



ARKANSAS DRINKING WATER UPDATE

LT2ESWTR Source Monitoring to Begin in October for Small Systems

Chris Joyner, IESWTR Engineer

As part of the requirements of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), source water monitoring is scheduled to begin in October for all Arkansas public water systems whose population is less than 10,000 and whose water source is a lake, river, stream, or spring; or a groundwater under the direct influence of surface water.

Similar to large systems under the LT2ESWTR, small surface systems will monitor their source waters to determine if higher levels of treatment are required. To reduce monitoring costs, small systems will first monitor their raw water for *E. coli* bacteria at a frequency of once per month for 24 months. The monitoring and analysis for *E.coli* is much less expensive than that for *Cryptosporidium*. However, small systems will be required to monitor their source water for *Cryptosporidium* if their *E. coli* results exceed specified concentration levels. If their source is a lake or reservoir, the trigger is a mean concentration of greater than 10/100 mL. If the source is a flowing stream, the trigger is a mean concentration of *E.coli* greater than 50/100 mL. While the LT2ESWTR specified a monitoring deadline of October 1st, 2008 for small systems, Arkansas is beginning a year earlier in order to even out the analytical load for the Department's Public Health Laboratory.

Engineering Section staff began notifying affected water systems in July and provided training sessions throughout the state in August and September. The training sessions provided a summary of the LT2ESWTR, and covered the development of a sample site schematic, a 24 month sample schedule, proper sampling techniques, the packing and shipping of samples, and data tracking and reporting.

Based on previous sampling practices under the Public Water System Service Fee, the Department of Health will incur the costs associated with the source monitoring requirements of the LT2ESWTR for the 96 small systems in the state. The initial *E. coli* monitoring will be analyzed using the Department's Public Health Laboratory and if source monitoring of *Cryptosporidium* is required based on *E. coli* results, that service will be outsourced to a private EPA approved laboratory for analysis. Costs associated with source monitoring for small systems include approximately \$1500 per source monitored for *E. coli* and approximately \$12,000 per source monitored for *Cryptosporidium*.

If *Cryptosporidium* monitoring is required, water systems will be classified in one of four treatment categories (bins) based on the average concentration of the pathogen in the source water. The majority of systems will be classified in the lowest treatment bin (Bin 1), which carries no additional treatment requirements beyond the current 2-log treatment removal requirement. Systems classified in higher treatment bins (Bins 2-4) must provide an additional 90 to 99.7 percent (1.0 to 2.5-log) removal of *Cryptosporidium*. These systems will select from a wide range of treatment and management strategies in the LT2ESWTR microbial toolbox including source protection and management options, pre-filtration options, treatment performance options, additional filtration options, and/or alternative disinfection options.

All systems regulated by the LT2ESWTR will be required to conduct a second round of monitoring six years after completing the initial round to

See LT2ESWTR pg 3

Department of Health Formed Effective July 1

The creation of the Arkansas Department of Health (ADH) resulting from the separation of the Division of Health from the Arkansas Department of Health and Human Services (ADHHS) became effective on July 1, 2007. The creation of the ADH followed a May 2nd directive from Governor Mike Beebe and was authorized by Act 384 of the 2007 Legislative Session.

Water systems should see minimal change as a result of the separation of the two agencies other than a different letterhead and a different mailing address. The organizational structure and management personnel of the Department of Health and the Engineering Section are essentially the same as they were with ADHHS. Dr. Paul Halverson continues as the director of the Department of Health.

As a result of the creation of the ADH, water systems were notified of new mailing addresses for both the Engineering Section and the Public Health Laboratory. The Engineering Section's address is now 4815 West Markham, Slot H-37, Little Rock, AR 72205. The Public Health Laboratory's address is 201 South Monroe, Slot H-47, Little Rock, AR 72205. Unlike the former Department of Health and Human Services, US Post Office as well as express deliveries, such as through FedEx and UPS, can be sent to both

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Stone Appointed to Chief Engineer Position

Jeff Stone, a 21 year veteran with the Department of Health, was named as Chief Engineer for the Engineering Section in June. As Chief Engineer, Stone will oversee a staff of 25. That personnel includes nine districts and the Engineer Supervisors, District Engineers, and Environmental Specialist who cover those districts. Their primary duties are in the area of plan review, sanitary surveys, technical assistance, rule compliance for the Total Coliform Rule, and the Cross Connection Control and Area Wide Optimization Programs.

Stone has worked in the Engineering Section as a District Engineer for the northeast and central areas of the state, and as an Engineer Supervisor for central and western Arkansas. Prior to joining the Department of Health, he worked for two years as a process engineer with a manufacturing facility. He received a degree in Chemical Engineering from the University of Arkansas at Fayetteville and is a registered Professional Engineer.

Stone stated after his appointment that he looked forward to the challenges of the new position. He said he recognized the increased level of difficulty that water systems are experiencing in their effort to comply with the federal drinking water regulations, especially the disinfection by-product rules, and said he was dedicated to using the Department's resources to assist water systems in their compliance efforts. ♦

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addresses.

ADHHS was created by Act 1954 of 2005 and merged the Department of Health with the Department of Human Services. Then Governor Mike Huckabee cited as the basis for the merger the need to improve access for public services and as a way to increase the efficiency of government operations. Current Governor Beebe stated in his May directive that after careful review and consideration, the people of the State of Arkansas would be better served by a separate Department of Health and a separate Department of Human Services.

The ADH began work prior to the separation on the formation and staffing of agency sections for human resources, finance, mailroom, and communications. As of August 1, personnel in those sections were located in temporary offices at the ADH and were due to be permanently housed in renovated office space formerly occupied by the Public Health Laboratory.

While the two agencies have different missions, both Halverson and ADHHS Director John Selig emphasized that the agencies were stronger as a result of the two year merger. Halverson stated new relationships had been formed, many lessons learned, and collaborative efforts with DHS fine tuned. He cited as an example the response effort provided to evacuees from Hurricanes Katrina and Rita in 2005. Halverson and Selig pledged to continue their cooperation in the services provided by each agency to the public. ♦

STATE OF ARKANSAS EXECUTIVE DEPARTMENT

PROCLAMATION

EO 07-05

TO ALL TO WHOM THESE PRESENTS COME -- GREETINGS:

EXECUTIVE ORDER TO ESTABLISH AN ARKANSAS DEPARTMENT OF HEALTH BY ORDERING THE SEPARATION OF THE DIVISION OF HEALTH OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES FROM THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, PURSUANT TO ACT 384 OF 2007

WHEREAS: Act 1954 of 2005 merged the Arkansas Department of Health and the Arkansas Department of Human Services, creating the Arkansas Department of Health and Human Services; and

WHEREAS: Section 1(a) of Act 384 of 2007 authorizes the Governor to establish an Arkansas Department of Health by ordering the separation of the Division of Health of the Department of Health and Human Services from the Department of Health and Human Services; and

WHEREAS: Sections 1 and 8 of Act 384 authorize the Governor to establish a separate Arkansas Department of Human Services; and

WHEREAS: Based on careful review and consideration, the people of the State of Arkansas would be better served by the establishment of a separate Arkansas Department of Health and a separate Arkansas Department of Human Services; and

WHEREAS: In Act 384 of 2007, the General Assembly declared an emergency, finding that many services delivered by the various divisions, offices, and units of the Department of Health and Human Services are essential to the public health, safety, and welfare; that the state fiscal year begins July 1; and that beginning the process of decoupling the Division of Health of the Department of Health and Human Services from the Department of Health and Human Services during a fiscal year will cause disruptions of services and unnecessary time, effort, and expense in reallocating appropriations, budgets, personnel, equipment, and capital expenditures during a fiscal year.

NOW, THEREFORE, I, MIKE BEEBE, Governor of the State of Arkansas, acting under the authority vested in me by Act 384 of 2007, do hereby order the following:

Section 1. Effective July 1, 2007, a separate Department of Health and a separate Department of Human Services, authorized by Act 384 of 2007, are hereby established.

Section 2. Effective July 1, 2007, all personnel, powers, duties, functions, fund balances, and all other matters enumerated in §§ 2(a)(1)-(3) and 2(b) of Act 384 of 2007, shall be transferred to the Arkansas Department of Health.

Section 3. The Department of Human Services shall provide the Department of Health with access to such records relating to the Division of Health as the Department of Human Services must retain for audit purposes.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Arkansas to be this 2nd day of July in the Year of our Lord, 2007.




MIKE BEEBE, GOVERNOR


CHARLIE DANIELS, SECRETARY OF STATE

determine if source water conditions have changed significantly. Treatment requirements will then be adjusted accordingly in the same manner at that time.

The LT2ESWTR is part of the second phase of regulations for small systems whose supply is a surface source. This second phase follows the Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) and the Stage 1 Disinfection Byproduct Rule (S1DBPR), and is designed to strengthen protection against microbial contaminants, especially *Cryptosporidium*, while at the same time reducing potential health risks associated with disinfection byproducts (DBPs).

