

Annual Report of OWRB Activities for 2011

2012 Update of the Oklahoma Comprehensive Water Plan

During the final year of development of the *2012 Update of the Oklahoma Comprehensive Water Plan*, the most ambitious water planning effort ever undertaken by the state, the OWRB and its planning partners continued to solicit important input from stakeholders, citizens and others with a vested interest in the future of Oklahoma's water resources. Beginning in April, the OWRB initiated a final round of regional feedback and implementation meetings to gather comments and suggestions on the draft Water Plan and its various components. Open to the general public, each meeting included a unique session allowing public water supply providers to verify local infrastructure data and related water supply and demand information collected over four years of OCWP analyses. A second session provided citizens and other stakeholders with an opportunity to contribute comments on draft water policy recommendations, including implementation strategies.

Throughout 2011, OWRB staff and partners assembled a wealth of OCWP technical data and information into 13 Watershed Planning Region Reports. The reports include water supply/demand assessments, future supply challenges, and potential options to secure water for planning basins and regions through the next 50 years and beyond. Considerable attention was given to creating both sensible and functional planning documents, which will serve as indispensable technical resources for water providers, policy makers, and water users in making informed decisions concerning future local and regional water use and management. Following a public review and comment period, each report was modified, corrected, and refined prior to final collective approval of all 13 reports by OWRB members in October.

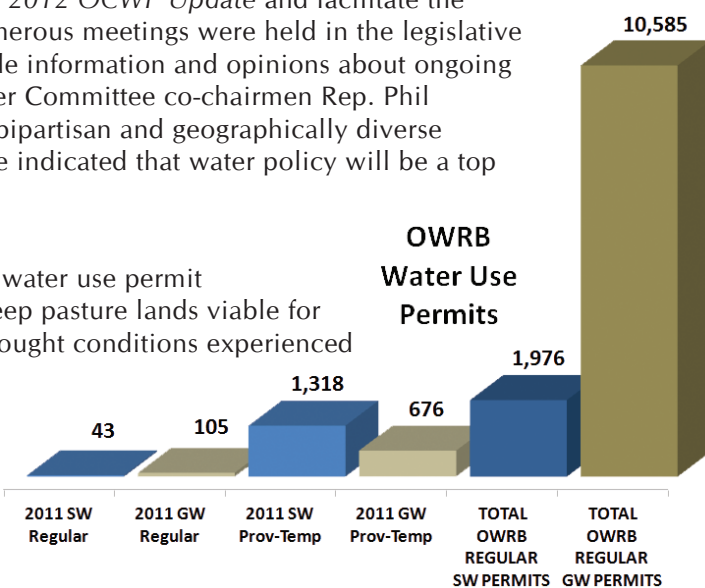
OWRB members dedicated four monthly meetings to detailed review and discussion of OCWP Water Policy Recommendations—the cornerstone policy product of the OCWP process—culminating from extensive citizen involvement since initiation of the update in 2006. In particular, from June through September, members deliberated, debated, and prioritized recommendations for immediate or prompt implementation and/or legislative consideration. Following formal public comment, the final *OCWP Executive Report*—featuring both priority and supporting recommendations, as well as an extensive summary of technical work—was formally approved by OWRB members on October 17.

The *2012 OCWP Update* was presented to the public at the Governor's Water Conference and Research Symposium on October 18-19, and will be submitted to the Governor and State Legislature in February 2012.

In June, House Speaker Kris Steele and Senate President Pro Tem Brian Bingman announced formation of the 16-member Joint Legislative Water Committee to review the *2012 OCWP Update* and facilitate the development of long-range water policy for Oklahoma. Numerous meetings were held in the legislative interim where OWRB staff and others were invited to provide information and opinions about ongoing activities and draft OCWP documents. Joint Legislative Water Committee co-chairmen Rep. Phil Richardson and Sen. Brian Crain provided direction for the bipartisan and geographically diverse membership. Committee members and other legislators have indicated that water policy will be a top priority in the upcoming legislative session.

