January -February 2003

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Bimonthly Newsletter of the Oklahoma Water Resources Board



Duane A. Smith

From the Director

Another legislative session is upon us, and although the total number of introduced bills is lower than in recent years, the number of bills dealing with water and environmental issues has increased. Some of the proposed legislation could have a substantial impact on future Water Board activities.

Probably the most significant and ambitious proposal, although not yet included in any specific legislation, would institute a 50-cent per month per OWRB Executive Director connection/household tap fee on users of water systems. Generating approximately \$9 million/year,

the tap fee's primary purpose is to recapitalize the dwindling Statewide Water Development Revolving Fund so that it can meet the anticipated 20-year, minimum \$3.4 billion water/wastewater system demand in Oklahoma. As you

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OWRB Attends to 'All Things Water' in 2002

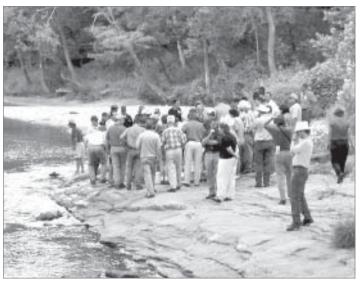
Consistent with mounting public interest in Oklahoma's water resources, the OWRB dealt with numerous difficult issues related to water management and protection during 2002, appropriately designated as the Year of Clean Water by the U.S. Environmental Protection Agency.

The agency's high-water mark for the year occurred at the State Capitol in November as the OWRB hosted a very special event to mark the billion-dollar milestone and 20year anniversary of the Board's Financial Assistance Program. Attending the "Billion Dollar Celebration were numerous dignitaries, including past agency directors, Board members, Governors, and other officials responsible for the program, which has generated an eightfold return on investment.

Phosphorus was on everyone's mind as the Water Board developed, and then approved in March, a controversial new rule to combat nutrient pollution in the Illinois River and other legislatively protected Scenic Rivers. For months, municipalities, poultry producers, recreational interests, legislators, the media, and countless others debated the merits and feasibility of the Board's 0.037 milligram per liter water quality standard for phosphorus. Officials from

Oklahoma were dispatched to Arkansas, which makes up almost one-half of the Illinois River's watershed, to formally discuss implementation of the standard and the Board hosted a well-attended, day-long tour of the basin to educate interested parties on all aspects of the issue. The phosphorus rule survived scrutiny by the Oklahoma State Legisla-

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Tour of Illinois River basin at the Flint Creek BUMP site

From the Director . . . Continued from page 1

know, from \$39 million in investments, the Board's Financial Assistance Program has generated more than \$1 billion in loans and grants for water/wastewater system improvements. The tap fee would also fund the 2005 update of the *Oklahoma Comprehensive Water Plan*. Although nobody likes new fees, most agree that this issue must be addressed to provide these much-needed services to our citizens and industry in future years.

Several bills addressing protection of the Arbuckle-Simpson Aguifer, especially concerning its potential use in central Oklahoma, would impact how we administer groundwater rights statewide. In particular, HB 1083 would revise the current "mining" concept of the state's groundwater law, and subsequently, have a profound effect on how we utilize our groundwater resources in the future. Another legislative proposal would place a moratorium on the issuance of temporary groundwater permits until the OWRB promulgates rules to assure the use of water sufficiently protects surface and groundwater quality. The issuance of temporary and provisional temporary (90-day) permits comprises most of the Board's permitting activities. This abundance of proposed legislation may hint at the need to revisit Oklahoma's current water law, especially concerning the relationships between surface and groundwaters, from both a quantity and quality perspective.

HB 1146 would allow the OWRB and other state environmental agencies and public utilities to keep certain sensitive information confidential to reduce the potential for attacks by terrorists on the state's water systems. HB 1660 amends the definition of "waters of the state" to exempt farm ponds, converted croplands, state wetlands, and waste treatment lagoons from applicability under water quality standards; SB 222 also modifies that definition. HB 1679 changes the membership of the State Legislature's water planning committee,

created last year though SB 1410, to provide better representation and input from the public in its study of issues related to the Water Plan update. Other bills of note would create local lake conservancy districts, establish nonpoint source discharge compliance with water quality standards, link groundwater quality standards to public drinking water requirements, and create a new trust fund to administer the state's financial assistance for water/wastewater and related projects. Legislation has also been introduced that would designate the Blue River in southeast Oklahoma and Honey Creek in the northeast as protected "Scenic Rivers," and HB 1012 would change the name of the North Canadian River to the "Oklahoma River."

I am happy to report that Governor Henry's executive budget advocates \$1.2 million this year and future base funding to solidify the future of the Beneficial Use Monitoring Program. He also supports the 50-cent tap fee, including funding for the Revolving Fund and Water Plan update. His budget recommendation for the agency amounts to a 3.5 percent cut, which is well within our anticipated reduction for this fiscal year.

Finally, I bid a fond farewell to our outgoing Secretary of Environment, Brian Griffin, whose leadership facilitated great strides for Oklahoma's environment. I am pleased to welcome our new Secretary, Miles Tolbert, who promises to tackle water and environmental issues with the same commitment and enthusiasm. I sincerely look forward to working with Miles and the State Legislature to advance Governor Henry's environmental agenda.

Governor Henry Appoints Tolbert to Environment Post



Miles Tolbert, Oklahoma Secretary of Environment

Longtime Oklahoma attorney Miles Tolbert has been appointed by Governor Brad Henry to the state's top environmental post. Tolbert, former chief of the environmental protection unit for the Oklahoma Attorney General's Office, will fill the Oklahoma Secretary of Environment position vacated by Brian Griffin in January.

"In order for Oklahoma to be both prosperous and

healthy, we have to do a good job of protecting the environment, not just for this generation, but for future generations as well. Miles has spent many years carrying out that mission in both the state and federal government. His extensive knowledge of environmental issues and law will be a great help to my administration," said Gov. Henry in making the announcement.

Tolbert joins the Governor's cabinet following a stint with the Oklahoma City law firm of Crowe and Dunlevy. He also practiced in Washington, DC as an attorney for the environmental and natural resources division of the U.S. Department of Justice. He is president-elect of the Oklahoma Bar Association's environmental law section. Tolbert obtained his Bachelor degree from Stanford and law degree from Harvard University.

ture and Governor, and then was forwarded to EPA for approval.

Also generating a lot of controversy during 2002 was a potential water transfer project that would move some 60,000 acre-feet per year of water from the Arbuckle-Simpson Aguifer to communities in central Oklahoma. A private development company, PESA LLC, approached landowners overlying the prolific water source in south central and southeast Oklahoma to secure contracts for land/water rights sufficient to meet the future needs of several Canadian County communities and surrounding areas. After receiving several groundwater permit applications from the Arbuckle-Simpson stating commercial water sale as the intended use, the Board initiated the development of a strategy to address those out-of-basin uses and concerns related to protection of the aquifer. Staff also began working with members of Oklahoma's Congressional delegation to secure funding that would allow comprehensive study of the prolific groundwater supply.

On the heels of the release of a monumental draft water compact that would have paved the way for future administration of water rights and related economic development goals in southeast Oklahoma's tribal regions, state officials terminated water transfer talks with north Texas water suppliers in January. Texas representatives failed to ad-

equately recognize Oklahoma demands for specific drought protection measures and assurances for future supply.

Reacting to a localized drought event in northern Oklahoma, the conservation storage at Hulah Lake on the Caney River in Osage County dwindled to a meager 18 percent. As Bartlesville citizens struggled to cope with drastic restrictions on water use, extraordinary downpours filled the lake. However, the incident awoke local officials to the inadequacies of their water system and they continue to pursue plans to secure additional supply.

Residents in the Sardis Lake area, many of whom have been forced to haul water for years, viewed light at the end of their tunnel with the commencement of a local water system. Soon, almost 1,300 homes will be served through the \$9.6 million project. In addition, the Sardis Lake Water Authority system has been designed to accommodate future customers in Clayton, Talihina, and other surrounding areas.

The Governor's Water Conference, held last year in Tulsa, was another smashing success as state and national water experts wrestled with current and impending water issues. The Water Board also gained a new member, Glenn Sharp, a marketing specialist from Grove, to represent recreational water interests. Sharp replaced longtime member Dick Seybolt.

FY 2002 EXPENDITURES Oklahoma Water Resources Board

	FY-99	FY-00	FY-01	FY-02
Fund Description	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>
Constitutional Reserve	731,381	1,232,460	49,809	
State Appropriations	3,631,241	3,993,762	3,818,700	3,655,872
205 Weather Modification	263,819	1,139,977	1,087,787	0
210 Drillers & Pump Installers	818	34,374	23,711	8,282
225 Rural Economic Action Plan		24,022	1,055,503	1,177,606
240 OWR Revolving Fund	352,704	272,120	282,896	278,353
245 Drillers & Installers Regulation Fund				8,799
420 USGS Cooperators	293,575	187,850	129,680	118,435
443 Reimbursement	1,111,483	1,273,621	1,141,932	1,289,555
444 Drinking Water Loan Administration Fund		58	353	12,369
445 Wastewater Facility Construction Fund		446,834	490,343	464,641
472 State Revolving Fund - Operations	20,008	2,403	220,546	141,035
Total Revolving Funds	2,042,407	3,381,258	4,432,751	3,499,075
400 Federal Funds	569,374	895,722	476,126	1,064,723
410 Federal Water Quality Management	3,465,128	4,768,211	3,756,478	3,343,020
Expenditure Totals	10,439,532	14,271,414	12,533,864	11,562,690
Activity				
Administration	1,802,566	2,167,943	1,991,875	2,398,540
Water Quality	863,659	2,030,039	1,827,910	2,027,235
Financial Assistance	871,784	1,153,636	1,358,849	1,298,484
Planning & Management	3,121,054	2,698,435	2,136,693	2,328,164
Weather Modification		1,100,327	1,087,787	0
Secretary of Environment	3,780,469	5,121,035	4,130,750	3,510,267
TOTAL	10,439,532	14,271,414	12,533,864	11,562,690



Training Opportunities Abound During Spring Flood Season



W. Kenneth Morris, CFM State Floodplain Manager, OWRB

On February 12, the Oklahoma Floodplain Managers Association (OFMA), in conjunction with the Oklahoma Chapter of the American Planning Association, held its seventh annual legislative reception at

the State Capitol. Each year, this event provides an opportunity for Oklahoma's floodplain managers and planners to educate more than 200 members of the State Legislature and their staff on mutual goals related to wise land/floodplain development and the importance of long-range planning. OFMA's primary legislative objective for 2003 is annual mandatory training for local floodplain managers. Of the seven one-day training sessions offered last year, only 63 of the state's 369 floodplain managers took advantage of these very important opportunities to learn about new and constantly evolving rules and regulations and related techniques to reduce community flood risks. I urge all floodplain officials to take advantage of the many educational opportunities offered each year, especially upcoming OWRB-sponsored workshops in May, Flood Awareness Month in Oklahoma. Please review the B.F.E., the bimonthly OFMA newsletter, or the OFMA web site (www.okflood.org) for a training session near you that fits your busy schedule.

Training in 2003 kicks off in high gear at the OFMA Spring Conference workshop on March 11 at the Moore Norman Technology Center. This year's theme is "The Planning Process: Achieving Our Goals." Those attending the full day of OFMA-developed training will earn eight continuing education credits and gain valuable instruction in the flood map revision process. This year's meeting will include more time between sessions to allow Oklahoma's floodplain management officials additional time to share experiences and lessons learned.

A special one-day "Floodplain Management 101" workshop was held February 13 at the Payne County Expo Center east of Stillwater. Thanks to Payne County officials for making this excellent facility available at no cost. Instructors from the OWRB and Federal Emergency Management Agency trained 23 newly appointed floodplain board members and officials who now have the tools to protect property and lives from the ravages of floods.

I want to take this opportunity to hand out a special "thanks" to Janet Meshek, OFMA Chair, for her dedication to floodplain management and the expenditure of much of her spare time as the organization's leader and newsletter editor. Thanks again, Janet.

NFIP Facts for Oklahoma, 2002

• Policies in Force = 14,476

Total Coverage = \$1,447,127,800

• Loss Payments in FY-02 = \$596,625

Loss Payments Since 1978 = \$97,472,661

Total Repetitive Loss

Properties = 753

 Repetitive Loss Properties Insured

nsured = 252

Structures in Identified

Floodplains = 76,701

Policies in Identified

Floodplains = 9,673

Percent of SFHA Structures

Insured = 12.61%

(Data provided by Federal Emergency Management Agency)

Governor Henry Designates Flood Months

As part of the Water Board's continuing effort to educate the public on how to avoid potential flood disasters, especially during the spring flood period, Governor Brad Henry has designated March 2003 as "Flood Insurance Month" and May 2003 as "Flood Awareness Month" in Oklahoma. During those months, the OWRB, Oklahoma Floodplain Managers Association, and others will spread

OWRB Floodplain Management Workshops

May 6, 2003

Midwest City, Community Center NE Corner of Midwest & Reno Titan Room

May 8, 2003

Bartlesville, Tri County Technology Center (Cherokee-Delaware Room) 6101 SE Nowata Road

May 20, 2003

Woodward, High Plains Technology Center 3921 34th Street

May 22, 2003

Lawton, Public Library 110 SW 4th

May 28, 2003

McAlester, Eastern Oklahoma College

the word about the availability of affordable flood insurance, floodplain management techniques and flood safety procedures.

The OWRB is the state coordinating agency for the National Flood Insurance Program (NFIP). The NFIP assists Oklahomans by making flood insurance available at affordable rates and helping communities to make wise decisions concerning floodplain management and related land use.

In conjunction with Flood Awareness Month, the OWRB will host five floodplain management workshops throughout Oklahoma.



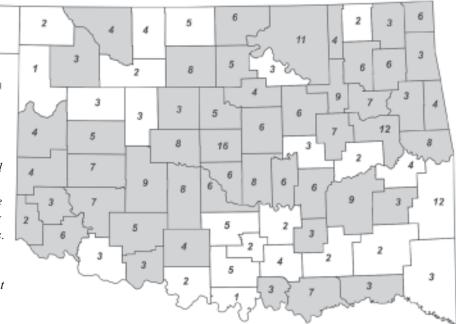
Especially during this spring flood season in Oklahoma, the OWRB reminds citizens of the dangers of driving into flooded roadways. Almost one-half of flood-related fatalities occur in vehicles.

Oklahoma's Participation in the National Flood Insurance Program

Counties Participating
With Number of Communities Participating
(Includes County as a Community)

66 Counties With Communities Participating

Oklahoma's involvement in the National Flood Insurance Program continues to steadily increase. As of February 19, the state boasts 370 participants, including both municipal and county governments. The NFIP is a popular federal program that makes affordable flood insurance available to communities that implement responsible land use measures.



Board Sets Rule Implementation

A new rule that allows 10 years for municipalities, industries and nonpoint source pollution dischargers to comply with Oklahoma's new water quality standard for phosphorus was passed by the Water Board in February.

The 10-year implementation rule, passed unanimously by the Board, requires dischargers to the Illinois River, as well as other state Scenic Rivers, to implement measures that reduce phosphorus to 0.037 milligram per liter (mg/L) by July 2012. The action makes permanent an emer-gency rule passed by the Board last year.

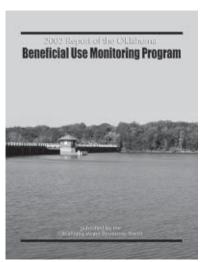
Recent data from the OWRB's Beneficial Use Monitoring Program indicate that the average phosphorus level of the Illinois River at Watts, Oklahoma (at the Arkansas border) is 0.271 parts per million, more than seven times the new standard. Dischargers in Arkansas must comply with Oklahoma's Water Quality Standards due to a 1992 U.S. Supreme Court opinion that requires upstream states to meet the standards of downstream states. In recent years, voluntary measures to reduce phosphorus and other nutrient levels in the Illinois River Basin have failed to sufficiently improve water quality. Phosphorus from sewage, animal waste and fertilizer impairs quality and aquatic life by reducing oxygen levels in the water, particularly impacting the high aesthetic values of Oklahoma's Scenic Rivers.

The Board's original 0.037 mg/L phosphorus standard, signed into law last May, awaits approval by the U.S. Environmental Protection Agency.

