



# ARKANSAS DRINKING WATER UPDATE

## New Health Leaders Announced

Dr. Paul Halverson of Little Rock was named by Governor Mike Huckabee on May 5 as interim director of the state Department of Health. He succeeds Dr. Fay Boozman, who was killed in an accident on his Benton County farm on March 19.

Halverson will become director of the Division of Health within the newly formed Department of Health and Human Services (DHHS). The new agency was created by the 2005 Legislature and will merge the former Department of Health with the Department of Human Services. The merger is scheduled to become effective in August. Halverson will manage programs and services formerly provided by the Department of Health.



**Halverson**

Huckabee also announced in May his appointment of Dr. Joe Thompson of Little Rock to the position of chief health officer with DHHS. The newly created position, described by Huckabee as the state's surgeon general, will be in charge of developing policies to improve the health of Arkansans. The appointment is subject to approval by the state Board of Health which is scheduled to meet in July.

Halverson joined the University of Arkansas for Medical Sciences' College of Public Health in June of 2004. Prior to that he served with the senior scientific staff at the federal Centers for Disease Control and Prevention in Atlanta. His background also includes serving on the faculty at the University of North Carolina School of Public Health, and work as a hospital administrator in several states. Halverson received a doctorate in public health from UNC – Chapel Hill.

Thompson, who is due to begin his job as chief health officer on August 13, practices pediatrics at Arkansas Children's Hospital and is also director of the UAMS's Arkansas Center for Health Improvements. He helped formulate a plan to spend the state's share of a settlement with national tobacco companies, and helped develop the first statewide assessment of childhood and adolescent obesity. Thompson said he would continue in his roles with the Center and with Children's Hospital in addition to developing health policies for the state.



**Thompson**

In a May letter to department employees, Halverson said he was excited and optimistic about the agency's future, and was looking forward to the challenges that lay ahead. He said he intends to focus on three primary areas: 1) management systems; 2) health protection; and 3) health improvement. He emphasized the need to utilize scientific evidence in support of agency actions, to strengthen local public health services, and to improve the systems that support the organization.

Also, in a June announcement Huckabee named John Selig as head of the Department of Human Services, a position he will retain following that agency's merger with the Department of Health. Selig was formerly a deputy director at DHS and had been overseeing the merger of the two agencies. Selig replaces Kurt Knickrehm who headed the department since 1999.

## Medical Lab's Loss of Certification Not to Affect Water Laboratory

Many in the water industry in Arkansas were concerned when the April news was released of the Department of Health's loss of lab certification from the federal Centers for Medicare and Medicaid Services.

The federal agency ordered the Department to stop conducting certain tests in May and set a September 1 deadline for the revocation of the lab's certification.

However, the loss of certification will be for the analyses of medical specimens from hospitals and clinics. Laboratory certification for environmental samples analyzed by the Department is from the Environmental Protection Agency.

The Department of Health laboratory conducts all of the compliance testing for drinking water under the Safe Drinking Water Act. Analytical procedures and the results of the Department's proficiency analyses have met all EPA requirements and the state's drinking water lab continues to be fully certified. An e-mail or fax to that effect was sent to all water systems in the state in May.

Officials have indicated that the Department of Human Services will apply for a new lab certification for medical specimens after the merger with the Health Department to form the

*See Lab on page 2*

Inside the <i>Update</i>
<a href="#">Water for People Growth.....pg 2</a>
<a href="#">NW Counties Study Zoning.....pg 3</a>
<a href="#">Ozark Alliance Proposal.....pg 4</a>
<a href="#">General Assembly Acts.....pg 6</a>
<a href="#">Glen T. Kellogg.....pg 8</a>
<a href="#">Main Breaks &amp; Repairs.....pg 7</a>
<a href="#">Needs Assessment Results.....pg 11</a>
<a href="#">Water Security Guidance.....pg 14</a>
<a href="#">Training &amp; Exams.....pgs13,15,16</a>

## SW Section AWWA Contributions to Water for People See Growth

Under the excellent leadership of Les Patterson II, the Southwest Section of AWWA's fund raising for Water For People continues to grow each year. Founded by AWWA, Water For People (WFP) is a non-profit charitable organization that works with communities in under-developed areas to improve drinking water and sanitation. Currently, WFP has projects underway in Bolivia, Honduras, Guatemala, Malawi, Viet Nam, and India.

Patterson, Planning Director for Hope Water & Light, is Arkansas' member of the Section's Water For People Committee. For more information on WFP, go to [www.waterforpeople.org/about.html](http://www.waterforpeople.org/about.html).

This year, the WFP effort at the Annual Conference of the Arkansas Water Works & Water Environment Association (AWW&WEA) raised almost \$6100. Of that, \$5070 was raised by the conference raffle, \$500 was donated by the Northwest District of AWW&WEA, \$200 was donated by the Southwest District, and \$300 was donated from the ADH Division of Engineering's aluminum can recycling project.

With additional funds raised by the committee at the Louisiana Conference on Water, Sewerage, and



Industrial Waste (\$1050), a \$1000 donation from the Southwest Section, the proceeds of the 3<sup>rd</sup> Annual WFP Volleyball Tournament in Little Rock and the proceeds of the WFP Committee fundraising at the Annual Conference of the Southwest Section in Oklahoma City, the Section hopes to exceed the \$10,000 mark for the second time in the past three years.

You can make an individual, tax deductible, donation to WFP, in \$25 increments, through the Southwest Section by credit card by going to [www.swawwa.org/catalog/page7.html](http://www.swawwa.org/catalog/page7.html).

### Lab continued from page 1

Department of Health and Human Services.

The medical laboratory had its certification withdrawn following a routine audit which found that a proficiency sample had been analyzed in an outside lab and the results presented as if the analysis had been conducted in the Department. In addition, the audit found that certain medical samples were improperly handled.

After receiving the results of the audit, the Department immediately began taking corrective actions to address the identified deficiencies. ADH officials also disputed the federal agency's decision to revoke certification stating that the quality of the lab's work was never in question and there was no reason to believe there was an increased risk to the public.

## Watershed Summit Drafts Resolutions on Upper White Basin

A March meeting of over 60 participants in Eureka Springs focused on water quality issues in the Upper White River Basin in Arkansas. The Northwest Arkansas Watershed Summit involved stakeholder groups as well as business leaders, mayors, and farmers from the area.

Participants worked in one of four subgroups – watershed wide issues, rural and agricultural issues, septic and wastewater issues, and urban and urbanizing issues. Resolutions or action items were developed to address issues important to each group.

Among the findings of the summit were the need to form a task force to guide the overall watershed efforts, to prepare a white paper to identify priority issues for the basin, to promote education, and to encourage uniform land use standards across cities and counties in the basin.

The summit was underwritten by grants from the US EPA and the Upper White River Basin Foundation. The Foundation works to improve water quality on the White River and its tributaries in the rapidly growing area of northwest Arkansas and southwest Missouri.

For more information, contact the Foundation in Branson, MO at 417-334-7644 or visit their website - [www.whiteriverbasin.org/](http://www.whiteriverbasin.org/).

## Department Begins Merger Into DHHS

Act 1954 of the 2005 85<sup>th</sup> General Assembly authorized the merger of the Department of Health and the Department of Human Services into the Department of Health and Human Services.

The merger of the two agencies was one of Governor Mike Huckabee's priorities for the legislative session. He promoted the merger as means of saving tax dollars and providing more efficient services to the public.

Water systems and consulting engineers dealing with the Division of Engineering should see no immediate changes as a result of the merger.

Even though the formal merger of the two agencies will take place in August, earlier steps have already begun to transition the two agencies. Several administrative sections of the Health Department were moved to DHS in June including Legal Services, Payroll, and Human Resources.

As part of the merger, all Department of Health supervisors must attend workshops sponsored by DHS regarding job descriptions, performance evaluations, and supervisory training.

ARKANSAS DRINKING WATER UPDATE is published quarterly by the Arkansas Department of Health, Division of Engineering, to inform readers of issues and activities affecting this industry. Articles and information in the newsletter can be reproduced without restriction if credit is given for the source. Potential contributors of articles for the UPDATE, and persons wishing to be added to the mailing list should contact Robert Hart, P.E. or Harold Seifert, P.E. at the return address listed on the last page.

## Northwest Counties Study Development Ordinances

Driven in part by relentless growth and a desire to protect water quality in the northwest region of the state, the governments of Benton and Washington Counties have begun discussing the use of more restrictive ordinances to regulate development in unincorporated areas. If implemented, such oversight would be a first by an Arkansas county.

