

# OKLAHOMA Water News

3rd Quarter 2007



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## 28th Annual Water Conference

The 28th Annual Oklahoma Governor's Water Conference and Water Research Symposium was held October 23-25 at the Cox Convention Center in Oklahoma City. The meeting, cohosted by the OWRB and Oklahoma Water Resources Research Institute, attracted more than 450 people interested in the state's most pressing water issues.

The Conference banquet, held the evening of October 24, featured former Governors George Nigh and David Walters, as well as past OWRB Directors Jim Barnett and Patty Eaton, who recognized the Water Board's 50th anniversary and provided a retrospective of state water development and management.

Also at the Conference, three Oklahomans were recognized as 2007 Oklahoma Water Pioneers. Honored with the award at the October 24 Conference luncheon were Ken Crawford, director of the Oklahoma Climatological Survey and cocreator of the Oklahoma Mesonet; Don Kiser, the OWRB's long-time bond counsel and a key advocate in creation of the state's primary water and sewer project financing program; and Jerry Johnston, municipal leader and current mayor of Braman, Oklahoma.

Since its inception in 1985, more than 100 Oklahomans have been honored with the Water Pioneer award, selected each year by sponsors of the Water Conference. The honor is conferred to those individuals who have made lifetime contributions to the planning, development, management, and conservation of Oklahoma's water resources.

## WRDA Bill Passed

On November 8, the U.S. Senate voted to override a presidential veto, clearing the way for a bill authorizing \$23 billion in new water projects.

The Water Resources Development Act (WRDA), the subject of a similar vote two days prior, provides Oklahoma with numerous project authorizations and policy improvements that are vital to the state and the nation's economy, public safety and environment, according to Senator Jim Inhofe, Chairman of the Environment and Public Works Committee.

The legislation authorizes \$6.5 million to update the Oklahoma Comprehensive Water Plan as well as specific funding for associated water and wastewater projects for the cities of Ada, Norman, Bethany, Woodward, Durant, Ardmore, Midwest City, Guymon, Bartlesville, Mustang and other communities. The bill also specifies \$5 million for water-related infrastructure improvement projects at the Lugert-Altus Irrigation District.

It had been more than seven years since Congress passed a major water resources bill.

## From the Director

This year's Governor's Water Conference, held October 23-25, was perhaps the most memorable one ever as we celebrated the OWRB's 50th year as Oklahoma's water agency as well as the state's centennial. Combining the meeting with the Water Research Institute's annual symposium provided us with an opportunity to present excellent and varied perspectives on both technical issues and policy, which go hand-in-hand in the water management arena.

At the Conference banquet, numerous speakers, including Governors Nigh and Walters and past agency directors Jim Barnett and Patty Eaton, recalled the events that have shaped the agency's current role in managing Oklahoma's water resources. And we recognized the many Oklahomans who have dedicated

(continued on page 2)



Duane A. Smith, Executive Director  
Oklahoma Water Resources Board



*From the Director (continued from page 1)*

their talents and resources to utilize, promote, and protect our waters for us, our children, and grandchildren.

As a special part of the banquet, we formally released the Centennial Edition of the *Oklahoma Water Atlas*. The *Atlas*, which also represents the first work product created under the umbrella of the ongoing Water Plan update, features more than 150 detailed, large-format maps of the state's lakes, rivers/streams, and aquifers. It also includes a fascinating history of Oklahoma water development. As we look back, it becomes evident that episodic weather events, such as those associated with the Dust Bowl, have done much to shape development and use of our water resources, and undoubtedly, these alternating cycles of flood and drought will also shape Oklahoma's water future. Many individuals have also greatly influenced Oklahoma water development. The *Water Atlas* is dedicated to the memory of two such persons, Governor and Senator Robert S. Kerr and his son, former OWRB Chairman Robert S. Kerr, Jr. At the banquet, I enjoyed reminiscing with Lou Kerr, wife of the late Robert S. Kerr, Jr., as well as other important Oklahoma "water people."

Following adjournment of the Water Conference, I accompanied Bureau of Reclamation Commissioner Robert Johnson, a Conference speaker, and other officials to the Lugert-Altus Irrigation District in southwest Oklahoma. Mr. Johnson is the first Bureau commissioner to tour the reservoir and water delivery system since it was completed in 1946. Not surprisingly, Commissioner Johnson came away very impressed by the project, which provides irrigation water to more than 46,000 acres primarily dedicated to cotton.

