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# OKLAHOMA Water News

*Bimonthly Newsletter of the Oklahoma Water Resources Board*

## From the Director



*Duane A. Smith  
OWRB Executive Director*

As we enter another busy legislative session, the Water Board has identified several water-related initiatives that we believe require and deserve the support of our state's elected representatives. Again, the agency's strategic planning process has been an invaluable tool in delineating strategies to best manage, preserve, and protect Oklahoma's water resources.

An important legislative goal this session and high-priority agency issue is to secure an appropriation for the State Drinking Water State Revolving Fund (DWSRF) loan program. The Fund requires at least a \$12 million infusion to finance future State match requirements and provide reserve for a leveraged bond issue of \$67 million. Due to increasingly stringent drinking water quality standards and the related demand for potable supplies, the additional bonding capacity is required for the OWRB to

*See From the Director, Page 2*

## Oklahoma Officials Terminate Texas Water Talks

At a January 11 press conference, State officials formally announced that water marketing discussions with members of the North Texas Water Agency (NTWA) have broken off. Oklahoma's demand for specific measures to protect Oklahomans in the event of drought and assurances for future water supply in southeast and central Oklahoma were cited as primary reasons for the impasse.

Howard Barnett, Governor Keating's Chief of Staff, informed the press that a viable plan for the development of southeast Oklahoma waters would not be submitted to the State Legislature during the upcoming session. Barnett was joined in making the announcement by Choctaw Chief Gregory Pyle and Chickasaw Nation Governor Bill Anoatubby.

An independent appraisal firm from Redmond, Washington, recently estimated that Texas' least-cost alternative water supply project—Marvin Nichols Reservoir, a controversial 72,000-acre project proposed in

*See Texas Water Talks, Page 2*



*The last proposal offered by the North Texas Water Agency included a three-phase plan to transport up to 320,000 acre-feet of water per year from the Kiamichi, Little, and Mountain Fork River Basins to users in Texas.*

provide communities with the necessary infrastructure to treat and deliver good quality drinking water. In addition to a general appropriation, potential sources for this funding include the Constitutional Reserve (Rainy Day) Fund, Gross Production Tax (REAP) funding, a water user fee, and a tap fee on public water supply systems.

The Water Board is also seeking FY-03 and long-term funding for our highly successful Beneficial Use Monitoring Program, which helps ensure that state surface and groundwaters are maintaining beneficial uses, and waters are meeting numerical/narrative criteria assigned to them in Oklahoma's Water Quality Standards. We must continue to identify needs and opportunities, such as groundwater monitoring and assessment, for expansion of this critically important program.

Funding for the update of the Oklahoma Comprehensive Water Plan, due in 2005, is also an agency priority. This will perhaps be the most important planning effort ever undertaken by the OWRB as we

incorporate regional initiatives, driven by local water users, to identify water infrastructure needs throughout Oklahoma.

Other agency-supported legislative initiatives include amending the Oklahoma Floodplain Management Act to strengthen its floodplain protection authority and ensuring continued funding for the very popular Rural Economic Action Plan (REAP) grant program. The Water Board will also encourage the State Legislature to approve new agency rules pertaining to the Water Quality Standards.

In this year of anticipated budget cuts and shortfalls, the hard-working and competent employees of the OWRB will again be called upon to identify innovative strategies that not only improve our responsiveness to citizen needs but do so with limited resources. Then again, budgeting challenges are certainly nothing new. The difference, as always, is our staff, who will continue to meet these challenges with enthusiasm, ingenuity, and unequalled service to Oklahomans.

### **Water Talks.** . . . Continued from page 1

the 2002 Texas Water Plan—would require at least \$5.1 billion to construct. According to Barnett, that figure represents a conservative starting point that Oklahoma negotiators were prepared to request. Although no specific contract terms have been contemplated, one draft revenue scenario envisioned an up-front payment from Texas of \$35 million with annual payments escalating between \$9 and \$124 million throughout the 100-year life of the deal. Revenue would be paid directly to a public trust established through the pending State/Tribal Water Compact.

Revenue earmarked from the sale/lease agreement, which would have been contingent upon full legislative approval, was slated to resolve the State's contract obligation to repay the federal government for construction of Sardis Lake and to establish numerous water/sewer system improvements, new roads, hospitals and health care, and other benefits. The sizable up-front payment and revenue stream generated by a water marketing contract would also have provided enhanced bonding capacity for the Compact Commission, created by the draft Water Compact. According to the Department of Environmental Quality and Rural Development, a federal funding agency, at least \$93 million is required to upgrade public water supply and wastewater infrastructure throughout the southeast Oklahoma region.

Collectively, southeast Oklahoma's six major watersheds produce more than 6 million acre-feet of water (about 2 trillion gallons) in an average year, most of which flows out of Oklahoma unused. Oklahoma and Texas officials had negotiated the use of approximately 320,000 acre-feet of water per year from the Kiamichi River basin (downstream from Hugo Reservoir), Little River basin (downstream from Pine Creek Reservoir), and

Mountain Fork basin (downstream from Broken Bow and the Mountain Fork River trout fishery area).

The State and Tribes had specifically agreed that Texas would be prohibited from withdrawing waters from Oklahoma rivers during drought periods when flows fell below a prescribed amount. Concerning potential downstream water dependency claims by Texas, the draft Water Compact provides that any out-of-state water sale contract must contain an express waiver of downstream dependency. In addition, the Red River Compact (between the states of Oklahoma, Texas, Arkansas, and Louisiana), which apportions water in the Basin to member states, limits the amount of water a Texas entity could legally claim to that amount specifically apportioned to Texas under the agreement, regardless of the needs that develop in that state. The Compact also prohibits the sale of Oklahoma groundwaters, and under terms of the last contract proposal from the North Texas Water Agency, no new reservoirs would be built in Oklahoma.

For the past year, the OWRB has been working with the U.S. Army Corps of Engineers on a detailed study to comprehensively assess southeast Oklahoma's water resources and future water supply demands in the area. The proposed water marketing project was also set to undergo rigid environmental study prior to finalization of an agreement.

# Water Deal Reaches Impasse: State and Tribal Officials Speak Out

## **Howard Barnett** **Governor Keating's Chief of Staff**



►“While both sides recognize the enormous real and intrinsic value of southeast Oklahoma’s precious water supplies, north Texas officials stand firm on what they believe the water is worth in relation to the transfer restrictions and other protective measures that Oklahoma requires. Although the two parties have agreed in principle to general engineering and water transfer scenarios, NTWA’s current proposal

was insufficient to provide required protections for Oklahomans as well as to adequately compensate Oklahoma for the water.”

►“North Texas officials are adamant about Oklahoma providing reliable storage for them to draw upon instead of having to rely upon available river flows. However, we oppose the assignment of storage in existing lakes or the construction of new reservoirs at this time to fulfill their needs. In conjunction with our demands for protective measures concerning drought and future water supply for Oklahomans, Texas’ latest offer provides insufficient monetary compensation for the water based upon our estimates of their costs to secure other sources of supply.”

►“If a draft water sale contract or agreement is not presented to the State Legislature, as originally envisioned, the future of the draft Water Compact and its vital provisions will also be in jeopardy. Although the Compact did not itself provide for the sale of water from southeast Oklahoma, it did establish a mechanism for that to occur. While the State still supports the water rights and quality administration system established by that agreement throughout the boundaries of the Choctaw and Chickasaw Tribal Nations, I’m not so sure that the Tribes will be as anxious to sign the Compact. If not, then we are back where we started from and all water rights in southeastern Oklahoma, including those currently held by Oklahoma City and recognized by the State, are potentially in flux due to conflicting claims to those rights.”

►“I commend Duane Smith and his staff at the Water Resources Board for the diligent support they have provided to the State’s negotiating team, as well as for their exhaustive study of hydrologic factors and identification of various measures to protect the future viability of southeast Oklahoma.”

## **Governor Bill Anoatubby** **Chickasaw Nation**



“We’ve always seen the Tribal role in this process as being a protector of Oklahoma resources with the people of Oklahoma as our first and foremost priority. Although they have negotiated in good faith, I believe that Texas

officials have greatly underestimated the value of our water, and as a result, we could not reach an agreement that is best for all Oklahomans. Even if we can establish measures far above and beyond what is necessary to protect our water needs, the environment, and present and future generations of Oklahomans, we will not part with one drop of water if it’s not absolutely in our best interest.”

## **Chief Gregory Pyle** **Choctaw Nation**



“The Tribes have always contended that if an agreement could not be reached that was good for southeast Oklahoma and the Choctaw and Chickasaw Nations, we would walk away from the negotiating table. This

water is our birthright, and if we can’t negotiate a water deal that ensures our future growth and prosperity, there will be no deal at all.”

## **Duane Smith** **Executive Director of OWRB**



“Although we have identified numerous potential projects, most of which have limited funding options, that would have been ideal candidates for expenditures of these revenues, protecting Oklahomans is absolutely

the primary concern. I am confident that the negotiating team has made the right decision. The OWRB’s various financial assistance programs are responsible for about three-quarters of all water and wastewater projects financed in Oklahoma, and although insufficient to fulfill all of southeast Oklahoma’s needs, stand ready to fund eligible projects in the region.”

## *OWRB's Karen Recer Retires*

After nearly 30 years of service to the agency and State of Oklahoma, Karen Recer retired at the end of January. Karen began her career with the OWRB as a typist-clerk in the OWRB Groundwater Division in 1972. She resigned her position in 1978 to go back to school and complete a degree in Accounting, and graduated from the University of Central Oklahoma in 1979 (then Central State University). Karen returned to the Board a year later as an Accountant. For the past 15 years, Karen has supervised the OWRB Accounting unit as agency Comptroller. Karen and her husband, Ron, have purchased a 'fifth wheel' and plan to travel extensively. We wish them the best of luck.



*Karen Recer, 1973*

## Flood Insurance Prudent, Profitable

Homeowners are often confused by insurance and coverage, which means they rely upon their insurance agents for information and advice. Unfortunately, agents often lack the training necessary to provide complete information, leaving homeowners with an impression either that flood insurance is not available or that homeowner policies automatically cover flood losses. As a result, uninsured flood losses continue to occur.

Therefore, a number one priority of all homeowner insurance agents should be to educate citizens about the availability and negligible expense of flood insurance. However, many licensed property and casualty agents are either unaware of the availability of flood insurance or they lack the necessary training to write the policies. Agents are required to be licensed underwriters before they are permitted by the Oklahoma Insurance Department to write flood insurance policies.

More than 100,000 Oklahoma homes are located in floodplains, yet less than 13 percent of those homes are insured against potential flood damage. The National Flood Insurance Program (NFIP) offers flood insurance to consumers through licensed agents and coverage is available almost anywhere in Oklahoma, regardless of whether or not the structure is located in a designated floodplain.

When tallying the multiple benefits of federally-subsidized flood insurance, the sizable commission available to insurance agents is often overlooked. Many agents seeking the necessary training and education on flood insurance are simply responding to the supply and demand aspects, but later come to realize that writing these policies can be quite profitable. For example,

***The sizable commission available to insurance agents for selling flood insurance is often overlooked.***

insuring a \$120,000 structure (including \$60,000 contents) in a floodplain results in a premium of approximately \$978. Assuming a direct commission of 15%, the agent stands to earn \$147 on the policy.

Carroll Fisher, State Insurance Commissioner, and the Oklahoma Insurance Department encourage all Oklahoma property and casualty underwriters to attend the 3<sup>rd</sup> Annual Oklahoma Flood Forum on March 19, 2002, at the Clarion Meridian Hotel and Convention Center, 737 S. Meridian, Oklahoma City, Oklahoma 73108. To register for the Flood Forum, please call Diana Herrera, CFM, at (281) 829-6880. There is no charge for the Forum and CECs will be awarded.



Visit the OWRB web site at  
[www.owrb.state.ok.us](http://www.owrb.state.ok.us)

## 2001 Weather Report

According to the Oklahoma Climatological Survey (OCS) and statewide Mesonet information, 2001 was the first year in the past 12 that the State received below normal precipitation.

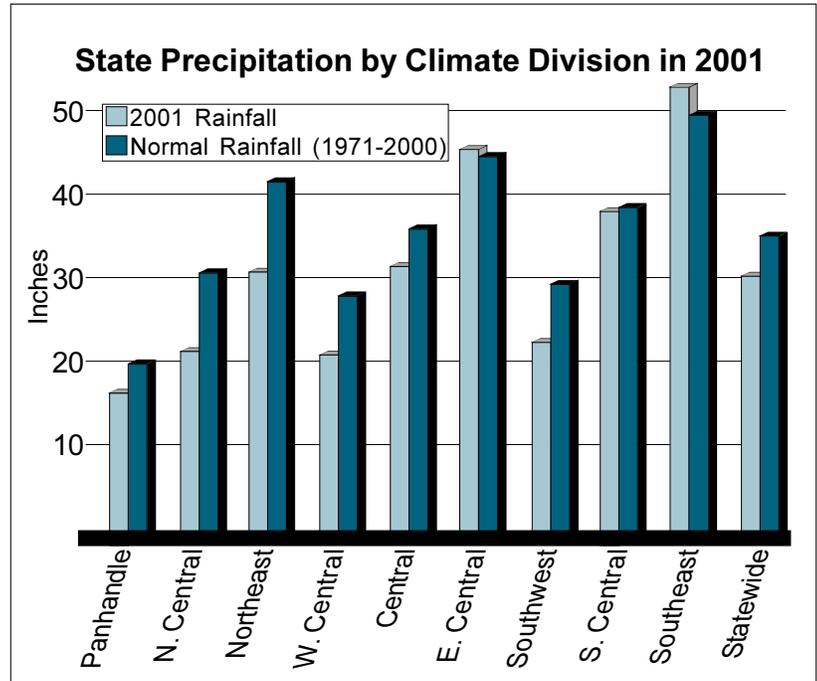
Although Oklahoma has recently experienced several dry episodes—perhaps most notably the winter/spring of 1996—prior to 2001, 1988 was the last year with lower statewide rainfall totals. Even the extremely dry summers of 1998 and 2000 could not offset their rainy winters, springs, and/or autumns.

The average rainfall across the State in 2001 was between two and three inches below normal (based on data from 1961-90). This amount falls at about the 65th percentile for annual precipitation, which means that 2001 was drier than roughly two-thirds of all years since records began in 1895.

The OCS adds that because the last decade has been relatively wet in Oklahoma, updated “normals” (considering rainfall data from 1971 through 2000) will indicate that state-averaged rainfall in 1989 and 1994 was also slightly below normal.

On a regional basis, western and northern Oklahoma were particularly dry during the past calendar year, while eastern and southeastern Oklahoma observed normal to slightly wetter than normal conditions.

2001 was also the fourth consecutive year that Oklahoma was warmer than normal. The average temperature of 60.9 F ranks as the fifteenth warmest of the 107 years since 1895. The warmth, relative to normal, was greatest in northern Oklahoma, and the Panhandle’s average temperature of 58.5 F was its sixth warmest since 1895.



## Congress Approves Cloud Seeding Research

In November, Congress approved \$2 million in funding for a Weather Damage Mitigation Program, which would be the largest federal cloud seeding research effort in decades. The monies were approved as part of the annual appropriation for the U.S. Bureau of Reclamation, which will administer the program involving Oklahoma, Texas, Kansas, and other states that manage operational cloud seeding programs.

“Oklahoma’s participation will be especially valuable to this effort,” said Duane Smith, OWRB Executive Director. “Oklahoma is home to the most advanced weather technology and largest number of qualified meteorologists available anywhere in the world. The extraordinary resources available at OU, the National Severe Storms Laboratory, and other partnered weather agencies here will be invaluable in this effort.” Smith added that Congressman J.C. Watts was integral to passage of the legislation.

The 2001 Oklahoma Weather Modification Program, initiated March 1, 2001, was slated to continue statewide operations uninterrupted through October 31. However, last June, the program was suspended due to insufficient

funds. The OWRB and Oklahoma Weather Modification Advisory Board, who oversee and direct the program, continue to investigate long-term funding sources for the effort, which seeks to augment rainfall and prevent hail damage throughout the State.



*High-performance aircraft are one of the many state-of-the-art tools employed in the Oklahoma Weather Modification Program.*

## Water Quality Division & Board Room Relocated

After six years of being housed in various locations throughout the basement of the OWRB's Oklahoma City office building, Water Quality Division staff have moved to one larger area on the second floor of the building. According to Water Quality Division Chief Derek Smithee, the move is expected to greatly improve efficiency and camaraderie among Division employees.

The agency's board room has also moved to the second floor, where additional space will better accommodate guests and staff during regular monthly meetings of the nine-member Water Board. The board room is also used for staff meetings and frequently hosts meetings of various organizations, such as the State Geographic Information Systems (GIS) Council.

The April OWRB meeting will be the first held in the new board room.