Benton County is one of the five fastest growing counties in the U.S. A 20 member Benton County Zoning Committee began meeting in March, 2004 to work on a zoning ordinance proposal. The original 137 page draft document has been whittled down to 30 pages and is still under review by the Committee.

The draft ordinance establishes four basic zoning districts – residential, commercial, agricultural, and industrial, with regulations and permitted land uses for each district. Committee members agreed in May to work on a land use plan in conjunction with the zoning proposal before forwarding the documents to the County's governing board.

The initial meeting of Washington County's Protecting Agriculture and Rural Areas Task Force was held in June. The committee's membership represents a cross section of land owners and land uses in the county.

The group formed sub-committees to examine a number of issues including economic development, infrastructure, residential subdivisions, quality of life, agriculture, and water quality. Washington County Judge Jerry Hunton, himself a farmer, told the committee, "I think the time of open and absolute freedom in Washington County is probably over with."

Hunton has also indicated his desire for the county to provide oversight on decentralized sewer systems. Such systems allow dense subdivision development in areas far from municipal sewer systems. He said questions on the systems' long term management, cleanup when abandoned, and accountability if bankrupt need to be addressed.

## Alliance Proposes Water to Three County Area

The engineering consultant for the Ozark Mountain Water Alliance has proposed a \$50 million dollar project to supply water to over twenty systems in north central Arkansas which are suffering from water quality and/or quantity problems. The water systems serve a combined estimated population of 20,500 in a large area principally in Newton, Searcy, and Boone Counties.

The Alliance was formed in the spring of 2004 in the hopes of securing a long term source of water to supply its members. Water systems served by the area's ground water are plagued by water shortages or water whose chemical quality fails to meet drinking water standards for radium, fluoride, uranium and other undesirable substances. Several of the systems are under administrative orders from the Department of Health for noncompliance with drinking water standards. Since its formation, the Alliance has grown in membership to where it now represents 23 water utilities or cities, and the National Park Service.

Alliance members began regular meetings last year to review the needs of individual systems and to discuss possible solutions. Members formed a Board of Directors which interviewed and selected a consultant to prepare a feasibility study and to apply for financial assistance. Their efforts were rewarded earlier this year with a \$25,000 grant from the Arkansas Soil and Water Conservation Commission.

The consultant, Engineering Services, Inc. of Springdale, examined a dozen different alternatives which included purchasing water from existing regional water districts, the development of new water intakes and treatment plants, or combinations of the two.

The recommended alternative is to construct a new intake and 6 MGD treatment plant on Bull Shoals Lake, and to install transmission lines south from the lake to serve Alliance members.

The recommended alternative was selected based on projected lower long-term operating expenses if the

Alliance treated water itself rather than purchasing wholesale water from existing systems.

Construction for the entire project is proposed to be divided into three phases with the water systems under an administrative orders from the Department of Health being provided relief first. Primary funding for the project is proposed to be supplied by USDA's Rural Development and the Arkansas Soil & Water Conservation Commission.

Alliance members are currently seeking comments about the feasibility study from regulatory and funding agencies as well as discussing the study among themselves.

### Alliance Membership

#### Newton County

City of Jasper  
Mt. Sherman Water Assoc.  
Nail-Swain Water Assoc.  
East Newon County Water Assoc.  
Mockingbird Hill Water Assoc.  
Deer Community Water Assoc.  
Lurton-Pelsor Water Assoc.  
Compton Water Assoc.  
Town of Western Grove  
Parthenon Water Assoc.

#### Searcy County

SPG Water Assoc.  
Searcy County Regional Water District  
City of Marshall  
South Mountain Water Assoc.  
SDM Water Assoc.  
Town of Leslie  
Morning Star Water Assoc.

#### Boone County

Town of Valley Springs  
Town of Diamond City  
Town of Lead Hill  
Lake Bull Shoals Estates

#### Members at Large

National Park Service  
City of Clinton

# Acts of the 85<sup>th</sup> General Assembly

2005 Legislation of interest to the water industry.  
Act language can be viewed at <http://www.arkleg.state.ar.us/>.

## Appropriations Bill Limits ADH Review for Water and Sewer Planning

A rider attached by the Arkansas Legislature to the biennium appropriations bill for the Department of Health restricts the Division of Engineering from considering the impact of proposed water or sewer lines on adjoining property.

Under state statutes and regulations, the Department is charged with reviewing and approving water and sewer extensions. Hundreds of such submittals are made to the agency each year.

Section 48 of Act 2306 states, "In reviewing the impact on public health and safety of a plan for improvements to a public water system or public sewer system through the addition of distribution lines to a subdivision or commercial development, the Division of Engineering of the Department of Health shall not consider the effect of the plan on future development or zoning of adjoining properties."

The section continues that exceptions to that review prohibition must be requested of the ADH in writing by the particular city where the utility extension is located.

An example of such a review would be an analysis of the size of the utility lines for a development submitted to the ADH where additional development in the vicinity is proposed or expected to soon occur.

The bill rider is effective from July 1, 2005 until June 30, 2007, although it could be extended in future legislative sessions.

Utilities desiring the Division of Engineering to include the impact of future developments as part of its plan review process should submit a letter to the attention of Robert Hart, P.E., Chief Engineer, at the address on the last page of the newsletter.

Act #	Description
243	Provides \$208,100 to Rison for water and sewer extensions.
259	Extends the exemption of water systems from the Freedom of Information Act for documents related to vulnerability assessments and security.
302	Provides \$100,000 to Bayou Meto Water District in Lonoke County.
324	Provides \$25,000 to North Crossett Water for expansion.
803	Provides \$25,000 each to Beebe, Judsonia, and McRae, and \$15,000 to Garner, Georgetown, Griffithville, and West Point for water, sewer, and street maintenance.
832	Provides \$250,000 for a wastewater feasibility study for Cleburne and Van Buren Counties.
844	Provides \$100,000 to the Ozone Water Association in Johnson County and \$100,000 to Nail/Swain Water Association in Newton County.
1070	Provides \$75,000 to North Crossett Water.
1127	Provides \$25,000 to Marvell for water tank repair and painting.
1243	Renames the AR Soil & Water Conservation Commission to the AR Natural Resources Commission.
1364	Provides \$40,000 to Green Forest to paint a water tank.
1367	Provides \$100,000 to Madison County Rural Water Association.
1475	Provides \$20,000 each to Beebe, Judsonia, McRae, Higginson, and Kensett, and \$15,000 to Garner for water, sewer, and street improvements.
1509	Provides \$112,500 to Bentonville for the NCCA Wastewater Project.
1553	Amends the Revenue Bond Act of 1987 to include regional wastewater and solid waste management districts.
1654	Authorizes public water authorities to construct and operate wastewater treatment plants.
1747	Provides \$100,000 to Osage Basin Wastewater District.
1748	Provides \$0.5 million each to Elm Springs and Lincoln for sewer projects.
1774	Modifies provisions of the Sparta Aquifer Critical Groundwater Counties' Remediation Act.
1954	Merges the Department of Health into the Department of Human Services
1977	Extends immunity to land owners who make property available for municipal water supply purposes.
2022	Appropriations for the AR Department of Environmental Quality; transfers \$2.5 million each year from the state Public Health Fund to ADEQ.
2281	Provides \$270,000 to Gravette for water and sewer projects.

## Glen T. Kellogg

Glen T. Kellogg was employed by the Department of Health from 1947 through 1980. He served as manager of the state's public water system oversight program, first as Division Director, and then as a Bureau Director, from 1955 through 1977.



Glen was a professional in every sense of the word. He served the water and wastewater industry with excellence in areas that are far too

numerous to mention. He fought hard to maintain the highest quality standards by developing programs and concepts that have proven, are proving, and will prove to be beneficial to the water and wastewater industry.

Over 50 years ago, Glen was determined to protect Arkansas' rivers, lakes, streams, and the public, in general—many years before the advent of federal regulations and financing, and well before the words "environmentalist" and "ecologist" were stylish. Glen worked shoulder-to-shoulder with the water/wastewater manager for the benefit of all.

Glen's farsightedness in developing environmental standards in the late 1940's gave the State of Arkansas a 30-year head start in dealing with the Safe Drinking Water Act. The vast majority of public water supplies have no trouble in meeting and exceeding the rigid federal regulations. The public water system oversight program at the Department of Health, as developed by Glen, matched so well against the program required by the 1974 Safe Drinking Water Act, that virtually no changes were made in the Arkansas program in order to adopt primacy. Arkansas was one of the first states granted the authority to implement the federal standards of the Safe Drinking Water Act.

