

OKLAHOMA Water News

1st Quarter 2008

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OWRB to Review Statewide Stream Water Rights and Use

To comply with and enforce provisions of Oklahoma's water law, as well as enhance the understanding of available water resources in the state, the OWRB is conducting a comprehensive review of stream water permits and individual water usage.

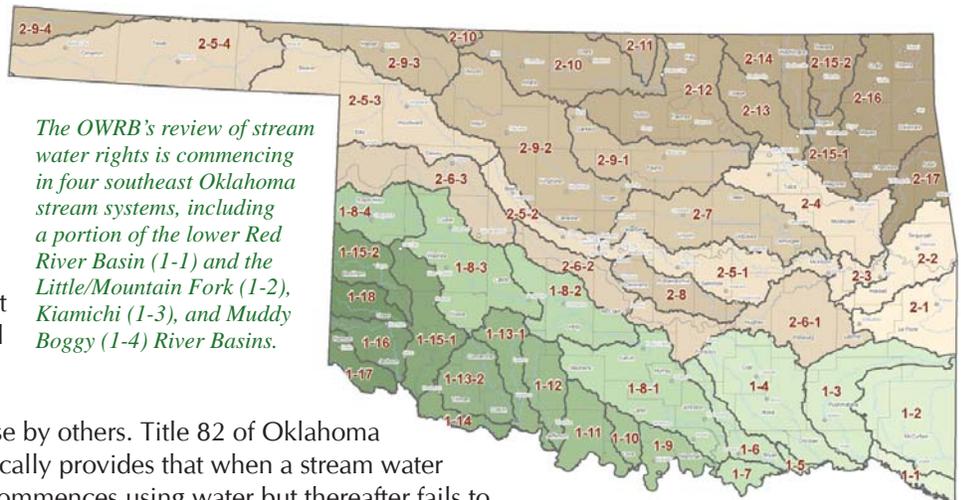
This particular review addresses only stream water because it is considered a public resource while groundwater belongs to the overlying private property owner. This unique difference makes groundwater permit holders subject to a separate set of rules, although both surface and groundwater users are required to submit annual reports disclosing the amount of water used each year.

Oklahoma law requires the OWRB to review stream water rights for nonuse and cancel a water right if the water is not actually placed to beneficial use. This frees

up water for use by others. Title 82 of Oklahoma Statutes specifically provides that when a stream water right holder "commences using water but thereafter fails to beneficially use all or any part of the water... for a period of seven continuous years, the right of use of the unused amount of water... shall be lost and such unused water shall revert to the public..."

In essence, this "use or lose" statute insures that the maximum amount of surface water remains available to prospective water users. Also, as the OWRB and its partners update the state's water

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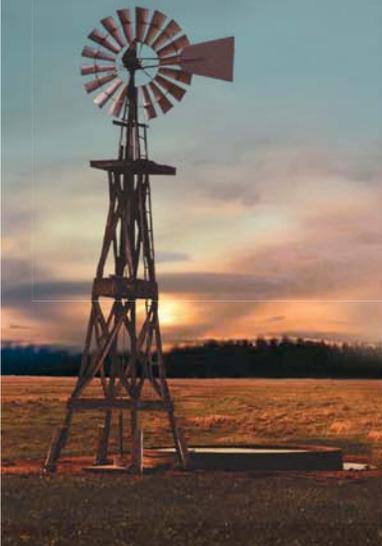
From the Director

Technical studies of Oklahoma's water resources are taking center stage as we enter another major phase of the Water Plan update process. About a dozen studies, many involving issues that dominated discussion at our recent local input meetings, will soon commence to provide water planners with much of the information required to establish water policy for the state's second century. Growing population and increased water demand, intense competition for water and deteriorating infrastructure present serious challenges in how we will balance and manage the use of our water resources. These issues are compounded by our variable climate, vulnerabilities posed by drought and flooding, and other factors. As a result, innovation will be a key component of all Water Plan studies.

(continued on page 2)



Duane A. Smith, Executive Director
Oklahoma Water Resources Board



Water Rights (cont.)

plan, it is imperative that water is not only used in a responsible manner, but that there is an accurate accounting of its use—a precise water budget for Oklahoma. A vital aspect of the ongoing Oklahoma Comprehensive Water Plan update is a statewide inventory of existing water supply that will allow planners to project future needs. The OWRB is also working to modernize its vast water management database, including more than 2,700 active stream water permits allocating the use of more than 9 trillion gallons of water.

To address the large number of stream water permits effectively, the agency has established a systematic review procedure beginning in the Red River stream system and its sub-basins (OWRB Stream Systems 1-1, 1-2, 1-3 and 1-4) then extending later to permits in the Arkansas River basin. In the coming weeks, the OWRB will begin sending letters to stream water right holders who have used less than the amounts authorized by their water rights. They will be notified

that their right is subject to reduction or cancellation. Each user will be provided with an opportunity to correct water use reports or explain why the water has not been used beneficially. If the agency receives no response, a “show cause” hearing will be scheduled.

During the hearing, the water right holder will be given an opportunity to show that failure to use the water was beyond his or her control. Regardless, if a water right is reduced or forfeited, the user would not be precluded from filing for a future stream water permit.

For information about a specific water right or pending water use application, contact the OWRB’s Planning and Management Division at 405-530-8800. OWRB rules governing stream water rights administration in Oklahoma can be viewed at www.owrb.ok.gov under Rules, Chapter 20. 💧

From the Director (continued from page 1)

Recent technological advances have placed an entirely new and more effective set of water management tools at our disposal. In addition, Oklahoma possesses a uniquely skilled water planning and science community, including the Water Resources Research Institute, U.S. Geological Survey, Bureau of Reclamation, Corps of Engineers, Oklahoma Climatological Survey, universities, and engineering firms.

Soon, the OWRB and our partners will initiate the necessary starting point for any water planning effort—an inventory of Oklahoma’s existing water supplies and projections of future needs. Comparing supplies with projected demands will help us to identify areas of the state that are likely to experience water supply shortages or “gaps.” In April, a pilot project will commence to map key water infrastructure in Pontotoc County. Results of that effort will help us demonstrate the viability of a statewide program to map major water conveyance and distribution lines and facilities. A comprehensive water infrastructure database will provide vital information concerning potential regional partnerships and other water supply opportunities.

Other Water Plan studies will involve development of a statewide water allocation model and methodologies to analyze supply gaps in some areas. Two additional studies will assess the interaction between stream and groundwater and provide immediate benefits to the ongoing Arbuckle-Simpson Hydrology Study. In addition, the Climatological Survey will evaluate the possible impacts of climate change on water resources and management in Oklahoma.

Study cooperators will evaluate in-stream flows and their value in sustaining aquatic animals and plants. Water quality issues will also be addressed, such as the mechanism through which phosphorus, a common pollutant, is transported to Oklahoma’s rivers and streams. We will evaluate the use of remote sensing and satellite imagery in monitoring irrigation, especially in western Oklahoma. Water pricing will be studied as will the regionalization of rural water systems, which

involves a sharing of water system infrastructure. Through the Water Plan process and enhanced partnerships with the Corps of Engineers and Bureau of Reclamation, the Water Board will step up efforts to solve impending municipal water supply shortages, such as in Bartlesville and Bristow. And, of course, the OWRB continues to modernize its water rights permit system to ensure that we make sound water management decisions.

Through innovation, the OCWP process is blending science, technology, engineering, and related disciplines to establish a secure water future for our citizens. Our final Water Plan will include measures to protect us against drought and related hazards. At the same time, water attracts business, so the Plan will also acknowledge that Oklahoma’s abundant water supplies gives us a tremendous competitive advantage over other states, including our thirsty neighbor to the south. As the Governor and Legislature strive to grow Oklahoma’s economy through research and technology via the EDGE initiative, I believe that water—like energy, education or medicine—must be a cornerstone of this state’s growth.

Throughout this ongoing legislative session, the OWRB and our planning partners will continue to work closely with members of the State Legislature to identify long-term sources of funding that will allow us to implement priority planning projects, including many well in advance of our 2012 Water Plan deadline. At the same time, legislation proposing major changes in water policy should first run the gauntlet of public opinion and expert analysis through our deliberate and carefully designed planning process. Oklahomans who were unable to attend any of our 42 Local Input Meetings can still contribute to **their** Water Plan by telling local legislators and representatives in Washington D.C. about the need for local water supply and water quality projects, or they can attend our Regional Input Meetings, which begin this summer. I urge all Oklahomans to support the Water Plan as well as the water planning process through which we lay the groundwork for our water future. 💧



National Group Endorses Oklahoma's Water Plan

The OWRB and Water Plan update process have received high praise from a well-respected national organization.

On March 11, in its testimony to the Congressional Subcommittee on Water Resources and the Environment, the Water Resources Coalition—consisting of the National Association of Regional Councils, American Society of Civil Engineers, American Public Works Association and others concerned with the welfare and future of the nation's water and associated infrastructure—called the OCWP update process “a model that should be considered on a national scale for proper water planning.” Furthermore, the Coalition told Subcommittee members that the OCWP is “an excellent example of what the new trend line should be... the future in water resources planning.”

The subject of the Congressional hearing was the federal government's role in mitigating drought conditions in Georgia, Alabama, and Florida.

The Oklahoma Comprehensive Water Plan, published and continuously updated by the Oklahoma Water Resources Board, establishes guidelines for the present and future use of the state's water resources and outlines policy recommendations for water resources management.

Oklahoma Comprehensive Water Plan Process

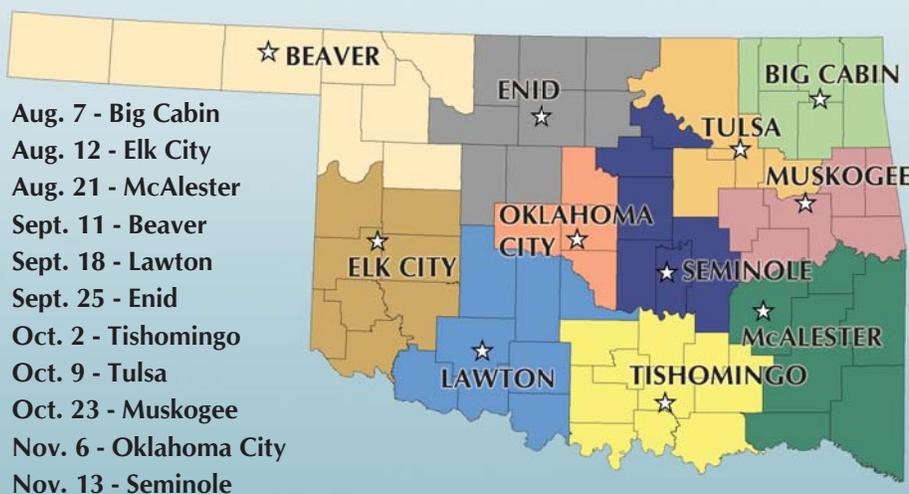


Recent Developments

- OWRB contractors have concluded a pilot project in Pontotoc County to demonstrate the viability of a statewide program to map major water conveyance and distribution lines and facilities. A comprehensive water infrastructure database will provide vital information concerning potential regional partnerships and other water supply opportunities.
- This summer, the OWRB, OWRRI and OU College of Law will host a two-day seminar to better familiarize OCWP Regional Input Meeting participants with Oklahoma's surface and groundwater law. A specific date and location is pending.

Upcoming

The first of eleven OCWP Regional Input Meetings (RIM) will begin in August, 2008. Meeting dates and locations are listed below. For further details, go to waterplan@okstate.edu.



Goals of the OCWP Update

- To provide safe and dependable water supply for all Oklahomans while improving the economy and protecting the environment.
- To provide information so that water providers, policy-makers, and water users can make informed decisions concerning the use and management of Oklahoma's water resources.

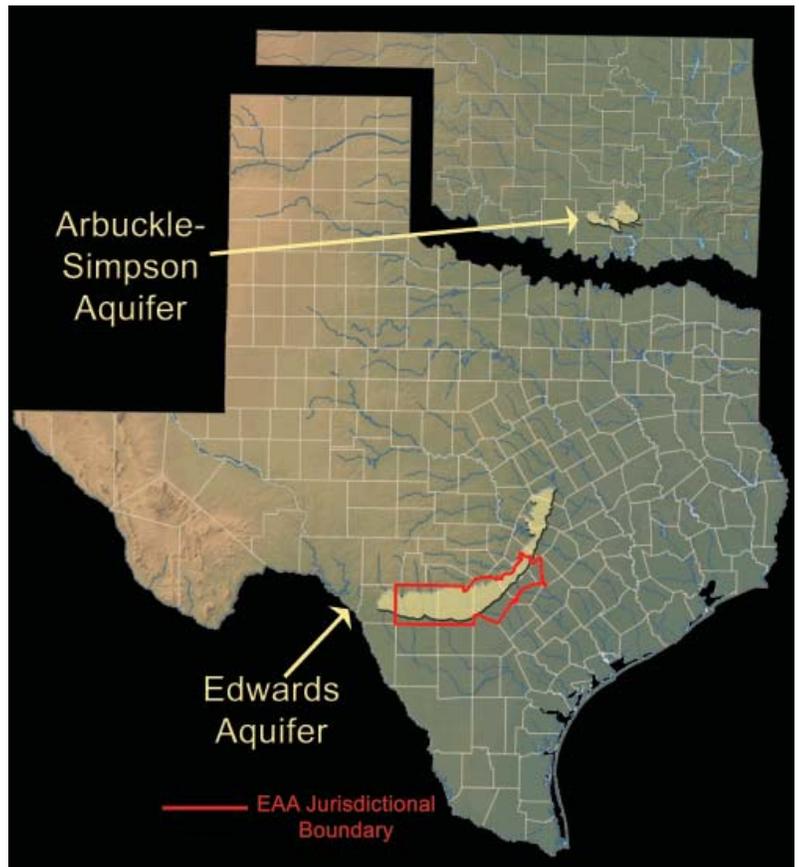
For more information on the OCWP, visit the OWRB's website at www.owrb.ok.gov. For questions and comments concerning policy development and public meetings, contact the OWRRI at 405-744-9994, by e-mail at waterplan@okstate.edu, or go to <http://okwaterplan.info>.

Arbuckle Study Team Visits Edwards Aquifer

The focus of the final year of the Arbuckle-Simpson Hydrology Study is on developing and evaluating various management options. Along with conducting computer simulations, disseminating information, and soliciting input from stakeholders, study participants are considering management strategies utilized for aquifers in other states, such as the Edwards Aquifer in Texas. In February, OWRB staff and Board members, along with various representatives of state and federal agencies, special interest groups, stakeholders, and research teams involved in the Arbuckle-Simpson Study, toured the Edwards Aquifer area near San Antonio and visited with staff of the Texas Water Development Board and Edwards Aquifer Authority (EAA) to learn about the aquifer and the strategies utilized for its management.

During the two-day meeting and field trip, participants visited area springs and caves while EAA staff provided detailed information. The Edwards and Arbuckle-Simpson aquifers are both designated as “sole source” by the EPA. The aquifers are also geologically similar in that they are comprised of heavily fractured carbonate rock and possess typical karst characteristics, such as large springs, sinkholes, and caves. However, the Edwards has a massive drainage area of approximately 5,400 square miles, where streams and four large rivers—the San Marcos, San Antonio, Guadalupe, and Nueces—lose water to the aquifer as they cross the outcrop, thus recharging the aquifer. Additionally, eight species listed as threatened or endangered under the federal Endangered Species Act reside in the aquifer or in prolific springs emanating from the aquifer. The aquifer is the primary source of drinking water for approximately two million Texans.

The EAA, a regional groundwater conservation district with the authority to adjudicate and permit groundwater rights and to meter and enforce withdrawals, was created in 1993 by the Texas Legislature, driven by the Endangered Species Act and associated lawsuits. The EAA, funded solely through user fees, receives 60 percent of its annual operating budget of about 10 million dollars from the City of San Antonio. A permitting cap of 572,000 acre-feet per year has been established based on maximum historical use. No new regular water use permits are issued although permit holders can sell or lease their water rights or portions of them. Marketing of these rights can be quite profitable with prices for water reaching up to \$5,500 per acre-foot. Groundwater cannot be transferred out of the conservation district area, and during critical periods, when water levels and spring flows reach a specific trigger point, the EAA restricts groundwater withdrawals. The Authority requires metering of wells and conducts random audits of water use. Credits are awarded for artificial groundwater recharge. ♦



Comparison of Edwards and Arbuckle-Simpson Aquifers

| | Edwards | Arbuckle-Simpson |
|--|-----------|------------------|
| Outcrop Area (square miles) | 1,250 | 500 |
| Subcrop/Confined Area (square miles) | 2,100 | 65 |
| Catchment Area (square miles) | 5,400 | 0 |
| Medium Annual Recharge (acre-feet) | 560,900 | *128,000 |
| Medium Annual Withdrawal (acre-feet) | 321,100 | 3,800 |
| Common Well Yields (gal/min) | 8,000 | 25-600 |
| Artesian Well Maximum Flow (gal/min) | 30,000 | **3,000 |
| Largest Spring Mean Annual Flow (cubic ft/sec) | 284 | ***18 |
| Number of Listed Endangered/Threatened Species | 8 | 0 |
| Population Served (Drinking Water Supply) | 1,700,000 | 390,000 |

Based on 4.7 inches, from USGS Circular 91. **Vendome Well (current flow is ~500 gpm). *Byrds Mill Spring.*



Edwards Aquifer Authority staff provide tour participants with detailed information on local hydrology, karst processes, dye tracing, and monitoring of endangered species.