In the past 15 years, the water industry and regulators have learned more about the prevalence of microbial pathogens, such as *Cryptosporidium*, which are highly resistant to traditional disinfection practices. We also know that the disinfectants traditionally used to inactivate such pathogens can themselves react with naturally-occurring materials in the water to form byproducts, which may pose health risks. Current regulations require filtered water systems to reduce source water *Cryptosporidium* levels by 2-logs (99 percent) which is sufficient for most systems. However, research data on *Cryptosporidium* infectivity and occurrence indicate that additional treatment is necessary for certain higher risk water systems which have higher concentrations of fecal material in their source water. Human and animal fecal matter are the sources for *Cryptosporidium*.

For more information on the LT2ESWTR or the implementation efforts in Arkansas, contact Chris Joyner or Lyle Godfrey within the Engineering Section-Source Protection Program of ADH at (501) 661-2623. For copies of the Federal Register notice of the regulation or technical fact sheets, visit the EPA website at <http://www.epa.gov/safewater/disinfecton/index.html>. ♦

GIS/GPS Tools Help Small Systems Develop Distribution Maps

Brad Jarrett, Capacity Development Coordinator

Maps detailing the location of water distribution lines, their material, their size, and the location of valves are one of those things seldom thought about until needed. When needed, it is usually a crisis situation resulting from a main break or major water leak. Then the question becomes: are the maps accurate, or why don't we have maps? Where can we get new maps made? How much will it cost?

Sound familiar? These are questions that cities and rural water districts have been asking for decades. The solution in the past has been to utilize in-house forces, a survey crew, or an engineering firm to locate above ground hydrants and valves, and transfer that information to hand drawn maps or purchased aerial photographs. However, some newer technology holds the promise of giving local utilities a simple and inexpensive option, one that would enable water systems to develop and maintain control of their maps on a local level.

Jeff Ford of Arkansas Rural Water Association (ARWA) through the Department of Health's (ADH) capacity development program routinely conducts assessments of water systems to evaluate their technical and operational capability. The lack of reliable and accurate distribution maps is many times a capacity issue in these assessments. During the Hurricane Katrina relief efforts, it was abundantly clear that not only is it a good idea to "operationally" know where your valves and lines are; but it is also necessary to know how they can be located when buried under a mountain of debris.

Ford approached the ADH about conducting follow-up assistance with some of the smaller utilities that did not have accurate locations for their valves and hydrants. ARWA began evaluating and testing various global positioning system (GPS) units to find those that would give reliable and repeatable results. After some review, ARWA selected a unit with an accuracy of less than 1 meter. The GPS unit stores the coordinates of the valve or hydrant being mapped and can later be downloaded to the utility's computer.

However, the coordinates of valves and hydrants, by themselves, are not useful without a corresponding map. ARWA also examined available mapping software that a small utility could afford in order that the valve and hydrant locations could easily be imported. ARCVIEW, a widely known GIS software developer, has a free version of its software into which valve and hydrant coordinates can be mapped. Additionally, free high resolution aerial photographs of the entire state can be downloaded from the internet into the ARCVIEW software. When the valve and hydrant coordinates are overlain with the aerial photographs, a completed visual picture of their location in relation to buildings, trees, homes, etc. is achieved. While very basic, this can be a meaningful help to utility personnel. Through the Capacity Development Program, ARWA has now completed GIS/GPS maps for several small water systems with about a half a dozen more currently in the process.

Ford gave a presentation on the development of the GIS/GPS efforts at an ARWA short school in May and, more recently, to the USEPA Region 6 states via a conference call. It appears this tool could help a number of systems to accurately and cost effectively map their water distribution system. Thanks to ARWA for taking the initiative to help small water systems in Arkansas in this important area.

For more information, contact Jeff Ford at ARWA or Brad Jarrett in the Engineering Section.

New Courier System Begins in September for County Health Units

In order to provide better service to the Department of Health's County Health Units and the public who visit those units, the agency is implementing a new courier system effective in September. The courier system will provide overnight delivery to the agency's Public Health Laboratory of medical specimens and environmental samples by a single contractor.

In the past, about two-thirds of the health units were serviced by an agency courier system which provided overnight delivery four days each week. The remaining one-third of the counties relied on a combination of overnight services provided by the US Post Office, Fed-Ex, UPS, and others. When the agency examined the expansion of its in-house courier service to all of the state's 75 counties as well as providing service five days each week for medical specimens, the cost was found to be too high. At that point the agency began looking at the private sector, and prepared a proposal for a single statewide contract. The successful bidder was STAT Courier based in St. Louis, MO. STAT has been in the courier business for 15 years and operates in 16 states including six state health departments.

The contract with STAT will provide for pickup of specimens during normal business hours. It will also allow County Health Units to see patients and collect medical specimens on Friday which had not been possible with the old courier systems.

It should be noted that while the courier will pick up samples on Friday for delivery on Saturday, that does not include water samples. The Public Health Laboratory does not operate on weekends and water samples picked up on Friday will exceed the allowable hold time of 30 hours when the Lab reopens on Mondays. Medical specimens have a longer allowable hold time and can be stored over the weekend for analysis the following week.

Implementation of the new courier system will begin in September. The pick-up times listed in the adjacent

Approximate Pickup Times for Water Samples at County Health Units*

County	Address	City	Time*
Arkansas County	1602 N Buerkle	Stuttgart	1:00 PM
Arkansas County	1616 S Madison	DeWitt	1:50 PM
Ashley County	401 N Cherry	Hamburg	2:00 PM
Ashley County	1300 W 5th St	Crossett	2:20 PM
Baxter County	206 Bucher Drive	Mtn Home	1:35 PM
Benton County	1202 SW 14th	Bentonville	Noon
Boone County	1622 Campus Dr	Harrison	3:00 PM
Bradley County	208 N Bragg St	Warren	11:30 AM
Calhoun County	1119 Prestress Dr	Hampton	2:40 PM
Carroll County	402 Hailey Rd	Berryville	1:10 PM
Chicot County	1742 Hwy 65 & 82 S	Lake Village	1:00 PM
Clark County	605 S 10th St	Arkadelphia	11:10 AM
Clay County	1009 S Garfield	Piggott	12:45 PM
Cleburne County	600 S 11th St	Heber Springs	11:30 AM
Cleveland Co	409 E Magnolia	Rison	10:30 AM
Columbia Co	207 W Calhoun	Magnolia	12:30 PM
Conway County	100 Hospital Dr	Morrilton	4:30 PM
Craighead Co	611 E Washington	Jonesboro	11:30 AM
Crawford County	2040 Chestnut	Van Buren	3:20 PM
Crittenden Co	901 N 7th St	W Memphis	12:25 PM
Cross County	704 Canal St	Wynne	4:10 PM
Dallas County	209 North Clifton	Fordyce	3:50 PM
Desha County	Hwy 65 S	Dumas	2:40 PM
Drew County	940 Scogin Dr	Monticello	3:20 PM
Faulkner County	811 N Creek Dr	Conway	11:50 AM
Franklin County	799 W River St	Ozark	3:40 PM
Fulton County	510 S Main	Salem	1:25 PM
Garland County	1425 Malvern Ave	Hot Springs	2:00 PM
Grant County	700 E Center	Sheridan	3:20 PM
Greene County	801 Goldsmith	Paragould	Noon
Hempstead Co	808 W 5th St	Hope	3:00 PM
Hot Springs Co	2204 E Sullenberger	Malvern	10:30 AM
Howard County	201 E Hempstead	Nashville	2:30 PM
Independence Co	120 Weaver Ave	Batesville	3:30 PM
Izard County	1015 Haley St	Melbourne	1:00 PM
Jackson County	1505 N Pecan St	Newport	3:30 PM
Jefferson County	2306 Rike Dr	Pine Bluff	4:05 PM
Johnson County	6 Professional Park	Clarksville	12:20 PM
Lawrence County	1050 W Free St	Walnut Ridge	2:30 PM
Layette County	1113 Chestnut St	Lewisville	2:15 PM
Lee County	141 N Hickey Rd	Marianna	10:50 AM
Lincoln County	101 W Wiley St	Star City	4:10 PM
Little River Co	150 Keller	Ashdown	1:00 PM
Logan County	150 S Louder	Paris	Noon
Logan County	721 W 1st St	Booneville	1:00 PM
Lonoke County	306 N Center	Lonoke	10:05 AM
Lonoke County	614 N Grant	Cabot	10:40 AM
Madison County	709 College	Huntsville	2:00 PM
		See County Pickups on pg 5	

table are approximate only and should be confirmed at the local health unit.

Additionally, these times may change as STAT adjusts its schedule. ♦

Source Protection Efforts Updated via 2007 Surveys

Stan Starling, Environmental Specialist

As part of its source water protection efforts, the Engineering Section mailed a survey regarding source water protection activities in March 2007 to all water systems with an active source of supply. The 2007 survey will enable the ADH to comply with the requirements of 1986 and 1996 amendments to the Safe Drinking Water Act on source water

protection for the state primacy agency.