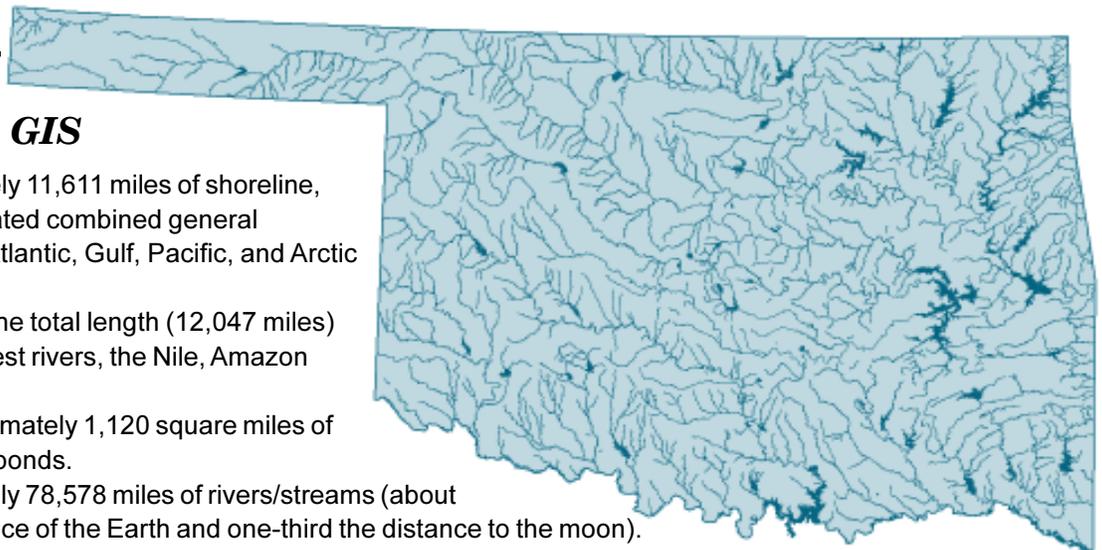


*Michael Moore, Katera Whitaker, and Bill Cauthron of the Water Quality Division pitch in to get everything moved, organized, and operational as quickly as possible.*

### **Water Facts**

#### **Verified by OWRB GIS**

- ▶ Oklahoma has approximately 11,611 miles of shoreline, slightly less than the estimated combined general (nontidal) coastline of the Atlantic, Gulf, Pacific, and Arctic Coasts (12,383 miles).
  - This number is almost the total length (12,047 miles) of the world's three longest rivers, the Nile, Amazon and Yangtze.
- ▶ Oklahoma contains approximately 1,120 square miles of water area in its lakes and ponds.
- ▶ Oklahoma has approximately 78,578 miles of rivers/streams (about three times the circumference of the Earth and one-third the distance to the moon).



## Reclamation's Centennial Celebration

June 17, 2002, will mark the 100th anniversary of the signing of the Reclamation Act of 1902--the act that created the Bureau of Reclamation within the United States Geological Survey (USGS).

The mission of the Bureau, currently housed within the U.S. Department of the Interior, is to manage, develop, and protect water and related resources in an environmentally and economically sound manner for the welfare of the public. The original purpose of the Bureau, developing and executing irrigation projects in arid and semiarid regions of the West, has been expanded to include developing and executing projects to provide municipal and industrial water supplies, hydroelectric power generation and transmission, water quality improvement, flood control, navigation, and river regulation

and control. The Bureau is also responsible for maintaining information and statistical data concerning Bureau dams, reservoirs, and other facilities, including structural/engineering data, operational records, and safety information.

The Reclamation program has helped to provide enhanced quality of life and improvements to the environment through the development of a water storage and delivery infrastructure, which provides safe and dependable water supplies and protects and improves the nation's water quality.

In recognition of its anniversary, Reclamation will conduct a year-long Centennial program, from June 17, 2002, to June 17, 2003. The Centennial theme will be "A Century of Water for the West, 1902-2002."

# Water Resources Update

## Reservoir Storage

Reservoir storage levels in Oklahoma have noticeably improved. As of February 12, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 97.2 percent full, a 1.3 percent increase from that recorded on January 28, according to information from the U.S. Army Corps of Engineers (Tulsa District). Only five reservoirs have experienced lake level decreases since that time, including all three in the North Central climate division. Thirteen reservoirs are currently operating at less than full capacity (compared to 17 last month); five reservoirs (including Hula, only 38.6 percent, and Lugert-Altus, 42.8 percent) remain below 80 percent capacity.

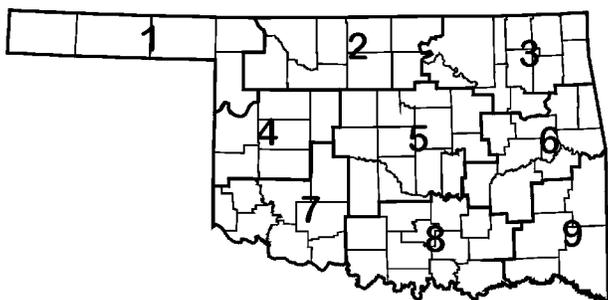
### Storage in Selected Oklahoma Lakes & Reservoirs

As of February 12, 2002

Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Storage	
			Conservation	Flood
NORTH CENTRAL	412,635	412,635	100.0	0.30
NORTHEAST	3,484,317	3,322,802	95.4	0.47
WEST CENTRAL	276,790	239,767	86.6	0.00
CENTRAL	154,225	154,225	100.0	0.91
EAST CENTRAL	2,968,681	2,967,895	100.0	0.43
SOUTHWEST	301,810	195,054	64.6	0.00
SOUTH CENTRAL	2,803,244	2,780,425	99.2	0.79
SOUTHEAST	1,464,929	1,464,929	100.0	10.59
STATE TOTALS	11,866,631	11,537,732	97.2	2.09

## Drought Indices

According to the latest Palmer Drought Severity Index (February 9, below), drought conditions have improved in all areas as a result of recent moisture. Only two regions—the North Central and West Central climate divisions (both experiencing “mild drought”)—are classified in a drought category. All of Oklahoma’s nine climate divisions have undergone PDSI moisture increases since January 26. The most modest increase occurred in the South Central climate division (“moist spell”).



The latest monthly Standardized Precipitation Index (through January, below) indicates that long-term dryness has improved somewhat in the north and west. Among the *selected* time periods (3-, 6-, 9- and 12-month SPIs), the Northwest, North Central, Northeast, and West Central climate divisions report “moderately dry” to “very dry” conditions throughout the last 6 to 12 months. In particular, the Northwest and North Central regions are “very dry” over the past 6 months. Among periods beyond one year, only the 15- and 18-month SPIs (North Central and Northeast, both “moderately dry”) report dry conditions for any area of Oklahoma.

### Palmer Drought Severity Index

### Standardized Precipitation Index

Through January 2002

Climate Division (#)	Current Status 2/9/2002	Value		Change In Value				
		2/9	1/26		3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	INCIPIENT DROUGHT	-0.54	-2.19	<b>1.65</b>	NEAR NORMAL	VERY DRY	MODERATELY DRY	NEAR NORMAL
NORTH CENTRAL (2)	MILD DROUGHT	-1.19	-3.25	<b>2.06</b>	NEAR NORMAL	VERY DRY	MODERATELY DRY	MODERATELY DRY
NORTHEAST (3)	INCIPIENT DROUGHT	-0.61	-2.54	<b>1.93</b>	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
WEST CENTRAL (4)	MILD DROUGHT	-1.12	-3.03	<b>1.91</b>	NEAR NORMAL	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL
CENTRAL (5)	MOIST SPELL	1.11	-0.06	<b>1.17</b>	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	MOIST SPELL	1.54	0.87	<b>0.67</b>	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHWEST (7)	NEAR NORMAL	-0.48	-2.15	<b>1.67</b>	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTH CENTRAL (8)	MOIST SPELL	1.97	1.43	<b>0.54</b>	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHEAST (9)	UNUSUAL MOIST SPELL	2.36	1.40	<b>0.96</b>	MODERATELY WET	MODERATELY WET	MODERATELY WET	MODERATELY WET

# Financial Assistance Program Update

*Totals as of February 12, 2002*

## **FAP Loans—251 totaling \$394,015,000**

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 extremely competitive low-interest rates, averaging approximately 4.762 percent since 1986.

## **CWSRF Loans—124 totaling \$439,679,040**

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—20 totaling \$66,112,225**

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.

*More information about the OWRB's Financial Assistance Program can be obtained by calling the OWRB at (405) 530-8800.*

## **REAP Grants—315 totaling \$26,276,866**

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 1,500 inhabitants.

## **Emergency Grants—482 totaling \$28,218,700**

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

*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.*

Grady Grandstaff, *Chairman*; Richard C. Sevenoaks, *Vice Chairman*; Ervin Mitchell, *Secretary*  
Lonnie L. Farmer, Richard McDonald, Bill Secrest, Dick Seybolt, Wendell Thomasson, Harry Currie

Brian Vance, *Writer/Editor* • Darla Whitley, *Writer/Layout* • Barry Fogerty, *Photography* • James Leewright, *Graphics*

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# OKLAHOMA Water News

*Bimonthly Newsletter of the Oklahoma Water Resources Board*

## From the Director



*Duane A. Smith*  
*OWRB Executive Director*

In the most historic and aggressive attempt by the State of Oklahoma to limit the deleterious impacts of pollutants on state waters, the OWRB established the first-ever numeric water quality standard for phosphorus in Oklahoma's designated Scenic Rivers at the March Board meeting. Related action at the April Board meeting reflects the new standard in agency rules. The State Legislature will now consider the implications of this new proposed water quality management strategy.

In other Water Board news, recent efforts to remarket the agency's 1994, 1995, 1997, and 1999 six-month variable rate bonds have secured the lowest rate in OWRB history. The bonds, totaling \$145,720,000, sold for 1.4% interest, resulting in an exceptional loan rate of 2.072% for our borrowers.

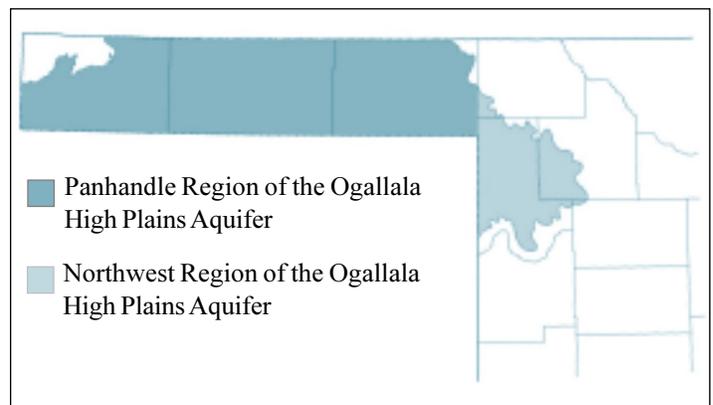
*See From the Director, Page 2*

## Board Sets Ogallala Yield & Approves Water Quality Standards

Responding to citizen concerns expressed during the March meeting, members of the Oklahoma Water Resources Board conditionally approved a new groundwater permit regulation that reduces the proportional share of water available to users of the Ogallala Aquifer's northwest region.

The March 12 decision will reduce the amount of water annually available for future users to 1.4 acre-feet per acre of land in parts of Ellis, Harper, Dewey, and Woodward Counties. (One acre-foot of water equals approximately 325,000 gallons.) However, Board members voted to "grandfather in" existing users, allowing them to maintain the temporary allocation of 2.0 acre-feet per year, the amount applied to all major state aquifers for which comprehensive hydrogeologic investigations, or maximum annual yield studies, have yet to be performed.

Last year, OWRB staff completed separate studies on the two major Ogallala regions underlying the western area of Oklahoma. Results from the studies indicated the



maximum annual yield of the Northwest Ogallala region to be 1.4 acre-feet while the Panhandle region (encompassing most of Cimarron, Texas, and Beaver Counties) was determined to be the existing allocation of 2.0 acre-feet. The permanent allocation of 2.0 acre-feet for the Panhandle region was also approved by the Board.

"As expected, we had many irrigators and other impacted individuals approach the Board with significant concerns due to the proposed 30 percent reduction in their allocated groundwater usage," says Mike Mathis,

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## **From the Director . . . Continued from page 1**

As advancements in this dynamic “Information Age” compel us to reinvent our present and future, the OWRB strives to follow suit through integration of improved strategies to convey agency services and information to our many customers. Leading these efforts are staff in the Water Board’s Information Services Section who are working to develop a Web-based, interactive program to allow visitors to the agency’s site ([www.owrb.state.ok.us](http://www.owrb.state.ok.us)) to file water use permit applications in the comfort of their homes or offices—no fax, no phone call, no trip in the car. The initial “pilot” phase of this project, scheduled for implementation late this summer, will provide online forms for citizens to file requests for temporary provisional permits.

Other on-line form programs under early development at the OWRB will allow our customers to obtain water well logs and related well records, submit water use data, enter volunteer water quality monitoring data, submit requests for various financial assistance, and register for the annual Governor’s Water Conference and other meetings. These developments, which will vastly improve our customer service, enable our customers to make better water quality and quantity-related decisions, and reduce staff process time, were previously identified through the agency’s ongoing strategic planning process under Web site development and redesign goals. This is truly an exciting time at the OWRB!

## **Board Sets Yield & Approves Standards . . . Continued from page 1**

Chief of the OWRB’s Planning and Management Division. “I believe the Board’s decision to conditionally approve staff’s recommendation fairly reflects those concerns and is both consistent with Oklahoma’s groundwater law and future conservation of this vitally important water resource.”

Mathis pointed out that the maximum annual yield determination will not affect “prior rights” to use groundwater. Prior rights are groundwater rights established by the Oklahoma Groundwater Law prior to July 1, 1973. In addition, water well spacing requirements of 1,320 feet will now be applied to new water wells.

The Water Board’s hydrogeologic investigations determine how much water can be safely withdrawn from an aquifer to ensure a minimum basin life of 20 years. To arrive at a basin’s maximum annual yield, investigators map the total land overlying the basin, often divided into sub-basins for yield determinations, and estimate the amount of water in storage. Next, they determine the rate of natural recharge and total discharge, transmissibility (the rate at which water moves through the formation), and potential for pollution from natural sources. The balance of available water is then allocated proportionately to each acre of land overlying the basin. Prior to final consideration of this prorated amount, hearings are held to allow public input into the determinations. The Ogallala maximum annual yield hearings were held in July and September 2001.

To date, hydrogeologic investigations have been completed on six major bedrock aquifers, including the Ogallala, and 10 major alluvial and terrace formations; three studies are underway on bedrock aquifers while three are pending on alluvial/terrace formations.

Also at the March Board meeting, the nine members considered numerous amendments to agency rules, including proposed revisions to Oklahoma Water Quality Standards. Of particular importance was the proposed standard limiting levels of phosphorus to 0.037 milligrams per liter (mg/L) in Oklahoma’s designated



*The Illinois River. Near the Oklahoma/Arkansas border, phosphorus loads average more than 380,000 pounds per year.*

Scenic Rivers, which the Board approved along with the Standards rules.

Previous to the Board’s decision, methods to control excess phosphorus and other nutrient levels in Oklahoma waters (including Scenic Rivers) through state Water Quality Standards were limited to narrative criteria. Now, sewage treatment plants and other wastewater dischargers and nonpoint nutrient sources must ensure that their effluent or runoff will meet the 0.037 mg/L phosphorus limit. The Board also ruled to phase-in full implementation of the standard over 10 years to allow sufficient time for compliance by waste dischargers, including those more ambiguous, nonpoint sources of excess phosphorus, such as poultry operations.

The Water Quality Standards serve to protect Oklahoma waters through the assignment of beneficial uses, criteria to protect those uses, an antidegradation

*. . . Continued*

policy, and the application of certain limitations for additional protection to special waters.

Oklahoma's Scenic Rivers, including portions of the Illinois River, Baron Fork River, Lee Creek, Little Lee Creek, Flint Creek and the Upper Mountain Fork River, receive special, additional protection under State law due to their exceptional ecological and recreational characteristics. However, in the Illinois River alone (at a point near the Oklahoma/Arkansas border), phosphorus loads average more than 380,000 pounds per year, and more than 600,000 pounds is estimated to enter Tenkiller Lake each year.

## Report Confirms Eucha/Spavinaw Algae Problem

Excess algae growth has been confirmed as the major threat to the quality of Tulsa's surface water supply, according to a report officially released in March by the OWRB.

The report, "Water Quality Evaluation of the Eucha/Spavinaw Lake System," affirms that algae problems are directly related to the infusion, or "loading," of nutrients, primarily nitrogen and phosphorus, from the shared watershed of the two lakes. The abundance of those nutrients, most likely the result of diffuse waste that enters area streams from numerous poultry operations in the watershed, greatly accelerates the growth and reproduction of algae. Much of the watershed area, a total of 415 square miles, exists in the State of Arkansas.

Left unchecked, algae growth can cause significant taste and odor problems in drinking water, although it is not a health risk. To date, the City of Tulsa has spent more than \$4 million to correct the situation, which increases drinking water treatment costs and could eventually result in the lakes' demise as a source of supply. Late last year, in an attempt to halt further pollution, the City of Tulsa and Tulsa Metropolitan Utility Authority (TMUA) filed a lawsuit in U.S. District court against six out-of-state poultry companies that are believed to be primarily responsible for the problem.

"For approximately six weeks in late 2000, taste and odor problems were significant enough that Tulsa was required to completely abandon the Eucha/Spavinaw supply until it cleared up," reports Derek Smithee, Chief of the OWRB's Water Quality Division. "Now that we have a target for mitigation, we can begin the real work of reducing nutrient loads to the lakes."

The Water Board's report culminates a three-year cost-share study with the City of Tulsa to quantify and address Eucha/Spavinaw water quality problems. The report points out that because most of Spavinaw's water enters the lake through the adjoining Eucha Lake dam, remediation efforts must be directed at both reservoirs.

The lakes have been categorized as having high or excessive algae content. Excessive algae growth robs the water column of oxygen required for fish propagation.

"Data collected over the past 20 years or so indicates that, in particular, the Illinois River's Scenic River status is seriously threatened by excess nutrients," according to Derek Smithee, Chief of the Board's Water Quality Division. "Setting a numerical standard for phosphorus is the necessary first step to short-circuit the detrimental impacts that nutrients can have on our scenic rivers and other vulnerable waters of the state."

In addition to actual Standards approval, the Board approved rules in March pertaining to Standards implementation, taking and use of groundwater, well drillers and pump installers licensing, and the OWRB's Financial Assistance Program.

This absence of oxygen, or anoxia, results in a significant impairment of the lakes' fish and wildlife benefits. It also encourages the growth of algae types that produce a foul taste and make Eucha and Spavinaw generally less desirable for recreation.

"This comprehensive water quality investigation, which involved substantial field work and data analysis, will greatly assist the City and state in cleaning up this invaluable water resource," says Richard Sevenoaks, who serves on both the nine-member Water Board and TMUA.

Specific recommendations offered by the report to rectify the nutrient problems and subsequently restore lake benefits include: reducing phosphorus loading to Spavinaw Lake by 45 percent, reducing phosphorus loading to Eucha Lake by 70 percent, implementing a phosphorus management plan for the Eucha/Spavinaw watershed, and tracking and identifying sources of nutrient loads entering Eucha and Spavinaw Lakes.