Proclamations Stress Flood Season Preparedness

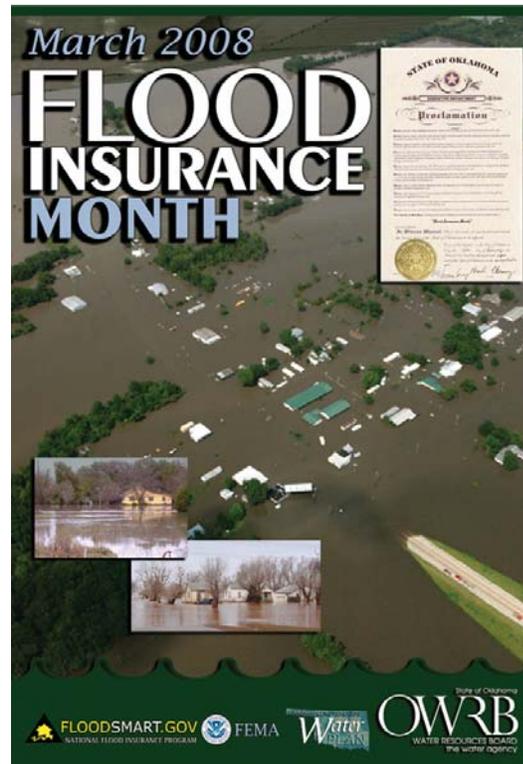
Each year in Oklahoma, thousands of citizens experiencing flood damage lack the protection afforded through readily available flood insurance. To enhance awareness of the availability of federal flood insurance, as well as inform Oklahomans about intelligent floodplain management and development procedures, Governor Brad Henry has designated March as "Flood Insurance Month" in Oklahoma. The Governor's proclamation provides the OWRB, insurance companies, and emergency management organizations with a valuable opportunity to spread the word on the availability of relatively inexpensive flood insurance, which can be purchased from any licensed property insurance agent. Currently, more than 88 percent of homes and businesses in the state that lie in the 100-year floodplain have no flood insurance. With Oklahoma's spring flooding season just around the corner, the timing for "Flood Insurance Month" is prudent.

As a complement to "Flood Insurance Month," Governor Henry has also designated May as "Flood Awareness Month" in Oklahoma. This proclamation will be of tremendous help in educating the public on flood safety procedures and floodplain management techniques. Severe flooding episodes occur in Oklahoma

virtually every year, and Oklahomans need to be aware of the dangers they may face. Almost one-half of all flood-related fatalities occur in vehicles, primarily when people drive into flooded highway dips or low drainage areas at night. As little as six inches of water can cause drivers to lose control of their vehicles, and two feet of water will sweep most cars off the road.

Of the 54 Presidentially-declared disasters in Oklahoma since 1955, 36 have involved flooding, including four just last year. In an effort to mitigate such emergencies, Governor Dewey Bartlett designated the OWRB as the agency to coordinate the National Flood Insurance Program (NFIP) in 1969. The NFIP assists Oklahoma and its 382 member communities by making flood insurance available at affordable rates and helping communities make wise decisions concerning floodplain use. To be eligible for flood insurance, participants must establish a floodplain board, recognize floodplain boundaries, and restrict development in those areas. Such strategies typically result in reduced federal outlays to mitigate flood damages. The OWRB coordinates the NFIP in Oklahoma in a cooperative

partnership with the Federal Emergency Management Agency, Oklahoma Department of Emergency Management, Oklahoma Floodplain Managers Association, and Oklahoma Insurance Department. The OWRB also works closely with the Oklahoma Insurance Department (OID) to educate state property/casualty agents and adjusters on NFIP rules and procedures. ♦



2007 Centennial Edition of the Oklahoma Water Atlas

MAIL ORDER FORM

For postage/handling, please enclose a \$6 check, money order, or purchase order payable to "OWRB."

Mail this form to:

OWRB Water Atlas
3800 N. Classen Blvd.
Oklahoma City, OK 73118

Quantities limited; 1 Water Atlas per order.

Name: _____

Address: _____

City/State: _____

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To pick up a free Oklahoma Water Atlas, visit the OWRB in Oklahoma City at 3800 North Classen Blvd or one of four agency branch offices:

Lawton - 601 "C" Avenue, Suite 101, (580) 248-7762

Tulsa - State Agencies Building, 440 S. Houston, Room 2, (918) 581-2924

Current Major State Water Legislation

Below is a list of selected bills introduced during the Second Session of the 50th State Legislature that could impact the Water Resources Board and state water users.

HB 2238—Stream Water Application Amendments:

Prohibits amendments to stream water applications that would change the identity of the applicant without the express written approval of the Water Board. Provides clarification and changes to recently amended statutes relating to the withdrawal of three-year-old pending stream water applications. For pending applications filed after June 2000, it affords the applicant the opportunity to extend the pending application by showing good cause.

HB 2702—OWRB Water Conservation Grant Program:

Creates the Oklahoma Water Conservation Grant Program, administered by the OWRB. Directs the OWRB to develop criteria, establish a competitive proposal process, and solicit proposals for establishment of pilot programs to implement innovative water conservation projects and plans for Oklahoma communities. Contingent on funding availability, the OWRB is authorized to award \$250,000 community assistance grants and \$10,000 education and information grants.

HB 2774—OWRB Recreational Site Swine Setback:

Requires swine feeding operations that apply for a groundwater use permit or amendment from the OWRB to obtain certification from the Oklahoma Department of Agriculture, Food and Forestry that the operation is not within three miles of a nonprofit camp or recreation site.

HB 2775—OWRB Water Portal System: Directs OWRB to establish a water portal system website that serves as the single point of access to state government water-related services and information for the public.

HB 3135—Well Drillers Indemnity Fund:

Increases enforcement of well construction and plugging standards

by increasing individual remediation expenditures from the Indemnity Fund from \$5,000 to \$15,000. Also increases the OWRB's noncompliance penalty related to commercial drilling or plugging of wells and boreholes or installation of pumps from \$500 to \$5000.

HB 3242—Gross Production Tax REAP Water Projects Fund:

Specifies that all monies accruing to the credit of the OWRB Rural Economic Action Plan (REAP) Water Projects Fund is appropriated and may be budgeted and expended by the OWRB for the purpose of implementing the Oklahoma Comprehensive Water Plan.

SB 746—Floodplain Management Flexibility Act:

Improves language in the Oklahoma Floodplain Management Act to provide consistency with FEMA regulations. Provides more options and flexibility, especially for small member communities, in creation of local floodplain boards.

SB 1410—OWRB Aquifer Recharge Demonstration Projects:

Directs OWRB, in development of the Oklahoma Comprehensive Water Plan, to conduct pilot aquifer recharge projects where most feasible throughout the state. A technical work group consisting of representatives from state and federal environmental agencies would review and consider locations for individual projects.

SB 1627—Water Plan Marginal Water Quality Technical Work Group:

Directs the OWRB, in development of the Oklahoma Comprehensive Water Plan, to create a marginal water quality technical work group consisting of state environmental agencies and stakeholder groups. The Group would identify potential sources of marginal quality water and how this

water could be used as an effective and economic source of supply.

SB 1693—Water Sales Taxation Task Force:

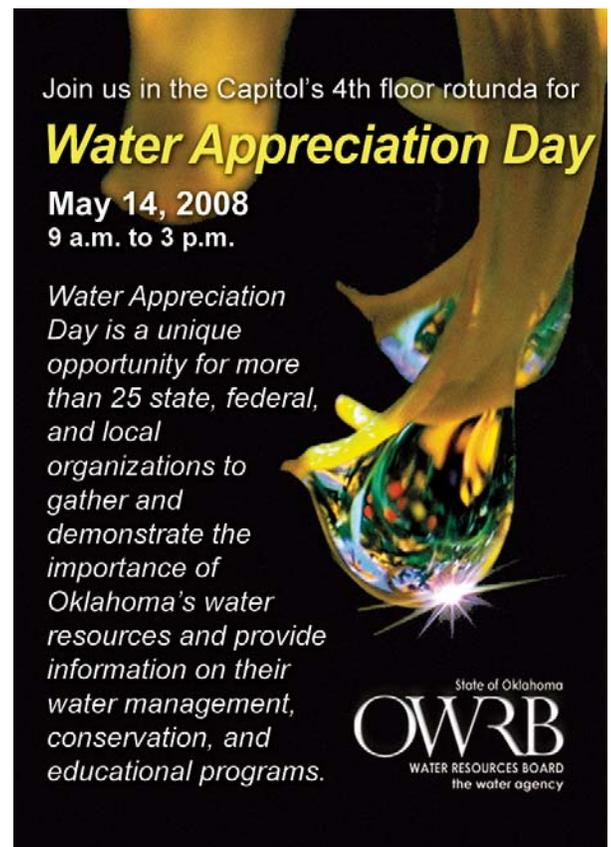
Creates a six-member legislative Task Force on Taxation of Water Sales. The Task Force would be charged with studying issues of taxation of water sales, including review of current statutes and relevant case law, discussions of how various types of tax might be applied to the sale of water, and issues surrounding implementation of such taxes.

SB 2116—Water Sales Compensation:

Requires compensation (i.e., the value of the water taken plus any injury caused by the taking) to the state or political subdivision should a final judgment by the courts mandate the sale, transport or export of water under its control or jurisdiction.

SCR 57—Navigation System Channel Rectification:

Requests the federal government to fully fund operation and maintenance expenditures for the Kerr-McClellan Arkansas River Navigation System as well as funding to deepen and widen the navigation channel. ♦



Join us in the Capitol's 4th floor rotunda for

Water Appreciation Day

May 14, 2008
9 a.m. to 3 p.m.

Water Appreciation Day is a unique opportunity for more than 25 state, federal, and local organizations to gather and demonstrate the importance of Oklahoma's water resources and provide information on their water management, conservation, and educational programs.

State of Oklahoma
OWRB
WATER RESOURCES BOARD
the water agency

Drought Update

Reservoir Storage

As of March 5, six reservoirs (of 31 selected major federal reservoirs across Oklahoma, see right) are operating at less than full capacity, according to information from the U.S. Army Corps of Engineers (Tulsa District); five reservoirs have experienced lake level decreases since February 5.

Palmer Drought Severity Index

According to the latest Palmer Drought Severity Index (March 1, bottom), state moisture conditions remain generally good. No climate divisions are currently experiencing drought conditions. None of Oklahoma's nine climate divisions has undergone a PDSI moisture category decrease since February 2.

Standardized Precipitation Index

The latest monthly Standardized Precipitation Index (through February, bottom) reflects some long-term dryness, primarily in the Panhandle and southern Oklahoma. Among the selected time periods (3-, 6-, 9- and 12-month SPIs), the Northwest, South Central, Southeast and East Central regions report dry conditions.



Storage in Selected Oklahoma Lakes & Reservoirs (March 5, 2008)

| LAKE | Change in Elevation (feet) 2/5/08-3/5/08 | Current Flood Control Storage (acre-feet) |
|--------------------------|--|---|
| North Central (2) | | |
| Fort Supply | -0.40 | 225 |
| Great Salt Plains | 0.07 | 3,609 |
| Kaw | -2.82 | 37,770 |
| Northeast (3) | | |
| Birch | 1.78 | 2,069 |
| Copan | 1.77 | 14,078 |
| Fort Gibson | 1.25 | 84,039 |
| Grand | 4.37 | -69,081 |
| Hudson | 2.78 | 37,584 |
| Hulah | 3.77 | 22,620 |
| Keystone | 0.00 | -2,190 |
| Oologah | 2.04 | 135,638 |
| Skiatook | 1.45 | -15,863 |
| West Central (4) | | |
| Canton | 0.19 | 3,492 |
| Foss | -0.43 | -3,474 |
| Central (5) | | |
| Arcadia | 1.31 | 2,090 |
| Heyburn | 0.82 | 1,012 |
| Thunderbird | 0.44 | 5,612 |
| East Central (6) | | |
| Eufaula | 3.61 | -219,241 |
| Tenkiller | -6.89 | 80,183 |
| Southwest (7) | | |
| Fort Cobb | -0.09 | 3,582 |
| Lugert-Altus | 1.28 | -26,582 |
| Tom Steed | -0.37 | -4,578 |
| South Central (8) | | |
| Arbuckle | 0.69 | -70 |
| McGee Creek | 1.50 | -16,505 |
| Texoma | -0.02 | -37,759 |
| Waurika | 0.04 | 7,028 |
| Southeast (9) | | |
| Broken Bow | 8.41 | 53,907 |
| Hugo | 6.88 | 130,704 |
| Pine Creek | 9.16 | 45,780 |
| Sardis | 2.14 | 36,720 |
| Wister | 14.97 | 180,426 |

| Standardized Precipitation Index (through February 2008) | | | | | Palmer Drought Severity Index |
|--|----------------|----------------|----------------|----------------|-------------------------------|
| CLIMATE DIVISION | 3-month | 6-month | 9-month | 12-month | March 1, 2008 |
| Northwest (1) | Near Normal | Moderately Dry | Moderately Dry | Near Normal | Near Normal |
| North Central (2) | Near Normal | Near Normal | Very Wet | Extremely Wet | Very Moist Spell |
| Northeast (3) | Near Normal | Near Normal | Moderately Wet | Very Wet | Unusual Moist Spell |
| West Central (4) | Near Normal | Near Normal | Extremely Wet | Extremely Wet | Very Moist Spell |
| Central (5) | Near Normal | Near Normal | Extremely Wet | Extremely Wet | Very Moist Spell |
| East Central (6) | Moderately Dry | Near Normal | Moderately Wet | Near Normal | Moist Spell |
| Southwest (7) | Near Normal | Near Normal | Very Wet | Very Wet | Unusual Moist Spell |
| South Central (8) | Moderately Dry | Very Dry | Near Normal | Moderately Wet | Near Normal |
| Southeast (9) | Moderately Dry | Near Normal | Near Normal | Near Normal | Moist Spell |

For more drought information, and to obtain updated information on Oklahoma's drought and moisture conditions, go to www.owrb.ok.gov/supply/drought/drought_index.php.

*Mark Nichols, Chairman • Rudy Herrmann, Vice Chairman • Ford Drummond, Secretary
Lonnie Farmer • Ed Fite • Jack W. Keeley • Kenneth K. Knowles • Linda Lambert • Richard Sevenoaks*

The mission of the Oklahoma Water Resources Board is to manage and protect the water resources of the state and plan for Oklahoma's long-range water needs in a responsive, innovative, and professional manner to ensure that all Oklahomans have adequate quantities of good water.



1st Quarter 2008

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FINANCIAL ASSISTANCE PROGRAM UPDATE

Loans & Grants Approved as of March 11, 2008

FAP Loans—321 totaling \$629,870,000

The OWRB's Financial Assistance Program (FAP), created by the State Legislature in 1979, provides loans for water and wastewater system improvements in Oklahoma. The tremendous popularity of the bond loan program is due, in part, to extended payoff periods of up to 30 years at very competitive interest rates, averaging approximately 4.762 percent since 1986.

CWSRF Loans—185 totaling \$657,302,629

The Clean Water State Revolving Fund (CWSRF) loan program was created in 1988 to provide a renewable financing source for communities to draw upon for their wastewater infrastructure needs. The CWSRF program is Oklahoma's largest self-supporting wastewater financing effort, providing low-interest loans to communities in need.

DWSRF Loans—75 totaling \$346,240,542

The Drinking Water State Revolving Fund (DWSRF) loan program is an initiative of the OWRB and Oklahoma Department of Environmental Quality to assist municipalities and rural water districts in the construction and improvement of drinking water systems. These projects are often mandated for communities to obtain compliance with increasingly stringent federal standards related to the treatment of drinking water.

REAP Grants—492 totaling \$44,343,088

The Rural Economic Action Plan (REAP) Program was created by the State Legislature in 1996. REAP grants, used for water/wastewater system improvements, target primarily rural communities with populations of 7,000 or less, but priority is afforded to those with fewer than 1,750 inhabitants.

Emergency Grants—535 totaling \$31,414,017

Emergency grants, limited to \$100,000, are awarded to correct situations constituting a threat to life, health, or property and are an indispensable component of the agency's financial assistance strategy.

Drought Response Program Grants—3 totaling \$300,000

Through the OWRB's Drought Response Program, limited funding is available for communities in most dire need during state drought emergencies declared by the Governor. A maximum of \$300,000 is diverted from existing OWRB Emergency Grant funds to establish the Program.

Total Loans/Grants: 1,611 totaling \$1,709,470,276

Estimated Savings: \$539,353,553

Applicants eligible for water/wastewater project financial assistance vary according to the specific program's purpose and requirements, but include towns and other municipalities with proper legal authority, various districts established under Title 82 of Oklahoma Statutes (rural water, master/water conservancy, rural sewage, and irrigation districts), counties, public works authorities, and/or school districts. Applications for agency financial assistance programs are evaluated individually by agency staff. Those meeting specific program requirements are recommended by staff for approval at monthly meetings of the nine-member Water Board.

