ARKANSAS
DRINKING WATER UPDATE

Volume 21, No. 4 *ENGINEERING SECTION – DEPARTMENT OF HEALTH* *Winter 2008*

Systems with wells to receive notice on 4-log treatment declaration for GWR

Water systems in Arkansas which contain a groundwater well will soon be receiving a letter from the Engineering Section as part of its implementation of the federal Ground Water Rule (GWR). The letter will advise systems that to avoid the possibility of triggered source water monitoring under the GWR, it must declare and document that it is providing at least 4-log inactivation and/or removal of viruses.

The GWR was published in 2006 and is scheduled to become effective in December 2009. It is applicable to any public water system supplied by a groundwater source, including consecutive systems which purchase water from a groundwater system. The rule was intended to provide protection against potential viral pathogens in aquifers.

A key component of the GWR requires monitoring of the source water for E.coli if any routine distribution system compliance sample collected under the Total Coliform Rule is found to contain coliform. The source sample must be collected by the water system within 24 hours after being notified that the distribution sample was coliform positive, and must be collected prior to any treatment or chemical addition. If the source sample is E.coli positive, a Tier 1 public notification (acute health concern) must be issued.

The Engineering Section has submitted its primacy package to EPA for implementation of the GWR. Depending on how and when EPA responds to that submittal, additional information on the GWR will be forthcoming from the Engineering Section including whether treatment declarations and source water monitoring will be applied to consecutive systems.

Groundwater systems which can demonstrate a 4 log removal and/or inactivation of viruses before the first customer will not be required to collect the source water sample in the event of a distribution system positive sample. This demonstration includes the initial documentation to the state of adequate contact time with a disinfectant prior to the first customer (CT), and it includes the maintenance and reporting to the state of a minimum specified disinfectant residual. Systems greater than 3300 population must continuously monitor the disinfectant residual and record the lowest daily residual concentration. Systems serving 3300 population or fewer must monitor once per day during the peak hourly flow.

A similar documentation, monitoring, and reporting scheme for CT is currently required for water systems using a surface water source or groundwater under the direct influence of surface water.

If a groundwater system is required to monitor its source and E.coli is confirmed in the initial or subsequent samples, the GWR requires the system to implement one or more of the following corrective actions:

1) Eliminate the source of contamination;
2) Install 4-log removal/inactivation before the first customer;
3) Provide an alternate source of water.

It is recommended that groundwater systems and their consecutive systems be proactive in informing themselves about the GWR rather than waiting for information from the state. Systems should read the regulation, understand how it can impact their operation, and begin to assess their distribution system and their water supply wells for possible sources of coliform.

For more information, see www.epa.gov/safewater/disinfection/gwr/ or contact Lyle Godfrey with the Engineering Section.

Infrastructure Stimulus Appears Likely in 2009

A stimulus package to bolster the economy and to create or save 2.5 million jobs has been promised by President-elect Barack Obama. Congress appears eager to cooperate. Details on the package, which will include water and wastewater projects, were unknown at the deadline for this publication but initial indications are that both the new administration and Congress are interested in projects that are ready for construction and only lack the necessary financing.

Obama announced his stimulus intention in late November and said he hoped to have a plan prepared for Congress by January in order that he could approve it soon after he takes office. The House and Senate convene two weeks before Obama's inauguration on January 20.

EPA has indicated that it is probable that the clean water and drinking water SRF programs, with modifications, would be one mechanism used for the stimulus funding of water and wastewater projects.

A stimulus bill (HR 7110) that passed the House in the fall but was not taken up by the Senate proposed $1 billion for the Drinking Water State Revolving Fund and $6.5 billion for the Clean Water State Revolving Fund. The bill required that states enter into binding agreements for projects within 120 days

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Inside the *Update* Page

Water industry groups identify priority issues for incoming President

A group of four water industry organizations have prepared a report for the Obama Administration outlining what they see to be the key issues facing the drinking water industry. The issues identified were infrastructure funding, drinking water standards, source water protection, climate change, and security.

The document, *A National Agenda for Drinking Water*, was prepared by the American Water Works Association, National Rural Water Association, Association of Metropolitan Water Agencies, and National Association of Water Companies. The groups characterize themselves as representing the full spectrum of drinking water utilities in terms of size, service type (urban/ rural), and if publicly or investor owned.

The report acknowledges Obama's intent to pass a stimulus package and urges him to make drinking water projects a substantial component of that package. They believe the House stimulus bill (HR 7110) proposing $1 billion for drinking water was a good start but that much more money is needed to adequately fund ready-to-go projects. They point out that such construction projects will both create jobs and improve public health by increasing access to clean and safe drinking water.

The groups also contend that long-term solutions are needed to address the estimated hundreds of billions of dollars in necessary infrastructure improvements. They acknowledge that the primary responsibility for this funding resides at the local level and recommend that innovative sources of capital be considered but reject a federal water tax. They also recommend increased funding for state SRF programs and for the USDA Rural Water program.

In the area of drinking water standards, the report supports the current process by which the EPA regulates contaminants, emphasizing it should be "deliberative" and "science-based". The report opposes legislative rule-making whereby Congress mandates that a particular contaminant be regulated or specifies the maximum contaminant level for a contaminant.

For source water protection, the groups recommend that nonpoint pollution sources be addressed through the Clean Water Act or other mechanisms, and that research be conducted on pharmaceuticals and personal care products as to their sources, treatment and health effects. They also would like to see the conservation measures of the Farm Bill fully utilized, and for EPA to ensure that drinking water sources are protected from the underground sequestration of carbon dioxide.

The report points out that water utilities will be among the first to have to deal with the impacts from climate change. It requests dedicated funding in order to research and assess the impact of climate change on drinking water resources, and to assist utilities in adapting to climate change.

The groups express concern that chemical security regulations would permit the federal government to force local water systems to change treatment schemes, such as for disinfection, in order to adopt "safer" technologies. They go on to request that duplicative security programs in the EPA and the Department of Homeland Security be avoided, that no federal official have the authority to close a drinking water plant for noncompliance, and that sensitive data of water utilities be protected from public disclosure.

A copy of the report can be obtained at www.awwa.org/ . ♦

ARKANSAS DRINKING WATER UPDATE is published quarterly by the Engineering Section, Arkansas Department of Health 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. at the return address listed on the last page.

EPA decision not to regulate perchlorate generates controversy

The US EPA announced in a preliminary decision in October that the regulation of perchlorate is not warranted. The decision has raised questions from EPA's advisory groups.

Perchlorate is a chemical in rocket fuel, and has been found in the groundwater in a number of states. EPA acknowledged in its notice that the chemical has been found in a small percentage of water systems and that at higher doses it may have an adverse health effect. But based on the criteria found in the Safe Drinking Water Act for regulating a contaminant, the agency concluded that regulation would not present a meaningful opportunity to reduce health risks for persons served by public water systems. The agency said that only one percent of water systems had perchlorate levels above 15 ppb which EPA plans to set as a nonbinding, recommended health level.

The heads of two EPA advisory groups, the Science Advisory Board and its drinking water committee, recommended the agency extend the comment period on the preliminary decision and delay taking final action. The Board's Chairwoman, Deborah L. Swackhamer, said that additional review of the models EPA used in its conclusion were warranted.

Two states, Massachusetts and California, have set limits on perchlorate in drinking water at lower levels than EPA's proposed 15 ppb.♦

Stimulus *continued from page 1*

of receiving the funds.

The US Conference of Mayors testified in October before the House Transportation and Infrastructure Committee asking for $18.75 billion in direct grants to cities in addition to what HR 7110 proposed for water and wastewater infrastructure.

The American Water Works Association has recommended that water and wastewater funding in the stimulus package be equal.

Easements to protect watersheds focus of League forum

Over 60 persons representing a diverse group of stakeholders met in August for a forum on conservation easements and the role such easements can play as a watershed protection tool. The forum was spearheaded by the League of Women Voters. One outcome of the forum has been the preparation of draft legislation on state tax credits for conservation easements.

Attending the meeting were representatives from water utilities; county, state, and federal agencies; conservation districts, agriculture service providers; and watershed protection and land trust organizations.

Presentations at the forum included an explanation of what constitutes a conservation easement, the state of current Arkansas conservation law, activities of existing Arkansas conservation organizations, and experiences from other states.

The program also included group discussion in three breakout sessions on how to coordinate with existing conservation programs, developing a constituency for conservation easements, and designing model legislation for Arkansas.

