

OKLAHOMA Water News

1st Quarter 2018

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OWRB Monitoring Program Celebrates 20 Years of Protecting Oklahoma's Water

Since before statehood, Oklahomans have recognized the need to protect water resources from pollution. Although many early state and local laws were enacted with the intention of reducing or eliminating water pollution or providing for remediation, major legislation for the state was not passed until the 1955 Oklahoma Water Pollution Control Act.

The Act stated that polluting waters of the state was a crime, and that it was the policy of the Act to prevent pollution of existing water and the proper treatment of water being discharged. In 1957, upon its creation, the Oklahoma Water Resources Board (OWRB) was placed in charge of planning, financing, and enforcing the Act through comprehensive programs for the prevention, control, and abatement of water pollution and through the adoption and promulgation of water quality standards.

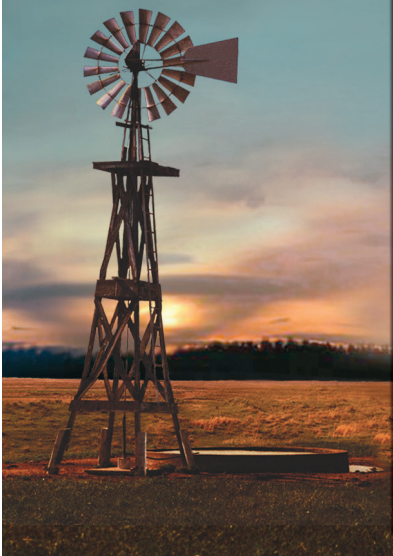
In 1965, the OWRB and other agencies were given the responsibility of coordinating state water quality control activities in accordance with the Federal Water Quality Act. The first Oklahoma Water Quality Standards (WQS) were completed in 1968.

From the late 1980s through the 1990s, the OWRB was actively involved in lake studies through the Clean Water Act (CWA) Section 314 Clean Lakes Program and conducted special studies and remediation on lakes. In 1993, through the Oklahoma Environmental Quality Act, the legislature redistributed and clarified the powers, duties, and responsibilities of the newly created Oklahoma Department of Environmental Quality (ODEQ), the OWRB, and other environmental agencies. Along with its other responsibilities, the OWRB remained in charge of Oklahoma's WQS, their accompanying use support assessment protocols, anti-degradation policy and implementation, and other policies generally affecting WQS application and implementation.

By 1996, state legislators had begun discussing the need for centralized, long-term, defensible water quality data for policy-making. During the 1998 legislative session, lawmakers recognized the vital economic and environmental importance of Oklahoma's water resources and reaffirmed their confidence in the OWRB by appropriating \$1 million for a beneficial use monitoring program (BUMP), a critically needed component of the WQS and state water management processes to ensure that beneficial uses assigned to streams and bodies of water were protected and maintained. The program was assigned by statute to the OWRB in 1999.



OWRB biologists Chris Hargis and Josh Bailey collect stream habitat and macroinvertebrate data on the Illinois River. Data from BUMP stream sites provide an early warning system for any issues that may affect water quality.



(continued on page 2)

Monitoring Program Celebrates 20 years (continued)

The strategy set out by the OWRB for the new program included extensive sampling at lake and stream sites for general water quality parameters, nutrients, pesticides and bacteria; fixed station load monitoring in cooperation with the USGS and others; developing standardized groundwater monitoring methods with the ODEQ; intensive monitoring at any site identified as impaired; and the prioritization of sites for remediation. (See page 3 for a more detailed look at BUMP monitoring sites and special projects that have been leveraged through the program.)

Since inception of the program, data collected at these sites have been invaluable to the development and refinement of Oklahoma's WQS. Stakeholders have utilized the data to identify waters experiencing impairments as well as the cause of declining water quality. If a designated beneficial use of a waterbody is identified by the program as being impaired, threatened, or compromised, BUMP data provide the necessary scientifically defensible impetus for action to be taken.