Water Use Permitting

In 2011, the OWRB experienced a considerable increase in water use permit applications, including many from ranchers attempting to keep pasture lands viable for cattle production and from oil and gas producers. Due to drought conditions experienced throughout the state, applicants were primarily interested in groundwater, especially in dry west and northwest Oklahoma. Staff also responded to numerous calls from water users concerned about frequent water shortages—even more than during the 2006 drought. Numerous complaints were fielded and investigations conducted to address interference between junior and senior water right holders, dry or depleted creeks, declining water wells, and falling reservoir levels that placed critical strains on crops, livestock, municipal and industrial supplies, and fish populations.



In 2011, most permits granted were provisional-temporary that authorize relatively short-term water use. Currently, the OWRB has on file 10,585 regular permits appropriating 3,542,600 acre-feet of groundwater and 1,976 regular permits for 2,570,530 ac-ft of surface water.

Work began on developing stream water allocation models for the Washita River, North Canadian River, and Verdigris River Systems. These models will allow staff to provide water shortage warnings—based on seniority of water right—to enhance management of available water resources.

Hydrologic Studies

The Garber-Wellington Water Management Study, focusing on the physical properties and future management of central Oklahoma's primary groundwater source, was completed last year and the final report is under review. The Rush Springs Aquifer Study was initiated in 2011 with completion projected in mid-2014. The Rush Springs, also a significant aquifer in the central region of the state, is an important source of irrigation and municipal water supply.

The OWRB has also contracted with the U.S. Geological Survey to conduct a 20-year update of the groundwater study for the North Canadian River Alluvium and Terrace Groundwater Basin from the Beaver-Harper County line to Lake Overholser at the Canadian-Oklahoma County line. The investigation will determine if there has been any significant depletion in the basin and develop a new groundwater flow model. Work is anticipated to be completed by late 2013.

The Arbuckle-Simpson Aquifer Study was completed in 2011. This year, the OWRB will consider approval and implementation of a new maximum annual yield that will provide for local use of this vital water supply while, at the same time, protecting springs and streams in the region.

Floodplain Management

The OWRB continues to assist communities in adopting new Flood Insurance Rate Maps through the Federal Emergency Management Agency (FEMA) Map Modernization program. Updated FIRM maps have been issued for 12 counties and 65 participating communities in Oklahoma. Staff also participated in FEMA RISKMap Discovery projects for the Lower North Canadian River Basin and Grand Lake River Basin. Meetings were held with communities and the public to collect data and information for use in identifying areas that may be eligible for mapping, mitigation, and compliance projects. The OWRB continues to train accredited floodplain administrators in Oklahoma's 386 participating National Flood Insurance Program (NFIP) member communities. With assistance from the Oklahoma Floodplain Managers Association, the OWRB conducted 18 training opportunities in 2011.

The OWRB is also an active participant with FEMA in the Cooperating Technical Partnership (CTP) Program, an innovative approach to fostering working partnerships between FEMA and participating NFIP communities, regional agencies, state agencies, tribes, and universities in the FEMA flood hazard mapping program. The OWRB is currently assisting the communities of Broken Arrow and El Reno with their flood hazard mapping needs.

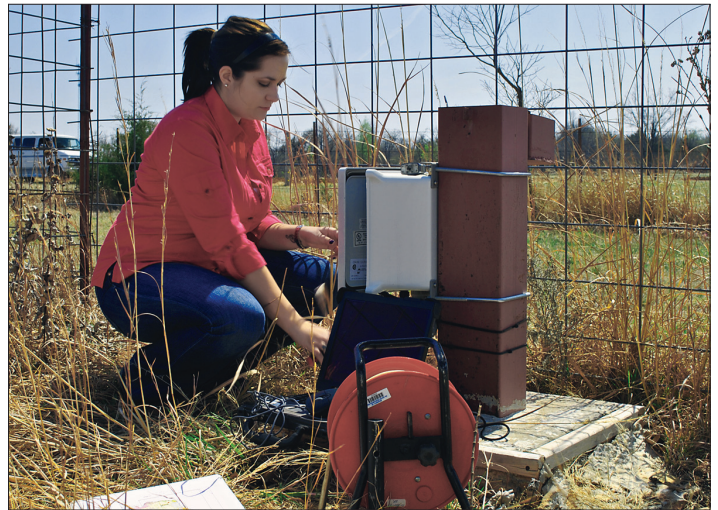
Well Driller and Pump Contractor Program