**For more information, call 405-530-8800
or go to www.owrb.ok.gov/financing.**

OKLAHOMA Water News

2nd Quarter 2008

Inside

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Smith Appointed to National Drinking Water Advisory Council

Bill Seeks Technology to Augment State Groundwater Supplies

Caddo County Tops List

Biological Monitoring Team Integral to National Study

Online Licensing Program Created for Drillers

Smith Receives Public Service Award

New Red River Compact Rules Apportion Shared Oklahoma-Texas Waters

At its annual meeting on April 22 in Marshall, Texas, the Red River Compact Commission revised its rules to provide protection for southwest Oklahoma water users, including farmers in the Lugert-Altus Irrigation District.

The new rules, which resolve a 20-year controversy between Oklahoma and Texas officials, apply to a section of the federal interstate Compact that dictates apportionment of water in Sweetwater Creek and the North Fork Red River between the two states. Both water sources originate in the Texas Panhandle, where they flow in an eastward path prior to Sweetwater Creek's confluence with the North Fork west of the Oklahoma state line. The North Fork then flows into Oklahoma and jogs south before eventually entering Lugert-Altus Reservoir, the source of water for some 46,000 irrigated acres in the District. At one time, Texas interests had proposed construction of a reservoir on Sweetwater Creek that would have interrupted virtually all of its flow into Oklahoma.

The Compact divides Red River water among the member states—Oklahoma, Texas, Arkansas, and Louisiana—including seven major streams in the Compact area's western reach where flows are apportioned 60 percent to Texas and 40 percent to Oklahoma. Specific rules pertaining to Sweetwater Creek and North Fork have been in contention since the mid-1980s with Texas arguing that the split should apply geographically just downstream of the two rivers' confluence in Texas, before higher quality Sweetwater Creek water is diluted by that of the lower-quality North Fork. This potential removal of Sweetwater Creek water would lower the quality of North Fork water flowing into the northern arm of Lugert-Altus Reservoir.



The confluence of the North Fork and Red Rivers

(continued on page 2)

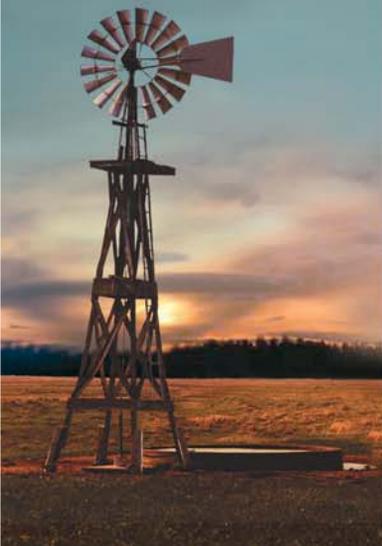
From the Director

Recently, the OWRB was contacted by some special interest groups who stated that the issues targeted for study as part of the Oklahoma Comprehensive Water Plan update process are undeserving of attention. The issues receiving scrutiny are identified in the OCWP Draft Programmatic Work Plan, recently finalized and available for review on the OWRB's website. They include (1) conjunctive use or integrated management of stream and groundwater, which involves recognition of the hydrologic connection and its potential relevance in water management programs; (2) consideration of aquifer recharge as a limit in determining groundwater available for allocation and the associated impact on private property rights; and (3) integration of instream flow requirements and/or seasonal stream water availability in the surface water appropriation/permitting process.

(continued on page 3)



*Duane A. Smith, Executive Director
Oklahoma Water Resources Board*



Compact Rules (continued)

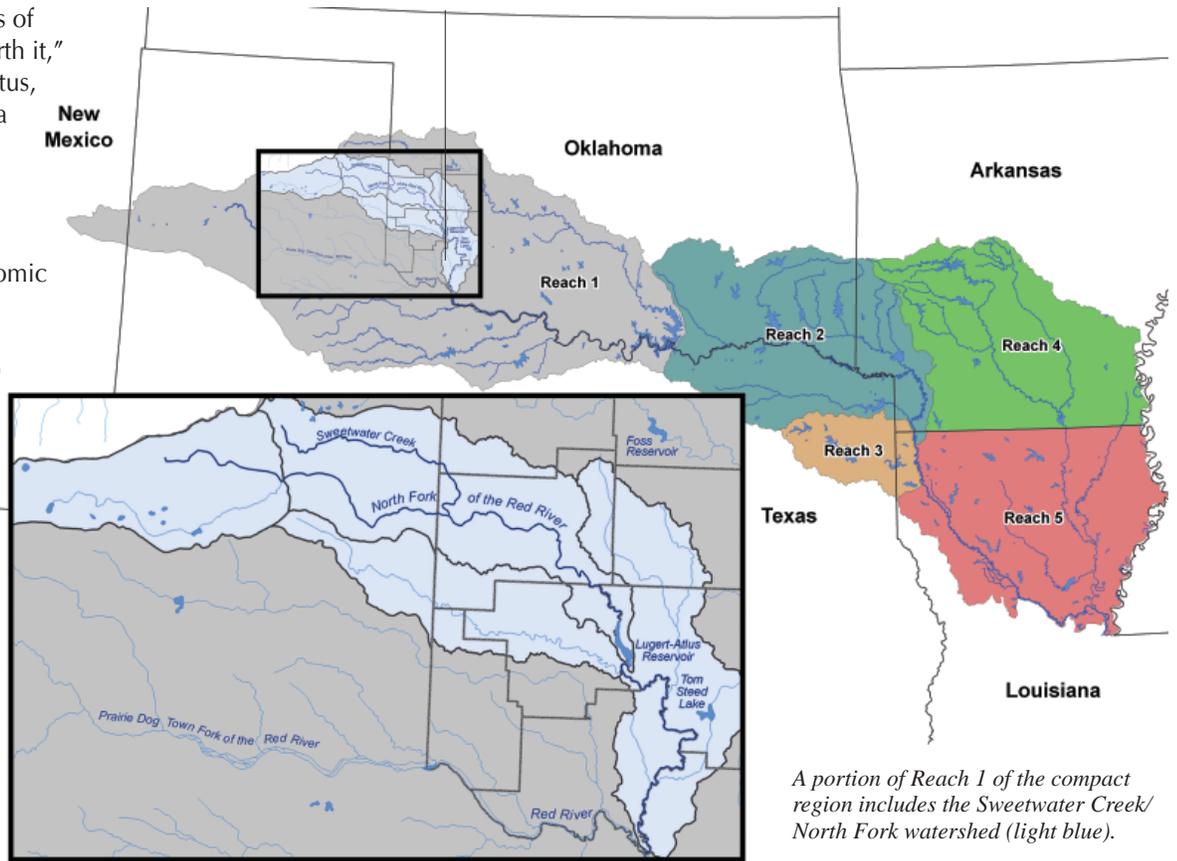
“It took over twenty years of wrangling, but it was worth it,” says Charles Dobbs of Altus, one of the two Oklahoma Commissioners on the Commission. “Protecting Lugert-Altus Irrigation District, which provides critically important economic benefits to southwest Oklahoma and the state in general was integral to negotiations with our Texas counterparts on the Commission,” he explains.

In a typical year, the District produces more than 100,000 bales of cotton, or about one-half of Oklahoma’s total cotton production. This generates some \$45 million in income with a total economic impact of over \$330 million.

“Because the Red River Compact directly impacts the business of the Irrigation District, our members have remained very vocal on this issue,” says Mark Nichols, an Altus cotton grower as well as Chairman of the OWRB. “On behalf of the District, we are extremely pleased at this positive outcome, which in part is due to the District’s strong partnership with the U.S. Bureau of Reclamation, which was not only originally responsible for construction of Lugert-Altus Reservoir but has consistently protected our interests over the years.”

According to Duane Smith, Executive Director of the OWRB and Oklahoma’s other Compact member, credit also goes to Texas officials who were willing to compromise on the issue. “In particular, Texas Commissioner Bill Abney was instrumental in breaking the logjam on the rule change. He helped turn the Texas viewpoint around,” says Smith. “While we are certainly glad the controversy over Sweetwater Creek and the North Fork is behind us, we are now preparing to start discussions with Texas officials on how rules should divide water in Lake Texoma and the Red River itself before it flows into Lake Texoma. We hope the progress we made in Marshall will carry over to this new issue.”

The Red River basin starts in the Texas Panhandle and Western Oklahoma where tributaries flow into the Red River itself. The Red River forms the border between Oklahoma and Texas before flowing downstream to the States of Arkansas and Louisiana south toward the Gulf of Mexico. Interstate stream compacts are unique as law because the U.S. Constitution requires such interstate agreements to be approved by the federal Congress. The original Red River Compact agreement was signed in 1978. The Red River basin covers more than 93,000 square miles. ♦



A portion of Reach 1 of the compact region includes the Sweetwater Creek/ North Fork watershed (light blue).

Water Atlas Receives Awards

The OWRB’s *Oklahoma Water Atlas* has been selected as a recipient of the “Special Achievement in GIS” (SAG) award by the Environmental Systems Research Institute (ESRI). The OWRB was selected for the honor from over 100,000 users worldwide. ESRI is a world leader in the design and development of geographic information system technology.

The *Water Atlas* was also recognized by the American Libraries Association in their listing of Notable Government Documents for 2007 and was featured in the May 15 issue of *Library Journal*. To recognize this achievement, the Oklahoma Department of Libraries will present the OWRB with a special commendation from Governor Henry at the Board’s July meeting. ♦



A map of Kaw Lake from the Water Atlas

From the Director (continued)

These and other progressive water management subjects mentioned in the OCWP Work Plan are merely those identified for further study, not implementation, and neither the OWRB nor any members of our planning team formally advocate them. However, all deserve additional study. Each issue was specifically raised by citizens during last year's statewide public input meetings. And each has been advocated in previous Oklahoma water plans.

The current OCWP update, due in 2012, and its associated technical and policy studies are building upon enormous success in creating a road map for water policy and the state's future water supply needs. An original 1980 OCWP recommendation is directly responsible for creation of the OWRB's financial assistance program for water and sewer project construction, a program that now boasts more than \$1.7 billion in low-interest loans and grants, benefiting communities and citizens across the state. A permanent statewide water quality data collection and monitoring program was envisioned in the 1995 OCWP, and that vision has become reality. The OWRB's Beneficial Use Monitoring Program is now celebrating its 10-year anniversary. The current update will consider expansion of that program to gain an even more comprehensive assessment of the state's water quality.

Chloride control, recommended in the 1980 and 1995 plans for both the Red and Arkansas River Basins to augment water supply and improve water quality, has received extensive study. A project is now underway to remove chlorides from the Elm Fork of the Red River. Both Water Plans recommended adoption of broad floodplain management legislation, as well as training and education. Today, Oklahoma has a state program that is the envy of the nation, preventing immeasurable property damage. Even Oklahoma's ongoing effort to achieve federal recognition of the OCWP in establishing federal priorities for state water projects was explicitly encouraged in the 1980 Plan.

Similarly, past OCWP recommendations have encouraged the analysis of joint management of stream and groundwater, recognition of instream flows and related environmental/habitat requirements, and development of other innovative strategies to manage, conserve, and protect our invaluable water supplies. To ignore these issues—to narrow the Plan's focus—would be irresponsible. The OCWP must reflect the interests of ALL Oklahomans. The very statutes that created the OWRB in 1957 require us to "develop long-range plans to encourage the conservation, development and utilization of the water resources of the State."

As we determine the sufficiency of Oklahoma's water supplies over the next 50 years, the OWRB and its planning partners must similarly evaluate the state's current water policy and law. Everyone—cities, industries, farmers and ranchers, oil/gas producers, environmentalists, and other water users—deserves a seat at the planning table. But we must work in the spirit of cooperation as we proceed with evaluations that will provide the technical underpinnings of future policy. We must be innovative yet recognize the past accomplishments of state water planners. Most importantly, we must be unafraid of the results or future implications to water management. Sound and fair policy will stand up to thorough evaluation. ♦

Smith Advocates State/Federal Partnerships at WGA Meeting

Duane Smith, OWRB Director and outgoing Western States Water Council Chairman, extolled the virtues of a proposal to collaborate water planning strategies among the states and federal partners at the annual meeting of the Western Governor's Association (WGA), held June 29-July 1 in Jackson Hole, Wyoming. The meeting was attended by 11 western governors, the Premiers from Manitoba, Saskatchewan, Alberta, and British Columbia, and guest journalist Tom Brokaw. Below is an excerpt about the meeting that appeared in the July 3 edition of the Casper (Wyoming) Star-Tribune newspaper.

Duane Smith, executive director of the Oklahoma Water Resources Board, told the governors that fundamental changes need to be made to the mission statements of several federal agencies, including the U.S. Army Corps of Engineers and the U.S. Bureau of Reclamation, in order to make it a priority for these federal agencies to work with states on their water plans.

Currently all federal involvement and planning is done on a project-by-project basis, with no thought to the overall water picture, he said.

Smith urged the governors to push for Congress to make the necessary changes on the federal level.

"We believe this is critically important to the Western states," Smith said. "We're going to change the way the federal government interacts with the states."

Smith helped write the report, which the governors unanimously adopted, titled "Water Needs and Strategies for a Sustainable Future." The report calls for improved collaboration among the states and the federal government on water policy, and offers strategies for regionwide planning. ♦

Smith Appointed to National Drinking Water Advisory Council

OWRB Executive Director Duane Smith has been named as the state water management representative to the National Drinking Water Advisory Council (NDWAC). Smith was officially sworn in at the Council's annual meeting last month in Tucson, Arizona.

The Council consults with and advises U.S. Environmental Protection Agency (EPA) leadership on policy issues related to administration of the federal Safe Drinking Water Act. The Council also provides an avenue through which EPA establishes vital stakeholder input on drinking water issues from the general public, state and local agencies, and private groups, all of whom are represented on the Council. ♦

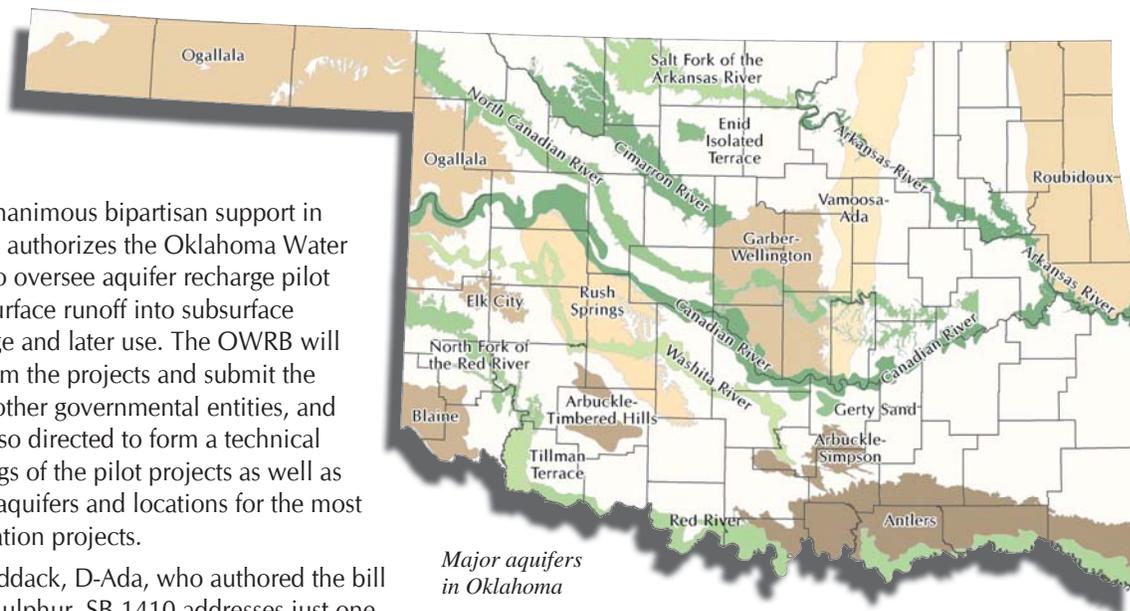
Bill Seeks Technology to Augment State Groundwater Supplies

A bill passed by the State Legislature last month aims to replenish selected underground water supplies throughout Oklahoma.

SB 1410, which received unanimous bipartisan support in both the House and Senate, authorizes the Oklahoma Water Resources Board (OWRB) to oversee aquifer recharge pilot projects that will channel surface runoff into subsurface cavities and pores for storage and later use. The OWRB will collect and analyze data from the projects and submit the findings to the Legislature, other governmental entities, and the public. The agency is also directed to form a technical workgroup to review findings of the pilot projects as well as assist in selecting potential aquifers and locations for the most feasible recharge demonstration projects.

According to Sen. Susan Paddack, D-Ada, who authored the bill with Rep. Wes Hilliard, D-Sulphur, SB 1410 addresses just one of many future water supply challenges facing Oklahoma. "It's imperative that we aggressively pursue all measures to grow Oklahoma's water supply. In light of population growth, we must maximize our ability to provide water to our citizens as well as increase our resistance to future drought episodes." The bill was signed by Gov. Henry on April 21 and went into effect immediately.