Draft legislation to permit Arkansas tax credits for conservation easements was prepared following the forum by a task group. While most states, including Arkansas, have a number of conservation programs, the ability to donate a conservation easement while retaining ownership and being eligible for a tax credit is limited. The Arkansas General Assembly convenes for its 2009 session in January.

In addition to the League of Women Voters, the workshop was also sponsored by Beaver Water District, Central Arkansas Water, Arkansas Farm Bureau, and University of Arkansas Cooperative Extension Service. ♦

What is a Conservation Easement?

A conservation easement is a permanent agreement between a land owner and the holder of the easement that restricts the type and amount of development that may take place on the landowner's property. The title to the land remains with the landowner and his/her heirs, and the landowner retains all other rights associated with ownership. The holder of the easement, usually the government or a nonprofit or charitable organization, agrees to abide by the terms of the easement. For such a donation, the landowner is eligible for an income tax credit for a number of years.

To be eligible for a tax credit, the easement must protect conservation values as defined by the individual state, and the donation must be to an entity qualified to hold such property interest by the terms of the legislation creating the credit. Typically, these are local, county or state governments, or a 501c3 land conservation organization, also known as a land trust.

There are more than 1700 land trusts that exist throughout the country and they play a significant role in establishing and protecting agricultural lands, urban green spaces, wildlife habitat, and recreation areas. The number of land trusts and the amount of land protected are somewhat lower in the South and Midwest as compared to other areas of the country.

If properly constructed and applied, tax credits for conservation easements are a benefit to all involved. Landowners receive a financial benefit for protecting their land while maintaining ownership and continued use of the land, the state advances its goal of land conservation through tax credits rather than outright expenditures, and the public reaps the benefit of lands preserved.

All states have conservation donation programs but the ability to donate only an easement or obtain a tax credit for the easement is limited. Arkansas Natural Resources Commission has an existing program which includes tax credits for the establishment, restoration or enhancement of wetlands and riparian zones. Fee simple title donation programs also are operated by the Arkansas Forestry Commission, the Arkansas Game and Fish Commission, and the Arkansas Natural Heritage Commission.

WATER SYSTEM IMPROVEMENTS

BENTON WASHINGTON REGIONAL PUBLIC WATER AUTHORITY: expansion of existing water treatment plant to 24 MGD capacity by the construction of three new treatment trains for coagulation and sedimentation along with additional filtration units and high service pumping improvements.

ALMA: water treatment plant expansion to 3.9 MGD through the addition of modular treatment units; process modifications including ozonation; and high service pumping improvements.

COMMUNITY WATER SYSTEM: additional finished water storage consisting of a 1.5 MG clearwell addition and a 3.7 MG ground storage tank near Hwy 25 in Van Buren County.

HORSEHEAD WATER ASSOCIATION: 213,000 L.F. of 2 – 8 mains, four booster pump stations and two standpipes of 34,000 gallon and 122,000 gallon capacity to serve additional customers in Johnson County.

AUSTIN: distribution system improvements consisting of 43,000 L.F. 6 and 8-inch mains and a 211,000 gallon standpipe.

AWWA G300 provides framework for source water protection

Public water systems which recognize a need to protect their water source but don't know how to grapple with such a task might consider the American Water Works Association's G300 Standard *Source Water Protection*. The 2007 first edition standard lists and explains six minimum elements that a source water protection plan needs to include.

I. Vision Statement

The plan should begin with a vision or policy statement which expresses the official policy of the decision making body of the utility, such as city council or board of directors. The statement should be a declaration of the utility's commitment to source water protection and helps the utility to prioritize its resources.

The statement should include a recognition that source water protection is but one element of a multiple barrier scheme to provide safe water. Additionally, it should include a commitment to provide sufficient resources for a source water protection plan and identify the key stakeholders.

II. Characterization

Since each source is influenced by its watershed, a well defined characterization of the watershed is necessary. The characterization should include a geographical delineation of the source, whether surface water or groundwater, and water quality data obtained at the withdrawal point and at other points in the watershed or delineated wellhead area. This data can be used to define subwatersheds and to identify potential contaminant sources (grower houses, sewage discharges, etc.). It can also be used to identify and prioritize controls or best management practices for those areas.

The characterization also includes relevant local, county, state, or federal regulations for the utility and the watershed, and needs to address security, emergency response, and health and safety management. Stakeholders and any initiatives in which they may be engaged should be identified.

III. Goals

The goals of a source water protection plan are to be identified and should address the specific problems outlined in the characterization section. All goals need to be measurable, and meet or exceed existing or pending water quality regulations. Also, goals should be flexible enough to incorporate future regulatory compliance.

IV. Action Plan

The required actions needed to mitigate existing and future threats are listed in the action plan. The action plan specifies projects and programs needed to achieve the source water protection goals, and identifies the necessary resources to implement the projects. It also lists the potential obstacles that will be encountered as part of the action plan.

V. Implementation

The means by which the action plan would be implemented are spelled out in this implementation section. The G300 Standard includes a list of voluntary and regulatory practices by which a utility can develop and promote a program. Some of those measures include watershed planning, land conservation, land use controls, contaminant source management, education and training, riparian buffers, best management practices for erosion and sediment control, BMPs for agriculture, and watershed stewardship programs.

IV. Evaluation and Revision

In order to determine its effectiveness, a source water protection plan is to be routinely evaluated. The evaluation should be done periodically with the passage of time or as the result of changes in any of the plan's elements. Based on these reviews, revisions to the plan are made to reflect new or modified elements of the source water protection program.

An example of this might be a change in a portion of the watershed such as the development of a large subdivision in an area that was previously forested. This would necessitate a revised characterization of that portion of the watershed and potentially new or revised goals, action plan, and/or plan implementation to address that change.

Implicit in the development and implementation of any source water protection plan is the need for public and stakeholder input. That input needs to occur at every stage of the program's development and on an ongoing basis during its implementation.

Interest in source water protection is increasing as evidenced by the 2008 AWWA State of the Industry Report (see next page). The G300 Standard presents a logical framework for a utility to achieve that goal.

A copy of G300 can be ordered from AWWA at www.awwa.org/ or phone 800-926-7337. ♦

Source water issues #1 in AWWA's State of the Industry Report

The American Water Works Association's State of the Industry Report (SOIR) for 2008 identified source water supply and protection as the number one priority confronting the water industry. The SOTI is based on a survey of drinking water utilities, water industry service providers, and individuals working in related areas such as academia and regulatory agencies. This year's SOTI also found a continuing negative perception on the future soundness of the water industry.

The 2008 report was the first time in the five years of the SOTI that source water was named as the top issue in both the short term (one to two years) and in the long term (three to five years). Supply shortages, watershed protection, competing uses of supplies, water conservation, and efficient use were the principle concerns cited by survey respondents under the source water category.

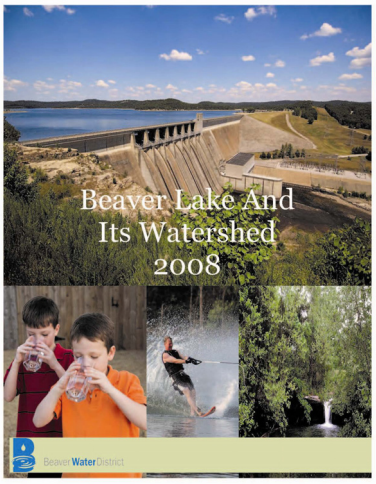
The SOTI's authors theorized that the highly publicized water shortages in the Atlanta, GA metro area may have played a significant role in the increased concern about source water.

The report also found a continuing decline in the perception of the future of the water industry. When asked to judge the soundness of the water industry five years from now on a scale of one to seven, the ratings have steadily declined from a 5.0 in 2004 to 4.5 in 2008. Likely contributing to the rating in 2008 were the media reports on pharmaceuticals in drinking water and a combination of other factors including infrastructure failures, source water shortages, and upcoming workforce replacement.

Besides source water, the next highest issues of importance identified in the SOTI were the state of the infrastructure, regulatory issues, a shortage of qualified workforce replacements, and business/financial factors.

A copy of the report can be ordered from AWWA at www.awwa.org/ .♦

Water district publication promotes lake & watershed



Beaver Water District in northwest Arkansas has published an information book on its source of supply, Beaver Lake, and its watershed. Alan Fortenberry, P.E., Chief Executive Officer of the District, stated the document is intended as an educational tool for those who use and benefit from the lake.

The northwest area of Arkansas has experienced rapid growth including significant changes in the lake's watershed. While the watershed encompasses four counties, the past and future population growth is projected to occur principally in Washington and Benton counties. According to the document, economic forecasters predict that the population in the area, currently estimated at 350,000, will increase to 800,000 by 2025 and to as much as 1.2 million by 2050.

