

OKLAHOMA Water News

4th Quarter 2016

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Report of OWRB Activities for 2016

Throughout 2016, the OWRB fulfilled its mission of managing, protecting, and improving the state's water resources to ensure clean, safe, and reliable water supplies, a strong economy, and a healthy environment.

Financial Assistance Programs

Since inception, OWRB financial assistance programs have provided funding for 2,103 loans and grants totaling nearly \$3.57 billion and saving communities across Oklahoma more than \$1.2 billion over traditional financing options. In 2016, the Board approved 18 loans totaling \$253,360,000, and 19 grants totaling \$1,530,509.

Permitting

During the year, staff issued 97 regular permits and 1,161 provisional temporary permits for 64,848 acre-feet and 97,731 acre-feet, respectively. OWRB staff maintain more than 13,000 permits for approximately 2.7 million acre-feet of surface water and 3.8 million acre-feet of groundwater per year.

Hydrologic Investigations

The OWRB continued multiple hydrologic investigations during 2016. The Rush Springs study, initiated in 2011 in support of the Upper Washita River Basin project, is scheduled to be completed by mid 2017. A 20-year update of the Enid Isolated Terrace study has been completed and will be published in 2017. A 20-year update of the Elk City Sandstone will be completed in late 2017. Investigations of the Cimarron River and Gerty Sand aquifers are also underway.

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OWRB Geologist Kyle Spears measures streamflow in Oak Creek near Canute using a FlowTracker instrument as part of the Elk City Sandstone aquifer study. Streamflow measurements are an important component for estimating the amount of baseflow contribution, which can help derive important aquifer properties. The Elk City is one of eleven aquifers currently under investigation by the OWRB.

From the Director

As we reflect on a year marked by progress and change, I am reminded that it is an exhilarating and important time for water management in Oklahoma. The involvement of so many in the water community continues to strengthen policy, scientific understanding, and partnerships in the state. We look forward to continuing to serve and collaborate with you in 2017.

In October, we said farewell to Executive Director J.D. Strong, who accepted the position of Director of the Oklahoma Department of Wildlife Conservation, and I was named Interim Executive Director. On behalf of the Board and staff, I would like to thank J.D. for his leadership and friendship during his time with the OWRB. We wish him well in his new endeavors.

(continued on page 2)



*Julie Cunningham, Interim Executive Director
Oklahoma Water Resources Board*



From the Director (continued)

I appreciate all who attended the 37th Annual Oklahoma Governor's Water Conference & Research Symposium in October. Thanks goes out to OWRB Chairman Linda Lambert and J.D. for serving as hosts, as well as sponsors and our dedicated staff who continue to make this conference the state's premier water policy and research event. I congratulate Water Pioneer Award winners Robert Henry and Governor Frank Keating. I would especially like to thank Governor Mary Fallin and the roundtable representatives from the Choctaw Nation of Oklahoma, Chickasaw Nation, City of Oklahoma City, and State of Oklahoma for their participation in our opening session focused on the historic water right settlement.

In mid-December Congress and the President executed a comprehensive water rights agreement as part of the 2016 Water Resources Development Act. This agreement provides certainty in the management of water resources in the southeast quadrant of the state while reasonably providing an extra level of water security for central Oklahoma. I would like to recognize the contributors for their leadership, working together to craft an agreement that would benefit all parties, and seeing the legislation through as it became law.

Another "monumental" conclusion came in December with the finalization of the joint study between Oklahoma and Arkansas, which affirms, with slight variation, a numeric phosphorus standard for Oklahoma's scenic rivers adopted in 2003 to address water quality degradation. After a series of meetings in 2016 and the release of a 2-year study conducted at more than 30 sites in both states, the committee finalized recommendations, which are expected to end further legal disputes and provide certainty in the requirements of phosphorus reduction.

Significant progress was made on the Water for 2060 and regional water planning front by many groups across the state. In August, I was delighted to join the advisory council for East Central University's new Oka' Institute, which is focused on developing long-term water solutions with an emphasis on sustainability and economic development. We were pleased to participate in numerous water workshops and meetings held by regional and sector groups, universities, and Tribes, including the Beaver-Cache Watershed group, Northwest Water Action Team, Southwest Water Task Force, Central Oklahoma Water Resources Authority,

Report of 2016 Activities (continued)

Through contracts with the USGS, the OWRB completed the North Canadian study and is conducting investigations on the Canadian River, North Fork of the Red River, Roubidoux, Salt Fork of the Red River, and Washita River Reach 1 aquifers. The Canadian River and North Fork of the Red River investigations are expected to be completed in 2017.