"Both the spirit of the legislation and the implementation of this technology are entirely consistent with the current update of the Oklahoma Comprehensive Water Plan, which seeks to establish



Major aquifers in Oklahoma

safe and reliable water supplies for the future of the state and its citizens," says Duane Smith, Executive Director of the OWRB.

"While we strongly advocate additional studies of our aquifers and groundwater basins, especially concerning determinations of their reliability in providing water supply to Oklahomans, we must also investigate technologies, such as artificial recharge, that show promise in augmenting this supply," he points out.

Smith adds that the projects will seek to increase aquifer yields for both public water supply and agricultural use. Work should begin soon, he says. ♦

Caddo County Tops Disaster List

According to a USA Today analysis of federal records, Oklahoma's Caddo County tops the list of America's most disaster-prone counties. Over the past 10 years, Caddo is tied with Monroe County, Florida, as areas experiencing the most federally declared disasters with 13. All of the top 10 disaster-prone counties but one are in Oklahoma or Florida.

"You name it, we've had it," says Larry McDuffey, Caddo County's part-time emergency management chief. Disasters inflicting the County include severe storms, tornadoes, flooding, and winter weather events.

Thirty counties in the nation's unofficial "disaster belt," an area stretching from Florida to Oklahoma, have been declared federal disaster areas at least 10 times over the past 10 years, receiving collective aid of about \$5 billion. Such declarations, originating from a Governor's request and effectuated by the President, activate an array of federal programs that assist in local response and recovery. ♦

Top 10 Disaster-Prone Counties in the U.S.

1. Caddo County, OK
2. Monroe County, FL
3. Canadian County, OK
4. Collier County, FL
5. McClain County, OK
6. Broward County, FL
7. Grady County, OK
8. Volusia County, FL
9. Sullivan County, NY
10. Highlands County, FL

Some content courtesy March 2008, American City & County

Biological Monitoring Team Integral to National Study

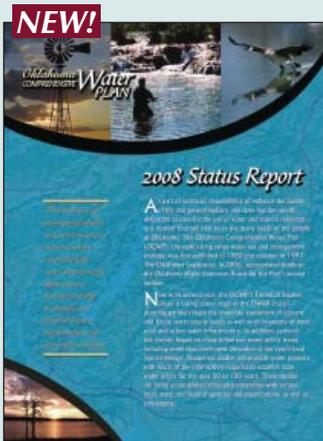
OWRB biological monitoring staff have been given an important role in developing the EPA's "National Rivers and Streams Assessment." This project is a nationwide effort to assess the condition of rivers and streams. Monty Porter, Jason Childress, Josh Bailey, and Chris Nickel of the OWRB's Water Quality Division have provided assistance for the study in various ways, such as development of the study design and sampling protocols through workgroups and committees.

In addition to project development, staff assisted EPA in hosting the national "train the trainer" meeting at Tenkiller State Park. At this meeting, environmental professionals from across the country met in Oklahoma to learn and practice protocols for training crews to perform field sampling for the national project. Since then, these OWRB staff members have provided additional training at Beavers Bend State Park for all study participants in EPA Region 6 (comprised of Oklahoma, Texas, Louisiana, Arkansas, and New Mexico), and will also be assisting EPA Region 7 in training their monitoring participants. ♦



Recent Developments

- Following valuable input and comments from members of the Water Research Advisory Board (WRAB), the final OCWP Programmatic Work Plan is now available on the OWRB's website at www.owrb.ok.gov. The Work Plan serves as a detailed guide for technical studies to be performed over the next few years.
- In June, the Oklahoma Municipal League and Oklahoma Rural Water Association disseminated the OCWP municipal water provider survey, which will be used to discover both future water supply and financial requirements of Oklahoma's water systems. This is one of the first of many data collection efforts conducted as part of the Water Plan's supply/demand analysis.



The 2008 OCWP Status Report is now available online at www.owrb.ok.gov/supply/ocwp/ocwp.php along with the following publications:

- 1980 Oklahoma Comprehensive Water Plan
- 1995 Update of the Oklahoma Comprehensive Water Plan
- 2007 OCWP Status Report



Upcoming

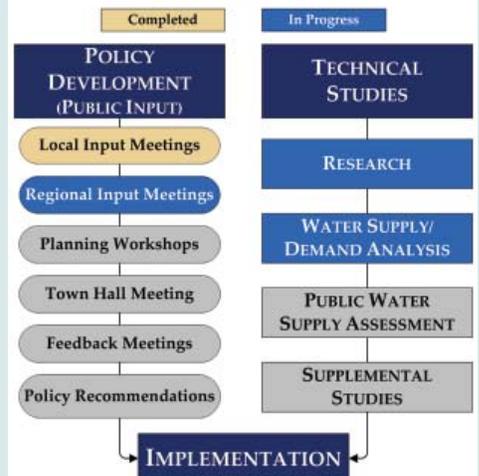
- The OWRB will host a seminar entitled "Basic Oklahoma Water Law" for the 330 Oklahomans selected as Regional Input Meeting participants. The Seminar will be held July 28-29 at the Moore-Norman Technology Center (South Penn Campus). Scheduled topics include the following:
 - ♦ Introduction to Law, Water, and Science
 - ♦ The Law: How It Is Formed and a Roadmap Around
 - ♦ Recreation and Instream Flow
 - ♦ Models of Water Rights
 - ♦ Regulating Water Use in Oklahoma
 - ♦ Federal Agencies and Oklahoma Water
 - ♦ Federal Reserved Rights and Indian Water Rights
 - ♦ Interbasin Transfers

A limited number of additional seats will be available for the public. For registration information, please contact Anissa Maher at (405) 530-8800.

- OCWP Regional Input Meetings (RIM) will begin in August 7 in Big Cabin. For details, go to waterplan@okstate.edu.

The Oklahoma Comprehensive Water Plan, published and continuously updated by the Oklahoma Water Resources Board, establishes guidelines for the present and future use of the state's water resources and outlines policy recommendations for water resources management.

Oklahoma Comprehensive Water Plan Process



Goals of the OCWP Update

- To provide safe and dependable water supply for all Oklahomans while improving the economy and protecting the environment.
- To provide information so that water providers, policy-makers, and water users can make informed decisions concerning the use and management of Oklahoma's water resources.

For more information on the OCWP, visit the OWRB's website at www.owrb.ok.gov. For questions and comments concerning policy development and public meetings, contact the OWRRI at 405-744-9994, by e-mail at waterplan@okstate.edu, or go to <http://okwaterplan.info>.

Online Licensing Program Created for Drillers

The OWRB has launched a new application that will allow Oklahoma's water well drillers to renew their licenses online. Now, during the biennial renewal period, drilling firms can complete the required renewal form and pay the associated fee, which remains identical to the mail-in charge, at any time, day or night, through the OWRB's website. In addition, drillers can update their firm information and verify credited training hours.

On a related note, in the near future the OWRB will provide the public with an online feature to search for licensed drilling firms in their area and discover specific information related to driller licenses, capabilities, and services. Not only will this free up time for both drillers and OWRB staff, but it will also provide incentive for firms to follow proper drilling techniques and maintain good standing in the community. ♦



29th Annual Governor's Water Conference & 6th Annual OWRRI Water Research Symposium

Sheraton-Reed Conference Center
Midwest City, OK

October 28-30, 2008

Oklahoma Comprehensive Water Plan
Water Solutions for Oklahoma

Smith Receives Public Service Award

OWRB Executive Director Duane Smith has been honored by the Oklahoma Chapter of the American Society of Public Administration (ASPA) with its Distinguished Public Service Award. The Award was presented during the organization's annual awards luncheon on May 7. ♦



Duane Smith receives the Distinguished Public Service Award from Lathonya Shivers, a representative of the American Society of Public Administration

2007 Centennial Edition of the Oklahoma Water Atlas

MAIL ORDER FORM

For postage/handling, please enclose a \$6 check, money order, or purchase order payable to "OWRB."

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To pick up a free Oklahoma Water Atlas, visit the OWRB in Oklahoma City at 3800 North Classen Blvd or one of four agency branch offices:

Lawton - 601 "C" Avenue, Suite 101, (580) 248-7762

Tulsa - State Agencies Building, 440 S. Houston, Room 2, (918) 581-2924

Drought Update

Reservoir Storage

As of June 10, four reservoirs (of 31 selected major federal reservoirs across Oklahoma, see right) are operating at less than full capacity, according to information from the U.S. Army Corps of Engineers (Tulsa District); 11 reservoirs have experienced lake level decreases since May 29.

Palmer Drought Severity Index

According to the latest Palmer Drought Severity Index (June 7, bottom), state moisture conditions remain generally good. Only the Northwest/Panhandle climate division is currently experiencing drought conditions.

Standardized Precipitation Index

The latest monthly Standardized Precipitation Index (through May, bottom) reflects long-term dryness in the Oklahoma Panhandle. Among the selected time periods (3-, 6-, 9- and 12-month SPIs), no other regions report dry conditions.



Storage in Selected Oklahoma Lakes & Reservoirs (June 10, 2008)

| LAKE | Change in Elevation (feet) 5/29/08-6/10/08 | Current Flood Control Storage (acre-feet) |
|--------------------------|--|---|
| North Central (2) | | |
| Fort Supply | -0.15 | -102 |
| Great Salt Plains | -0.26 | 7,217 |
| Kaw | 6.68 | 309,488 |
| Northeast (3) | | |
| Birch | 5.83 | 9,797 |
| Copan | 7.42 | 87,986 |
| Fort Gibson | 9.60 | 267,844 |
| Grand | 0.65 | 91,640 |
| Hudson | 6.38 | 126,639 |
| Hulah | 13.54 | 132,587 |
| Keystone | 3.11 | 347,396 |
| Oologah | 4.14 | 441,620 |
| Skiatook | 4.42 | 77,008 |
| West Central (4) | | |
| Canton | 0.99 | 11,543 |
| Foss | 0.41 | 4,278 |
| Central (5) | | |
| Arcadia | 2.03 | 4,700 |
| Heyburn | 0.88 | 4,564 |
| Thunderbird | -0.31 | 8,505 |
| East Central (6) | | |
| Eufaula | 0.21 | 39,813 |
| Tenkiller | -0.82 | 36,811 |
| Southwest (7) | | |
| Fort Cobb | -0.01 | 4,259 |
| Lugert-Altus | -0.13 | -13,260 |
| Tom Steed | -0.29 | -2,132 |
| South Central (8) | | |
| Arbuckle | 0.21 | 2,071 |
| McGee Creek | 0.09 | 8,391 |
| Texoma | 0.16 | -66,898 |
| Waurika | -0.15 | 5,778 |
| Southeast (9) | | |
| Broken Bow | -0.79 | 5,117 |
| Hugo | 0.62 | 19,202 |
| Pine Creek | -0.88 | 1,801 |
| Sardis | 0.04 | 5,549 |
| Wister | -0.77 | 6,753 |

| CLIMATE DIVISION | Standardized Precipitation Index (through May 2008) | | | | Palmer Drought Severity Index |
|-------------------|---|----------------|----------------|----------------|-------------------------------|
| | 3-month | 6-month | 9-month | 12-month | June 7, 2008 |
| Northwest (1) | Moderately Dry | Near Normal | Very Dry | Very Dry | Moderate Drought |
| North Central (2) | Near Normal | Moderately Wet | Moderately Wet | Very Wet | Extreme Moist Spell |
| Northeast (3) | Very Wet | Very Wet | Very Wet | Extremely Wet | Extreme Moist Spell |
| West Central (4) | Near Normal | Near Normal | Near Normal | Very Wet | Unusual Moist Spell |
| Central (5) | Moderately Wet | Moderately Wet | Near Normal | Extremely Wet | Very Moist Spell |
| East Central (6) | Very Wet | Very Wet | Moderately Wet | Very Wet | Unusual Moist Spell |
| Southwest (7) | Near Normal | Near Normal | Near Normal | Moderately Wet | Moist Spell |
| South Central (8) | Near Normal | Near Normal | Near Normal | Moderately Wet | Near Normal |
| Southeast (9) | Very Wet | Very Wet | Moderately Wet | Very Wet | Unusual Moist Spell |

For more drought information, and to obtain updated information on Oklahoma's drought and moisture conditions, go to www.owrb.ok.gov/supply/drought/drought_index.php.

*Mark Nichols, Chairman • Rudy Herrmann, Vice Chairman • Linda Lambert, Secretary
Ford Drummond • Lonnie Farmer • Ed Fite • Jack W. Keeley • Kenneth K. Knowles • Richard Sevenoaks*

The mission of the Oklahoma Water Resources Board is to manage and protect the water resources of the state and plan for Oklahoma's long-range water needs in a responsive, innovative, and professional manner to ensure that all Oklahomans have adequate quantities of good water.



2nd Quarter 2008

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or call us at (405) 530-8800*

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FINANCIAL ASSISTANCE PROGRAM UPDATE

Loans & Grants Approved as of May 14, 2008

FAP Loans—321 totaling \$629,870,000

The OWRB's Financial Assistance Program (FAP), created by the State Legislature in 1979, provides loans for water and wastewater system improvements in Oklahoma. The tremendous popularity of the bond loan program is due, in part, to extended payoff periods of up to 30 years at very competitive interest rates, averaging approximately 4.762 percent since 1986.

CWSRF Loans—185 totaling \$657,302,629

The Clean Water State Revolving Fund (CWSRF) loan program was created in 1988 to provide a renewable financing source for communities to draw upon for their wastewater infrastructure needs. The CWSRF program is Oklahoma's largest self-supporting wastewater financing effort, providing low-interest loans to communities in need.

DWSRF Loans—77 totaling \$357,685,542

The Drinking Water State Revolving Fund (DWSRF) loan program is an initiative of the OWRB and Oklahoma Department of Environmental Quality to assist municipalities and rural water districts in the construction and improvement of drinking water systems. These projects are often mandated for communities to obtain compliance with increasingly stringent federal standards related to the treatment of drinking water.

REAP Grants—497 totaling \$44,794,890

The Rural Economic Action Plan (REAP) Program was created by the State Legislature in 1996. REAP grants, used for water/wastewater system improvements, target primarily rural communities with populations of 7,000 or less, but priority is afforded to those with fewer than 1,750 inhabitants.

Emergency Grants—540 totaling \$31,783,529

Emergency grants, limited to \$100,000, are awarded to correct situations constituting a threat to life, health, or property and are an indispensable component of the agency's financial assistance strategy.

Drought Response Program Grants—3 totaling \$300,000

Through the OWRB's Drought Response Program, limited funding is available for communities in most dire need during state drought emergencies declared by the Governor. A maximum of \$300,000 is diverted from existing OWRB Emergency Grant funds to establish the Program.

Total Loans/Grants: 1,623 totaling \$1,721,736,590

Estimated Savings: \$544,202,472

Applicants eligible for water/wastewater project financial assistance vary according to the specific program's purpose and requirements, but include towns and other municipalities with proper legal authority, various districts established under Title 82 of Oklahoma Statutes (rural water, master/water conservancy, rural sewage, and irrigation districts), counties, public works authorities, and/or school districts. Applications for agency financial assistance programs are evaluated individually by agency staff. Those meeting specific program requirements are recommended by staff for approval at monthly meetings of the nine-member Water Board.

**For more information, call 405-530-8800
or go to www.owrb.ok.gov/financing.**

OKLAHOMA Water News

3rd Quarter 2008

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Environment Post

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Educates Planning Groups

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Online Well Measurement
Data Available

Cunningham Named
Division Chief

Working to improve water quality

The following editorial appeared in the Sunday Oklahoman newspaper, July 13, 2008

By Duane Smith and Steve Thompson

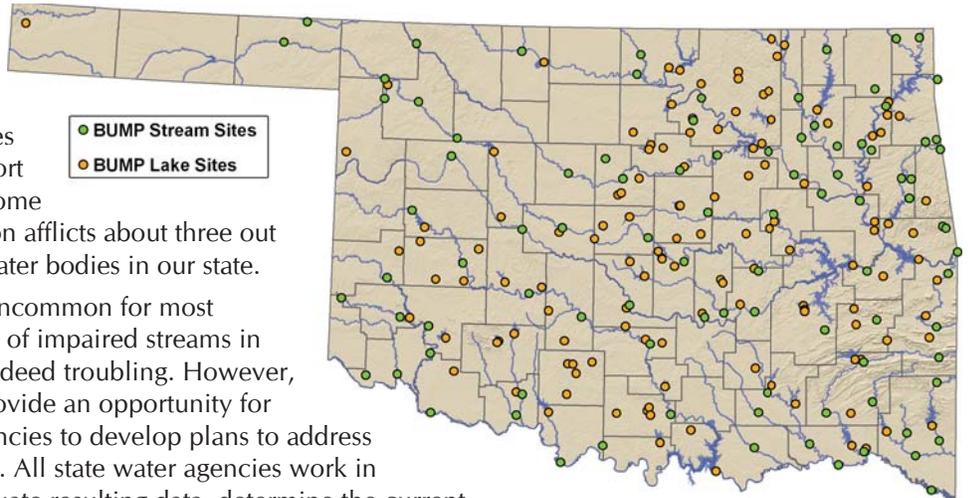
A recent report submitted to the U.S. Environmental Protection Agency by the Oklahoma Department of Environmental Quality detailing the pollution status of our rivers, streams, and lakes has received much attention. Required of all states every two years, the report includes a detailed list of "impaired waters," or those not meeting their desired uses, as prescribed by Oklahoma's water quality standards, maintained by the Oklahoma

Water Resources Board. The report indicates that some form of pollution afflicts about three out of every four water bodies in our state.