"Because the report recommends actual percentile reductions in phosphorus entering the Eucha/Spavinaw Lake system, we can now effectively mitigate the taste and odor episodes," Smithee adds.

The report can be accessed and downloaded from the Technical Reports and Publications page of the OWRB's Web site at [www.owrb.state.ok.us](http://www.owrb.state.ok.us).



*Eucha Dam and spillway*

# FLOOD CURRENT

## Planning Opportunity Is Storms' Silver Lining

W. Kenneth Morris, CFM  
State Floodplain Manager, OWRB



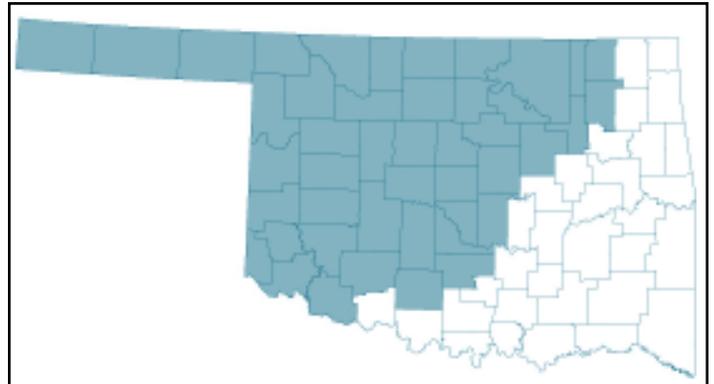
Ken Morris

On January 30, the second major winter ice storm in two years jolted Oklahoma, knocking out power to more than 245,000 residents, suspending travel, and closing schools in many areas. The event once again reminded us that natural disasters frequently strike without warning.

The subsequent disaster declaration, signed by President Bush within two days of the event, makes state and affected local governments in 45 counties eligible for federal funding to pay 75 percent of the costs associated with debris removal and emergency services. In addition, at press time, almost 25,000 Oklahomans had applied for individual assistance.

As in January 2001, the 2002 declaration also made cost-shared funding available for projects that reduce future disaster risks, including approximately \$19 million for National Flood Insurance Program (NFIP) member communities to develop "all-hazard plans." These mitigation strategies include planning for future wildfires, high winds, tornadoes, floods, terrorism, hazardous material events, and other disasters that can devastate a community. Last year, under the leadership of Albert Ashwood, Executive Director of the Oklahoma Department of Civil Emergency Management, municipalities of all sizes took advantage of this opportunity. The ultimate goal of state officials involved in emergency management is to have a comprehensive all-hazard plan in place for every county in Oklahoma. If you are a community official and have not yet taken action on this excellent opportunity, please contact Connie Dill, State Hazard Mitigation Officer, at (405) 521-2481.

On a related note, I want to recognize Norbert Schwartz and Rusty Rickart of Federal Emergency Management Agency (FEMA) Region V in Chicago for their valuable leadership in responding to the January disaster. Also, thanks to Mike Klitzke and Jim Blix, disaster assistance employees from Wisconsin and Minnesota, respectively, who were assigned the difficult task of working with communities not in the NFIP to encourage their future



*Counties eligible for various public and individual federal assistance as a result of the January 30, 2002, ice storm*

participation. Almost 50 communities were contacted and several have expressed interest in joining. OWRB staff—Gavin Brady, Hank Elling, Jason Shiever, and myself—assisted our FEMA Region V partners in this unexpected additional task.

To all state floodplain managers and officials: keep fighting the flood fight, enforce your ordinance in a professional manner, and attend flood management training on a regular basis.



*Flooding of the Mountain Fork River due to heavy rains during late March (more than six inches in some areas). Many roads in southeast Oklahoma, including sections of state highways, were closed as rivers reached or surpassed their flood stages.*

## Governor Declares March & May as Flood Months

Each year in Oklahoma, thousands of citizens who experience flood damage lack the protection afforded through readily available flood insurance. To inform Oklahomans about intelligent floodplain development and warn them of dangers posed by flooding events, Governor Frank Keating has designated March as “Flood Insurance Month” and May as “Flood Awareness Month.”

“All too often, property owners and renters only become aware of flood insurance and other protection measures after a flood has financially devastated them or their community,” says Duane Smith, Executive Director of the OWRB. “The Governor’s proclamation provides the OWRB, insurance companies, and emergency management organizations with a valuable opportunity to spread the word on availability of relatively inexpensive flood insurance.”

Smith adds that the timing of the Flood Insurance Month designation is appropriate because Oklahoma’s spring flooding season is just around the corner. “Most flood insurance policies require a 30-day waiting period,” he points out. “Now is the time for those citizens who reside in designated floodplains to purchase flood insurance if they have not already.” A flood insurance policy may be purchased from any licensed property insurance agent.

“Severe flooding episodes occur in Oklahoma most frequently in the spring and fall,” says Ken Morris, state floodplain management coordinator. “Implementation of sound floodplain management and building strategies, particularly through the National Flood Insurance Program (NFIP), is the most effective way for communities to avert potential flood damages.”

On an individual basis, Morris reminds Oklahomans of the dangers of driving into floodwaters. “Almost one-half of 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. Two feet of water will sweep most cars off the road,” he points out.

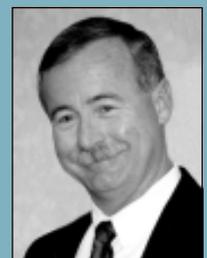
Of the 38 presidentially declared disasters in Oklahoma since 1955, 28 have involved flooding. In an effort to mitigate such emergencies, the OWRB was named the state coordinating agency for the NFIP by Governor Dewey Bartlett in 1969. The NFIP assists Oklahomans by making flood insurance available at 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 is the state agency designated to coordinate the NFIP in Oklahoma in a cooperative partnership with the Oklahoma Insurance Department, Oklahoma Department of Civil Emergency Management and the Oklahoma Floodplain Managers Association.

According to Morris, only 12 percent of all homes or structures in the state that lie in the 100-year floodplain are covered by flood insurance. He adds, “It is disheartening that relatively few people take advantage of the benefits afforded through the purchase of flood insurance, especially since it is so inexpensive and offers such comprehensive protection against one of our most common natural disasters.”

## *Flood Forum Confronts Need for Flood Insurance*

The third annual *Oklahoma Flood Forum*, sponsored by the OWRB, Oklahoma Insurance Department, Oklahoma Floodplain Managers Association, and Federal Emergency Management Agency, was held March 19 in Oklahoma City. Attending the event, held in conjunction with Flood Insurance Month in Oklahoma, were insurance agents, claims adjusters, appraisers, surveyors, lenders, and floodplain management officials from across the state. Among those who addressed the attendees were Keynote Speaker and Oklahoma Lieutenant Governor Mary Fallin (far left); Opal Ellis, Oklahoma Insurance Department (upper left); Thad Balkman State Rep. (upper right); Jack Roberts, Apache Mayor and Farm Bureau insurance agent (lower left); and Lonnie Ward, FEMA Region VI (lower right). Speakers concurred that the flood insurance industry must do a better job of providing flood insurance coverage to Oklahomans. More than 87 percent of properties in Oklahoma’s floodplains and approximately 87,000 homes and businesses in special flood hazard areas lack flood insurance coverage.



## OWRB Kicks Off Year of Clean Water

OWRB staff and members of other state water quality interest groups met on February 28 to discuss plans to celebrate the upcoming 30th anniversary of the Clean Water Act. Last December, Governor Keating proclaimed 2002 as the "Year of Clean Water" in Oklahoma to commemorate the anniversary. In the next few months, as celebratory events throughout the state and nation are being planned, Derek Smithee and Juli Ridgway of the OWRB's Water Quality Division will serve as Oklahoma liaisons to the national Year of Clean Water Steering Committee.

The Clean Water Act's 30th anniversary, October 18, 2002, marks a milestone in the efforts to protect our nation's water resources and presents an excellent opportunity to enhance public appreciation for the importance of our water resources, celebrate water



*OWRB's Juli Ridgway discusses Year of Clean Water events* quality improvements, build a better understanding of remaining challenges and solutions, rekindle the public stewardship ethic and support for watershed protection programs, and educate our nation's young people. For more information, go to [www.yearofcleanwater.org](http://www.yearofcleanwater.org).

## Hulah Lake Level Plummets

Recent drought in northern Oklahoma has depleted Hulah Lake to historically low levels. In early April, the lake's conservation storage stood at only 18 percent.



*Hulah Lake (photo courtesy U.S. Army Corps of Engineers)*

Hulah Lake, on the Caney River in Osage County, is the primary water supply for the City of Bartlesville. City leaders have implemented mandatory water use restrictions and are seeking various forms of assistance from state and federal officials.



*Left to right: OWRB Executive Director Duane Smith, Representative Larry Adair, and Board members Harry Currie and Grady Grandstaff (Chair) at the OWRB's Legislative Reception on Feb. 12, 2002*

### ***New Web Site for OSE***

The brand new Web site of the Office of the Oklahoma Secretary of Environment, supported by the OWRB, is now online at [www.ose.state.ok.us](http://www.ose.state.ok.us).

The site includes late-breaking news on Oklahoma's priority environmental issues, access to important reports and related OSE documents, and links to other state and environmental agency Web sites.

The Secretary's Office requests that agencies with environmental activities provide a link to the OSE Web site.

Please check out this site and let us know what you think.

Welcome  
OKLAHOMA WATER RESOURCES BOARD

Visit the OWRB web site at  
[www.owrb.state.ok.us](http://www.owrb.state.ok.us)

# Water Resources Update

## Reservoir Storage

Reservoir storage levels in Oklahoma remain steady, although supplies are very low in a few isolated areas. As of April 9, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 97.1 percent full, a 0.3 percent increase from that recorded on March 25, according to information from the U.S. Army Corps of Engineers (Tulsa District). Only six reservoirs have experienced lake level decreases since that time. Twelve reservoirs are currently operating at less than full capacity (compared to 12 two weeks ago). Four reservoirs (including Hulah, the primary water supply for the City of Bartlesville, critically low at only 19 percent; Lugert-Altus, 48 percent; Copan, 71.5 percent; and Tom Steed, 66.6 percent) **remain below 80 percent capacity**.

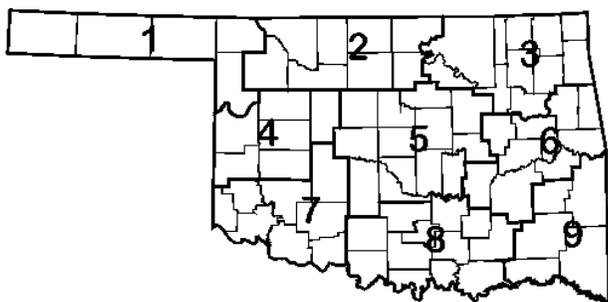
### Storage in Selected Oklahoma Lakes & Reservoirs

As of April 6, 2002

Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Storage	
			Conservation	Flood
North Central	444,015	438,205	98.7	0.64
Northeast	3,478,257	3,267,696	93.9	1.50
West Central	276,790	248,909	89.9	0.00
Central	154,225	154,225	100.0	6.60
East Central	2,968,681	2,968,681	100.0	21.48
Southwest	301,810	201,369	66.7	0.00
South Central	2,795,156	2,788,386	99.8	26.66
Southeast	1,507,931	1,507,931	100.0	55.35
<b>State Totals</b>	<b>11,926,865</b>	<b>11,575,402</b>	<b>97.1</b>	<b>14.89</b>

## Drought Indices

According to the latest Palmer Drought Severity Index (April 6, below), drought conditions continue to worsen in northwest Oklahoma. Three regions—the North Central, West Central, and Northwest climate divisions—are experiencing “moderate” drought while the Northeast region is classified in the “mild” drought category. Seven of Oklahoma’s nine climate divisions have undergone PDSI moisture decreases since March 23. The greatest decrease occurred in the West Central climate division.



The latest monthly Standardized Precipitation Index (through March, below) indicates long-term dryness throughout the past 6 to 12 months, especially in northern Oklahoma. Among the selected time periods (3-, 6-, 9- and 12-month SPIs), the Northwest and North Central climate divisions report “extremely dry” conditions throughout the last 9-month period. Also particularly dry is the West Central region, which is “very dry” over the past 6- and 9-month periods. Among periods beyond one year, the 15- and 24-month SPIs also report dry conditions for the three northern climate divisions. In particular, the North Central region is “very dry” throughout the past 15 months.

### Palmer Drought Severity Index

### Standardized Precipitation Index

Through March 2002

Climate Division (#)	Current Status 4/6/2002	Value		Change In Value				
		4/6	3/23		3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	MODERATE DROUGHT	-2.35	-2.19	-0.16	NEAR NORMAL	VERY DRY	EXTREMELY DRY	VERY DRY
NORTH CENTRAL (2)	MODERATE DROUGHT	-2.74	-2.31	-0.43	NEAR NORMAL	VERY DRY	EXTREMELY DRY	VERY DRY
NORTHEAST (3)	MILD DROUGHT	-1.05	-0.80	-0.25	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
WEST CENTRAL (4)	MODERATE DROUGHT	-2.57	-2.07	-0.50	NEAR NORMAL	VERY DRY	VERY DRY	MODERATELY DRY
CENTRAL (5)	INCIPIENT MOIST SPELL	0.97	1.07	-0.10	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	MOIST SPELL	1.80	2.00	-0.20	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHWEST (7)	NEAR NORMAL	-0.25	-0.46	0.21	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
SOUTH CENTRAL (8)	UNUSUAL MOIST SPELL	2.53	2.30	0.23	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHEAST (9)	VERY MOIST SPELL	3.02	3.20	-0.18	VERY WET	VERY WET	VERY WET	MODERATELY WET

# Financial Assistance Program Update

*Totals as of April 9, 2002*

## **FAP Loans—253 totaling \$397,835,000**

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 extremely competitive low-interest rates, averaging approximately 4.762 percent since 1986.

## **CWSRF Loans—125 totaling \$440,064,040**

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—21 totaling \$70,977,418**

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—321 totaling \$27,003,540**

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 1,500 inhabitants.

## **Emergency Grants—487 totaling \$28,854,670**

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

*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.*

*More information about the OWRB's Financial Assistance Program can be obtained by calling the OWRB at (405) 530-8800.*

Grady Grandstaff, *Chairman*; Richard C. Sevenoaks, *Vice Chairman*; Ervin Mitchell, *Secretary*  
Lonnie L. Farmer, Richard McDonald, Bill Secrest, Dick Seybolt, Wendell Thomasson, Harry Currie

Brian Vance, *Writer/Editor* • Darla Whitley, *Writer/Layout* • Barry Fogerty, *Photography* • James Leewright, *Graphics*

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# OKLAHOMA Water News

Bimonthly Newsletter of the Oklahoma Water Resources Board

## From the Director



Duane A. Smith  
OWRB Executive Director

The Second Session of the 48<sup>th</sup> Oklahoma Legislature adjourned Friday, May 24. Despite across-the-board agency budget cuts and no appropriation of cost-share funds to recapitalize the Drinking Water SRF Loan Program, the agency's work will progress as usual and even expand into new areas during fiscal year 2003. As we tighten our belts and adjust to reduced funding with which to carry out our mission, rest assured Water Board employees will continue to provide a high level of service for our customers, the citizens of Oklahoma.

During the closing month of the session, the OWRB's recently approved 0.037 mg/L Water Quality criteria for phosphorus in Oklahoma's six Scenic Rivers received the lion's share of attention, both from the Legislature and the media. In related legislation, SB 972 establishes a total maximum daily load (TMDL) process to identify the amount of phosphorus contributed from

See *From the Director*, Page 2

## 2002 Legislation Sets Board Agenda

Bills passed during the recently concluded legislative session will expand OWRB financial assistance, initiate new studies, suspend water marketing efforts, and create a legislative water planning committee. A summary of this and other legislation of chief concern to the OWRB appears below:

**SB 972**—ensures that municipal dischargers will not be subjected to potential increased treatment costs until the phosphorus loadings from all impaired Scenic River watersheds are identified and addressed through the state's total maximum daily load (TMDL) process. Oklahoma Secretary of Environment Brian Griffin will coordinate state agency development of a watershed restoration and protection strategy for each impaired scenic river in Oklahoma, including goals for bringing each impaired water back into compliance with Oklahoma's Water Quality Standards.

See *Legislation Sets Agenda*, Page 2

## New Phosphorus Standard Becomes Effective



Duane Smith explains to Rep. M.C. Leist, Chairman of the House Committee on Environment and Natural Resources, how the Board developed its proposed phosphorus standard for Scenic Rivers. The 0.037 mg/L Standard will become state law on July 1, 2002, and will become federal law upon EPA approval.

our Scenic River watersheds. Also, as we seek implementation of the new numerical limit in both Oklahoma and Arkansas, the Water Board will be intimately involved in ongoing discussions between the two states to bring about much-needed phosphorus reductions while minimizing the potential economic impacts to municipalities and the poultry industry. If recent deliberations with Arkansas officials are any indication, we should make considerable headway throughout the next several months. And I'm sure that the phosphorus standard will be the primary topic of discussion at the next meeting of the Arkansas-Oklahoma Arkansas River Compact Commission in September. Aside from regulatory efforts, interstate cooperation and dialogue will be the key to resolution of this controversial

### **Legislation Sets Agenda . . . Continued from page 1**

**SB 1247**—expands eligibility for the Board's Rural Economic Action Plan (REAP) grant program. The bill increases the population limit for eligible entities from 1,500 to 1,750 and the household tap limit for rural water/sewer districts from 450 to 525. (The REAP program, created by the State Legislature in 1996, targets primarily small towns. As a result, it is a key component of the state's overall economic development program for rural Oklahoma.)

**SB 1306**—allows certain swine feeding operations to transfer water rights permits to heirs or other buyers without having to apply for a new permit. Such transfers would be limited to operations that do not increase the size or scope of their operations or the amounts of water withdrawn.

**SB 1348**—removes the exemption for poultry operations and hatcheries from the anti-corporate farming statutes, thus preventing the larger, potentially more environmentally damaging corporate poultry operations from becoming established in Oklahoma. The bill prohibits the Oklahoma Department of Agriculture, Food, and Forestry from accepting and approving any pending applications for poultry feeding operations within one mile in each direction of the Pensacola Project's Grand River Dam Authority sea level boundary line.