Through the 2012 Oklahoma Comprehensive Water Plan, the importance and usefulness of water quality and quantity information provided by the program was again recognized, and the OWRB was given additional funding to meet rising costs of continuing the program and to add a groundwater component. This led to the creation of the Groundwater Monitoring and Assessment Program (GMAP), a network comprising approximately 650 wells in Oklahoma's 22 major aquifers. Groundwater data from these sites, accessed via voluntary cooperation by hundreds of private landowners, provide Oklahoma with information on individual aquifer characteristics, seasonal changes, and/or changes due to usage over time.

Due to the success and reputation of the program, the OWRB has been able to become involved with multiple other projects and opportunities for the state, such as the National Lake and Rivers and Streams Assessments, which bring in federal money and allow the OWRB to enhance and modernize the program through federal funding. These projects lead to opportunities for local engineers, scientists, laboratories, and other resources that positively impact Oklahoma's economy. ♦

2017-18 Status Report on Water Quality Monitoring in Oklahoma Now Available Online

Across Oklahoma, water quality monitoring activities are conducted for various reasons, including the identification of pollution sources, regulatory compliance, and determining the effectiveness of Best Management Practices (BMPs).

The OWRB water quality division has developed and published the latest "Status of Water Quality Monitoring in Oklahoma: Surface Water Monitoring Strategy Document (2017-18)." The report provides a synopsis of current

statewide water monitoring, including summaries of activities performed by each state and federal monitoring agency. Additionally, the report serves as a tool for the coordination of future monitoring activities by recommending modifications or improvements to water quality monitoring initiatives.

Numerous environmental agencies, including the Oklahoma Conservation Commission, ODEQ, and OWRB, now collect water quality data to identify baseline conditions across Oklahoma. However, a lack of historical baseline information still exists for many state waters. This information is absolutely essential for the identification of "abnormal" water quality conditions.

The status report underscores the importance of focusing resources in areas where adverse water quality impacts are greatest or where our most outstanding water resources are threatened. Further improvements to statewide monitoring efforts are emphasized to ensure that the best available data is collected to assist decision makers in managing, protecting, and improving Oklahoma's water resources.

The report is available for download at www.owrb.ok.gov/quality/monitoring/StatusReport.pdf. ♦

Canton Public Works Authority Receives Wastewater System Loan

The Canton Public Works Authority (Authority) received approval for a \$399,000 loan in February to improve the Authority's wastewater infrastructure. Construction of upgrades and improvements to the wastewater system will be financed by the Oklahoma Clean Water State Revolving Fund (CWSRF).

The Authority will be using funds for constructing a new lift station with a wet well, submersible pumps, emergency generator, and boring under Minnehaha Creek to replace the 6-inch force main and 12-inch sewer line. Minnehaha Creek is on the state's list of impaired waterbodies where water quality and habitat are not adequately supporting local fish populations. This project will prevent further degradation to the impaired creek.

Through this loan, the Authority's customers will save an estimated \$77,000 over the life of the 20-year loan compared to traditional financing. The CWSRF loan will be secured with a lien on the revenues of the Authority's water and sewer systems.

The CWSRF program is administered by the OWRB with partial funding from the EPA. Oklahoma utilizes the CWSRF to provide communities the resources necessary to maintain and improve the infrastructure that protects our valuable rivers and lakes statewide.