Glen strongly believed that the waste/wastewater manager should be a well-trained professional and a leader in his community as well as in



## Kellogg Display Gets Makeover

In 1984, the Arkansas Water Works & Water Environment Association initiated the Glen T. Kellogg Hall of Fame by making the initial award to Mr. Kellogg posthumously. Since then, the organization has made awards to one or two highly deserving individuals each year, for a total of 39 awardees.

Each recipient is given a plaque bearing his or her likeness, and a second copy is provided to the Division of Engineering at the Department of Health. For many years, those second copies have been displayed in the reception area of the Division. However, due to the number of plaques, there was no longer sufficient room to display the most current recipients. At the suggestion of the Arkansas Drinking Water Advisory & Operator Licensing Committee, staff began looking at other options for displaying the plaques, hoping to give better recognition to the award and its recipients.

As a result, a permanent display has been placed on the corridor wall opposite the entry to the Division of Engineering. Two walnut racks of plaques are displayed, on either side of a large, framed presentation about Kellogg and the award.

Next time you visit the Division's office, be sure to take a look at the display. For those who have been so recognized with this award, it is indeed a high honor.

the water-related organizations such as the American Water Works Association, the Water Pollution Control Federation (now Water Environment Federation), the Arkansas Water and Wastewater Managers Association, the Arkansas Water Works and Pollution Control Association (now Arkansas Water Works & Water Environment Association), and others. Glen believed that compliance with drinking water standards could be

accomplished best by a cooperative effort between the water utility and the state regulators, and that enforcement was only required if that effort failed.

Glen Kellogg worked diligently with all organizations associated with the water and wastewater fields and stood firmly in his beliefs to educate and train the operators who are responsible for our health and safety in these fields.

## Contamination of Distribution Systems from New And Repaired Water Mains

*This is the fourth in a series of articles summarizing nine "white papers" issued in 2002 by EPA and water industry groups which examine the impact of distribution systems on water quality.*

An estimated 880,000 miles of distribution piping are currently used in the U.S. to convey potable water to roughly 223 million people. Based on industry surveys, almost 238,000 main breaks occur in that piping each year and an estimated 13,200 miles of new pipe are installed each year. The construction, rehabilitation, and repair of water mains occur on a regular basis in all water systems. The relative frequency and nature of these activities provide a potential for the direct contamination of the distribution system.

A 2001 American Water Works Research Foundation report found

eight pathways for microbial contamination of water distribution systems. Five of the eight pathways were directly related to or may be associated with water main construction and repair. In addition to microbial contamination, improper methods for storing, constructing, or repairing mains can result in an exposure to chemical contamination, such as excess chlorine, affect the pH stability of the treated water, reduce the disinfectant residual, or adversely affect aesthetic qualities such as color, turbidity, taste, and odor.

The risk to public health from the construction or repair of water mains is a function of several factors. These include the type and amount of contaminant that enters the pipes; the extent of the spread of the contamination in the distribution system; the disinfection measures taken prior to putting the pipe into service; the disinfectant residual present in the distribution system; and how quickly the contamination is discovered and mitigation measures, such as isolation and flushing, are employed.

Reported illnesses associated with contaminated water distribution mains have included hemorrhagic *E.coli*, typhoid fever, giardiasis, salmonellosis, typhoid fever, shigellosis, and hepatitis A. For the period 1971 to 1998, 113 waterborne disease outbreaks causing an estimated 21,000 cases of illness and several deaths were attributed to contaminants entering the distribution system or water that was corrosive to plumbing systems within a building or homes.

### Construction Contamination

Contamination associated with water main construction or repair can occur in three phases: 1) before construction; 2) during construction; and 3) after construction.

### Microbial Contamination Pathways for Distribution Systems

(In order of relative risk)

- Water treatment contaminant breakthrough
- Transitory contamination\*
- Cross Connections\*
- Water main breaks and repairs\*
- Uncovered storage reservoirs
- New main installations\*
- Covered storage reservoirs
- Purposeful contamination\*

\* Directly or potentially associated with main construction or repair (AWWA Research Foundation)

Exposure of piping materials to contaminants can begin at the point of manufacture and can continue until the time of installation. According to one study these include:

- Soil, sediment, and trash which carry or harbor microbial contaminants.
- Chemically contaminated soil and sediment.
- Storm water runoff and other waters that carry microbial and chemical contaminants.
- Harmful chemicals.
- Animals and humans and their wastes.

The chance of soil and water contacting the interiors of pipes during construction or repair is much greater than during storage or handling prior to installation. A study published in 2000 examined soil and water samples from water main repair sites to identify the presence of potential pathogens. Fecal coliform was found to be present in two-thirds of trench water samples and half of trench soil samples. Total coliform was found in 80% of trench water samples and 97% of trench soil samples.

Contamination of mains after construction or repair can occur through leaking pipe joints; stagnant, unsanitary water in adjacent pipe sections; cross connections; and transitory pressures. Inadequate pressure testing of a new or repaired pipe section can result in improper construction practices, which leads to leaks, not being detected.

*Continued next page*



**Polyethylene pipe is installed as part of a recently completed expansion of the Tri County water district in Yell County.**

### Prevention/Mitigation Methods

Water mains should be designed to provide adequate separation from potential sources of contamination such as sewage lines.

Arkansas Department of Health regulations require the minimum horizontal separation to be 10 feet and the vertical separation between the bottom of the water main and the top of the sewer to be at least 18 inches.

Other design consideration include the proper number and placement of valves, hydrants, and blowoffs to minimize flushing distances and to enable unidirectional flow.

Requiring suppliers and contractors to utilize industry standards is beneficial in addition to being required by most regulatory agencies. ANSI/NSF 61 – “Drinking Water Systems Components – Health Effects” requires manufacturers to certify that their products do not contribute regulated contaminants to the water. ANSI/AWWA Standards C600 and C605 cover best management practices for the

installation of ductile iron and PVC pipe. Those practices include keeping mains clean during storage, and during and after installation; dewatering trenches; cleaning gaskets before installation; sealing pipe ends when laying is interrupted or at the end of the day; and pressure and leak testing. ANSI/AWWA Standard C651 – “Disinfecting Water Main” covers the disinfecting of new mains as well as disinfection techniques when repairing existing mains.

The issuance of a Boil Water Notice as the result of a loss of pressure when repairing a main break can help to protect customers from unintentional or unavoidable contamination in the distribution systems. The Division of Engineering of the Arkansas Department of Health has developed a guidance policy in this regard. The guidance can be downloaded from the ADH’s website - [www.healthyarkansas.com/eng/download.htm](http://www.healthyarkansas.com/eng/download.htm), or by contacting the Division.

## Infrastructure Needs Estimated at \$277Billion

The results of the 2003 EPA national assessment of public water system infrastructure needs were released in June. The total national need for drinking water investment is estimated by the agency at \$277 billion over the next 20 years and is expected by EPA to increase.

The estimate is based on questionnaires furnished by community and not-for-profit noncommunity public water systems. The estimate includes installation of new infrastructure as well as the rehabilitation or replacement of deteriorated or undersized infrastructure. Most of the needs are not related to violations of any Safe Drinking Water Act (SDWA) regulations but rather for expenditures to remain in compliance with regulations or to meet the ongoing needs of customers. However, \$45 billion of the need estimate was identified as being driving by current or proposed SDWA regulations.

The assessment of infrastructure needs by EPA is required by the SDWA and is conducted every four years. When compared to the previous survey, the 2003 estimated need increased by 67 percent. EPA’s analysis attributes the increase to under-reporting by water systems in the 1999 survey.

While the latest figure is considerably higher than the previous assessment, it is still less than the estimates published several years ago by other groups such as the Congressional Budget Office (\$245 - 424 billion) and the Water Infrastructure Network (\$170 - \$493 billion).

Of the \$277 billion in estimated need, \$184 billion is for transmission and distribution projects, \$53 billion is for treatment, \$25 billion is for storage, and \$12 billion is for source development. The needs of small water systems, those serving less than 3300 population, are estimated at \$34 billion.

The survey can be downloaded from the EPA’s website - <http://www.epa.gov/safewater/needssurvey/index.html>.