The OWRB continued its work on the Upper Washita Basin Study, an ongoing project conducted in collaboration with the Bureau of Reclamation, Foss Reservoir Master Conservancy District, and Fort Cobb Master Conservancy District. A Hydrologic Investigation report on the Upper Washita Basin is scheduled for completion in 2017. Progress also continued on the Arkansas River Basin Study.

OWRB staff completed bathymetric surveys on Arbuckle, Elmer Thomas, Hominy Municipal, and John Wells lakes in 2016 and

Tulsa Area Water Summit, Oka' Institute, Oklahoma Municipal League, Arbuckle-Simpson Drought Contingency planning group, Arbuckle Lake Watershed planning group, Foss Reservoir Drought Contingency Task Force, and others. The Produced Water Working Group (PWWG) made significant progress on its study to identify spatially proximate sources and beneficial uses of produced water and potential regulatory changes required to allow for the reuse of produced water. NOAA, with other federal and state agencies, finalized the Southern Plains Drought Early Warning System Strategic Plan. OWRB water quality standards staff, along with other agencies, stakeholders, and consulting engineers completed initial rules to establish the regulatory framework necessary to increase our State's water storage capacity through aquifer storage and recovery projects.

As always, a special thanks goes to our staff for their giving and community involvement. Employees surpassed an \$8,500 goal to raise nearly \$17,000 as "Pacesetters" in this year's United Way Campaign in addition to their Salvation Army campaign through the Angel Tree Gift Program and bell ringing fundraiser.

I am also proud to announce the OWRB was once again named a winner of The Oklahoman's "Top Oklahoma Workplaces Award" in 2016. Thanks to the anonymous input of our employees, we are the only state agency to have received this distinction for four consecutive years.

Finally, I'd like to recognize the contributions of Lenora James and Derek Smithee, who retired in 2016. We truly miss them and thank them both for dedicating their careers to the management and protection of Oklahoma's water resources. ♦



Oklahoma Secretary of Energy and Environment Michael Teague (right), presents Derek Smithee with a special commendation from Governor Fallin recognizing his 33 years of service to the OWRB and State of Oklahoma.

are completing surveys on several other lakes to assess beneficial uses related to dissolved oxygen and to update firm yield estimates on sole source water supplies.

Water Quality Standards

The OWRB continued its joint participation in a study of phosphorus levels in Oklahoma's scenic rivers to determine the total phosphorus threshold response level at which algae production results in undesirable or harmful conditions. After a series of meetings and the release of the final study report, the six-member study committee reached a consensus on recommendations, which will be reviewed by the governors of the respective states.

Proposed amendments to Oklahoma's Water Quality Standards included creation of a new antidegradation classification called Sensitive Water Supply-Reuse (SWS-R), revisions to

Report of 2016 Activities (continued)

the numeric aquatic life criteria for certain priority pollutants listed in Appendix G, revisions to several waterbodies listed in Appendix A and their designated uses, and revisions to Appendix B, Tables 1 and 2. These amendments were approved by the Board and the Governor, and have been forwarded to the USEPA regional offices for final approval. Staff also worked with the Aquifer Storage and Recovery workgroup to revise Oklahoma's groundwater quality standards. The proposed revisions have entered the formal rulemaking phase and will be brought to a formal hearing of the Board in January.



OWRB biologists collect algae and invertebrates at the Great Salt Plains as part of the OWRB's statistical survey monitoring program. The frequency and health of these organisms are important for determining water quality at this site.

Lake Restoration Projects

Staff continued cooperative work with Oklahoma City and the Department of Wildlife Conservation at Lake Stanley Draper to develop beneficial aquatic plant communities and control the invasive plant, *Phragmites*. The purpose of this work is to improve water quality while buffering the spread and intrusion of invasive plants. Staff continued to work cooperatively with the Central Oklahoma Master Conservancy District to monitor and improve water quality in Lake Thunderbird, where an innovative oxygenation system has been installed.

Monitoring Programs

Through the Beneficial Use Monitoring Program (BUMP), sampling was conducted quarterly at 40 lakes across Oklahoma in 2016 (as part of a five-year rotation for 130 lakes).

Staff completed work on the "Development of a Reference Condition Candidate Pool for Oxbows of Oklahoma" project to aid in classifying and understanding Oklahoma oxbow wetlands and identify metrics to establish reference conditions.

BUMP stream sampling was conducted at 84 stations on a 6-week rotation during 2016. The physical, chemical, and biological data collected at BUMP sites are used to identify water quality trends, document impairments to beneficial uses, and identify sources of pollution. Every two years, support status for all beneficial uses are reviewed for BUMP sites and recommendations are made for the state's 303d list of impaired waters.