"Northwest Arkansas has an ample supply of fresh, clean water in Beaver Lake. The value of this resource cannot be overstated," states Fortenberry in an introduction to the document. However, he warns against complacency and the risk of taking that resource for granted.

"While it's true that Beaver Lake is an outstanding resource, we cannot expect it to stay that way if we are not proactive," writes Fortenberry. "The good news is that if we use land in the watershed wisely, we will enjoy Beaver Lake and its blessings for generations to come. But if we're careless, the quality of the water will suffer and become degraded."

The document describes the history of the development of the lake and details each of its authorized uses - flood control, hydropower generation, water supply, and recreation. It also characterizes the watershed of the lake and the water quality concerns facing each of the major subwatersheds. Included are photographs and a timeline for the development of the lake as a water source. Today the lake serves as the supply for four regional water utilities serving over 350,000 persons.

The document was prepared in cooperation with the University of Arkansas' Water Resources Center. A copy of the document can be downloaded from the Beaver Water District's website - www.bwdh2o.org/. District staff can be invited to provide a presentation on the document. ♦

Beaver Lake *photo courtesy of Beaver Water District*

Here's to Your Health!

Celebrating 100 Years of Safer U.S. Drinking Water

Reprinted from the American Chemistry Council

Next time you enjoy a refreshing glass of water from the tap, you might want to offer a toast to what has been helping to keep water safe and healthy for American families since 1908. One hundred years ago, Jersey City, N.J., and Chicago's union stockyards added chlorine to water supplies, launching America's reliance on chlorine to disinfect drinking water.

Chlorine destroys germs and has helped to virtually eliminate waterborne illnesses such as cholera and typhoid that once killed thousands of Americans each year. Indeed, as the 20th century neared its conclusion, *Life* magazine declared: "The filtration of drinking water plus the use of chlorine is probably the most significant public health advancement of the millennium."

Efforts to improve drinking water date to the time when ancient civilizations established themselves around water sources. As early as 4,000 B.C., Sanskrit and Greek writings recommended filtering water through charcoal, exposing it to sunlight, boiling and straining to reduce visible cloudiness. Other ancient civilizations as diverse as Chinese, Arabian, Egyptian and Indian tried other coagulants, including alum, almonds, powdered ginger, cornmeal, crushed oyster shells and even toasted biscuits.

These early attempts were based on the notion that clear water not only tasted and smelled better, but was not apt to make a person sick. What went unrecognized until the 19th century was that the cause of most waterborne illnesses was not visible and could not necessarily be filtered out.

Dr. Snow and Removal of a Pump Handle

The year was 1854 and London was experiencing an epidemic of cholera -- an acute, diarrheal illness caused by infection of the intestine. While physician John Snow did not know what caused this sometimes fatal illness (and indeed the "germ theory" had not been formulated at this time), he was skeptical of the prevailing theories that cholera was caused by breathing foul air or was due to the alignment of the planets. After plotting cholera cases on a map and talking to residents, Dr. Snow pinpointed a public water pump as the probable source.

"On proceeding to the spot, I found that nearly all the deaths had taken place within a short distance of the pump," Snow wrote in a letter to the editor of the *Medical Times and Gazette*. He persuaded the local council to remove the Broad Street pump handle, and the epidemic ended.

It was discovered later that the Broad Street well had been dug only three feet from an abandoned and covered cesspit that had begun to leak fecal bacteria into the water supply. Snow's study was a major event in the history of public health. Many regard this English physician as the father of modern epidemiology – the study of factors affecting health and illness of populations and the cornerstone of public health research.

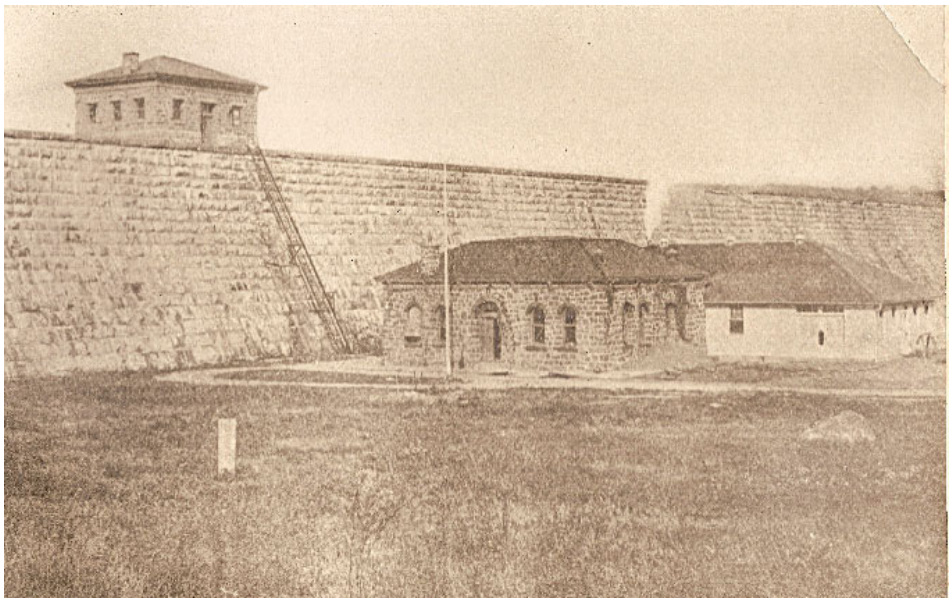
In 2003, the readers of *Hospital Doctor* magazine voted Snow the "greatest doctor" of all time, with Hippocrates, the father of medicine – coming in second. Not coincidentally, Hippocrates also addressed the importance of boiling and straining water to prevent disease. The cloth sack he endorsed for filtering water was called "Hippocrates' sleeve."

Killing Germs that Cause Disease

Standing on the sturdy shoulders of their predecessors, Louis Pasteur and other scientists in the 1800s verified "germ theory," which explained how organisms too small to see with the naked eye could transmit disease

Chlorination Plant at Jersey City *circa* 1908

photo courtesy of Keith Wood, United Water Jersey City



through water and other media. During the very late 19th and early 20th centuries, scientists turned their attention to removing "germs" in public water supplies that caused epidemics of typhoid and dysentery, as well as cholera. They tried slow sand filtration first.

"While filtration was a fairly effective treatment method for reducing turbidity, it was disinfectants like chlorine that played the largest role in reducing the number of waterborne disease outbreaks in the early 1900s," according to the U.S. Environmental Protection Agency.

In 1905, chlorine was added to London's water supply and a typhoid epidemic ceased. Three years later, chlorination of Jersey City's Boonton Reservoir and Chicago's Bubbly Creek started a revolution that made chlorine the most widely used disinfectant in the United States. In that same momentous year, British scientist Harriet Chick figured out a relationship between germ kill efficiency and contact time with a disinfectant.

Based on Chick's Law, cities across the United States adopted water chlorination rapidly, with more than 1,000 water systems using this life-saving technology by 1918. Then in the 1920s, Maryland Department of Health engineer Abel Wolman perfected the formula for the appropriate application of chlorine to water supplies.

In *The Quest for Pure Water*, which tells the story of water purification through Europe and the United States, M.N. Baker wrote in 1948: "Nothing in the field of water purification came into use as rapidly and widely, once it got started, as chlorination." And what a difference chlorine made.

Chlorine Saves U.S. Lives, Helps Extend Lifespan

In the years before chlorine's introduction, waterborne diseases claimed thousands of American lives every year. For example, there were more than 27,000 typhoid deaths during the Civil War. The widespread use of chlorine and improved sanitary engineering practices reduced the number of reported waterborne disease outbreaks and individual cases of waterborne illness dramatically.

In the decade 1900-1910, average U.S. life expectancy was 49 years. By 2005, a child born in the United States could expect to live 77.9 years, the U.S. Centers for Disease Control and Prevention (CDC) reported in September 2007. According to the CDC, the steep decline in infectious diseases made possible by vaccinations, chlorination of drinking water and other advances in public sanitation and hygiene directly contributed to this nearly 60 percent increase in life expectancy.

Chlorine: The Backbone of U.S. Drinking Water Infrastructure

Over the past 100 years, a national infrastructure has been developed using chlorine as a drinking water disinfectant. Chlorinated systems deliver water through nearly 900,000 miles of pipe to more than 200 million Americans. U.S. water systems provide some of the safest water in the world right to the home at a cost of up to 1,000 times less than bottled water – representing arguably the biggest bargain in a family budget.