### NAS Report Assesses Distribution Risks

A recent report from the National Research Council of The National Academy of Sciences reviewed published material in order to summarize threats to distribution system water quality and to identify issues of greatest concern. The report, “Public Water Supply Distribution Systems: Assessing and Reducing Risks”, found several trends relevant to the deterioration of distribution system water quality.

- While a decreasing number of waterborne disease outbreaks have been reported each year since 1982, an increasing percentage is attributable to distribution system issues.
- There is an increasing susceptibility among the U.S. population to infection and disease. The trend is caused by an aging of the population, the increase in the incidence of AIDS, and the increasing use of immunosuppressive therapy.
- Aging water distribution systems will result in greater numbers of main breaks and pipe replacement programs.
- An increase in the use of bottled water and point-of-use treatment devices may be decreasing per capita exposure to contaminants in tap water, however, point-of-use devices can themselves cause contaminant exposure through, for example, microbial regrowth.

The issues identified in EPA’s 2002 white papers on factors which affect distribution water quality, as well as several other factors, were ranked according recognized health risks. Those receiving a high priority were:

- Cross connections and backflow incidents.
- Contamination during construction and repair of distribution systems.
- Improperly maintained and operated storage facilities.
- Water quality in premise plumbing.
- Distribution system operator training.

The report can be read online for no charge at: <http://books.nap.edu/catalog/11262.html>, or a hard copy ordered for a fee.

# Guidance Documents Assist with Water Security

A number of documents have been released in the past several months to assist water and wastewater utilities in dealing with security issues. Following the terrorist attacks of 2001, U.S. infrastructure has come under scrutiny as possible targets either to cripple the public's normal routine, or to cause direct harm by, for example, contaminating the drinking water. Water distribution systems, in particular, have been identified as being difficult to protect against intentional or malicious acts.

The latest documents are a continuing series of publications from different agencies and organizations that utilities can use to conduct risk assessments, implement design and operational measures, and practice emergency response measures.

*Security Information Collaboratives: A Guide for Water Utilities* is published by the EPA and promotes the benefits of establishing cooperative arrangements with other organizations to share information on water security. Such arrangements can vary from ad hoc groups that meet only as needed to formal organizations with charters, mission statements, operating budgets and regularly scheduled meetings. The document provides step by step recommendations for establishing collaboratives and includes case studies on how such relationships can enhance security and improve public health protection. The document is available at EPA's website: <http://www.epa.gov/NHSRC/news/news051805.htm>

*Terrorist Threats to the U.S. Homeland Reporting Guide for Critical Infrastructure and Key Resource Owners and Operators*. This document, published by the Department of Homeland Security, identifies common indicators and patterns that may be associated with terrorist threats to infrastructure and encourages the reporting of relevant information to law enforcement and homeland security officials. The document can be downloaded by utilities from WaterISAC (Water Information Sharing and Analysis

Center - <http://www.waterisac.org/>), however, registration and payment of an annual fee is required for access.

*Emergency Response Tabletop CD-ROM Exercises for Drinking Water and Wastewater Systems*. This EPA CD-based tool contains twelve tabletop exercises to help train utility workers in preparing and carrying out emergency response plans. The exercises are designed to involve response teams outside the utility such as fire, police, and emergency medical, and users can adapt the materials for their own needs. Users can choose from one of five event types – intentional contamination, security breach, cyber breach, physical attack, and interdependency. The CD can be downloaded or ordered from EPA at <http://cfpub.epa.gov/safewater/watersecurity/trainingcd.cfm>. EPA has also hired a contractor to sponsor a series of Train-the-Trainer workshops using the CD. More information can be found at the contractor's website: <http://www.horsleywitten.com/ttt/>.

*Interim Voluntary Security Guidance for Water Utilities* was developed by the American Water Works Association with a grant from EPA. It provides practical assistance for implementing security measures in new and existing facilities of all sizes and addresses risks from managerial, operational, construction and design perspectives. The document can be downloaded at AWWA's website: <http://www.awwa.org/science/wise/>

*Interim Voluntary Guidelines for Designing Online Contaminant Monitoring Systems* provides information on designing online contaminant monitoring systems, including assessing the need for a monitoring system, locating instruments and sensors, and responding to suspected contamination events. The document was developed by the American Society of Civil Engineers and is available at the organization's website: <http://www.asce.org/static/1/wise.cfm#WISE>. Both this document and AWWA's *Interim Voluntary Guidance*

*for Water Utilities* will be the basis for the development of voluntary consensus standards, to be published in late 2006. Training materials for each of the guidelines are currently being developed and are to be available this year. A security guidance document for wastewater utilities is also available from the Water Environment Federation.

*Contamination Warning Systems for Water: An Approach for Providing Actionable Information to Decision Makers* is published by the AWWA. The organization conducted an experts' workshop in January on contaminant warning systems. AWWA integrated the results of discussion from the workshop into this document which highlights key issues that utilities should consider as they evaluate whether and how to develop such a warning system. It can be downloaded from <http://www.awwa.org/Advocacy/learn/security/about/03InfrastructureSecurityRes.cfm>

*Distribution System Security Primer for Water Utilities* provides recommendations on conducting vulnerability assessments of distribution system elements, guidance for security improvements at existing and proposed distribution components, and helps to prioritize security activities in the short and long term. The report, #2931, is published by the AWWA Research Foundation, <http://www.awwarf.org/>, and is currently available to subscribers. It is scheduled to be available for a fee to non-subscribers in August.

*Security Product Guides*. EPA has developed a series of Security Product Guides that provide information on a variety of products designed to enhance physical security and monitor water quality. The products' uses are applicable to treatment plants, distribution systems, pumping stations, chemical delivery and storage, and SCADA. The guides can be found at: <http://www.epa.gov/safewater/watersecurity/guide/index.html>.

## NATIONAL

\* Posters advising customers to be on the watch for suspicious activity around water structures are available from the EPA. The posters can be ordered from EPA or can be downloaded from the internet with the water system's name and contact number printed on the downloaded document. Several poster styles are available. See the heading "Outreach Materials" at the EPA site: <http://cfpub.epa.gov/safewater/watersecurity/publications.cfm>.

## ARKANSAS

\* A new study of the New Madrid Fault, part of which runs through northeast Arkansas, places the odds of an 8.0 magnitude earthquake in the area in the next 50 years at between 7 and 10 percent. The study disputes a 1990 report which claimed that risks from the fault were overblown. Three major earthquakes of 7.8 or greater magnitude rattled the area in 1812.

\* Central Arkansas Water has selected Tetra Tech as the consultant for the preparation of its watershed management plan for Lake Maumelle. The firm will examine land uses in the basin and make recommendations for protection of water quality. Proposed subdivision development in the watershed was the basis for legislation introduced in the 2005 Arkansas Legislature which, ultimately, did not pass. Tetra Tech's plan may take up to two years to complete.

\* Thad Luther, P.E., was selected in May as the Chief Operating Officer of Central Arkansas Water. He was most recently employed by the Little Rock Wastewater Utility as its Engineering Director and prior to that had worked as a District Engineer for the Arkansas Department of Health. He replaced Dale Russom, P.E., who retired July 1.

\* Arkansas Rural Water Association held its annual conference in March in Hot Springs with over 800 in attendance and 65 exhibitors. James Kidd of Harmony Grove was named Water Operator of the Year and Connie Wells of Vilonia Waterworks was named Clerk of the Year. Western Greene County Water won the contest

for Best Tasting Water for the second year in a row, and went on to place in the top five in national competition in Washington, D.C. in April.

\* The Arkansas Water Works & Water Environment Association held its annual conference and short school in April in Hot Springs. The conference had 2578 registrants and 244 exhibitors. Jerome Alford with Bond Consulting Engineers and Ron Pierce with Garver Engineers received the

## News of Note

Glen T. Kellogg Award. Water Works Outstanding Achievement Awards were received by Darrell Boggs with Central Arkansas Water and J.D. Luck with Rosston Water. Special Systems Awards for water went to Piggott Water, Shumaker Public Utilities, and Gravette Water. Awards for the Most Informative Exhibit and Most Informative Exhibitor went to Henard Utility Products. The award for Best Looking Exhibit went to J.A. Riggs. The 2006 conference is scheduled for April 30 – May 3 at the Hot Springs Convention Center.

## DIVISION OF ENGINEERING

\* Public water systems in Arkansas have been mailed their billing notices under the ADH's Water System Service Act. The amount is based on the number of connections in the system, a number which utility managers were asked to verify prior to the ADH sending the billing notice. If you have questions concerning your billing notice, contact Karen Howard at 501-661-2623.

