

OKLAHOMA Water News

4th Quarter 2015

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Water for 2060 Advisory Council Publishes Findings

The Water for 2060 Advisory Council submitted its final report to Governor Fallin and the state legislature in late October. The report was developed to provide assistance in achieving the statewide goal of consuming no more fresh water in 2060 than was consumed in 2012.

The Advisory Council made 12 key recommendations in the report—the product of collaborative dialogue with water users across Oklahoma to determine approaches that can effectively promote water efficiency efforts by all Oklahomans. The recommendations were based on best practices in use in Oklahoma and incentive programs in place in other states. Information was supplemented with an analysis of data from the 2012 Oklahoma Comprehensive Water Plan (OCWP) and estimates of the cost-effectiveness of various measures for enhancing water use efficiency and the use of alternative sources of supply.

According to J.D. Strong, OWRB Executive Director and chairman of the advisory council, conservation will be key to meeting Oklahoma's long-term water needs because it remains the cheapest and quickest way to preserve Oklahoma's water resources for future generations. "Meeting the Water for 2060 goal will require effort and participation from all water users," says Strong, "from changing daily behaviors at home to developing innovative technologies and practices in the crop irrigation, energy production, and industry sectors."

More information on the Water for 2060 initiative and final report can be found at www.owrb.ok.gov/2060.

All Sectors	Develop public education and outreach materials, a statewide resources conservation campaign, and an Oklahoma water efficiency portal.
Public Water Supply	Develop an Oklahoma public water supply system water efficiency best practices guide. Develop a state recognition and rewards program for highly efficient public water supply systems. Develop an Oklahoma water system loss reduction best practices guide. Provide state funding and financing for water system loss reduction. Encourage regionalization and supply sharing.
Crop Irrigation	Apply state financing programs to water-efficient crop irrigation equipment conversion and practices. Develop an Oklahoma crop irrigation best practices guide. Actively support federal crop insurance reform.
Energy & Industry	Facilitate increased sharing of information and supplies between energy and industry water users. Develop an energy and industry water use best practices guidance and recognition program. Promote industrial use of marginal quality waters.

Twelve key recommendations detailed in the Water for 2060 Advisory Council Report available at www.owrb.ok.gov/2060.

From the Director

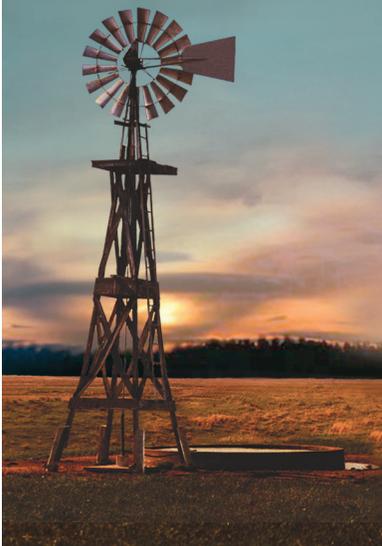
We've closed the chapter on another productive year at the Oklahoma Water Resources Board, and on behalf of our staff I wish each of you a rewarding 2016. While statewide record rainfall hit headlines across the state in 2015, water resources managers remained dedicated to planning for future water supply shortages. The Water for 2060 Advisory Council published their recommendations in a report to state officials, and other efforts to implement Oklahoma Comprehensive Water Plan (OCWP) priority recommendations remained on course.

The 36th Annual Oklahoma Governor's Water Conference & Research Symposium was a resounding success. I'd like to thank attendees, sponsors, staff,



J. D. Strong, Executive Director
Oklahoma Water Resources Board

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From the Director (continued)

and especially Governor Mary Fallin and the other presenters who continue to make this conference the state’s premier water policy and research event. Conference presentations are available online at www.owrb.ok.gov/waterconference.

Congratulations to Bill Sims and Richard Seybolt, who were named 2015 Oklahoma Water Pioneers during the conference. Bob Chipman and Trudy Rigney, the OWRB employees tragically lost in the Oklahoma City Bombing, were also honored with the Pioneer Award in a brief ceremony that included many former and current OWRB employees.