Questions in the survey included whether the water system had a copy of the original Source Water Assessment Plan provided by the ADH and asked for updated information on potential sources of contamination. Systems which did not have a copy of their original assessment are being

provided one. The survey also asked about local source water or wellhead protection activities, and the availability of a contingency plan should a source become contaminated.

The original source water assessments resulted in a wellhead protection or source water assessment map which can be used by water systems to monitor activities around a water source as well as to implement management strategies to protect them.

The number of new wells for all uses – domestic, community, irrigation, and commercial, which are drilled in Arkansas each year has been estimated at 2000 to 4000. In 2004, groundwater withdrawals from the state's aquifers were estimated at 6.4 billion gallons per day. The number of surface sources for drinking water - reservoirs, rivers, and springs, do not number anywhere close to the number of wells, however, the majority of the state's population rely on such surface supplies. Obviously, the protection of all water supplies is critical. Activities around a water source which can impact it include large construction projects, point source discharges, oil and gas drilling operations, land application sites for wastewater effluent and biosolids, and other activities.

In addition to the state mandated minimum buffer zones around water sources, water systems have adopted a number of protection strategies for source water protection. Those include the acquisition of additional buffer areas, restrictive easements, local ordinances defining allowable and prohibited activities, providing comments to state and federal agencies on proposed land uses and discharges near a source or within a watershed, increased surveillance, and monitoring of influent streams for surface supplies.

To date, 44 % of the 451 systems surveyed have returned their completed questionnaire. Our thanks are extended to all those who responded in a timely fashion. If you are not sure whether you have returned the survey or if you did not receive a survey, contact Stan Starling at 501-661-2623. ♦

County Pickups *continued from page 4*

Marion County	707 Hwy 202 W	Yellville	2:15 PM
Miller County	503 Walnut	Texarkana	1:30 PM
Mississippi Co	1299 N 10th St	Blytheville	1:30 PM
Mississippi Co	720 W Lee St	Osceola	2:00 PM
Monroe County	306 W King Dr	Brinkley	9:30 AM
Montgomery Co	346 Luzerne	Mt. Ida	11:30 AM
Nevada County	1501 W 1st St N	Prescott	Noon
Newton County	506 W Court St	Jasper	3:30 PM
Ouachita County	740 California SW	Camden	2:00 PM
Perry County	1039 N Fouché	Perryville	12:35 PM
Phillips County	110 Shirley Hicks Dr	West Helena	11:30 AM
Pike County	15 Caddo Dr	Murfreesboro	2:58 PM
Poinsett County	102 Liberty	Marked Tree	3:00 PM
Poinsett County	119 N Main	Harrisburg	3:30 PM
Polk County	702 Hornbeck Ave	Mena	12:35 PM
Pope County	203 Weir Rd	Russellville	11:10 PM
Prairie County	214 Main St	Des Arc	tba
Pulaski County	3915 W 8th	Little Rock	4:10 PM
Pulaski County	3000 N 1st St	Jacksonville	11:00 AM
Pulaski County	2800 Willow Dr	No Little Rock	11:25 AM
Pulaski County	4918 Baseline Rd	Little Rock	4:05 PM
Randolph County	1304 Pace Rd	Pocahontas	2:05 PM
Saline County	1612 Edison Ave	Benton	2:45 PM
Scott County	316 Featherson St	Waldron	1:45 PM
Searcy County	Hwy 65 N	Marshall	Noon
Sebastian County	3112 S 70th	Fort Smith	2:45 PM
Sevier County	304 N 4th St	DeQueen	1:45 PM
Sharp County	724 Ash Flat Dr	Ash Flat	2:15 PM
St Francis County	1501 Dawson Rd	Forrest City	10:20 AM
Stone County	204 Blanchard Ave	Mtn View	12:20 PM
Union County	301 American Rd	El Dorado	1:15 PM
Van Buren Co	526 Quality Drive	Clinton	11:17 AM
Washington Co	3270 Wimberly Dr	Fayetteville	11:15 AM
White County	306 Gum St	Beebe	tba
White County	112 Brantley	Searcy	4:00 PM
Woodruff County	623 North 9th St	Augusta	10:25 AM
Yell County	719 N 5th St	Dardanelle	11:30 AM
Yell County	1309 Hwy 10 E	Danville	10:30 AM

tba – to be announced

* Pickup times are subject to change and should be verified with the Health Unit.

NATIONAL

* The U.S. Conference of Mayors at its July meeting in Los Angeles adopted a resolution titled "Importance of Municipal Water" that emphasizes the high quality of public drinking water supplies and the growing environmental impact of making, transporting, and disposing of plastic bottles for water. The resolution notes that local governments invest \$43 billion annually to produce safe water and to treat wastewater, and that bottled water costs the equivalent of 1,000 to 10,000 times more than tap water. The resolution was introduced by the mayors of San Francisco, Salt Lake City, and Minneapolis.

* Three new guidance documents are available to help water systems comply with the Ground Water Rule published late last year and due to take effect in 2009. The documents are *Source Water Monitoring Methods Guidance*, *Consecutive System Guide for the Groundwater Rule*, and *Complying with the Groundwater Rule: Small Entity Compliance Guide*. The documents are available at EPA's website:

<http://www.epa.gov/safewater/disinfection/gwr/compliancehelp.html>.

* The Total Coliform Rule / Distribution System Federal Advisory Committee convened for the first time in July in Washington, DC. The group's purpose is to reach a consensus and make recommendations to EPA on the revisions to the Total Coliform Rule. The committee is made up of sixteen stakeholders including representatives from utilities, regulators, environmental advocates, public health officials, and consumer advocates. The group hopes to finalize its work and report to EPA in 2008.

* The House of Representatives approved a version of the 2007 Farm Bill that creates a new Regional Water Enhancement Program to be funded at \$100 million annually for 2008-2012. The program would allow cooperative agreements between the U.S. Department of Agriculture and state or

local governments to carry out conservation programs to improve water quality through activities on agricultural lands. Committee meetings and discussions on the Farm Bill between the House and Senate will continue this fall. .

* The U.S. Senate passed a bill in August to address deteriorating conditions of the country's infrastructure. The National

News of Note

Infrastructure Improvement Act would create the National Commission on Infrastructure and require the completion of a study by 2010 to address the state of the nation's infrastructure and financing methods to improve it. The bill was sent to the House Committee on Transportation and Infrastructure.

* EPA's Local Government Advisory committee has developed a DVD that highlights how local governments are addressing aging sewer and water systems. The DVD stresses the importance of local leadership in addressing these issues and profiles the efforts of five communities to meet their infrastructure needs. The DVD can be viewed at or ordered from http://www.epa.gov/waterinfrastructure/lgac_video/index.html

ARKANSAS

* Martin Maner, P.E., has been selected as Director of Watershed Management for Central Arkansas Water. Maner was the former Chief of the Water Division at the Arkansas Department of Environmental Quality. In his new position, Maner will oversee planning and standards enforcement related to land-development, recreational uses, pollution control, water quality monitoring, security, and other watershed management measures.

* Central Arkansas Water entered into a settlement agreement in July with the developers of Waterview Estates, a subdivision north of the utility's primary water source – Lake Maumelle. CAW had successfully condemned portions of the development within the watershed of the lake in an attempt to protect water quality. What was still in dispute and moving to trial was the monetary price for the property. The settlement calls for the construction of a diversion ditch by the developer to capture runoff from the affected property and discharge it out of the watershed, and the payment by CAW to the developer of \$1 million. A copy of the settlement can be found at <http://www.carkw.com/>.

ENGINEERING SECTION

* David Poole has joined the Engineering Section as a District Engineer for the North Central area of the state. His primary duties will



include plan review, sanitary surveys, and technical assistance.

David holds a Bachelor Degree in Mechanical Engineering and a Masters Degree in Industrial Engineering, both from UA-Fayetteville. He has engineering experience in a number of settings including as a facilities engineer, a sales engineer, and a contract engineer.

* The Department of Health's drinking water program underwent a data verification audit in late May by a team consisting of EPA Regional 6 staff and The Cadmus Group, an EPA contractor. The purpose of the audit, conducted every four years, is to examine all data and records for a representative cross section of the state's public water systems, and to evaluate all compliance decisions by the Department regarding those systems. The team examined the records for forty six systems over a period of four days. A final report on the audit is due later this year.