2002 BUMP Report Available

A comprehensive report of 2002 water quality data for Oklahoma is now available from the OWRB. The report, an annual disclosure of detailed physical, chemical, and biological information from 155 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).

Created in 1998 and directed by the Board's Water Quality Division, the BUMP is Oklahoma's first truly comprehensive water quality monitoring effort. Data provided by the program plays an essential role in the state's water quality management decision-making process by helping to identify waters experienc-



ing impairments as well as the cause of declining water quality. The BUMP is also invaluable to the development and refinement of Oklahoma's Water Quality Standards (also available on the OWRB Web site). Beneficial uses, the backbone of the Water Quality Standards, are assigned to individual lakes, streams, and stream segments based upon the primary benefits derived from those waters by the public.

Water Board monitoring staff sample 99 rivers in the ambient site network annually and all lakes biannually. Each year, 30 to 60 additional sites are monitored specifically to assist other state agencies, providing water use and protection data that is invaluable to decision-makers.

According to Bill Cauthron, manager of the Board's Monitoring Section, BUMP data gathered during 2002 indicate that the major water quality concerns of Oklahoma lakes are dissolved oxygen, pH, and turbidity. Data also indicate that 16 percent of sampled lakes were "hyper-eutrophic," which means they contain an excessive amount of nutrients that could lead to taste and odor problems. In improving order of quality, about 50 percent of sampled lakes were considered eutrophic, 32 percent were mesotrophic, and two percent were oligotrophic (waters relatively low in nutrients). Cauthron adds that all streams sampled within the past two years 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.

Interested citizens may obtain a copy of the BUMP report on compact disc, including sampling results for each lake and stream, by contacting the OWRB at 405-530-8800. The report is also available on the Water Board's Web site at www.owrb.state.ok.us.



Brian Griffin Bids Farewell

On January 31, OSE and OWRB staff hosted a farewell reception for outgoing Secretary of Environment, Brian Griffin, at the Board's office in Oklahoma City. The come-and-go event was attended by numerous friends and colleagues from Oklahoma's environmental agencies.

In the photo at left, Griffin (second from right) is flanked by his loyal staff, (from left) Jennifer Wassinger, J.D. Strong, and Joyce Boyd. All three will now provide support for new Secretary of Environment, Miles Tolbert.

We salute Brian for his years of service to Oklahoma and wish him the best of luck in the future.

Oklahoma Drought Monitor

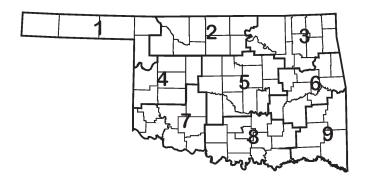
Reservoir Storage

Reservoir storage levels in Oklahoma remain in generally good condition. As of February 10, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 92.4 percent full, a 3.7 percent decrease from that recorded on January 6, according to information from the U.S. Army Corps of Engineers (Tulsa District). Twenty-three reservoirs have experienced lake level decreases since that time. Seventeen reservoirs are currently operating at less than full capacity (compared to 16 one month ago). Three reservoirs (including **Lugert-Altus, only 35.6 percent**; and Tom Steed, 58 percent) remain below 80 percent capacity.

Storage in Selected Oklahoma Lakes & Reservoirs As of February 10, 2003							
Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage				
North Central	436,170	433,219	99.3				
Northeast	3,710,194	3,446,203	92.9				
West Central	276,790	270,644	97.8				
Central	154,225	146,060	94.7				
East Central	2,968,683	2,637,260	88.8				
Southwest	301,810	178,907	59.3				
South Central	2,811,332	2,712,722	96.5				
Southeast	1,464,929	1,378,205	94.1				
State Totals	12,124,133	11,203,220	92.4				

Drought Indices

According to the latest Palmer Drought Severity Index (February 8, below), 'mild' drought conditions have arisen in northeast Oklahoma, but no other climate divisions are currently classified in drought. However, all of Oklahoma's nine climate divisions have undergone PDSI moisture decreases since January 4. The greatest decreases occurred in the Northwest and Southeast climate divisions.



The latest monthly Standardized Precipitation Index (through January, below) indicates some long-term dryness in eastern Oklahoma. Among the *selected* time periods (3-, 6-, 9- and 12-month SPIs), "moderately dry" conditions are indicated in the East Central climate division throughout the last 6- and 9-month periods and in the Northeast over the past 3- and 6-month periods. Also, the North Central region is dry throughout the last 3 months. Considering longer periods (through six years), the Northeast and Northwest climate divisions exhibit dryness at various periods over the past 18, 24, and 30 months.

Palmer Drought Severity Index				Standardized Precipitation Index Through January 2003				
Climate Division (#)	Current Status 2/8/2002	Val: 2/8	ue 1/4	Change In Value	3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	INCIPIENT MOIST SPELL	0.62	1.73	-1.11	NEAR NORMAL	VERY WET	NEAR NORMAL	NEAR NORMAL
NORTH CENTRAL (2)	UNUSUAL MOIST SPELL	2.01	2.71	-0.70	MODERATELY DRY	MODERATELY WET	MODERATELY WET	NEAR NORMAL
NORTHEAST (3)	MILD DROUGHT	-1.55	-0.75	-0.80	MODERATELY DRY	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL
WEST CENTRAL (4)	MOIST SPELL	1.17	1.77	-0.60	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
CENTRAL (5)	INCIPIENT MOIST SPELL	0.85	1.51	-0.66	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	NEAR NORMAL	-0.47	0.21	-0.68	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY	NEAR NORMAL
SOUTHWEST (7)	MOIST SPELL	1.40	1.77	-0.37	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTH CENTRAL (8)	MOIST SPELL	1.34	2.31	-0.97	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTHEAST (9)	NEAR NORMAL	-0.43	0.66	-1.09	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL

Financial Assistance Program Update

Loans/Grants Approved as of February 11, 2003

FAP Loans—276 totaling \$443,240,000

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—140 totaling \$463,832,933

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 \$82,903,174

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—357 totaling \$30,514,256

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—493 totaling \$28,892,005

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—1,294 totaling \$1,049,382,367

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, Wendell Thomasson, Harry Currie, Glenn A. Sharp

Brian Vance, Writer/Editor • Darla Whitley, Writer/Layout • Barry Fogerty, Photography

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www.owrb.state.ok.us

OKLAHOMA WATER RESOURCES BOARD 3800 N. Classen Boulevard Oklahoma City, OK 73118

Bimonthly Newsletter of the



STANDARD PRESORTED
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Oklahoma City, OK
Permit No. 310

March - April 2003

In This Issue

New Rule Protects Scenic Barren Fork

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Board Welcomes New Member

Dick Seybolt Appointed to Arkansas River Compact Commission

OGWA Holds First Drilling Conference

Workshops Highlight Flood Month

Judge Hunter Ponders Arbuckle-Simpson Permit

Feng, Bacon Employees of the Quarter

Brown Nominated to New Federal Post

Water Watch Staff Demonstrate Sampling

Staff Clean Up Local Park



Bimonthly Newsletter of the Oklahoma Water Resources Board



Duane A. Smith

OWRB Executive Director

From the Director

As just about everyone knows by now, Oklahoma is in the midst of a very serious budget crisis and state government continues to wrestle with this very desperate situation. The Water Resources Board and all other state agencies have been forced to closely reevaluate their individual practices and activities, necessitating some very difficult decisions regarding expenditures, and in some cases, personnel.

At the OWRB, our management team has closely scrutinized division budgets and developed several outstanding cost-saving initiatives that are now

being implemented throughout our agency programs. It is encouraging to witness how Water Board staff have seized this opportunity not only to

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New Rule Protects Flow of Scenic Barren Fork

In response to recent concerns about the environmental impacts of withdrawals during low-flow conditions, the nine-member Water Board unanimously approved a new rule in March that seeks to protect eastern Oklahoma's Barren Fork Creek while meeting increasing demands for public water supply in the area.

The proposed rule, establishing a minimum flow of 50 cubic feet per second (cfs), originates from a need to satisfy water requirements of area residents, especially customers of Adair County Rural Water District #5, while complying with the state Scenic Rivers Act. The Act serves to protect the natural scenic, environmental, and recreational values of Oklahoma's free-flowing rivers and streams. Barren Fork Creek has been designated as a Scenic River in Adair and Cherokee Counties from Highway 59 west to the Illinois River.

The 50 cfs target flow was arrived at through results from a recent study, conducted by the OWRB and Oklahoma State University to quantify instream flow requirements, and input from the public and state environmental agencies. The new rule awaits approval by the State Legislature.



Barren Fork Creek, west of Westville, Oklahoma, just downstream of the intake for Adair County Rural Water District #5. The District's system serves some 1,000 customers through an allocation of 182 acre-feet of water from the OWRB.

resolve the agency's budget shortfall, but create a more efficient, stronger, and innovative organization.

One innovation, debuting this month, is our new and much-improved Web site (www.owrb.state.ok.us) housed on the Board's very own, new Web server. (I want to specifically thank officials at the Office of State Finance, who have graciously hosted our site since 1996.) The site has been a "high priority issue" for a couple years now and staff have worked long and hard to construct what I believe is one of the very best Web sites in Oklahoma state government. The site contains a wealth of information and is organized for ease of navigability. I urge you to log on and check it out.

In conclusion, I want to mention an Oklahoma milestone. Last month, the Corps of Engineers celebrated the 60th anniversary of Lake Texoma (Denison Dam) on the Oklahoma-Texas border. The Lake Texoma project, constructed at an approximate cost of \$60 million, has prevented \$174 million in flood losses, about three times its initial price tag. The hydropower benefit of the project is about \$16 million/year, but the lake provides numerous other opportunities related to recreation, water supply, and other uses. Texoma is Oklahoma's largest lake in conservation storage (more than 2.4 million acre-feet) and second largest in surface area (about 88,000 acres). Happy Birthday Lake Texoma!

OWRB Launches New Web Site

On May 1, the OWRB officially launched its new Web site with the same URL--www.owrb.state.ok.us. Formerly hosted by the Office of State Finance, the new site is now hosted at the OWRB main office on the agency's own Web server. The site has been redesigned and restructured based on content rather than by agency divisions.

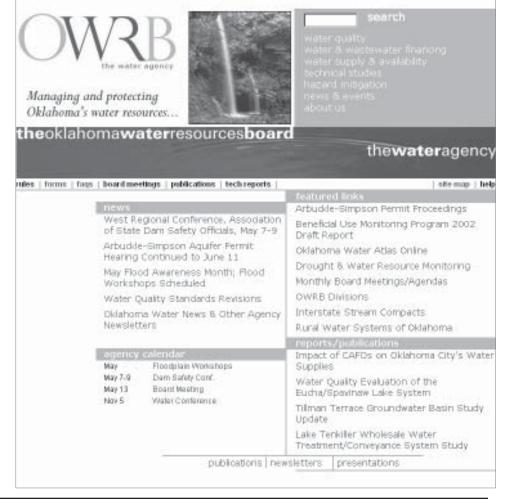
The site has been divided into to six featured areas: 1)

Water Quality, including Standards and monitoring, 2) Water Supply & Availability, with information related to water use permits, well drilling, water supply monitoring, and water availability, 3) Water/Wastewater Financing, 4) Technical Studies, including information on the agency's numerous water-related investigations as well as various reports, 5) Hazard Mitigation, featuring the OWRB's dam safety, floodplain management, and weather modification programs, and 6) News & Events, with links to agency news, meetings, and publications. Various other useful pages include Rules & Hearings, About Us, and Frequently Asked Questions.

The site was redefined over the past year using visitor/customer information collected since the launch of the original site in 1998 and staff recommendations. In creating the site, staff relied on the latest information concerning Web development and focused on techniques to maximize user navigability and visual appeal. Pages were designed to download relatively quickly, even on older model computers. Another important consid-

eration was accessibility for agency customers with disabilities.

During the final stages of development, the site was tested by agency staff, colleagues, and other individuals. Feedback since the launch of the site has also led to several modifications, and staff will continue to modify and further develop the site, adding the most current information as soon as it becomes available. Several interactive programs-including a searchable water well log database and a GIS mapping program--are in development.



Board Welcomes

New Member

Jack W. Keeley, of Ada, has been appointed by Governor Brad Henry to the Oklahoma Water Resources Board. He replaces Wendell E. Thomasson, who served on the Board for one seven-year term.

Keeley, who is a registered professional engineer, served as the Director of Research for the Environmental Protection Agency's Robert S. Kerr Environmental Research Laboratory from 1984 to



Jack Keeley, Ada, newest appointee to the Water Board

1988. He previously served as Chief of the Groundwater Research Branch and Engineering and Systems Analysis Section for the facility, which he joined in 1965. The Kerr lab is part of the National Risk Management Research Laboratory (NRMRL), headquartered in Cincinnati, Ohio. Sister facilities are located in North Carolina and New Jersey. Research at NRMRL is focused in seven key areas: drinking water protection, air pollution control, sustainability and pollution prevention, contaminated media remediation, watershed management and restoration, technology transfer and technical support, and environmental technology verification.

Keeley currently provides private consulting services following eight years with the Dynamac Corporation. Among numerous professional affiliations, honors, and appointments, Keeley is a member of the Harvard Engineering Society and National Water Well Association.

Keeley's appointment is subject to confirmation by the Oklahoma State Legislature. His term will expire May 14, 2010.

Dick Seybolt Appointed To Arkansas River Compact Commission

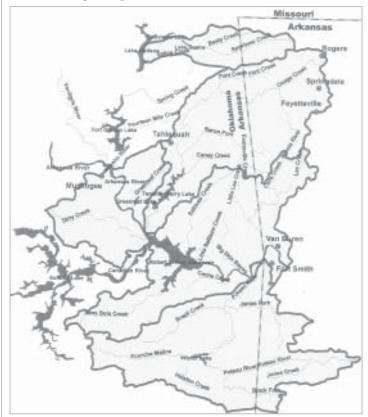
On March 13, former OWRB Member Richard (Dick)
Seybolt of Grand Lake, Oklahoma, was appointed by
President George W. Bush as Federal Commissioner to the
Arkansas-Oklahoma Arkansas River Compact Commission.
Seybolt, who owns a bus manufacturing company in
southeastern Kansas, recently served on the Water Board
for more than 14 years under Governors Henry Bellmon,
David Walters, and Frank Keating.

The Arkansas River Compact Commission is an official administrative body charged with overseeing water resources of the Arkansas River basin in both Arkansas and Oklahoma. Congress ratified the Compact between the two states in 1971. The Commission administers the agreement, which serves to protect the Arkansas River and its tributaries in eastern Oklahoma and western Arkansas. Each state has three members who meet regularly to address interstate water problems. Arkansas and Oklahoma have a separate but similar agreement, also involving Texas and Louisiana, involving the waters of the Red River.

Foremost among his immediate duties, Seybolt will assist in the resolution of the ongoing controversy involving excess nutrients in the Illinois River, a state-protected Scenic River in Oklahoma. State officials in Oklahoma claim that excess levels of phosphorus and other nutrients, which promote excess algae growth and limit oxygen in the water, is primarily a consequence of waste from poultry operations in Arkansas. In response to this growing pollution problem, Oklahoma adopted the state's first-ever water quality standard for phosphorus in Scenic Rivers and their tributaries. The Compact Commission has served as a constructive bipartisan body through which officials from both states have convened to consider potential phosphorus

reduction measures that do not unnecessarily impact the extremely valuable poultry industry in northwest Arkansas and northeast Oklahoma.

As a member of the OWRB, Seybolt worked to resolve numerous water-related problems in Oklahoma. He served on the Tar Creek Task Force, charged with identifying remedial measures to clean up one of the nation's largest and most deleterious Superfund sites. As a local civic leader, Seybolt helped organize and establish a centralized sanitary sewer system for many Grand Lake residents in response to recent widespread growth in the area.



Arkansas-Oklahoma Arkansas River Compact area

OGWA Holds First Annual Drilling Conference

The Oklahoma Ground Water Association's 1st Annual Drilling Conference and Exhibition was deemed a success by members, exhibitors, and attendees alike. The event was held in Oklahoma City at the Coca Cola Bricktown Event's Center on March 13 and 14.

The exhibit hall hosted 40 exhibitor booths, which displayed the latest in pump and well drilling technology and provided the attendees with very informative groundwater industry information. Workshop topics included water well pump systems, grouting techniques, rig and equipment maintenance, geophysical logging, Oklahoma geology, and basic hydrogeology.