Survivors who worked for the OWRB at the time of the Oklahoma City Bombing accept honorary Water Pioneer Awards for fallen colleagues Bob Chipman and Trudy Rigney.

The commemorative ceremony was one of many events held in 2015 to acknowledge the 20th anniversary of the bombing. The OWRB family continues to gather in remembrance at an annual ribbon ceremony and participate in many other activities as well, including the OKC Memorial Marathon, which was entered by more than 30 OWRB employees last April.

A special thanks to our OWRB staff for another year of giving and community involvement. Whether it is volunteering for educational programs like Sciencefest and H2Oklahoma, surpassing our goals in the United Way State Charitable Campaign, volunteering for organizations such as Positive Tomorrows and the Salvation Army, or participating in the United Way’s Pacesetter Campaign, our staff gives back with impressive generosity. I’m extremely fortunate to work with so many individuals who make giving back a priority.

We’ve also encouraged employee wellness at our agency through activities such as fitness walks, sports leagues, educational seminars, and much more.

For these reasons and many more, we were again named a winner of The Oklahoman’s “Top Oklahoma Workplaces Award.” Thanks to the anonymous input of our employees, we are the only state agency to have received this distinction for three consecutive years. Commending the OWRB for this well-deserved recognition, Governor Mary Fallin called the OWRB “a great example of efficient and responsive state government of which the citizens of Oklahoma can be proud.”

Finally, I’d like to recognize the contributions of the following dedicated public servants who retired last year: Wilma Beagle, Gavin Brady, Lou Klaver, Robert Lindenberger, Terri Sparks, and Rick Wicker. Each of you helped shape the OWRB into an agency that serves the public with distinction and commitment. 💧

Report of OWRB Activities for 2015

Throughout 2015, the OWRB fulfilled its mission of enhancing the quality of life for Oklahomans by managing, protecting, and improving the state’s water resources to ensure clean, safe, and reliable water supplies, a strong economy, and a healthy environment.

Since inception, OWRB financial assistance programs have provided funding for 2,067 loans and grants totaling more than \$3.3 billion and saving communities across Oklahoma nearly \$1.5 billion over traditional financing options. In 2015, 19 loans were funded totaling \$128,945,156, and 17 grants totaling \$1,388,546 were approved by the Board.

As the state’s designated water management agency, in 2015, the OWRB issued 146 regular permits and 1,260 provisional temporary permits for 92,014 acre-feet and 94,014 acre-feet, respectively. OWRB staff currently track water use and maintain more than 13,000 permits for approximately 2.7 million acre-feet of surface water per year and 3.8 million acre-feet of groundwater per year.

OWRB FY15 Expenditures and FY16 Budget		
Activity Name	FY15 Expended	FY16 Budgeted
Administration	\$2,403,114	\$2,814,242
Water Quality	4,041,951	3,675,103
Financial Assistance	2,972,468	5,119,700
Planning & Management	4,078,810	4,068,743
Information Technology	789,442	1,103,169
Totals	\$14,285,785	\$16,780,957
Fund Name		
General Appropriations	\$5,340,878	\$4,855,770
Drillers & Installers Indemnity Fund	-	50,000
OWRB Revolving Fund	1,809,445	2,536,440
Water Resources Revolving Fund	1,067,214	1,219,255
Drillers & Installers Regulation Fund	31,774	25,000
Water Infrastructure Development Fund	1,349,260	1,695,559
Federal Funds - OWRB	1,903,618	1,249,416
USGS Cooperative Agreement	275,275	312,275
DW Loan Administration Fund	456,357	2,418,229
CW Loan Administration Fund	2,051,964	2,019,013
CW Loan Fund	-	400,000
Totals	\$14,285,785	\$16,780,957

Consistent with state law, the OWRB continued several ongoing hydrologic studies during 2015 to determine amounts of water that may be withdrawn from Oklahoma’s groundwater basins by permitted water users. The Rush Springs aquifer study, initiated in 2011 in support of the Upper Washita River Basin project, is scheduled to be completed by mid 2016. A 20-year update of the Enid Isolated Terrace aquifer hydrologic investigation is nearing completion as well. Hydrologic investigations of the Elk City Sandstone and Gerty Sand aquifers are now underway. Through a contract with the US Geological Survey (USGS), the OWRB is also conducting hydrologic investigations on the North Canadian River, Canadian River, North Fork of the Red River, and Salt Fork of the Red River aquifers.

