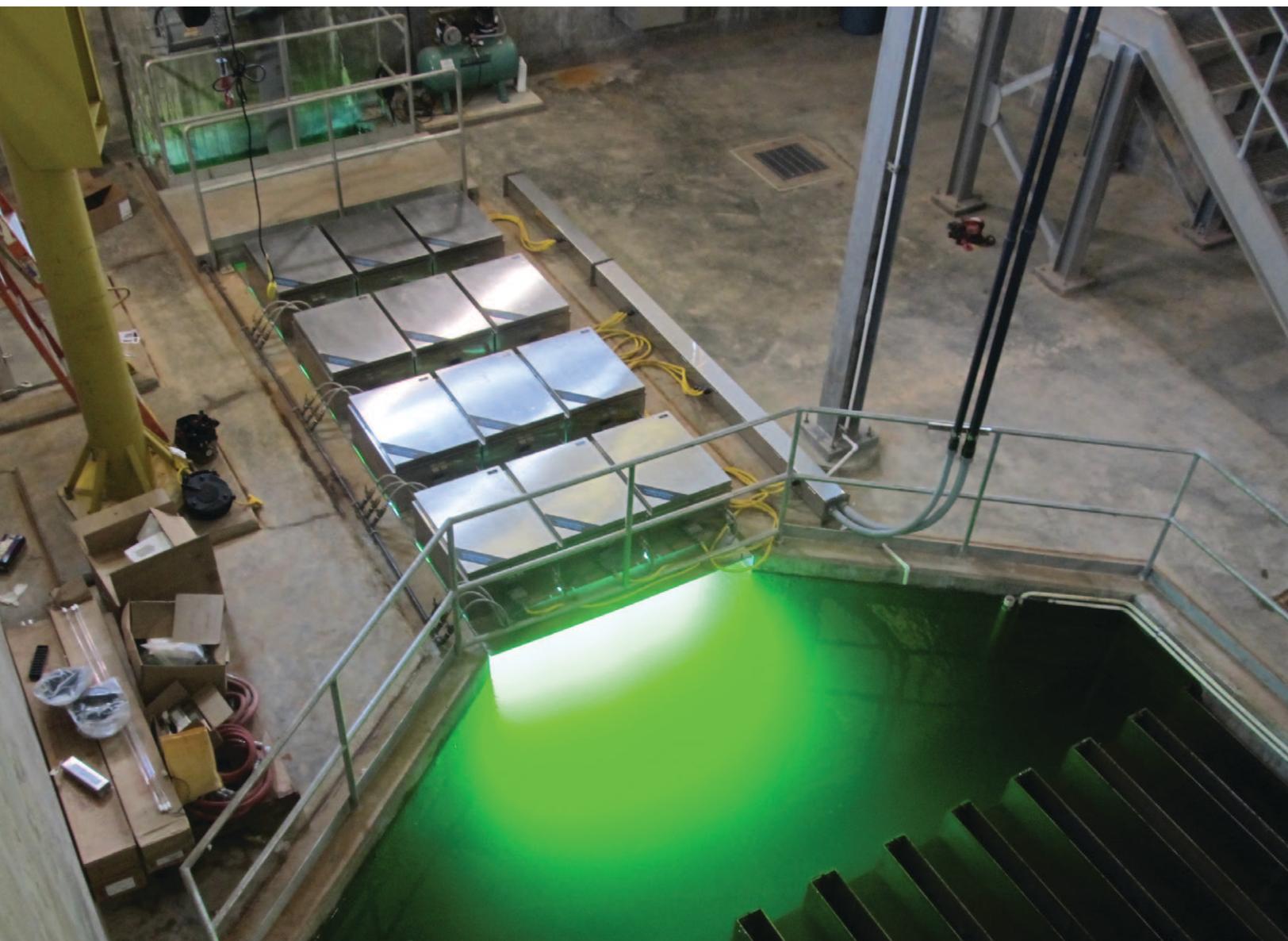


# CLEAN WATER STATE REVOLVING FUND

## 2013 Annual Report



**FINANCIAL ASSISTANCE DIVISION  
OKLAHOMA WATER RESOURCES BOARD**





## MISSION:

*The mission of the OWRB is to enhance 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.*



## FY 2013 PROJECTS BY PLANNING REGION



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Appendices are available online at [www.owrb.ok.gov/cwsrf](http://www.owrb.ok.gov/cwsrf)

**O**n the cover: Ultraviolet Disinfection system, Moore PWA Wastewater Treatment Plant, September, 2013.



# CWSRF ANNUAL REPORT

## 2013



“WHEN THE WELL’S DRY,  
WE KNOW THE WORTH OF  
WATER.”