Keynote speakers for the evening banquet included Earnest Pender, President of the Contractors Division of the National Ground Water Association (NGWA), and Mike Mathis, OWRB Planning and Management Division Chief. Pender addressed groundwater issues at the national level and the effects of these issues on every groundwater professional in the state. Praising the OGWA for their dedication to protecting groundwater in

the state, Mathis commended the Association for forming alliances with other groundwater professionals to improve integrity and knowledge within the industry.

State Representative Thad Balkman (Norman) was presented with a certificate of appreciation for his contributions toward the establishment of the OGWA. Rep. Balkman provided assistance with creation of bylaws and other legal considerations for the association.

Gary Glover, who worked at the OWRB for 27 years, was the recipient of a Lifetime Achievement Award for his initial coordination of the Water Well Drillers and Pump Installers Program. As organizer of the state Drillers' Advisory Committee, he spearheaded efforts to effect legislation that both validated the importance of the program and its effectiveness in protecting Oklahoma's groundwater quality.

The OGWA would like to thank all the attendees, exhibitors, volunteers, donors, and the board of directors for working together to make the conference a success. Special thanks goes to Nadine Gaines for her exceptional work in organizing the conference.

Workshops Highlight Flood Awareness Month

Severe flooding episodes occur in Oklahoma virtually every year, most frequently in the spring and fall. 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. Oklahoma currently boasts 371 NFIP member communities, which consist of municipalities, counties, and tribes. However, only about 12 percent of homes in Oklahoma's designated floodplains are covered by flood insurance

To make citizens aware of flooding problems and solutions, Governor Henry has designated May as "Flood Awareness Month" in Oklahoma. Throughout the month, the OWRB, Federal Emergency Management Agency, and Oklahoma Department of Civil Emergency Management are sponsoring one-day workshops around the state to update city and county floodplain administrators on NFIP compliance requirements and provide assistance in the development, administration, and enforcement of local flood damage prevention ordinances that guide floodplain development. The free workshops will be held May 6 (Midwest City), May 8 (Bartlesville), May 20 (Woodward), May 22 (Lawton), and May 28 (McAlester). The certified floodplain manager exam will be offered to pre-approved candidates at the close of each session. The workshops are accredited by the State Insurance Department; agents and adjusters can earn up to six continuing education credits for attending at least one workshop every two years.

Don't Take a Chance!

Almost one-half of all flood-related fatalities in Oklahoma 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.

According to the National Weather Service, flash floods and floods are the number one weather-related killer in the United States with approximately 140 deaths recorded each year.



Judge Hunter Ponders Arbuckle-Simpson Permit

A retired district court and Court of Appeals judge has been retained by the OWRB to consider proposed uses of water from southeast Oklahoma's Arbuckle-Simpson Aquifer. Judge Stewart Hunter replaces retired Supreme Court Judge Don Barnes, who continues his recovery from a September automobile accident.

In his first major action on the matter, Judge Hunter has issued a preliminary ruling that the impact of authorized water use on area springs is not relevant, under Oklahoma's current groundwater law, to pending permit applications. Hunter issued the determination at a prehearing conference held April 10 in Tishomingo to clarify issues surrounding consideration of a pending permit application. The application, filed by William and Betty Clark, requests the use of 805 acre-feet of Arbuckle-Simpson groundwater for municipal and rural water purposes. Many of the approximately 100 protestants are concerned that the water may be sold outside the region for use in Canadian County as part of a recent water transfer proposal.

The prehearing conference was limited to legal procedural issues only. Parties to the disputed water use were allowed to submit documents and other items intended as evidence for the formal hearing on June 11 (recently continued from May 21). The Clark permit is one of several recent applications that are purportedly part of a proposal to transfer as much as 60,000 acre-feet of water from the Arbuckle-Simpson to the central Oklahoma area.

Many protestants of the groundwater use application had cited the presumed hydrologic connection between the aquifer and local springs, such as Byrd's Mill Spring.

Feng and Bacon Named Employees of the Quarter

The 2002 fourth quarter and 2003 first quarter OWRB employees of the quarter, Tiger Feng and Shelly Bacon, are both members of the Financial Assistance Division (FAD).

Tiger, a native of Taiwan, has a Masters Degree in Bioenvironmental Engineering from Oklahoma State University. He currently serves as supervisor of the FAD's Engineering Section. Since coming to the OWRB in 1993, Tiger has consistently demonstrated competency, professionalism, and commitment to customer service.

Shelly has been with the OWRB since 1982, first with the agency's Legal Department, and then with the FAD starting in 1988. She currently coordinates the agency's REAP and Emergency Grants programs. Shelly has an outstanding record of building rapport with local officials approaching the Board for financial assistance and explaining complicated instructions and eligibility requirements.



With recorded flows in excess of 20 million gallons of water per day, Byrd's Mill Spring has served as the primary water supply for the City of Ada for more than 90 years.

They are concerned that the Clark and other recently filed permit applications could significantly reduce discharges from the springs, which sustain surface waters used for water supply and recreation in the region. Protestants also want the OWRB to contemplate future water needs in the area. However, Judge Hunter emphasized at the prehearing that, according to Oklahoma groundwater law, he is authorized to consider only four issues: 1) the applicant must own or lease the overlying land; 2) the land must overlie the groundwater basin; 3) the proposed purpose must be for a beneficial use; and 4) the water must not be wasted.

The June 11 hearing will be held at the Fletcher Auditorium, at Murray State College, in Tishomingo. It will begin at 9 a.m.

Oklahoman Tabbed For New Federal Post

Michael D. Brown, Deputy Director of FEMA, has been nominated to serve as Under Secretary of Emergency Preparedness and Response, a component of the new Department of Homeland Security. The Department encompasses federal disaster relief, the National Flood Insurance Program, the U.S. Fire Administration, mitigation initiatives, and other activities designed to reduce loss of life and property from all types of hazards. Joe Allbaugh, former Director of the Federal Emergency Management Agency (FEMA), resigned from his position on March 1.

Brown became FEMA's General Counsel early in 2001 and was nominated to serve as Deputy Director shortly after the September 11 terrorist attacks. Before joining FEMA, Brown practiced law in Colorado and Oklahoma. A native of Oklahoma, he holds a B.A. in Public Administration and Political Science from Central State University, Oklahoma, and received his J.D. from the Oklahoma City University School of Law.

Water Watch Staff Demonstrate Sampling

On May 22, OWRB staff members Juli Ridgway and Jeff Everett demonstrated Oklahoma Water Watch techniques as part of Science Fest Oklahoma, an annual Earth Day event designed to foster scientific literacy while educating children about their role in a cleaner environment. Held at the Oklahoma City Zoo, the OWRB was one of several agencies and organizations at Science Fest who presented environmental information to fourth and fifth graders from across the state.





Left: a fourth-grader from Harris Elementary shows his school's flag to Samplin' Sam, Water Watch mascot. Above: Water Watch staff Juli Ridgway (Coordinator) and Jeff Everett demonstrate several testing techniques used by Water Watch volunteers.

Rural Water Recognizes Sparks

Terri Sparks, OWRB Planning
Section Head, received the 2003
Agency "Friends of Rural Water"
Award at the Oklahoma Rural Water
Association's annual meeting and
technical conference, held April 14-16
in Tulsa. Sparks, who has worked for
the OWRB since 1975, coordinated
the Leak Detection Program in
cooperation with the ORWA. The
Program sought to identify leaks in
water systems, then recommend
needed repairs and management
options to improve system efficiency.

The ORWA is a non-profit organization that assists rural communities in developing, maintaining and operating their water and wastewater facilities.

Study Looks to Increase Yield

In response to explosive growth in the Norman area that is anticipated to stress the city's future water supply, the OWRB, Bureau of Reclamation, and local entities will cooperate in a study aimed at increasing the yield of Lake Thunderbird.

On May 1, OWRB staff met with officials from the City of Norman, Central Oklahoma Master Conservancy District (COMCD), and Bureau of Reclamation to discuss aspects of the new federal investigation of strategies to augment Thunderbird's water storage capacity. Norman, through the COMCD, currently utilizes the lake as its chief water source, but has developed a long-range plan to use a combination of wells and Thunderbird water. The COMCD holds a permit for the entire yield of the reservoir; the City of Norman is the District's largest water-using member.

Staff Clean Up Local Park

On April 24, 18 OWRB employees participated in LitterBlitz, a spring litter collection event sponsored by Oklahoma City Beautiful and the City of Oklahoma City. The volunteers picked up trash from the grounds of Memorial Park at 36th and Classen, just south of the OWRB's main office. The agency's participation in the effort was organized by Jann Hook, Information Systems Administrator.



Crystal McLaren of the Water Quality Division

Oklahoma Drought Monitor

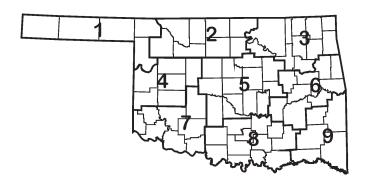
Reservoir Storage

Reservoir storage levels in Oklahoma remain in generally good condition, except in some areas of the southwest. As of May 5, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 97.6 percent full, identical to that recorded on April 7, according to information from the U.S. Army Corps of Engineers (Tulsa District). Seventeen reservoirs have experienced lake level decreases since that time. Thirteen reservoirs are currently operating at less than full capacity (compared to 12 one month ago). Two reservoirs (including **Lugert-Altus, only 46.7 percent**; and Tom Steed, 54.1 percent) remain below 80 percent capacity.

Storage in Selected Oklahoma Lakes & Reservoirs As of May 5, 2003							
Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage				
North Central	451,860	451,860	100.0				
Northeast	3,710,194	3,620,879	97.6				
West Central	276,790	275,053	99.4				
Central	154,225	152,294	98.7				
East Central	2,968,683	2,968,683	100.0				
Southwest	301,810	190,211	63.0				
South Central	2,835,596	2,772,082	97.8				
Southeast	1,544,504	1,520,626	98.5				
State Totals	12,243,662	11,951,688	97.6				

Drought Indices

According to the latest Palmer Drought Severity Index (May 3, below), two regions in Oklahoma (Southeast and South Central, both in "mild drought") are currently classified in a drought category. Eight of Oklahoma's nine climate divisions have undergone PDSI moisture decreases since April 5. The greatest decrease occurred in the South Central climate division.



The latest monthly Standardized Precipitation Index (through April, below) indicates both short- and long-term dryness in southern and eastern Oklahoma. Among the selected time periods (3-, 6-, 9- and 12-month SPIs), "very dry" conditions are indicated in the South Central climate division throughout the last 3- and 6-month periods and in East Central Oklahoma over the past 9- and 12-month periods. Also, the Southeast indicates dryness throughout the past year, including a "very dry" spell over the past 6 months. Considering longer periods (through six years), the Northeast and East Central climate divisions indicate moderately dry conditions at various times over the past 30 months.

Palmer Drought Severity Index				Standardized Precipitation Index Through April 2003				
Climate Division (#)	Current Status 5/3/2003	Val 5/3	ue 4/5	Change In Value	3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	NEAR NORMAL	0.35	0.97	-0.62	NEAR NORMAL	NEAR NORMAL	MODERATELY WET	NEAR NORMAL
NORTH CENTRAL (2)	UNUSUAL MOIST SPELL	2.15	2.36	-0.21	NEAR NORMAL	NEAR NORMAL	MODERATELY WET	MODERATELY WET
NORTHEAST (3)	NEAR NORMAL	-0.49	0.72	-1.21	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
WEST CENTRAL (4)	INCIPIENT MOIST SPELL	0.91	0.59	0.32	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
CENTRAL (5)	NEAR NORMAL	-0.17	1.24	-1.41	NEAR NORMAL	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	INCIPIENT DROUGHT	-0.99	-0.33	-0.66	NEAR NORMAL	MODERATELY DRY	VERY DRY	VERY DRY
SOUTHWEST (7)	NEAR NORMAL	-0.17	0.37	-0.54	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTH CENTRAL (8)	MILD DROUGHT	-1.29	0.43	-1.72	VERY DRY	VERY DRY	NEAR NORMAL	NEAR NORMAL
SOUTHEAST (9)	MILD DROUGHT	-1.43	-0.70	-0.73	MODERATELY DRY	VERY DRY	MODERATELY DRY	MODERATELY DRY

Financial Assistance Program Update

Loans/Grants Approved as of April 9, 2003

FAP Loans—277 totaling \$450,230,000

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—142 totaling \$468,839,456

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—29 totaling \$84,001,424

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—362 totaling \$31,076,481

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—497 totaling \$29,094,211

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—1,307 totaling \$1,063,241,571

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, Wendell Thomasson, Harry Currie, Glenn A. Sharp

Brian Vance, Writer/Editor • Darla Whitley, Writer/Layout • Barry Fogerty, Photography

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Bimonthly Newsletter of the



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Financial Assistance Program Update



Bimonthly Newsletter of the Oklahoma Water Resources Board



Duane A. Smith OWRB Executive Director

From the Director

Results of the 2003 legislative session were a mixed bag of funding cuts, moratoriums, water studies, and votes of confidence for the Water Board's monitoring efforts. Though we will have to tighten our belts and make some difficult decisions, I am pleased to report that the OWRB should weather the Legislature's 23% budget decrease during this next fiscal year with neither staff furloughs nor reductions in force.

On a very positive note, members of the Legislature chose to include \$1 million in the OWRB's

base appropriation to fund annual activities of the Beneficial Use Monitoring Program. This decision not only validates the job we are doing, it reaffirms the Legislature's commitment to maintaining and improving Oklahoma's water quality. The BUMP, one of the finest state-run monitor-

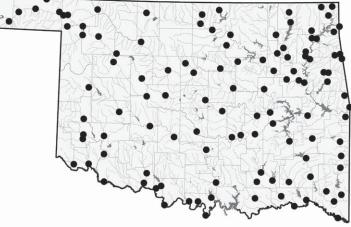
See From the Director, Page 2

Summary of OWRB-Related Legislation

The Oklahoma State Legislature adjourned sine die on May 30. A summary of legislation impacting the Oklahoma Water Resources Board is presented below.

HB 1146—Confidential Water Vulnerability Assessments: This legislation, actually an Open Records Act amendment, relates to terrorism and directs certain state environmental agencies and public utilities to keep information relating to vulnerability assessments of water and wastewater systems confidential. Information may be used for internal and for survey purposes only.

HB 1219—Tourism and Recreation Loan Repayment: The Oklahoma Tourism and Recreation appropriations bill creates a "Tourism and Recreation Environmental Loan Proceeds Revolving Fund" for administering OWRB Clean Water SRF Loan proceeds for wastewater infrastructure improvements at several state lodges. It appropriates \$477,674 for the purpose of repaying the OWRB Clean Water SRF loan. (Related language contained in HB 1478.)



The locations of permanent stream monitoring stations included in the OWRB's Beneficial Use Monitoring Program for 2003. Numerous state lakes are also monitored by BUMP field staff. The State Legislature has included \$1 million per year in the Water Board's base appropriation to direct the program.

See Legislation, Page 4

From the Director . . . Continued from page 1

ing programs in the nation, facilitates science-based decision making concerning impaired waters. In tandem with Oklahoma's Water Quality Standards, the program has become a cornerstone of state water quality management. The ongoing controversy involving excess nutrients in the Illinois River, and subsequent need to monitor current and future mitigation strategies in both Oklahoma and Arkansas, certainly points out the need for a sound and dependable monitoring program.

Members of the State Legislature and many other Oklahomans have become intimately familiar with issues surrounding the use and protection of south central Oklahoma's Arbuckle-Simpson Aquifer. Senate Bill 288, by Sen. Jay Paul Gumm and Rep. Paul D. Roan, establishes a moratorium on the issuance of temporary groundwater permits to out-of-basin users until a pending study determines, scientifically, that there is enough water for current and future uses in the region. To reach this end, the Legislature matched Congressional funds through the allocation of \$270,000 to the OWRB to initiate the planned five-year study. As we wait for the study to begin and the moratorium to take effect, both later this summer, our General Counsel reviews aspects of a recent landowners' lawsuit against the Board, charging the moratorium to be unconstitutional. This issue has been anything but boring.