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Oklahoma Water Resources Board

STATUS REPORT

MISSION

The mission of the Oklahoma Water Resources Board is to protect and enhance 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.

GOALS

- Developing, implementing, and promoting sound water policies, programs, and plans to protect lives, property, and Oklahoma's water resources.
- Building partnerships and increasing public awareness to encourage responsible stewardship of Oklahoma's water resources.
- Improving service to the public by maximizing agency efficiency and innovation, and through promotion of a healthy, safe, productive, and inclusive working environment.

VISION

- Resolving Oklahoma's increasingly complex water issues through leadership, innovation, and sound science.
- Partnering with citizens and other stakeholders in planning and balancing multifaceted, long-range water needs.
- Being the recognized experts in our field and known for our exemplary service to the public.

Oklahoma Water Resources Board

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

Executive Director

J.D. Strong

Planning & Management

Administrative Services

Financial Assistance

Water Quality Programs

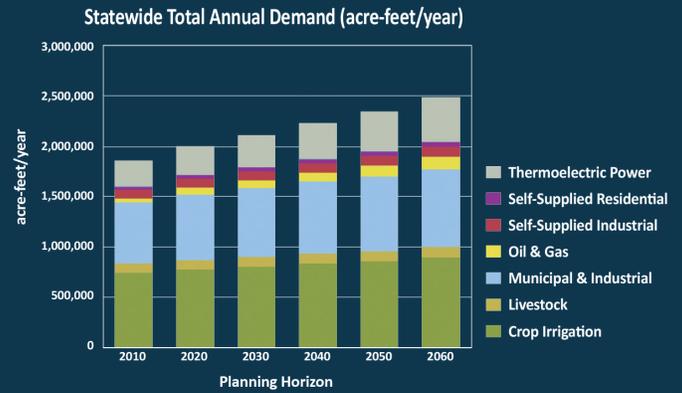
WHAT WE DO

The primary duties and responsibilities of the OWRB include water appropriation and permitting, water monitoring and establishing standards of quality, financial assistance for water/wastewater systems, dam safety, floodplain management, water supply planning, technical studies, and water resource mapping.



PLANNING FOR OKLAHOMA'S WATER FUTURE

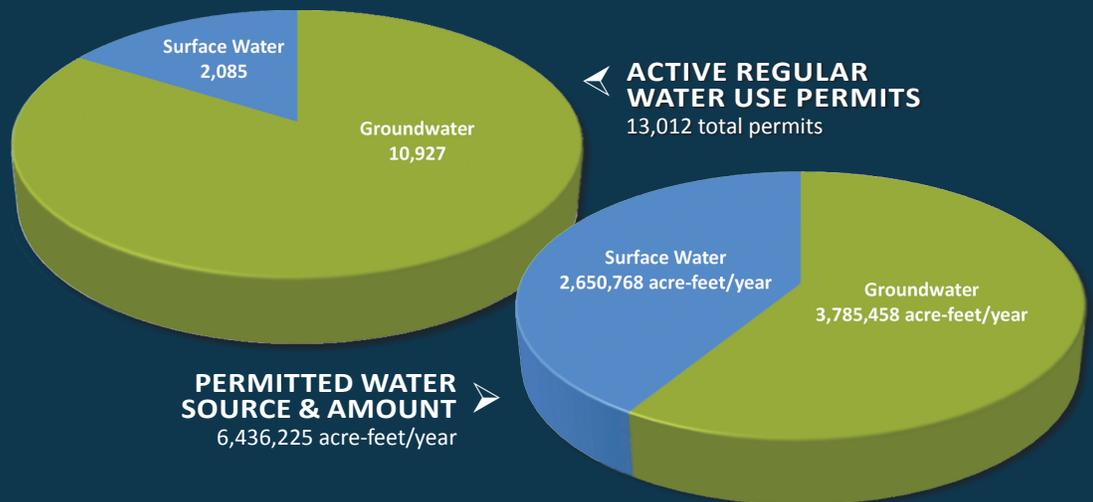
- Ensuring the long-term reliability of water supplies through proactive studies and collaborating with water users, providers, and other partners to develop and implement local and regional plans.
- Assisting in the "Water for 2060" statewide initiative to formulate water conservation practices, incentives, and programs to moderate Oklahoma's water usage while preserving growth and development goals.