Mandatory Training Course Schedule

Please note that all courses begin at 8 am

See instructions next page sidebar

MANDATORY COURSE NAME	START DATE	END DATE	OPCERT GRANT ELIGIBLE COURSE	CITY	LOCATION All courses begin at 8 a.m.	SPONSOR
Intermediate Water Distribution	09/04/07	09/06/07	Yes	Lonoke	ARWA Training Facility	ARWA
Intermediate Water Treatment	09/11/07	09/13/07	Yes	Camden	Arkansas Environmental Academy	AEA
Intermediate Water Treatment	09/18/07	09/20/07	Yes	Clarksville	Clarksville Services Center	ARWA
Advanced Water Distribution	09/18/07	09/20/07	No	Fayetteville	Operations Service Center	AEA
Basic Water Math	09/24/07	09/24/07	Yes	Russellville	Tri-County Water District Training Facility	AEA
Applied Water Math	09/25/07	09/25/07	Yes	Russellville	Tri-County Water District Training Facility	AEA
ADHHS Water Compliance	09/26/07	09/26/07	Yes	Russellville	Tri-County Water District Training Facility	ADHHS
Advanced Water Treatment	10/02/07	10/04/07	No	Clarksville	Clarksville Services Center	ARWA
Basic Water Distribution	10/09/07	10/11/07	Yes	Forrest City	Wastewater Plant Training Room	AEA
Basic Water Math	10/09/07	10/09/07	Yes	Lonoke	ARWA Training Facility	ARWA
Applied Water Math	10/10/07	10/10/07	Yes	Lonoke	ARWA Training Facility	ARWA
ADHHS Water Compliance	10/11/07	10/11/07	Yes	Lonoke	ARWA Training Facility	ADHHS
Basic Water Distribution	10/16/07	10/18/07	Yes	Nashville	Carter Day Training Center	ARWA
Advanced Water Treatment	10/22/07	10/24/07	No	Maumelle	Maumelle Water Training Center	AEA
Intermediate Water Distribution	10/29/07	10/31/07	Yes	Camden	Arkansas Environmental Academy	AEA
ADHHS Water Compliance	10/29/07	10/30/07	No	Hot Springs	ARWA Conference, Hot Springs Conv. Center	ADHHS
Basic Water Math	10/29/07	10/30/07	No	Hot Springs	ARWA Conference, Hot Springs Conv. Center	ARWA
Applied Water Math	10/29/07	10/30/07	No	Hot Springs	ARWA Conference, Hot Springs Conv. Center	ARWA
Basic Water Math	11/06/07	11/06/07	Yes	Fayetteville	Operations Service Center	AEA
Basic Water Distribution	11/06/07	11/08/07	Yes	Lonoke	ARWA Training Facility	ARWA
Applied Water Math	11/07/07	11/07/07	Yes	Fayetteville	Operations Service Center	AEA
ADHHS Water Compliance	11/08/07	11/08/07	Yes	Fayetteville	Operations Service Center	ADHHS
Advanced Water Treatment	11/13/07	11/15/07	No	Fort Smith	Contact AEA for more information	AEA
Intermediate Water Distribution	11/13/07	11/15/07	Yes	Nashville	Carter Day Training Center	ARWA
ADHHS Water Compliance	11/20/07	11/20/07	No	Little Rock	DOH, 4815 W. Markham, L137	ADHHS
Basic Water Treatment	11/26/07	11/28/07	Yes	Camden	Arkansas Environmental Academy	AEA
Intermediate Water Treatment	12/04/07	12/06/07	Yes	Forrest City	Wastewater Plant Training Room	AEA
Intermediate Water Distribution	12/04/07	12/06/07	Yes	Lonoke	ARWA Training Facility	ARWA
Basic Water Math	12/11/07	12/11/07	Yes	Camden	Arkansas Environmental Academy	AEA
Advanced Water Distribution	12/11/07	12/13/07	No	Lonoke	ARWA Training Facility	ARWA
Applied Water Math	12/12/07	12/12/07	Yes	Camden	Arkansas Environmental Academy	AEA
ADHHS Water Compliance	12/13/07	12/13/07	Yes	Camden	Arkansas Environmental Academy	ADHHS

*Opcert Grant Eligible Course – Meal and lodging expenses may be reimbursed for operators from Grant Eligible Public Water Systems. Grant eligible systems must be a Community or Non-Transient Non Community Public Water System serving a population of 3300 or less. The course is 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.

ADHHS – Arkansas Department of Health and Human Services – Contact Jeremy Rowe or Martin Nutt – (501) 661-2623 – Jeremy.Rowe@arkansas.gov

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

ARWA – Arkansas Rural Water Association – Contact Carol Shaw – (501) 676-2255 – arkrwa@sbcglobal.net

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

Hackett Receives First Achievement Award for Capacity Development

Brad Jarrett, Capacity Development Coordinator

The City of Hackett received in May the first Achievement Award for the completion of Capacity Development Milestones. The award was presented to Mayor Daniel Newton and Water Superintendent Anthony Bailey at a city council meeting by Brad Jarrett, Capacity Development Coordinator for the Department of Health (ADH) and Bill Heinrichs of Community Resource Group (CRG), a technical assistance provider. The award was in recognition of the city's finishing each of the tasks outlined in a 2005 assessment of the Hackett water system.

The ADH contracts with CRG to visit selected water utilities each year as part of the ADH's capacity development strategy. The goal of the visit is to assist communities in improving their financial and managerial capacity through the assessment of their strengths and weaknesses, and the development of a strategy for improvement. Each water system is given a set of tasks uniquely designed for that system to improve its financial or managerial capacity. CRG sets target dates for

the utility to complete the tasks and is available to assist the system in its completion, if needed.

For Hackett, the recommended task was to develop a long range plan. The plan was to include a capital improvement plan, an assessment of facility improvements needed in the next 5 years, an identification of funding sources for those improvements, the development of an annual budget and a 5 year capital expense budget to finance the improvements, and utilization of the new budget to revise the current rate structure. Over the course of a year, CRG worked closely with the city and ADH to create the long range plan, and presented a draft in 2006. The long range plan was approved and with that, Hackett completed all its milestones.

Completing all of the tasks required in a capacity development assessment requires quite an effort on the part of a water system. The ADH and CRG will recognize any system that completes its milestones with an Achievement Award. The certificate will be given at a regular utility board or council meeting, and notice of the award will be provided to utility management, the general public, and the press.

For more information, contact Brad Jarrett with the Engineering Section. ♦

Rich Joins CAW as CEO Following Retirement of Harvey

Graham Rich became the Chief Executive Officer of Central Arkansas Water, the state's largest water utility, in May following the retirement of Jim Harvey. Rich is a licensed professional engineer who has 23 years of experience in the water and environmental field and was the former General Manager of the Spartanburg, SC water and sewer system. He holds bachelor and master degrees from Clemson University and has completed additional graduate study at the University of South Carolina.

CAW serves a population of about 400,000 in 15 municipalities and unincorporated communities in Pulaski and Saline counties, and has 280 employees. The utility has a reputation for providing high quality water at reasonable rates, and being operated by a professional and dedicated staff.

Rich replaces Jim Harvey who retired from CAW following 35 years of distinguished service. Harvey began his water career in 1971 as a chemist with the Little Rock Municipal Water Works and rose in its management ranks to become the CEO in 1996. When LRMWW merged with the North Little Rock Water Department in 2001 to form Central Arkansas Water, Harvey was selected by its Commission as the CEO.

CAW Commissioners praised Harvey for his foresight, fiscal management, and standard of excellence in directing the utility. CAW's headquarters building in Little Rock was renamed in February the James. T. Harvey Administration Building in his honor.

Rich said of his appointment, "I am honored to have been selected to be part of such a great organization. CAW is recognized as a leader in the water industry both on a state as well as a national level.

One of Rich's first challenges will be the implementation of a watershed management plan for the utility's principle water source, Lake Maumelle, that was finalized under Harvey's direction. ♦

Invoices Issued for PWS Supervision Fees

Online Payment Now an Option

Invoices were issued in late July by the Department of Health to community public water systems in the state for the Public Water System Service Fee. The invoices were based on the existing fee allowed by statute and regulation which is 25 cents per service connection per month. Even though Act 292 of 2007 authorized an increase in the fee to 30 cents, administrative procedures necessary to increase the fee have not been completed. It is anticipated that those steps will be accomplished this fall, and water systems will be notified in advance of the fee increase.

Water systems can now pay their PWS Service Fee online through a credit card (Visa, Mastercard, or Discover) or an electronic check. The site is https://www.ark.org/dhhs_permits/index.php. In order to make the payment, a water system must enter the Renewal ID and the Verification Code printed on the invoice, after which a balance will be shown. Unfortunately, the system won't take partial payments and, for now, is limited to those who can pay their entire balance.

If you have any questions about your fee invoice or an online payment, contact Karen Howard in the Engineering Section.

CPE Program Marks 10th Anniversary

Focus expands to include DBPs & Pilot Project for Groundwater

Lance Jones, P.E., Engineer Supervisor

The Engineering Section began conducting comprehensive performance evaluations (CPE) at water systems with surface water treatment plants in November 1997. The purpose of the program is to assist those systems in optimizing their operations and to provide greater public health protection. To date, 44 CPEs have been performed at 38 public water systems. The CPEs have proven to be beneficial to most of the participating water systems and have served as an excellent tool for increasing the technical skills of the staff of the Engineering Section.