Earlier in October, Commissioner Johnson also addressed the Western States Water Council (of the Western Governor's Association) conference held in Salt Lake City. The purpose of the meeting was to further develop action items consistent with last year's WGA/WSCW report, "Water Needs and Strategies for a Sustainable Future." Through technical/policy sessions, presentations, and small group discussions, participants

reviewed the unprecedented demands for water, especially in the western U.S., and focused on the renewed need for intelligent planning, water conservation, infrastructure rehabilitation, good science and data, environmental and economic water needs, and water-related impacts associated with climate change. EPA Administrator Steven Johnson was also present at the meeting to discuss relevant issues of water quality. Each meeting represents a new and unique opportunity to explore innovative solutions to water problems and issues with the nation's most knowledgeable water experts. I'm honored to serve as chairman of the WSWC, which has represented the water interests of western states since 1965.



*Bureau of Reclamation  
Commissioner Robert Johnson at  
the 2007 Water Conference*



*With EPA Administrator Steven Johnson, who presented at the WSWC's meeting in Salt Lake City, is Duane Smith and Joan Card, Water Quality Division Chief for the Arizona Department of Environmental Quality.*

## *Freeman Testifies Before Congress*

On September 20, OWRB Financial Assistance Division Chief Joe Freeman appeared before the Senate Environment and Public Works (EPW) Committee to present testimony about water infrastructure challenges facing Oklahoma and the nation. Freeman testified on behalf of the Council of Infrastructure Financing Agencies (CIFA), on which he represents the OWRB as Vice President.

CIFA is the national organization of state officials involved in the financing of water and wastewater pollution control projects. CIFA members are responsible for management of the Clean Water and Drinking Water State Revolving Funds.

Senator Jim Inhofe, who is Ranking Member of the EPW Committee, publicly thanked Freeman for his testimony before the Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality hearing titled, "Meeting America's Wastewater Infrastructure Needs in the 21st Century."

"I was pleased to welcome Mr. Freeman before the Senate Environment and Public Works Committee today," Senator Inhofe said. "Mr. Freeman provided the EPW Committee valuable perspective regarding the challenges facing water infrastructure systems in Oklahoma and across the nation. He expressed the importance of the Revolving Loan Fund to Oklahoma's communities and explained to the Committee the financial benefits municipalities get from using the SRF. He also emphasized the need to maintain a program free of too many extra requirements that make the program too complicated for towns, particularly small towns, to use.

"These issues are important to me," Sen. Inhofe added, "because Oklahoma has projected \$586 million in clean water related needs over the next 20 years. Further, in the last drinking water needs survey, Oklahoma's reported needs were \$4.8 billion over the next 20 years. Importantly, \$107 million of that need is known to be a direct result of

*(continued on page 6)*



## Recent Developments

- At its September meeting, the OWRB approved an agreement with the Bureau of Reclamation to fund a portion of Water Plan-related projects.
- The OWRB continues work on technical assessments and studies through agreements with the Corps of Engineers. The Corps has subcontracted with the engineering firm of Camp Dresser & McKee, Inc., to help coordinate elements of the work plan and assess methodologies for water supply and demand projections as well as potential strategies to conduct the statewide Public Water Supply Assessment. Water Plan technical/engineering studies will be accomplished with assistance from various local, state and federal agencies and organizations, as well as consultants.
- The last of 42 public input meetings was held on November 15 in Idabel, Oklahoma. Final reports on all meetings will be available on OWRRI's Web site by late November. Citizen comments concerning any of the public meetings will be accepted until December 31 through the Web site, comment cards handed out at the meetings, e-mail, or phone.

## Regional Input Meetings: The Next Step

Regional Input Meetings, the next phase of the Water Plan's public participation process, will be held during the second half of 2008 in each of the 11 Councils of Oklahoma Governments (COG) regions. The purpose of these meetings is to ensure that the full range of Oklahoma's water issues are identified and important regional differences are incorporated into the statewide plan. Issues will be consolidated into logical categories and prioritized for the OCWP planning workshops, to be held later.