According to the Oklahoma Comprehensive Water Plan (OCWP), at current rates of use statewide water demand will increase by more than 33% from 2010 to 2060. For more information, visit www.owrb.ok.gov/OCWP.

MANAGING WATER USE

- Allocating water rights through 13,012 permits for the beneficial use of more than 6.4 million acre-feet of surface and groundwater each year.
- Determining water availability and management options through hydrologic and special studies and a suite of modeling tools.
- Administering four federal stream water compacts to ensure the equitable sharing of water with neighboring states.
- Protecting Oklahomans from loss of life and property through regular maintenance and inspection of more than 4,500 dams and guiding intelligent land use consistent with local floodplain requirements.
- Preventing groundwater pollution through enforcement of regulations governing the responsible drilling, construction, and plugging of water wells.



MONITORING & PROTECTING WATER QUALITY

- Monitoring water quality at more than 600 lake and stream sites and overseeing Oklahoma's first comprehensive groundwater quality and quantity monitoring network that will eventually comprise as many as 2,000 wells covering every major aquifer in the state.
- Developing and establishing standards to ensure water quality protection across the state.
- Curbing pollution of lakes, rivers, and streams and restoring their water quality benefits.

FINANCING WATER & WASTEWATER INFRASTRUCTURE

- Providing grants and low-interest loans for water and wastewater infrastructure improvements.
- Providing more than \$3.3 billion in financial assistance to cities, towns, and rural water districts, saving them more than \$1.1 billion over conventional financing options.

Type of Funding	Number	Amount
Financial Assistance Loan	368	\$958,885,000
Clean Water State Revolving Fund Loan	294	\$1,338,731,092
Drinking Water State Revolving Fund Loan	178	\$948,578,300
Emergency Grant	569	\$33,863,163
REAP Grant	644	\$57,019,562
Drought Grant	10	\$1,543,848
Water for 2060 Grant	4	\$1,500,000
Total Amount Approved	2,067	\$3,340,120,965
Total Estimated Savings:		\$1,140,226,149

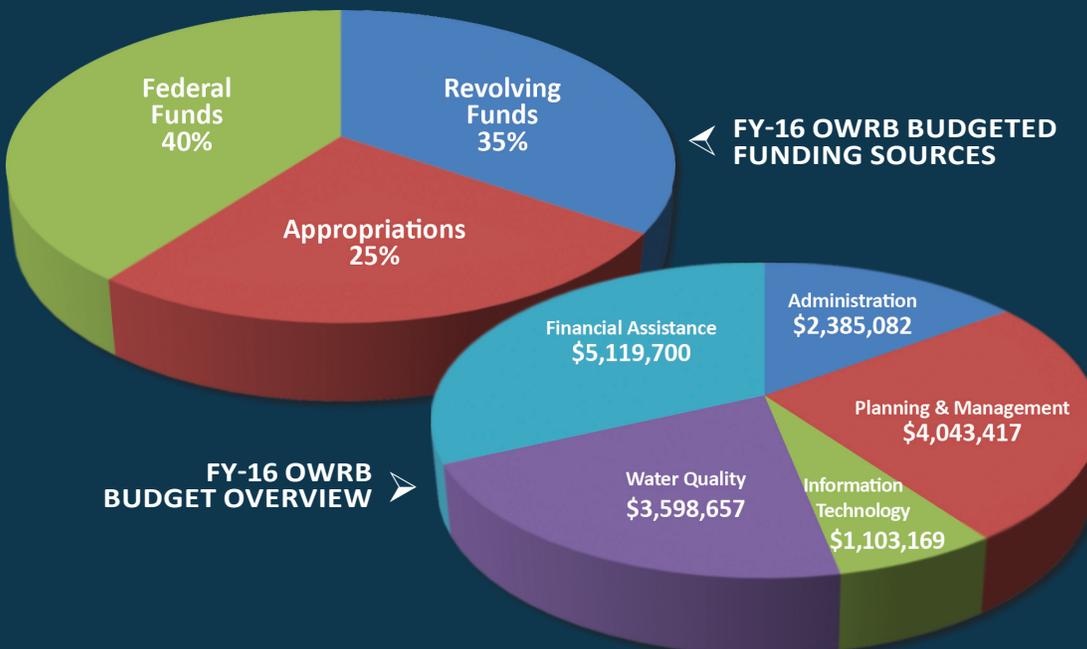
Through continued modernization and efficiency initiatives, the OWRB refines its business processes to reduce expenditures while maximizing transparency and improving service to citizens and the water user community.