Although not uncommon for most states, the level of impaired streams in Oklahoma is indeed troubling. However, the list does provide an opportunity for state water agencies to develop plans to address the impairment. All state water agencies work in concert to evaluate resulting data, determine the current status of individual waters and establish protective measures, especially related to human health and the environment.

Maybe more troubling is the fact that many rivers, streams and lakes aren't being monitored. Therefore, insufficient data exist for agencies to comprehensively determine where all impairments are occurring and develop plans to address those impairments. The DEQ and OWRB have entered into an important partnership to survey the surface water resources of Oklahoma. Through the

(continued on page 3)



From the Director

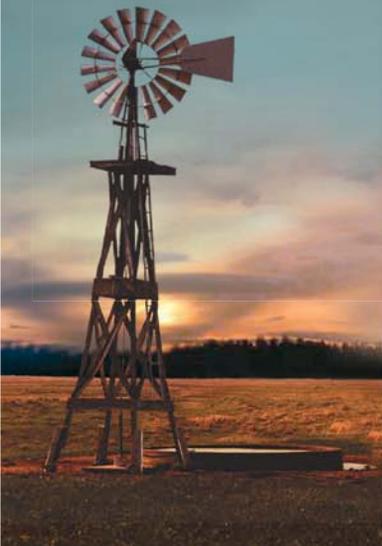
Several legislative interim study hearings in August focused attention on the OWRB's financial assistance, dam safety, floodplain management, and monitoring programs. Mirroring the intense interest in water demonstrated lately by Oklahoma citizens, members of both the House of Representatives and Senate are seeking specific answers to the many tough water questions facing our state. Likewise, we are addressing these issues through the update of the Oklahoma Comprehensive Water Plan, due for submittal to the Legislature early in 2012.

The House Natural Resources Committee study on general water issues afforded a rare opportunity to present specific information to Oklahoma's key environmental leaders on the state's water quality and quantity monitoring

(continued on page 2)



Duane A. Smith, Executive Director
Oklahoma Water Resources Board



Strong Assumes Environment Post

On August 12, Governor Brad Henry announced that Miles Tolbert, Oklahoma Secretary of the Environment, would leave his cabinet post to take a position in the private sector with Crowe and Dunlevy as head of the firm's environmental practice group.

"Miles Tolbert has been a great asset to my administration and the state of Oklahoma," said Governor Henry. "He has fought tirelessly to protect the environment and the interests of Oklahoma citizens, and played a critical role in developing and implementing the relocation program for families in the Tar Creek Superfund site. I greatly appreciate Miles' service and will certainly miss his leadership, but I understand this is a wonderful opportunity and wish him well."

From the Director (continued)

activities, how we use resulting data, and a tough self-assessment of the job state and federal agencies are doing in protecting our water resources while facilitating economic development.

Typically, we think of a watershed as a geographic area drained by a river and its tributaries, an area characterized by all runoff being conveyed to the same point. However, John Wesley Powell, the noted explorer, scientist, and second director of the U.S. Geological Survey, said it best perhaps when he defined a watershed as "that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community."

Inspired by these words, Department of Environmental Quality (DEQ) Executive Director Steve Thompson and I used the Lake Eufaula watershed to tell Committee members our story about the importance of water monitoring.

Originating in New Mexico at the headwaters of the Beaver/North Canadian and Canadian Rivers, then extending through the Texas Panhandle and western and central Oklahoma, the Eufaula watershed is home to some 1.7 million people who rely on local surface and groundwaters for numerous purposes. These people are impacted in many ways by the varied activities that take place there.

Citizens living in the Oklahoma portion of the Eufaula basin have a total annual personal income of more than \$52 billion. The market value of agricultural products alone produced in this 18,503-square-mile area is about \$2.3 billion. Water, representing only a miniscule percentage of the total area, remains the single most important factor supporting this economy. Almost 50,000 water wells are drilled in the basin. Hundreds of these wells, as well as water intake structures from lakes and streams, tap the source of supply for more than 200 public water systems in cities and rural areas. In all, the OWRB administers 4,888 permits in the Eufaula basin for the use of more than 2.3 million acre-feet, or 762 billion gallons, of water. In addition to drinking water, this water is also

Governor Henry has appointed J.D. Strong, OSE Chief of Staff, as the state's fifth Secretary of the Environment. In his twelve years at OSE, Strong served as lead advisor to three different Secretaries under two Governors. Strong coordinated both the Governor's Tar Creek Superfund Task Force and the Animal Waste and Water Quality Protection Task Force.

Secretary Strong will coordinate the activities of the Environmental Cabinet, including the OWRB, Oklahoma Department of Environmental Quality, and Oklahoma Department of Wildlife Conservation.



J.D. Strong, OK Secretary of the Environment

utilized for irrigation/agriculture, industry, mining, power, and other uses that fuel the region's economy, and that of our state.

The basin's economic and social activity also brings with it an associated threat to our water quality and environment—more than 550 wastewater discharge points and other permitted operations to handle human waste, 244 concentrated animal feeding operations that contribute a phosphorus pollution load equivalent to a population of 14 to 22 million people, and five Superfund hazardous waste sites. Public health and the environment are at potential risk. This is why we keep close watch on our surface waters through the Beneficial Use Monitoring Program (BUMP) and collect data that tells us where and to what degree the quality of those waters is improving, or declining, and why. But costs associated with BUMP, consisting of data collection by the OWRB with analysis provided by the Department of Environmental Quality (DEQ), have more than doubled since its creation in 1999 but appropriations have remained flat. We've maximized program efficiencies, yet we've been forced to reduce the number of parameters we sample for. And it's alarming to many that we have insufficient data to accurately assess the quality of about 78 percent of our perennial streams in Oklahoma. Moreover, the state lacks a groundwater quality monitoring program altogether.

This is the message that Steve and I passed along to Committee members. And we put to them this question to consider: "How much water-related data does Oklahoma require?" Without data, or enough of it, we subject municipalities and businesses—and ultimately, the taxpayers—to more stringent and costly protection measures, simply because we lack the information required to make informed decisions. Data allows state agencies to focus water quality standards development and implementation (remediation) on the problem areas and to be proactive, rather than reactive, in our decision-making. It allows us to maximize the use of Oklahoma's water supplies. This is why the OWRB and DEQ are advocating an increase in the current annual appropriation for BUMP to \$2 million, at a minimum. What we don't know can indeed hurt us.

Water Quality (continued)

statewide Beneficial Use Monitoring Program (BUMP), OWRB staff collects water samples from hundreds of stream and lake sites each year. Those samples are analyzed for a variety of parameters in the field.

Officials at the DEQ and OWRB continually strive to leverage limited funds and resources to provide the maximum benefit to taxpayers. We prioritize sampling locations and lab analyses and we stretch supplies, all while attempting to maintain the overall integrity of our program. Due to budgetary limitations, our agencies regularly sample and assess only about 25 percent of Oklahoma’s surface water bodies, and there is no state program in place to monitor the overall quality of our groundwaters.

Rising program and fuel costs coupled with no new appropriations present even more challenges. Appropriations remain stable, but the need for water-quality data and more informed decision-making only increases. We’re at the point where it’s not a question of how much water-quality information we need, but how much we are willing to invest

in. Improving Oklahoma’s water quality has become a citizen priority and it must become a state priority as well.

Clearly, a balance has to be struck between the cost of water, its treatment and delivery, and the benefits of reducing impairments to Oklahoma’s water quality. This issue will be addressed when an interim legislative committee convenes later this year to study Oklahoma’s monitoring program. The OWRB and DEQ are making BUMP funding a co-agency



Steve Thompson, Executive Director, ODEQ

priority during next year’s legislative session. The ongoing update of the Oklahoma Comprehensive Water Plan provides a separate opportunity to enhance our monitoring efforts. In the meantime, we want to reassure the public that its state agencies are working diligently together to improve the quality of our waters and the programs we use to manage them.

Water Law Seminar Educates Planning Groups

The “Basic Oklahoma Water Law” seminar, held July 28-29 at the Moore-Norman Technology Center, served to educate Oklahoma Comprehensive Water Plan Regional Input Meeting (RIM) participants on the many complexities inherent in state water law. The meeting featured numerous presentations by state, federal, and academic water law experts, including Lieutenant Governor Jari Askins and Attorney General Drew Edmondson. Topics included recreation and instream flow, interbasin transfers, federal reserved and Indian water rights, and numerous other issues currently under discussion at the 11 OCWP regional meetings. More than 300 RIM participants and other interested Oklahomans attended the conference.



“If reliability can be impacted by nonconsumptive needs and demands, it is appropriate to include recreation and other instream flow issues in the Water Plan discussions.”

-Drew Edmondson, Oklahoma Attorney General

“What we do to define how important water is to us now, and how important we want it to be for us in the future, is really going to determine what Oklahoma’s next 100 years are going to be like. We’ve spent a lot of time trying to get rid of the Dust Bowl image, but it doesn’t do us any good if we build ourselves back into it without a plan.”

-Jari Askins, Oklahoma Lieutenant Governor

GOVERNOR'S WATER CONFERENCE AGENDA

October 28

- 7:45 Registration
- 8:15 Welcome
Mark Nichols, Chairman, OWRB
J.D. Strong, Oklahoma Secretary of the Environment
- 8:30 **Comprehensive Water Planning in Oklahoma**
Duane Smith, OWRB Executive Director
- 9:15 **The Corps of Engineers' Water Planning Role**
Steve Stockton, Director of Civil Works, Corps of Engineers
- 9:30 **The Tulsa District: Working with Oklahoma**
Col. Anthony Funkhouser, Tulsa District Engineer
- 9:45 Break
- 10:15 **OCWP Public Participation**
Will Focht, Director, Water Research Institute
- 10:35 **Panel: OCWP Technical Studies Overview**
Overview - John Rehring, Camp Dresser & McKee Inc.
Statewide Water Supply/Demand Analysis
Kelly DiNatale, Senior Water Resources Engineer, CDM
Public Water Provider/Infrastructure Survey
Bryan Mitchell, Deputy Project Manager for the OCWP, CDM
- 11:40 Break
- Noon **Conference Luncheon**
Oklahoma Water Pioneer Awards
Chairman Nichols, Duane Smith
Legislative Water Perspective
Sen. Glenn Coffee, Co-President Pro Tempore
Rep. Dale DeWitt
Water Outlook from Washington DC
Oklahoma's Congressional Delegation
- 1:40 Break
- 2:00 **Interior Update**
Kris Polly, Dep Asst Sec for Water and Science, Dept of Interior
- 2:20 **The New State/Federal Water Planning Model**
Fred Caver, President, Caver & Associates, Inc.
- 2:40 **The Great Lakes Compact**
Cameron Davis, President, Alliance for the Great Lakes
- 3:00 **Water Supply Management in a Variable Climate**
Ken Crawford, Director, Oklahoma Climatological Survey
- 3:20 **Arbuckle-Simpson Study Proposed Management Options**
Noel Osborn, Water Resources Geologist, OWRB
Scott Christenson, Hydrologist, U.S. Geological Survey
- 4:20 Adjourn to Reception

October 29

- 8:15 Welcome
Duane Smith, OWRB Executive Director
Mayor Mick Cornett, Oklahoma City
- 8:40 **The Energy/Water Nexus**
Tom Price, Jr., Senior VP-Corporate Development, Chesapeake
- 9:00 **The Tribal Role in Water Plan Development**
Governor Bill Anoatubby, Chickasaw Nation
- 9:20 **Texas Instream Flow Program**
Bill Mullican, Water Science & Cons, Texas Water Dev Board
- 9:40 **Partnerships in Oklahoma Water Quality**
Steve Thompson, Executive Director, ODEO
- 10:00 Break
- 10:30 **Panel: Protecting Oklahoma's Water Interests**
Michael Fuhr, Director, Nature Conservancy of Oklahoma
Jeff Todd, Attorney, Oklahoma Farm Bureau Legal Foundation
Diane Pedicord, General Counsel, Oklahoma Municipal League
Bob Portiss, Director, Tulsa Port of Catoosa
- 11:20 **Panel: Regional Water Solutions for Oklahoma**
Rob Johnson, CEO, National Rural Water Association
Steve Lewis, Manager, City of Norman
Kelly Hurt, Engineer, Chickasaw Enterprises
- Noon Luncheon
4-H Speech Contest Winners

OWRRI WATER RESEARCH SYMPOSIUM AGENDA

October 29

- 1:30 Session 1: Updates and New Developments
- 3:00 Break & Poster Session
- 3:30 Session 2: Trends in Water Use
- 5:00 Reception

October 30

- 8:15 Welcome
- 8:30 Session 3: Climate Change & Water Planning in Oklahoma
- 10:00 Break & Poster Session
- 10:30 Session 4: Information/Data Flow Through Federal Agencies
- Noon Luncheon
- 1:30 Session 5: Water Research by Tribes in Oklahoma
- 3:00 Break
- 3:30 Session 6: Water Budgets as a Basis for Water Management
- 5:00 Adjourn

29th Annual Oklahoma Governor's Water Conference & 6th Annual OWRRI Water Research Symposium

___ **\$275 Oct. 28-30 (3 days)--Governor's Water Conference & OWRRI Research Symposium**

___ **\$225 Oct. 28-29 (2 days)--Governor's Water Conference**

___ **\$225 Oct. 29-30 (2 days)--OWRRI Research Symposium**

Student registration is available online at <http://environ.okstate.edu/OKWATER/>.

Name: _____

Organization: _____

Address: _____

City/State/Zip: _____

Phone: _____ E-mail: _____

Please check all that apply:

I am a Regional Input Meeting (RIM) discussant/alternate.

I prefer a vegetarian plate at the luncheons.

I will attend the following: Oct. 28 reception (5:00 pm)

Oct. 29 reception (5:00 pm)

Register online at <http://environ.okstate.edu/OKWATER/>.

To register by mail, please complete this form and enclose with a check, money order, or purchase order payable to OWRRI, 003 Life Sciences East, Stillwater, OK 74078.



Recent Developments

- Regional Input Meetings (RIMs) continue as participants sort through more than 2,500 comments (categorized into 54 separate water issues) received at the 42 Local Input Meetings (LIMs) held statewide in 2007. Priority issues will be pared down for discussion at upcoming planning workshops, scheduled to begin in early 2009.



OCWP Northwest Region representatives debate water issues at the September 11 RIM meeting in Beaver.

The Oklahoma Comprehensive Water Plan, published and continuously updated by the Oklahoma Water Resources Board, establishes guidelines for the present and future use of the state's water resources and outlines policy recommendations for water resources management.

Oklahoma Comprehensive Water Plan Process



Oklahoma Comprehensive Water Plan Update UPCOMING REGIONAL INPUT MEETINGS

October 2--Tishomingo

Murray State College, Student Union Ball Room

October 9--Tulsa

Central Community Center Auditorium

October 23--Muskogee

Muskogee Civic Center, Room D

November 6--Oklahoma City

Metro Technology Center, Rooms Big Dipper and Carousel

November 13--Seminole

Seminole State College, Ball Room

Water Plan Objectives

1. Characterize demands by water use sector.
2. Identify reliable supplies to meet forecasted demands.
3. Perform technical studies in support of the evaluation of emerging water management issues.
4. Engage comprehensive stakeholder involvement to make recommendations regarding the management of Oklahoma's water resources.
5. Ensure water resources management programs that create reliability.
6. Make "implementable" recommendations regarding the future of water management in Oklahoma based upon technical evaluations and stakeholder input.

Goals of the OCWP Update

- To provide safe and dependable water supply for all Oklahomans while improving the economy and protecting the environment.
- To provide information so that water providers, policy-makers, and water users can make informed decisions concerning the use and management of Oklahoma's water resources.

For more information on the OCWP, visit the OWRB's website at www.owrb.ok.gov. For questions and comments concerning policy development and public meetings, contact the OWRRI at 405-744-9994, by e-mail at waterplan@okstate.edu, or go to <http://okwaterplan.info>.