\* Monte Sowell has joined the Division as a Pollution Control Inspector and will assist with the Surface Water Treatment Rule and the Disinfectant / Disinfection Byproduct Rule. Monte is married and has four



children. He graduated from Henderson State University with a degree in Biology with minors in Physics, German and Organic Chemistry in 2004. He has studied Tropical marine Biology from Hofstra University Marine Lab in St. Ann's Bay, Jamaica as well as German in Cologne, Germany where he earned his level 3 translator of European languages (German) certification by the European Union and the Goethe Institute.

\* Ron LiSanti has been hired as an Engineer Technician. He will be responsible for the collection of chemical compliance and quality assurance samples under the Safe Drinking Water Act from public water systems in the state. He was previously employed as a Quality Control Technician for a food company.



\* Mamun Yusef, District Engineer for the north central area of the state, has achieved certification as a professional engineer in Arkansas. Mamun passed the Principles and Practice of Engineering Exam earlier this year to obtain his registration. He has been employed with the Division for five years and holds a masters degree in environmental engineering from UA - Fayetteville.

\* Chris Joyner has been promoted to Pollution Control Inspector Supervisor in the Division of Engineering. He will supervise three Environmental Specialists in the Technical Support Group, primarily providing assistance with program development and implementation of the Microbial/Disinfection Byproducts rules and the Groundwater Rule. Chris's duties will also include compliance determinations and enforcement activities for those rules as well as GWUDI Systems subject to the SWTR requirements. His previous position was as a Surface Water Treatment Rule Engineer.

## WATER OPERATOR LICENSES ISSUED

March 1, 2005 through May 31, 2005

<u>NAME</u>	<u>TYPE/GRADE</u>	<u>PUBLIC WATER SYSTEM NAME</u>
ALEXANDER MICHAEL DEWAYNE	D - I	HELENA WATER SEWER
BAYSINGER ROBERT SEAN	T - I	MARSHALL WATERWORKS
BELL JAMES MICHAEL	T - I	BOONEVILLE WATERWORKS
BLANKENSHIP DANNY LEE	D - I	AR DEPT OF CORRECTION IZARD CO
BOBO JUSTIN D	D - I	BROOKLAND WATERWORKS
BOSCO MARTIN III	D - IV	FORT SMITH WATER UTILITIES
BOUNDS FRANKLIN SCOTT	T - IV & D - IV	BENTON-WASHINGTON REGIONAL PWA
BOYD JAMES FRANK	T - III & D - III	NOT OPERATING AN ARKANSAS PWS
BOYD JOSHUA O	D - III	FAYETTEVILLE WATERWORKS
BRAY DUSTIN DEWAYNE		US AIR FORCE BASE LITTLE ROCK
BRAY DUSTIN DEWAYNE	T - II & D - I	US AIR FORCE BASE LITTLE ROCK
BREWER JASON BENJAMIN	T - II	MULBERRY WATERWORKS
BROWN RICHARD ROY	D - IV	FAYETTEVILLE WATERWORKS
BURRIS SCOTT A	D - IV	BEE BRANCH WATER
BUSHONG WILLIAM	D - II	LAKE VILLAGE WATERWORKS
COOPER EDWIN N	D - IV	BENTON CO WATER
COOPER RICKEY LEE	D - I	REMINGTON ARMS COMPANY
CROSSWHITE MINDI BABETTE	T - IV & D - IV	BEAVER WATER DISTRICT
CRUMP ELIZABETH LYNN	T - IV	MAGNOLIA WATERWORKS
DICKERSON CHARLES BERNARD	D - I	PARKIN WATERWORKS
DINWIDDIE BRANDON RAY	D - II	BRYANT WATERWORKS
FIORIELLO TREY J	D - I	MOUNT IDA WATERWORKS
FLYNN ERIC	D - IV	ALMA WATERWORKS
FULLEN JOSEPH LAYTON	T - IV & D - IV	SARDIS WATER ASSOCIATION
GARTSIDE BRIAN	T - IV & D - IV	MCGOODWIN WILLIAMS AND YATES ENGRS
GIBBONS HARDY D	T - IV	ASHDOWN WATERWORKS
GLAGOLA MICHAEL ADAM	D - I	ALMATIS
GOODMAN HENRY LEE	D - III	MOUNTAIN VIEW WATERWORKS
GOODNIGHT WILLIAM J	T - III	HOT SPRINGS WATERWORKS
GRAY DARRELL M	D - I	US AIR FORCE BASE LITTLE ROCK
GREEN BRAD EDWARD	T - I	RECTOR WATERWORKS
GREEN CHARLES	D - IV	CONWAY WATER SYSTEM
HARPER JAMES R	D - IV	HOT SPRINGS WATERWORKS
HARRIS WENDY L	D - I	NASHVILLE WATERWORKS
HERRERRA LEOPOLDO	T - II & D - I	US AIR FORCE BASE LITTLE ROCK
HORTON JEREMY ROSS	D - II	MARMADUKE WATERWORKS
HURST JOE PRESTON	T - III & D - III	PERRYVILLE WATERWORKS
KITCHENS RUSSELL L	D - II	BRYANT WATERWORKS
LAMAR JERRY E	D - III	MONETTE WATERWORKS
LERZ RYAN MARTIN-JOHN	D - III	FAYETTEVILLE WATERWORKS
LIGON DAVID EDWARD	T - II	USCOE LAKE DEGRAY SYSTEMS
LINDMAN DARYL J	D - IV	MOUNTAIN HOME WATERWORKS & LEISURE HILLS HOMEOWNERS ASSOC
LITTLEFORD RONALD RAY	D - IV	MOUNTAIN HOME WATERWORKS
LITTLETON MICHAEL L	D - II	ADC EAST ARKANSAS REGIONAL
MCCORMACK EDDIE O	D - II	BRYANT WATERWORKS
MOORE KENNETH WAYNE	D - II	HUNTINGTON WATERWORKS
MORSE BRAD A	D - II	MULBERRY WATERWORKS

<u>NAME</u>	<u>TYPE/GRADE</u>	<u>PUBLIC WATER SYSTEM NAME</u>
OULCH RUSSELL PATRICK	T - II	ALMATIS
PARRISH STEVEN GEORGE	D - II	CLARENDON WATERWORKS
PAYNE KELLY LEE	T - IV	BEAVER WATER DISTRICT
PAYTON TERRY LEE	D - II	TRI-COUNTY WATER DISTBR DIST
PICTON OZZY DEAN	T - II	DOVER WATERWORKS
QUAST KENNY A	T - III	HOT SPRINGS WATERWORKS
RAY FAY ALLEN	T - I	BOONEVILLE WATERWORKS
REEVES JANET	T - II	MULBERRY WATERWORKS
ROSS MAX	D - IV	PORTIA WATERWORKS
ROUSE RUSSELL BENJAMIN	D - I	MAUMELLE WATER MANAGEMENT
RUCKER RICK L	D - I	US AIR FORCE BASE LITTLE ROCK
RYNDERS STEVEN RAY	D - IV	HOT SPRINGS WATERWORKS
SHARP KELLEY DALE	D - IV	UNIVERSITY OF ARKANSAS - FAYETTEVILLE
SLATER CHARLES EDWARD SR	T - III	HOT SPRINGS WATERWORKS
SPEARS ROBERT A	D - I	SHERIDAN WATERWORKS
SPENCER MATTHEW LEE	T - IV & D - IV	JONESBORO WATER SYSTEM
STATON MARTY D	D - I	ADC - TUCKER UNIT MAINT
STEWART ALTON MORRIS	D - II	CAVE CITY WATERWORKS
STEWART MARK	D - III	CENTRAL ARKANSAS WATER
TABOR GARY A	T - IV & D - IV	SPRINGDALE WATER UTILITIES
TEAGUE AARON BRUCE	T - II	CALICO ROCK WATERWORKS
TEMPLEMAN RICKY DWAIN	T - II	WALDRON WATERWORKS
TRUE DEVIN PAUL	T - II & D - I	US AIR FORCE BASE LITTLE ROCK
WALTERS DAVID FLOYD II	D - I	CARLISLE WATERWORKS
WEINDORF BLAKE FILLMORE	T - IV & D - IV	CENTRAL ARKANSAS WATER
WHITWORTH BRIAN KEITH	D - III	PIGGOTT WATERWORKS

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

Community & Nontransient Noncommunity Public Water Systems – January through March 2005

