

OKLAHOMA Water News

Bimonthly Newsletter of the Oklahoma Water Resources Board

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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-

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Summary of OWRB-Related Legislation

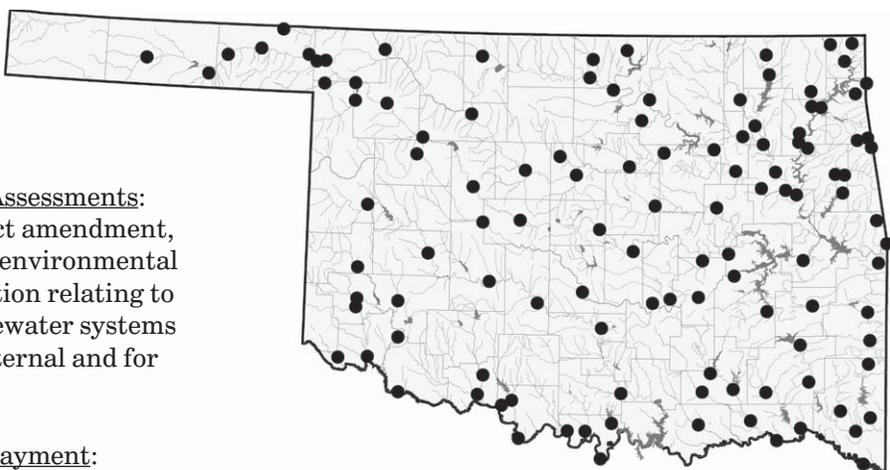
The Oklahoma State Legislature adjourned sine die on May 30. A summary of legislation impacting the Oklahoma Water Resources Board is presented below.

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.

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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.

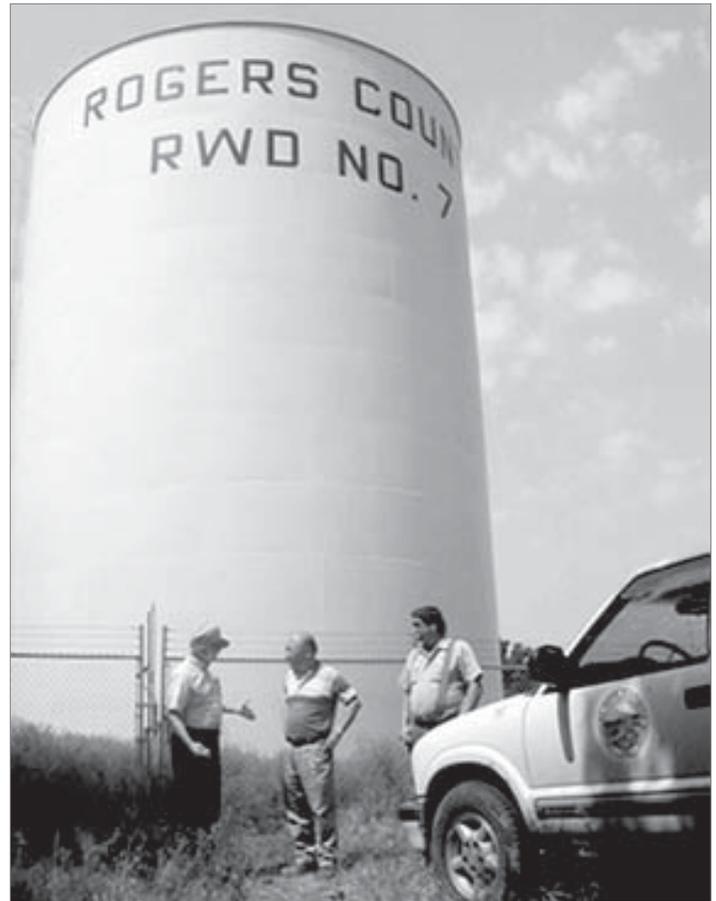
Standard & Poor's pointed out a mitigating factor that precluded an even higher rating: roughly 11% of the program's portfolio of loans are non-investment-grade. The open nature of the bond pool also impacts the rating. In spite of these restrictions, the program has continued to improve.

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 administrative 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

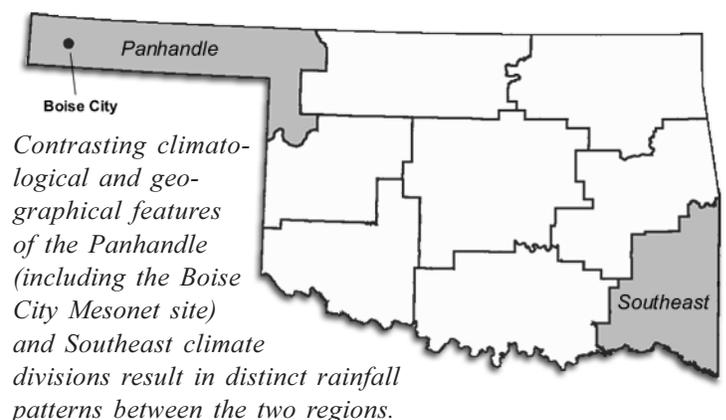
The Panhandle's Boise City Mesonet station has recorded only about five and one-half inches of rainfall during the last six months (generally, the January-June period). That seems like a shockingly low number, and it pales in comparison to the almost 20 inches observed at many southeastern Oklahoma stations.

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 Corps' Tulsa District.

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



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

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.

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.

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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.

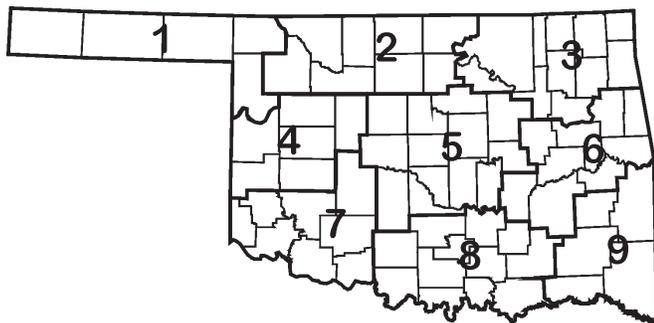
Storage in Selected Oklahoma Lakes & Reservoirs

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

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

Standardized Precipitation Index

Through May 2003

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

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

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