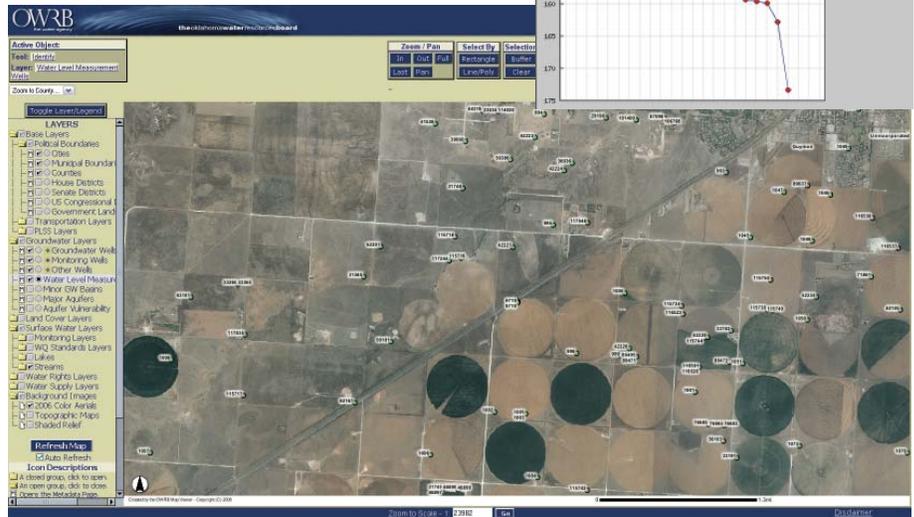
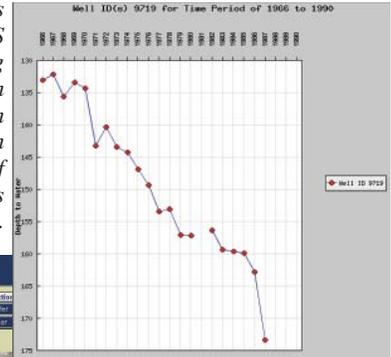
Online Well Measurement Data Available

The OWRB's online mapping application, the Water Information Mapping System (WIMS), now includes statewide groundwater level measurements. The featured data—which can be accessed through the WIMS Custom Map Viewer under Groundwater Layers, Water Level Measurements—is primarily from observation wells included in the agency's Mass Measurement Program. Previously, only select online data of this type was available through the OWRB's website.

Green dots represent "active" wells, or those measured within the last year. Red dots represent "inactive" wells that are not currently part of the program. Data for other wells can also be viewed. By using the hotlink button, visitors can click on a well and/or the well ID to view a graph of annual water levels, some collected since 1945, and related information. The OWRB's Mass Measurement Program includes more than 27,000 annual measurements.

The OWRB's award-winning website (www.okrb.gov) was launched 10 years ago in the spring of 1998.

This graph was generated in WIMS (below) utilizing data collected from 1966 to 1987 from an inactive program well southwest of Guymon in Texas County.



Cunningham Named Division Chief

Julie Cunningham was appointed Chief of the OWRB's Planning and Management Division on July 1. Dave Dillon, former chief, is now OWRB Assistant Director.

Since 2001, Cunningham has served as Assistant Chief of the Board's Financial Assistance Division. In this role, she served as Chairman of the National State Revolving Fund Workgroup, working closely with state representatives and EPA to craft federal policy recommendations, develop national performance metrics, and explore potential areas of Fund expansion to better address national water resource and infrastructure needs.

"I am especially pleased to join the Planning and Management at such an important time for water planning in Oklahoma. I look forward to working with our talented staff and many others in the coming years to advance the water rights administration process, complete essential surface water and groundwater basin studies and implement appropriate recommendations resulting from the Oklahoma Comprehensive Water Plan process."



Julie Cunningham, OWRB Planning & Management Division Chief

Cunningham obtained a B.S. in Geography from Oklahoma State University and completed graduate work at the University of Oklahoma College of Engineering and Environmental Science and University of Maryland School of Public Affairs with an emphasis on resource management, urban planning, and public administration.

Revised Annual Stream Water Right Administration Fee

2008 water use report invoices, which will be mailed out in early January 2009, will reflect the OWRB's new flat annual water right administration fee of \$50 for each stream water permit or stream water vested right. The maximum fee imposed on any one permit or vested right holder is \$500 per year. This change, as well as the revised fee schedule (below) results from passage of Enrolled House Joint Resolution 1105 (effective May 8, 2008).

| Revised Fee Schedule for New Surface Water or Groundwater Applications (filed as of May 8, 2008) | |
|--|-------|
| Amount Applied For | Fee |
| 0 - 320 acre-feet | \$190 |
| 321 - 640 acre-feet | \$300 |
| 641 - 1500 acre-feet | \$375 |
| Over 1500 acre-feet | \$375 |
| Plus \$150 for each 500 acre-feet (or any increment thereof) over 1500 acre-feet (maximum fee = \$3,000) | |

Cunningham joined the OWRB's Water Quality Division in 1994, where she conducted lake water quality assessments and oversaw the Oklahoma Water Watch and Water Quality Standards programs.

Drought Update

Reservoir Storage

As of September 24, seven reservoirs (of 31 selected major federal reservoirs across Oklahoma, see right) are operating at less than full capacity, according to information from the U.S. Army Corps of Engineers (Tulsa District); 14 reservoirs have experienced lake level decreases since August 26.

Palmer Drought Severity Index

According to the latest Palmer Drought Severity Index (September 20, bottom), state moisture conditions remain generally good. Recent drought conditions have improved greatly in the Northwest/Panhandle climate division.

Standardized Precipitation Index

The latest monthly Standardized Precipitation Index (through August, bottom) indicates no near long-term dryness in Oklahoma. Similarly, longer SPI time periods (longer than 12 months) indicate no dry conditions.



Storage in Selected Oklahoma Lakes & Reservoirs (September 24, 2008)

| LAKE | Change in Elevation (feet) 8/26/08-9/24/08 | Current Flood Control Storage (acre-feet) |
|--------------------------|--|---|
| North Central (2) | | |
| Fort Supply | 0.49 | 131 |
| Great Salt Plains | 2.53 | 23,624 |
| Kaw | 10.58 | 201,395 |
| Northeast (3) | | |
| Birch | 0.33 | 309 |
| Copan | -0.18 | 2,440 |
| Fort Gibson | 4.96 | 160,149 |
| Grand | 3.63 | 213,250 |
| Hudson | -0.81 | 15,150 |
| Hulah | -0.65 | 4,008 |
| Keystone | 7.57 | 212,523 |
| Oologah | 2.12 | 190,642 |
| Skiatook | -0.50 | -9,785 |
| West Central (4) | | |
| Canton | 1.45 | 7,244 |
| Foss | 0.10 | -1,536 |
| Central (5) | | |
| Arcadia | -0.34 | 223 |
| Heyburn | 0.39 | -555 |
| Thunderbird | -1.54 | 1,281 |
| East Central (6) | | |
| Eufaula | -0.21 | 11,588 |
| Tenkiller | 3.00 | 49,155 |
| Southwest (7) | | |
| Fort Cobb | -0.66 | 701 |
| Lugert-Altus | -0.94 | -79,839 |
| Tom Steed | -0.56 | -14,737 |
| South Central (8) | | |
| Arbuckle | 0.48 | -4,326 |
| McGee Creek | 0.09 | 3,823 |
| Texoma | 0.91 | -1,475 |
| Waurika | 0.35 | 2,129 |
| Southeast (9) | | |
| Broken Bow | 1.88 | 5,994 |
| Hugo | 3.88 | 63,819 |
| Pine Creek | 0.01 | 5,968 |
| Sardis | 0.69 | 9,017 |
| Wister | 3.76 | 48,654 |

| CLIMATE DIVISION | Standardized Precipitation Index (through August 2008) | | | | Palmer Drought Severity Index |
|-------------------|--|----------------|----------------|----------------|-------------------------------|
| | 3-month | 6-month | 9-month | 12-month | September 20, 2008 |
| Northwest (1) | Near Normal | Near Normal | Near Normal | Near Normal | Moist Spell |
| North Central (2) | Moderately Wet | Moderately Wet | Very Wet | Moderately Wet | Extreme Moist Spell |
| Northeast (3) | Very Wet | Extremely Wet | Extremely Wet | Extremely Wet | Extreme Moist Spell |
| West Central (4) | Moderately Wet | Moderately Wet | Very Wet | Moderately Wet | Very Moist Spell |
| Central (5) | Moderately Wet | Very Wet | Very Wet | Moderately Wet | Very Moist Spell |
| East Central (6) | Moderately Wet | Very Wet | Very Wet | Very Wet | Very Moist Spell |
| Southwest (7) | Near Normal | Near Normal | Near Normal | Near Normal | Moist Spell |
| South Central (8) | Near Normal | Moderately Wet | Near Normal | Near Normal | Moist Spell |
| Southeast (9) | Near Normal | Very Wet | Moderately Wet | Moderately Wet | Extreme Moist Spell |

For more drought information, and to obtain updated information on Oklahoma's drought and moisture conditions, go to www.owrb.ok.gov/supply/drought/drought_index.php.

www.owrb.ok.gov

*Mark Nichols, Chairman • Rudy Herrmann, Vice Chairman • Linda Lambert, Secretary
Ford Drummond • Lonnie Farmer • Ed Fite • Jack W. Keeley • Kenneth K. Knowles • Richard Sevenoaks*

The mission of the Oklahoma Water Resources Board is to manage and protect the water resources of the state and plan for Oklahoma's long-range water needs in a responsive, innovative, and professional manner to ensure that all Oklahomans have adequate quantities of good water.



3rd Quarter 2008

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or article submissions to
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or call us at (405) 530-8800*

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FINANCIAL ASSISTANCE PROGRAM UPDATE

Loans & Grants Approved as of September 9, 2008

FAP Loans—321 totaling \$629,750,000

The OWRB's Financial Assistance Program (FAP), created by the State Legislature in 1979, provides loans for water and wastewater system improvements in Oklahoma. The tremendous popularity of the bond loan program is due, in part, to extended payoff periods of up to 30 years at very competitive interest rates, averaging approximately 4.762 percent since 1986.

CWSRF Loans—186 totaling \$675,320,352

The Clean Water State Revolving Fund (CWSRF) loan program was created in 1988 to provide a renewable financing source for communities to draw upon for their wastewater infrastructure needs. The CWSRF program is Oklahoma's largest self-supporting wastewater financing effort, providing low-interest loans to communities in need.

DWSRF Loans—82 totaling \$429,826,042

The Drinking Water State Revolving Fund (DWSRF) loan program is an initiative of the OWRB and Oklahoma Department of Environmental Quality to assist municipalities and rural water districts in the construction and improvement of drinking water systems. These projects are often mandated for communities to obtain compliance with increasingly stringent federal standards related to the treatment of drinking water.

REAP Grants—506 totaling \$44,655,453

The Rural Economic Action Plan (REAP) Program was created by the State Legislature in 1996. REAP grants, used for water/wastewater system improvements, target primarily rural communities with populations of 7,000 or less, but priority is afforded to those with fewer than 1,750 inhabitants.

Emergency Grants—540 totaling \$31,783,529

Emergency grants, limited to \$100,000, are awarded to correct situations constituting a threat to life, health, or property and are an indispensable component of the agency's financial assistance strategy.

Drought Response Program Grants—3 totaling \$300,000

Through the OWRB's Drought Response Program, limited funding is available for communities in most dire need during state drought emergencies declared by the Governor. A maximum of \$300,000 is diverted from existing OWRB Emergency Grant funds to establish the Program.

Total Loans/Grants: 1,638 totaling \$1,811,635,376

Estimated Savings: \$570,407,202

Applicants eligible for water/wastewater project financial assistance vary according to the specific program's purpose and requirements, but include towns and other municipalities with proper legal authority, various districts established under Title 82 of Oklahoma Statutes (rural water, master/water conservancy, rural sewage, and irrigation districts), counties, public works authorities, and/or school districts. Applications for agency financial assistance programs are evaluated individually by agency staff. Those meeting specific program requirements are recommended by staff for approval at monthly meetings of the nine-member Water Board.

**For more information, call 405-530-8800
or go to www.owrb.ok.gov/financing.**

OKLAHOMA Water News

4th Quarter 2008

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Public Supply Supplants Irrigation as Top Water Use

Drought Update

New Grant Program Promotes Water Conservation Projects

The Oklahoma Water Conservation Grant Program, administered by the OWRB and created through passage of House Bill 3135 last year, makes available a total of \$35,000 during the 2009 grant cycle for the implementation of pilot water conservation projects in Oklahoma communities. Innovative projects that can serve as models for other communities will be given the most serious consideration. Specific program criteria that will enhance opportunities for selection include projects that will result in significant or measurable water efficiency improvements or water savings. The amount of matching funds and/or in-kind contributions provided by the applicant will also receive priority.

Projects eligible for Oklahoma Water Conservation Program grants include community conservation demonstration projects, water use accounting programs, retrofit projects, school education projects,



Xeriscaping refers to landscaping and gardening in ways that reduce or eliminate the need for supplemental irrigation, such as using drought tolerant, low maintenance plants. Xeriscape demonstration projects can qualify for water conservation grants.

Photo courtesy Donna Dollins, Horticulture and Landscape Architecture Department, Oklahoma State University

xeriscape demonstration gardens, and information campaigns on capturing and using harvested rainwater and gray water. Eligible applicants include cities and towns, schools, non-profit corporations, and rural water districts. OWRB rules governing the program are being finalized.

The Oklahoma Water Conservation Grant Program's initial implementation is being funded through existing Oklahoma Comprehensive Water Plan appropriations.

Individual grant awards for any proposal, plan, or project are limited to a maximum of \$7,000. The deadline for submittal of grant applications is February 20, 2009.

For additional information or to download a Water Conservation Grant application packet, visit the OWRB's website at www.owrb.ok.gov or call Terri Sparks at 405/530-8800.



From the Director

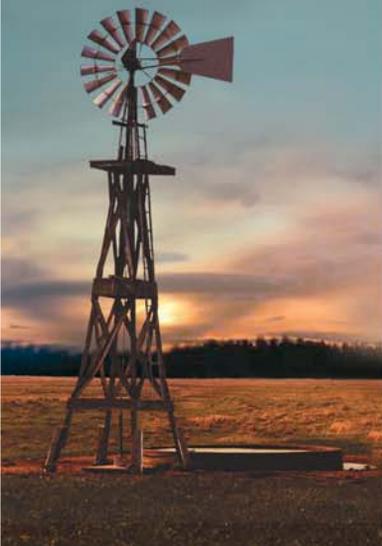
As we prepare to address the OWRB's operational requirements with the first session of the 52nd State Legislature, the OWRB has been asked to evaluate the agency's performance over the past year. Already, we've met with both the House and Senate to take a critical look back at how the OWRB met the many water-related needs of Oklahomans. While we can always do better, I am always proud to share the details of our annual success stories.

Of course, our number one past, present, and future goal is to provide Oklahomans with reliable water supply. Accomplishing this broad task is like a three-legged stool with supply symbolizing the seat and each leg represented by three primary supporting elements: determining available water, administration of



(continued on page 4)

Duane A. Smith, Executive Director
Oklahoma Water Resources Board



2008 Water Conference Draws Record Attendance

The 2008 Governor's Water Conference was held October 28-30 in conjunction with the OWRRRI Water Research Symposium. Nearly 600 individuals attended the event, about half of whom were participants in regional input meetings for the Oklahoma Comprehensive Water Plan (OCWP).

The first morning session was dedicated to an update on OCWP activities, including discussion of the role of the U.S. Army Corps of Engineers as a major partner, by Steve Stockton, Director of Civil Works, and Col. Anthony Funkhouser, Tulsa District Engineer.



Steve Stockton, USACE



Col. Funkhouser, USACE

Dr. Will Focht (OWRRRI) gave a summary of the information obtained through the local and regional input meetings. The

technical studies update was presented by representatives of Camp Dresser & McKee, OCWP lead engineering firm.



J. D. Strong, Oklahoma Secretary of the Environment, welcomes a record crowd to the conference.



Sen. Glenn Coffee

Senator Glenn Coffee and Representative Chris Benge provided a state legislative update, and U.S. Representatives Mary Fallin and Tom Cole spoke about the importance of water issues in Congress.

The afternoon session featured an update from the Department of Interior and a presentation on water management in a variable climate by State Climatologist Dr. Ken Crawford.



Rep. Chris Benge

The first day's events culminated with presentations by Noel Osborn (OWRB) and Scott Christenson (USGS) on initial findings of the Arbuckle-Simpson Hydrology Study.



Congressman Tom Cole

2008 Water Pioneers



Garner Garrison



Mason Mungle



Robbie Robbins

During the luncheon, attendees honored the 2008 Oklahoma Water Pioneers: Garner Garrison, Mason Mungle, and Robbie Robbins.



Congresswoman Mary Fallin



Water Solutions for Oklahoma

Oklahoma Comprehensive Water Plan



Mayor Mick Cornett

The second day of the conference opened with a welcome from Oklahoma City Mayor Mick Cornett, followed by Tom Price, Chesapeake Senior Vice President of Corporate Development; Chickasaw Nation Governor Bill Anoatubby; Bill Mullican, Texas Water Development Board; and ODEQ Executive Director Steve Thompson.



Gov. Bill Anoatubby

After the break, attendees heard from two OCWP panels: Protecting Oklahoma's Water

Interests and Regional Water Solutions for Oklahoma.

The second day's luncheon featured

winner of the annual statewide 4H speech contest for high school students with the theme of "water." The three presentations included "Is water the Next Oil?" by Jenna Murray (Fletcher), "Conservation: Choice not Chance" by Chrystal and Miranda Patton (Chattanooga), and "Water Rights" by Tanner Alread (Union City).



Jenna Murray (left), Chrystal and Miranda Patton (below).