ALL SEASONS MHP	TMCL 1,2,3	MOUNT ZION WATER	Dmon 1,2,3
BEDFORD FALLS MHP	Dmon 1,2	NE YELL COUNTY WATER	DMCL 1,2,3
BUFFALO ISLAND REG WATER DISTRICT	Dmon 3	NORMAN WATER	TMCL 1,2
BUFFALO ISLAND REG WATER DISTRICT	Bmon 3	ODEN-PENCIL BLUFF WATER	TMCL 1,2,3
CASA WATER	DMCL 1,2,3	OMAHA WATER	Dmon 3
CHARLESTON WATER	Bmon 2	PLAINVIEW WATER	DMCL 1,2,3
COAL HILL WATER	OperLic 1	PLEASANT RIDGE APTS	OperLic 1,2,3
COTTON PLANT WATER	BMCL 1	PLEASANT VALLEY POINT	OperLic 1,2,3
DANVILLE WATER	DMCL 1,2,3	PORTIA WATER	OperLic 1,2
DEER WATER ASSOC	BMCL 3	POYEN WATER	OperLic 2,3
DERMOTT WATER	BMCL 1	RIVERWALK APTS	OperLic 1,2,3
EAST NEWTON COUNTY WATER	Dmon 1	RIVERWALK APTS	Bmon 2,3
EMMET WATER	BMCL 3	RIVERIA UTILITIES	Bmon 2
EUDORA WATER	Bmon 3	SDM WATER	FMCL 1,2,3
EVENING SHADE WATER	Dmon 1	SDM WATER	RMCL 1,2,3
FAIRCREST WATER	DMCL 1,2,3	SOUTH MOUNTAIN WATER	RMCL 1,2,3
FOUNTAIN HILL WATER	DMCL 1,2,3	ST FRANCIS RIVER REGIONAL WATER	Bmon 3
GOVERNOR'S PARK APTS	OperLic 1,2,3	VALLEY SPRINGS WATER	RMCL 1,2,3
GOVERNOR'S PARK APTS	Bmon 2	WEST FORK WATER	Dmon 3
GREENWOOD WATER	DMCL 1,2,3	WHEATLEY WATER	DMCL 1,2,3
HILLSIDE BAYOU	Dmon 1	WHITE HALL WATER	BMCL 3
HILLSIDE BAYOU	OperLic 1	YELLVILLE WATER	DMCL 1
KINGSTON SCHOOL	TMCL 2,3		
LITTLE RIVER CO RDA	DMCL 1,2,3		
LOCKESBURG WATER	OperLic 3		
MARION COUNTY REG WATER DISTRICT	DMCL 1,2,3		
MITCHELLVILLE WATER	Bmon 3		
MORNING STAR WATER ASSOC	FMCL 1,2,3		
MOUNT IDA WATER	DMCL 1,2,3		
MOUNT SHERMAN WATER	RMCL 1,2,3		
MOUNT ZION WATER	OperLic 1,2,3		

**KEY:** Bmon = Bacti Monitoring; BMCL = Bacti MCL; Dmon = DDBPR Monitoring; DMCL=DDBPR MCL; Tmon = SWTR Major Monitoring; TMCL = SWTR Treatment Technique; SWTR= Failure to Filter; RMCL = Radiochemical MCL; FMCL = Fluoride MCL; SMCL = Synthetic Chemical MCL; LIC= Operator Licensing; 1 = January, 2 = February, 3 = March.

# Licensing Requirements Outlined for GWUDI & Bottled Water Facilities

A. Martin Nutt

The Arkansas Drinking Water Advisory and Operator Licensing Committee at its April meeting approved the following licensing concepts for the treatment processes specific to transient noncommunity (TNC) public water systems.

## Surface or GWUDI Source Using Bag or Cartridge Filtration

TNC systems that have a surface source, including springs, or a well that has been declared under the direct influence of surface water (GWUDI), and which utilize treatment consisting of bag or cartridge filtration and chlorination can comply with the licensing requirements by using one of the following methods.

A. Completing at least a Grade 2 Treatment License or a Grade 2 Treatment Operator-In-Training Wallet Certificate. Renewal would follow the normal renewal procedures including training requirements for this license.

B. Completing the alternative Arkansas GWUDI Plant Operator License. Obtaining this license would require the following: 1) demonstrating adequate proficiency on the Division of Engineering's field administered practical GWUDI technology exam; 2) attending the Division of Engineering's 8 hour "Drinking Water Compliance Course"; and 3) passing an Arkansas specific 40 question exam after completing the course.

The renewal of this license would be on the normal 2 year renewal cycle of all other licenses and include a required renewal fee. Renewal would also require the license holder to attend the "ADH Drinking Water Compliance Course", or meet the renewal training requirements in Section XIII of the Rules and Regulations Pertaining to Water Operator Licensing, in each 2 year renewal period. Finally, the operator will be required to continue to demonstrate proficiency on the practical exam to be administered every 4 years during the system's required Surface Water Treatment Rule Plant Evaluation.

## Bottled Water Facilities

Bottled water facilities were recently reclassified as transient public water systems. This change in system type requires licensing under the *Rules and Regulations Pertaining to Water Operator Licensing* if the bottling plant uses as its supply a surface source, including springs, or a GWUDI well. Bottling plants utilizing water purchased from another public water system or from a protected groundwater source are not required to have a licensed operator.

Compliance with the licensing requirements would be by one of the following:

A. Completing at least a Grade 2 Treatment License or a Grade 2 Treatment Operator-In-Training Wallet Certificate. Renewal would follow normal renewal procedures with consideration given to approving bottling plant specific continuing education programs.

B. Completing the alternative Arkansas Bottling Plant Operator License. Obtaining this license would require: 1) a current Certified Plant Operator (CPO) certification from the International Bottled Water Association (IBWA); 2) attending of the Division of Engineering's 8 hour "Drinking Water Compliance Course"; and 3) passing of an Arkansas specific 40 question exam after completing the course.

Renewal would require the attendance of the "Drinking Water Compliance Course" during each renewal period and proof that the IBWA CPO Certificate is current and in good standing at the time of renewal.

## Water Vending Machines

Provided a vending machine is supplied water from another regulated public water system, as are all machines currently in the state, there is no licensing requirement. National information indicates Arkansas is one of only a few states to regulate water vending machines.

For more information on licensing for TNC systems, contact Martin Nutt.

## License Renewal Tips

License renewal statements have been mailed and some operators have come to the realization that they haven't received their renewal forms. If you haven't gotten your renewal statement(s), be sure to call us immediately. Also, don't forget that if you have a Treatment and a Distribution License both must be renewed.

If it seemed that recording your training was complicated two years ago, it is more complicated now. With the new policy on Direct versus Indirect training, it can get confusing. Not only do you need to remember and record the title of the class, where and when it was held, and who sponsored it, but now you need to be concerned about whether you have enough Direct training. You need to make sure that at least 12 of your 24 training hours are classified as Direct. If you go by a different name (signed rosters) than listed on your statement, let us know what other name you used so that we can find you on the rosters. Just jot a note on the renewal form.

Don't forget to fill in the part of the form asking for the name of the water system where you work. If you do not operate a system, be sure to indicate that on the form as well.

If you do not mail in your renewal fee by July 31, 2005, a \$5.00 penalty will be charged to each license renewal. If you are sending your renewal after July 31 and have not received your renewal invoice with the penalty shown, you still need to be sure to add the additional \$5 late fee to the \$10 processing fee for each of your licenses.

Feel free to contact us at (501) 661-2623 if you have any questions concerning your renewal. Email us at: Celia Ison – [cison@healthyarkansas.com](mailto:cison@healthyarkansas.com) or Martin Nutt – [mnutt@healthyarkansas.com](mailto:mnutt@healthyarkansas.com).

## Mandatory Training Course Schedule

All courses begin at 8 a.m.

