OKLAHOMA COMMISSIONERS' REPORT
Arkansas-Oklahoma Arkansas River Compact Commission

Annual Meeting
Shangri-La Resort
Afton, Oklahoma
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STATE CLIMATE & STREAMFLOW

Recent rainfall has alleviated emerging drought conditions in Oklahoma. For the current water year (since October 1, 2002), the Northeast climate division, which encompasses much of the Kansas-Oklahoma Arkansas River Compact area, has received 34.52 inches of rainfall, a deficit of 4.1 inches (89 percent of normal). The North Central and Northwest/Panhandle climate divisions have received 91 and 103 percent of normal rainfall, respectively, for the water year. For the summer season (since June 1), the Northeast, North Central, and Northwest/Panhandle climate divisions have received 123, 78, and 127 percent of normal precipitation, respectively.

WATER RESOURCE STUDIES

Surface Water

- Last year, the OWRB and U.S. Bureau of Reclamation began an initial cooperative assessment of water quality, quantity, and base flow hydrology on Sweetwater Creek and the **North Fork of the Red River** watersheds, which include Lugert-Altus Reservoir. A proposed second phase of this study would determine the potential effects of groundwater withdrawals in the basins and include development of models to evaluate the augmentation of Lugert-Altus Reservoir's dependable yield.
- In 2002, the Board completed its instream flow study of the **Baron Fork River**, in eastern Oklahoma, and passed its instream flow rule of 50 cubic feet per second (cfs). The study, conducted in cooperation with Oklahoma State University, quantified instream flow requirements sufficient to protect the river's environmental benefits while balancing the water supply needs of area residents. The 50 cfs rule was established in cooperation with the Oklahoma Department of Wildlife Conservation.
- In a cooperative effort with the Tulsa District of the U.S. Army Corps of Engineers, through the Corps' Planning Assistance to the States Program, a study was completed in June 2003 to evaluate water supply alternatives for Adair County Rural Water District No. 5. The District, which currently is supplied through direct diversions from the **Baron Fork River**, is seeking options for a dependable future water supply. Conceptual level design and cost data were developed for three alternatives.
- Another Corps study, an effort with the Indian Nations Council of Governments, will assist in development of a master plan for the Arkansas River Corridor in the Tulsa vicinity (from Keystone dam to the Tulsa/Wagoner County boundary).

Groundwater

- Congress is preparing to appropriate $700,000 for the OWRB, through the Bureau of Reclamation, to conduct the second year of a comprehensive multi-year study of southeast Oklahoma's **Arbuckle-Simpson Aquifer**. The aquifer supplies flow to many area rivers and streams—including Byrd's Mill Spring and the Blue River, the drinking water source for the City of Ada—but more information is required to properly manage and protect the region's water resources. The first year of the analysis will primarily consist of reviewing literature and existing data and preliminary field investigations. The

initial phase will culminate in a report, which will include information on the Arbuckle-Simpon's geology, hydrology and water quality; resulting data will be compiled in digital format. Anticipated field work includes installation of two stream gages (on the Blue River and Pennington Creek), updating the current inventory of water wells and springs, and collecting measurements and samples from wells, springs, and streams in the area. Special emphasis will be afforded to deeps wells, on which a variety of hydrologic tests will be performed.

Water Quality

- Continuing efforts to improve water quality in **Lake Thunderbird**, the OWRB and the Central Oklahoma Master Conservancy District (COMCD) have begun their fourth year of monitoring chlorophyll and nutrient concentrations in the lake. The OWRB has recommended several management alternatives that have been implemented by the COMCD that have greatly improved the lake's algae and chlorophyll problems.
- Shoreline erosion control projects at **Lake Carl Blackwell** and **Lake Thunderbird** are being implemented through EPA's §319 non-point source pollution grants program. By demonstrating innovative ways to combat erosion and suspended sediment, the OWRB seeks to educate lake managers on the habitat-friendly benefits of establishing aquatic plants to improve the health of our state's aquatic communities.
- Development of a watershed model for **Lake Wister** is underway in conjunction with the Poteau Valley Improvement Authority (PVIA). OWRB is providing analysis of data and model construction while PVIA is collecting the samples. The study will provide details of the type and severity of loadings (sediment, nutrients) to the lake from the watershed. Staff are also monitoring the success of a recent project to establish aquatic vegetation in shallow reaches of Lake Wister. If successful, the plantings will reduce the lake's nutrient content, increase clarity, and provide valuable habitat for fish and wildlife.