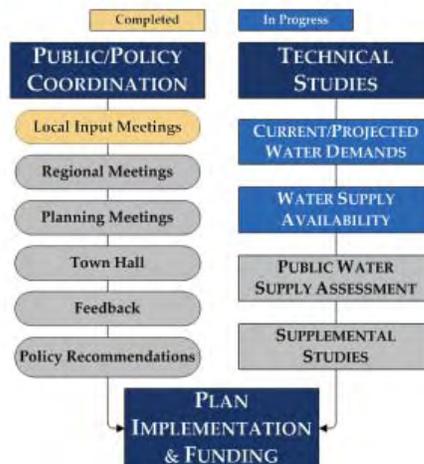
Nominations for representatives of each region have been submitted by the public at the input meetings. However, nominations for prospective participants may still be submitted through OWRRI's Web site, mailing a nomination form, or calling 405-744-9994. Selections will be based on knowledge of water issues, willingness to engage in respectful and reflective deliberation, and commitment to the process. Meetings will be open to the public; statewide, regional and issue-themed reports will be produced.



Jeri Fleming and Mike Langston of the OWRRI solicit and record public comments at the Idabel public input meeting on November 15. This meeting, the final of 42 meetings held across the state since last April, had more than 160 participants.

*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 questions or comments about the Oklahoma Comprehensive Water Plan or the public participation process, contact the Water Research Institute at 405-744-9994, by e-mail at [waterplan@okstate.edu](mailto:waterplan@okstate.edu), or go to <http://okwaterplan.info>.

# 2007 Oklahoma Governor's Water Conference



Left: Noel Osborn, OWRB geologist, provides an update on the Arbuckle-Simpson Study. Joining her on the panel are Scott Christenson, Dr. Baxter Viewx, and Dr. Todd Halihan.



Right: Miles Tolbert, Oklahoma Secretary of the Environment



Duane Smith, OWRB Executive Director, explains holistic water management. Seated are Secretary Tolbert; Mark Nichols, OWRB Chairman; and Ken Crawford, State Climatologist and 2007 Water Pioneer.



U.S. Army Corps of Engineers Floodplain Model



Consultant Shawn Leopard; Julie Bisbee, The Oklahoman; Duane Smith; and Brian Vance, OWRB



Oklahoma Attorney General Drew Edmondson provides a legal update.



Above: Rudy Herrmann, OWRB Vice Chairman, with Col. Anthony Funkhouser, Tulsa District Engineer, USACE



Left: Ed Fite, OWRB member and Director of the OK Scenic Rivers Commission, with Billie Brown, Conservation Organizer, Sierra Club of Oklahoma



Mike Melton, OWRB, with Rep. R. C. Pruett and Scott Dewald, Oklahoma Cattlemen's Association



Above: Ken Crawford with Steve Thompson, Executive Director of the Oklahoma Department of Environmental Quality



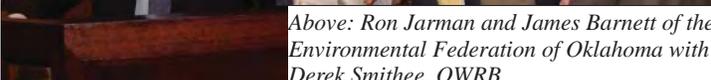
Left: Andy Comer of the USACE flips through the new Water Atlas.



Above: Terry Peach, Oklahoma Secretary of Agriculture, joins Wednesday's Water Plan panel. Seated are Ron Stahl, OK Dept. of Tourism & Recreation, and Dr. John Luthy.



Left: John Paul Woodley, USACE



Above: Ron Jarman and James Barnett of the Environmental Federation of Oklahoma with Derek Smithee, OWRB



Left: Jerry Barnett, OWRB; Don Kiser, Water Pioneer; Walid Maher, OWRB

# OWRB 50th Anniversary Banquet



Gov. George Nigh shares his unique and entertaining perspective on the importance of water to Oklahoma's past, present, and future, including significant Water Board accomplishments over the past 50 years. During his administration, Gov. Nigh was instrumental in establishing the OWRB's State Financial Assistance Program.



Left: Jim Barnett, the fourth Executive Director of the OWRB (1976 to 1991), provides a retrospective of his tenure. Patty Eaton, who followed as director, also contributed remarks on the banquet program. Below: Governor David Walters with Ms. Eaton and Duane Smith.



Left: Several past Oklahoma Water Pioneers attended the Water Conference Banquet, including (front row) Phil Lorenz, Mae Cooper, Bill Secrest, Ervin Mitchell, (back row) Robert Johnson, R. K. Johnson, Phillip Klutts, Wes Watkins, Cliff Younger, Joe Taron, and Ken Crawford.