During 2011, the OWRB Well Drilling and Pump Installer staff maintained licenses for 375 licensed Well Drilling and Pump Installer firms and 663 licensed operators. The OWRB licensed 19 new firms and 63 new operators during this period. The OWRB also received reports for 2,693 water wells, 1,846 monitoring wells/geotechnical borings, and 1,316 heat exchange wells completed this year. Staff maintain a well log database of more than 140,000 well completion, boring, geothermal, and plugging records that are accessible to the public.

Water Quality

The OWRB approved revised Water Quality Standards and Implementation Rules in March 2011 (subsequently approved by the Legislature and Oklahoma governor), which revised protocols for assessing waters of the state for the Clean Water Act "303(d)" list of impaired waters.

As part of the OWRB's Beneficial Use Monitoring Program (BUMP), 40 lakes and 117 stream/river segments were sampled by staff during 2011. Collections included water quality, shoreline, and riverine habitat, fish, algae, and macro-invertebrates. Monitoring included both ambient trend lakes and river sites as well as probabilistic lake and stream monitoring locations. BUMP lake sampling underwent a thorough reevaluation and modification to incorporate a probabilistic sampling approach to maximize benefits and efficiencies in the program while reducing expenses. Monitoring staff are currently partnering with EPA to conduct the National Lakes Assessment with field work initiating this summer. This national study is designed to establish comparable lake conditions between states to facilitate standardized assessment.



OWRB geologist Jessica Magers measures the groundwater level at the Spencer Mesonet site. The well was installed at the site to collect data for the Garber-Wellington Management Study. This is one of six Mesonet sites statewide with a groundwater observation well.

Streams staff are also nearing completion on the third year of the statewide streams probabilistic program. Additionally, through an ongoing successful partnership with the Grand River Dam Authority, the OWRB continued dissolved oxygen monitoring on both Grand and Hudson Lakes to support Federal Energy Regulatory Commission (FERC) relicensing, and will begin installation and monitoring work in 2012 on W.R. Holway Reservoir to support its relicensing.

In addition to collecting water level measurements in the statewide Mass Measurement Program's statewide network of more than 500 wells, the OWRB's groundwater monitoring team assessed Swine Licensed Managed Feeding Operations compliance in an additional 550 wells through a continuing partnership with the Oklahoma Department of Agriculture, Food and Forestry. Staff also acquired a wealth of historical groundwater quality data—now available to the public—to support the Garber-Wellington aquifer study.

In response to the potential for severe impacts resulting from toxin-producing algae, OWRB staff are working with various state, local, and volunteer monitoring entities to assess the risk from harmful algae blooms.

The OWRB continues to participate in the National Flowing Waters Study. Sampling on numerous wadeable and non-wadeable streams are providing data to assess environmental integrity of the waters.

Lakes and Special Studies staff continued to work cooperatively with the Central Oklahoma Master Conservancy District to monitor and improve water quality in Lake Thunderbird where a new system to oxygenate lake water was implemented. The OWRB and other agencies are also finalizing cooperative development of a total maximum daily load (TMDL) calculation to address Thunderbird water quality impairments, including high turbidity, algae, and low dissolved oxygen.

Lake revegetation projects included the establishment of more than 4,000 wetland plants at Eucha on 3,200 square feet of floating islands consisting of recycled plastic and 820 aquatic plants placed in enclosed pens and cages at Fort Cobb. Work continued at Stanley Draper, Grand, and Hudson Lakes to establish and spread the growth of native plants that serve as an inexpensive yet innovative method to combat erosion and suspended sediment, reduce nutrients, and provide valuable habitat for birds, fish, and aquatic insects. The OWRB also works to educate lake managers on the many benefits of establishing aquatic plants.