CUSTOMER SERVICE & EFFICIENCIES

- The OWRB's continuing document imaging initiative has greatly enhanced staff productivity through improved access to critical information, streamlining workflow, and providing significant savings of both time and money. Imaging also helps the agency provide the public with unprecedented access to current and archived agency records and documents through the OWRB's website.
- The OWRB and partners have developed the Oklahoma Advantages Assessment and Scoring for Infrastructure Solutions (OASIS) system, a computer-based model that quantifies the social, economic, and environmental benefits of a community's water and wastewater infrastructure investments. OASIS assists Oklahoma communities in making smarter choices regarding the services that they provide to citizens.
- The OWRB's web-based provisional temporary permit program provides enhanced convenience to Oklahoma water users, supporting the state's energy industry and saving a considerable amount of staff time. Provisional temporary permits, primarily utilized for oil and gas exploration activities, are the most common type of permit administered by the OWRB.
- The OWRB's Geographic Information Systems (GIS) department continues to improve the agency's online mapping tools, including, to date, more than a dozen interactive map viewers with state water resource information that can be customized through a user-friendly graphical interface.



AGENCY BUDGET



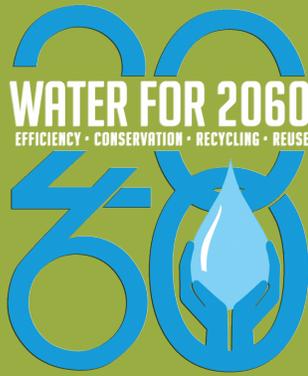
WATER FOR 2060

With the Legislature's passage of the Water for 2060 Act in 2012 (prompted by a priority recommendation of the OCWP), Oklahoma has become the first state in the nation to establish a statewide goal of consuming no more fresh water in 2060 than was consumed in 2012. To meet this ambitious goal, the Water for 2060 Advisory Council was convened in 2013 to begin formulating conservation practices, incentives, and educational programs that could accordingly moderate statewide water usage. Chaired by OWRB Executive Director J.D. Strong, the Council included 15 members appointed by the Governor, Speaker, and President Pro Tempore. The members were tasked with studying and recommending appropriate water conservation practices, incentives, and educational programs to moderate statewide water usage while supporting Oklahoma's population growth and economic development goals.

The Water for 2060 Advisory Council Report was submitted to the Governor, Speaker of the House, and President Pro Tempore in late 2015, and is available online at

www.owrb.ok.gov/2060.

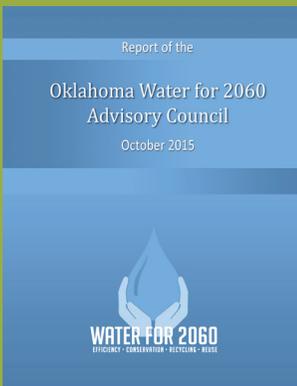
The report contains 12 key recommendations—the product of collaborative dialogue with water users across Oklahoma to determine approaches that can effectively promote water efficiency efforts by all Oklahomans.