## Essay Contest Winners Announced

In conjunction with the ongoing update of the Oklahoma Comprehensive Water Plan, the OWRB, Oklahoma Water Resources Research Institute, and 4-H Clubs of Oklahoma asked the state's junior high and high school students to write essays describing new and innovative ways to conserve Oklahoma's water. More than 140 entries were received. Prizes for the contest—MP3 players and Savings Bonds—were donated by the Sierra Club of Oklahoma and Chesapeake Energy. Lt. Gov. Jari Askins recognized the winners at the Conference Banquet.



OWRB Chairman Mark Nichols, Gov. George Nigh, Lt. Gov. Jari Askins, Gov. David Walters, and Duane Smith



Lt. Gov. Jari Askins (center) and OWRB Chairman Mark Nichols (right) with the 2007 Water Conservation Essay Contest winners (left to right) Amber Bolinger, Michael Stith, Chase Harris, Jo Eike, Allie Barton, Kelsey Bowen, Jani Hawkey, McKenzie LaValle and Kim Derby (accepting for Aaron Jackson)

## 2007 Oklahoma Water Pioneers



Dr. Ken Crawford



Jerry Johnston



Don Kiser

## Westville Treatment Plant Goes Online

On September 14, Town of Westville officials gathered to celebrate both their new state-of-the-art wastewater treatment plant and the fact that they are now in compliance with state and federal water quality regulations.

The Westville Municipal Authority, whose water and sewer system serves 827 customers in Adair County, had been under a consent order with the Oklahoma Department of Environmental Quality because its discharge violated Oklahoma's water quality standard for phosphorus. The new standard establishes more stringent criteria for communities discharging into the Illinois River watershed. Similar violations were discovered in

Stilwell and Tahlequah. The facility, which was completed in August, cost \$3.54 million. Funding was provided through the U.S. Department of Agriculture's Rural Development, Cherokee Nation, and



*Dedication ceremony for Westville's new, state-of-the-art wastewater treatment plant*

OWRB (specifically through a REAP grant of \$99,969 and emergency grant of \$100,000). The project, which began construction in July 2006, was completed on time and under budget.

"Without outside assistance, a project of this magnitude would likely never come to fruition," says Joe Freeman, chief of the OWRB's Financial Assistance Division. "Perhaps the most important feature of state and federal water and wastewater financing programs is their ability to assist communities, like Westville, whose population base is too small to underwrite typically very expensive infrastructure projects."

The Westville plant is capable of treating 0.28 million gallons per day of wastewater with a sequential batch reactor process, followed by



*OWRB Member Ed Fite (Tahlequah), Director of the Oklahoma Scenic Rivers Commission, addresses the crowd at the plant's dedication, thanking city officials for taking the initiative to ensure that Westville's municipal waste would not be a threat to water quality in the Illinois River basin.*

disc filtration, and final treatment with ultraviolet disinfection. Effluent produced at the plant has consistently outperformed that required under the facility's discharge permit by producing less than one-half the mandated phosphorus level of 1.0 mg/L.

## Freeman Testifies (continued from page 2)

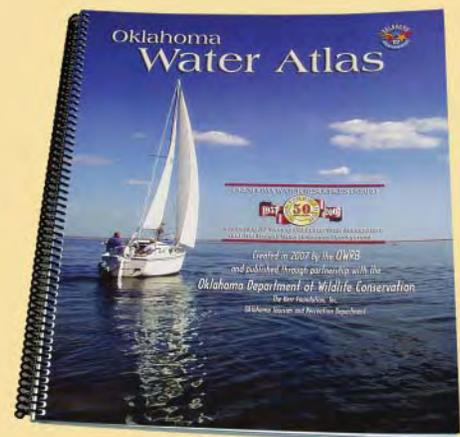
federal drinking water requirements. Without providing sufficient federal funds to help cities to meet those requirements, they become not just requirements, but federal unfunded mandates."

Among other testimony, Freeman told the Committee, "Since 1999, Oklahoma has made over \$324 million available in DWSRF funding. Our DWSRF loan to Bartlesville, used to construct a 26 million gallon per day treatment plant, allowed the city to realize cost savings of almost \$14 million, nearly a third of the total project cost. The Lawton Water Authority will experience similar savings as it constructs a water treatment plant with a capacity of 40 million gallons per day. Our largest borrower is the City of Tulsa, which is using the CWSRF program to implement a Comprehensive Wastewater Plan to rehabilitate aging infrastructure, meet capacity needs and comply with discharge permit requirements. By using the CWSRF, it is estimated Tulsa will save \$59 million over five years. As these projects illustrate, the State Revolving Funds are playing a vital role in helping Oklahoma communities improve water quality."