Today, nearly nine out of 10 U.S. public water systems rely on chlorine in one form or another. Many systems use chlorine gas (elemental chlorine). Others use liquid chlorine bleach (sodium hypochlorite) or calcium hypochlorite (often also used in swimming pools). Each form produces "free chlorine" to destroy disease-causing microorganisms. Chlorine offers numerous other benefits, as well. For example, chlorine removes many unpleasant tastes and odors and certain metal contaminants, such as iron and manganese. Chlorine also provides a residual level of disinfectant to help keep water safe from the treatment plant to consumers' taps.

All of the vast water-treatment infrastructure and the public health benefits it delivers track back to 1908, when Jersey City and the Union Stockyards of Chicago made very wise decisions to add chlorine to their water supplies. So, lift your glass of America's finest and toast the health of all Americans on this 100th anniversary of water chlorination. ♦

Group calls for changes to chemical security regulations

The Center for American Progress (CAP), a Washington, DC research and education organization, suggested in a November report that changes are needed to the nation's chemical security regulations including the application of those regulations to water utilities. The report is notable because the founder of CAP, John Podesta, is the transition chief for President-elect Obama, and several other CAP associates are also serving as Obama advisors.

The title of the report is *Chemical Security 101, What You Don't Have Can't Leak, or Be Blown Up by Terrorist*. It suggests that the threat of exposure to toxic chemicals for 80 million American as the result of an terrorist attack would be reduced or eliminated if 101 identified chemical facilities in the U.S. would switch to less hazardous but equally effective chemicals. Fifteen of the identified facilities are water utilities. The remaining are primarily chemical manufacturing plants and petroleum refineries. The affected population estimates were based on examining the Risk Management Plans required under the Clean Air Act for each facility.

Congress passed the Chemical Facility Anti-Terrorism Standards in 2006. Under the Standards, which are due to expire in 2009, the Department of Homeland Security set requirements that focus on physical site security. Water and wastewater utilities are exempted. CAP is critical of the Standards for not requiring facilities to assess safer chemical alternatives in their processes or to consider the safety of those chemicals while being transported.

Bulk chlorine gas in railcars was the primary focus in the report for water utilities. The report suggested that water utilities switch to liquid bleach, ozone, or UV.

The report can be viewed at www.americanprogress.org/. ♦

NATIONAL

* EPA has been sued by nine states and the Canadian province of Manitoba over its ruling that water transfers are exempt from permitting under the Clean Water Act. The suit was filed in US District Court in New York. The plaintiffs claim that exempting water transfers would allow numerous and important sources of pollution to be uncontrolled.

* Former EPA Administrator Carol Browner is overseeing the EPA transition process for the Obama Administration. Her role is to develop candidates for Presidential appointments, make recommendations concerning environmental policy and legislation, and assist in preparing EPA's budget request. Browner was EPA Administrator in both terms of the Clinton Administration.

* In October comments on the EPA's Contaminant Candidate List 3, the agency's Science Advisory Board stated that the CCL3 process was a major improvement over that which generated previous lists. However, the Board also said the CCL3 was notable for its exclusion of some contaminants that experts felt should be considered for regulation and its inclusion of other contaminants that the Board felt were a low priority. Among the contaminants that were excluded but which the Board felt should have been given greater consideration were pharmaceuticals, NDMA, MTBE, perchlorate, *Adenovirus*, and *Mycobacteria*.

* The White House Office of Management and Budget in November cleared an EPA proposal to classify pharmaceuticals as 'universal waste' in an attempt to stimulate take-back programs and ease disposal requirements for health care facilities. Many chemicals in pharmaceuticals are currently classified as 'hazardous wastes' and subject to more stringent record keeping, handling, and disposal, including required incineration, under the Resource Conservation and Reclamation Act. Universal waste has less stringent disposal regulations. Trace chemicals have been found in water supplies partly as the result of leftover pharmaceuticals being disposed of in the sanitary sewer.

* A bill introduced in the US House of Representatives (HR7231) has proposed to remove the exemption for hydraulic fracturing, or 'fracking', from regulation under the Safe Drinking Water Act's underground injection control program. Fracking involves the injection of fluids into a well at high pressure to crack open the formation and release oil or natural gas. A report from a nonprofit organization, ProPublica, has stated contamination incidents have resulted from fracking in Wyoming, Colorado, New Mexico, Alabama, Ohio and

News of Note

Pennsylvania. A 1997 decision by the 11th Circuit Court of Appeals ruled that fracking should be regulated by the SDWA, but the Energy Policy Act of 2005 legislatively reversed that court decision. Hundreds of natural gas wells utilizing fracking have been developed in recent years in Arkansas in the Fayetteville Shale formation.

* Penn State Public Broadcasting has produced a documentary, *Liquid Assets,* describing the status of the U.S. water, wastewater, and storm water infrastructure. The ninety minute documentary highlights the importance of such infrastructure, and the challenges being faced by ten cities in maintaining that infrastructure. More information on the documentary can be found at http://liquidassets.psu.edu/. Arkansas Education Television Network is scheduled to air the documentary; however, that date was not available at press time.

ARKANSAS

* The Arkansas Department of Environmental Quality has placed a moratorium on permits for sites used to store water which has been used to drill natural gas wells. The stored water is later land applied as a benefit to crops. Teresa Marks, Director, said that permits received after November 15 will be placed on hold until a four to six month study assessing the impact of sites on soil and aquifers is completed. Marks said that the agency would also tighten up the permit language on 'flowback water', fluid discharged from a well after initial drilling and preparation.

* Arkansas voters approved in the November election a ballot proposal for $300 million in state backed bonds for water, wastewater, drainage, irrigation, and flood control projects. The bond program is a continuation of a similar program begun in 1998. Because the bonds are backed by the state, approval of the general electorate is required. The measure was approved by 65% of the voters. Voters also approved in the election a constitutional amendment authorizing the Arkansas Legislature to meet annually. The Legislature had previously met every two years.

* In conjunction with the report issued by the Winthrop Rockefeller Foundation, *Water Issues in Arkansas – An Unfinished Story* (Fall 2008 *Update*), the Arkansas Educational Television Network produced the documentary *Troubled Waters*. The sixty minute documentary details water concerns in several areas of Arkansas regarding both groundwater and surface water. A copy of the DVD can be purchased for $29.95 by contacting AETN (800-662-2386). Portions of the documentary can be viewed online at www.aetn.org/production/programs/water.

ENGINEERING SECTION

* Katherine Yarberry has joined the Engineering Section as the CPE Engineer. She holds a Mechanical Engineering degree from UA - Fayetteville and has previous experience as a research assistant with the UA Cooperative Extension Service. With the Engineering, she will be leading Comprehensive Performance Evaluations and the Area Wide Optimization Program.

Mandatory Training Course Schedule

Most Current Listing is at: www.healthyarkansas.com/eng/autoupdates/oper/mandtrngall.htm (Courses begin at 8:00 a.m.)