CPEs were adopted in the water industry as a tool to evaluate the design, operation and management of surface water treatment plants in order to improve particulate removal as measured by the finished water turbidity. To that end, water systems are encouraged to adopt as goals the specific optimization criteria established by the Engineering Section. One primary optimization goal is to meet a finished water turbidity standard of 0.1 NTU or less 95% of the time, a standard which is more stringent than the current 0.3 NTU established by the federal Safe

Drinking Water Act. Studies have shown that an additional log removal of microbial pathogens can be achieved by meeting the optimization goal as compared to just meeting the regulatory turbidity standard.

The majority of CPEs are conducted as a voluntary technical assistance tool in which factors are identified that can help the water system achieve the optimization goals. However, a CPE can also be used as an enforcement tool for systems that are not meeting the Surface Water Treatment Rule requirements. The CPE and the performance limiting factors resulting from it are not specific directives to a water system, but rather are areas a water system can focus its efforts, in the manner it deems appropriate, to overcome obstacles to improved performance. After the CPE is conducted, a detailed report is provided to the system and follow-up activities are conducted to monitor and assist the system as they address the factors.

The impact of a CPE is dependent on the desire of the water system to address the identified factors which limit performance and how strongly the optimization goals are taken to heart.

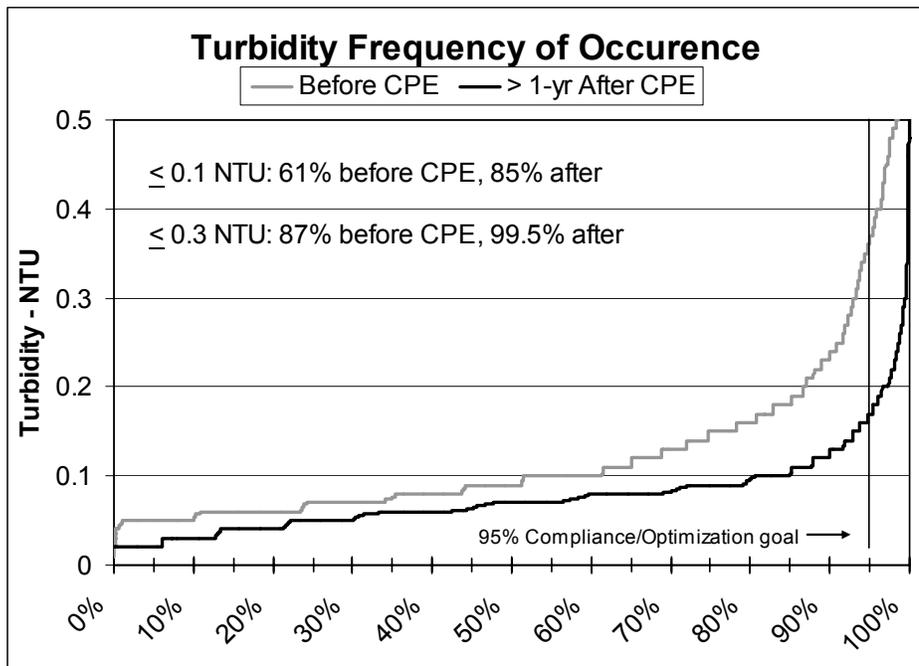
One measure of effectiveness is examining the finished water turbidity from a water treatment plant as it compares with the optimization goals. To assess such an impact, the finished water turbidity data was examined from six Arkansas water systems which had had a CPE performed between 2001 and 2003, and which had committed to working towards the optimization goals. Turbidity values for the six systems for the period before their respective CPE's were compared with the period beginning one year after the CPE. The one year delay was factored into the data collection to account for the necessary changes in the water systems' operations to address the performance limiting factors.

When plotted, the turbidity lines were lower and more consistent with fewer spikes for the period following the CPE. Also, the combined turbidity data for the six systems was compared to the percentage of time that the finished water turbidity was below the regulatory standard and below the optimized value. Those results showed a higher percentage of the turbidity values below the target goals at least one year after the CPEs as compared to the values before the CPE.

Specifically, the Frequency of Occurrence Graph for the combined finished water turbidity from the six water systems showed a collective improvement in the water quality produced from the water treatment plants. Before the CPEs, the six systems were collectively meeting the 0.1 NTU optimization goal 61% of the time. After the CPEs, the systems have been meeting the goal 85% of the time. Likewise, the systems have been meeting the current 0.3-NTU MCL 99.5% of the time as compared to only 87% before the CPEs.

In 2001, the Engineering Section began incorporating a review of disinfection by-product (DBP) levels into the CPE process in response to lower federal limits for total trihalomethanes and haloacetic acids. Optimization goals for these contaminants were added to the adopted criteria. Meeting DBP compliance and optimization goals is often as, or more, difficult than

See CPE pg 10



meeting the goals for turbidity, and efforts to address one can sometimes be counter to the efforts to address the other.

There are several methods to address DBPs in the water treatment process, but frequently efforts need to be directed into the distribution system to reduce their continuing formation. In 2003, a distribution component was incorporated into the CPE process to help evaluate and identify factors related to DBP formation. The most recent CPE was conducted at Community Water System in Cleburn County with a primary focus on DBPs. The distribution component of this CPE was expanded to incorporate the ten consecutive water systems which receive water from Community Water System in an effort to help identify factors which affect the water systems individually or as a whole.

Additionally, the Engineering Section has recently conducted a pilot project on expanding the CPE concept to groundwater systems, and has worked with EPA Region 6 and the EPA Technical Center in Cincinnati to develop assessment components and to test their implementation.

The first 10-years of conducting CPEs have proven to be beneficial to many of the water systems as well as to the ADH. Engineering staff have been able to learn more about the water systems and therefore more readily identify the operational challenges at the systems. Also, refinements to the CPE process are made as necessary to help identify additional factors which may be limiting the optimal performance of the water system. Many of the water systems have seen measurable improvement in their operations and finished water quality as a result of addressing the limiting factors identified in the CPE process.

In summary, the CPE is a valuable tool for the Engineering section to help water systems who have the desire to optimize their system performance and water quality in order to provide additional health protection of their customers. For a copy of the optimization goals, contact Craig Corder.♦

WATER OPERATOR LICENSE EXAMINATIONS

Listed below are the dates and locations of examination sessions as scheduled, as of September 1. 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
9/7/2007	Lonoke	ARWA Training Facility	9:00 AM
9/14/2007	Camden	Arkansas environmental Academy	9:00 AM
9/21/2007	Clarksville	Clarksville Services Center	9:00 AM
9/21/2007	Fayetteville	Operations Service Center	9:00 AM
10/5/2007	Clarksville	Clarksville Services Center	9:00 AM
10/12/2007	Forrest City	Wastewater Plant Training Room	9:00 AM
10/19/2007	Nashville	Carter Day Training Facility	9:00 AM
10/25/2007	Maumelle	Maumelle Water Training Center	9:00 AM
10/31/2007	Hot Springs	ARWA Conference, Convention Ctr	9:00 AM
11/1/2007	Camden	Arkansas Environmental Academy	9:00 AM
11/9/2007	Lonoke	ARWA Training Facility	9:00 AM
11/16/2007	Fort Smith	Contact AEA for location information	9:00 AM
11/16/2007	Nashville	Carter Day Training Facility	9:00 AM
11/21/2007	Little Rock	Dept of Health Bldg, 4815 W Markham	9:00 AM
11/29/2007	Camden	Arkansas Environmental Academy	9:00 AM
12/7/2007	Lonoke	ARWA Training Facility	9:00 AM
12/7/2007	Forrest City	Wastewater Plant Training Room	9:00 AM
12/14/2007	Lonoke	ARWA Training Facility	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. Also, the latest exam schedule information, including future exam sessions, can be viewed at:

<http://www.healthyarkansas.com/eng/autoupdates/oper/operexam.htm>.

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

76th AWW&WEA Conference Draws Near Record Crowd

The 76th Annual Conference of the Arkansas Water Works & Water Environment Association was held in Hot Springs on April 29-May 2 and drew a near record registration of 2488. Conference Chair Larry Lloyd set the conference theme, "The Spirit of 76 – the Spirit of Service, Stewardship and Sacrifice." The program included two days of 12 concurrent technical sessions, over 200 exhibitors, an Equipment ROAdeo skills contest, along with opportunities to relax and network including a Golf Tournament.

Lynn Stovall, Chair of the American Water Works Association's International Programs for Water for People, was the keynote speaker at the conference's Opening Session. A total of \$13,810 was raised during the conference for Water for People programs.

Water awards presented at the conference included the following:

Small System Awards: City of Nashville, City of Lonoke, Southeast Water, and Western Greene Co. Water District.

Outstanding Achievement: Ann Bridges – Milltown-Washburn Water Users and Lance McAvoy – City of Ft. Smith.