Also on the study front, we received \$150,000 to continue water quality improvements at Lake Wister in LeFlore County, investigate water supply issues and opportunities in western Oklahoma's North Fork of the

Red River Basin, and continue study of Mangum Reservoir at a proposed site just west of Lugert-Altus Reservoir. The OWRB and other state environmental agencies have also been directed to commence a comprehensive study of Grand Lake o' the Cherokees, including production of a bathymetric map to assess the lake's water storage capacity and sediment load characteristics. Grand Lake in northeast Oklahoma is an extremely popular recreation and retirement spot. Its heavy use, in part with local pollution concerns, has prompted this study.

Governor Henry recently signed legislation that establishes how the state Tourism and Recreation Commission will repay a pending Water Board loan through annual legislative appropriations. This law change was necessary for the Commission to borrow approximately \$7.5 million at a below-market interest rate to finance much-needed environmental repairs to several state parks. Planned upgrades include construction of a wastewater disposal system at Western Hills Lodge in Sequoyah State Park, sewage lagoons at Tenkiller State Park and Lake Texoma lodge/park, a sewage treatment system at Red Rock Canyon, and improved drinking water supply at Great Salt Plains. Without the Board's extremely popular Financial Assistance Program, the Commission would be hard-pressed to secure financing options for these critically important projects, especially during this ongoing budget crisis. It is with great pleasure that we come to the assistance of a fellow state agency.

OWRB to Assist Tulsa Planning Effort

The OWRB has agreed to join the Corps of Engineers and Indian Nations Council of Governments (INCOG) in a ground breaking \$500,000 study of water-related recreation and economic development opportunities along the Arkansas River corridor in Tulsa and surrounding areas.

At their May meeting, Water Board members formally agreed to participate with those entities in the Arkansas River Corridor Master Plan. This new initiative, scheduled to begin this summer, will serve as a blueprint for future growth, development, and beautification along 42 miles of the Arkansas River from Lake Keystone dam to the Wagoner County line.

"We are very excited about this opportunity to enhance growth and prosperity in the Tulsa area," INCOG Executive Director Jerry Lasker told the Board at the May 13 meeting in Oklahoma City. The OWRB will coordinate the planning effort.

The agreement facilitates funding through the Corps' Planning Assistance to the States Program, which assists states in the preparation of comprehensive plans for the development, utilization, and conser-



Those present to recognize the Board's May approval of the Tulsa revitalization agreement were (left to right) Duane Smith; Gaylon Pinc, INCOG; Gene Lilly, Corps of Engineers; Cynthia Kithens, Corps of Engineers; Grady Grandstaff; John Roberts, Corps of Engineers; Karen Keith, Tulsa Mayor's office; Jerry Lasker, INCOG; and Jayme Cox, Sunoco, Inc.

vation of water and related land resources. Funding is provided through a 50/50 cost-share between the federal government and state and/or local sponsors. Oklahoma's \$250,000 contribution to the study came from private sector sources, the Creek Nation, Tulsa County, City of Tulsa, and other municipalities along the river.

Board's Loan Program Achieves High Rating

On June 23, the Oklahoma Water Resources Board's Bond Loan Program was issued an 'AA+' rating by Standard & Poor's, making it the highest rated, uninsured state bond program in Oklahoma. According to State Bond Advisor James Joseph, the rating is higher than that achieved by the State of Oklahoma or the largest municipalities in the state, an honor reflecting the maturity of the program. Throughout its 18-year history, the loan program has had a good history of borrower repayment, strong financial management and oversight, and sound underwriting standards. This high level of proficiency has resulted in consistent and reliable water and sewer system financing for Oklahoma's cities, towns, and rural communities. Since inception of the program, more than \$600 million in bonds have been issued without a single default in OWRB bond payments.

In many cases, the OWRB's bond loan program has been the only financing option for community water and sewer projects, especially in smaller towns that have limited resources. According to the OWRB's Financial Assistance Division Chief, Joe Freeman, the agency's Bond Loan Program, currently offering a 1.772 percent variable interest rate, has consistently offered interest rates low enough to allow the Water Board to contend in a very competitive marketplace.

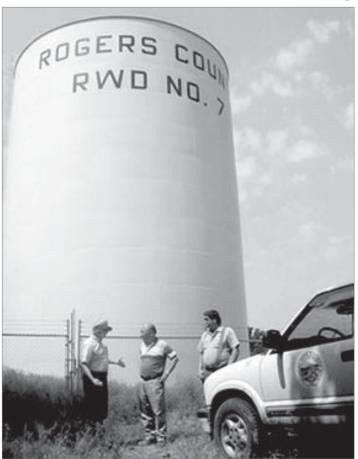
Standard & Poor's pointed out a mitigating factor that precluded an even higher rating: roughly 11% of the program's portfolio of loans are non-investment-grade. The open nature of the bond pool also impacts the rating. In spite of these restrictions, the program has continued to improve.

Along with the OWRB's Bond Loan Program, the OWRB's Financial Assistance Program, launched through a \$25 million dollar appropriation by the State Legislature in 1983, consists of the Clean Water and Drinking Water State Revolving Fund Loan Programs, Emergency Grant Program, and Rural Economic Action Plan Grant Program. Together these programs are responsible for more than \$1 billion in financing for community water and sewer infrastructure projects in Oklahoma.

According to the National Water Resources Association, the nation's wastewater infrastructure consists (approximately) of the following:

- 16,000 publicly owned wastewater treatment plants,
- 100,000 major pumping stations,
- · 600,000 miles of sanitary sewers, and
- 200,000 miles of storm sewers.

These structures represent a total value of more than **\$2** trillion.



This water tower for Rogers County Rural Water District No. 7 was funded through a \$1,845,000 OWRB Bond Program loan.

EPA's Whitman Steps Down

Effective June 27, U.S. Environmental Protection Agency Administrator Christie Whitman has tendered her resignation from the nation's top environmental post. Whitman, who informed President Bush of her plans on May 20, stated she will return to her New Jersey home where she previously served as Governor.

In her resignation letter to President Bush, Whitman stated, "It has been a singular honor to be entrusted with the responsibility to lead the EPA in its effort to leave America's air cleaner, its water purer, and its land better protected than it was when this Administration took office. Our work has been guided by the strong belief that environmental protection and economic prosperity can and must go hand-in-hand, that the true measure of the value of any environmental policy is in the environmental results it produces. I am pleased that the EPA has built an enviable record of success that will result in significant improvements to the state of our Nation's treasured environment."

Idaho Governor Dirk Kempthorne is the rumored White House choice to replace Whitman.

Legislation . . . Continued from page 1

HB 1256—Mandatory Zero-base Budgeting:

This legislation spells out the specifics on a mandatory zero-base budgeting process (more of a performance-base budgeting concept) to be implemented throughout state government next year.

HB 1478—Tourism and Recreation Loan Repayment: This bill contains a listing of capital projects with costs that are authorized for funding by the Oklahoma Tourism and Recreation Commission from revenue bond proceeds. The bill also authorizes the Commission to repay an OWRB Clean Water SRF loan from annual legislative appropriations on a year-to-year basis for wastewater infrastructure improvements at several state lodges that are under consent orders by the Oklahoma Department of Environmental Quality. (Related language contained in HB 1219.)



Travertine Creek, which flows within the Chickasaw National Recreation Area, near Sulphur, Oklahoma, is one of the many watercourses supported by springs emanating from the Arbuckle-Simpson Aquifer. Senate Bill 288 places a moratorium on the issuance of permits from the groundwater basin for uses outside the basin area until and if an OWRB study determines that sufficient yield is available. (Photo by Michael Hardeman)

SB 150—Federal Water Pollution Control Act Funding Disbursement:

This legislation requires the Secretary of Environment, in consultation with the Secretary of Agriculture, to prioritize the disbursement of federal funds received by the Secretary of Environment pursuant to the Federal Water Pollution Control Act. It also requires the Secretary of Environment to submit an annual report to the Legislative Leadership detailing the disbursement of these federal funds.

SB 154—OWRB Appropriation:

This bill appropriates \$4,028,476 from the State General Revenue Fund to the OWRB for program duties and activities. It includes, for the first time since inception of the program, \$1,000,000 in the agency's base appropriation for the Beneficial Use Monitoring Program (BUMP). Also included is \$169,578 pass-through funding to the Oklahoma Rural Water Association for technical services and training to rural water and wastewater system operators and board members. It also appropriates \$2,200,018 from the General Revenue Fund to the Rural Economic Action Plan (REAP) Program and sets OWRB employee limits at 91 FTEs. The overall appropriation represents a 22.8% decrease from last fiscal year (includes this year's previous cuts).

SB 155—OWRB Gross Production Tax REAP Appropriation:

This bill authorizes the expenditure and transfer of funds from the gross production tax REAP Water Projects Fund for the following: 1) OWRB—\$535,000 for water studies, dam repair, rural development issues and other activities; 2) Conservation Commission— \$160,000 for section 319 match, \$500,000 for Cost-Share Program, \$500,000 for Upstream Watershed Rehabilitation Program, and \$118,000 for Conservation District operations; and 3) Oklahoma Rural Water Association—\$118,000 for technical assistance and training to rural water and wastewater system operators and board members. The Oklahoma Tax Commission estimated \$5.17 million would be available to the Fund from gross production taxes. HB 1207, the appropriation bill for the Oklahoma Corporation Commission, directed \$3,260,000 from the Fund be transferred to the Commission to pay for administration expenses.

SB 288—Arbuckle Simpson Aquifer Moratorium: This legislation imposes a moratorium on the issuance of any temporary groundwater permit for municipal or public water supply use outside of any county that overlays, in whole or in part, the Arbuckle Simpson Aquifer. The moratorium also applies to municipal and political subdivisions outside the basin from entering into contracts for use of such water. The moratorium would also apply to pending applications and any revalidation

of existing temporary permits. The moratoriums are to

remain in effect until such time as the OWRB conducts a hydrologic study of the aquifer and approves a maximum annual yield that will not reduce the natural flow of water from springs or streams emanating from the aquifer. The legislation also adds another requirement for groundwater permit approval for use within the basin. The Board must find that the proposed use is not likely to degrade or interfere with springs or streams emanating from the aquifer.

SB 408—Grand Lake Water Studies:

This legislation mandates numerous administration and operation initiatives to the Grand River Dam Authority. Of importance to the OWRB is a comprehensive study of Grand Lake. The bill directs the Secretary of Environment, with assistance of state environmental agencies, to conduct a comprehensive study of Grand Lake to identify factors that may impact the economic growth and environmental beneficial use of the lake and its tributaries for area residents and the expected population growth of the area. As part of the study or as a separate study, the OWRB is to conduct a Clean Lakes Study and produce a bathymetric map of the lake for assessment of current capacity and the amount and location of deposited sediment. Studies proposed would be funded at least in part with \$125,000 appropriated in the legislation.



Rocky bluffs along the shore of Grand Lake o' the Cherokees in northeast Oklahoma. The State Legislature has directed the Water Board to conduct a comprehensive study of the lake to address water quality impacts associated with rapid growth in the region. The OWRB will also conduct a bathymetric study to assess the lake's capacity and sedimentation rate.

Timing of Rainfall Differs in Southeast, Panhandle

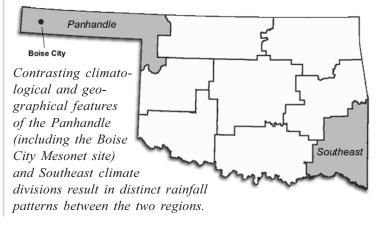
The Panhandle's Boise City Mesonet station has recorded only about five and one-half inches of rainfall during the last six months (generally, the January-June period). That seems like a shockingly low number, and it pales in comparison to the almost 20 inches observed at many southeastern Oklahoma stations.

However, when dealing with rainfall, and/or the lack of it, timing is as much of the equation as total amount. The panhandle and the southeast are worlds apart in both categories. Cimarron County's normal annual rainfall is about 17 inches, while southeastern Oklahoma typically sees more than four feet of rainfall in a year. Even more significant is the fact that the Panhandle, like much of the southwestern U.S., relies on the summer months for the majority of its annual total. Southeast Oklahoma behaves like a hybrid of the southern plains and the Gulf states, so its monthly rainfall doses are spread more evenly, but with maxima in the spring and autumn.

The bottom line is this: winter and spring are almost always very dry in the western Panhandle and relatively wet in the southeast. In fact, the five-plus inch total at Boise City is not too shy of normal for the period, and the 15-20 inch values are well below normal in the southeast (about 28 inches).

This concept is validated by the fact that the last six months are among the driest 10 percent on record in the southeast, and just in the driest half in the panhandle. In other words, even though southeast Oklahoma has seen three times the precipitation of the western Panhandle this year, they are laboring through a more historically significant lack of rainfall.

Credit: Mesonet Ticker, Oklahoma Climatological Survey



Texoma Study Looks at Sedimentation

A Texas Water Development Board (TWDB) study of Lake Texoma conducted last summer has determined that the rate of sedimentation in the reservoir is less than that anticipated by original design plans developed by the U.S. Army Corps of Engineers.

Upstream flood control structures are credited with trapping much of the sediment that otherwise would

flow downstream into Lake Texoma. Overall, the study indicated that Lake Texoma has lost a little over 22 percent of its storage capacity since its construction in 1944. Corps projects, such as Texoma, typically have a design life span of 100 years. The survey was conducted through a contract between the TWDB and the

Engineers originally expected this sediment to settle in the deeper areas of Lake Texoma along the original river channel(s).

Despite the promising results, sediment in the upper reaches of the

lake has been deposited at a heavier

rate than projected from the Red and

Washita Rivers, via the lake's western

and northern arms, respectively.

Lake Texoma during a OWRB water quality sampling excursion in February 2003.

Corps' Tulsa District.

Employee Appreciation Week



Executive Director Duane Smith encourages Water Quality staff members Nikki Cole and Jalisha Petties to load up on tasty breakfast delicacies provided by the Board's senior staff members during Employee Appreciation Week. This annual event provides an opportunity for executive staff and division chiefs to thank agency employees for their hard work and dedication.

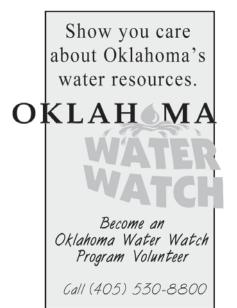
Belden Receives Employee of the Quarter Award

Mark Belden of the Board's Water Quality Division was named Employee of the Quarter at the agency's staff meeting on June 25.

Belden, a 23-year veteran of the OWRB, was cited for his dedication to developing and implementing the Board's groundwater quality monitoring program as well as for competency and professionalism in the performance of his duties. He also received plaudits for his past work in the agency's annual water well mass measurement program, which monitors the long-term water levels of some 700 wells statewide.



Mark Belden obtains water well level data for the Board's mass measurement program.



Oklahoma Drought Monitor

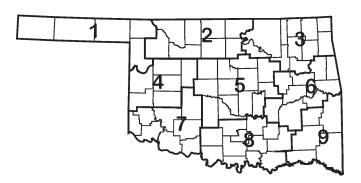
Reservoir Storage

Reservoir storage remains good in most areas of Oklahoma. As of July 1, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 96.9 percent full, a 0.4 percent decrease from that recorded on June 14, according to information from the U.S. Army Corps of Engineers (Tulsa District). Nineteen reservoirs have experienced lake level decreases since that time. Eleven reservoirs are currently operating at less than full capacity (compared to 10 two weeks ago). Two reservoirs in southwest Oklahoma—Lugert-Altus, only 54.7 percent, and Tom Steed, only 70.9 percent—remain well below 80 percent capacity.

Storage in Selected Oklahoma Lakes & Reservoirs As of July 1, 2003							
Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage				
North Central	505,170	505,170	100.0				
Northeast	3,710,194	3,660,739	98.7				
West Central	276,790	276,790	100.0				
Central	154,225	153,685	99.6				
East Central	3,183,243	2,955,693	92.9				
Southwest	301,810	215,789	71.5				
South Central	3,118,676	3,111,202	99.8				
Southeast	1,561,859	1,538,102	98.5				
State Totals	12,811,967	12,417,170	96.9				

Drought Indices

According to the latest Palmer Drought Severity Index (June 28, below), two regions in Oklahoma (Southeast and East Central, both in "mild drought") are currently experiencing drought conditions. Six of Oklahoma's nine climate divisions have undergone PDSI moisture decreases since June 14. The greatest decrease occurred in the Northeast climate division.