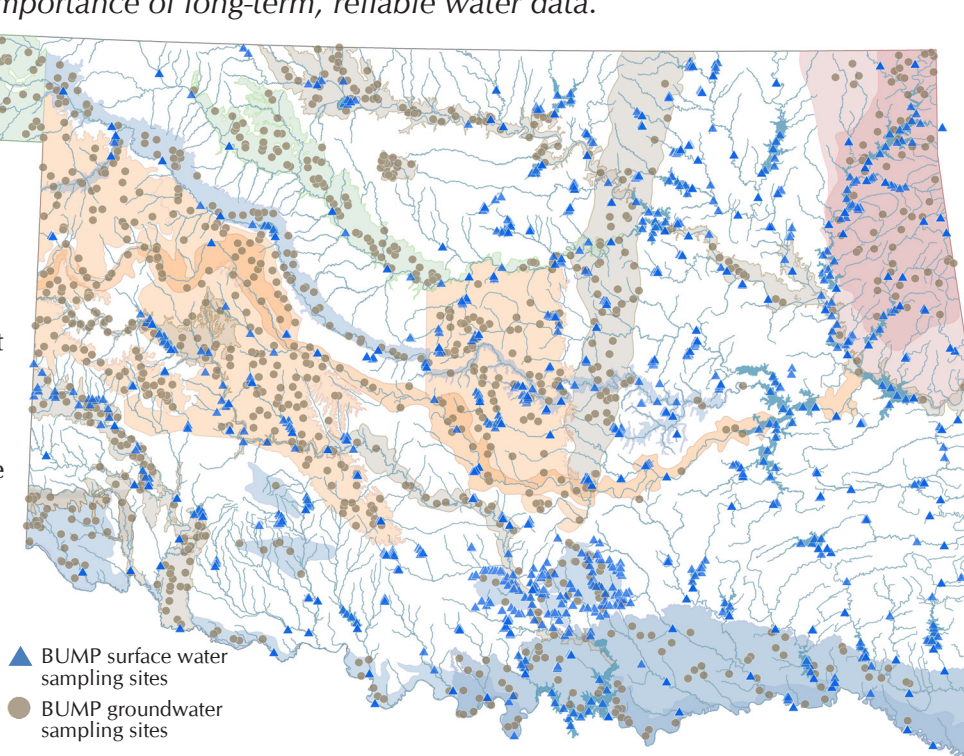
Since 1983, the OWRB has approved more than \$3.9 billion in loans and grants for water and wastewater infrastructure improvements throughout Oklahoma. ♦

OWRB Beneficial Use Monitoring Program

The importance of long-term, reliable water data.

Scientifically defensible data lead to informed policy decisions regarding the protection of Oklahoma's water resources. Long-term collection of data will not only show that water quality and quantity changes have occurred, but also help identify the sources and rates of change. Twenty years of reliable data from hundreds of BUMP sites across the state allow Oklahomans to predict future water quality and supply challenges and plan accordingly.

The importance of long-term data collection has been recognized by thousands of individuals and organizations across the state who regularly rely on BUMP data for decisions that affect the health of Oklahoma citizens as well as the state's economy.



Identifying Impaired Waters

The OWRB analyzes BUMP data collected to identify if waterbodies are meeting their assigned beneficial uses. If a waterbody is not meeting its beneficial use, it is submitted for inclusion on the EPA's 303d list, which is updated every two years. Waterbodies with improving conditions are reviewed and removed from the 303d list. The latest EPA approved 303d list of impaired waters can be found on the ODEQ website at www.deq.state.ok.us.

OWRB Stream Gaging Network

The OWRB's stream gage network, in partnership with the USGS Cooperative Stream Gaging program, provides data for administration of water rights and compliance with Oklahoma's delivery of water per four federal interstate stream compact agreements. Stream gage data directly guide the day-to-day management of local and regional public water supplies, including flood and drought planning, early warnings, and emergency operations.

Special Studies

Due to the longevity of BUMP and the reliability of the data that the program has provided over the years, the OWRB is a trusted source for specialized contract work for municipalities and rural water districts. For example, the ODEQ has contracted the OWRB to map the bathymetry of waterbodies that are listed as impaired for dissolved oxygen. OWRB staff are also frequently involved in sediment removal, oxygenation, shoreline revegetation, and erosion control projects.

