Tech, was resigning. Richardson reviewed the AEA's upcoming training, and discussed the Academy's courses available on-line and their frequent availability. In January, Harper reviewed attendance information for calendar year 2007, noting a 20

percent increase from 2006, and mentioned that the Academy would be offering electrical, pump, and confined space specialty courses.

Sternberg provided attendance data for ARWA courses in the November meeting, and noted ongoing Association funding concerns. In January he reviewed their 2008 training calendar pointing out that more training was being offered than ever before. He noted they were offering two day schools, with one day water and one other day wastewater that would be aimed at renewal hours, not examination preparation. He also announced that, through ARWA and the Arkansas Natural Resources Commission, two electrical generators had been purchased to be used in an emergency.

### **Other Business**

No other business was brought before the Committee at either meeting. The next Committee Meeting was tentatively set for April 9, 2008. ♦

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>April 2008</b>				
3	5:00PM	Benton	Brown's County Restaurant	Central District, AWW&WEA
3	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
10	5:30PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
10	5:30PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
10	5:30PM	Forrest City	Mike's Restaurant	Eastern District, AWW&WEA
24	6:00PM	Magnolia	Western Sizzlin	Southwest District, AWW&WEA
<b>May 2008</b>				
1	5:00PM	to be announced	to be announced	Central District, AWW&WEA
1	6:30PM	to be announcedh	to be announced	Western District, AWW&WEA
8	5:30PM	Clarksville	Western Sizzlin	AR Valley District, AWW&WEA
8	5:30PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
8	5:30PM	Stuttgart	Western Sizzlin	Eastern District, AWW&WEA
15	1:00PM	Jonesboro	Ron's Catfish	Northeast District, AWW&WEA
20	6:30PM	Watson Chapel	Leon's	Southeast District, AWW&WEA
21	9:00AM	Lincoln	Lincoln Community Center	Northwest District, AWW&WEA
22	6:00PM	Arkadelphia	Bonanza	Southwest District, AWW&WEA
<b>June 2008</b>				
5	5:00PM	to be announced	to be announced	Central District, AWW&WEA
5	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
12	5:30PM	Forrest City	Civic Center	Eastern District, AWW&WEA
12	5:30PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
12	5:30PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
17	6:30PM	Warren	to be announced	Southeast District, AWW&WEA
18	9:00AM	Green Forest	High School	Northwest District, AWW&WEA
19	1:00PM	Paragould	Couch's BBQ	Northeast District, AWW&WEA
26	6:00PM	Foreman	High School	Southwest District, AWW&WEA
27	6:30PM	Camden	River Woods	Southwest District, AWW&WEA
<b>July 2008</b>				
3	5:00PM	to be announced	to be announced	Central District, AWW&WEA
3	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
10	5:30PM	Marvell	Civic Center	Eastern District, AWW&WEA
10	5:30PM	Clarksville	Western Sizzlin	AR Valley District, AWW&WEA
10	5:30PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
15	6:30PM	Yorktown Water	Charlotte's	Southeast District, AWW&WEA
16	9:00AM	Pea Ridge	Emergency Service Building	Northwest District, AWW&WEA
17	1:00PM	Jonesboro	Western Sizzlin	Northeast District, AWW&WEA
24	6:00PM	El Dorado	Training Center – S.Madison Ave.	Southwest District, AWW&WEA

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