**SB 1410**—places a three-year moratorium on state efforts to compact with Oklahoma's Native American tribes or negotiate agreements to market large supplies of water out of state, unless repealed by the State Legislature. The bill also directs creation of a 19-member joint legislative committee to investigate state water planning issues.

**HB 1995**—allows the Board, for the first time, to fund nonpoint source-related projects through the Clean Water SRF Loan Program. New agency rules effectuating this

issue. I will keep you informed of our progress.

SB 1410, summarized below, places a three-year moratorium on the general sale or exportation of water outside Oklahoma. While this legislation temporarily closes the door on intrastate water marketing, it also creates a terrific opportunity to focus on the need for intelligent water planning and identification of important water issues currently facing Oklahoma. Staff are identifying a course of action to update the Oklahoma Comprehensive Water Plan, due in 2005, which will incorporate regional planning initiatives. Regionalization of water and wastewater systems, water marketing, instream flow protection, and extended projections of Oklahoma's long-range water use are just a few of the subjects that will be the focus of this, perhaps our most important planning effort ever undertaken.

ground-breaking expansion of eligible projects to reduce pollution contributed through diffuse runoff and related sources, including implementation of water source protection programs, are in development.

**HB 2228**—broadens the scope of the Oklahoma Floodplain Management Act and encourages training for Oklahoma's floodplain management officials.

**HB 2330**—provides guidance to the OWRB in defining recreational sites related to the three-mile setback provision for swine feeding operations under state groundwater law.

**HB 2349**—prohibits the siting of poultry operations within floodplains or close to Scenic Rivers, public drinking water wells, and other important water bodies in the state.

**HB 2525**—appropriates \$3.84 million in General Revenue Funds to the OWRB, a 4.64% reduction (\$392,711) from last year's appropriation. This includes \$4.23 million for REAP grants and adds one FTE to the Board's Financial Assistance Division. The appropriation also includes \$220,430 for contractual services with the Oklahoma Rural Water Association to provide training and technical assistance for rural water systems.

**HB 2526**—authorizes the OWRB to expend \$1 million from Gross Production Tax REAP funding for the Beneficial Use Monitoring Program and provides full funding (\$1.2 million) if tax revenues are sufficient. It provides \$1.872 million in REAP funding to the Oklahoma Conservation Commission as cost-share and \$250,000 for upstream flood control structure rehabilitation work. Also included from REAP monies is \$50,000 in additional funding to the Oklahoma Rural Water Association and \$171,758 to the OWRB for water study matching funds.

## Sardis Water System Under Construction

In late April, crews began laying water lines that will eventually serve thousands of southeast Oklahoma residents living around Sardis Lake, located on Jackfork Creek, a tributary of the Kiamichi River.



*Crews laying water lines for the new Sardis Lake regional water supply system, anticipated for completion next spring*

Groundbreaking for the much-anticipated regional water treatment and distribution system comes on the heels of the approval of \$5.7 million in funding from the U.S. Department of Agriculture's Office of Rural Development, a \$122,397 Rural Economic Action Plan (REAP) grant from the OWRB, and other funding from federal and state loans and grants, bringing the total to almost \$9.6 million.

The construction of the Sardis water system is a tribute to the hard work and persistence of local residents, as well as a model for cooperation between federal and state government agencies, said Duane Smith, OWRB Executive Director.

For years, area residents have sought establishment of a water treatment and distribution system in lieu of hauling water from the nearby lake or drilling water wells through the rocky terrain. Legal conflicts, primarily associated with a standing lawsuit between the State of Oklahoma and Corps of Engineers over the reservoir's construction debt, as well as engineering design problems, have for years plagued initiation of the system. By next spring, approximately 1,266 homes and businesses around the lake will be provided with the abundant water supply of Sardis Lake.

Other communities in the region, such as the nearby towns of Clayton and Talihina, and a Latimer County rural water district, have also expressed an interest to tie into the system's lines in the future. The system--including a raw water storage tank, treatment plant, four treated water storage tanks, and several miles of distribution lines--will be operated by the Sardis Lake Water Authority.



*Sardis Lake yields some 156,800 acre-feet per year (about 140 million gallons per day) of excellent quality water supply--more water than either Oklahoma City or Tulsa residents use in an average year.*

## El Reno Dedicates Upgraded Plant

On May 21, members of the OWRB Financial Assistance Division attended a dedication ceremony in El Reno to celebrate the completion of water treatment plant upgrades funded by the Drinking Water State Revolving Fund (DWSRF). The water treatment plant, which formerly treated 3.5 million gallons per day (mgd), now processes 5 mgd with a peak flow of 7.5 mgd.

The El Reno Municipal Authority serves 5,330 water customers as well as 4,946 sewer customers. This project was initially financed through a DWSRF interim construction loan for \$4.69 million. On May 30, 2002, that loan was refinanced with a \$1.83 million DWSRF refinancing loan at a 0% interest rate (plus a 0.5% administration fee) and a \$3.05 million loan through the OWRB's Bond Loan Program at a 2.502% interest rate,

giving the community long-term financing at 60% of the market rate.



*View from above one of two new 36-foot diameter Claricone clarifiers at the upgraded El Reno Water Treatment Plant*

## 2001 BUMP Report Available Online

A comprehensive report of 2001 water quality data from throughout Oklahoma is now available on the OWRB Web site ([www.owrb.state.ok.us](http://www.owrb.state.ok.us)). The report, an annual disclosure of detailed physical, chemical, and biological information from 246 lakes and streams collected at approximately 600 sites, is a compilation of data obtained by Water Board staff through the agency's Beneficial Use Monitoring Program (BUMP).

"We are again pleased to present to the public this vital water quality data, which is extremely valuable to local, state, and federal decision-makers. The BUMP effort, in tandem with Oklahoma's Water Quality Standards, is the cornerstone of the state's overall water quality management program," says Derek Smithee, Chief of the OWRB's Water Quality Division.

Oklahoma's BUMP, created in 1999, is directed by the Water Quality Division of the OWRB. A primary goal of the program is to identify waters of the state that are experiencing impairments to their prescribed beneficial uses as well as the cause and source of the declining quality of individual waters. Beneficial uses for state waters—including public and private water supply, fish and wildlife propagation, agriculture, recreation, and navigation—are assigned to streams and stream segments in the Water Quality Standards (also available on the OWRB Web site), based upon the primary benefits derived from those waters by the public.



*Collecting samples from Lake Murray. Beginning in November 2000, quarterly samples were collected at five sites from the lake surface and one site at 0.5 meters from the lake bottom. Based on turbidity, true color, and secchi disk depth readings, Lake Murray had excellent water clarity in 2001.*

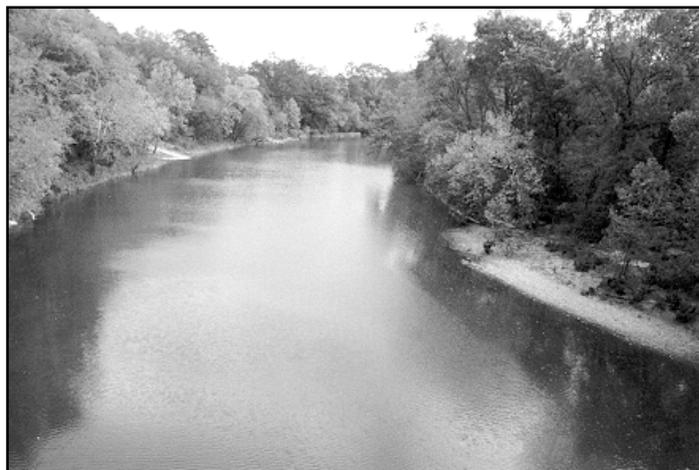
According to Bill Cauthron, manager of the Board's Monitoring Section, BUMP data gathered during 2001 indicate that the major quality concerns of Oklahoma lakes are dissolved oxygen, pH, and turbidity. Data also indicate that only nine percent of sampled lakes were "hyper-eutrophic," which means they contain an

excessive amount of nutrients that could lead to taste and odor problems. Forty-five percent of sampled lakes were considered eutrophic, 40 percent were mesotrophic, and six percent were oligotrophic (waters relatively low in nutrients).

### *2001 BUMP Lake Trophic Status Results*

Trophic Status	# of Lakes	Percent	Surface Acres
Hyper-Eutrophic	3	9%	15,501
Eutrophic	16	45%	69,592
Mesotrophic	14	40%	12,291
Oligotrophic	2	6%	14,395

Data indicate that essentially all streams sampled in 2001 were suitable for uses related to public and private water supply. Inorganic turbidity, through sediments from runoff, was the primary detriment to fish and wildlife propagation, and bacteria were the major concern for recreation that involves primary body contact with the water. A small number of sampled streams had minor problems associated with dissolved solids and chlorides, thereby limiting irrigation uses.



*The Mountain Fork River near Smithville, a permanent ambient trend monitoring station in northeastern McCurtain County. BUMP data indicate that this portion of the Mountain Fork supports the beneficial uses of Public and Private Water Supply, Agriculture, and Recreation.*

Specific information about sampling results for each lake and stream can be found in the online version of the report. Starting this year, to increase data accuracy, BUMP staff will sample all 99 rivers in the ambient site network annually and all lakes biannually. Each year, BUMP staff also monitor 30 to 60 additional sites specifically to assist other state agencies, providing valuable data for decisions related to uses and protection of waters throughout the state.

## ***OWRB's Mike Albano Retires***

OWRB staff bid a bittersweet farewell to a retiring Mike Albano at the end of April. Mike has played an integral role for the past 12 years at the OWRB, and everyone agrees that it will be difficult to fill his shoes. "His quiet and knowledgeable way of doing his job assured customers they were dealing with a professional who would interpret groundwater law in a most equitable fashion," says Duane Smith, OWRB Executive Director. "Mike will truly be missed."

With Bachelor's and Master's degrees in Geology from the University of Oklahoma, and more than 17 years of prior experience as a geologist, Mike's comprehensive knowledge of geologic formations and the valuable water resources they yield has proved invaluable on many occasions. But in addition to his professional expertise, his sense of humor and kindness will be missed as well.

From all of us at the OWRB, congratulations to Mike for an outstanding career, and we wish him a happy and exciting retirement.



## **OWRB Staff Pitch In**

On May 13, in spite of the rain, 20 OWRB staff members participated in LitterBlitz, a spring litter collection effort sponsored by Oklahoma City Beautiful and the City of Oklahoma City. The volunteers collected 22 bags of trash from the grounds of Memorial Park at 36<sup>th</sup> and Classen, just south of the OWRB main office. The OWRB's participation in LitterBlitz was organized by Jann Hook, Information Systems Administrator.



*Litter Blitz volunteers: (standing) Tony Mensah, Angela Thompson, John Day, Noel Osborn, Kevin Koon, Laura Oak, Crystal Stephens, Andy Scurlock, Dean Couch, Mike Sughru, and (seated) Jan Hook*

## ***Hodge Named Employee of the Quarter***

At the May 2002 staff meeting, Paul Hodge, Assistant Chief of the Financial Assistance Division, was named Employee of the Quarter. Paul transferred to the OWRB in 1993, and was promoted to Assistant Chief in January 1994. As of this year, Paul has completed 30 years of state service.



According to Executive Director Duane Smith, Paul is especially valuable as a supervisor because of his training skills. He has been extremely diligent in educating himself and his staff on every aspect of the OWRB's various loan and grant programs—from environmental to financial to legal issues—and has been particularly focused on insuring that staff build positive relationships with customers.

Welcome

OKLAHOMA WATER RESOURCES BOARD

Visit the OWRB web site at

[www.owrb.state.ok.us](http://www.owrb.state.ok.us)

## GIS on Display at Capitol

The eighth annual "GIS Day at the Capitol" was held on April 23. Representing the OWRB, Kevin Koon and Mike Sughru showcased an impressive display of various Water Board projects and programs they have assisted with, including those related to the Rural Water Survey, dam safety, bathymetric mapping, Southeast Oklahoma Water Study, and various hydrologic investigations.

GIS Day is sponsored by the State GIS Council, which comprises 15 state agencies. The goal of GIS Day is to educate Oklahoma legislators and the public about GIS and how these intricate systems play such an important role in providing vital geographic information for state agencies and citizens.



*Visitors viewing displays during GIS Day at the Capitol*

### **OKLAHOMA Weather Facts**

- The average statewide temperature from 1971 to 2000 was 60.2° F.
- The warmest year from 1892 to 2001 was 1954, averaging 63.7° F.
- The coolest year from 1892 to 2001 was 1892, averaging 58.2° F.
- The record low daily temperature is -27° F (occurring Feb. 13, 1905, in Vinita and Jan. 18, 1930, in Watts).
- The record high daily temperature is 120° F (occurring five times, most recently in Tipton on June 27, 1994).
- The average statewide annual precipitation from 1971 to 2000 is 36.44 inches.
- The wettest year from 1892 to 2001 was 1957 with 48.21 inches.
- The driest year from 1892 to 2001 was 1910 with only 18.95 inches.
- The greatest reported daily precipitation is 15.68 inches, occurring in Enid on October 11, 1973.
- The greatest reported 24-hour snowfall is 30.3 inches, occurring in Ardmore on December 7, 1942.
- The average annual number of tornadoes from 1950 to 2000 is 54.1.
- The most tornadoes occurring in one year is 146 in 1999.
- The deadliest tornado occurred in Woodward on April 9, 1947, resulting in 107 deaths.

*Source: 2002 Oklahoma Climatological Survey (www.ocs.ou.edu)*

## OWRB Employees Recognized at Breakfast

In celebration of Public Service Recognition Week, OWRB Chiefs once again donned their aprons for the annual Employee Breakfast, preparing a delightful array of breakfast treats for OWRB staff. During the breakfast, Duane Smith, Executive Director, regaled staff with some lighthearted humor and expressed sincere appreciation for both individual and team efforts in the past year.



*Preparing to serve staff (left to right): Mike Mathis, Planning and Management Division Chief; Jim Schuelein, Administrative Services Division Chief; Jann Hook, Information Services Administrator; Joe Freeman, Financial Assistance Division Chief; Duane Smith, Executive Director; and Derek Smithee, Water Quality Division Chief*

# Water Resources Update

## Reservoir Storage

Reservoir storage levels in Oklahoma remain generally good. As of June 3, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 98.1 percent full, a 0.7 percent decrease from that recorded on May 20, according to information from the U.S. Army Corps of Engineers (Tulsa District). Thirteen reservoirs have experienced lake level decreases since that time. Only eight reservoirs are currently operating at less than full capacity (compared to six two weeks ago). Two reservoirs (including Lugert-Altus, 54.1 percent; and Tom Steed, 67.8 percent) remain below 80 percent capacity.

### Storage in Selected Oklahoma Lakes & Reservoirs

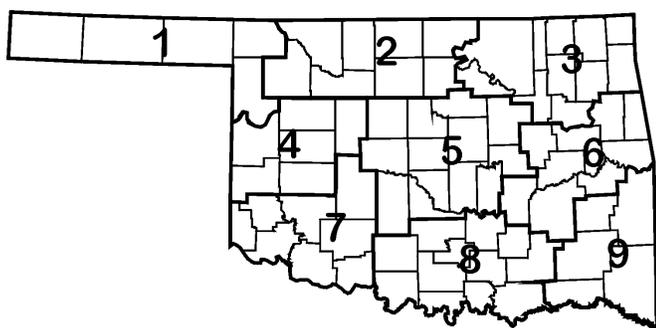
As of June 3, 2002

Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Storage	
			Conservation	Flood
North Central	505,170	505,170	100.0	5.27
Northeast	3,777,634	3,763,203	99.6	17.04
West Central	276,790	269,738	97.5	0.00
Central	154,225	154,225	100.0	0.58
East Central	2,968,681	2,968,681	100.0	4.42
Southwest	301,810	212,245	70.3	0.45
South Central	3,118,676	2,985,060	95.7	0.72
Southeast	1,561,859	1,561,859	100.0	3.73
<b>State Totals</b>	<b>12,664,845</b>	<b>12,420,181</b>	<b>98.1</b>	<b>6.54</b>

## Drought Indices

According to the latest Palmer Drought Severity Index (June 15, below), drought conditions have improved slightly in virtually all areas of Oklahoma. While the Panhandle and West Central regions remain in the “severe” and moderate drought categories, respectively, the North Central climate division has improved from “moderate” to “mild” drought. Only one of Oklahoma’s nine climate divisions has undergone a PDSI moisture decrease since June 1.

The latest monthly Standardized Precipitation Index (through May, below) indicates long-term dryness throughout the past year in much of northern and western Oklahoma, especially the Northwest/Panhandle climate division.



Among the selected time periods (3-, 6-, 9- and 12-month SPIs), the Northwest climate division reports “extremely dry” conditions throughout the last 9- and 12-month periods and “very dry” conditions in the last 3- and 6-month periods. “Very dry” conditions have also impacted North Central, West Central and Southwest regions during the last 12-month period. Among periods beyond one year, the 15-, 18-, and 24-month SPIs also report particularly dry conditions for the Northwest and North Central climate divisions. [SPI updates are available around the 10<sup>th</sup> of each month.]

### Palmer Drought Severity Index

### Standardized Precipitation Index

Through May 2002

Climate Division (#)	Current Status 6/15/2002	Value		Change In Value				
		6/15	6/1		3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	SEVERE DROUGHT	-3.46	-3.80	0.34	VERY DRY	VERY DRY	EXTREMELY DRY	EXTREMELY DRY
NORTH CENTRAL (2)	MILD DROUGHT	-1.44	-2.62	1.18	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	VERY DRY
NORTHEAST (3)	INCIPIENT MOIST SPELL	0.87	0.40	0.47	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
WEST CENTRAL (4)	MODERATE DROUGHT	-2.22	-2.34	0.12	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	VERY DRY
CENTRAL (5)	NEAR NORMAL	0.11	-0.41	0.52	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	NEAR NORMAL	0.24	-0.07	0.31	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHWEST (7)	INCIPIENT DROUGHT	-0.80	-0.97	0.17	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	VERY DRY
SOUTH CENTRAL (8)	INCIPIENT MOIST SPELL	0.63	0.44	0.19	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHEAST (9)	MOIST SPELL	1.17	1.45	-0.28	MODERATELY WET	VERY WET	MODERATELY WET	MODERATELY WET

# Financial Assistance Program Update

*Loans/Grants Approved as of June 11, 2002*

## **FAP Loans—259 totaling \$403,755,000**

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 extremely competitive low-interest rates, averaging approximately 4.762 percent since 1986.