Bathymetric Mapping

The OWRB's bathymetric program has grown significantly over the years, providing valuable information for numerous purposes, including dam breach/flood analysis, watershed monitoring and management, assisting municipalities in determining the amount of water a lake can yield during drought, providing estimates of lake volume for chemical rehabilitation projects and vegetation control, assisting fisheries managers, and providing information for recreational fishing. ●

BUMP Data USERS:

- Municipalities
- Industries
- Economists
- Consultants
- Academia
- Rural Water Districts
- Lake Managers
- Sub-state planning districts
- Conservancy Districts
- Interstate commissions & compacts
- Fishing enthusiasts

BUMP Data USES:

- Waste discharge permitting
- Water quality assessment
- TMDLs
- 303(d) impaired list
- 305(b) water quality status report
- Water quality standards
- Water planning
- Non-point source management
- Public health decisions
- Work/funding prioritization
- Research
- Model development
- Resource and supply management
- Prioritizing state and federal resources for problem areas

FINANCIAL ASSISTANCE PROGRAM UPDATE

Loans & Grants Approved as of March 31, 2018

FA Loans—384 totaling \$1,051,865,000

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—320 totaling \$1,550,989,377

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—194 totaling \$1,228,083,300

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—675 totaling \$59,799,640

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.

Drought Response Program Grants—6 totaling \$418,848

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.

Emergency Grants—576 totaling \$34,224,955

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.

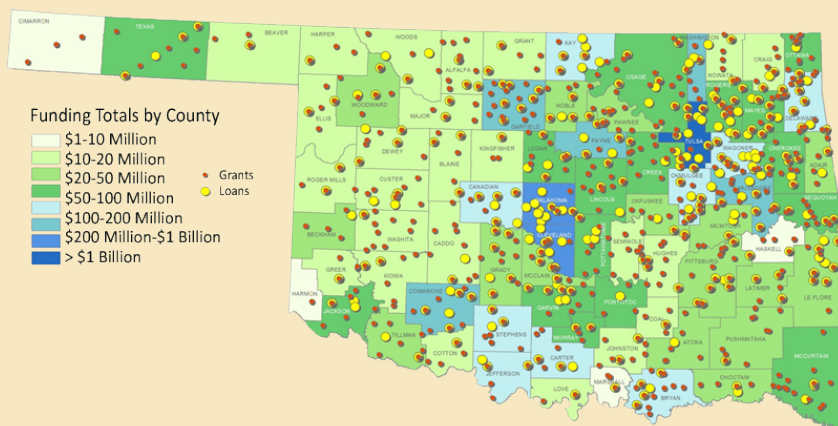
Water for 2060 Grants—4 totaling \$1,500,000

Through the Water for 2060 Grant Program, funding was available in 2015 for municipalities, counties, water/sewer districts and other public entities for projects that highlight the responsible use of water.

Emergency Drought Relief Grants—4 totaling \$1,125,000

Through the Emergency Drought Relief Grant Program, funding was provided in 2013 by the Legislature via the Emergency Drought Relief Commission to address severe drought issues in specific Oklahoma counties.

OWRB Financial Assistance Program Loan and Grant Recipient Status by County



Total Loans/Grants Approved: 2,163 totaling \$3,928,006,119 Estimated Savings: \$1,324,004,500

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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Tom Buchanan

Charles Darby

Bob Drake

Linda Lambert

Robert Melton

Robert Stallings

The Oklahoma Water Resources Board defines policy and conducts the state's water business through a nine-member Board appointed by the Governor. The Board meets regularly to oversee the management of the state's water resources and implementation of the Oklahoma Comprehensive Water Plan. The agency assists the Board in implementing its mission with a professional staff of 100 scientists, engineers, financial analysts, water policy experts, attorneys, and support personnel.

The mission of the OWRB 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.

OWRB meetings are open to the public. Visit www.owrb.ok.gov for meeting dates, times, locations, and agendas.

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