The latest monthly Standardized Precipitation Index (through May, below) continues to indicate both short-and long-term dryness in southern and eastern Oklahoma. Among the *selected* time periods (3-, 6-, 9- and 12-month SPIs), "very dry" conditions are indicated in the South Central and Southeast climate divisions throughout the last 3 months and in East Central Oklahoma over the past 9- and 12-month periods. Considering longer periods (through six years), the Northwest/Panhandle climate division indicates "very dry" conditions throughout the past 24 months.

Palmer Drought Severity Index				Standardized Precipitation Index Through May 2003				
Climate Division (#)	Current Status 6/28/2003	Valu 6/28	ie 6/14	Change In Value	3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	MOIST SPELL	1.41	0.60	0.81	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NORTH CENTRAL (2)	MOIST SPELL	1.62	2.14	-0.52	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY WET
NORTHEAST (3)	NEAR NORMAL	-0.41	0.53	-0.94	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
WEST CENTRAL (4)	NEAR NORMAL	0.49	0.63	-0.14	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
CENTRAL (5)	INCIPIENT DROUGHT	-0.67	-0.54	-0.13	MODERATELY DRY	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	MILD DROUGHT	-1.06	-0.66	-0.40	MODERATELY DRY	NEAR NORMAL	VERY DRY	VERY DRY
SOUTHWEST (7)	INCIPIENT MOIST SPELL	0.71	0.54	0.17	MODERATELY DRY	MODERATELY DRY	NEAR NORMAL	NEAR NORMAL
SOUTH CENTRAL (8)	INCIPIENT DROUGHT	-0.68	-0.63	-0.05	VERY DRY	MODERATELY DRY	MODERATELY DRY	NEAR NORMAL
SOUTHEAST (9)	MILD DROUGHT	-1.19	-1.45	0.26	VERY DRY	MODERATELY DRY	MODERATELY DRY	MODERATELY DRY

Financial Assistance Program Update

Loans/Grants Approved as of June 10, 2003

FAP Loans—281 totaling \$474,910,000

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—145 totaling \$489,239,456

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—31 totaling \$85,766,424

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—369 totaling \$31,858,730

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 1,750 inhabitants.

Emergency Grants-498 totaling \$29,184,556

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—1,324 totaling \$1,110,959,165

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*; Glenn A. Sharp, *Vice Chairman*; Ervin Mitchell, *Secretary*Harry Currie, Lonnie L. Farmer, Jack W. Keeley, Richard McDonald, Bill Secrest, Richard C. Sevenoaks

Brian Vance, Writer/Editor • Darla Whitley, Writer/Layout • Barry Fogerty, Photography

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Bimonthly Newsletter of the Oklahoma Water Resources Board



Duane A. Smith

OWRB Executive Director

From the Director

Much has been made lately of the OWRB Bond Loan Program's recent superior rating from Standard and Poor's. And rightfully so. Now even more communities will be able to take advantage of rock-bottom interest rates to upgrade their water and sewer infrastructure. Often, these savings are passed on to local customers through decreased utility bills, not to mention the overall ripple effect upon Oklahoma's general economy.

Too often overlooked as a financing mechanism for water and wastewater system improvements is the Rural Economic Action Plan (REAP) Program, created by the Oklahoma Legislature in 1996. OWRB grants offered through the REAP Program have benefited hundreds of Oklahoma communities through enhance-

See From the Director. Page 2

November Water Conference Tackles "All Things Water"

An eclectic array of water subjects reflecting the diverse water and environmental issues facing Oklahoma will be addressed by state and national experts at the 24th Annual Governor's Water Conference on November 4-5. This year's two-day event, appropriately entitled "All Things Water," commences with a Tuesday afternoon session dedicated solely to issues surrounding the use and protection of water resources from the Arbuckle-Simpson region of south central Oklahoma. Registration for the event begins at 1:00 p.m. Tuesday and 8:00 a.m. Wednesday at the Cox Convention Center, One Myriad Gardens, in downtown Oklahoma City.

Grady Grandstaff, OWRB Chairman, will provide the welcome and opening comments at the Arbuckle-Simpson Symposium, which represents day one of the Water Conference program. Grandstaff will introduce John Keys, Commissioner of the Bureau of Reclamation, who will discuss the Bureau's new Water 2025 initiative, an appeal for commitment of the nation's financial and technical resources to prevent and alleviate water supply conflicts in the western United States.

Gregory Ellis, General Manager of the Edwards Aquifer near San Antonio, will then contrast a situation in Texas similar to that currently being wrestled with in Oklahoma by state and federal agencies



Bureau of Reclamation Commissioner John Keys, slated to open the Arbuckle-Simpson Symposium on Nov. 4

See Water Conference, Page 2

From the Director . . . Continued from page 1

ments to their water and sewer infrastructures. The Water Board administers the REAP without overhead expenses, which means that all grant money is applied directly to project costs. Also, through the state's 11 substate planning districts, REAP funds are utilized for a variety of community and economic development projects, such as road construction, utility system improvements, and fire protection. But the best feature of the REAP Program, as its name implies, is that it targets Oklahoma's smaller towns, many of which possess limited fiscal resources to meet the mounting needs of their populace. Although funds are available for cities or towns with a population of 7,000 or less, those with fewer than 1,750 citizens have a higher priority, as do rural water districts with less than 525 customers.



A recent \$70,000 REAP grant awarded to Buffalo Valley School in southeast Oklahoma will finance the replacement of its existing lagoon system with a hybrid system, including a total retention and land application system. Present at the grant ceremony in late August were, from left to right, Kelly Self (OWRB), School Board member Rob Martin, Duane Smith (OWRB), Rep. Mike Mass, Sen Richard LerBlance, School Superintendent Carroll Brookshire, Principle Shannon Vanderburg, Rep. Randall Erwin, and Kent Wilkins (OWRB).

REAP funds are provided through annual state appropriations as well as through proceeds from the state's gross production oil tax. REAP monies are also distributed through substate planning districts that identify needed projects in their respective regions.

The REAP Program is an enormous economic development tool for rural Oklahoma. To date, the OWRB has approved 382 REAP grants for more than \$33 million. In tandem with other state and federal funds, these monies have been the driving force behind almost \$60 million in water and sewer project construction in Oklahoma. Especially in regard to the construction of water/sewer lines and treatment facilities, acquisition of water supply, and related

projects vital to the state's rural citizens, the REAP Program may be Oklahoma's best 'bang for the buck' economic development strategy.

As with many state programs, REAP too has born the brunt of state budget cuts for a second straight year. After a minor reduction in Fiscal Year 2003, the OWRB's FY-04 REAP appropriation was cut in half. Rep. Danny Morgan has convened an interim study committee to investigate measures that could bring about more funding for the REAP program.

I encourage all Oklahomans with an interest in state and federal water issues to attend the Annual Governor's Water Conference in Oklahoma City on November 4-5. This year's event will feature a half-day symposium dedicated to exploration of issues surrounding the use of water from the Arbuckle-Simpson aquifer region, including the OWRB's recently initiated comprehensive study of this vast and enormously important groundwater supply. Bureau of Reclamation Commissioner John Keys will provide opening remarks. A Conference registration form is included in this issue of the *Oklahoma Water News*.

Water Conference . . . Continued from page 1

and beneficiaries of the Arbuckle-Simpson aquifer. He will relate to conferees how increasing water demands have impacted ownership, control, and use of the Edwards Aquifer, one of the world's most prolific artesian groundwater basins that provides water supply for almost two million users in south central Texas.

University of Oklahoma law professor Drew Kershen will follow Ellis and dissect various legal aspects of Senate Bill 288, passed earlier this year, which could significantly change how groundwater rights are administered in Oklahoma. SB 288 was passed primarily in response to applications to withdraw large quantities of groundwater from the Arbuckle-Simpson aquifer for municipal use in Canadian County. Through the bill, the Legislature has imposed a moratorium on such actions until the OWRB completes a maximum annual yield study of the aguifer. A separate component of the new law requires the Board to consider the impact of proposed uses on springs and streams emanating from "sole source groundwater basins." Although the Arbuckle-Simpson is currently the only sole source aguifer in Oklahoma, as defined by the U.S. Environmental Protection Agency, the bill effectively commingles stream water and groundwater law for the very first time in Oklahoma.

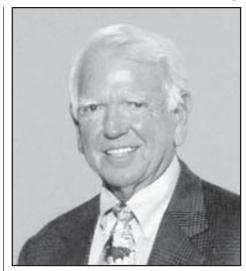
After the break, conferees will be treated to a panel discussion concerning the Board's technical study of the Arbuckle-Simpson aquifer and regional water resources. OWRB Executive Director Duane Smith will moderate the group, which includes various

state and federal water experts involved in the Board's hydrologic investigation as well as representatives of local water groups and the State Legislature. Senator J. Paul Gumm, author of SB 288, will discuss the intent of the legislation.

Chairman Grandstaff will also initiate proceedings on the formal Conference agenda, Wednesday, November 5, by introducing Governor Brad Henry for the keynote address. Duane Smith will provide the "State of the State's Water," a summary of current and impending water issues facing Oklahoma. Chris Cochran, investment banker with Capital West Securities and a member of the financing team for the OWRB's Bond Loan Program, will then outline the current status of water and wastewater project financing in Oklahoma.

In a typically popular segment of the Water Conference, federal agency representatives will provide conferees with a national water perspective. Miguel Flores, Director of Water for EPA Region Six, and Col. Robert Suthard, Tulsa District Engineer for the Army Corps of Engineers, are scheduled to relate efforts to implement new federal initiatives throughout Oklahoma and their respective regions. Following the morning coffee break and an opportunity to visit Conference exhibits, the conference theme is truly embodied by a four-person panel of Oklahoma's cabinet secretaries who will address water issues in their respective areas of involvement. Providing comments are Miles Tolbert (Environment), Terry Peach (Agriculture), Kathryn Taylor (Commerce and Tourism), and Phil Thomlinson (Transportation).

Presentation of awards will kick off the luncheon program, highlighted by recognition of those individuals who were instrumental in assisting victims of the Memorial Day 2002 highway bridge collapse near Webbers Falls, Oklahoma. The U.S. Coast Guard will formally honor six citizens for their selfless and timely public service. This year's Water Pioneer awards will be conferred to former Congressman and long time state water advocate Wes Watkins, Mark Coleman, past (and first) director of the Oklahoma Department of Environmental Quality, and Cliff Younger, Water Watch



Former Oklahoma Governor George Nigh, featured luncheon speaker at the 2003 Conference

Group Coordinator at Grand Lake. They will join the 94 other Oklahomans who have been honored for their lifetime contributions to the planning, development, management, and conservation of the state's water resources.

Adding flavor to the luncheon program is former Oklahoma Governor George Nigh followed by members of the state's Congressional delegation, who will offer a Washington D.C. viewpoint on pressing water issues. Culminating the Water Conference is a perspective from the State Legislature, featuring House Speaker Larry Adair, Rep. Jari Askins, Rep. Danny Hilliard, and Sen. Gumm.



The Little Niagara Swimming Area, along Travertine Creek in the Chickasaw National Recreation Area, is a popular recreation spot in the Arbuckle Mountains. The region's water resources will be the topic of a half-day-long seminar at the Governor's Water Conference on November 4.

Agenda for the 24th Annual Governor's Water Conference "All Things Water"

Cox Convention Center, Oklahoma City

November 4th

Arbuckle Simpson Aquifer Symposium

- 1:00 Registration
- 1:30 Welcome and Introductions
 Grady Grandstaff, Chairman
 Oklahoma Water Resources Board
- 1:45 Water 2025 Initiative: Preventing Crises and Conflict John Keys, Commissioner, Bureau of Reclamation
- 2:05 Can Private Property Rights be Protected Without Strong Regulations?

 Gregory Ellis, General Manager

 Edwards Aquifer Authority (San Antonio)
- 2:25 Water Law Issues in Senate Bill 288

 Drew L. Kershen, Earl Sneed Centennial Professor

 University of Oklahoma
- 2:45 Coffee Break
- 3:00 Study Overview and Technical Challenges
 Moderator: Duane Smith, OWRB Executive Director
 Randall Ross, U.S. Environmental Protection Agency
 Noel Osborn, OWRB
 Neil Suneson, Oklahoma Geological Survey
 Scott Christenson, U.S. Geological Survey
- 4:00 Local Water Management Issues
 Dick Scalf, Ada Water Resources Board
 Jim Crosby, Manager, City of Yukon
 Senator Jay Paul Gumm
 Representative Susan Winchester
- 5:00 Adjournment
- 6:00 Reception

November 5th

- 8:00 Registration
- 8:30 Welcome and Introductions Grady Grandstaff, Chairman Oklahoma Water Resources Board
- 8:50 Keynote Address

 Governor Brad Henry
- 9:10 State of the State's Water
 Duane Smith, Executive Director
 Oklahoma Water Resources Board
- 9:30 Financing Water Infrastructure
 Chris Cochran, Investment Banker
 Capital West Securities
- 9:50 EPA Update

 Miguel Flores, Director of Water

 EPA Region 6
- 10:10 Corps of Engineers Activities

 Col. Robert L. Suthard, Tulsa District Engineer

 U.S. Army Corps of Engineers
- 10:30 Coffee Break/Exhibits
- 10:45 Cabinet Secretary Panel Water for the Environment,
 Agriculture, Tourism and Recreation, and Transportation
 Miles Tolbert, Secretary of Environment
 Terry Peach, Secretary of Agriculture
 Kathryn Taylor, Secretary of Commerce & Tourism
 Phil Tomlinson, Secretary of Transportation
- 12:00 Luncheon Program
 U.S. Coast Guard Public Service Awards
 Oklahoma Water Pioneer Awards
 Featured Luncheon Speaker, George Nigh
 Water Outlook from Washington DC
 Oklahoma Congressional Delegation (invited)
 State Legislative Water Perspective
 Speaker Larry Adair
 Representative Jari Askins
 Representative Danny Hilliard

24th Annual Governor's Water Conference

Senator Jay Paul Gumm

Clip and mail to:

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

Please enclose \$45 check, money order, or purchase order payable to the *Oklahoma Water Resources Board*.

No refunds after October 29.

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

REGIST	「RAT	ION	FORM

Check all that apply*:							
I will attend the Arbuckle-Simpson Symposium on November 4.							
I will attend the reception on November 4.							
I will attend the conference and luncheon on November 5.							
* One price (\$45) includes any or all of the above.							
Name							
Organization							
Address							
City/State							
City/State Zip Phone ()							

Dobbs, Kirtley New Compact Commissioners

Charles Lynn Dobbs of Altus has been appointed by Governor Brad Henry to serve as Commissioner to the Red River Compact Commission. He replaces Ken Fergeson, an Altus banker, who was appointed to the Commission by Governor Henry Bellmon in December 1990. Appointed to the Kansas-Oklahoma Arkansas River Compact Commission is J. Ross Kirtley of Kingfisher. He replaces Earnest Gilder. Kirtley is a former member and chairman of the OWRB.

Representatives of compact states meet each year to discuss water-related activities in each state and common issues involving shared waters. Typically, each Compact Commission consists of two representatives from each of the member states (the director of the state water agency and a basin resident appointed by the governor) and a federal representative appointed by the President. Various state and federal agencies support the compact commissioners in administering the Compact agreements.

President Tabs New EPA Administrator

On August 11, President Bush announced his intention to nominate Utah Governor Michael Leavitt as Administrator of the U.S. Environmental Protection Agency.

"Mike Leavitt will come to the EPA with a strong environmental record, a strong desire to improve what has taken place in the last three decades," Bush said. He added that Leavitt understands the importance of clear standards in every environmental policy. "He respects the ability of state and local government to meet those standards, he rejects the old ways of command and control from above," the president emphasized. Leavitt was elected governor of Utah in 1992.

"To me, there is an inherent human responsibility to care for the earth," Leavitt said in responding to the president's decision. "But there's also an economic imperative that we're dealing with in a global economy to do it less expensively." He suggested that progress can be achieved by avoiding extremism. "There is no progress polarizing at the extremes, but there is great progress, there's great environmental progress when we collaborate in the productive middle."

Leavitt must be confirmed by the Senate. Current Acting EPA Administrator Marianne Horinko will remain in that office until the Senate approves a permanent replacement.