## **CWSRF Loans—128 totaling \$442,953,903**

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—23 totaling \$74,488,647**

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.

*More information about the OWRB's Financial Assistance Program can be obtained by calling the OWRB at (405) 530-8800.*

## **REAP Grants—331 totaling \$28,009,730**

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 1,500 inhabitants.

## **Emergency Grants—489 totaling \$29,029,670**

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

*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.*

Grady Grandstaff, *Chairman*; Richard C. Sevenoaks, *Vice Chairman*; Ervin Mitchell, *Secretary*  
Lonnie L. Farmer, Richard McDonald, Bill Secrest, Wendell Thomasson, Harry Currie, *Vacant*

Brian Vance, *Writer/Editor* • Darla Whitley, *Writer/Layout* • Barry Fogerty, *Photography* • James Leewright, *Graphics*

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# OKLAHOMA Water News

Bimonthly Newsletter of the Oklahoma Water Resources Board

## From the Director



*Duane A. Smith  
OWRB Executive Director*

On behalf of the nine members of the Oklahoma Water Resources Board, I want to extend a personal invitation to all partners and customers of the Water Resources Board to join us for the 23<sup>rd</sup> Annual Governor's Water Conference on October 9 at the Adam's Mark Hotel in Tulsa. The conference will focus on this very special year as we celebrate 30 years of accomplishments through the federal Clean Water Act as well as the 100<sup>th</sup> Anniversary of the Bureau of Reclamation. I urge you to register as soon as possible and also plan on attending the associated tour of the Arkansas River Navigation

System on the morning of October 8. A registration form is included in this issue of the Water News.

On August 13, the OWRB and Oklahoma Scenic Rivers Commission hosted a tour of the Illinois River Basin in an effort to educate stakeholders and government officials on critical water quality issues impacting the

*See From the Director, Page 2*

## "Celebrate Water" at the Governor's Water Conference, October 9

On October 9, the Oklahoma Water Resources Board and 30 other water-related organizations will host the 23<sup>rd</sup> Annual Governor's Water Conference at the Adams Mark Hotel in Tulsa, Oklahoma.

The 2002 Water Conference, entitled "Celebrating Water: Past Successes, Future Challenges," will feature addresses by state and national water officials and viewpoints on an assortment of water issues from Oklahoma's gubernatorial candidates, Congressional representatives, and state legislative leaders.

Allan Stokes, Chief Operations Officer of America's Clean Water Foundation (ACWF), and Larry Walkoviak, Oklahoma-Texas Area Manager for the Bureau of Reclamation, will treat conferees to a historical perspective on water development and protection as well as a vision of future water issues on the horizon. ACWF was created in 1989 to build public interest and understanding of clean water issues and to promote personal stewardship of water resources. This year, ACWF is participating with many state and federal water organizations, including the OWRB, to promote



the U.S. Environmental Protection Agency's "Year of Clean Water," which recognizes the 30<sup>th</sup> anniversary of the federal Clean Water Act. The Bureau of Reclamation has directed much of the water development in the western U.S., including Hoover Dam and other large-scale projects, and is currently commemorating its 100-year anniversary with a year-long celebration.

*See Water Conference, Page 2*

**From the Director . . . Continued from page 1**

watershed. We not only had excellent representation from both Oklahoma and Arkansas, as the two states continue talks to implement phosphorus reduction measures, we were honored to have Congressmen John Sullivan (Oklahoma) and John Boozman (Arkansas) attend the tour. Reps. Sullivan and Boozman vowed to do all in their power to minimize potential economic impacts of the



*Phil Moershel explains the OWRB's biological monitoring procedures to Congressman John Sullivan at a tour stop on Flint Creek.*

new phosphorus standard in our Scenic River areas, especially to the poultry industry and small farming operations who are so valuable to the state's economy, while improving water quality in the two states. I believe that both men are now uniquely equipped to share this critically

important message with their colleagues in Washington D.C. as other states who share water resources also wrestle with shared water quality and quantity issues.

The tour also presented an excellent opportunity for the OWRB to demonstrate sampling procedures, as part of our statewide Beneficial Use Monitoring Program (BUMP), and associated methods of stream health assessment. At stops along Barren Fork and Flint Creeks, agency staff gave our "tourists" a firsthand view of how we collect and analyze chemical, physical, and biological data at a typical BUMP site with emphasis on the impacts of excess phosphorus and algae production on water quality. I want to personally express my gratitude to Ed Fite, Director of the Oklahoma Scenic Rivers Commission, and his staff who guided our large contingent throughout the beautiful and invaluable Illinois River watershed. Both the OSRC and Water Board are committed to preserving the economic and aesthetic benefits of Oklahoma's Scenic Rivers, but finding solutions to escalating water quality problems in many of those watersheds is contingent upon cooperation with our Arkansas neighbors. Only through open and honest negotiations that confront this problem at its source can we make a difference.

**Water Conference . . . Continued from page 1**

Other topics addressed during the one-day Conference will include interstate water quality concerns, such as elevated phosphorus levels in Oklahoma's Scenic Rivers, and Native American water rights and water quality administration. The 2005 update of the Oklahoma Comprehensive Water Plan, with an emphasis on citizen-based planning efforts, will also be outlined as will the legal ramifications of water transfer. The Conference luncheon will feature presentation of Oklahoma Water Pioneer Awards for 2002. Since 1985, the award has honored those individuals who have made extraordinary contributions to the use, management, and protection of Oklahoma's water resources.

Preceding the Conference, on October 8, state navigation interests will host a complimentary barge ride/tour of the McClellan-Kerr Arkansas River Navigation System. The tour will depart from Tulsa's Port of Catoosa

at noon. The Water Conference reception will begin at 5:30 p.m. at the Adams Mark.

Conference registration, including the complimentary barge tour, is \$40. Overnight accommodations are available at the Adams Mark, 100 East Second Street. Reservations can be made by calling 1-800-444-2326. A block of rooms and special room rate of \$55 has been reserved for conferees until September 17. After that date, the Hotel's standard rate will apply. The government room rate is available for government employees (with appropriate identification).

For more information on the Governor's Water Conference, call Barry Fogerty at 405-530-8800 or email Mary Nell Brueggen at [mnbrueggen@owrb.state.ok.us](mailto:mnbrueggen@owrb.state.ok.us). For advance registration, please complete the registration form below and mail it to the address indicated on the form along with your \$40 check, money order, or purchase order.

## Governor's Water Conference Registration

**Clip and mail to:**

Governor's Water Conference  
3800 N. Classen Boulevard  
Oklahoma City, OK 73118

**Please enclose \$40 check, money order, or purchase order payable to Oklahoma Water Resources Board.**

**No refunds after October 2.**

For more information, call (405) 530-8800  
or e-mail [mnbrueggen@owrb.state.ok.us](mailto:mnbrueggen@owrb.state.ok.us).

Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City/State \_\_\_\_\_

Zip \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

\_\_\_\_ I will attend the Barge Tour on October 8

\_\_\_\_ Number of guests for Barge Tour (please submit guest names)

## Water Conference Agenda

October 9, 2002

Adams Mark Hotel & Conference Center  
Tulsa, Oklahoma

8:a.m. Registration

8:30 Welcome

Grady Grandstaff, Chairman  
Oklahoma Water Resources Board  
Bill LaFortune, Mayor  
City of Tulsa

8:50 Governor's Address

Frank Keating, Governor of Oklahoma

9:05 Celebrating 30 Years of Clean Water

Allan Stokes, Chief Operations Officer  
America's Clean Water Foundation

9:20 A Century of Water for the West: The Bureau of

Reclamation's Centennial Celebration  
Larry Walkoviak, Manager  
Oklahoma-Texas Area Office

9:35 Tribal Water Rights and Water Quality  
Administration

Taiawagi Helton, Professor  
University of Oklahoma College of Law

Lindsay G. Robertson, Associate Professor  
University of Oklahoma College of Law

Michael Brophy, Attorney  
Ryley, Carlock & Applewhite

10:20 Coffee/Exhibits

10:40 Addressing Interstate Water Quality Issues  
Marcus C. Devine, Director  
Arkansas Dept. of Environmental Quality

Brian Griffin, Secretary of Environment  
State of Oklahoma

11:10 The Legal Ramifications of Water Transfer

Drew L. Kershen, Earl Sneed Professor  
University of Oklahoma

Gary Allison, Professor

University of Tulsa College of Law

11:40 2005 Update of the Oklahoma Comprehensive  
Water Plan

Duane A. Smith, Executive Director  
Oklahoma Water Resources Board

*Noon Luncheon Program*

Oklahoma Water Pioneer Awards

The Outlook from Washington D.C.  
Oklahoma's Congressional Delegation

State Legislative Outlook

Senator Rick Littlefield  
Senator James Dunlap  
Representative Larry Adair  
Representative M.C. Leist

Oklahoma's Gubernatorial Candidates

2:30 Adjournment

## Water Quality Improving in Lake Thunderbird

A new Water Board report indicates that water quality in Lake Thunderbird, near Norman, is improving. The report reveals that chlorophyll concentrations fell significantly last year, an indication of the reduction of algae and overall improvements in water quality, water clarity, and habitat. While it is common for aging lakes to undergo eutrophication, a process associated with relatively high levels of algae productivity, data gathered from the recently concluded study report show that Thunderbird is suffering from excess productivity of the aquatic organism.

"Chlorophyll-a concentrations above 20 micrograms per liter (mg/L) indicate that algal productivity has reached an excessive stage and must be reduced before the lake's water quality deteriorates to a critical level," says Paul Koenig, an OWRB water quality specialist.

Prompted by these water quality concerns, the OWRB initiated a cooperative study in July 2000 with the Central Oklahoma Master Conservancy District (COMCD), which manages Lake Thunderbird and oversees the delivery of the lake's water to Norman, Del City, and Midwest City. Throughout the next two years, OWRB staff collected and analyzed water quality data from the lake, resulting in a series of water quality improvement recommendations to COMCD. Subsequent management decisions by the District resulted in almost immediate impacts, as well as improvements in the water's taste and odor, Koenig said.

"In 2001, 20 percent fewer water samples had chlorophyll concentrations above 20 mg/L, and the average concentration decreased from 23 mg/L in 2000 to 15 mg/L in 2001," he pointed out. The Thunderbird study also included a lake capacity determination to determine proper sizing for a new aeration device to replace the older, inadequate system.



*Board employees Nathan Kuhnert (middle) and Phil Moershel (right) assist staff of the Oklahoma Department of Wildlife Conservation in reestablishing shoreline vegetation at Lake Thunderbird in early July. This is the second year the agencies have cooperated in the effort to enhance fish and wildlife habitat in and around the lake..*

# FLOOD CURRENT



## National, State Organizations Stay on Top of Floodplain Issues

W. Kenneth Morris, CFM

State Floodplain Manager, OWRB



Ken Morris

In late June, I was fortunate to attend the 26<sup>th</sup> annual conference of the Association of State Floodplain Managers (ASFPM) in Phoenix, Arizona. At this extremely interesting and educational event, the nation's leading flood hazard management professionals—including planners, engineers, consultants, insurance professionals, and community floodplain managers from virtually every state—were afforded a rare opportunity to share floodplain protection strategies. The ASFPM represents some 4,500 floodplain managers from across the country.

This year's theme "*Breaking the Cycle of Repetitive Flood Loss*", inspired almost 700 government and private professionals to attend. A major topic of discussion was President Bush's proposed increase of \$300 million for floodplain mapping and modernization, including increased accessibility through the Internet, within the nation's 20,000 flood-prone communities. Flood maps serve many purposes and accurate maps have a direct influence on the magnitude and costs of flooding events. The Federal Emergency Management Agency estimates that local regulation of flood hazard areas, predicated on FEMA's flood maps, saves the nation about \$1 billion each year in flood-related property losses.

In early August, the Oklahoma Department of Civil Emergency Management hosted a three-day training session entitled "Disaster Response & Recovery Operations." The course covered the basic concepts and procedures involved in responding to major disasters. It addressed federal, state and local roles and responsibilities in major disaster recovery work. The workshop also included an overview of preliminary damage assessment, disaster recovery centers, and special needs of victims and disaster workers is also included. All who attended left with stronger perspectives of this vital issue, especially important in light of the events last September, and are now better prepared to serve citizens who are impacted by virtually

any manner of disaster or emergency.

I want to encourage all state floodplain managers and partners of the Oklahoma Floodplain Management Association to attend OFMA's 12<sup>th</sup> Annual Conference to be held September 21-24 at Quartz Mountain Resort. Consistent with the recent push to balance structural and non-structural flooding solutions in a manner that will not cause additional flood damage on other properties, the conference theme is "No Adverse Impact: Taking Ownership at the Local Level." The meeting will feature local hazard mitigation success stories, provide extensive information on floodplain mapping, and review the latest floodplain management techniques. Plan on taking a couple extra days, arrive Saturday and enjoy some of the special attractions at Quartz Mountain Lodge and the adjacent area in southwest Oklahoma. OFMA will host a golf tournament on Sunday as well as a Sunday evening social. Rooms have been reserved at a special rate of \$55 per night. Please register early by calling the OWRB at 405-530-8800.

A related aspect of the No Adverse Impact initiative, and a top priority of Oklahoma's floodplain management program, is adequate training of insurance agents in writing flood insurance policies as well as familiarity with general principles of the National Flood Insurance Program. I am continually frustrated and disturbed by the relative lack of knowledge possessed by insurance agents in this area, especially since flood insurance policies are so closely tied to home insurance policies. OFMA leaders have pledged to intensify their efforts and provide more training opportunities to educate insurance agents about flood policies and the NFIP. It will require a very intense effort to get the attention of the insurance industry and improve service to property owners and businesses in Oklahoma. But working together, we can get it done.

## Conference at a Glance

“No Adverse Impact: Taking Ownership at the Local Level”

12<sup>th</sup> Annual Conference of the Oklahoma Floodplain Management Association  
Quartz Mountain Resort Park  
September 21-26, 2002

### Saturday, September 21

OFMA Board Meeting

### Sunday, September 22

Golf Tournament or Local Tour/Recreation  
Social

### Monday, September 23

Registration  
OFMA Committee Meetings  
Opening Plenary Session  
Cookout

### Tuesday, September 24

Annual Business Meeting  
Breakout Sessions  
Hazard Mitigation  
Natural/Beneficial Uses Of The Floodplain  
Floodplain Mapping

Awards Banquet

### Wednesday, September 25

Past Chairs' Breakfast  
Closing Plenary Session  
Adjourn Regular Conference  
Board Of Directors Meeting  
Floodplain Management 101

### Thursday, September 26

Floodplain 101 (continued)  
OFMA Certified Floodplain Manager Exam

## Flanagan Honored with Walking Trail

Ron Flanagan, Tulsa planning consultant and prominent member of the Oklahoma Floodplain Management Association, has been honored by the City of Tulsa through designation of Flanagan's Way, a four-mile walking trail along the city's Mingo Creek. Flanagan has been intimately involved in local flood awareness, mitigation, and planning for more than three decades.

Around the time of Flanagan's brief service as zoning administrator for the Tulsa planning commission, the city was considered one of the nation's major disaster-prone areas. The infamous 1984 Memorial Day flood caused 14 deaths and \$183 million in property damage. Today, due in part to Flanagan's push for a non-structural approach to floodplain management, Tulsa serves as a model for municipal floodplain management.

## Workshop Success Due to Board Staff

The work of OWRB employees Rhonda Kouba (pictured below), Virginia Roy, and James Leewright was critical to the success of the OWRB's recent Floodplain Management 101 workshops. Kouba, assisted by Roy, organized the workshop and lesson materials while Leewright contributed graphics and developed workshop certificates awarded to those who successfully completed the one-day course. The workshops—held this May in Norman, Tulsa, Woodward, Lawton, and McAlester to coincide with Flood Awareness Month in Oklahoma—trained some 124 local floodplain officials and related individuals from throughout the state on the latest floodplain management procedures.



Accessibility

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**The FEMA Flood Map Store**

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OPEN Welcome Catalog Map Search Quick Order My Account Cart Checkout

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[Welcome](#) [Catalog](#) [Map Search](#) [Quick Order](#) [My Account](#) [Cart](#) [Checkout](#)

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Password:

[Lagon](#)  
[Logoff](#)

**Flood Map Store News**

Store Catalog Last Updated  
06/21/2002.

New Map Search Unveiled /  
Comments Requested A [new map search](#) tool is unveiled that aids customers in finding NFIP products for a specific address or area of interest...[more info](#)

**Three Ways to Shop**

**Catalog** [Catalog](#) allows you to find products by their type and the state, county or community they are associated with. This search is designed for the customer who desires all the products of a certain type for a specific jurisdiction.