Environmental Manager of the Year: Paul Easley – City of Fort Smith

Drinking Water Taste Contest: Western Greene Co. Water District

WATER SYSTEM IMPROVEMENTS

BRINKLEY: 1000 gpm water supply well.

COMMUNITY WATER SYSTEM: expansion of the existing membrane filtration plant to a capacity of 4 MGD.

COMMUNITY WATER SYSTEM: 22,000 L.F. of 10 inch main to upgrade the Midway Pump Station to 350 gpm and a 0.2 MG elevated tank to improve water service to the Hwy 92 and Hwy 263 area of Cleburne County.

DOVER: replacement of two 250 gpm high service pumps.

EL DORADO: 6,000 L.F. of 3 – 24 inch water line relocations along Hwy 167 South.

HERMITAGE: 0.14 MG distribution system standpipe.

HOT SPRINGS: upgrade of the Music Mountain Pump Station to a capacity of 14.6 MGD to meet increased distribution demands.

JONESBORO: 4.5 MG distribution standpipe to replace an existing smaller standpipe on Neely Road.

MIDWAY: 21,000 L.F. of 4 inch main to serve 17 additional customers and construction of a 0.15 MG elevated storage tank.

QUINN: acquisition of an existing industrial water supply well and construction of a 0.10 MG distribution standpipe.

SARDIS WATER ASSOCIATION PWA: 6 & 8 inch mains, booster pump station, and a 0.3 MG standpipe to improve pressures and flows in the Mars Hill and Mt. Olive areas of Saline and Grant County.

SOUTH SHERIDAN: 380 gpm pump station to serve the area southwest of Sheridan.

SOUTHEAST WHITE COUNTY WATER ASSOCIATION: 0.10 MG elevated distribution storage tank.

VILONIA: 2 MG distribution ground storage tank and related 16 inch transmission main.

WASHINGTON WATER AUTHORITY: upgrade of Pump Stations #6 & #7 to 600 gpm and construction of Pump Stations #12 & #13 to increase capacity for the Southeast Washington County Project.

WHITE HALL: construction of a 0.30 MG elevated storage tank.

Upcoming Water Conferences

Southwest Section AWWA

"Head for the Hills" is the theme for the 2007 Southwest Section American Water Works Association meeting to be held October 7 - 9, 2007 at the Holiday Inn Select and Convention Center in Springdale.

This is the first time the Section meeting has been hosted in Northwest Arkansas. Gary Hum of Central Arkansas Water is the chair for the conference which is rotated among the three member states of Arkansas, Oklahoma, and Louisiana. Alan Fortenberry, P.E., CEO of Beaver Water District, is the local host committee chair for the meeting.

The event will feature professional development and technical sessions, as well as a trade show. Sixteen hours of training credit for license renewal are applicable for full participation in the conference.

Don't miss Northwest Arkansas in October, since the leaves will be showing their colors at that time. For more information, visit www.swawwa.org.

Arkansas Rural Water Assoc.

The Arkansas Rural Water Association will host its 30th Annual Technical Conference at the Hot Springs Convention Center on October 28-31, 2007. The conference will include exhibitors displaying a wide range of products and a golf tournament on Sunday October 28. The conference theme is "30 Years of Excellence."

Attendees will be able to choose from eight concurrent sessions with six session each day, and will be eligible for 16 hours of training credit for water license renewal.

To register or for more information, contact ARWA at 501-676-2255

WATER OPERATOR LICENSES ISSUED

March 1 through May 31, 2007

<u>NAME</u>	<u>TYPE/GRADE</u>	<u>PUBLIC WATER SYSTEM NAME</u>
ALQUIST JERRY C	T - IV	MOUNTAIN HOME WATERWORKS
ARREDONDO MICHAEL MORONES	D - II	PEA RIDGE WATERWORKS
BENNETT NICHOLAS BANKS	D - I	KINGSLAND WATERWORKS
BOND JAMES R	T - IV	NAT CTR FOR TOXOLOGICAL RES
BROWN ANTHONY K	T - II	NASHVILLE WATERWORKS
BROWN BRUCE ALLEN	T - III	GOSNELL WATER ASSOCIATION
BURCH KALYN DOUGLAS	D - II	NO AR PWS PROVIDED
BURKETT MARK ANTHONY	D - II	PEA RIDGE WATERWORKS
CHILDRESS RACHEL MICHELLE	D - II	GEORGIA PACIFIC PAPER MILL
CHUNN THEODIS ALEXANDER	T - I	HOLLY GROVE WATERWORKS
CRINER JEREMEY SETH	D - I	NO AR PWS PROVIDED
DAVIDSON COREY M	D - IV	CONWAY WATER SYSTEM
DAY JOSEPH LEE	D - I	OLA WATERWORKS
DISHEROON KELLY JOSEPH	D - I	GREEN FOREST WATERWORKS
DUNN JAMES GREGORY	D - IV	CENTRAL ARKANSAS WATER
FARRAR MICHAEL W	D - III	LEAD HILL WATERWORKS
GRABOWSKI JOSHUA ANDREW	D - IV & T - IV	WEST MEMPHIS WATERWORKS
GUFFEY LESLIE A	D - IV	CONWAY WATER SYSTEM
HARROD GREG SCOTT	D - I	MAUMELLE WATER CORPORATION
HIBBARD BRIAN DAVID	T - III	POCAHONTAS WATERWORKS
JULIAN JIM R	D - II	NO AR PWS PROVIDED
KILGORE STEVEN SHANE	D - II	JASPER WATERWORKS
LAWSON JERRY LEE	D - I	NO AR PWS PROVIDED
LINZY HOLLAND THOMAS	D - I	STAR CITY WATER COMPANY
LONGLEY MIKE D	D - I	MAGAZINE WATERWORKS
MCMILLIN RANDY	T - I	ST FRANCIS RIVER REG WATER DD AND GREENWAY WATERWORKS
MOSES III NOAH EUGENE	D - I	EL DORADO WATERWORKS
MOSS ALVIN L	D - II & T - II	NO AR PWS PROVIDED
MUNOZ ARMANDO	D - IV	ARKADELPHIA WATERWORKS
NIDA MICHAEL GENE	D - III	PEA RIDGE WATERWORKS
NORTON BOBBY L	D - II	BRINKLEY WATERWORKS
OGLESBY CHRISTOPHER L	D - III	MENA WATER DEPT
ROGERS WILLIAM HAROLD	D - II	GEORGIA PACIFIC PAPER MILL
SIMPSON JOHN M	D - VSS	ALMATIS
SISK JOSH AARON	D - IV	PARAGOULD CITY LIGHT WATER
SMITH MATTHEW ELDON	T - III	CONWAY WATER SYSTEM
SPRINGER ROY RALPH	D - IV	ARKADELPHIA WATERWORKS
ST CLAIR DAVID EUGENE	D - III	MAUMELLE WATER MANAGEMENT
TAYLOR STEVE M	D - III	PEA RIDGE WATERWORKS
TITSWORTH JOSHUA AARON	D - II	TRI-COUNTY WATER DISTBR DIST, TRI COUNTY RWDD -MOORES CHAPEL AND SOUTHWEST ATKINS WATER USERS
TURNER BOYCE KEITH	D - IV	CONWAY WATER SYSTEM
WALDRON STEPHEN K	T - IV	ADH ENGINEERING SECTION
WALKER DAVID B	D - II	NO AR PWS PROVIDED
WIGGINS KEDRITH DEWAYNE	D - III	CENTRAL ARKANSAS WATER
WILMS LARRY R	D - IV	BELLA VISTA POA
YORK JEFFREY JAY	D - I	CAVE SPRINGS WATERWORKS

Major Monitoring, MCL, Treatment Technique, & Licensing Violations

Community & Nontransient Noncommunity Public Water Systems – January through June, 2007