*Information provided by Oklahoma Publishing Today*

## Updated Oklahoma Water Atlas Now Available

The 2007 update of the *Oklahoma Water Atlas* is now available. For a free copy, please visit the Oklahoma City office of the OWRB or to receive a copy of the *Atlas* by mail, please send \$6.00 for postage and handling (check or money order) to the OWRB, 3800 N. Classen Blvd., Oklahoma City, OK 73118. The large-format book contains more than 150 maps as well as information on the state's surface and groundwater resources.



# Drought Update

## Reservoir Storage

As of November 6, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see right) are approximately 97.0 percent full, a 2.9 percent decrease from that recorded on June 12, according to information from the U.S. Army Corps of Engineers (Tulsa District). Ten reservoirs are currently operating at less than full capacity. One reservoir (Lugert-Altus, at 65.2 percent) is below 80 percent capacity.

## Palmer Drought Severity Index

According to the latest Palmer Drought Severity Index (November 3, right), state drought conditions have improved significantly since last summer. No climate divisions are currently experiencing drought conditions. Only one of Oklahoma's nine climate divisions has undergone a PDSI moisture category decrease since June 9.

## Standardized Precipitation Index

The latest monthly Standardized Precipitation Index (through October, right) reflects a slight deterioration in overall moisture conditions, particularly in the Panhandle and southern Oklahoma. Among the selected time periods (3-, 6-, 9- and 12-month SPIs), the Northwest and South Central regions report "moderately dry" conditions.

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](http://www.owrb.ok.gov/supply/drought/drought_index.php).



Storage in Selected Oklahoma Lakes & Reservoirs (as of November 6, 2007)			
CLIMATE DIVISION	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Storage (acre-feet)
North Central (2)	439,308	439,308	100.0
Northeast (3)	3,698,902	3,560,620	96.3
West Central (4)	276,790	273,183	98.7
Central (5)	154,225	154,225	100.0
East Central (6)	2,968,683	2,968,683	100.0
Southwest (7)	301,810	254,100	84.2
South Central (8)	3,078,236	2,940,390	95.5
Southeast (9)	1,464,929	1,419,270	96.9
<b>State Totals</b>	<b>12,382,883</b>	<b>12,009,779</b>	<b>97.0</b>

Palmer Drought Severity Index	
CLIMATE DIVISION	Current Status 11/3/2007
Northwest (1)	Near Normal
North Central (2)	Very Moist Spell
Northeast (3)	Unusual Moist Spell
West Central (4)	Extreme Moist Spell
Central (5)	Extreme Moist Spell
East Central (6)	Extreme Moist Spell
Southwest (7)	Very Moist Spell
South Central (8)	Unusual Moist Spell
Southeast (9)	Unusual Moist Spell

Standardized Precipitation Index Through October 2007				
CLIMATE DIVISION	3-month	6-month	9-month	12-month
Northwest (1)	Moderately Dry	Moderately Dry	Near Normal	Near Normal
North Central (2)	Near Normal	Very Wet	Extremely Wet	Extremely Wet
Northeast (3)	Near Normal	Very Wet	Very Wet	Very Wet
West Central (4)	Near Normal	Extremely Wet	Extremely Wet	Extremely Wet
Central (5)	Moderately Wet	Exceptionally Wet	Extremely Wet	Extremely Wet
East Central (6)	Very Wet	Very Wet	Moderately Wet	Very Wet
Southwest (7)	Near Normal	Very Wet	Very Wet	Very Wet
South Central (8)	Moderately Dry	Very Wet	Moderately Wet	Very Wet
Southeast (9)	Near Normal	Very Wet	Near Normal	Very Wet

[www.owrb.ok.gov](http://www.owrb.ok.gov)

*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.*



**3rd Quarter 2007**

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## FINANCIAL ASSISTANCE PROGRAM UPDATE

*Loans & Grants Approved as of November 13, 2007*

**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—184 totaling \$652,022,629**

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—72 totaling \$330,340,542**

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—477 totaling \$43,118,924**

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—534 totaling \$31,339,017**

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: 1,591 totaling \$1,686,991,112**

**Estimated Savings: \$530,724,228**

*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](http://www.owrb.ok.gov/financing).**