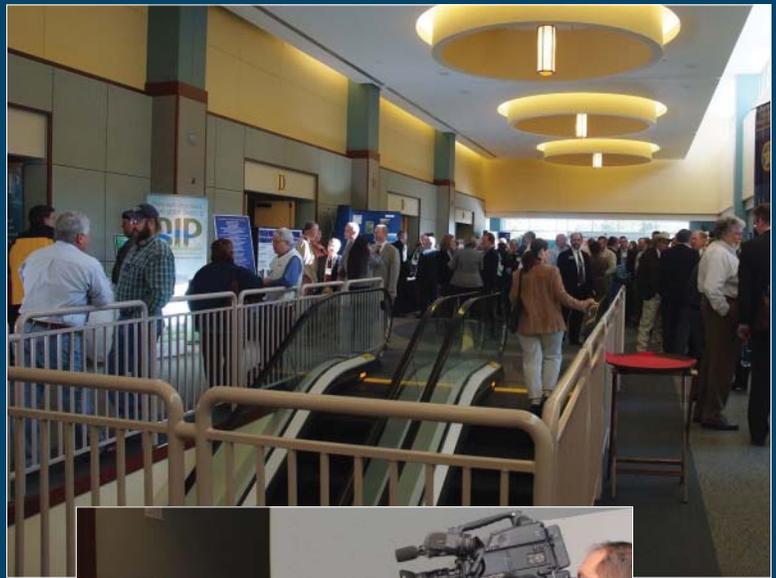
Tanner Alread

The OWRRI Water Research Symposium followed the luncheon and continued through October 30.

For more information and to view selected presentations, go to www.owrb.ok.gov/news/waterconference.php.



During the conference, attendees had the opportunity to visit 23 exhibits, such as the Bureau of Reclamation (above) and American Farmers and Ranchers (left) exhibits.



OWRB Chairman Mark Nichols pauses for an interview for OETA's Oklahoma agriculture program, "Sunup."

From the Director (continued)

water rights, and infrastructure development. Each of the legs not only supports our reliable supply goal, but each supports and is dependent upon the other in Oklahoma's water management scheme. Water quality, another vital component, could be considered the rug upon which the stool sits.



The OWRB continues to expand the technical knowledge—through supply/demand studies and investigations of the Arbuckle-Simpson and Garber-Wellington aquifers and other sources—required to tell us exactly how much surface and groundwater is available to satisfy Oklahoma's varied and growing needs.

Water rights and permit administration has always been a core mandate of the OWRB and it has never been more important than it is today. As a result, we've instituted projects to modernize our supporting database and programs to increase staff efficiencies and provide improved service to the public. Existing water use permits are being scrutinized as we work to cancel or reduce under utilized rights.

Using as a foundation our existing water and wastewater financing program, which will exceed two billion dollars in approved projects in 2009, infrastructure will be a key to providing future water supply to Oklahomans, particularly in implementing the updated Oklahoma Comprehensive Water Plan. Financial Assistance Program funds are leveraged not only to multiply, many times over, the benefits derived from the program, but create much-needed jobs to strengthen the state's economy.

And we are using water quality monitoring data through our Geographic Information System to determine the effectiveness of wastewater treatment facilities in maintaining the quality of our rivers, streams, and lakes.

Senator Susan Paddock will lead an effort during the upcoming legislative session to evaluate state agency data collection programs and requirements. I believe that nowhere in state government is data more crucial to decision-making than in the water management arena. Virtually all water-related activities—from hydrologic studies to water quality and quantity monitoring to pollution control—depend upon continued implementation of emerging technology and maximizing the utility of water data, upon which we depend to make sound and defensible water management decisions.

We look forward to working with Sen. Paddock and other members of the State Legislature to strengthen both the effectiveness and efficiency of our water programs.

OWRB FY 2010 Budget Request Summary

Gross Production Tax Cap Removal

Additional \$2,400,000-\$2,600,000 Annually

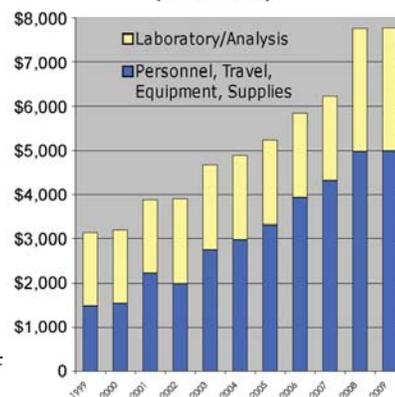
This funding is requested to enhance and supplement development of the Oklahoma Comprehensive Water Plan Update and related activities. Current funding for these integral planning projects comes from the State's Gross Production Tax, but the originating fund is capped. Additional revenue provided through removal of the cap would allow the OWRB to initiate studies and projects in areas where critical water supply needs have been identified, further enhance knowledge concerning water available for appropriation, and implement required infrastructure projects statewide.

Beneficial Use Monitoring Program (BUMP)

Additional \$1,000,000 Appropriation (OWRB \$500,000/ODEQ \$500,000)

The cost of data collection and analysis continues to rise exponentially. Current funding for BUMP, Oklahoma's only statewide water quality monitoring program, is sufficient to collect data on only about 22 percent of the state's water resources. Adjusted for inflation, this request attempts to restore funding to 1998 levels, thus allowing for more comprehensive water quality protection through monitoring by OWRB staff and lab analysis by the Oklahoma Department of Environmental Quality.

**Average Per Site Cost
BUMP Streams & Lakes Monitoring
(1999-2009)**



Business Cost Increases

\$465,000 Appropriation

This request allows the OWRB to deal with rising costs associated with employee retirement, insurance, workers' compensation, and related benefits and provides the agency with funding to address vehicle costs and critical infrastructure needs.

Supplemental Request—Sardis Reservoir Water Supply Contract Repayment

\$71,671,000 Appropriation

This funding would be used to address repayment of water supply storage costs for Sardis Reservoir and thus avoid potential disruption of federal aid to the state for highway, human services, and other programs that rely on federal funds.

OKLAHOMA WATER RESOURCES BOARD

Oklahoma Comprehensive Water Plan

As a critical component of the OCWP's policy development and public participation phase, 11 Regional Input Meetings (RIMs) were held throughout the state in 2008. At the meetings, participants selected from wide-ranging backgrounds identified Oklahoma's emerging water problems and concerns, and then narrowed those down to priority water issues for more intense discussion of solutions at smaller planning workshops, to be held in 2009. In addition, an educational water law seminar was held in July.

Technical work in support of the Water Plan included initiation of the Water Supply/Demand Study, including development of a water allocation model to assist in this analysis, completion of a statewide public water system survey to collect comprehensive water supply data from hundreds of suppliers, and the formation of water use stakeholder groups to provide input into the demand forecast methodologies. Areas of research during 2008 included the initiation of efforts to investigate marginal quality water resources and uses, groundwater recharge potential, and surface water quality trends.

OCWP Surface Water Quality Trends Analysis

In late 2008, a workgroup consisting of local, state, federal, and academic water quality experts was formed to assist OWRB staff in determining a scope of work for the planned OCWP Surface Water Quality Trends Analysis. Specifically, all existing data sources will be inventoried and "mined" to establish ongoing trends in water quality for individual surface waters throughout the state. Waters will be assessed for multiple parameters, including nutrients, minerals, sediments, and bacteria. Results, which will provide planners with invaluable information on the viability of both current and future water supplies, will be included in the Oklahoma Comprehensive Water Plan, due for completion in 2011.

OWRB Leverages \$36 Million for New Water Projects

In October, the OWRB and Department of Environmental Quality (ODEQ) made approximately \$2.5 million in funding available to leverage construction of water projects throughout Oklahoma. The funds accrued for the past two years from state Gross Production Tax revenues earmarked equally for both the Oklahoma Comprehensive Water Plan and OWRB State Financial Assistance Program (FAP). The released money is being used to match an EPA Drinking Water State Revolving Fund (DWSRF) program Capitalization grant of more than \$13

million. In turn, the combined funds allow the OWRB to leverage \$36 million in loans for water treatment and distribution projects.

The move should help to mitigate the potential impact of the nation's current financial crisis on the substantial infrastructure financing requirements of Oklahoma's cities, towns, and rural water systems.

Community water systems receiving funds include Ardmore, Broken Bow, Cherokee, Coweta, Duncan, Edmond, Lawton, Osage #15, Skiatook, Rogers #3, Jay, Tuttle, Wagoner #7, Rogers RWD #5, and Checotah.

FY 2008 Expenditures & FY 2009 Budget

| Activity Name | FY08 Expended | FY09 Budgeted |
|--------------------------|------------------------|------------------------|
| Administration | \$2,484,654.15 | \$2,891,736.00 |
| Water Quality | 3,757,036.19 | 3,588,168.00 |
| Financial Assistance | 1,793,130.21 | 2,667,462.00 |
| Planning & Management | 3,730,185.73 | 5,037,813.00 |
| Secretary of Environment | 9,548,516.31 | 9,867,958.00 |
| Totals | \$21,313,522.59 | \$24,053,137.00 |

| Fund Name | FY08 Expended | FY09 Budgeted |
|--|------------------------|------------------------|
| General Appropriations | \$4,433,183.21 | \$4,601,524.00 |
| Drillers & Installers Indemnity Fund | | 75,000.00 |
| Rural Economic Action Plan (REAP) Fund | 325,028.48 | 112,214.00 |
| Water Resources Revolving Fund | 380,571.33 | 527,288.00 |
| Drillers & Installers Regulation Fund | 14,216.90 | 11,046.00 |
| Water Infrastructure Development Fund | 1,365,893.44 | 2,379,272.00 |
| Federal Funds--OWRB | 2,203,240.06 | 2,524,700.00 |
| Federal Funds--OSE | 9,368,007.51 | 9,648,499.00 |
| Environmental Remediation Fund | | 18,000.00 |
| USGS Cooperative Agreement | 627,747.42 | 308,650.00 |
| Interagency Reimbursement Fund | 1,246,729.71 | 1,740,676.00 |
| DW Loan Administration Fund | 446,880.83 | 791,696.00 |
| CW Loan Administration Fund | 870,272.44 | 914,572.00 |
| CW Loan Fund | 31,751.26 | 400,000.00 |
| Totals | \$21,313,522.59 | \$24,053,137.00 |

**Original Funds
(Gross Production Tax):**
\$2.6 million

**Total Funded
(Federal plus Match):**
\$13,072,828

Total Savings:
\$3,921,848

LEVERAGED AMOUNT:
> \$36 million
> 1,400 direct jobs

Annual Report 2008

Arbuckle-Simpson Hydrology Study Update

The Arbuckle-Simpson Hydrology Study, which was initiated in October 2003, is nearing completion. The hydrologic investigation is essentially complete, with researchers writing final reports. Currently, the primary focus of the Study is conducting computer simulations with the groundwater-flow model to test different water management options for the Arbuckle-Simpson aquifer. These simulations are based on determining the effects of groundwater withdrawals on stream flows at different equal proportionate shares and different maximum annual yields.

OWRB staff continue to evaluate various management strategies and methods to implement Senate Bill 288 in keeping with technical, legal, and administrative constraints. The OWRB plans to hold informal public meetings in the aquifer area in 2009 to present initial results of the simulations and to solicit input on various management strategies.

Garber-Wellington Water Management Study

The Garber-Wellington Water Management Study was initiated in June 2008 to address growing concerns about the future of water availability in central Oklahoma. The primary purpose of the study is to obtain the necessary hydrologic information to develop a water management plan that will ensure sufficient good quality water to support a growing population and economy.

The four-year investigation is a cooperative effort between OWRB, Association of Central Oklahoma Governments (ACOG), U.S. Geological Survey (USGS), U.S. Bureau of Reclamation, Oklahoma Geological Survey (OGS), Tinker Air Force Base, and other state and federal agencies. The USGS will be key in developing a groundwater flow model that will be used to predict the impacts of long-term groundwater withdrawals on the aquifer and to simulate water management strategies.

Current efforts include developing the geohydrologic framework and water budget. In February, USGS staff plan to measure water levels in about 300 wells across the aquifer to update the 1986-87 potentiometric surface (water level) map. Comparison of the two maps will provide information on how the aquifer storage has changed over the past 20 years.

Garber Wellington Aquifer



Water Quality Programs

The OWRB's Water Quality Division has been working diligently in the past year to build partnerships to address the state's data needs. The Oklahoma Cooperative Program between the OWRB and the United States Geological Survey (USGS), which includes stream gaging and technical studies critical to the update of the Comprehensive Water Plan, provides much needed information to assist in State water quality and quantity management.

Through a successful partnership with the Grand River Dam Authority (GRDA), the OWRB continues bathymetric mapping on Grand Lake and the agency is conducting detailed dissolved oxygen monitoring on Grand and Lake Hudson to support FERC re-licensing. Additionally, Oklahoma Water Watch, the OWRB's volunteer monitoring program continues to educate and work with volunteer groups on both lakes.

The OWRB's efforts to enhance habitat and water quality in Oklahoma lakes continues through projects focusing on the introduction of aquatic plants in Stanley Draper Lake, Grand Lake, Hudson Lake, and its new federal/state/municipally funded project in Lake Atoka. Atoka plantings for the 2008 season did exceptionally well and OWRB staff are optimistic about the project's future. The Stanley Draper EPA funded project has ended after three seasons and will now begin a maintenance program through the OWRB's partnership with Oklahoma City.

As part of the OWRB's Beneficial Use Monitoring Program (BUMP), 47 lakes were sampled during the 2007-2008 period. Staff are considering the incorporation of probabilistic monitoring into the existing program, which would allow continued sampling of a large number of water bodies along with additional intensive monitoring. An additional EPA grant was provided to begin monitoring for dissolved metals on selected lakes where little or no previous toxics data existed.

An interim revision of the Water Quality Standards completed in 2008 resulted in the addition of 84 lakes and streams to the Oklahoma Water Quality Standards. These water bodies were all identified as public water supplies. As such, water quality criteria is specifically established to protect human health from consumption of pollutants through drinking water and eating fish. These water bodies now have the Public and Private Water Supply beneficial use designated in Appendix A of the Standards document.

Environmental Benefits Reporting

Also in 2008, the OWRB began working with US EPA staff to utilize Geographic Information Systems (GIS) in prioritizing and maximizing benefits of state projects funded through the Clean Water State Revolving Fund (CWSRF) program. Through this powerful new system, GIS data (including BUMP data, Water Quality Standards regulations, and wastewater project information) is used to identify environmentally sensitive watersheds and to prioritize projects that would maximize the benefits to those watersheds.

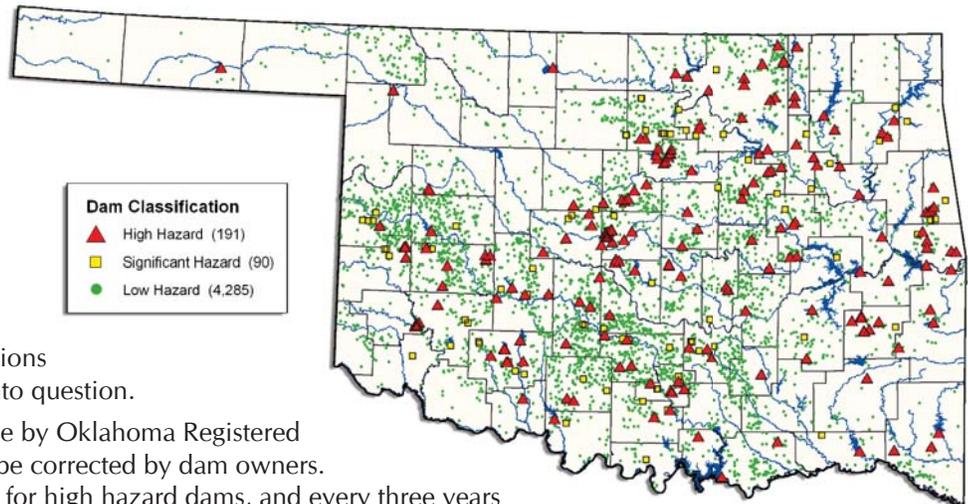
Dam Safety Program

In addition to approving applications and reviewing plans for the construction, alteration, or repair of jurisdictional dams in Oklahoma, the OWRB maintains the state's database and records of dams, including required inspection reports. Reports finding deficiencies are addressed by owners in cooperation with the OWRB. OWRB staff conduct individual dam site inspections when the condition of a dam is called into question.

The OWRB requires inspections be made by Oklahoma Registered Professional Engineers and deficiencies be corrected by dam owners. Inspections must be performed annually for high hazard dams, and every three years for significant hazard dams. Every five years, the OWRB reviews the areas below low hazard dams to determine if the hazard classification has changed.

The OWRB also works closely with the Oklahoma Conservation Commission and the NRCS to oversee 2,105 watershed flood control dams.

High and significant hazard dams are given higher priority by OWRB staff to ensure periodic inspections are performed, and most importantly, to ensure every high hazard dam has an Emergency Action Plan (EAP) in place.



Financial Assistance Program

In 2008, the OWRB's Financial Assistance Program had another outstanding year, providing almost \$164 million in funding through loans and grants for new construction and rehabilitation of water and wastewater infrastructure. With the dual goals of maintaining sound financing and environmental protection, the OWRB takes pride in the natural AAA rating on all bond issues and the use of innovative methods to meet Oklahoma's infrastructure needs.