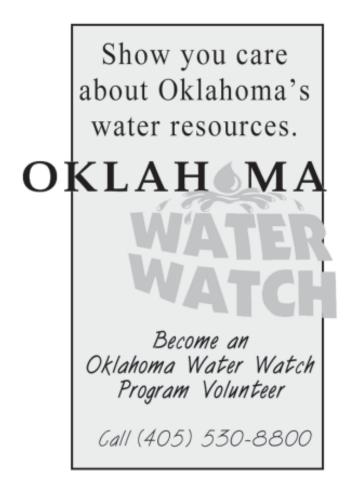
OWRB Renews LMFO Monitoring Program

On September 9, the OWRB approved a contract with the Oklahoma Department of Agriculture, Food and Forestry (ODAFF) to continue the Board's program to monitor waste lagoons surrounding Oklahoma's licensed managed feeding operations (LMFOs). The U.S. Environmental Protection Agency will allocate \$125,000 to underwrite the program through August 31, 2004. During the groundwater monitoring program's previous two years, the two state agencies split operations costs.

With a current total stock of approximately 2.5 million pigs, Oklahoma is the eighth leading hog production state in the U.S. In 1991, Oklahoma farmers reported 190,000 head of swine, which ranked 28th in the nation.

A LMFO is a swine operation of more than 2,500 hogs that weigh more than 55 pounds each and/or 10,000 "nursery" hogs weighing less than 55 pounds each. Oklahoma has 229 licensed hog farms, of which 139 are classified as LMFOs.

--Information courtesy House Media Division and ODAFF



FAP Receives Accolades from Legislative Leaders

At the Water Board's July 8 meeting, state legislators, financing partners, and other supporters of the agency's financing program gathered to congratulate the OWRB on its milestone AA+ bond program rating, which was announced in June. The OWRB closed on its impending bond issue July 9.

The credit rating, computed by Standard & Poor's, makes the OWRB's program one of the highest rated, uninsured state bond programs in the nation. The Board's superior rating on bond issues is the chief reason that the agency is able to lend money at such low interest rates for water and sewer improvements.

At the Board's monthly meeting, House Speaker Larry Adair said rural Oklahoma had benefited from the "life-saving" program, which he said had generated a tremendous savings for many communities. Rep. Danny Hilliard pointed out that the City of Sulphur is saving its residents nearly three-quarters of a million dollars in interest charges by financing its wastewater collection line replacement project through the OWRB at below-market rates. Last December, Sulphur officials obtained a fixed interest rate of 2.3 percent, plus a one-half percent administrative fee.

Joe Freeman, Chief of the OWRB's Financial Assistance Division, said that by acquiring the loan through the state agency instead of through its own bond issue, Sulphur is saving about \$1.19 per month, or \$14 each year, for each of its utility customers throughout the 20-year life of the loan.

Rep. Jari Askins referred to similar savings incurred by the City of Duncan through the Board's Bond Loan Program, although officials could have issued their own tax-exempt bonds to finance muchneeded water and sewer projects. She also thanked the board and the agency's employees for, "helping our communities be more water efficient and use water wisely so that more of it is left over for economic development as well as for recreational purposes."

Rep. Hilliard said issues that had concerned him regarding small communities and water have been noticeably reduced since the implementation of the program. He added that before he entered the Legislature in 1991, he remembered frequently seeing television newscast stories about towns under a "boil order" as a safety precaution against bacterial contamination. Hilliard recalled, "I thought that was really sad because in these days, when we can put a man on the moon and bring him back home, some Oklahomans still had to boil their water." Because of infrastructure projects financed in whole or in part by the Water Resources Board, Hilliard says he has

noticed fewer and fewer of those boil orders on the television news recently.

OWRB Executive Director Duane Smith pointed out that the drought-related water supply problems experienced by many of Oklahoma's cities and towns, which became a repeated occurrence during the 1980s, have become largely a thing of the past due to the many infrastructure projects financed through OWRB loans and grants.

Also attending the July Board meeting were Sen. Bruce Price and Rep. Jack Bonny who provided words of encouragement for the agency in its efforts to address the frequent water problems encountered by Oklahoma's cities and towns.

Chris Cochran, an investment banker from Capital West Securities and a member of the financing team for the bond program, told the Board that this was the single most important bond program in Oklahoma history. He said the water board's program offered interest rates that were far cheaper than those offered anywhere else. "The gap between what you can do for a municipality versus what they can do on their own has never been wider," he related.



OWRB Executive Director Duane Smith, flanked by several members of the State Legislature and other invited guests and visitors at the Board's July meeting, elaborates on the numerous infrastructure projects financed through the agency's enormously popular loans and grants programs.

Oklahoma Drought Monitor

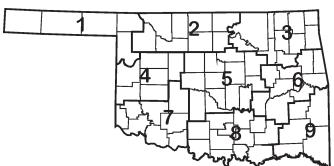
Reservoir Storage

Despite recent rainfall and runoff, lakes in the southwest continue to suffer from critically low levels. As of September 2, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 89.7 percent full, a 2.5 percent decrease from that recorded on August 18, according to information from the U.S. Army Corps of Engineers (Tulsa District). Eighteen reservoirs have experienced lake level decreases since that time. Twenty-three reservoirs are currently operating at less than full capacity (compared to 29 two weeks ago). Two reservoirs—Lugert-Altus, a paltry 10 percent; and Tom Steed, only 62.8 percent—remain below 80 percent capacity.

Storage in Selected Oklahoma Lakes & Reservoirs As of September 2, 2003							
Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage				
North Central	420,480	417,775	99.4				
Northeast	3,710,194	3,423,663	92.3				
West Central	276,790	262,218	94.7				
Central	154,225	146,057	94.7				
East Central	2,915,043	2,530,148	86.8				
Southwest	301,810	145,695	48.3				
South Central	2,932,652	2,689,521	91.7				
Southeast	1,512,859	1,353,641	89.5				
State Totals	12,224,053	10,968,718	89.7				

Drought Indices

According to the latest Palmer Drought Severity Index (August 30, below), conditions have improved significantly and only two regions in Oklahoma are currently experiencing drought conditions. The Southeast and South Central climate divisions are both in "mild drought." All of Oklahoma's nine climate divisions have undergone PDSI moisture in since August 16. The smallest increase occurred in the Southeast climate division.



The latest monthly Standardized Precipitation Index indicates both short- and long-term dryness in central, southern and eastern Oklahoma. Among the *selected* time periods (3-, 6-, 9- and 12-month SPIs), "very dry" conditions are indicated in the Southeast and East Central climate divisions throughout the last 9 and 12 months, respectively. Central, South Central, and West Central Oklahoma indicate "moderately dry" conditions at various times over the past 3, 6, and 9 months. Considering longer periods (through six years), East Central and Northeast Oklahoma are dry throughout the past 15-, 18-, 30-, and 36-month periods.

Palmer Drought Severity Index				Standardized Precipitation Index Through July 2003				
Climate Division (#)	Current Status 8/30/2003	Valu 8/30	e 8/16	Change In Value	3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	MOIST SPELL	1.41	0.60	0.81	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NORTH CENTRAL (2)	NEAR NORMAL	1.62	2.14	-0.52	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NORTHEAST (3)	MOIST SPELL	-0.41	0.53	-0.94	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
WEST CENTRAL (4)	NEAR NORMAL	0.49	0.63	-0.14	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	NEAR NORMAL
CENTRAL (5)	NEAR NORMAL	-0.67	-0.54	-0.13	MODERATELY DRY	MODERATELY DRY	MODERATELY DRY	NEAR NORMAL
EAST CENTRAL (6)	INCIPIENT DROUGHT	-1.06	-0.66	-0.40	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY	VERY DRY
SOUTHWEST (7)	NEAR NORMAL	0.71	0.54	0.17	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTH CENTRAL (8)	MILD DROUGHT	-0.68	-0.63	-0.05	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY	NEAR NORMAL
SOUTHEAST (9)	MILD DROUGHT	-1.19	-1.45	0.26	NEAR NORMAL	MODERATELY DRY	VERY DRY	MODERATELY DRY

Financial Assistance Program Update

Loans/Grants Approved as of September 9, 2003

FAP Loans—283 totaling \$481,890,000

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—148 totaling \$498,165,794

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—32 totaling \$86,026,324

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—382 totaling \$33,072,389

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—500 totaling \$29,274,446

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—1,345 totaling \$1,128,507,953

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*; Glenn A. Sharp, *Vice Chairman*; Ervin Mitchell, *Secretary*Harry Currie, Lonnie L. Farmer, Jack W. Keeley, Richard McDonald, Bill Secrest, Richard C. Sevenoaks

Brian Vance, Writer/Editor • Darla Whitley, Writer/Layout • Barry Fogerty, Photography

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Bimonthly Newsletter of the Oklahoma Water Resources Board



Duane A. Smith

OWRB Executive Director

From the Director

Over the course of the past several years, the OWRB Leadership Team, comprised of employees in upper management, has spent considerable time examining agency goals and objectives, performance measures, strategic planning, and ways to operate the agency's programs more efficiently while also improving service to our customers. In October, the OWRB's Management Team convened three separate meetings involving "key players" in the agency's water management efforts. With the overarching goal of further developing our leadership/

management model, which is critical to agency success, each two-hour meeting brought together our frontline workers, those who are frequently closest to our customers, to discuss our traditional and emerging management efforts. How and how well are we succeeding? Why is the

See From the Director, Page 2

Water Board Loan Program Achieves Second Landmark Rating

For the second time since June, a pending OWRB bond issue has received an exceptionally high rating from top financial ratings services.

In October, Standard & Poor's, Fitch, and Moody's assigned 'AAA' ratings to the OWRB's \$125 million series 2003 Drinking Water State Revolving Fund (DWSRF) revenue bonds. To obtain the lofty ranking, the Water Board had to demonstrate extremely strong bondholder security and excellent oversight of the DWSRF loan program, which funds community drinking water system improvements in Oklahoma. In June, the agency's Bond Loan Program received a 'AA+' rating for a separate bond issue. The Bond Loan Program funds both water and wastewater infrastructure projects.

"We are again thrilled to receive this direct validation of our efforts to bring affordable and sound financing to Oklahoma's cities, towns, and rural water districts," emphasized Duane Smith, OWRB Executive Director. "This rating is especially noteworthy because it's the highest ever achieved by an uninsured state entity that issues revenue debt in Oklahoma," he added.

"The rating attained through this bond issue will enable the Board to provide an extremely competitive interest rate on loans for drinking water projects, leading to even more savings for our citizens who rely so much upon dependable water supply," added Joe Freeman, chief of the OWRB's Financial Assistance Division.

Currently, the Board has 19 DWSRF loan applications for more than \$120 million either approved or on the 2004 project priority list awaiting funding from the bond proceeds. An additional six applications for \$64.4 million are on the fiscal year 2005 priority list. In addition to loan fund repayments and establishment of reserves, the bond issue will help fund Oklahoma's 20 percent match required by the U.S. Environmental Protection Agency, which sponsors the program.

In the November-December Water News

Highlights from the 2003 Governor's Water Conference

From the Director . . . Continued from page 1

OWRB a good place to work? What makes our programs effective? Where can we make improvements?

These and other questions were posed to the OWRB's Key Players. There was general consensus that our product is better now than it has ever been before and agreement that our management skills are better as well. As we encouraged staff to assess areas where we must improve the agency, we asked them to consider a radically different management scenario for the agency—specifically, "managing up."

This topsy-turvy management style would emulate an organizational chart drawn upside down with frontline workers at the top of the chart and senior management at the bottom. The workers, who are frequently closest to the customers, manage "down" to obtain the resources they need to satisfy customer needs, and they are empowered to exploit new opportunities. Senior managers have to manage "up" to support their frontline workers. The strength and success of the Water Board is our people. I believe this strategy will enable us better to tap into the wealth of talent, experience, and diversity embodied in our staff.

However, to be successful, such a radical change cannot be implemented in a short span of time. Because it involves changing conventional habits, and because people learn best informally from experience, managing up must be taught through daily work activities. Members of both the Management Team and Key Players are currently working together to integrate this new philosophy into routine tasks and behaviors.

These Key Player Workshops presented opportunities to celebrate our agency and further develop our knowledge and skills as we take the Water Resources Board—its managers, its leaders, its frontline workers—from good to great. Successful leaders, wherever they reside in an organization, must <u>listen</u> as well as <u>follow through</u> on their commitments. At the OWRB, this becomes even more important in light of the state's current budget situation. How do we maintain productivity and morale asking employees to transition from "doing more with less" to "doing *even* more with *even* less"? Managing up could be the answer.

OWRB Launches On-line Well Search Program

The Oklahoma Water Resources Board has instituted an on-line program allowing the public to search the agency's extensive database of water wells drilled in Oklahoma. The new Web-based system, in development since last February, became operational October 1.

"This free and easily accessible water well search feature culminates many months of work by Water Board staff. It not only greatly enhances our customer service by providing information to citizens in a more timely fashion, but it frees up staff for other important programs and tasks," says Duane Smith, OWRB Executive Director.

Establishment of the system was enabled through joint partner-ship between the OWRB and developers at YourOklahoma, the state's government Web portal. Funding was provided through the Oklahoma Well Drillers Indemnity Fund. The Oklahoma Water Well Drillers Council authorized expenditures from the Fund.

Continued on Page 3

OWRB Offers Arbuckle-Simpson Fact Sheet

The Water Board has created a fact sheet summarizing its ongoing study of the hydrology of the Arbuckle-Simpson aquifer and related water resources. The publication can be viewed and downloaded through the OWRB's Web site at www.owrb.state.ok.us.

The Arbuckle-Simpson Hydrology Study is being coordinated by the OWRB and Bureau of Reclamation, but will involve participation from dozens of agencies and organizations, as well as private citizens. The investigation will focus on characterization of the region's geology and hydrology, as well as identification of future water resource management options for the aquifer and other water resources in the region, with emphasis on the current and potential impacts of well pumping on springs and streams.

Specific objectives of the study include the following:

- Characterize the Arbuckle-Simpson aquifer in terms of geologic setting, aquifer boundaries, hydraulic properties, water levels, groundwater flow, recharge, discharge, and water budget.
- Characterize the area's surface hydrology, including stream and spring discharge, runoff, base flow, and the relationship of surface water to groundwater.
- Construct a digital groundwater/surface water flow model of the Arbuckle-Simpson aquifer system for use in evaluating the allocation of water rights and simulating management options.
- 4. Determine the chemical quality of the aquifer and principal streams, identify potential sources of natural contamination, and delineate areas of the aquifer that are most vulnerable to contamination.
- Construct network stream models of the principal stream systems for use in the allocation of water rights.
- Propose water management options, consistent with state water laws, that address water rights issues, the potential impacts of pumping on springs and stream base flows, water quality, and water supply development.

Visitors to the Water Board site can search water wells—including monitoring, geothermal and other types of wells—by county, legal description, or identification number. The available database also includes current and historical water well level information gathered through the Board's statewide groundwater level measurement program, which measures the depth to water for more than 1,000 wells each year. Search results can be printed out or downloaded directly into many spreadsheet or database programs.

"This is just one of many useful Web site applications we have planned to better serve the citizens of Oklahoma," Smith adds, pointing out that a geographic mapping program is in the early development stage.

The OWRB's database of well logs contains more than 80,000 records of historical and existing wells. A typical log includes the well location and type, depth to water, well yield, construction data, lithology encountered by the

driller at varying depths, plugging information, and proximity to pollution sources. The agency's new well search program will provide a mechanism for citizens to access this information freely from the comfort of their homes or offices. A second, perhaps more valuable, component of the search program provides a mechanism for Oklahoma's water well drillers to submit on-line logs of their individual water well drilling operations.

"In a little over two weeks since the launch of this new application, the drilling community has already made frequent use of the system. They seem generally pleased with the interface, which makes it relatively easy to enter the required information," according to Jann Hook, supervisor of the OWRB's Information Services Section. A very useful on-line help page is also available.

Prior to formal development of the program, Hook reveals that Board staff surveyed Oklahoma's drillers to gather information on the type of product that would work best for both users and agency data processors. Several drillers also visited Board headquarters in Oklahoma City and accessed the Board's server to user test the application during the latter stages of its development.

"Every one of the drillers surveyed indicated that they would utilize the online completion report feature. And, although larger drilling firms typically generate about 90 percent of the state's well logs, many smaller firms also indicated a willingness to participate," she says.