MANDATORY COURSE NAME	START DATE	END DATE	OPCERT GRANT ELIGIBLE COURSE	CITY	LOCATION All courses begin at 8 a.m.	SPONSOR
Basic Treatment	01/05/09	01/20/09	Yes	Internet	Not applicable	AEA
Basic Distribution	01/06/09	01/08/09	Yes	Clarksville	Operations Center, 710 E Main	ARWA
Basic Water Math	01/12/09	01/12/09	Yes	Camden	Arkansas Env Academy, 100 Carr Rd	AEA
Applied Water Math	01/13/09	01/13/09	Yes	Camden	Arkansas Env Academy, 100 Carr Rd	AEA
PWS Compliance	01/14/09	01/14/09	Yes	Camden	Arkansas Env Academy, 100 Carr Rd	ADH
Basic Distribution	01/15/09	01/31/09	Yes	Internet	Not applicable	AEA
Advanced Treatment	01/20/09	01/22/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Basic Distribution	01/26/09	01/28/09	Yes	Hot Springs	Wastewater Facility, 798 Adams	AEA
Basic Water Math	01/27/09	01/27/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Applied Water Math	01/28/09	01/28/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
PWS Compliance	01/29/09	01/29/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ADH
Intermediate Treatment	02/02/09	02/16/09	Yes	Internet	Not applicable	AEA
Advanced Treatment	02/03/09	02/05/09	Yes	Arkadelphia	Recreation Ctr, 2575 Twin Rivers Dr	AEA
Advanced Distribution	02/03/09	02/05/09	Yes	Clarksville	Operations Center, 710 E Main	ARWA
BasicTreatment	02/09/09	02/11/09	Yes	Maumelle	Wastewater Plant, 425 B Hyman Dr	AEA
Basic Water Math	02/10/09	02/10/09	Yes	West Fork	Wenzel Community Ctr, 222 Weber	ARWA
Intermediate Distribution	02/10/09	02/12/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Applied Water Math	02/11/09	02/11/09	Yes	West Fork	Wenzel Community Ctr, 222 Weber	ARWA
PWS Compliance	02/12/09	02/12/09	Yes	West Fork	Wenzel Community Ctr, 222 Weber	ADH
Intermediate Distribution	02/16/09	02/27/09	Yes	Internet	Not applicable	AEA
Basic Treatment	02/24/09	02/26/09	Yes	Jonesboro	CWL Service Ctr, Johnson & Main	ARWA
Advanced Treatment	03/02/09	03/16/09	Yes	Internet	Not applicable	AEA
Basic Treatment	03/02/09	03/04/09	Yes	Fayetteville	Operations Ctr, 2435 S Industrial Dr	AEA
Basic Distribution	03/10/09	03/12/09	Yes	Arkadelphia	Recreation Ctr, 2575 Twin Rivers Dr	AEA
Intermediate Treatment	03/10/09	03/12/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Advanced Distribution	03/16/09	03/31/09	Yes	Internet	Not applicable	AEA
Basic Distribution	03/17/09	03/19/09	Yes	Nashville	Carter Day Facility, 200 Nichols Dr	ARWA
PWS Compliance	03/19/09	03/19/09	No	Little Rock	ADH Lab, 201 So Monroe	ADH
Intermediate Distribution	03/23/09	03/25/09	Yes	Russellville	Tri County Water, 5306 No Hwy 7	AEA
Advanced Distribution	03/24/09	03/26/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Basic Distribution	03/31/09	04/02/09	Yes	Mt Home	Baxter Co OEM, 170 Dillard Dr.	ARWA
Basic Water Math	04/01/09	04/15/09	Yes	Internet	Not applicable	AEA
Intermediate Treatment	04/06/09	04/08/09	Yes	Camden	Arkansas Env Academy, 100 Carr Rd	AEA
Basic Water Math	04/07/09	04/07/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
Applied Water Math	04/08/09	04/08/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ARWA
PWS Compliance	04/09/09	04/09/09	Yes	Lonoke	ARWA Training Facility, 240 Dee Dee	ADH
Basic Water Math	04/14/09	04/14/09	Yes	Jonesboro	CWL Service Ctr, Johnson & Main	ARWA
Applied Water Math	04/15/09	04/30/09	Yes	Internet	Not applicable	AEA
Applied Water Math	04/15/09	04/15/09	Yes	Jonesboro	CWL Service Ctr, Johnson & Main	ARWA

*Opcert Grant Eligible Course – Meal and lodging expenses may be reimbursed for operators from Community or Non-Transient Non Community Public Water System serving a population of 3300 or less. The course may be space limited, with eligible system operators given preference.

All courses require pre-registration. The course sponsor must be contacted to register for each course and to confirm course information that is subject to change or cancellation. Contact information for the sponsors is shown below.

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

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

ARWA – Arkansas Rural Water Association – Contact Carol Shaw – (501) 676-2255 – info@arkansasruralwater.org

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

ADH drinking water program promotional materials available

A brochure and a slide presentation explaining how public drinking water in the state is managed and how the public water system service fees support the state's drinking water program have been prepared by the Engineering Section. The materials were developed at the suggestion of the Arkansas Drinking Water Advisory & Operator Licensing Committee and were reviewed by representatives of water industry stakeholder groups. The materials are available to present at a Rotary, Chamber of Commerce, city council, or similar type of business or group meeting.

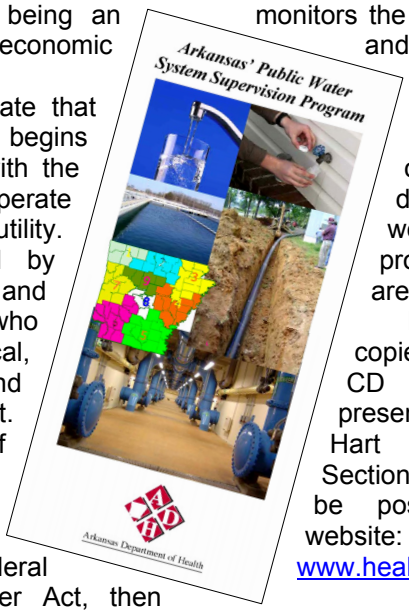
The idea for the materials originated with Les Patterson of Hope Water & Light and 2007 Chair of the Licensing Committee, who felt that the public needed a better understanding of the fees and why they are critical to the water industry and to the Department of Health. With the support of the remainder of the Licensing Committee, he made it a goal of his term as Chair to develop the materials and appointed Terry House, Grand Prairie Water Users, to head a group of stakeholders to review the materials prepared by the Engineering Section.

The stakeholder group consisted of representatives from the Arkansas Municipal League, County Judges Association, Arkansas Rural Water Association, Arkansas Water and Wastewater Managers Association, Arkansas Water Works and Water Environment Association, Arkansas Environmental Academy, Arkansas Society of Professional Engineers, and the Engineering Section of ADH.

Drafts of the material were prepared by the Engineering Section in early 2008. Review of the material was completed by both the Licensing Committee and the stakeholders group in October.

The brochure points out that safe and plentiful drinking water not only is essential to public health, it is also critical in protecting lives and property from fires, and in being an engine for economic development.

It goes on to state that providing that water begins at the local level with the individuals who operate and manage the utility. They are assisted by contractors and consultants who provide technical, managerial, and financial support. The Department of Health, working through its own regulations as well as those of the federal Safe Drinking Water Act, then monitors the operations of the utilities and the water quality to ensure compliance with those regulations. Common activities conducted by the state drinking water program as well as a breakout of the program's funding sources are listed in the brochure.



If interested in obtaining copies of the pamphlet or a CD containing the slide presentation, contact Robert Hart with the Engineering Section. The materials will also be posted on Engineering's website: www.healthyarkansas.com/eng/.♦

WATER OPERATOR LICENSE EXAMINATIONS

Up to date listing: http://www.healthyarkansas.com/eng/autoupdates/oper/operexam.htm
Listed below are the dates and locations of examination sessions. 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
01/09/09	Clarksville	Operations Center, 710 E Main	9:00 AM
01/23/09	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
01/29/09	Hot Springs	Wastewater Facility, 798 Adams	9:00 AM
02/06/09	Arkadelphia	Recreation Center, 2575 Twin Rivers Dr	9:00 AM
02/06/09	Clarksville	Operations Center, 710 E Main	9:00 AM
02/12/09	Maumelle	Wastewater Plant, 425 B Hyman Drive	9:00 AM
02/13/09	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
02/27/09	Jonesboro	CWL Service Center, Johnson & Main	9:00 AM
03/05/09	Fayetteville	Operations Center, 2435 S Industrial Dr.	9:00 AM
03/13/09	Arkadelphia	Recreation Center, 2575 Twin Rivers Dr	9:00 AM
03/13/09	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
03/20/09	Nashville	Carter Day Training Facility, 200 Nichols Drive	9:00 AM
03/26/09	Russellville	Tri-County Water , 5306 North Arkansas	9:00 AM
03/27/09	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
04/03/09	Mt Home	Baxter Co OEM Facility, 170 Dillard Dr.	9:00 AM
04/09/09	Camden	AR Environmental Academy, 100 Carr Rd	9:00 AM
04/23/09	Arkadelphia	Recreation Center, 2575 Twin Rivers Dr	9:00 AM
04/24/09	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
04/29/09	Hot Springs	AWW&WEA Conference, Convention 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. You may confirm the exam session and its location by contacting your District Specialist or Engineer at (501) 661-2623.