ALL SEASONS MHP	TMCL 5	MOUNT OLIVE WATER	DMCL 4,5,6
ALL SEASONS MHP	Tmon 5	MOUNTAINBURG WATER	OperLic 1
ALTHEIMER WATER	Bmon 1,2	MT SHERMAN WATER	RMCL 1.2.3.4.5.6
AMITY WATER	TMCL 2	MT ZION WATER	Bmon 3,6
AMITY WATER	DMCL 4,5,6	MT ZION WATER	Dmon 6
BAUXITE WATER	OperLic 5,6	MURFREESBORO WATER	DMCL 4,5,6
BEN LOMAND WATER	Bmon 7	NASHVILLE RURAL WATER	DMCL 1,2,3,4,5,6
BEULAH GROVE WATER	BMCL 1	NE YELL COUNTY WATER	DMCL 1,2,3,4,5,6
BIG CLIFTY WATER	Dmon 5	NEW LONDON WATER	DMCL 1,2,3,4,5,6
BIRDSON WHITTON WATER	BMCL 2	NEWARK WATER	Bmon 2
BLACK OAK WATER	Bmon 6	NEWARK WATER	Dmon 4
BODCAW RURAL WATER	BMCL 6	NORMAN WATER	DMCL 4,5,6
BOIS D'ARC WATER	Bmon 5	NORTH JACKSON COUNTY WATER	Dmon 3,4
BRADLEY COUNTY WATER	BMCL 1	NORTH JACKSON COUNTY WATER	Bmon 3,4,6
BRANCH WATER	DMCL 4,5,6	NORTH JACKSON COUNTY WATER	OperLic 3,4,5,6
BRYANT	BMCL 6	NORTH PIKE COUNTY RURAL WATER	DMCL 4,5,6
BUENA VISTA-OGEMAW WATER	DMCL 1,2,3,4,5,6	NORTH WHITE COUNTY RURAL WATER	Bmon 6
CALHOUN COUNTY WATER	DMCL 1,2,3	NORTHERN HILLS MH WATER	Dmon 5
CAMDEN WATER	DMCL 1,2,3	NW ARKANSAS REGIONAL AIRPORT	DMCL 1,2,3,4,5,6
CAMPBELL STATION WATER	OperLic 6	NW ARKANSAS REGIONAL AIRPORT	Dmon 5
CAMPBELL STATION WATER	Bmon 6	OAK GLEN MH WATER	Dmon 5
CASA WATER	DMCL 1,2,3,4,5,6	OAK RIDGE CENTRAL SCHOOL	Dmon 6
CHARLESTON WATER	DMCL 4,5,6	ODEN-PENCIL BLUFF WATER	TMCL 1,2,3,4,5,6
CHERRY VALLEY WATER	BMCL 2	OLA WATER	DMCL 1,2,3,4,5,6
CHESTER WATER	BMCL 1	OMAHA WATER	OperLic 3,4,5
CHRISTIAN MINISTRY ACADEMY	OperLic 3,4	OZARK ACRES WATER	Bmon 1
CHRISTIAN MINISTRY ACADEMY	Bmon 3	PANGBURN WATER	DMCL 1,2,3,4,5,6
COMPTON WATER	BMCL 6	PANGBURN WATER	Tmon 6
COTTON PLAN WATER	Dmon 6	PARON-OWENSVILLE WATER	DMCL 4,5,6
COTTONSHED WATER	Bmon 1,3,4	PENDLETON-PEA RIDGE WATER	OperLic 1
CRAPAPPLE POINT WATER	BMCL 1	PERRYVILLE WATER	DMCL 1,2,3
CRAPAPPLE POINT WATER	Bmon 2,5,6	PIKE CITY WATER	DMCL 4,5,6
CRAPAPPLE POINT WATER	Dmon 6	PIKE CITY WATER	BMCL 6
DEER RUN WATER	BMCL 5	PLEASANT VALLEY POINT WATER	Bmon 1
DELIGHT WATER	DMCL 4,5,6	POTTSVILLE WATER	Bmon 5
DERMOTT WATER	BMCL 5	PRESCOTT WATER	DMCL 4,5,6
EAST MONROE COUNTY WATER	DMCL 1,2,3	RAVENDEN SPRINGS WATER	Dmon 2,3,4
EL DORADO WATER	DMCL 4,5,6	RAVENDEN SPRINGS WATER	BMCL 3
FAIRCREST WATER	DMCL 1,2,3,4,5,6	RIVERSOUTH RURAL WATER	Bmon 1
FIFTY SIX WATER	BMCL 5	SDM WATER	RMCL 1,2,3,4,5,6
FOUKE WATER	OperLic 2,3,4,5,6	SDM WATER	FMCL 1,2,3,4,5,6
FOUNTAIN HILL WATER	DMCL 1,2,3,4,5,6	SEVIER COUNTY WATER	DMCL 4,5,6
GILLHAM REGIONAL WATER	DMCL 4,5,6	SOUTH LOGAN COUNTY WATER	BMCL 6
GLEN ACRES WATER	Dmon 5	SOUTH MOUNTAIN WATER	RMCL 1,2,3,4,5,6
GRAND PRAIRIE REGIONAL WATER	BMCL 1	SPADRA-GOOSE WATER	BMCL 3
GRANGE-CALAMINE WATER	Bmon 4	SPADRA-GOOSE WATER	Bmon 4
GREAT LAKES CHEMICAL WEST	BMCL 1	SPARKMAN WATER	DMCL 1,2,3,4,5,6
GREENBRIER WATER	DMCL 1,2,3,4,5,6	ST FRANCIS RIVER REGIONAL WATER	Bmon 5
GREENWOOD WATER	Dmon 1,2,3	STAR CITY WATER	OperLic 1
GREENWOOD WATER	DMCL 1,2,3,4,5,6	SUBIACO ACADEMY WATER	DMCL 1,2,3,4,5,6
HATFIELD WATER	DMCL 4,5,6	TOAD SUCK PFB WATER	Bmon 4
HIGHFILL WATER	DMCL 4,5,6	TRUMANN RURAL WATER	Bmon 4
HORSESHOE LAKE UTILITES	BMCL 4	TRUMANN RURAL WATER	BMCL 5
HWY 4 & 24 WATER	DMCL 1,2,3,4,5,6	TUCKERMAN WATER	OperLic 3,4
HWY 4 & 24 WATER	Bmon 5	TUCKERMAN WATER	Bmon 3,4
HWY 82 WATER	OperLic 1,2,3,4,5,6	TUCKERMAN WATER	Dmon 3,4
JASPER WATER	Bmon 6	WALDO WATER	Bmon 6
K MHP WATER	RMCL 4,5,6	WALDRON WATER	DMCL 1,2,3,4,5,6
KROOKED KREEK WATER	BMCL 4	WALKER WATER	OperLic 2,3,4,5,6
LAKE LUCERN ESTATES WATER	Bmon 6	WALKERVILLE WATER	BMCL 1
LAKESHORE ESTATES WATER	Bmon 1	WEST MEMPHIS	BMCL 5
LAKEVIEW-WABASH WATER	BMCL 2	WHITE HALL WATER	BMCL 6
LAKEVIEW-WABASH WATER	Bmon 3	WIRE ROAD WATER	DMCL 1,2,3,4,5,6
LEAD HILL WATER	OperLic 1	WOOSTER WATER	DMCL 4,5,6
LITTLE RIVER COUNTY RDA	DMCL 1,2,3	YELLVILLE WATER	Dmon 4,5,6
LOST BRIDGE VILLAGE WATER	OperLic 1,2	YELLVILLE WATER	Bmon 3
MAGAZINE WATER	OperLic 2		
MAGNESS WATER	Dmon 4,5		
MAYFLOWER WATER	DMCL 4,5,6		
McNEIL RURAL WATER	BMCL 1		
MINERAL SPRINGS WATER	OperLic 2,3,4		
MOCKINGBIRD HIL WATER	Dmon 4		
MORNING STAR WATER	FMCL 1,2,3,4,5,6		
MOUNT IDA WATER	DMCL 1,2,3,4,5,6		

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; 1=Jan,2=Feb, 3=Mar, 4=Apr, 5=May, 6=Jun.

Arkansas Drinking Water Advisory and Operator Licensing Committee

A. Martin Nutt, Training and Certification Officer

A quarterly meeting of the Arkansas Drinking Water Advisory and Operator Licensing Committee was held on April 11, 2007. Members present were Gary Hum, Chair; Les Patterson, P.E., Vice-Chair; Robert Hart, P.E., Executive Secretary; Charles Nickle, P.E., Rodney Williams, P.E., Scott Borman; and Steve DiCicco. Arkansas Department of Health and Human Services staff members present were Martin Nutt, and Jeremy Rowe. Guests present were Dennis Sternberg, Gary Oden, and Larry Wilms.

Standing Business

Patterson and Borman reported on efforts by the AWW&WEA to electronically track training attendance and the difficulties of using magnetic readers strip on a driver's license. Borman stated a trial run at a meeting of the AWW&WEA Northwest District experienced a 30 percent corruption of data rate using magnetic readers and driver's licenses. Borman noted that barcodes were another option and the Committee discussed the pros and cons of using barcodes instead of the magnetic strip including the possibility of using more complex barcodes that might not require the maintenance of a common database. Patterson stated that he would discuss this issue at the AWW&WEA Board Meeting in May.

Rowe showed the Committee the progress the ADHHS had made in tracking operator attendance through the engineering website. Operators are able to access some of their training. It can then be printed and used for renewal or mandatory training proof.

Nutt mentioned a concern that operators were shown as receiving 16 hours credit for conferences regardless of their level of attendance. The Committee discussed the pros and cons of determining minimum attendance for conference credit. Patterson and Sternberg stated education of operators should take place before a change was made in conference attendance policy. Nutt recommended an ad hoc committee to review incorporating representatives from the state's conferences and from

both small and large utilities. Hum concluded the discussion stating that no change should be made until an accurate means of tracking attendance was in place.

Patterson led a discussion on a previous recommendation from the Committee that Engineering Section staff should become licensed by noting that a Committee guideline was already in place which allowed for licensing experience credit for Engineering Section staff. Hart reported he planned to form a staff committee to look at the issue and make recommendations.