THE 2003 OKLAHOMA LEGISLATIVE SESSION

The Oklahoma State Legislature adjourned sine die on May 30, 2003. A summary of primary legislation impacting the Oklahoma Water Resources Board is presented below.

- HB 1146—Confidential Water Vulnerability Assessments: This legislation 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.
- 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.

BENEFICIAL USE MONITORING PROGRAM

The OWRB's FY-04 appropriation 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). The BUMP, one of the finest state-run monitoring 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.

NUMERICAL WATER QUALITY STANDARD FOR PHOSPHORUS

The state, represented by Oklahoma Secretary of Environment Miles Tolbert, continues talks with officials from the State of Arkansas to implement Oklahoma's first-ever numeric water quality standard for phosphorus. The two states are attempting to reduce phosphorus levels in shared waters, with particular emphasis on the Illinois River Basin, with minimal economic impacts to municipalities and poultry operations in the region. The standard applies solely to Oklahoma's designated Scenic Rivers. Oklahoma's Water Quality Standards are currently waiting approval from EPA's Region Six headquarters in Dallas, Texas.

UPDATE OF THE OKLAHOMA COMPREHENSIVE WATER PLAN (2005)

OWRB staff have begun initial work in preparation for the 2005 update of the Oklahoma Comprehensive Water Plan. The Board's update strategy is to incorporate a region-based planning approach to maximize citizen involvement, likely involving Oklahoma's 11 substate planning districts. The Corps of Engineers is providing technical assistance in updating water

demand and supply projections for the state and Bureau of Reclamation staff have assisted in updating agricultural water demand projections for the Water Plan.

WEATHER MODIFICATION RESEARCH

Although the Legislature has declined funding for the state's weather modification program since 2001, the OWRB continues to support research of the technology. For FY-02 and FY-03, Congress included $2 million and $3.5 million, respectively, in the budget of the Bureau of Reclamation to implement a multi-year, regional research program to determine the effectiveness and applicability of cloud seeding in mitigating severe weather events. The States of Oklahoma and Texas will utilize research scientists and agencies of the Oklahoma Weather Center, a unique alliance of federal, state and University of Oklahoma organizations based in Norman, Oklahoma.

WATER RESOURCES FINANCING

The Oklahoma Water Resources Board administers the State *Financial Assistance Program* (FAP), backed by the Statewide Water Development Revolving Fund, which awards loans and grants for the construction and improvement of water and sewer facilities. The Board offers loans from proceeds of revenue bonds to eligible communities for sewer and water improvements and refinancing. To date, the Board has approved 283 bond loans totaling almost $482 million statewide. The emergency grant program, funded by interest earnings on the Revolving Fund, has approved 500 grants for almost $29.3 million. These grants have stimulated many millions of dollars more in water/wastewater projects throughout the area.

The Board also provides loans through the Clean *Water (CWSRF) and Drinking Water Construction Revolving Fund (DWSRF) Programs* for various wastewater and water treatment/distribution projects, respectively, which are often required to bring borrowers into compliance with EPA requirements. The CWSRF Loan Program, which provides funds for the construction of new wastewater facilities or the replacement or rehabilitation of existing facilities, has approved 148 loans for more than $498 million. The DWSRF, a cooperative program recently developed by the OWRB and Oklahoma Department of Environmental Quality, was created to assist municipalities and rural water districts in constructing drinking water treatment and distribution system improvements required to comply with the federal Safe Drinking Water Act. The program has approved 32 loans for more than $86 million.

The *Rural Economic Action Plan (REAP)* grant program is operated by the Board in a manner very similar to its emergency grant program. REAP gives priority to communities with populations less than 1,500 and rural water districts with less than 450 household taps. The Board has approved 382 REAP grants totaling more than $33 million.