Most recently, the OWRB completed its first Non-Point Source project with the Tulsa Conservation Reserve Enhancement Program (CREP) loan, which will fund land conservation in Lakes Eucha and Spavinaw Watersheds. The OWRB is also revitalizing its leveraging loan program to meet market changes and match borrowers needs. In line with continued efforts to make Oklahoma community water projects successful, the OWRB has created a disadvantaged program within the DWSRF, which allows for 30 year extended term financing. Through all these efforts the OWRB has helped Oklahomans save over \$500 million in water and wastewater infrastructure projects.

2008 Loans and Grants

CWSRF Loans

| | |
|-------------|---------------------|
| Bethany PWA | \$5,140,000 |
| Guymon UA | \$16,400,000 |
| Pawnee PWA | \$1,575,000 |
| Roland UA | \$3,855,000 |
| Tulsa MUA | \$1,250,000 |
| | <u>\$28,220,000</u> |

DWSRF Loans

| | |
|--------------------|----------------------|
| Bartlesville MA | \$40,445,000 |
| Cache PWA | \$2,000,000 |
| Creek Co. RWD #7 | \$3,290,000 |
| Duncan PWA | \$5,770,000 |
| Goltry PWA | \$530,000 |
| Guthrie PWA | \$8,000,000 |
| Guthrie PWA | \$7,320,000 |
| Guymon UA | \$4,175,000 |
| Jay UA | \$2,470,000 |
| Lawton WA | \$10,845,000 |
| Muskogee MA | \$30,410,000 |
| Pauls Valley MA | \$10,325,000 |
| Rogers Co. RWD #3 | \$4,500,000 |
| Wagoner Co. RWD #5 | \$1,520,000 |
| | <u>\$131,600,000</u> |

Emergency Grants

| | |
|-----------------------|-----------------|
| Canton PWA | \$49,512 |
| Coalgate PWA | \$75,000 |
| Healdton MA | \$100,000 |
| Hooker MA | \$75,000 |
| Hulbert PWA | \$75,000 |
| Pittsburg PWA | \$80,000 |
| South Coffeyville PWA | \$100,000 |
| Talihina PWA | \$70,000 |
| Valliant PWA | \$100,000 |
| Vera | \$100,000 |
| Vian PWA | <u>\$75,000</u> |
| | \$899,512 |

REAP Grants

| | |
|-------------------------------|------------------|
| Adair Co. RWSSWMD #2 | \$99,999 |
| Alex MA | \$99,800 |
| Atoka Co. RWD #2 | \$99,999 |
| Barnsdall | \$89,900 |
| Beckham Co. RWD #3 | \$95,690 |
| Beckham Co. RWSSWMD #2 | \$99,850 |
| Bluejacket PWA | \$99,864 |
| Bromide PWA | \$99,900 |
| Burbank PWA | \$99,980 |
| Byars PPWA | \$79,900 |
| Canadian PWA | \$109,990 |
| Canute PWA | \$104,000 |
| Cherokee Co. RWD #7 - Welling | \$39,069 |
| Crowder PWA | \$99,999 |
| Delaware Co. RWSSWMD #10 | \$98,653 |
| Dewey Co. RWD #1 | \$89,950 |
| Goltry PWA | \$74,000 |
| Hydro | \$99,900 |
| Konawa | \$98,998 |
| Lincoln Co. RWD #1 | \$99,999 |
| Marshall | \$99,999 |
| McIntosh Co. RWD #13 | \$99,116 |
| Millerton PWA | \$79,999 |
| Nash | \$99,250 |
| Oakland PWA | \$79,999 |
| Okay PWA | \$99,000 |
| Pawnee Co. RWD #5 | \$88,965 |
| Quinlan Community RWD #1 | \$99,999 |
| Roger Mills Co. RWSSWMD #3 | \$91,975 |
| Seminole Co. RWSWMD #1 | \$119,000 |
| Stephens Co. RWD #4 | \$79,999 |
| Vera | \$99,999 |
| Wilson PWA | \$81,500 |
| Woodward Co. RWD #1 | <u>\$140,000</u> |
| | \$3,238,241 |



Recent Developments

This year's Regional Input Meetings (RIMs) resulted in the following "General Agreement Issues":

- Drinking water infrastructure
- Funding for infrastructure
- Funding for water treatment and protection
- Water needs of municipalities
- Water sales and transfers in state
- Water sales and transfers out of state
- Land management practices
- Balancing supply and demand
- Working with other states
- Incorporating regional differences

Upcoming

The Regional Input Meeting Final Report (prepared by the OWRI) will be published in February 2009.

Planning Workshops, the next phase of the public participation process, have been scheduled for June 4, August 13, and October 22. All Planning Workshops, six in all, will be held at the Metro Tech Springlake Campus in Oklahoma City. Each day of workshops is divided into morning and afternoon workgroups with up to six concurrent workgroups each. Approximately 20 individuals will participate in each workgroup and half-day session. Workshops will be open to the public, although space may be limited.

In April, a Basic Water Science Seminar will be held in Oklahoma City for Planning Workshop participants.

Water Plan Objectives

1. Characterize demands by water use sector.
2. Identify reliable supplies to meet forecasted demands.
3. Perform technical studies in support of the evaluation of emerging water management issues.
4. Engage comprehensive stakeholder involvement to make recommendations regarding the management of Oklahoma's water resources.
5. Make "implementable" recommendations regarding the future of water management in Oklahoma based upon technical evaluations and stakeholder input.

The Oklahoma Comprehensive Water Plan, published and continuously updated by the Oklahoma Water Resources Board, establishes guidelines for the present and future use of the state's water resources and outlines policy recommendations for water resources management.

Oklahoma Comprehensive Water Plan Process



Goals of the OCWP Update

- To provide safe and dependable water supply for all Oklahomans while improving the economy and protecting the environment.
- To provide information so that water providers, policy-makers, and water users can make informed decisions concerning the use and management of Oklahoma's water resources.

For more information on the OCWP, visit the OWRB's website at www.owrb.ok.gov. For questions and comments concerning policy development and public meetings, contact the OWRI at 405-744-9994, by e-mail at waterplan@okstate.edu, or go to <http://okwaterplan.info>.

OWRB Recognized for Water Plan Public Input

In November, during the 18th Annual Celebration of Environmental Excellence, the OWRB was named the 2008 recipient of the Keep Oklahoma Beautiful Team Builders Award.

The agency was recognized for maximizing federal and state funding for the Oklahoma Comprehensive Water Plan, while working with the Oklahoma Water Resources Research Institute (OWRRI) to involve the public in the planning process through local and regional input meetings held throughout the state.



Dr. Will Focht, OWRRI Director, and Kyle Arthur, OWRB Director of Planning, accept the Keep Oklahoma Beautiful Team Builders Award for building a strong partnership to recognize the crucial role of public participation in the OCWP process.

FEMA Moves From Paper to Digital Flood Maps

Beginning with flood maps distributed on or after October 1, 2009, FEMA will provide a single paper map and Flood Insurance Study (FIS) to each mapped community and will convert all other distribution of maps and FIS reports to digital delivery.

FEMA will continue to provide free digital map products and data to Federal, State, Tribal, and local National Flood Insurance Program (NFIP) stakeholders.

Since Flood Map Modernization (Map Mod) began in 2003, FEMA has achieved a 50- to 75-percent reduction in the number of flood maps distributed in paper form. A key goal of Map Mod has been to convert the NFIP paper map inventory to digital products and to replace the distribution of paper maps with digital delivery via the Internet.

New digital map users can access easy-to-use digital images (FIRM Scans and/or FIRMettes), and users with more expertise can create custom map products and perform advanced flood risk analyses. All of these data can be downloaded, delivered on CD ROM, or accessed through a Web Map Service using a variety of FEMA-provided or commercially available software tools.

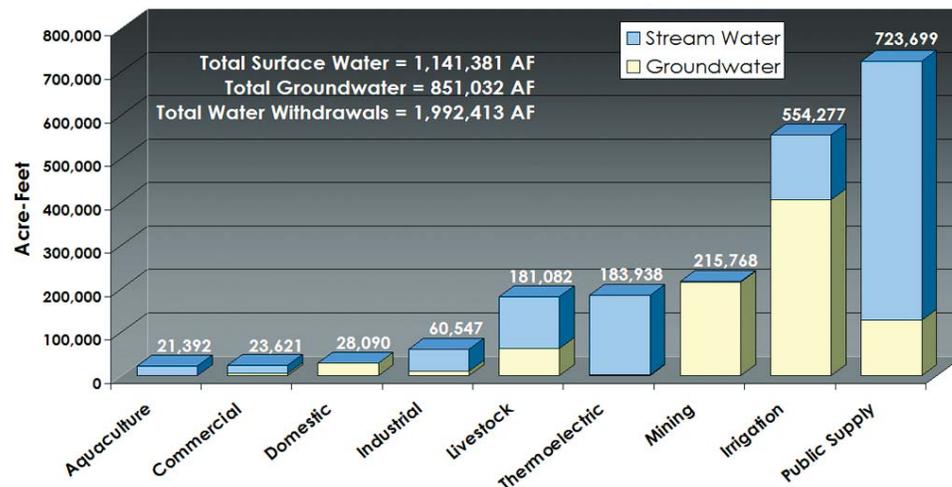
Replacing paper map products with digital versions will save money and improve the usability of FEMA flood hazard data. The FEMA Map Service Center provides users with free tools, extensive background information, and instructions for its digital products.

FEMA will continue to work closely with stakeholders to ensure these digital products and services meet the needs of the NFIP and support the reduction of flood risk nationally.

If you have questions or comments about this change, please email FEMAMapSpecialist@mapmodteam.com.

Public Supply Supplants Irrigation as Top Water Use

Preliminary statewide water withdrawal statistics indicate that total water usage in Oklahoma increased between 2000 and 2005; 1,772 million gallons per day (1,984,640 acre-feet) were used in 2000, and 1,779 mgd (1,992,413 acre-feet) were used in 2005. About 57% of the water used in 2005 came from surface water sources and 43% from groundwater sources.



Public water supply, which accounted for about 36 percent of total withdrawals in 2005, was the number one use of water. Irrigation, for which about 28 percent of water was withdrawn, was second. Irrigation was the number one use in 2000, comprising 40 percent of water use that year compared to 38 percent for public supply.

Preliminary data courtesy USGS and OWRB

Drought Update

Reservoir Storage

As of January 5, 14 reservoirs (of 31 selected major federal reservoirs across Oklahoma, see right) are operating at less than full capacity, according to information from the U.S. Army Corps of Engineers (Tulsa District); eight reservoirs have experienced lake level decreases since December 3, 2008.

Palmer Drought Severity Index

According to the latest Palmer Drought Severity Index (January 3, bottom), state moisture conditions remain generally good although moisture is trending downwards. The South Central climate division has entered the "mild drought" category.

Standardized Precipitation Index

The latest monthly Standardized Precipitation Index (through November, bottom) indicates near long-term dryness in South Central, Central, and East Central Oklahoma over the last three to six months.



Storage in Selected Oklahoma Lakes & Reservoirs (January 5, 2009)

| LAKE | Change in Elevation (feet) 12/3/08-1/5/09 | Current Flood Control Storage (acre-feet) |
|--------------------------|---|---|
| North Central (2) | | |
| Fort Supply | 0.66 | 1,351 |
| Great Salt Plains | 0.17 | 3,776 |
| Kaw | 2.50 | 18,382 |
| Northeast (3) | | |
| Birch | 0.49 | 366 |
| Copan | 1.10 | 7,831 |
| Fort Gibson | 2.89 | 80,504 |
| Grand | 0.05 | 3,521 |
| Hudson | 0.71 | 11,505 |
| Hulah | 1.36 | 5,919 |
| Keystone | -1.27 | -18,185 |
| Oologah | 0.75 | -102,358 |
| Skiatook | -0.12 | -9,685 |
| West Central (4) | | |
| Canton | -0.20 | -2,620 |
| Foss | 0.46 | -201 |
| Central (5) | | |
| Arcadia | 0.09 | 186 |
| Heyburn | 0.16 | -487 |
| Thunderbird | -0.02 | -1,860 |
| East Central (6) | | |
| Eufaula | 0.29 | -50,070 |
| Tenkiller | 0.54 | 4,847 |
| Southwest (7) | | |
| Fort Cobb | 0.20 | 1,791 |
| Lugert-Altus | 1.37 | -54,630 |
| Tom Steed | -0.40 | -20,823 |
| South Central (8) | | |
| Arbuckle | -0.59 | -8,564 |
| McGee Creek | -0.12 | -2,425 |
| Texoma | 0.04 | -21,072 |
| Waurika | -0.10 | -5,607 |
| Southeast (9) | | |
| Broken Bow | 0.53 | 4,822 |
| Hugo | 0.41 | 11,600 |
| Pine Creek | 1.72 | 8,531 |
| Sardis | 0.09 | 1,942 |
| Wister | 1.75 | 15,498 |

| Standardized Precipitation Index (through November 2008) | | | | | Palmer Drought Severity Index |
|--|----------------|----------------|----------------|----------------|-------------------------------|
| CLIMATE DIVISION | 3-month | 6-month | 9-month | 12-month | January 3, 2009 |
| Northwest (1) | Very Wet | Very Wet | Near Normal | Near Normal | Moist Spell |
| North Central (2) | Very Wet | Very Wet | Very Wet | Very Wet | Extreme Moist Spell |
| Northeast (3) | Near Normal | Very Wet | Extremely Wet | Extremely Wet | Very Moist Spell |
| West Central (4) | Very Wet | Moderately Wet | Moderately Wet | Very Wet | Unusual Moist Spell |
| Central (5) | Moderately Dry | Near Normal | Near Normal | Moderately Wet | Incipient Moist Spell |
| East Central (6) | Moderately Dry | Near Normal | Near Normal | Near Normal | Near Normal |
| Southwest (7) | Near Normal | Near Normal | Near Normal | Near Normal | Incipient Drought |
| South Central (8) | Very Dry | Moderately Dry | Near Normal | Near Normal | Mild Drought |
| Southeast (9) | Near Normal | Near Normal | Moderately Wet | Moderately Wet | Unusual Moist Spell |

For more drought information, and to obtain updated information on Oklahoma's drought and moisture conditions, go to www.owrb.ok.gov/supply/drought/drought_index.php.

www.owrb.ok.gov

*Mark Nichols, Chairman • Rudy Herrmann, Vice Chairman • Linda Lambert, Secretary
Ford Drummond • Lonnie Farmer • Ed Fite • Jack W. Keeley • Kenneth K. Knowles • Richard Sevenoaks*

The mission of the Oklahoma Water Resources Board is to manage and protect the water resources of the state and plan for Oklahoma's long-range water needs in a responsive, innovative, and professional manner to ensure that all Oklahomans have adequate quantities of good water.



4th Quarter 2008

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FINANCIAL ASSISTANCE PROGRAM UPDATE

Loans & Grants Approved as of December 9, 2008

FAP Loans—321 totaling \$629,750,000

The OWRB's Financial Assistance Program (FAP), created by the State Legislature in 1979, provides loans for water and wastewater system improvements in Oklahoma. The tremendous popularity of the bond loan program is due, in part, to extended payoff periods of up to 30 years at very competitive interest rates, averaging approximately 4.762 percent since 1986.

CWSRF Loans—187 totaling \$676,525,352

The Clean Water State Revolving Fund (CWSRF) loan program was created in 1988 to provide a renewable financing source for communities to draw upon for their wastewater infrastructure needs. The CWSRF program is Oklahoma's largest self-supporting wastewater financing effort, providing low-interest loans to communities in need.

DWSRF Loans—85 totaling \$448,050,042

The Drinking Water State Revolving Fund (DWSRF) loan program is an initiative of the OWRB and Oklahoma Department of Environmental Quality to assist municipalities and rural water districts in the construction and improvement of drinking water systems. These projects are often mandated for communities to obtain compliance with increasingly stringent federal standards related to the treatment of drinking water.

REAP Grants—512 totaling \$45,225,352

The Rural Economic Action Plan (REAP) Program was created by the State Legislature in 1996. REAP grants, used for water/wastewater system improvements, target primarily rural communities with populations of 7,000 or less, but priority is afforded to those with fewer than 1,750 inhabitants.

Emergency Grants—545 totaling \$32,238,529

Emergency grants, limited to \$100,000, are awarded to correct situations constituting a threat to life, health, or property and are an indispensable component of the agency's financial assistance strategy.

Drought Response Program Grants—3 totaling \$300,000

Through the OWRB's Drought Response Program, limited funding is available for communities in most dire need during state drought emergencies declared by the Governor. A maximum of \$300,000 is diverted from existing OWRB Emergency Grant funds to establish the Program.

Total Loans/Grants: 1,653 totaling \$1,832,089,275

Estimated Savings: \$577,972,251

Applicants eligible for water/wastewater project financial assistance vary according to the specific program's purpose and requirements, but include towns and other municipalities with proper legal authority, various districts established under Title 82 of Oklahoma Statutes (rural water, master/water conservancy, rural sewage, and irrigation districts), counties, public works authorities, and/or school districts. Applications for agency financial assistance programs are evaluated individually by agency staff. Those meeting specific program requirements are recommended by staff for approval at monthly meetings of the nine-member Water Board.

**For more information, call 405-530-8800
or go to www.owrb.ok.gov/financing.**