More than 4,000 wetland plants were established at Lake Eucha on 3,200 square feet of floating islands consisting of recycled plastics. These plants will provide valuable habitat for birds, fish, and aquatic insects while reducing nutrients in the water column.

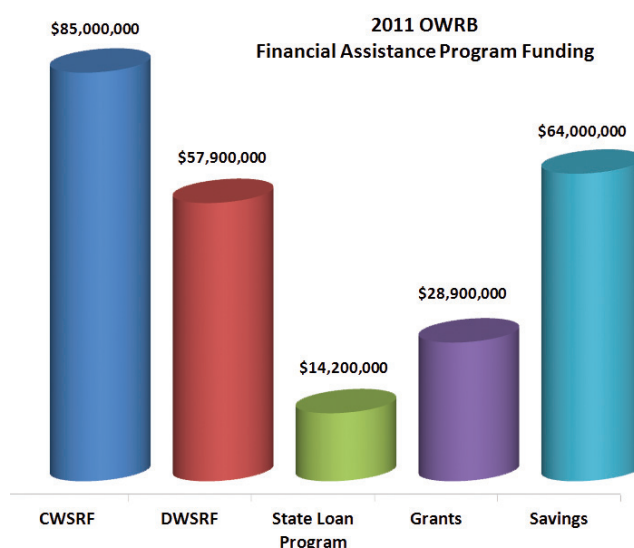
In a joint water resource and water quality study, the OWRB is cooperating with Oklahoma State University and the Oklahoma Conservation Commission on the Oxbow Lakes Project, an ongoing effort to identify and characterize oxbow wetlands in Oklahoma. The objective is to catalogue and initiate an assessment scheme for this unique water resource.

Phosphorus Standard Review

Consistent with the 2003 interstate agreement with Arkansas, OWRB staff initiated the ten-year review of Oklahoma's .037 milligram/liter phosphorus standard for Oklahoma's six Scenic Rivers. A technical advisory group consisting of state, federal, and tribal officials and point and nonpoint source dischargers from both states was formed to evaluate the current appropriateness of the numerical standard based on the latest, best scientific information available. The reevaluation will be completed later this year.

Financial Assistance

In 2011, the OWRB's Financial Assistance Program approved 50 grants and loans totaling more than \$186 million to address water and wastewater infrastructure needs for Oklahoma communities and rural water/sewer districts. The Program closed 3 bond issues, two in April for the State Revolving Fund in the amounts of \$85 million for Clean Water, and \$57.9



million for Drinking Water, and one in June for the State Loan Program in the amount of \$14.2 million. Financing via OWRB saved communities approximately \$64 million over traditional financing avenues.

The OCWP Infrastructure Finance Committee was created last year to address the \$82 billion in current and future water and wastewater infrastructure needs projected throughout the OCWP's 50-year planning horizon. The Committee, consisting of professionals in both the public and private sector that play integral roles in state water and wastewater infrastructure financing, are investigating options to help communities deal with the ever-increasing need for state water and wastewater project funding.

Legal Developments

On September 7, 2011, the U.S. Court of Appeals for the Tenth Circuit issued two decisions involving attempts by water users outside of Oklahoma to obtain authorization to secure water within Oklahoma.

In Tarrant Regional Water District v. Herrmann, the Tarrant Regional Water District (TRWD) had sought declaratory and injunctive remedies against Oklahoma laws that placed conditions on the use of compacted stream water outside of the state. The district court had granted summary judgment and dismissal in favor of OWRB members. On appeal, the Court of Appeals affirmed the district court on several grounds. The Court of Appeals held that the federal Red River Compact—a standing agreement between the states of Texas, Oklahoma, Arkansas, and Louisiana—provides Congressional consent and gives the Oklahoma Legislature latitude to impose conditions on stream water apportioned to Oklahoma under the compact. The Court further held that TRWD lacks standing to assert claims for groundwater located in Oklahoma because, among other things, the statutes challenged by TRWD do not apply to groundwater. On January 19, 2012, TRWD filed a final appeal with the United States Supreme Court seeking review of the Court of Appeals decision.