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

Water Operator Licenses Issued

August 1 through November 30, 2008

Licensee Name	Grade/Type	System Name
ADAMS BRADLEY	D – I	HELENA WATER SEWER
ALEXANDER DAVID	D – IV	VILONIA WATERWORKS
ARMSTRONG KENNETH	D – III	CHICOT JUNCTION WATER ASSOC
BARKIE JAMES	D – II & T – IV	ALMA WATERWORKS
BARNETT BRIAN	T – III	COMMUNITY WATER SYSTEM
BETTS EDWARD	T – II	MARION COUNTY REG WATER DIST
BIGNESS CHRIS	D – II	CUSHMAN WATER SYSTEM
BLAIR JIMMIE	D – I & D – II	MARSHALL WATERWORKS
BLANKENSHIP DANIEL	D – IV	ENGINEERING SECTION, ADH
BLOWERS FRANK	T – IV	BEAVER WATER DISTRICT
BOUCHER ERIC	D – IV	CONWAY WATER SYSTEM
BRIGGS MICHAEL	D–IV & T–IV	CENTRAL ARKANSAS WATER
BUTLER CHAD	D – IV	CONWAY WATER SYSTEM
CAMPBELL ELLIS	D – I	EAST NEWTON COUNTY WATER ASSN
CARPENTER STEVEN	D – I	WATER SYSTEM NOT PROVIDED
CHWALINSKI CHARLES	D – I	CAMP ROBINSON
CLANNEY KENNETH	D – III	HOLIDAY ISLAND WATERWORKS
COFFELT JEFF	D – IV	CENTERTON WATERWORKS
CURTIS LARRY	T – II	ALMATIS
DAVIS CARY	T – IV	BEAVER WATER DISTRICT
DICKEY DREW	T – IV	BEAVER WATER DISTRICT
DILDINE TOM	T – I	OAK RIDGE CENTRAL SCHOOL
DISHEROON KELLY	D – III	GREEN FOREST WATERWORKS
DUCKWORTH GREG	D – I	PORTIA WATERWORKS
DUNHAM MICHAEL	T – I	MAUMELLE WATER MANAGEMENT
ESTES MICHAEL	D – II	RIVIERA UTILITIES
FABBRICATORE NICHOLAS	T – IV	ALMATIS
FREEMAN RAYMOND	D – I	LITTLE CREEK & SO SHERIDAN WATER
FULLER CHRISTOPHER	T – IV	GLENWOOD WATER DEPARTMENT
GARRETT CORY	D – IV	CONWAY WATER SYSTEM
GARZA THOMAS	D – III	MOUNT OLIVE WATER ASSOCIATION
GONELLI KEITH	D – III	FAYETTEVILLE WATERWORKS
GRANT ROY	D – I	ASH FLAT WATER COMPANY
GREB JONATHAN	D – III	RIVERSOUTH RURAL WATER DIST
GREGORY RONNIE	D – IV	SPRINGDALE WATER UTILITIES
GRIGSBY JIMMIE	D – I	CAMP ROBINSON
HARROD GREG	D – II	MAUMELLE WATER CORPORATION
HART ROBERT	D–IV & T–IV	ENGINEERING SECTION, ADH
HENDERSON GERALD	D – I & T – II	ARK ST PARK-QUEEN WILHELMENA
HICKS STEPHEN	T – II	CALICO ROCK WATERWORKS
HUBBARD LINK	D – I	COTTON PLANT WATERWORKS
HUFFAKER JIMMY	D – I	LINCOLN WATERWORKS
HUFFORD JASON	D – II	WOODSON-HENSLEY WATER COMPANY
JOHNSON CLINTON	T – IV	ARKANSAS HEALTH CENTER
JOHNSON DAMON	D–IV & T-IV	BATESVILLE WATER UTILITIES
JONES PAUL	D - VSS	HWY 82 WATER ASSOCIATION
JUNIOR JEFFREY	D – III	BALD KNOB WATERWORKS
KOPP JONATHAN	D – I & D - III	WALNUT RIDGE WATERWORKS

Continued on page 15

FTC rule on 'Red Flags' includes water utilities

A 2007 Federal Trade Commission rule requiring creditors to develop a program to deter identity theft apparently is applicable to water utilities and is scheduled to become effective on May 1, 2009.

The Identity Theft Red Flag Rule (Fed Register 72:217:63717) requires any creditor to develop a program to detect, prevent, and mitigate identity theft. While the rule was meant primarily for financial lenders, it includes as creditors an entity which bills for past service and specifically lists utility companies in its examples of creditors.

According to the FTC, the written program should be appropriate for the size and complexity of the creditor and should be able to detect warning signs – or "red flags" – of identity theft. The rule includes a list of 26 examples of such red flags. In addition to identifying which red flags the creditor will screen for, the program must describe the responses the creditor would take to prevent and mitigate a crime. Utility boards must approve the initial program but it can be updated without a vote thereafter.

Examples of red flags include notices from a consumer reporting agency; suspicious documents; suspicious personal information; unusual activity on an account; or notice of identity theft from victims, law enforcement or others.

The rule was published in November, 2007 and was due to become effective on November 1, 2008. However, the FTC realized that compliance was not realistic by that date and subsequently extended the deadline to May 1, 2009.

Water systems may already have in place many of the components for a red flag program and simply need to formalize those into a written plan. Water utilities that are part of a municipality should check on what program the overall city government has developed.

The program developed by the utility does not have to be submitted to the FTC but the program information needs to be kept on file. Water systems should check with industry organizations of which they are a member, such as the American Water Works Association or Arkansas Rural Water Association, about obtaining a template program to use for compliance.

Additional information on the rule can be found at: www.ftc.gov/bcp/edu/pubs/business/alerts/alt050.shtm. ♦

Arkansas, Missouri Governors sign agreement on water quality

Governors Mike Beebe of Arkansas and Matt Blunt of Missouri signed an agreement in November pledging a partnership between the two states on water quality issues. The agreement commits the respective state agencies which set policy for water resources to protect water quality and quantity, and to ensure the use of shared water resources for the economic benefit of both states.

Governor Beebe said he wants to avoid conflicts similar to those which Arkansas has had with Oklahoma over pollution in the Illinois River. The Illinois River has its headwaters in Arkansas but extends into Oklahoma. The Oklahoma attorney general is currently suing several Arkansas poultry firms in federal court alleging pollution of the river from bird waste.

"Watersheds and aquifers know no state borders, and interstate collaboration is essential to protecting our streams, providing healthy drinking water and planning for future water needs," Governor Blunt said in a speech when signing the agreement. According to Blunt, the agreement will allow the two states to apply for federal grants for research.

The shared surface water resources affected by the agreement include Beaver, Table Rock, Bull Shoals, Norfork, and Taneycomo lakes as well as all or portions of the White, Black, Current, Strawberry, Eleven Point, Spring and St. Francis rivers. Aquifers identified include the Mississippi River Valley Alluvial, Springfield Plateau, Ozark, and Tertiary and Cretaceous aquifers.

Specifically, the agreement calls for the states to:

- Develop a common hydrologic definition of the shared water resources and implement coordinated plans to protect and improve water quality, water quantity, and the quality of life.
- Develop, implement, and share bi-state monitoring and modeling of water quality and quantity in the shared water resources.
- Identify joint water quality or quantity studies and projects in the shared water resources, and develop and prioritize a set of objectives for implementing the studies and projects.
- Meet at least annually to review progress, identify problems, and plan the coordination of tasks to achieve the above objectives.
- Report biennially to the two Governors on the status of the agreement.

The responsible agencies identified in the agreement are the Arkansas Department of Environmental Quality, the Arkansas Natural Resources Commission, and the Missouri Department of Natural Resources.

More than 100 people including politicians, business leaders, water conservation advocates and school children were present for the signing in Springfield, MO.

Blunt is to leave office in January and will be replaced by Governor-elect Jay Nixon.

Major Monitoring, MCL, Treatment Technique, & Licensing Violations

Community & Nontransient Noncommunity Public Water Systems July - September, 2008