Hart recognized the efforts of the Committee, water organizations, water systems, and operators in supporting the passage of Act 292 of 2007 which increased the service connection fee. Hart discussed administrative issues surrounding implementation of the fee increase and said he expected a three to six month period before the fees became effective. He said water systems would be given adequate notice to implement the fee increase.

Nutt reported that EPA had granted tentative approval to the Committee's requested proposal to expand what training is eligible under the OpCert Grant. Nutt stated that the Department had issued a Request for Proposals to implement the changes and that all known interested training organizations had been made aware of the proposal. He noted the major change in this proposal would allow reimbursement to grant eligible participants for all mandatory water licensing courses and other courses the Licensing Committee deemed eligible.

Old Business

Nutt recapped the discussion from the January Meeting on the differences between Association of Boards of Certification sequential and multiple entry exams. Nutt reiterated the need for the Committee to make a decision on which concept Arkansas would follow in order to maintain the validation support of ABC. Nutt said he had concerns with both concepts. The sequential testing would require an operator to begin testing at the

lowest certification level and to pass each subsequent exam in order to advance to a higher level. This concept would require a regulation change and considerably more time to implement than the ABC's multiple entry exams, which were supported by the current regulations. However, Nutt said the multiple entry concept would require a revision in the current exams and an increase in the number of questions in order to carry questions from each certification level to the next higher exam. The Committee discussed the pros and cons of both concepts. Nutt and Patterson emphasized the need to maintain ABC's validation support. The Committee agreed that the multiple entry exams were the better fit for Arkansas, but that significant notification and education of the industry would be necessary before any change in the exams was made. Williams made a motion that the Committee accept ABC's multiple entry concept, Patterson seconded, and the motion carried. Nutt and Patterson both stressed the need to begin working on how to implement the change when required by ABC.

Nutt addressed the Committee's investigation into using Computer Based Testing for License Exams. He stated that CBT was a valid exam administration tool. However, he recommended not using CBT at this time because of a lack of Arkansas testing sites for the ABC contract CBT administrator; the lack of operator interest in CBT; and concerns that CBT would significantly increase exam cost. The Committee agreed with the recommendation.

At its January meeting, the Committee had requested information on how those operators taking internet based training were performing on license exams. Rowe provided a list of internet students from the past year that had taken an exam. The list included the internet classes each student had taken and their respective exam scores. Rowe pointed out that all internet students had passed their exams but that the information was not definitive of the courses' efficacy in

that not all courses required for examination were taken over the internet. He gave the opinion that the internet courses were a useful tool for water operators and certainly should continue. Oden agreed with Rowe and stated that AEA expects to see increased use over time.

Nutt reported on the nomination process for a new Committee member for fiscal year 2008.. He indicated that the drinking water industry groups had submitted nominations for Susan Merideth from Jonesboro City Water & Light, Terry House from Grand Prairie Public Facilities Board, and David Richardson from Camden Water Utilities. He said the Board of Health would be provided each nominee's resume and asked to appoint a new member at its April meeting.

New Business

Nutt introduced Mr. Larry Wilms who was a license holder from Wisconsin and who had applied for reciprocity in Arkansas. Nutt discussed the similarities and differences in the two state's programs and recommended a proposal for the acceptance of reciprocity under certain conditions. A motion was made to that effect and was passed by the Committee. Borman abstained due to Mr. Wilms working for a system that purchased water from the District he managed.

Reports to the Committee

Hart reported that he had been officially selected as the Engineering Section director and that the office would begin the process to fill his old position, that of Chief Engineer. He also reported the Section was in the process of filling the position of Health Program Analyst, a key budget and administrative position which had been open since the fall of 2006.

Hart reminded the Committee that EPA's Infrastructure Needs Survey had been sent to utilities and urged everyone to participate because the survey was used to determine the State Revolving Loan Fund capitalization grant. He reported on the Arkansas WARN initiative and its effort in drafting a mutual aid agreement for utilities to use. He noted ARWA's help with this initiative.

Hart outlined EPA's new Unregulated Contaminant Monitoring Rule 2 and stated that water systems

House Appointed to Water Licensing Committee

The State Board of Health appointed Terry House in April to the Arkansas Drinking Water Advisory and Operator Licensing Committee. House is General Manager, of Grand Prairie & Bayou Two Public Facility Board and will serve a six year term. He brings to the Committee a strong background of 20 years experience in the water industry.

The Licensing Committee at its April 2007 meeting thanked outgoing member Gary Hum for his six years of loyal service to the Committee. He served as the Committee Chair during his last year of service.

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

selected for monitoring had already been contacted. Hart noted that the Engineering Section, with the passage of the increased service fee, would be paying for the required sample analysis through a private lab. Hart concluded his report stating that Engineering was scheduled for an EPA data audit in June.

Nutt, in his Training and Certification Officers Report, referred to the exam passage rate spreadsheet, reviewed the passing percentages, and noted that the Distribution 3 examinees continued to perform at lower levels than the other license exams. In his enforcement report, he noted three water systems that were approaching an administrative order or penalties due to the lack of a licensed operator. Nutt reported that an additional workload was resulting in increased turnaround times for exam results, application processing, and general duties.

Oden provided the Arkansas Environmental Academy's report. He provided a printout of class attendee numbers and stated that Randy Harper and Jonathan Richardson were doing a fine job in their respective roles. Oden also noted that the Department of Higher Education had a favorable legislative session but that capital improvement goals were uncertain as that money was tied to the Governor's capital improvement plans.

In the Arkansas Rural Water Association Report, Sternberg reported that the three water trainers, Jim Phillip, Ron Hickerson, and Terry Fortenberry were doing a good job but that monetary concerns posed a significant threat to the program. He

stated that Congress' recent continuing resolution on the budget had allocated EPA funds without "earmarks". The decision about funding previous earmarks had been left with the EPA Administrator who had chosen not to continue them. Sternberg reported that they had requested funding through a state agency and were looking into the possibility of fees for training. He stated that ARWA would continue to provide the training on the 2007 calendar.

Sternberg reported on legislation from the 2007 Legislative Session including one that protected water system's Vulnerability Assessments from disclosure under the Arkansas Freedom of Information Act. The Committee discussed problems associated with protecting the release of the vulnerability assessments, their Risk Management Plans, Tier 2 Hazardous Materials Monitoring and Reporting, and the need to find congruency between them.

Sternberg also reported on other water system significant legislation from the 2007 Legislative Session.

Other Business

Patterson recommended to the Committee that a chair-elect position be created in order to allow that person to set goals and appoint subcommittees as soon as the person became chair. A motion to that effect was made, seconded and carried. No other business was brought before the Committee. The next Committee Meeting was tentatively set for July 11, 2007. ♦

AWW&WEA District Meetings

See also the Division's web site www.healthyarkansas.com/eng/ for updates.

DATE	TIME	CITY	LOCATION	SPONSOR
September 2007				
6	5:45PM	Benton	Brown's Country Restaurant	Central District, AWW&WEA
13	5:30PM	Clarksville	Western Sizzlin	AR Valley District, AWW&WEA
13	5:30PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
14	5:30PM	Helena	River Road Restaurant	Eastern District, AWW&WEA
18	6:30PM	Barkada	Young's BBQ	Southeast District, AWW&WEA
19	9:00AM	Springdale	Jones Center	Northwest District, AWW&WEA
20	6:30PM	Fort Smith	Columbus Acres (Picnic)	Western District, AWW&WEA
20	1:00PM	Jonesboro	Western Sizzlin	Northeast District, AWW&WEA
23	6:30PM	Hope	Western Sizzlin	Southwest District, AWW&WEA
October 2007				
4	5:45PM	Malvern	Senior Adult Center	Central District, AWW&WEA
4	6:30PM	Fort Smith	TBA	Western District, AWW&WEA
11	5:30PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
11	5:30PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
11	5:30PM	West Memphis	Southland Greyhound Park	Eastern District, AWW&WEA
16	6:30PM	Hamburg	Catfish Inn	Southeast District, AWW&WEA
17	9:00AM	Eureka Springs	Best Western Inn of the Ozarks	Northwest District, AWW&WEA
18	1:00PM	Paragould	Light & Water Service Ctr	Northeast District, AWW&WEA
27	6:30PM	East Camden	SAU Tech Env. Academy	Southwest District, AWW&WEA
November 2007				
1	5:45PM	North Little Rock	CAW's Maryland Ave Office	Central District, AWW&WEA
1	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
1	5:30PM	Forrest City	Ole Sawmill Restaurant	Eastern 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
15	1:00PM	Jonesboro	Ron's Catfish	Northeast District, AWW&WEA
15	6:30PM	Hope	Western Sizzlin	Southwest District, AWW&WEA
19	9:00AM	Fayetteville	Town Center	Northwest District, AWW&WEA
20	6:30PM	Crossett	Western Sizzlin	Southeast District, AWW&WEA

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