In City of Hugo v. Nichols, the City of Hugo, Oklahoma and the City of Irving, Texas had sought declaratory and injunctive relief against the application of Oklahoma statutes governing stream water that restricted use of such water out-of-state. Hugo and Irving had entered into a contract for sale of water to Irving for Irving's use in Texas. Earlier, the district court had granted summary judgment to the OWRB, concluding that the Red River Compact authorized Oklahoma to enact the challenged laws. On appeal, the Court of Appeals vacated the district court's order and remanded the case to dismiss for lack of federal jurisdiction. The Court of Appeals ruled that neither Hugo nor Irving had standing. The Court's opinion held Hugo, under the doctrine of political subdivision standing, lacked standing to invoke a dormant Commerce Clause claim against the OWRB (i.e., Hugo's parent state). The Court further held that Irving's claimed injury would not be redressed by invalidating the challenged laws, and Irving lacked standing because Irving's standing was premised solely on its contract with Hugo. On January 4, 2012, Hugo filed a final appeal with the United States Supreme Court seeking review of the Court of Appeals decision.

On August 18, 2011, the Chickasaw Nation and Choctaw Nation of Oklahoma filed a lawsuit in the U.S. District Court for the Western District of Oklahoma. As subsequently amended, the lawsuit names as defendants Gov. Mary Fallin, the members and Executive Director of the OWRB, and the City of Oklahoma City and the Oklahoma City Water Utility Trust (OCWUT). The lawsuit alleges the Indian Nations have federally-protected rights to the water within a 22-county territory in southeastern Oklahoma. Among other things, the lawsuit seeks (1) declaratory judgments against any action by the OWRB on a pending application by Oklahoma City and OCWUT for a permit to use stream water from Sardis Reservoir in southeastern Oklahoma, or any other withdrawal or export of water from the area at issue, unless and until there is initiated a general stream adjudication that satisfies the requirements of the federal law known as the McCarran Amendment; and (2) permanent injunctions against any such action unless and until a general stream adjudication that satisfies the McCarran Amendment is completed. In December, the OWRB authorized its counsel to institute such McCarran Amendment adjudication proceedings, if necessary, to fairly and accurately determine all rights to the use of water in the Kiamichi, Clear Boggy, and Muddy Boggy stream systems. 💧

OWRB FY 2011 Expenditures & FY 2012 Budget

Activity Name	FY 11 Expended	FY 12 Budgeted
Administration	2,839,028	3,252,680
Water Quality	2,720,623	3,238,392
Financial Assistance	2,523,447	3,691,737
Planning & Management	2,794,412	4,849,188
Secretary of Environment	<u>7,373,573</u>	<u>15,137,064</u>
Totals	\$18,251,083	\$30,169,061
Fund Name		
General Appropriations	3,564,668	4,241,494
Drillers & Installers Indemnity Fund	0	50,000
OWRB Revolving Fund	0	2,273,954
Rural Economic Action Plan Fund	72,966	0
Water Resources Revolving Fund	476,059	932,836
Drillers & Installers Regulation Fund	12,500	20,500
Water Infrastructure Dev Fund	1,168,979	1,363,852
Federal Funds - OWRB	1,256,278	2,739,284
Federal Funds - OSE	7,036,006	10,976,616
Environmental Remediation Fund	0	3,961,308
USGS Cooperative Agreement	337,188	399,552
Interagency Reimbursement Fund	1,727,729	0
ARRA Fund	759,651	15,000
DW Loan Administration Fund	490,170	1,145,823
CW Loan Administration Fund	1,115,546	1,548,842
CW Loan Fund	<u>233,341</u>	<u>500,000</u>
Totals	\$18,251,083	\$30,169,061