2016 GOALS

The OWRB will continue to focus on “drought-proofing” Oklahoma through implementation of the 2012 Update of the Oklahoma Comprehensive Water Plan (OCWP):

- Promoting more widespread adoption of water conservation, reuse and recycling—the cheapest, most feasible alternatives for resolving future water shortages—by seeking adoption of the Water for 2060 Advisory Council's final recommendations and through other efforts;
- Tackling Oklahoma's \$82 billion future water and wastewater infrastructure needs through agency Financial Assistance loan programs, providing below-market interest rates to communities by leveraging federal grants and Oklahoma's new Water Infrastructure Credit Enhancement Reserve Fund;
- Allocating and managing water resources more accurately by creating stream water allocation models and reducing the backlog of statutorily required groundwater basin studies and 20-year updates;
- Detecting and assessing threats to Oklahoma's water resources by efficiently operating the state's most comprehensive surface and groundwater monitoring program;
- Considering tourism, recreation, and ecological water needs within Oklahoma's overall water management framework through lessons learned from the Illinois River Instream Flow Pilot Study;
- Encouraging and working closely with local and regional stakeholders to develop and execute long-range water plans to prevent future water shortages;
- Supporting the Governor and Legislature in working to resolve the water rights and needs of Oklahoma-based tribal nations; and
- Improving agency efficiency and transparency through continued development of online applications, forms, databases and mapping tools.



The OWRB received its third consecutive “Top Workplaces” award in 2015. The Top Workplaces program recognizes Oklahoma's best employers based entirely on employee opinions gathered through anonymous surveys.

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Report of 2015 Activities (continued)

The OWRB continued its work during 2015 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.

OWRB staff are currently working with the Waurika Lake Master Conservancy District to conduct a bathymetric survey of the water intake area of the lake. OWRB staff are collecting data on multiple waterbodies that serve as sole source water supplies to update firm yield estimates.

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. Several public meetings were held in 2015, and the next meeting is scheduled for the spring of 2016.

OWRB staff are receiving input and finalizing the 2015-16 proposed amendments to Oklahoma's Water Quality Standards, including creation of a new antidegradation classification called Sensitive Water Supply-Reuse (SWS-R), revisions to 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.

OWRB staff continued to work cooperatively with Oklahoma City and the Department of Wildlife Conservation at Lake Stanley Draper to develop beneficial aquatic plants and control the invasive plant, *Phragmites*.

Staff continued to work cooperatively with the Central Oklahoma Master Conservancy District (COMCD) to monitor and improve water quality in Lake Thunderbird, where an innovative system to oxygenate lake water has been installed.

Through the Beneficial Use Monitoring Program (BUMP), lake sampling was conducted quarterly at 37 lakes across Oklahoma in 2015 (as part of a five-year rotation for the 130 lakes included in the program). Stream sampling was conducted at 84 stations on a 6-week rotation. The physical, chemical, and biological data collected at these sites are used to identify water quality trends, document impairments to beneficial uses, and identify sources of pollution.

Sampling has been completed for year three of the Groundwater Monitoring and Assessment Program (GMAP), the OWRB's statewide groundwater quality and quantity monitoring program. Staff visited more than 140 quality monitoring sites during the year and collected data from more than 1,000 sites for water-level measurements.

In 2015, the Geographic Information Systems (GIS) department began managing a pilot project to map water, wastewater, storm water, and water reuse infrastructure for small public water and wastewater systems. The data will be incorporated into the OWRB's public water supply systems dataset and map viewer. It also will be made available to the systems at a more detailed level via a separate, secure map viewer. The project goal is to provide systems with a tool to help them operate and manage their infrastructure more efficiently and to plan

for the future. GIS staff also created a new GMAP viewer and refreshed existing map viewers with additional layers and an updated format.