Prior to implementation of the new on-line program, OWRB staff were required to verify, image and index all incoming well logs, as well as search and copy well records requested by the public. (The agency charges a nominal fee for that service.) Savings to the OWRB and state will amount to many thousands of dollars and hundreds of staff hours each year, Hook points out.

"The well completion report application has also been designed to ensure the accuracy of well log data—that completion reports are filled out accurately and completely," says Bob Fabian, head of the Board's Technical Studies Section. "The program is not only relatively easy to use, but it contains many built-in features that check the data supplied by our drillers. In many instances, it will 'flag' wells that fail to meet state well construction standards, which could lead to potential pollution of our groundwater resources." Fabian added that the OWRB has already received more than 100 well logs through the on-line service.

The on-line well log filing program is available only to licensed drillers who have requested a user account. Drillers are required to submit a signature form with a valid e-mail address, and then a user name and personal identification number will be e-mailed to each driller and/or firm. The form may be downloaded from the Board's Web site or requested by mail or telephone.

To access the OWRB's water well search feature, visit the OWRB's Web site at www.owrb.state.ok.us.



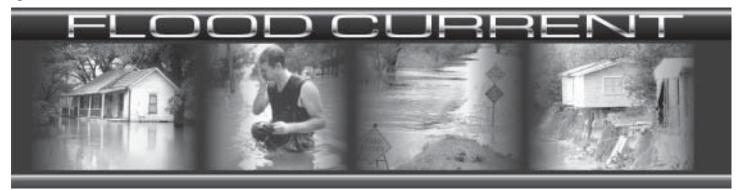
Theda Adkisson and Bob Fabian of the Planning and Management Division test the new on-line Well Search Program.

Nance Named Employee of the Quarter

At the September OWRB staff meeting, Leslie Nance of the Financial Assistance Division was recognized as Employee of the Quarter. Providing exemplary customer service, Leslie handles questions about loan requirements. She is known for being extremely efficient and has provided invaluable assistance in the OWRB Accounting Unit. Leslie was also praised for her positive attitude and efforts to improve morale and productivity.



Leslie Nance with Duane Smith, OWRB Executive Director



Planning, Partnerships Move Association Forward



Mike Mathis State Floodplain Coordinator, OWRB

As you may know by now, Ken Morris has officially retired from the OWRB. Although Ken will continue to work under contract for the Water Board and retain an important role in state

floodplain management activities, I have assumed his duties as Oklahoma's State NFIP Coordinator. As chief of the OWRB's Planning and Management Division, along with my associated involvement with the Oklahoma Floodplain Managers Association and its members, I know firsthand of the tremendous benefits afforded through this agency's existing partnership with OFMA. Each is made stronger by the other, and both the OWRB and OFMA are more capable of achieving the state's floodplain management goals through this close and critically important working relationship. I look forward to my increased role in strengthening this partnership.

Planning has been key to the OWRB/OFMA partnership and is critical to achieving each entity's specific mission. Through the Board's ongoing strategic planning process, we have determined (and explicitly stated) that the OWRB best serves the State of Oklahoma through the formation of alliances with our many partner agencies and organizations. In this way, we increase responsiveness to our customers, expand our capabilities, reduce costs, and avoid duplication of effort. Without a doubt, one of this agency's most important alliances rests with the Oklahoma Floodplain Managers Association.

Goals included in OFMA's updated strategic plan, approved at its August meeting, mirror the Water Board's alliance-building approach. Because education and certification of Oklahoma's floodplain managers is a major focus of the organization, OFMA members must continue to

garner support from municipal organizations, the State Legislature, and other groups to implement regular training through the Water Board's Floodplain Management 101 course and other educational tools.

As Oklahoma's non-governmental floodplain management association, OFMA must continue to foster partnerships among key agencies and organizations, such as the Water Board, Federal Emergency Management Agency, Association of Professional Engineers, Oklahoma Association of Emergency Managers, Oklahoma Insurance Department, Oklahoma Association of Insurance Agents, Oklahoma Municipal League, and Oklahoma State Legislature. Such alliances not only provide OFMA with the overall support it requires, but allow access to vast expertise and experience in the flood mitigation and land development community.

These many alliances, which must be constantly nurtured, are vital to promoting local and individual responsibility in flood protection. Working together, the Water Board, OFMA, and our many current and future partners can make Oklahoma a flood-safe place to live.

Morris Retires

Following 26 years of service to the Oklahoma Water Resources Board, Ken Morris retired September 25. Water Board staff and friends celebrated Morris' achievement during a brief reception held in Oklahoma City.

As a member of the agency's Planning and Management Division and



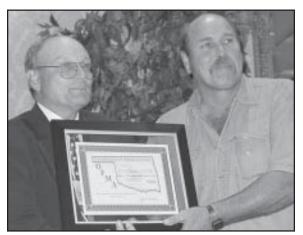
the state's official floodplain coordinator, Morris was cited for his personal commitment in making Oklahoma's floodplain management program one of the finest in the nation. Morris was also integral to creation and furtherance of the Oklahoma Floodplain Managers Association.

Oklahomans Honored at Annual OFMA Meeting

Eight individuals and organizations were honored for their contributions to state floodplain management at the annual meeting of the Oklahoma Floodplain Managers Association (OFMA), held September 21-24 in Oklahoma City. The awards and honorees are listed below:

- •Charles Don Ellison Memorial Award Anna Waggoner, City of Woodward
- Public Official of the Year Washington County Floodplain Board
- Floodplain Manager of the Year Award Searles F. (Jick) Grant, Washington County
- •Project Award (Platinum)
 City of Tulsa, Elm Creek/Centennial Park
 Stormwater Detention Facility
- •Outstanding Recognition Connie Dill & Hazard Mitigation Staff of OEM
- Special Recognition Award Kent Wilkins, McAlester Jim Coffey, City of Bixby Laureen Gilroy, City of Tulsa Tom Graham, Davis David Sprouse, Madill
- •W. Kenneth Morris Honorary Lifetime Membership Award Ken Morris
- •Appreciation Award
 OFMA's Regional Representatives:
 John Harrington (Region 1)
 Nancy Wade (Region 2)
 David Sprouse (Region 3)
 Tom Graham (Region 4)
 Robert Hitt (Region 5)

Special FEMA Appreciation Award *Ken Morris*



Madill's David Sprouse (right), past Region 3 Representative, receives OFMA's Appreciation Award from Andy Kincaid at the group's annual meeting in September.



Lynne Stevenson, the state's top floodplain manager of last year, presents the 2003 Floodplain Manager of the Year Award to Jick Grant (right), of the Caney River Conservation District.

NFIP Myths and Facts

Who needs flood insurance? Everyone. And everyone in a participating community of the National Flood Insurance Program (NFIP) can buy flood insurance. Nationwide, more than 18,500 communities have joined the NFIP. In some instances, people have been told that they cannot buy flood insurance because of where they live. To clear up this and other misconceptions about flood insurance, the NFIP has compiled a list of common myths about the Program, and the real facts behind them.

Myth: You can't buy flood insurance if your property has been flooded.

Fact: It doesn't matter how many times your home, apartment, or business has flooded. You are still eligible to purchase flood insurance, provided that your community is participating in the NFIP

Myth: Only residents of high-risk flood zones need to insure their property.

Fact: Even if you live in an area that is not flood-prone, it is advisable to have flood insurance. Between 25 and 30 percent of the NFIP's claims come from outside of high flood-risk areas. The NFIP's Preferred Risk, available for just over \$100 per year, is designed for residential properties located in low to moderate flood-risk zones.

Myth: Federal flood insurance can only be purchased directly through the NFIP.

Fact: NFIP flood insurance is backed by the federal government and sold through private insurance companies and agents.

(Information courtesy Federal Emergency Management Agency)

United Way Campaign Raises Record Amount

As part of the 2003 United Way State Employee Campaign, OWRB staff members participated in a number of exciting activities. This year, 67 people donated \$7,178, an increase of over 8%.



OWRB Chairman Grady Grandstaff donated \$25 to United Way as the winning bid to smash a pie in Duane Smith's face. Smith had agreed that if the agency reached \$7,000 in donations, he would take a pie in the face.



The OWRB Chili Cookoff winner was Mary Nell Brueggen (far left, with champion skillet). Second and third places went to Tracey Anderson and Mary Schooley. Serving as judges were Miles Tolbert, Secretary of Environment; Oscar Jackson, Director of the Office of Personnel Management; and Gene Whatley, Director of the Oklahoma Rural Water Association.

Day of Caring

OWRB staff members participated in the Day of Caring on October 3rd as part of the Campaign. Participants cleaned floors and cabinets, painted walls, assembled shelves, 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.



This year's Day of Caring volunteers included Mary Schooley and Paul Koenig (front); Mike McGaugh, Julie Cunningham, Darla Whitley, Shelly Bacon, Katera Whitaker, Jim Schuelein, Lynda Williamson, and Jerry Barnett (middle); Esther Shaw, Laura Oak, Anita Ray, Rick Wicker, Allyson Childress (back); Matt and Megan Cogburn (not pictured).

Board Director Marks 25th Year

Duane Smith, OWRB Executive Director, was honored at the Board's October meeting for 25 years of service to the agency. Grady Grandstaff, Board Chair, praised Smith for his accomplishments and hard work as director. Smith, a meteorologist, began working for the Water Board as an engineer, and has since held the title of Chief of the Groundwater Division, and Assistant Director.

Smith joins 11 other current OWRB employees who have served the State of Oklahoma for 25 years or more: Mike Melton, Terri Sparks, Jann Hook, Cecil Bearden, Tiger Feng, Rhonda Bowers, Anita Ray, Mike Mathis, Jim Schuelein, Gene Doussett, and Mike McGaugh.



Grady Grandstaff, OWRB Chair, presents a 25-year certificate to Executive Director Duane Smith.



Halloween contest winners Katera Whitaker and daughter

Oklahoma Drought Monitor

Reservoir Storage

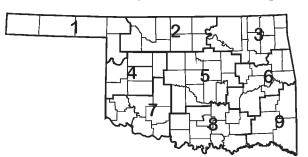
Lakes in southwest Oklahoma continue to suffer from critically low levels. Lake storage elsewhere remains generally good, despite a gradual decline statewide. As of November 12, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 87.5 percent full, a 1.7 percent decrease from that recorded on October 16, according to information from the U.S. Army Corps of Engineers (Tulsa District). Twenty-seven reservoirs have experienced lake level decreases since that time. Twenty-four reservoirs are currently operating at less than full capacity (compared to 21 three weeks ago). Two reservoirs—Lugert-Altus, 15.2 percent; and Tom Steed, only 56 percent—are below 80 percent capacity.

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Southeast	1,485,969	1,300,264	87.5			
State Totals	12,366,282	10,816,791	87.5			

Drought Indices

According to the latest Palmer Drought Severity Index (November 8, below), no regions in Oklahoma are currently experiencing drought conditions. However, most areas have become somewhat drier within the past few weeks. Eight of Oklahoma's nine climate divisions have undergone PDSI moisture decreases since October 11. The greatest decrease occurred in the Northwest climate division.

The latest monthly Standardized Precipitation Index (through October, below) indicates some long-term



dryness in southern, eastern and western Oklahoma. Among the selected time periods (3-, 6-, 9- and 12-month SPIs), "very dry" conditions are indicated in the Southeast climate division throughout the last 12 months. "Moderately dry" conditions are indicated in the Southeast, South Central, West Central, East Central and Southwest regions at various times during the past 9- and 12-month periods. Considering longer periods (through six years), Southeast Oklahoma is "very dry" throughout the past 15- and 18-month periods; East Central Oklahoma is "moderately dry" during those two periods.

Palmer Drought Severity Index				Standardized Precipitation Index Through October 2003				
Climate Division (#)	Current Status 11/8/2003	Valu 11/8	ue 10/11	Change In Value	3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	NEAR NORMAL	0.42	1.94	-1.52	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NORTH CENTRAL (2)	NEAR NORMAL	0.24	1.61	-1.37	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NORTHEAST (3)	INCIPIENT MOIST SPELL	0.91	2.04	-1.13	MODERATELY WET	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
WEST CENTRAL (4)	INCIPIENT DROUGHT	-0.66	0.79	-1.45	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
CENTRAL (5)	NEAR NORMAL	0.31	1.70	-1.39	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
EAST CENTRAL (6)	INCIPIENT MOIST SPELL	0.58	1.10	-0.52	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
SOUTHWEST (7)	INCIPIENT DROUGHT	-0.79	0.37	-1.16	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	NEAR NORMAL
SOUTH CENTRAL (8)	INCIPIENT MOIST SPELL	0.60	0.97	-0.37	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
SOUTHEAST (9)	NEAR NORMAL	0.01	-0.04	0.05	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	VERY DRY

Financial Assistance Program Update

Loans/Grants Approved as of November 4, 2003

FAP Loans—283 totaling \$481,890,000

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—148 totaling \$498,165,794

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—32 totaling \$86,026,324

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—382 totaling \$33,072,389

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—500 totaling \$29,274,446

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—1,345 totaling \$1,128,507,953

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*; Glenn A. Sharp, *Vice Chairman*; Ervin Mitchell, *Secretary*Harry Currie, Lonnie L. Farmer, Jack W. Keeley, Richard McDonald, Bill Secrest, Richard C. Sevenoaks

Brian Vance, Writer/Editor • Darla Whitley, Writer/Layout • Barry Fogerty, Photography

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OKLAHOMA WATER RESOURCES BOARD 3800 N. Classen Boulevard Oklahoma City, OK 73118

Bimonthly Newsletter of the



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Bimonthly Newsletter of the Oklahoma Water Resources Board



Duane A. Smith OWRB Executive Director

From the Director

Without a doubt, a highlight of the Governor's Water Conference in November was the opening day's Arbuckle-Simpson Symposium. I was fortunate to moderate two panels of individuals who will be integral in resolving issues related to the ongoing aquifer study and developing plan to manage the aquifer and related water resources while protecting area springs.

As you know, there are many and varied concerns surrounding the use and management of water resources in the Arbuckle-Simpson region of south

central Oklahoma. Foremost among our challenges to protecting these abundant and economically significant water resources is the quest for sufficient information with which to make critically important water management decisions. As we acquire technical information, many factors must

See From the Director, Page 2

Lake Thunderbird Demonstration Project Initiates Monitoring Phase

Worsening sedimentation problems at Lake Thunderbird, near Norman, could become a thing of the past should the Water Board's recently completed erosion control demonstration project prove successful.

Thunderbird is Oklahoma's most heavily utilized recreational lake per capita. In addition, the reservoir serves the City of Norman and other area communities as a primary source of water supply and provides substantial flood control benefits.

However, according to Derek Smithee, Chief of the OWRB's Water Quality Division, large expanses of exposed clay and rock, eroded banks, falling trees, and threatened campgrounds ring the shoreline and the lake has been included on Oklahoma's 303(d) list as impaired by suspended solids. Excess sediment, contributed to the lake through its upstream tributaries, has also reduced Thunderbird's volume and threatens its future water supply potential.

In an attempt to control the lake's widespread sedimentation problem, the OWRB is testing new procedures aimed at reducing shoreline erosion. Late last summer, Water Quality Division staff installed hundreds of feet of break-

water structures and more than 1,000 aquatic plants along a 450-foot area of the lake's southern shoreline.

See Lake Thunderbird, Page 2



The OWRB's Leigh Cheatwood (left) and Megan Sprowls prepare to plant transported vegetation at the Thunderbird site.

From the Director . . . Continued from page 1

be considered, including legal water use constraints, economic and aesthetic issues, and the water requirements of municipalities, rural areas, and local industries. Many of those on our Water Conference panels will be key players in this effort, especially members of the Arbuckle-Simpson Study Technical Peer Review Team.

After the passage of Senate Bill 288, the Peer Review Team was established to represent all who are involved or affected by the outcome of the aquifer study. The Team will review the scope of work and provide guidance to ensure sound science and appropriate methods are used to obtain the necessary information. The group will also lean heavily on local citizens, landowners, community leaders, environmental organizations, and other stakeholders.