ALL SEASONS MHP	Bmon 8
ALMYRA WATER	BMCL 8
AR STATE PARKS – MT MAGAZINE	DMCL 7,8,9
AR STATE PARKS – MT MAGAZINE	BMCL 8
BAUXITE WATER	Bmon 9
BEAVERFORK WATER	BMCL 9
BENTONVILLE WATER	BMCL 8
BENTON-WASHINGTON CO PFB WATER	Tmon 8
BENONT-WASHINGTON CO PFB WATER	BMCL 8
BEULAH GROVE WATER	OperLic 7,8,9
BIGELOW WATER	Bmon 9
BLACKOAK WATER	Bmon8
BOONEVILLE WATER	DMCL 7,8,9
BRADFORD WATER	Bmon 8,9
BRANCH WATER	DMCL 7,8,9
BRUNO PYATT SCHOOL	Bmon 8
CAMDEN WATER	DMCL 7,8,9
CASA WATER	DMCL 7,8,9
CASH WATER	BMON 8
CHERRY HILL PFB WATER	DMCL 7,8,9
CHERRY HILL PFB WATER	BMCL 7
COTTON PLAN WATER	Bmon 8
COTTONSHED WATER	OperLic 7
CROSS COUNTY RURAL WATER	BMCL 8
CUSHMAN WATER	BMon 8
DEWITTT WATER	BMCL 9
DYER WATER	DMCL 7,8,9
EAST PRAIRIE CO WATER	BMCL 7,8,9
FOUNTAIN HILL WATER	DMCL 7,8,9
GILLHAM REGIONAL WATER	DMCL 7,8,9
GLENHAVEN YOUTH RANCH	Bmon 9
GOULD WATER	BMCL 8
GREENBRIER WATER	DMCL 7,8,9
GREENWOOD WATER	DMCL 7,8,9
HARRISON WATER	BMCL 9
HATFIELD WATER	DMCL 7,8,9
HICKORY RIDGE WATER	BMon 7
HIGHFILL WATER	DMCL 7,8,9
HOSESHOE LAKE UTILITIES	BMCL 8
HORSEHOE LAKE UTILITIES	Bmon 9
HUMPHREY WATER	BMCL 7,8
HWY 82 WATER	BMON 7
JUNCTION CITY WATER	BMCL 8,9
KINGWOOD MHP	BMCL 7
LAKE CITY WATER	Bmon 8
LEWISVILLE WATER	Bmon 7
MAGAZINE WATER	DMCL 7,8,9
MAGNESS WATER	OperLic 7,8
MARIE WATER	BMCL 9
MAYFLOWER WATER	DMCL 7,8,9
MENIFEE WATER	BMCL 7
MENIFEE WATER	BMCL 7
MILLWOOD WATER CORP	Bmon 7
MINERAL SPRINGS WATER	BMCL 8
MONTGOMERY CO REGINOAL PWA	DMCL 7,8,9
MONTROSE WATER	Bmon 9
MORNING STAR WATER	FMCL 7,8,9
MORNING STAR WATER	BMCL 9
MORO WATER	Bmon 7
MOUNT IDA WATER	DMCL 7,8,9
MOUNTAIN HOME WATER	TMCL 7
MOUNT MORIAH WATER	OperLIC 7
MOUNT SHERMAN WATER	RMCL 7,8,9
MOUNT ZION WATER	Bmon 7,8
MULBERRY WATER	DMCL 7,8,9
NORTH GARLAND CO REGIONAL WATER	DMCL 7,8,9
NASHVILLE RURAL WATER	DMCL 7,8,9
NASHVILLE WATER	DMCL 7,8,9
NEW LONDON WATER	DMCL 7,8,9
NORMAN WATER	BMCL 9
NORTH CARBON CITY WATER	BMCL 9
ODEN-PENCIL BLUFF WATER	DMCL 7,8,9
OUTSIDE KINGSLAND WATER	Bmon 7
PARON-OWENSVILLE WATER	DMCL 7,8,9
PERRYVILLE WATER	DMCL 7,8,9
PIKE CITY WATER	DMCL 7,8,9
PLAINVIEW WATER	TMCL 7
POTTSVILLE WATER	BMCL 8
PRESCOTT WATER	Bmon 9
PRESCOTT WATER	Bmon 9
PYATT WATER	Bmon 8
QUITMAN WATER	Bmon 7
RATCLIFF WATER	DMCL 7,8,9
RATCLIFF WATER	BMCL 9
READLAND-GRANDLAKE WATER	Bmon 7
RECTOR WATER	BMCL 8,9
RED BUD MHP	SWTR 8,9
RED BUF MHP	Bmon 9
SCRANTON WATER	DMCL 7,8,9
SDM WATER	FMCL 7,8,9
SDM WATER	RMCL 7,8,9
SEARCY WATER	BMCL 8
SOUTH LOGAN CO WATER	DMCL 7,8,9
SOUTH MOUNTAIN WATER	BMCL 8
SPRINGDALE WATER	BMCL 8
SUBIACO ACADEMY WATER	DMCL 7,8,9
SULPHUR SPRINGS WATER	OperLic 8
SUMMIT WATER	Bmon 7
SW REGIONAL WILDERNESS CAMP	Bmon 7
TILLAR WATER	Bmon 7
TOAD SUCK PFB WATER	DMCL 7
TONTITOWN WATER	Bmon 8
TONTITOWN WATER	BMCL 9
TWIN OAKS MHP	BMCL 9
UMPIRE HIGH SCHOOL	Bmon 8
WALDRON WATER	DMCL 7
WEST HELENA WATER	BMCL 8
WOOSTER WATER	DMCL 7
WYE MOUNTAIN WATER	DMCL 7
YORKTOWN WATER	BMCL 8

KEY: Bmon = Bacti Monitoring; BMCL = Bacti MCL; Dmon = Disinfection By Product Rule Monitoring; DMCL=Disinfection By Product Rule MCL or Treatment Technique; Tmon = SWTR Major Monitoring; TMCL = SWTR Treatment Technique; SWTR= Failure to Filter; RMCL = Radiochemical MCL; FMCL = Fluoride MCL; SMCL = Synthetic Chemical MCL; OperLic = Operator Licensing; 7 = July, 8 = August, 9 = September.

REPORT OF THE

Arkansas Drinking Water Advisory and Operator Licensing Committee

A. Martin Nutt, Training and Certification Officer

The quarterly meeting of the Arkansas Drinking Water Advisory and Operator Licensing Committee was held on October 8, 2008. Members present were Charles Nickle, P.E., Chair; Rodney Williams, P.E., Chair-Elect; Robert Hart, P.E., Executive Secretary; Scott Borman; Terry House; and Susan Merideth, P.E. One member, Steve Di Cicco, was not present for the meeting. Arkansas Department of Health staff members present were Martin Nutt, Jeremy Rowe, and Ida Hampton. Guests present were Randy Harper, Arkansas Environmental Academy; Gary Oden, SAU Tech; Dawn Keller, Arkansas Department of Environmental Quality; Daniel Dawson and Keith West, Searcy Water; and John Choate and Steven Taylor, Tri-County Water.

Standing Business

Nickle called the meeting to order and the members and guests introduced themselves. The minutes from the July 9, 2008 meeting were reviewed and approved. The Committee reviewed and approved the High School Waiver Requests of Mr. Keith West and Mr. Steven Taylor.

In a report on electronic attendance tracking, Borman stated that some Districts were starting to scan attendance at monthly meetings, and stated that other Districts had also purchased scanners but still needed to implement the procedure.

Nutt reported that the exam concepts subcommittee had elected to use ABC's multi-entry concept, but only when forced to change by ABC, which they have yet to do. Nutt indicated that he would develop one more round of Arkansas prescriptive exams but that he would like the licensing program to move to ABC's concept for validation purposes. The Committee concurred with the subcommittee's decision.

House reported that the subcommittee tasked with finding alternative training funds was looking to replace 175-200 thousand dollars per year; the training costs currently paid for through the OpCert Grant which expires in 2010. The subcommittee was looking at several options including mentoring programs and state funded grants. Williams mentioned that several USDA grants for non-profit organizations were available for water and wastewater technology transfers. Another option involved not reimbursing meals and lodging past the grant expiration. Both Harper and Nutt thought that only one third of eligible systems were currently taking advantage of meals and lodging reimbursement.

Nutt provided a report outlining current grant expenditures. Nutt noted that trainers were starting to utilize Grant funding for auxiliary courses and hoped more specialty courses would be brought to the Committee for reimbursement. He mentioned that using OpCert fund to pay for conference attendance could pose processing problems. Nutt was researching whether or not Capacity Development funds could be utilized to fund training. Hart suggested that a one year extension of the OpCert grant may be possible. Grant monies not spent during the term of the grant would go to the Arkansas State Revolving Loan Fund.

Nutt said he was happy to see more trainers submitting attendance rosters electronically. The Committee discussed assembling Districts at the 2009 AWW&WEA Conference to assist those not utilizing electronic attendance tracking. Discussion was given to making electronic attendance submittal mandatory, but Nutt voiced his concern that making electronic submittals mandatory may be punishing operators for trainer noncompliance. Because only electronically submitted attendance was available on Engineering's website, Rowe said he hoped that operators would push trainers to submit attendance electronically without an edict from the Committee.

House reported that educational materials pertaining to service fee benefits were almost completed. The fee education subcommittee still had to decide to whom the materials would be sent, but with some lead time for Hart to produce the materials, they hoped to begin the mail-out soon.

New Business

Merideth, as the newest member of the Committee, and Nutt planned to attend the ABC Annual Conference in January. The conference consists of water and wastewater certifiers from across the nation meeting to learn about and address licensing and training concerns within the industries. The 2009 conference will be held in La Quinta, California.