MANDATORY COURSE NAME	START DATE	END DATE	OPCERT GRANT ELIGIBLE COURSE	CITY	LOCATION	SPONSOR
Intermediate Water Distribution	7/11/2005	7/13/2005	No	Camden	AR Environmental Academy	AEA
Intermediate Water Distribution	7/12/2005	7/14/2005	Yes	Mt. Home	Baxter County Training Center	ARWA
Basic Water Math	7/12/2005	7/12/2005	No	Nashville	Carter Day Center	ARWA
Applied Water Math	7/13/2005	7/13/2005	No	Nashville	Carter Day Center	ARWA
ADH Water Compliance	7/14/2005	7/14/2005	No	Nashville	Carter Day Center	ADH
Advance Water Treatment	7/19/2005	7/21/2005	No	Lonoke	ARWA Training Facility	ARWA
Intermediate Water Treatment	7/20/2005	7/20/2005	No	Camden	AR Environmental Academy	AEA
Basic Water Math	7/26/2005	7/26/2005	Yes	Monticello	Southeast Regional Health Unit	AEA
Intermediate Water Distribution	7/26/2005	7/28/2005	No	Rogers	Rogers Chamber of Commerce	ARWA
Applied Water Math	7/27/2005	7/27/2005	Yes	Monticello	Southeast Regional Health Unit	AEA
ADH Water Compliance	7/28/2005	7/28/2005	Yes	Monticello	Southeast Regional Health Unit	ADH
Basic Water Math	8/2/2005	8/2/2005	No	Crossett	USDA Forest Service	ARWA
Applied Water Math	8/3/2005	8/3/2005	No	Crossett	USDA Forest Service	ARWA
ADH Water Compliance	8/4/2005	8/4/2005	No	Crossett	USDA Forest Service	ADH
Intermediate Water Treatment	8/9/2005	8/11/2005	Yes	Lonoke	ARWA Training Facility	ARWA
Basic Water Math	8/16/2005	8/16/2005	Yes	Forrest City	Forest City Water Treatment Plant	AEA
Basic Water Treatment	8/16/2005	8/18/2005	No	Clarksville	Clarksville Light & Water Operations Building	ARWA
Applied Water Math	8/17/2005	8/17/2005	Yes	Forrest City	Forest City Water Treatment Plant	AEA
ADH Water Compliance	8/18/2005	8/18/2005	Yes	Forrest City	Forest City Water Treatment Plant	ADH
Basic Water Distribution	8/23/2005	8/25/2005	No	Nashville	Carter Day Center	ARWA
ADH Water Compliance	9/1/2005	9/1/2005	No	Little Rock	AR Department of Health Building L137	ADH
Basic Water Distribution	9/6/2005	9/8/2005	Yes	Jonesboro	Jonesboro City Water & Light Office	ARWA
Intermediate Water Treatment	9/6/2005	9/8/2005	No	Clarksville	Clarksville Light & Water Operations Building	ARWA
Basic Water Math	9/13/2005	9/13/2005	No	Mt Home	Baxter County Training Center	ARWA
Applied Water Math	9/14/2005	9/14/2005	No	Mt Home	Baxter County Training Center	ARWA
ADH Water Compliance	9/15/2005	9/15/2005	No	Mt Home	Baxter County Training Center	ADH
Advanced Water Distribution	9/20/2005	9/22/2005	No	Rogers	Rogers Chamber of Commerce	ARWA
Intermediate Water Treatment	9/26/2005	9/28/2005	Yes	Camden	AR Environmental Academy	AEA
Basic Water Math	10/4/2005	10/4/2005	Yes	Lonoke	ARWA Training Facility	ARWA
Advanced Water Treatment	10/4/2005	10/6/2005	No	Clarksville	Clarksville Light & Water Operations Building	ARWA
Intermediate Water Distribution	10/4/2005	10/6/2005	No	Batesville	White River Training Academy	AEA
Applied Water Math	10/5/2005	10/5/2005	Yes	Lonoke	ARWA Training Facility	ARWA
ADH Water Compliance	10/6/2005	10/6/2005	Yes	Lonoke	ARWA Training Facility	ADH
ADH Water Compliance	10/12/2005	10/12/2005	No	Little Rock	AR Department of Health Building L137	ADH
Basic Water Treatment	10/18/2005	10/20/2005	No	Lonoke	ARWA Training Facility	ARWA
Basic Water Treatment	10/18/2005	10/20/2005	Yes	Fayetteville	Best Western Windsor Suites	AEA
Intermediate Water Distribution	10/25/2005	10/27/2005	No	Nashville	Carter Day Center	ARWA

\*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.

ADH – Arkansas Department of Health – Contact Celia Ison – (501) 661-2623 – [cison@healthyarkansas.com](mailto:cison@healthyarkansas.com)

AEA – Arkansas Environmental Academy – Contact Teresa Smith – (870) 574-4550 – [tsmith@sautech.edu](mailto:tsmith@sautech.edu)

ARWA – Arkansas Rural Water Association – Contact Carol Shaw – (501) 676-2255 – [arkrwa@direcway.com](mailto:arkrwa@direcway.com)

REPORT OF THE  
Arkansas Drinking Water Advisory and Operator Licensing Committee

A. Martin Nutt, Training and Certification Officer

The Committee held its quarterly meeting April 13, 2005 at the offices of Arkansas Rural Water Association in Lonoke, Arkansas. Members present were Steve Wear, Chair; Gary Hum; Les Patterson, P.E.; Charles "Chuck" Nickle, P.E.; and Harold Seifert, P.E., Executive Secretary of the Committee. Members absent were Michael "Butch" Bartholomew, Vice-Chair; and Dr. Rodney Williams, P.E.

Department of Health Staff members present were Martin Nutt, Training and Certification Officer; and Celia Ison, Training Coordinator. Guests present were Dennis Sternberg, Arkansas Rural Water Association; Gary Oden and Johnny Moore, Arkansas Environmental Academy; Barbara Mathis, City Clerk, and Michael Sturgeon, City of Mayflower; Linda Kitchens, High School Principal, and Jessie Skinner, Umpire School; and Mayor Ron Martin and Frankie Wilson, City of Glenwood.

#### **Standing Business**

The Committee reviewed and approved minutes from the October 20, 2004 and January 12, 2005 meetings. The Committee reviewed and granted three High School Diploma waivers.

The Committee reviewed its progress on goals set at their July 2004 meeting for the 2005 fiscal year. Seifert reported for Bartholomew that progress was being made on the web based Training Attendance Database. The IT staff for ADH and the IT staff for DOE met with Jeff Ford (ARWA) to look at the software purchased from ARWA. Problems have prevented its implementation and it was noted the database would not be ready for use with the 2005 renewals.

Seifert reported about the goal of finding a new home for the Glen T. Kellogg Hall of Fame. The main hallway just outside the entrance to the Division of Engineering office area has been approved and a contract let (See article page 5).

Nutt reported for Williams on the CD-Rom for Committee Minutes and useful information by passing out a CD and requesting the members to review for completeness.

Nutt updated the Committee on the progress being made on the License Program Goals including digital imaging of documents and updating the Compliance Summary.

Seifert reported on the OpCert Training Grant noting that the training was being offered and that 2006 fiscal year payment provisions to the two contract providers were underway.

#### **Old Business**

The 2005 Association of Boards of Certification Annual Conference held in January in New Orleans, LA reports was attended by Nickle and Nutt. Both stated it was a worthwhile and useful conference with Nickle giving the conference high praise. Both noted the informative program as the highlight of the conference.

Seifert informed the committee on the Division's budget, with the defeat of the fee bill consuming most of the discussion. He also discussed the merger of the Department of Health with the Department of Human Services noting expected changes and concerns.

Nutt addressed the need to develop new license exams. He asked the Committee to set exam development workshop dates, which were set for the week of May 30<sup>th</sup>, 2005. The Committee confirmed that the workshops would follow previous guidelines requiring involvement of operators holding the license of the exam being developed, Committee members, ADH colleagues, and trainers.

#### **New Business**

The Committee authorized the reimbursement of Committee members' expenses following normal ADH travel expense policies. Seifert requested and the Committee agreed to move up the new license committee member appointment process by three months which will allow the new member to attend the April meeting as a nonvoting member.

The Committee received a report from Nutt addressing reciprocity issues resulting from the mandatory training requirements. The Committee decided to allow the reciprocity process to take into consideration training an operator attended before or

after his license exam for possible substitution to Arkansas' mandatory training requirements when equivalency can be determined.

The Committee accepted two recommendations addressing the licensing of bottling plant operators and GWUDI transient water systems (See article page 12). The Committee approved for presentation the annual report to the AWW&WEA Annual Conference on April 24.

#### **Reports to the Committee**

Seifert, in his Executive Secretary and Division Director's report, discussed primarily the Legislative session and the bills addressing watersheds.

Nutt, in his Training and Certification Officer's report, referred to the handout of the spreadsheet giving the passing rates for licensing exams. Discussion surrounded the performance of the D-3, D-4, T-3 and T-4 passage rates. Seifert stated he felt the rates were acceptable. Patterson stated that we just want to be sure that the scores are a result of the examinees and not of the exams, but he believes that that has been taken care of.