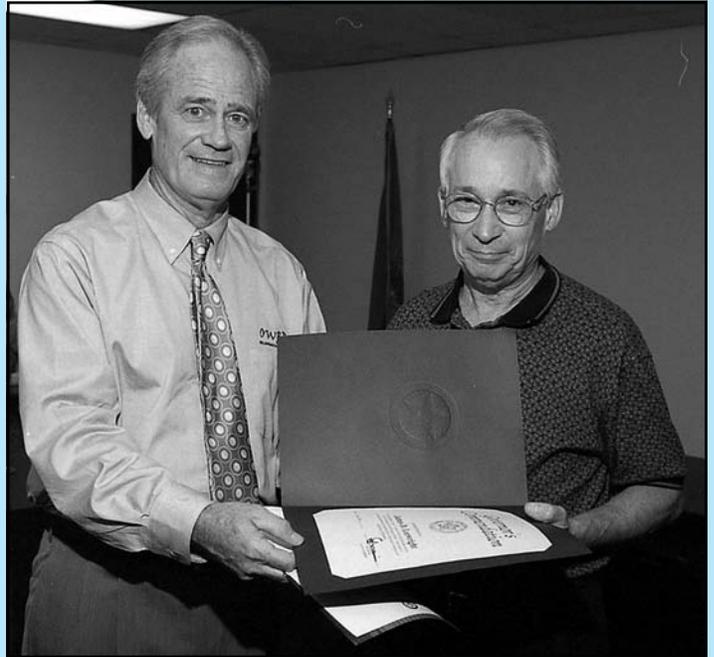
The Federal Emergency Management Agency's Flood Map Store is now accessible at [www.msc.fema.gov](http://www.msc.fema.gov). The site, maintained by FEMA's Map Service Center, offers online Flood Insurance Rate Maps (FIRMs) to its wide range of customers, including the public.

## James Leewright Retires

Long-time Water Board draftsman and graphic artist James Leewright has retired following 34 years of exceptional service to the agency. Leewright was honored by OWRB staff and friends at a brief reception held July 30 at Board offices in Oklahoma City.

“James’ career is characterized by the individual mark of quality that distinguishes his work,” says OWRB Executive Director Duane Smith. “And while his mapping and drafting skills and eye for detail are virtually unparalleled, we especially appreciate James as a person and for his willingness to always lend a helping hand to those in need.”

Some of the more notable publications on which Leewright lent his expertise include the *Appraisals of Water and Related Land Resources of Oklahoma*, 11 reports that served as precursors to the 1980 *Oklahoma Comprehensive Water Plan*, and the subsequent update of the Water Plan in 1995. However, Leewright’s work may be best exemplified through the enormously popular *Oklahoma Water Atlas* and its two revisions. He was also instrumental in creation of *Rural Water Systems in Oklahoma*, a compendium of state rural water system maps and related information.



*James Leewright receives a Governor's Commendation for his service to the OWRB and citizens of Oklahoma at the OWRB's monthly staff meeting in July.*

## Glenn Sharp Appointed to Board

Glenn A. Sharp, a civic leader and public relations/marketing specialist with Northeast Oklahoma Electric Cooperative, has been appointed to the Oklahoma Water Resources Board by Governor Frank Keating.



*Glenn Sharp*

Sharp is past president of the Grand Lake Association and has served on the Boards of the Grove Area Chamber of Commerce and South Grand Chamber of Commerce. He is a past member of the Oklahoma City and Oklahoma State Chambers of Commerce. From 1984 to 1992, Sharp served on the Governor's Economic Development Team.

A resident of Grove, Sharp graduated from Tulsa Central High School and the University of Tulsa with a B.A. in History and Political Science. He worked 29 years for Southwestern Bell Telephone Company before retiring in 1992; more recently, he was Vice President of Grand Lake Bank. Sharp and his wife Polly are the parents of four daughters and the grandparents of eight children.

Sharp, who replaces long-time Board member Dick Seybolt, represents recreational water use interests and Congressional District 2. He will serve a seven-year term officially ending in 2008.

## Koon Receives Employee Award

Kevin Koon, of the Board's Information Services Section, is the agency's Employee of the Quarter. Koon was recognized for the honor at the OWRB's monthly meeting in August.



Originally from Iowa, Koon earned his Bachelors Degree in Geography in 1995 from Northwest Missouri State University in Marysville, Missouri. He received his Masters in Geography from Oklahoma State in 1997 and that same year accepted an appointment as a Carl Albert Executive Fellow with the OWRB.

Koon is known for his exceptional customer service skills and a consistent positive attitude toward his job and co-workers along with a willingness to lend a hand with virtually any task. These traits are especially valuable in perhaps the most critically important aspect of Koon's job—i.e., assisting users with highly technical aspects of the agency's geographic information system (GIS).

The Employee of the Quarter is awarded four times each year to those staff members who excel in their relative positions at the Water Board. Honorees are selected by a committee of peers.

# Water Resources Update

## Reservoir Storage

Reservoir storage levels in Oklahoma remain generally good, although they continue to drop in some areas. As of August 21, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 93.6 percent full, a 1.3 percent decrease from that recorded on August 5, according to information from the U.S. Army Corps of Engineers (Tulsa District). Twenty-six reservoirs have experienced lake level decreases since that time. Twenty-two reservoirs are currently operating at less than full capacity (compared to 20 two weeks ago). Two reservoirs (Lugert-Altus, only 22.6 percent; and Tom Steed, 58 percent) remain below 80 percent capacity.

### Storage in Selected Oklahoma Lakes & Reservoirs

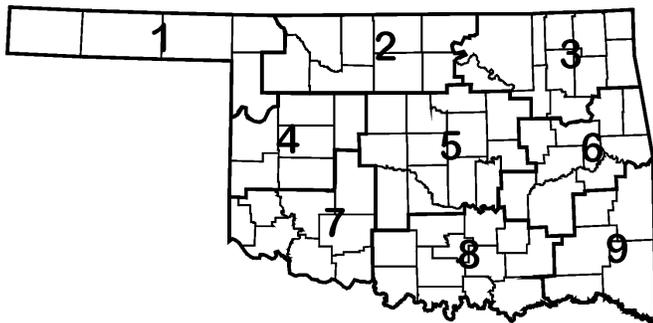
As of August 21, 2002

Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Storage	
			Conservation	Flood
North Central	428,325	423,079	98.8	1.11
Northeast	3,768,642	3,479,979	92.3	0.65
West Central	276,790	251,726	90.9	0.00
Central	154,225	148,755	96.5	0.13
East Central	2,915,043	2,720,968	93.3	0.83
Southwest	301,810	159,249	52.8	0.00
South Central	2,956,916	2,944,424	99.6	1.05
Southeast	1,512,859	1,393,846	92.1	0.07
<b>State Totals</b>	<b>12,314,610</b>	<b>11,522,026</b>	<b>93.6</b>	<b>0.51</b>

## Drought Indices

According to the latest Palmer Drought Severity Index (August 17, below), drought conditions have generally improved in many areas of Oklahoma. However, four climate divisions are still in various drought categories. The Panhandle/Northwest region remains in the "extreme" drought category while the West Central climate division has been downgraded to "severe" drought. Only two of Oklahoma's nine climate divisions have undergone PDSI moisture decreases since August 3.

The latest monthly Standardized Precipitation Index (through July, below) continues to indicate long-term dry-



ness throughout the past year in northwest Oklahoma. Also, north central and west central Oklahoma have experienced an extended, moderately dry period. Among the *selected* time periods (3-, 6-, 9- and 12-month SPIs), the Northwest/Panhandle climate division reports "extremely dry" conditions throughout the last 12-month period and "very dry" conditions during the last 6 and 9 months. Among periods beyond one year, the 15-, 18-, and 24-month SPIs also report particularly dry conditions for much of northern and western Oklahoma.

### Palmer Drought Severity Index

Climate Division (#)	Current Status 8/17/2002
NORTHWEST (1)	<b>Extreme Drought</b>
NORTH CENTRAL (2)	<b>Mild Drought</b>
NORTHEAST (3)	Near Normal
WEST CENTRAL (4)	<b>Severe Drought</b>
CENTRAL (5)	Incipient Drought
EAST CENTRAL (6)	Incipient Drought
SOUTHWEST (7)	<b>Mild Drought</b>
SOUTH CENTRAL (8)	Near Normal
SOUTHEAST (9)	Incipient Drought

### Standardized Precipitation Index

Through July 2002

3-Month	6-Month	9-Month	12-Month
MODERATELY DRY	VERY DRY	VERY DRY	EXTREMELY DRY
NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NEAR NORMAL	MODERATELY WET	MODERATELY WET	VERY WET

# Financial Assistance Program Update

## *Loans/Grants Approved as of August 13, 2002*

### **FAP Loans—264 totaling \$416,570,000**

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 extremely competitive low-interest rates, averaging approximately 4.762 percent since 1986.

### **CWSRF Loans—130 totaling \$447,616,443**

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—23 totaling \$73,856,433**

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.

*More information about the OWRB's Financial Assistance Program can be obtained by calling the OWRB at (405) 530-8800.*

### **REAP Grants—340 totaling \$28,904,595**

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 1,500 inhabitants.

### **Emergency Grants—488 totaling \$28,659,670**

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

*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.*

Grady Grandstaff, *Chairman*; Richard C. Sevenoaks, *Vice Chairman*; Ervin Mitchell, *Secretary*  
Lonnie L. Farmer, Richard McDonald, Bill Secrest, Wendell Thomasson, Harry Currie, Glenn A. Sharp

Brian Vance, *Writer/Editor* • Darla Whitley, *Writer/Layout* • Barry Fogerty, *Photography* • James Leewright, *Graphics*

This bimonthly newsletter, printed by Oklahoma University Printing Services, Norman, Oklahoma, is published by the Oklahoma Water Resources Board as authorized by Duane A. Smith, Executive Director. Eighty-eight hundred copies have been printed and mailed bimonthly at an approximate cost of 29 cents each. Copies have been deposited at the Publications Clearinghouse of the Oklahoma Department of Libraries.

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# OKLAHOMA Water News

*Bimonthly Newsletter of the Oklahoma Water Resources Board*

## From the Director



*Duane A. Smith*  
*OWRB Executive Director*

Once again, the Governor's Water Conference was an enormous success, due primarily to support from our Conference sponsors and the many speakers who graciously participated in the day's events. The meeting provided a great opportunity to reflect on the tremendous strides we have made throughout the past 30 years since passage of the Clean Water Act in cleaning up Oklahoma's rivers and lakes. Several Conference speakers also pointed out the numerous water quality issues that have yet to be addressed, including those related to nonpoint pollution and groundwater protection.

Another popular topic of discussion at the Water Conference was the common struggle between states over shared water resources. Of the four interstate stream water compacts to which Oklahoma is party, three are now

*See From the Director, Page 2*

## Annual Conference Salutes State's Water

More than 400 attendees gathered on October 9th to "celebrate water" at the 23<sup>rd</sup> Annual Governor's Water Conference in Tulsa. The Conference again provided an invaluable forum for those concerned about water issues facing Oklahoma and the nation.

Following a short video commemorating the 30<sup>th</sup> anniversary of the federal Clean Water Act, Karen Keith, Director of Communication for Mayor Bill LaFortune, welcomed conferees to Tulsa. OWRB Chairman Grady Grandstaff, who also served as Conference Chair, introduced Brian Griffin, Oklahoma's Secretary of Environment, who confronted interstate water quality issues. Expounding on the Conference theme, "Celebrating Water," Allan Stokes, Chief Operations Officer for America's Clean Water Foundation, recounted successes of the Clean Water Act. Also commemorated was the centennial anniversary of the Bureau of Reclamation in an address by Larry Walkoviak, Manager for the Oklahoma-Texas Area Office.

Three speakers addressed issues surrounding tribal water rights and water quality administration: Michael Brophy, an attorney with Ryley, Carlock, and Applewhite and special counsel for evaluating tribal water rights claims in southeastern Oklahoma; Professor Taiawagi Helton, OU

College of Law; and Professor Lindsay Robertson, OU College of Law. College Law Professors Drew Kershen of OU and Gary Allison of the University of Tulsa spoke about the legal ramifications of water transfer. Kim Winton, Oklahoma District Chief for the U.S. Geological Survey,

*See Annual Conference, Page 2*



*OWRB and Conference Chairman Grady Grandstaff listens while Allan Stoke of America's Clean Water Foundation cites successes of the federal Clean Water Act.*

## From the Director . . . Continued from page 1

subject to ongoing or potential disputes. We continue to work with our Arkansas counterparts to come to terms with implementation of the new water quality standard for phosphorus in Oklahoma's Scenic Rivers. The State of Oklahoma will not yield in this effort, but we will strive to avoid court action while working closely with the poultry industry and municipal dischargers in both states. Should we secure the necessary funding, a cooperative Illinois River Basin water quality monitoring study by the OWRB and U.S. Geological Survey will be crucial to this effort by establishing a methodical and unbiased monitoring approach that both states can readily accept.

Our Texas neighbors have constructed a dam on Palo Duro Creek in the Texas panhandle that patently violates terms of the 52-year-old Canadian River Compact. Although Oklahoma has been very patient in efforts to work out a solution to this problem since the reservoir's construction in 1991, we are now forced to seek relief through the U.S. Supreme Court. Palo Duro Reservoir unlawfully inhibits a substantial amount of flow from the North Canadian River from entering Oklahoma and eventually replenishing supply in Canton Reservoir, a major water source for Oklahoma City. In addition, Palo Duro Reservoir was not built for municipal and domestic purposes, but instead for recreation, which is disallowed under the Compact.



*Palo Duro Reservoir in the Texas Panhandle unlawfully prevents a considerable amount of the Canadian River's flow from entering the State of Oklahoma.*

A third potential interstate conflict, violating conditions of the Red River Compact, also involves Texas. Sweetwater Creek Reservoir, proposed on the North Fork of the Red River (again in the Texas panhandle), would result in poorer quality water flowing into Oklahoma. In its water allowance to Oklahoma under requirements spelled out in the Compact, Texas proposes to replace water impounded on Sweetwater Creek with that of the highly saline North Fork. That's not a good trade-off, according to Oklahoma officials.

The bottom line: We must protect Oklahoma's interests while utilizing good faith negotiation and avoiding court action, if at all possible, in cases of interstate disputes over our shared water resources.

On a final note, the OWRB made history at its October 8 meeting. With approval of a loan to the Lexington Public Works Authority, the Board has now authorized more than \$1 billion in grants and low-interest loans to Oklahoma communities and rural water systems. To observe this monumental occasion and to reflect upon the 20-year anniversary of the State Financial Assistance Program and its historical importance to water and wastewater system funding in Oklahoma, we have invited the Program's creators and many supporters through the years to a special ceremony at the State Capitol on November 12. It should be an inspiring event.

## Annual Conference . . . Continued from page 1

gave attendees an overview of her agency's programs and stressed the value of accurate water quality data to environmental decision-making.

During the luncheon program, Senators Rick Littlefield and James Dunlap and Representatives M.C. Leist and Mark Liotta reported on current and future water issues in the State Legislature. Duane Smith, OWRB Executive Director, provided an overview of Oklahoma's major water issues. Smith and Grandstaff then presented the prestigious Oklahoma Water Pioneer Award to Frank Condon

(Valliant, deceased), Mae Cooper (Bartlesville), and Murray Williams (Altus).

The conference concluded with remarks by Republican gubernatorial candidate Steve Largent. (Democratic candidate Brad Henry and Independent candidate Gary Richardson were unable to attend due to conflicting schedules.)

The OWRB would like to thank the sponsors of the 23rd Annual Governor's Water Conference as well as guest speakers and legislators who helped make the meeting a success.



*Larry Walkoviak discusses the Bureau of Reclamation's changing role in national water resource development.*

## 2002 Oklahoma Water Pioneers

At the 23rd Annual Governor's Water Conference on October 9, three individuals were recognized by the Oklahoma Water Resources Board as Oklahoma Water Pioneers for 2002.

Frank Condon (Valliant, deceased), Mae Cooper (Bartlesville), and Murray Williams (Altus) were honored with the Water Pioneer Award for their lifetime contributions to the planning, development, management, and conservation of Oklahoma's water resources. The honor was bestowed by OWRB Executive Director Duane Smith.

Frank Condon served on the Oklahoma Water Resources Board from 1989 to 1993, and then was appointed as an original member of the Environmental Quality Board by Governor David Walters to represent manufacturing. He served as Chairman of the Environmental Quality Board from 1995-96. Condon was actively involved in environmental issues in Oklahoma for over 30 years, including membership in the Environmental Federation of Oklahoma, which renamed their annual Award for Environmental Excellence as the "Frank Condon Award for Environmental Excellence." Condon's wife, Julie (pictured on right at top with Duane Smith), accepted the award on his behalf. Condon passed away in March 2001.

Mae Cooper (middle) has been a longtime advocate of rural water systems and has assisted in the development and organization of area water districts. She was an incorporator of Strike Axe Water Company in Osage County and served for a number of years on the board of directors. Elected to the Oklahoma Rural Water Association Board in 1977, Cooper served on the ORWA Executive Board from 1982 to 1998 and was Secretary of the Association from 1982 to 1988. Cooper was the ORWA's Woman of the Year Award in 1988.

Murray Williams (bottom) served on the Board of Directors of the Lugert-Altus Irrigation District for 30 years (1959-1989). A lifelong cotton farmer with a Master's degree in Agronomy from Oklahoma State University, Williams was the first farmer on the south end of the District to receive irrigation water from Lugert-Altus Reservoir, constructed in 1948. In 1958, he was named the Jackson County Outstanding Young Farmer of Oklahoma, and he received the National Cotton Farmer of the Year award in 1980. He was one of the first district farmers to install underground drainage pipe as a soil and water conservation measure in the 1970s.

Oklahoma Water Pioneers are selected by the 30 sponsors of the Annual Governor's Water Conference. Ninety-four Oklahomans have been honored with the award since its inception in 1985.



## Clean Water Festival

On October 19<sup>th</sup>, the OWRB, Office of the Secretary of Environment, City of Oklahoma City, State Department of Environmental Quality, U.S. Geological Survey, and other organizations hosted the Clean Water Festival at Lake Hefner. The event commemorated the Year of Clean Water and the 30th Anniversary of the Clean Water Act.

Brian Griffin, Secretary of Environment; Duane Smith, OWRB Executive Director; and Kim Winton, USGS District Chief, joined citizens in collecting water samples during the Festival for National Water Monitoring Day. Data from these and other water samples collected during October from across the country will be used to gather a "snapshot" of the nation's water quality.

In addition to the Festival, the Oklahoma Clean Lakes Association held its first ever Hefner Lake Sweep. In spite of rain and strong winds, more than 100 volunteers picked up trash along the shore.



Using a Secchi disk, Derek Smithee, Chief of the Board's Water Quality Division, and Secretary of Environment Brian Griffin prepare to estimate water clarity at Lake Hefner.