Nutt addressed the Committee concerning operator attendance credit for AWW&WEA and ARWA annual conferences. He thought it unfair to award those who did not fully participate in the conference the same credit as operators who did fully participate. Neither Nutt nor the Committee was in favor of awarding participation credit based upon individual session attendance. Instead, Nutt suggested that, with the advent of barcode scanning and the publishing of operator training cards, operators could scan-in every morning and afternoon of the conference. Four hours credit would be awarded for each morning or afternoon attended. Multiple locations to scan barcodes could be made available throughout the conference facility.

The Committee discussed at length the pros and cons involved in increasing attendance verification. It was noted that other conferences utilized even more stringent tracking than that proposed by Nutt. However, the Committee did not want to surprise operators and insisted that adequate notice be made available before new tracking procedures were put in place. A recommendation was made that training courses, District meetings, and industry publications be utilized in notifying operators of increased attendance tracking at conferences.

Agreeing that increased attendance verification was appropriate, the Committee voted, as a trial, that the 2009 conferences track participation at least once per day. Then, in 2010 credit the operators with eight hours per day of participation, provided that operators scanned in daily. A motion was made to that effect and passed unanimously.

Rowe provided a draft copy of the 2009 Training Calendar offered by the ARWA and AEA. After review, Rowe and Nutt noted that additional math classes were needed. Nutt suggested that the two trainers sit down with each other and adjust the schedule to better serve operators. Borman agreed and noted that the calendar provided no continuity of classes in any given area. He also applauded the availability of internet mandatory training. Engineering and AEA discussed offering online the PWS Compliance Course through SAU Tech.

Reports to the Committee

In his Budget and General Program Report, Hart stated that available appropriations were making purchasing easier. He said he and his staff were busy preparing various reports for EPA submittal and were close to completing the tasks. He reminded the Committee about Referred Question #1 on the November ballot which allowed ANRC to administer approximately 300 million dollars in low interest loans for water/wastewater systems over the next ten years. Hart reported that two engineers were recently dismissed from the Section for cause, and that those positions were being advertised.

In his Licensing Update, Nutt reported that with Hampton onboard, the program had caught up. Exam turnaround was still behind due to ABC grading taking longer than usual.

Nutt provided an exam passage rate spreadsheet and made the Committee aware of generally poor turnout for exam sessions. He pointed out that fees did not cover costs for proctoring exams for 1-4 examinees.

Nutt reviewed the provided report pertaining to enforcement actions being taken for licensing violations. Two systems were approaching administrative orders with another system approaching administrative hearing before the Board of Health.

Harper reviewed the classes offered by AEA for the last quarter. The Academy had offered 10 classes with a total of 83 students.

Other Business

No other business was brought before the Committee. The next Committee Meeting was set for Tuesday, January 13, 2009 ♦

Water Operator Licenses cont'd from page 11

Licensee Name	Grade/Type	System Name
LITTLE CLYDE	D – IV	ENGINEERING SECTION, ADH
LITTLETON VICTOR	T – II	GREENWOOD WATERWORKS
MARTIN CHARLES	D – IV	HOPE WATER LIGHT COMM
MCALISTER BILLY	T – II	ALMATIS
MCPHERSON RICKIE	T – IV	CONWAY WATER SYSTEM
MCREYNOLDS JOSHUA	D – IV	VILONIA WATERWORKS
MEACHAM WAYNE	D – IV	ENGINEERING SECTION, ADH
MICHAELS ROBIN	T – I	ENGINEERING SECTION, ADH
MILLER PAMELA	D – I	WYNNE WATERWORKS
MOREN ROGER	T – IV	SARDIS WATER ASSOCIATION
NORDIN KEVIN	D – II	SW ATKINS WATER USERS & TRI-COUNTY WATER DISTBR DIST
PARTEE DONALD	D – II	NOPIKE CO RURAL WATER ASSN
PATTERSON ROBERT	D – II	FLIPPIN WATERWORKS
RIVERS TERRY	D - VSS	OUTSIDE KINGSLAND WATER
ROBERTSON DARAN	D – I	HASKELL WATER SYSTEM
ROSENWALD THOMAS	D–IV & T - IV	CITY CORPORATION
SANDERS JOEY	D – I	WEST MEMPHIS WATERWORKS
SAUNDERS GERALD	D – II	ENGINEERING SECTION, ADH
SETZER ARTHUR	D – IV	HARRISON WATERWORKS
SHEPARD GARY	T – II	4-H CENTER
SIMPSON JOHN	T – II	ALMATIS
SMITH JONIA	D – II	TRI-COUNTY REG WDD
SMITH MARK	D – II	SALEM WATER & SW WATER
SNEDKER DARREL	T – III	BATESVILLE WATER UTILITIES
STAHL GREGORY	T – II	HOT SPRINGS NATIONAL PARK
STANDLEE CHARLES	D – III	GREEN FOREST WATERWORKS
STEHLE TIM	T – III	CENTRAL ARKANSAS WATER
STILL RUSSELL	D – III	FAYETTEVILLE WATERWORKS
STILWELL DANNY	D – I	DYER WATERWORKS
STOKES DARRELL	D – II	WEST MEMPHIS WATERWORKS
STONE BRADLEY	D – IV	HARRISON WATERWORKS
STOREY EARNEST	T – III	BALD KNOB WATERWORKS
STRAIGHT JAMES	T – IV	BENTON-WASHINGTON CO REGIONAL PWA
STROZEWSKI JAMES	D - VSS	ODEN- PENCIL BLUFF WATER
TAYLOR MARLON	D – II	GRANGE-CALAMINE WATER
TAYLOR STEVEN	D – II	TRI-COUNTY REG WATER DD
TEAGUE RONDA	D – I	MOUNTAINBURG WATER
THAXTON CHARLES	D – I	EL DORADO WATERWORKS
THOMPSON KENNETH	D – III	FAYETTEVILLE WATERWORKS
UNRUE STEVEN	D – IV	JACKSONVILLE WATERWORKS
VANN JOSHUA	D – III	CABOT WATERWORKS
WALDROP LARRY	D – IV	EL DORADO WATERWORKS
WALKER JACKIE	D – II	MC GEHEE WATERWORKS
WALLACE HAROLD	D – I	LAVACA WATERWORKS
WESTON TEDDY	D – I	MOUNT IDA WATERWORKS
WRIGHT DENNIS	D – IV	BEAVER WATER DISTRICT
YOUNG MICHAEL	D – IV	SILOAM SPRINGS WATERWORKS

AWW&WEA District Meetings

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

DATE	TIME	CITY	LOCATION	SPONSOR
January 2009				
8	5:00PM	to be announced	to be announced	Central District, AWW&WEA
8	6:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
8	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
8	5:00PM	Des Arc	Dondie's Restaurant	Eastern District, AWW&WEA
14	9:00AM	Bentonville	First Baptist Church	Northwest District, AWW&WEA
16	12:30PM	Jonesboro	Ron's Catfish	Northeast District, AWW&WEA
20	6:30PM	Hamburg	Catfish Inn	Southeast District, AWW&WEA
22	6:00PM	Texarkana	to be announced	Southwest District, AWW&WEA
February 2009				
5	5:00PM	Benton	Brown's Restaurant	Central District, AWW&WEA
5	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
12	6:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
12	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
12	5:00PM	Wynne	to be announced	Eastern District, AWW&WEA
17	6:30PM	Kelso	Baptist Church	Southeast District, AWW&WEA
18	9:00AM	Decatur	City Municipal Bldg.	Northwest District, AWW&WEA
20	12:30PM	Jonesboro	Western Sizzlin	Northeast District, AWW&WEA
20	6:00PM	Hope	to be announced	Southwest District, AWW&WEA
March 2009				
5	5:00PM	to be announced	to be announced	Central District, AWW&WEA
5	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
12	5:30PM	Lee County	to be announced	Eastern District, AWW&WEA
12	6:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
12	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
17	6:30PM	Crossett	Western Sizzlin	Southeast District, AWW&WEA
18	9:00AM	Rogers	to be announced	Northwest District, AWW&WEA
20	1:00PM	Jonesboro	CWL Service Bldg	Northeast District, AWW&WEA
April 2009				
2	5:00PM	Benton	Brown's Restaurant	Central District, AWW&WEA
2	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
9	6:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
9	5:00PM	Batesville	Western Sizzlin	North Central District, AWW&WEA
9	5:00PM	Forrest City	to be announced	Eastern District, AWW&WEA

ENGINEERING SECTION
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