Enforcement data for unlicensed water systems was not provided to the Committee. Nutt reported that most systems coming under enforcement were only staying 3-4 months before a replacement licensed operator was being obtained. He felt this was a significant improvement brought about by the Division's Enforcement Plan.

Nutt noted he had participated in the ABC Distribution Validation and Exam Committee Meeting and Workshop in Providence, RI the weekend of April 8-11, 2005. It was primarily a review of both present and new distribution exam questions. A member of the Committee from Massachusetts had commented about the new license fees being charged in his state. Nutt furnished the License Committee a copy of an article in Massachusetts' newsletter that discussed their use of on-line computer based administration of exams, their use of a contractor to administer all exams and the exam fee cost of \$254. He noted the cost of a

license including all fees was around \$300 provided the exam was passed with the first attempt.

Oden provided the Arkansas Environmental Academy's training report. He highlighted the recent changes at the Academy with the retirement of James Bailey, SAU Tech's decision to not replace Mr. Bailey for an indeterminate period and the additional administrative role he and each instructor will take on. He stated the Academy has budgetary concerns and expressed specific concerns about the OpCert Grant course contract.

Sternberg provided the Arkansas Rural Water Association's training report informing the Committee of the Association's increased training schedule with positive feedback being received from operators taking courses. He then discussed the passage of the legislative bill providing a Vulnerability Assessment exception to the Arkansas Freedom of Information Act with the sunset clause still intact.

The Committee concluded its meeting and set its next meeting date of July 13, 2005.

### LICENSE EXAM TIP

You have completed your exam preparation (courses taken, studying done), now what else can you do to prepare for the exam and increase your passing odds?

You should be well rested. A tired brain doesn't want to work remembering answers. You should eat a light meal before the exam to provide the brain fuel to work. You should arrive early, this allows you time to calm down from the stress of getting to the exam site, to focus your attention on the task (exam) and, most importantly, to get out that positive, can do mental attitude.

**PREPARATION = SUCCESS**

## WATER SYSTEM IMPROVEMENTS

CARLISLE: construction of a 0.125 MG elevated storage tank.  
 MONTGOMERY COUNTY REGIONAL PUBLIC WATER AUTHORITY: 1.2 MGD treatment plant, 8 inch transmission line, and 0.15 MG standpipe to supply wholesale water to the City of Mount Ida and the Oden Pencil Bluff water system.  
 OUTSIDE KINGSLAND WATER ASSOCIATION: 2 – 6 inch main extensions, booster pump station, and 0.08 MG standpipe to serve additional customers in the Lea Ridge area of Dallas County.  
 PARKERS CHAPEL WATER ASSOCIATION: construction of a 0.25 MG elevated distribution storage tank.  
 POYEN: 33,000 LF of 2 – 4 inch water mains to extend service to 36 additional customers.  
 SHANNON HILLS: 0.75 MG elevated distribution storage tank.

## WATER OPERATOR LICENSE EXAMINATIONS

Listed below are the dates and locations of examination sessions as scheduled, as of April 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.

DATE	CITY	LOCATION	TIME
7/14/2005	Camden	AR Environmental Academy	9:00 AM
7/15/2005	Mt Hme	Baxter County Training Center	9:00 AM
7/21/2005	Camden	AR Environmental Academy	9:00 AM
7/22/2005	Lonoke	Arkansas Rural Water Ass'n Training Facility	9:00 AM
7/29/2005	Rogers	Rogers Chamber of Commerce	9:00 AM
8/12/2005	Lonoke	Arkansas Rural Water Ass'n Training Faciltiy	9:00 AM
8/19/2005	Clarksville	Clarksville Light & Water Operations Building	9:00 AM
8/26/2005	Nashville	Carter Day Center	9:00 AM
9/9/2005	Jonesboro	Jonesboro City Water & Light Office	9:00 AM
9/9/2005	Clarksville	Clarksville Light & Water Operations Building	9:00 AM
9/23/2005	Rogers	Rogers Chamber of Commerce	9:00 AM
9/29/2005	Camden	AR Environmental Academy	9:00 AM
10/7/2005	Clarksville	Clarksville Light & Water Operations Building	9:00 AM
10/7/2005	Batesville	White River Fire Training Academy	9:00 AM
10/21/2005	Fayetteville	Best Western Windsor Suite	9:00 AM
10/21/2005	Lonoke	Arkansas Rural Water Ass'n Training Center	9:00 AM
10/28/2005	Nashville	Carter Day Center	9:00 AM
11/4/2005	Clarksville	Clarksville Light & Water Operations Building	9:00 AM
11/11/2005	Lonoke	Arkansas Rural Water Ass'n Training Center	9:00 AM
11/17/2005	Camden	AR Environmental Academy	9:00 AM
11/18/2005	Nashville	Carter Day Center	9:00 AM
12/8/2005	Camden	AR Environmental Academy	9:00 AM
12/9/2005	Lonoke	Arkansas Rural Water Ass'n Training Center	9:00 AM
12/16/2005	Lonoke	Arkansas Rural Water Ass'n Training Center	9:00 AM

The above exam session information is subject to change. You should confirm this information just prior to the scheduled examination period.

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

AWW&WEA District Meetings

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

DATE	TIME	CITY	LOCATION	SPONSOR
<b>July 2005</b>				
7	5:00PM	Little Rock	Ryan's Buffet	Central District, AWW&WEA
7	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
14	5:30PM	Clarksville	Western Sizzlin	AR Valley District, AWW&WEA
14	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
19	6:30PM	Monticello	Young's BBQ	Southeast District, AWW&WEA
21	5:30PM	Marvell	to be announced	Eastern District, AWW&WEA
21	1:00PM	Jonesboro	Ron's Catfish	Northeast District, AWW&WEA
20	9:00AM<	Pea Ridge	Emergency Services Bldg	Northwest District, AWW&WEA
28	6:30PM	El Dorado	Training Center	Southwest District, AWW&WEA
<b>August 2005</b>				
4	5:00PM	Little Rock	Water Products	Central District, AWW&WEA
4	6:30PM	Subiaco	Subiaco Academy	Western District, AWW&WEA
11	5:30PM	Hazen	to be announced	Eastern District, AWW&WEA
11	5:30PM	Cass	Job Corps Center	AR Valley District, AWW&WEA
11	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
16	6:30PM	Crossett	Western Sizzlin	Southeast District, AWW&WEA
18	1:00PM	Paragould	Bonanza	Northeast District, AWW&WEA
24	9:00AM	Harrison	Comfort Inn	Northwest District, AWW&WEA
25	6:30PM	Prescott	to be announced	Southwest District, AWW&WEA
<b>September 2004</b>				
1	5:00PM	Benton	Senior Adult Center	Central District, AWW&WEA
1	6:30PM	Forth Smith	Golden Corral	Western District, AWW&WEA
8	5:30PM	Clarksville	Western Sizzlin	AR Valley District, AWW&WEA
8	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
8	5:30PM	Helena	to be announced	Eastern District, AWW&WEA
15	1:00 PM	Jonesboro	Western Sizzlin	Northeast District, AWW&WEA
20	6:30PM	Barkada	Young's BBQ	Southeast District, AWW&WEA
21	9:00AM	Springdale	Jones Center	Northwest District, AWW&WEA
22	6:30PM	East Camden	Ross Center	Southwest District, AWW&WEA
<b>October 2005</b>				
6	5:00PM	Benton	Senior Adult Center	Central District, AWW&WEA
6	6:30PM	Fort Smith	to be announced	Western District, AWW&WEA
13	5:30PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
13	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
13	5:30PM	West Memphis	Dog Track	Eastern District, AWW&WEA
14	5:30PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
18	6:30PM	Hamburg	Catfish Inn	Southeast District, AWW&WEA
19	9:00AM	Prairie Grove	Battlefield Park	Northwest District, AWW&WEA
20	1:00PM	Paragould	City Light & Water Bldg	Northeast District, AWW&WEA
27	6:30PM	Magnolia (Waldo)	Western Sizzlin	Southwest District, AWW&WEA

DIVISION OF ENGINEERING, SLOT 37  
 ARKANSAS DEPARTMENT OF HEALTH  
 4815 WEST MARKHAM STREET  
 LITTLE ROCK, AR 72205-3867  
 (501) 661-2623  
[www.HealthyArkansas.com/eng/](http://www.HealthyArkansas.com/eng/)

Presorted Standard U.S. Postage Paid Little Rock, AR Permit No. 2641
---