# 23rd A Governor's Wa



*OWRB staff members Mary Nell Brueggen and Mary Schooley at the registration desk*



*The Conference meeting room at Tulsa's Adams Mark Hotel*



*Brian Griffin, Oklahoma Secretary of Environment*



*Steve Largent, Governor of Oklahoma*



*Rep. Lloyd Fields with Mike Melton*



*Allan Stokes, America's Clean Water Foundation*



*Michael Brophy, Attorney*



*Professor Taiawagi Helton, OU College of Law*



*Professor Lin, OU College of Law*



*Mike Melton with Water Pioneer Murray Williams and Larry Walkoviak of the Bureau of Reclamation*



*Water Board member Glenn Sharp with Derek Smithee*



*Nathan Ellis and Joe Freeman with Davis City Manager Donald Brittin*



*Richard Smith of INCOG with Julie Cunningham*



*Floodplain model at the Corps of Engineers display*



*Ed Fite, Scenic Rivers Commission, with Mike Thralls, Conservation Commission*

# Annual Water Conference



...t, Republican  
...l candidate



Sen. Rick Littlefield,  
Oklahoma State Senate



Rep. M. C. Leist, Oklahoma  
House of Representatives



Rep. Mark Liotta, Oklahoma  
House of Representatives



Sen. James Dunlap,  
Oklahoma State Senate



...dsay Robertson,  
...f Law



Professor Gary Allison, Univ.  
of Tulsa College of Law

## Port of Catoosa Navigation Tour



More than 100 conferees and guests joined the Corps and navigation interest groups during the October 8 barge tour of the McClellan-Kerr Arkansas River Navigation System near Catoosa.



Col. Robert L. Suthard, District  
Commander, explaining how  
navigation benefits Oklahoma



USGS District Chief Kim Winton checks in with Bob Sandbo



Phil Lorenz, 2001 Oklahoma Water Pioneer,  
with Duane Smith



2002 Oklahoma Water Pioneer Mae Cooper  
with Brian Vance of the OWRB



Mike Mathis with Bill Porter of the Natural  
Resource Conservation Service

Welcome

OKLAHOMA WATER RESOURCES BOARD

Visit the OWRB web site at  
[www.owrb.state.ok.us](http://www.owrb.state.ok.us)

## OWRB Staff Pitch in for Day of Caring

On October 4, as part of the 2002 United Way State Employee Campaign, OWRB staff members participated in the Day of Caring. Participants cleaned floors and furniture, painted walls and shelves, assembled light fixtures, and planted flowers for the volunteers at the CONTACT Crisis Helpline office in Oklahoma City. CONTACT provides 24-hour emotional support, suicide prevention, crisis intervention, community information, and referral, and all calls to CONTACT are anonymous, confidential, and free.



Representing the OWRB during the Day of Caring were (kneeling, from left) Laura Oak, Angela Thompson, Leslie Nance, Katera Whitaker, (standing) Wilma Beagle, Lynda Williamson, Anita Ray, Karen Milford, Rick Wicker, Alex Vera, Crystal McLaren, Mark Stafford, and Jim Schuelein.

## Legislator Lauded for Floodplain Efforts

Representative Thad Balkman of Norman was honored at the annual meeting of the Oklahoma Floodplain Managers Association (OFMA) as the Public Official of the Year. This year's event was held September 21-24 at Quartz Mountain State Resort.



Rep. Thad Balkman

"Rep. Balkman is a great friend and supporter of OFMA," says Ken Morris, State Floodplain Manager. "He understands the importance of floodplain management and the many benefits it provides to Oklahomans."

Specifically, according to Morris, Balkman was recognized for coauthoring House Bill 2228, which broadened the scope of the Oklahoma Floodplain Management Act and encouraged regular training for Oklahoma's floodplain management officials. Balkman is a member of the House Committee on Environment and Natural Resources.

The OFMA also cited Balkman for his support of the Federal Emergency Management Agency's "No Adverse Impact" initiative and pursuit of funding for flood mitigation in the State Legislature.

The Public Official of the Year award is given to those officials who implement public policy initiatives that demonstrate excellence in floodplain management. Flooding is the single most costly disaster affecting Oklahomans each year.

"I am honored to be chosen for this award, but the real winner is OFMA," said Balkman, who is completing his first term in the Oklahoma House of Representatives.

## House Reporter Honored by Board

At its September meeting, the nine-member Water Board presented a certificate of appreciation to Mike Ray, Director of the Media Division for the State House of Representatives, for his reliable support of agency programs and activities.

"Mike, assisted by his staff in the Media Division, has been a tremendous supporter of water issues in Oklahoma," said Duane Smith, OWRB Executive Director. "His press releases and news items related to water stories of interest to Oklahomans are timely, accurate, and well-researched. That's really saying a lot when you consider that the issues we deal with are often complicated and sometimes very controversial."

Ray, a native of Yale, Oklahoma, has been with the House staff since January 1990.



Mike Ray accepts the Board's recognition award from OWRB Chairman Grady Grandstaff and Executive Director Duane Smith.

# Oklahoma Drought Monitor

## Reservoir Storage

Reservoir storage levels in Oklahoma remain generally good, although they continue to drop in most areas. As of October 15, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 90.2 percent full, a 1.6 percent decrease from that recorded on September 16, according to information from the U.S. Army Corps of Engineers (Tulsa District). Twenty-three reservoirs have experienced lake level decreases since that time. Twenty-five reservoirs are currently operating at less than full capacity (compared to 25 one month ago). Three reservoirs (Lugert-Altus, only 10.1 percent; Tom Steed, 54.7 percent; and Wister, 79 percent) are below 80 percent capacity.

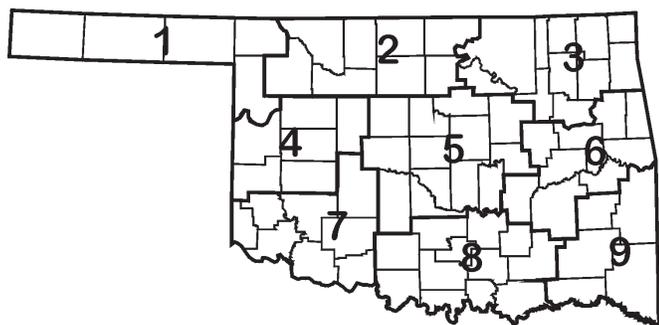
### Storage in Selected Oklahoma Lakes & Reservoirs

As of October 15, 2002

Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Storage	
			Conservation	Flood
North Central	420,480	419,985	99.9	2.12
Northeast	3,710,194	3,425,621	92.3	0.21
West Central	276,790	253,843	91.7	0.00
Central	154,225	143,832	93.3	0.25
East Central	2,915,043	2,553,678	87.6	0.00
Southwest	301,810	138,218	45.8	0.00
South Central	2,989,268	2,813,829	94.1	0.41
Southeast	1,486,349	1,301,309	87.6	0.00
<b>State Totals</b>	<b>12,254,159</b>	<b>11,050,315</b>	<b>90.2</b>	<b>0.34</b>

## Drought Indices

According to the latest Palmer Drought Severity Index (November 2, below), drought conditions have improved dramatically throughout Oklahoma. No climate divisions are currently classified in a drought category, although the East Central and Northeast regions are considered in "incipient" drought. None of Oklahoma's nine climate divisions has undergone a PDSI moisture decrease since October 12.



The latest monthly Standardized Precipitation Index (through September, below) indicates that recent long-term dryness has been alleviated somewhat in northwest Oklahoma. Among the *selected* time periods (3-, 6-, 9- and 12-month SPIs), the Northwest/Panhandle climate division reports only "moderately dry" conditions throughout the last 12-month period. Short-term dryness is now impacting eastern Oklahoma as the East Central region reports "moderately dry" conditions during the last 3 months. Considering longer periods, conditions remain dry throughout the past 24 to 30 months in northern and western Oklahoma.

### Palmer Drought Severity Index

### Standardized Precipitation Index

Through September 2002

Climate Division (#)	Current Status 11/4/2002	Value			Standardized Precipitation Index			
		11/4	10/12	Change In Value	3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	UNUSUAL MOIST SPELL	2.02	-1.10	3.12	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
NORTH CENTRAL (2)	VERY MOIST SPELL	3.01	1.85	1.16	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NORTHEAST (3)	INCIPIENT DROUGHT	-0.73	-1.53	0.80	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
WEST CENTRAL (4)	UNUSUAL MOIST SPELL	2.23	-0.75	2.98	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
CENTRAL (5)	MOIST SPELL	1.59	0.87	0.72	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	INCIPIENT DROUGHT	-0.63	-1.73	1.10	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHWEST (7)	MOIST SPELL	1.62	0.47	1.15	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTH CENTRAL (8)	MOIST SPELL	1.86	0.48	1.38	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHEAST (9)	INCIPIENT MOIST SPELL	0.61	-1.02	1.63	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL

# Financial Assistance Program Update

*Loans/Grants Approved as of October 8, 2002*

## **FAP Loans—268 totaling \$418,580,000**

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 extremely competitive low-interest rates, averaging approximately 4.762 percent since 1986.

## **CWSRF Loans—132 totaling \$449,578,443**

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—25 totaling \$77,696,582**

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.

*More information about the OWRB's Financial Assistance Program can be obtained by calling the OWRB at (405) 530-8800.*

## **REAP Grants—340 totaling \$28,904,595**

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—490 totaling \$28,746,370**

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

*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.*

Grady Grandstaff, *Chairman*; Richard C. Sevenoaks, *Vice Chairman*; Ervin Mitchell, *Secretary*  
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# OKLAHOMA Water News

*Bimonthly Newsletter of the Oklahoma Water Resources Board*

## From the Director



*Duane A. Smith  
OWRB Executive Director*

We recognized a very special milestone at the Water Resources Board in November with the “Billion Dollar Celebration” at the State Capitol. At the October meeting, Board approval of a bond program loan to Lexington Public Works Authority signified a total of more than \$1 billion in loans and grants from the State Financial Assistance Program. The following month’s event in the Capitol Blue Room provided us with a unique opportunity to thank all those individuals, especially former Governor George Nigh and FAP bill author Senator Cal Hobson, who contributed so much to the program’s creation. It was also great to see former OWRB members Gerald Borelli, Robert S. Kerr, Jr., and Ralph McPherson, as well as directors Jim Barnett, Patty Eaton, and Gary

*See From the Director, Page 2*

## Billion Dollar Celebration Marks FAP Milestone

To celebrate the billion dollar mark of the agency’s water and wastewater system financing program, the Oklahoma Water Resources Board hosted a special celebration in the Blue Room of the Oklahoma State Capitol on November 12.

Board Chairman Grady Grandstaff and Executive Director Duane Smith hosted the event, marking 20 years and \$1 billion in financing through the state’s Financial Assistance Program (FAP), administered by the OWRB. The Billion Dollar Celebration was highlighted by comments on the historical significance of the FAP from former Governor George Nigh, Lt. Gov. Mary Fallin, Sen. Cal Hobson, and Secretary of Environment Brian C. Griffin. Nigh successfully lobbied for creation of the financing program during his tenure while Hobson is the author of legislation that paved the way for the program.

Extolling the virtues of the FAP, as well as providing a retrospective of the program, were former OWRB directors Jim Barnett, Patty Eaton, and Gary Sherrer, and former OWRB Chair, Gerald Borelli. The ceremony was also attended by numerous other individuals who were involved in the creation and success of the 1982 financing initiative.

“As we look back on the history of this great program and its tremendous economic impact upon Oklahoma, it is so difficult to single out just one, two, or even a dozen individuals who provided the most significant contributions,” said Duane Smith. “Certainly, Gov. Nigh was a tremendous supporter of the FAP and he realized that our communities require a dependable source of water and

*See Billion Dollar Celebration, Page 2*



*Grady Grandstaff, OWRB Chair; Walt Allen, Lexington City Manager; Former Governor George Nigh; and Sen. Cal Hobson*

## **From the Director . . . Continued from page 1**

Sherrer, who all so ably carried the FAP banner for 20 years to the program's billion dollar point. Countless other Water Board members and staff, legislators, and organizations also deserve credit in making the FAP Oklahoma's top financing option for community water and wastewater projects. Special recognition was given at the December 10 Board Meeting to the OWRB's Mike Melton, who assisted in the creation of the program and has provided support for all of its 20 years.

As we salute accomplishments resulting from our suite of five FAP options--the Bond Loan, Clean Water and Drinking Water State Revolving Loan Fund, Emergency Grant, and Rural Economic Action Plan Grant Programs --we must also recognize the many remaining water and sewer needs of our cities, towns, and rural water districts. Currently, almost \$350 million in water and sewer system projects await funding. According to a survey recently conducted by the State Department of Environmental Quality, Oklahoma will require at least \$2.3 billion to fund just its drinking water system needs throughout the next 20 years. A similar OWRB study estimated a minimum \$1.1 billion need for wastewater treatment projects. This anticipated funding gap threatens the very fabric of our communities; their economic and social welfare is at stake.

In light of the current challenging budget situation facing Oklahoma, Governor-Elect Brad Henry and our legislative leaders will be obliged to consider innovative options to assure the future water infrastructure financing needs of our citizens.

## **Billion Dollar Celebration . . . Continued from page 1**

wastewater system financing to insulate our citizens from all-too-frequent drought episodes. But there are countless other men and women to thank for the program's success and it was great to see most of them here today."



*Former OWRB Executive Directors Jim Barnett, Patty Eaton, and Gary Sherrer with current Director Duane Smith*

In conclusion, I again want to assure all Oklahomans that staff of the Water Board will continue to provide not only adequate, but excellent service in the pursuit of first-rate water management and protection, even in these extremely difficult budget times. It is the employees and their dedication that make the OWRB, in my opinion, Oklahoma's best and most efficient state agency.



*Grady Grandstaff, Mike Melton, and Duane Smith during a special presentation to Melton for his contributions to the FAP*

As of October, the OWRB has approved \$1,003,505,989 in 1,255 grants and low interest loans to Oklahoma communities and rural water systems through its three loan programs (the FAP Bond, Clean Water State Revolving Fund, and Drinking Water State Revolving Fund Programs) and two grant offerings (Rural Economic Action Plan and FAP Emergency Grant Programs). During the November 12 celebration, a ceremonial check was presented to the Lexington Public Works Authority, whose FAP loan marked the billion-dollar milestone.

From an initial \$25 million dollar appropriation in 1983, plus about \$14 million in additional funding through the years, the FAP has resulted in an eightfold return on initial investment and has become Oklahoma's most popular financing option for public water and sewer infrastructure needs. Individual FAP loan and grant programs are administered by staff of the OWRB's Financial Assistance Division, directed by Joe Freeman.



*Lt. Gov. Mary Fallin, speaking on behalf of Governor Keating*

# Board Launches Water Rights Review

The OWRB is currently conducting a review of existing stream water rights in Oklahoma to identify water that has been appropriated but underutilized. “We’re making a renewed effort to account for permitted water rights throughout the state,” says Mike Mathis, Chief of the OWRB’s Planning and Management Division. “With close to 3,000 stream water use permits under the Board’s administration, it’s an enormous and important undertaking to update our database.”

Agency staff are reviewing annual water use reports, permits, and related information to identify those users who may have rights to water beyond that required for their intended uses. Oklahoma’s stream water appropriation law has a “use or lose” component that requires water rights holders to use their entire authorized amount for the year at least one year during a continuous 7-year period. To track water use, permit holders are required to submit annual reports of their usage to the OWRB. This tracking prevents the potential speculation of water rights and generally assures that water remains available to prospective water users.

“Applicants for new water rights can also apply for a schedule of use provision so that water users can plan for future growth and secure the water required for that growth to occur,” Mathis adds. The provision, commonly utilized for municipal/industrial use, is typically for a 50-year period. “In general, this provides an alternative to the ‘use or lose’ rule by creating a schedule of incremental water use. This is a tremendous planning tool that facilitates both growth and economic development.”

Mathis points out that the primary purpose of the Board’s renewed water rights and use accounting effort is to establish a more accurate inventory of permitted water use. This will allow the agency to do a more efficient job of water management in Oklahoma. “The Board is not attempting to take away the rights of water users,” he says. “As Oklahoma continues to grow, we simply must have accurate information on water use—how much water is being used, where it is put to use, and for what purpose—and adjust our permits accordingly. When completed, this process should actually result in strengthening

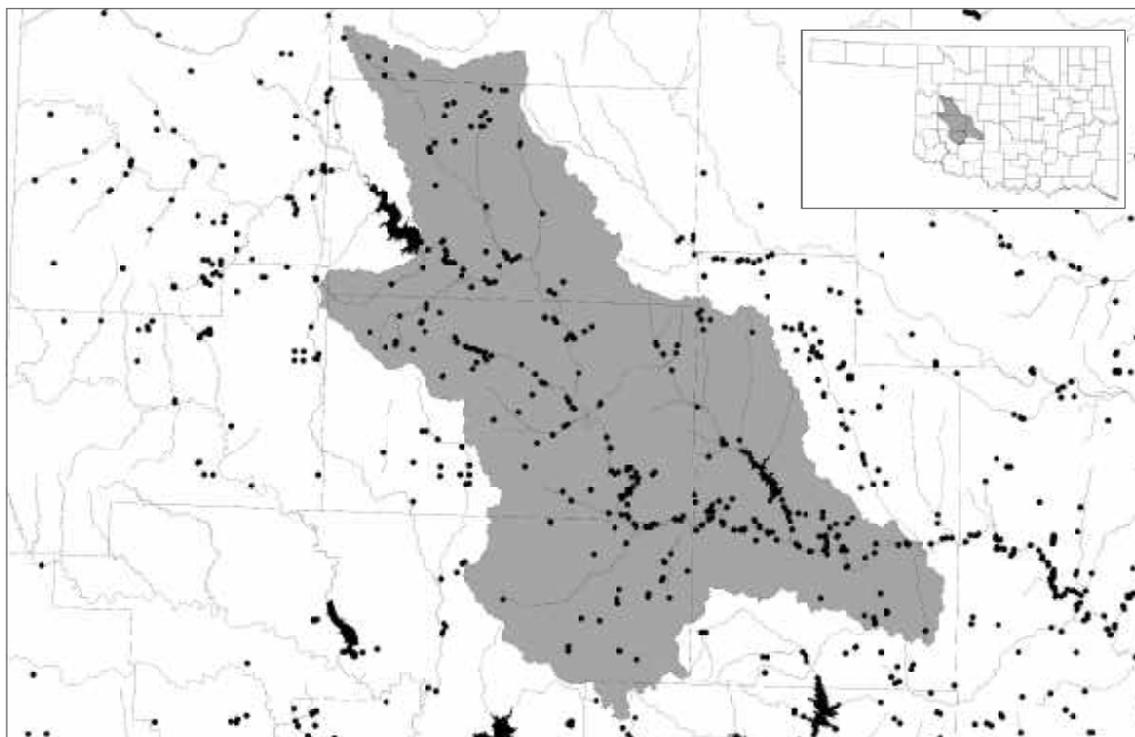
individual water rights.”