Sampling has been completed for year four of the Groundwater Monitoring and Assessment Program (GMAP), the OWRB's statewide groundwater quality and quantity monitoring program. Staff visited more than 150 quality monitoring sites and collected water-level measurements from more than 1,000 sites.

Geographic Information Systems (GIS)

OWRB GIS staff worked with the Financial Assistance Division to complete a pilot project to map water, wastewater, storm water, and water reuse infrastructure for small public water and wastewater systems. The data has been incorporated into the OWRB's public water supply systems dataset and map viewer.

Well Driller and Pump Installer Licensing Program

OWRB staff licensed 32 new Well Drilling and Pump Installer firms and 56 new operators in 2016, receiving more than 4,200 well completion, boring, geothermal, and plugging reports for the year. More than 176,000 records in the well log database are available to the public via the OWRB website.

Floodplain Management Program

OWRB staff continue to train and accredit floodplain administrators in Oklahoma's 401 participating National Flood Insurance Program (NFIP) communities. Staff conducted 15 Community Assistance Visits and 50 Community Assistance Contacts in 2016, enrolling three new communities into the NFIP. In November the OWRB named Yohanes Sugeng, P.E., as Oklahoma's new NFIP coordinator.

Dam Safety Program

OWRB staff completed 22 low hazard-potential dam inspections during the year, providing inspection reports with breach inundation maps to dam owners at no cost. Staff conducted several dam safety workshops and helped host a seismicity workshop for Oklahoma infrastructure. ♦

OWRB FY16 Expenditures and FY17 Budget*

Activity Name	FY 16 Expended	FY 17 Budgeted
Administration	\$2,192,599	\$2,575,635
Water Quality	3,584,089	4,470,272
Financial Assistance	3,007,028	5,236,880
Planning & Management	3,618,230	5,098,972
Information Technology	684,856	964,227
Totals	\$13,086,801	\$18,345,986
Fund Name		
General Appropriations	\$4,777,061	\$4,112,002
Drillers & Installers Indemnity Fund	-	50,000
OWRB Revolving Fund	1,948,534	2,928,065
REAP Reallocation	-	400,000
Water Resources Revolving Fund	860,142	1,149,595
Drillers & Installers Regulation Fund	21,338	70,000
Water Infrastructure Development Fund	1,371,767	2,393,341
Federal Funds - OWRB	1,233,222	1,967,818
USGS Cooperative Agreement	312,275	325,175
DW Loan Administration Fund	595,892	2,364,359
CW Loan Administration Fund	1,966,571	2,185,631
CW Loan Fund	-	400,000
Totals	\$13,086,801	\$18,345,986

*initial



*Linda Lambert, Chairman • Ford Drummond, Vice Chairman • Jason Hitch, Secretary
Stephen Allen • Tom Buchanan • Bob Drake • Marilyn Feaver • Ed Fite • Richard Sevenoaks*

Protecting and enhancing the quality of life for Oklahomans by managing and improving the state's water resources to ensure clean and reliable water supplies, a strong economy, and a safe and healthy environment.

FINANCIAL ASSISTANCE PROGRAM UPDATE

Loans & Grants Approved as of December 21, 2016

FA Loans— 371 totaling \$976,650,000

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 very competitive interest rates.

CWSRF Loans—299 totaling \$1,378,502,392

The Clean Water State Revolving Fund (CWSRF) loan program was created in 1988 to provide a renewable financing source for communities to use 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—186 totaling \$1,116,183,300

The Drinking Water State Revolving Fund (DWSRF) loan program is an initiative of the OWRB and ODEQ 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—660 totaling \$58,400,353

The Rural Economic Action Plan (REAP) Program was created by the State Legislature in 1996. REAP grants, used for water/wastewater system improvements, primarily target rural communities with populations of 7,000 or less, but priority is afforded to those with fewer than 1,750 inhabitants.

Emergency Grants—573 totaling \$34,007,132

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

Drought Relief Program Grants—10 totaling \$1,543,848

Through the OWRB's Drought Response Program, funding is available for communities in most dire need during state drought emergencies declared by the Governor. A maximum of \$300,000 is diverted from existing OWRB Emergency Grant proceeds to fund the Program.

Water for 2060 Grants—4 totaling \$1,500,000

Through the Water for 2060 Grant Program, funding is available for municipalities, counties, water/sewer districts and other public entities for projects that highlight the responsible use of water.

Total Loans/Grants Approved: 2,103 totaling \$3,566,787,025 Estimated Savings: \$1,210,513,107

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. **For more information, call (405) 530-8800 or go to www.owrb.ok.gov/financing.**

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*Water
News*

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