This working party of experts, all from Oklahoma, brings enormous expertise to guide the study, including skills related to groundwater modeling and mapping and advanced knowledge of karst geology, recharge, and the movement of groundwater through fractured rock aquifers such as the Arbuckle-Simpson. Team members are Scott Christenson, Oklahoma District Groundwater Specialist of the USGS; Randall Ross, a hydrologist with the U.S. Environmental Protection Agency's Kerr Lab in Ada; Dr. Neil Suneson, Assistant Director of Geological

Lake Thunderbird . . . Continued from page 1

The success of the demonstration project, which will be determined through a two-year monitoring effort, hinges upon the ability of these bioengineering techniques to reduce harmful wave action that eats away the shoreline and allows sediment and other pollutants to enter the reservoir.

The calming action of the breakwaters settles out sediments and promotes the establishment of shoreline vegetation. Plant roots bind the soil and keep it in place, further reducing the contribution of sediment to the lake body.



Coir roll breakwaters are held in place by wooden stakes.

Programs with the Oklahoma Geological Survey; and Dr. Todd Halihan, Assistant Professor for the School of Geology at Oklahoma State University. Noel Osborn, a Water Board geologist with over 20 years experience will help coordinate the study and facilitate the Peer Review Team.

The Symposium also featured a panel that explored "Local Water Management Issues" in both the Arbuckle-Simpson region and in central Oklahoma. Widely varying perspectives were presented by Dick Scalf, Chairman of the Ada Water Resources Board; Yukon City Manager Jim Crosby; Sen. Jay Paul Gumm (who authored SB 288); and Rep. Susan Winchester. While their views were at times contradictory, each contributed unique insight into this highly contentious issue that could eventually impact citizens throughout Oklahoma.

The purpose of the Water Conference is to bring together water professionals so they may share their opinions about Oklahoma's water future. In this way, Oklahomans are better prepared to deal with the many water issues and problems that inevitably lie ahead. Perhaps never before has this purpose been better served than by those who participated in, contributed to, or attended the 2003 Arbuckle-Simpson Symposium and Governor's Water Conference. Thanks to you all and see you next year at the Conference's special 25th anniversary.

Two types of primarily organic breakwaters have been installed at the project site. Branchboxes—rolled, tight bundles of live brush about 10-feet long and one- to two-feet in diameter—have been stacked and compressed between fence posts inserted in the water along the shoreline to prevent large waves from slamming into the bank. The resulting buildup of sediment becomes a medium for aquatic plant growth, further protecting the shoreline as well as providing habitat for fish and other aquatic life.

Similarly sized woven rolls of coir, strong and coarse fibers produced from coconut husks and held together by netting, serve a similar purpose. Coir requires less time to install than branchboxes, and it is more versatile because it can be used directly against an eroded bank as well as in a breakwater. It is biodegradable and the fibrous nature of the material provides an excellent medium for plant growth.

While traditional erosion control structures, such as rock revetments and bulkheads, offer adequate shoreline protection, branchboxes and coir provide additional benefits related to habitat, water quality improvements, and aesthetics. They are also more economical and require little maintenance. A similar demonstration project will soon be implemented at Lake Carl Blackwell near Stillwater.

During the next two years, OWRB staff will monitor sedimentation and erosion at the site to determine the effectiveness of the breakwaters prior to potential widespread implementation of the control measures.

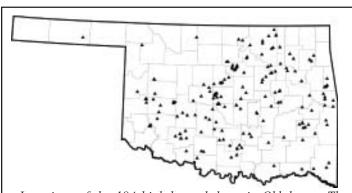
Nation's Dams in Critical Condition

According to the Association of State Dam Safety Officials (ASDSO), the cost of upgrading or repairing the nation's non-federal dams is more than \$36 billion. According to a nine-member ASDSO task committee charged with compiling state and national estimates of the cost of dam rehabilitation, almost one-third of this amount—\$10.1 billion—is needed for the nation's most critical dams, those whose failure would cause loss of human life.

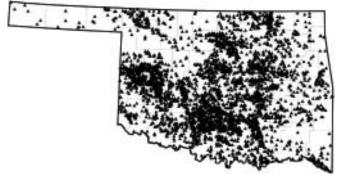
During the past two years, at least 21 dam failures have occurred in the U.S., causing widespread damage to utility facilities, the environment, roads, bridges, homes, and businesses, as well as associated economic loss.

To prevent such calamities, ASDSO has pledged to strongly promote the passage of dam safety legislation in the U.S., including the establishment and strengthening of state dam safety programs. More than 50 percent of U.S. dams are privately-owned, and owners often lack the financial resources to maintain and repair these structures, which provide valuable water supply, flood control, and recreational benefits to the country.

OWRB engineer Cecil Bearden was a member of the ASDSO task committee and recently completed a four-year term on the organization's board. Bearden coordinates the agency's Dam Safety Program, through which the OWRB is responsible for ensuring the safety of dams in Oklahoma that are greater than 25 feet in height or store more than 50 acre-feet of water.



Locations of the 184 high-hazard dams in Oklahoma. The high-hazard classification is afforded to those structures whose failure could result in loss of life.



Locations of the 4,476 dams in Oklahoma that are under OWRB jurisdiction as part of the agency's Dam Safety Program.

Grant Funds Available for Marina Owners

Oklahoma's Office of the Secretary of the Environment announced Monday that federal grant funds are available to marina owners in Oklahoma to reduce potential water pollution resulting from service to watercraft. Grant applications must be received by December 29, 2003.

The competitive grant program, established through the 1992 Clean Vessel Act (CVA), helps fund the construction, operation, and maintenance of pumpout facilities to service pleasure craft and help reduce pollution from vessel sewage discharges into the nation's waters. The Office of the Secretary of the Environment serves as the grant coordinator as part of its commitment to provide a clean, safe, and enjoyable environment in Oklahoma. Clean Vessel Act grant funds are from the U.S. Fish and Wildlife through the Sport Fish Restoration Account of the Aquatic Resources Trust Fund.

Clean Vessel Act grant funds are available on a competitive basis to both the public and private sector, including all local governmental entities and private businesses that own and operate boating facilities that serve the general public. The grant reimburses recipients for up to 75 percent of the installed cost of pumpout and dump stations, including new equipment, as well as pumps, piping, lift stations, on-site holding tanks, pier or dock modifications, signs, permits, and other miscellaneous equipment required to operate a complete and efficient station. Grant funds are not available for the construction or renovation of onshore restroom facilities or sewage treatment plants including septic tanks, leach fields, private and municipal treatment plants, and other special treatment devices.

To request a CVA application package, contact Jennifer Wasinger with the Office of the Secretary of Environment at (405) 530-8997, go to www.ose.state.ok.us, or write to Office of the Secretary of Environment, Clean Vessel Act Grant Program, 3800 North Classen Blvd., Oklahoma City, OK 73118.

EPA's Mehan Resigns

G. Tracy Mehan III, assistant administrator for the Office of Water at the U.S. Environmental Protection Agency (EPA), submitted his resignation to the president November 21, effective December 29, 2003.

In his letter to President Bush, Mehan highlighted the Administration's accomplishments in helping the nation's communities meet growing infrastructure needs, increasing the security of water and wastewater infrastructure against possible terrorist threats and campaigning to improve the ability to monitor the nation's water quality.





OWRB staff members Darla Whitley and Mary Nell Brueggen (Registration Coordinator) and Joyce Boyd (OSE) at the registration table



Duane Smith presides over panels outlining the Arbuckle-Simpson Hydrology Study and the numerous related water issues facing both central Oklahoma and the Arbuckle-Simpson region.



OWRB Chairman Grady Grandstaff with Executive Director Duane Smith and Alvin Files, Ada City Attorney



Board member Lonnie Farmer with Gary Sherrer, KAMO Power



Board members Glenn Sharp and Jack Keeley with D. Craig Shew, special counsel for the City of Ada



Peter Fahmy, Solicitor's Office, Dept. of Interior; Sen. Jay Paul Gumm; and John Bruno, CPASA



Conference Coordinator Mike Melton with Ron Jarman, Jarman Environmental, Inc.



Conference attendees enjoy visiting during a break

Governor Brad Henry

Coast Guard Honors Bridge Collapse Heroes

At a special Conference luncheon ceremony, six Oklahomans were honored by the U.S. Coast Guard for their efforts to rescue victims of the Memorial Day 2002 barge accident and resulting I-40 bridge collapse on the Arkansas River near Webbers Falls. Receiving Public Service Awards were Kirk Washburn (Harrah, at right with Coast Guard Lt. Robert Helton), Gabe Swain (Tulsa), John Swain (Tulsa), Alton Wilhoit (Harrah), Randy Graham (Wagoner), and Norman Barton (Vian).





John Keys, Bureau of Reclamation Commissioner, served as the Conference keynote speaker.



Kathryn Taylor, Sec. of Commerce/Tourism; Grady Grandstaff, OWRB Chair; Miles Tolbert, Sec. of Environment; and Phil Thomlinson, Sec. of Transportation



Jim Barnett, EFO, with Christine Altendorf, Tulsa District Corps of Engineers and Dean Couch, OWRR



Angela Thompson and Lynda Williamson at the OWRB's Financial Assistance booth with Mike Brown, Brown Engineering



Miguel Flores, EPA Region 6 Director of Water, with Derek Smithee, OWRB Water Quality Chief



Christy Rard, USDA, with Cliff Tatum, Hughes Co. RWD #6, and Charles Dewberry, Spear/McCaleb



Jon Craig, DEQ, with Kim Winton, USGS



Rep. Danny Hilliard contributes his perspective as a member of the State Legislature.



Grady Grandstaff, OWRB Chair, applauds featured luncheon speaker, former Gov. George Nigh.

2003 Water Pioneers Honored at Annual Conference

Sponsors of the annual Governor's Water Conference selected three individuals to receive the Oklahoma Pioneer Award in 2003, bringing to 97 the total number of Water Pioneers recognized since the Award's inception in 1985. The Oklahoma Water Pioneer Award honors those men and women who have made important contributions in the planning, development, management, and conservation of Oklahoma's water resources. This year, the award went to Wes Watkins, Clifford Younger, and Mark Coleman.

Wes Watkins was considered one of the most knowledgeable of Oklahoma's Congressional delegates regarding water issues, and during his tenure as an Oklahoma Congressman, his positions on key Appropriations and Energy and Water Development Committees enabled him to write and promote legislation that resulted in many vitally important water and economicrelated infrastructure development projects, especially in rural areas of southeastern Oklahoma. He strongly supported the efforts of the Corps of Engineers, Bureau of Reclamation, and NRCS with technical and financial assistance to help local landowners, communities, and rural water districts with their water needs. The Arkansas Basin Development Authority and Red River Valley Association called on Wes each year to ensure their funding authorizations for bank stabilization, navigation, and related needs were met.

Notable achievements for which Wes Watkins is responsible include funding for establishment of a much-needed water supply system for the Sardis Lake area, reallocation of water supply storage at Lake Wister, study and authorization of Parker Reservoir, construction of a multipurpose reservoir (appropriately named Wes Watkins Lake) to provide water supply for Pottawatomie County citizens, and establishment of several important water-related organizations, such as the McGee Creek Project Area Council, Red Ark Development Authority, and Rural Enterprises, Inc,.

Clifford (Cliff) Younger has been with the Oklahoma Water Watch Volunteer Monitoring program since its inception in 1992. He first volunteered as a water quality monitor for the Grand Lake Association chapter and



Board member Glenn Sharp with Wes Watkins, 2003 Oklahoma Water Pioneer Award recipient



Glenn Sharp with Cliff Younger, 2003 Oklahoma Water Pioneer Award recipient

eventually took over the responsibility of Program Coordinator in 1995. Cliff has persistently focused on maintaining the consistent collection of quality data. He has been instrumental in the coordination of fund-raising for program activities, working tirelessly to improve and expand the program, without a doubt setting an outstanding example of the importance of citizen involvement in the protection and improvement of water quality. At the 11th Anniversary celebration of the Grand Lake Water Watch Chapter, Cliff was recognized and credited by Board member Glenn Sharp and Senator Rick Littlefield as the driving force behind a program that is used nationwide as a model for volunteer monitoring.

Mark Coleman, whose award was accepted by Steve Thompson, Director of the Oklahoma Department of Environmental Quality (ODEQ), began his career in public service by establishing the State Environmental Laboratory in 1970. He directed water quality programs for many years at the Oklahoma State Department of Health, and later played an instrumental role in the creation of the ODEQ in 1993, serving as its first director. He was a frequent advisor to the EPA in forming national environmental laws and policies, and served in leadership positions in numerous organizations including the American Water Works Association, the Association of State and Interstate Water Pollution Control Administrators, the Conference of State Sanitary Engineers, and the Environmental Council of the States. Upon his retirement, both the House and Senate adopted resolutions commending Mr. Coleman for his many years of service to the State of Oklahoma.

Oklahoma Drought Monitor

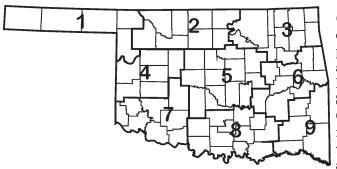
Reservoir Storage

Lakes in southwest Oklahoma continue to suffer from critically low levels. Lake storage elsewhere remains generally good, despite a continued gradual decline statewide. As of December 2, the combined normal conservation pools of 31 selected major federal reservoirs across Oklahoma (see below) are approximately 87.2 percent full, a 0.3 percent decrease from that recorded on November 12, according to information from the U.S. Army Corps of Engineers (Tulsa District). Fifteen reservoirs have experienced lake level decreases since that time. Twenty-three reservoirs are currently operating at less than full capacity (compared to 24 three weeks ago). Two reservoirs—Lugert-Altus, 15.4 percent; and Tom Steed, only 54.6 percent—are below 80 percent capacity.

Storage in Selected Oklahoma Lakes & Reservoirs As of December 2, 2003						
Climate Division	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage			
North Central	460,745	455,973	99.0			
Northeast	3,710,194	3,499,412	94.3			
West Central	276,790	242,331	87.6			
Central	154,225	140,930	91.4			
East Central	2,915,043	2,406,414	82.6			
Southwest	301,810	141,773	47.0			
South Central	3,078,236	2,587,139	84.0			
Southeast	1,491,229	1,331,763	89.3			
State Totals	12,388,272	10,805,735	87.2			

Drought Indices

According to the latest Palmer Drought Severity Index (November 29, below), one region in Oklahoma, the West Central climate division, is currently experiencing drought conditions. Six of Oklahoma's nine climate divisions have undergone PDSI moisture decreases since November 8. The greatest decrease occurred in the West Central climate division.



The latest monthly Standardized Precipitation Index (through November, below) indicates continued long-term dryness in all but northern Oklahoma. Among the *selected* time periods (3-, 6-, 9- and 12-month SPIs), "very dry" conditions are indicated in the Southwest climate division throughout the last 3 months. "Moderately dry" conditions are indicated in the Southeast, South Central, West Central, East Central, and Central regions at various times during the past 9- and 12-month periods. Considering longer periods (through six years), various regions, primarily in southern and eastern Oklahoma, are "moderately dry" during the past 15-, 18-, 24-, and 30-month periods.

Palmer Drought Severity Index				Standardized Precipitation Index				
Climate Current Status Value Change				Through November 2003				
Climate Division (#)	Current Status 11/29/2003	11/29	_	Change In Value	3-Month	6-Month	9-Month	12-Month
NORTHWEST (1)	NEAR NORMAL	0.34	0.42	-0.08	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NORTH CENTRAL (2)	NEAR NORMAL	-0.18	0.24	-0.42	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
NORTHEAST (3)	MOIST SPELL	1.01	0.91	0.10	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
WEST CENTRAL (4)	MILD DROUGHT	-1.29	-0.66	-0.63	MODERATELY DRY	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
CENTRAL (5)	NEAR NORMAL	-0.08	0.31	-0.39	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
EAST CENTRAL (6)	INCIPIENT MOIST SPELL	0.67	0.58	0.09	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	NEAR NORMAL
SOUTHWEST (7)	INCIPIENT DROUGHT	-0.98	-0.79	-0.19	VERY DRY	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
SOUTH CENTRAL (8)	NEAR NORMAL	0.32	0.60	-0.28	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
SOUTHEAST (9)	NEAR NORMAL	0.17	0.01	0.16	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY

Financial Assistance Program Update

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FAP Loans—290 totaling \$492,190,000

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CWSRF Loans—151 totaling \$501,828,717

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—35 totaling \$91,734,595

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REAP Grants—386 totaling \$33,445,279

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Emergency Grants—503 totaling \$29,438,702

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—1,365 totaling \$1,148,637,293

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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