Following notification of cancellation or reduction, the user is provided an opportunity to correct the use report(s) or explain why water has not been used beneficially. If the Board receives no response, a notice of “show cause” hearing is sent 30 days prior to the hearing date.

At the hearing, the permit holder is provided an opportunity to prove a willingness and ability to use the water and demonstrate that failure to use all or any of the water was beyond the user’s control. Common examples of valid excuses for nonuse include flooding damage to a field, pump, or intake structure; drought or lack of normally available supply; required service or duty in the armed forces; placement of land in a conservation reserve or related program; and the wrongful acts, such as pollution, of other people.

A reduction or forfeiture of water right due to nonuse does *not* preclude a prospective water user from filing for or obtaining a future stream water permit.

For questions or more information concerning the Board’s water rights review effort, please call the OWRB at 405-530-8800.



*This stream sub-system within the Washita River Basin is one of the state’s most heavily appropriated regions. Dots indicate stream water withdrawal points permitted by the OWRB.*

## OWRB Retools Arbuckle-Simpson Permit Strategy

The OWRB's formal consideration of the proposed use of south central Oklahoma groundwater by thirsty communities in central Oklahoma has been delayed as a result of an automobile accident involving the agency's hearing examiner.

Judge Don Barnes, a retired Oklahoma Supreme Court justice retained by the Water Board to consider protested water use applications and related matters under the agency's purview, was scheduled to oversee a prehearing conference on September 30. However, communication problems left Board staff unaware of an accident the previous weekend that for a time left Judge Barnes in serious condition. The judge is expected to reassume duties with the OWRB in the very near future.

The purpose of the conference—scheduled for September 30 in Wayne, Oklahoma—was to identify persons intending to present detailed evidence and/or testify at upcoming regular hearings on the two proposed permits filed by applicants Clayton and Julie Jack (1,700 acre-feet per year) and William and Betty Ann Clark (805 ac-ft/yr). The Board has received more than 1,600 protests on those permits. However, the Jacks withdrew their permit application in mid-December. The OWRB has yet to make decisions on rescheduling the prehearing conference or the regular hearing date(s) on the Clark or other pending



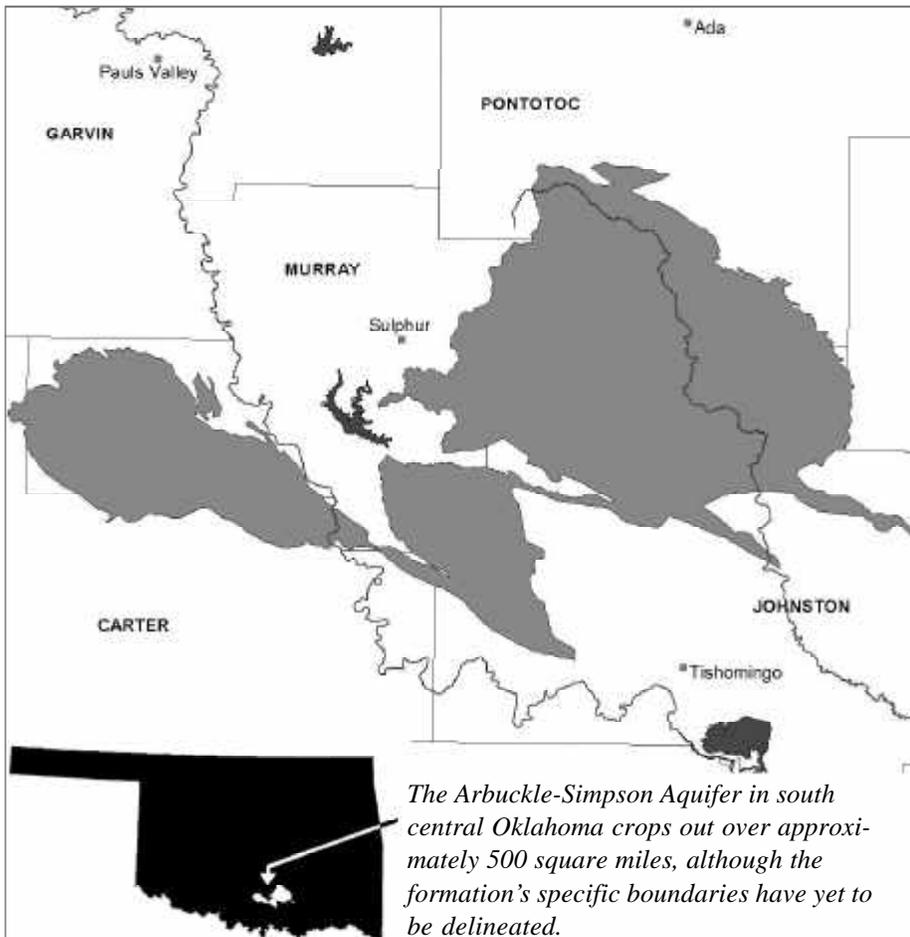
*Approximately 128 miles long, the Blue River is largely fed by springs and seeps from the Arbuckle-Simpson.*

permit applications.

Last year, a local development company, PESA LLC, approached numerous central Oklahoma communities—including Yukon, Piedmont, El Reno, Mustang, Calumet, Okarche, and others—with a proposal to provide future water supply through an 88-mile pipeline from the Arbuckle-Simpson Aquifer. PESA has reportedly secured the water rights from many landowners overlying the groundwater source and several municipalities have already entered into agreements to join the estimated \$200 million project, which would supply as much as 60,000 acre-feet of water per year to the Oklahoma City area. More recently, the involved cities and towns have also inquired about the feasibility of receiving supply from Kaw Lake, in far north central Oklahoma.

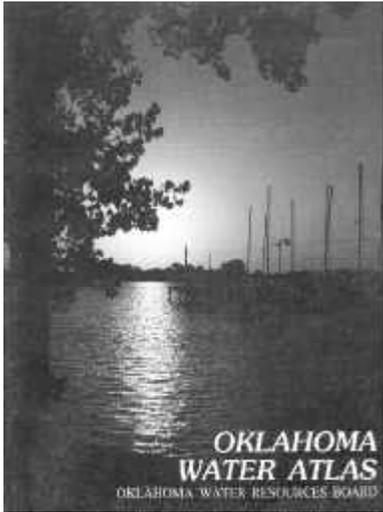
The Water Board is currently working with members of Oklahoma's Congressional delegation to identify funds that would be utilized to sponsor a comprehensive multi-year study of the prolific and highly complex groundwater source. The Arbuckle-Simpson Aquifer supplies flow to many area rivers and streams—including Byrd's Mill Spring and the Blue River, the drinking water source for the City of Ada—but OWRB hydrologists indicate that more information is required to properly manage and protect the groundwater formation. The aquifer underlies approximately 500 square miles from near Ardmore in Carter County to Ada in Pontotoc County.

For more information on the Arbuckle-Simpson aquifer, including public notices and a map delineating water use permits in the area, access the Board's Web site at [www.owrb.state.ok.us](http://www.owrb.state.ok.us).



## Oklahoma Water Atlas Maps Available Online

While the 1990 *Oklahoma Water Atlas*, one of the OWRB's most popular publications, is no longer in print, individual lake maps and recreational information from the *Atlas* are now available on the OWRB Web site ([www.owrb.state.ok.us](http://www.owrb.state.ok.us)). Maps are in PDF format and can be viewed and/or printed with Adobe® Acrobat Reader.



The site features 142 federal, public, and private lakes throughout Oklahoma. In the near future, staff will add additional content from the original publication, maps of recently constructed projects, and bathymetric maps created from detailed, individual lake studies in which the Water Board has participated.

## Paul Hodge Retires

The OWRB said good-bye in November to the Financial Assistance Division's Paul Hodge, who retired after more than 30 years of state service.

Paul grew up in Maysville, OK, and graduated from East Central State University in 1969 with a degree in Health and Physical Education. After working for the Department of Health, he transferred to the OWRB in 1993.

Through his work on the State Revolving Fund programs, Paul was an exemplary representative for the agency. Congratulations and thanks to Paul Hodge for a noteworthy career of service to the State of Oklahoma and OWRB.



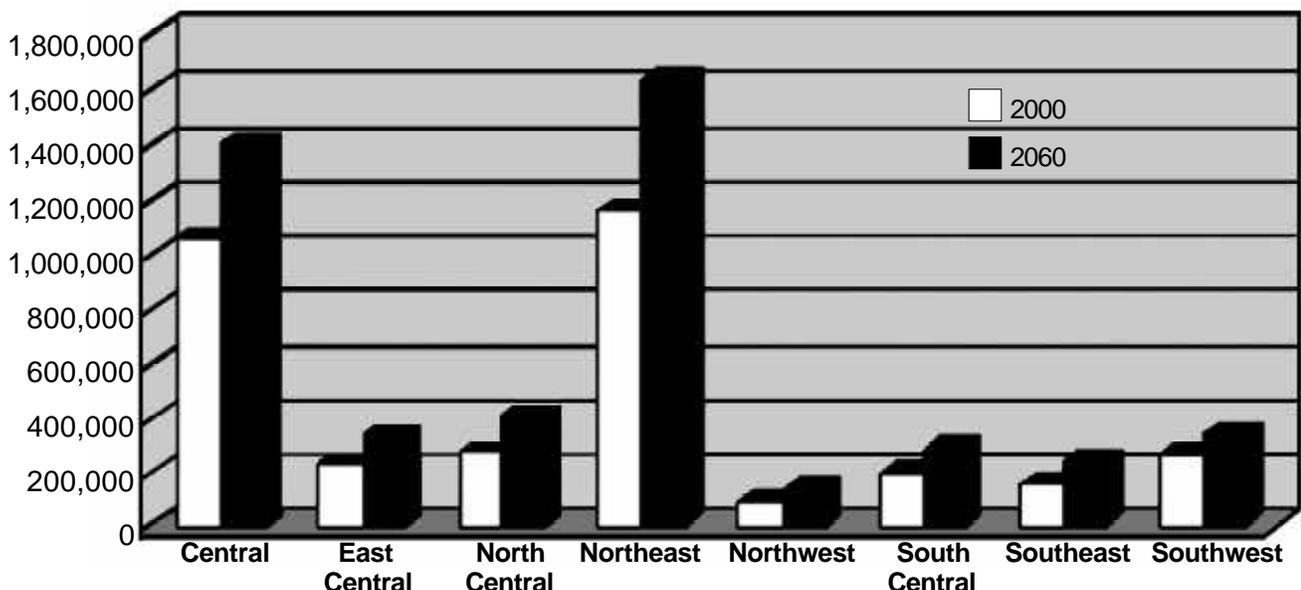
*Duane Smith presents a Statement of Appreciation to Paul Hodge during his retirement reception.*

## Population Growth Projected

As a first step in the 2005 update of the *Oklahoma Comprehensive Water Plan*, the OWRB recently cooperated with the Oklahoma Department of Commerce to forecast population growth in Oklahoma through 2060 (by planning region, below). In turn, these figures will provide the basis for updated projections of future water use in each of the OWRB's eight planning regions. The Water Board and U.S. Army Corps of Engineers will

conduct the study, which will assist decision-makers in identifying precisely where water and water systems are in greatest need.

The ultimate goal of the 2005 OCWP update is to provide a tool to assist all citizens, farmers, ranchers, municipalities, and industries in Oklahoma in gaining access to good quality water.



## Staff Raise Money for United Way

OWRB staff raised more than \$6,600 during the agency's annual United Way campaign for 2002. In addition to payroll contributions, several special fundraising events were organized by Laura Oak, Shelly Bacon, and Crystal McLaren to raise money for those Oklahomans in need. The events included a Halloween costume contest, pie-in-the-face drawing, hula-hoop contest, scavenger hunt, jeans day, and crazy shirt day.



The OWRB's fundraiser costume contest featured (front row) a hiker, (middle row) William Wallace, Dorothy, a clown, cowgirl, two of spades, a good clown, sorceress, a devilish OU fan, scuba diver, (back row) a stereotypical Arkansas resident, Death, and a baseball player.



Nathan Kuhnert, winner of a drawing for United Way contributors, smashes a pie in the face of Water Quality Division Chief Derek Smithee.



Costume contest winner John Day as William Wallace from Braveheart

## Cole Named Employee of the Quarter

At the October OWRB staff meeting, the Employee of the Quarter award was presented to Nikki Cole. An OWRB employee since February 2000, Nikki provides administrative support for the agency's Water Quality Division. Her superior work ethic, attention to detail, and willingness to tackle projects that aren't specifically in the job description are what make Nikki so valuable. Division Chief Derek Smithee noted that her supportive and positive attitude make her a pleasure to work with.

Nikki recently recognized the limitations of the state project accounting system and designed a spreadsheet to track project expenditures. This system has greatly facilitated the management of division finances and project funding. Nikki also assisted in transferring division information, such as the annual Beneficial Use Monitoring Program (BUMP) Report, to the agency Web site.



Duane Smith with the Employee of the Quarter, Nikki Cole

# Oklahoma Drought Monitor

## Reservoir Storage

Reservoir storage levels in Oklahoma are generally good. As of January 6, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 96.1 percent full, a 4 percent increase from that recorded on December 9, according to information from the U.S. Army Corps of Engineers (Tulsa District). Only five reservoirs have experienced lake level decreases since that time. Sixteen reservoirs are currently operating at less than full capacity (compared to 23 one month ago). Three reservoirs (including **Lugert-Altus, only 29.9 percent**; and Tom Steed, 59.3 percent) remain below 80 percent capacity.

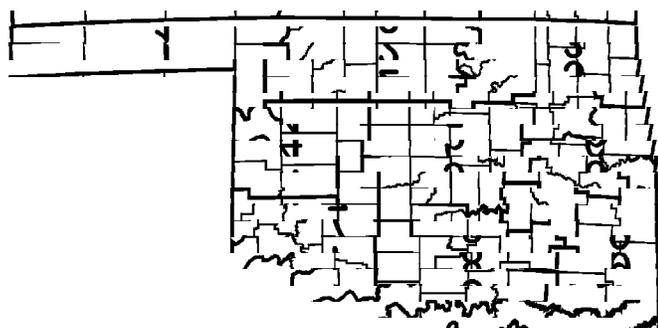
### Storage in Selected Oklahoma Lakes & Reservoirs

As of January 6, 2003

Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage
North Central	487,400	487,400	100.0
Northeast	3,710,194	3,468,535	93.5
West Central	276,790	275,922	99.7
Central	154,225	146,689	95.1
East Central	2,968,683	2,876,483	96.9
Southwest	301,810	172,476	57.1
South Central	2,940,740	2,936,888	99.9
Southeast	1,491,229	1,484,281	99.5
<b>State Totals</b>	<b>12,331,071</b>	<b>11,848,674</b>	<b>96.1</b>

## Drought Indices

According to the latest Palmer Drought Severity Index (January 4, below), drought conditions have largely vanished throughout most of Oklahoma. No climate divisions are currently classified in drought. Only three of Oklahoma's nine climate divisions have undergone PDSI moisture decreases (through minor) since December 7. The greatest decrease occurred in the Northwest climate division.



The latest monthly Standardized Precipitation Index (through November, below) indicates general long-term dryness in east central and northwest Oklahoma. Among the *selected* time periods (3-, 6-, 9- and 12-month SPIs), the East Central climate division reports "very dry" conditions throughout the last 3-month period and "moderately dry" conditions over the past 6 months. Also, the Northeast region is "moderately dry" over the last 3 months. Considering longer periods (through six years), the Northwest, Northeast, and Southwest indicate dry conditions at various times over the past 18, 24, and 30 months.

### Palmer Drought Severity Index

### Standardized Precipitation Index

Through November 2002

Climate Division (#)	Current Status 1/4/2002	Value		Change In Value	Standardized Precipitation Index			
		1/4	12/7		3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	UNUSUAL MOIST SPELL	1.73	2.24	-0.51	VERY WET	MODERATELY WET	NEAR NORMAL	NEAR NORMAL
NORTH CENTRAL (2)	UNUSUAL MOIST SPELL	2.71	2.72	-0.01	MODERATELY WET	VERY WET	MODERATELY WET	NEAR NORMAL
NORTHEAST (3)	MILD DROUGHT	-0.75	-1.25	0.50	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
WEST CENTRAL (4)	MOIST SPELL	1.77	1.78	-0.01	VERY WET	MODERATELY WET	NEAR NORMAL	NEAR NORMAL
CENTRAL (5)	MOIST SPELL	1.51	1.20	0.31	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	MILD DROUGHT	0.21	-1.16	1.37	VERY DRY	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL
SOUTHWEST (7)	MOIST SPELL	1.77	1.55	0.22	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTH CENTRAL (8)	INCIPIENT MOIST SPELL	2.31	0.80	1.51	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHEAST (9)	NEAR NORMAL	0.66	0.25	0.41	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY WET

# Financial Assistance Program Update

*Loans/Grants Approved as of December 10, 2002*

## **FAP Loans—275 totaling \$436,580,000**

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## **CWSRF Loans—139 totaling \$462,517,310**

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—28 totaling \$80,940,174**

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—351 totaling \$29,848,852**

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—492 totaling \$28,817,005**

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

## **Total Loans/Grants—1,285 totaling \$1,038,703,340**

*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.*

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