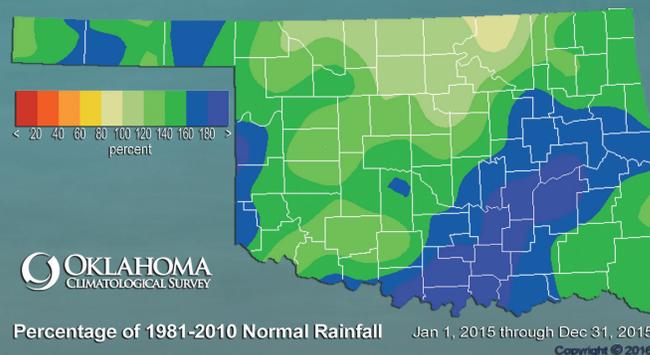
OWRB staff licensed 34 new Well Drilling and Pump Installer firms and 53 new operators in 2015. The OWRB received more than 7,706 well completion, boring, geothermal, and plugging reports for the year. There are currently more than 170,706 records in the OWRB's well log database, accessible to the public via the OWRB website.

The OWRB continues to train and accredit floodplain administrators in Oklahoma's 398 participating National Flood Insurance Program member communities. OWRB floodplain management staff conducted 18 Community Assistance Visits and 43 Community Assistance Contacts and enrolled 4 communities into the NFIP during the year.

In 2015, OWRB staff completed 25 low hazard-potential dam inspections and provided inspection reports with breach inundation maps to dam owners at no cost. Staff are conducting more detailed analyses for several dams that have potential to be reclassified. Breach inundation maps of 13 high hazard-potential dams were developed, provided to dam owners at no cost, and integrated into site-specific Emergency Action Plans to assist emergency managers in the event of dam failure. 💧

Drought Update

As of December 31, the U.S. Drought Monitor indicated that no climate regions in Oklahoma were experiencing abnormally dry conditions or drought.



According to the Oklahoma Climatological Survey, 2015 was ranked the 1st wettest year on record for Oklahoma with an average of 52.96 in. across the state. The year was ranked 3rd wettest on record for the contiguous United States, according to NOAA, averaging 34.47 in. across all climate regions.

To obtain up-to-date information on Oklahoma's drought and moisture conditions, visit www.drought.ok.gov.



*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.

Clean Water State Revolving Fund (CWSRF)

Oklahoma Water Resources Board
Financial Assistance Division



Call for Projects

The Oklahoma Water Resources Board (OWRB) is currently identifying eligible wastewater projects and other pollution control/water quality activities for possible funding through the Clean Water State Revolving Fund (CWSRF) during state fiscal years 2017-2021.

Eligible projects include the following:

- wastewater system projects,
- urban stormwater and landfill pollution control,
- abandoned "brownfield" site clean-up,
- nonpoint source,
- green infrastructure,
- energy and water efficiency and conservation,
- aquifer recharge,
- innovative green projects,
- subsurface drainage and wastewater remediation,
- habitat protection and restoration practices,
- source water protection activities, and
- planning/assessment and monitoring activities.

Projects with recycling and water reuse components and projects that mitigate stormwater runoff using green methods will be awarded additional ranking points and if funds are available may be eligible for subsidization in the form of principal forgiveness.

Interested entities should download and submit a Programmatic Application Packet from www.owrb.ok.gov/CWSRF by March 1, 2016. Completed documents can be emailed to Lindy Clay at lindy.clay@owrb.ok.gov or faxed to her attention at 405.530.8898. ♡

FINANCIAL ASSISTANCE PROGRAM UPDATE *Loans & Grants Approved as of December 31, 2015*

Financial Assistance Loans:
368 totaling \$958,885,000

Clean Water State Revolving Fund (CWSRF) Loans:
294 totaling \$1,338,731,092

Drinking Water State Revolving Fund (DWSRF) Loans:
178 totaling \$948,578,300

Rural Economic Action Plan (REAP) Grants:
644 totaling \$57,019,562

Emergency Grants:
569 totaling \$33,863,163

Drought Response Program Grants:
10 totaling \$1,543,848

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

Total Loans/Grants Approved:
2,067 totaling \$3,340,120,965

Estimated Savings: \$1,140,226,149

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.**



4th Quarter, 2015

The Oklahoma Water News is published quarterly by the Oklahoma Water Resources Board as authorized by J.D. Strong, Executive Director. Eight thousand copies of this issue have been printed by University Printing Services at an approximate cost of 32 cents each. Copies have been deposited at the Publications Clearinghouse of the Oklahoma Department of Libraries.

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