BENJAMIN FRANKLIN

# Letters of Introduction

J.D. STRONG  
EXECUTIVE DIRECTOR



MARY FALLIN  
GOVERNOR

## STATE OF OKLAHOMA WATER RESOURCES BOARD

As Oklahoma's water agency for more than half a century, the Oklahoma Water Resources Board (OWRB) has been instrumental in leading the state toward sensible water quality protection, comprehensive infrastructure financing and planning, and sustainable management of water resources.

With the passage of House Bill 3055 (the "Water For 2060 Act") in 2012, Oklahoma became the first state in the nation to establish a bold, statewide goal of consuming no more fresh water in 2060 than is consumed today. In this regard, the OWRB is facilitating Oklahoma's new Water for 2060 Advisory Council, also created through HB 3055, in its charge over the next two years with studying and recommending appropriate water conservation and reuse practices, incentives, and educational programs to moderate statewide water usage while ensuring growth and preserving economic development goals.

Our Financial Assistance Division will play a crucial role in helping communities meet the goals of the Water for 2060 Act. Implementation of water conservation and reuse measures, responsible stormwater practices, water and energy efficiency measures, and low impact development are only a few of the innovative projects and measures that will facilitate more efficient use of our shared and finite water resources.

As it has done for more than 30 years, the SRF Program will continue to work closely with state, federal, and local partners to identify common objectives, thus providing Oklahoma citizens with maximum results at a minimum cost. With both enthusiasm and confidence, we continue to work towards a more secure water future for all Oklahomans.

Sincerely,

J. D. Strong  
Executive Director



J.D. STRONG  
EXECUTIVE DIRECTOR



MARY FALLIN  
GOVERNOR

STATE OF OKLAHOMA  
WATER RESOURCES BOARD

The Financial Assistance Division of the Oklahoma Water Resources Board is dedicated to assisting communities and rural water districts in maintaining adequate water and wastewater facilities. Since 1983, we have provided approximately 65% of all the financing for Oklahoma's water and wastewater infrastructure needs. To date, we have funded over \$3 billion in projects with our loan and grant programs which in turn has led to savings of over \$1 billion for Oklahoma communities and rural water districts.

Striving for both sound financing and unparalleled environmental protection, the Financial Assistance Division is proud of our natural AAA ratings on all of our SRF bond issues and our use of innovative methods to meet Oklahoma's infrastructure needs.

In FY 2013, OWRB Financial Assistance Staff worked diligently to ensure that the projects funded during the year met CWSRF requirements. Additionally, staff provided many hours of training and technical assistance to entities across Oklahoma to encourage that steps are taken to further system sustainability.

As we move into FY 2014, we expect that the demand for the program will continue to grow. The Oklahoma Comprehensive Water Plan documented over \$12.5 billion in wastewater infrastructure need between 2010 and 2020. Since 2010, OWRB has funded \$367 Million in CWSRF Loans saving Oklahoma communities over \$136 million in principal and interest.

The future of the CWSRF program continues to be bright and we look forward to continuing our role in helping Oklahoma build forward momentum.

Sincerely,

Joe Freeman, Chief  
Financial Assistance Division



# The cheapest source of water is CONSERVATION.



## Water Reuse

As part of a larger wastewater treatment plant upgrade, Guymon Utilities Authority implemented a land application system to dispose of gray water (CWSRF).

**WATER FOR 2060**  
EFFICIENCY • CONSERVATION • RECYCLING • REUSE



## Educating Citizens

Oklahoma City has produced a series of creative and unique water conservation public service announcements. Conservation education is an important and often overlooked tool.



*Water Reuse: just look for the purple water lines.*

## What Water Providers can do:

The best way to ensure good conservation is to have a well-managed system.

How eligible OWRB Financial Assistance projects, including those funded through both the CWSRF and DWSRF loan programs, can help Oklahoma citizens, municipalities, farmers, ranchers, and industry meet Water for 2060 goals today:

- **Water Efficiency**  
Retrofit with water efficient household fixtures, use automated meter reading (AMR) systems, fix broken/malfunctioning meters, install leak detection equipment, conduct water audits, develop water conservation plans, recycle or reuse water, retrofit or install more efficient irrigation equipment, use WaterSense labeled products that are proven water-savers (faucets, showerheads, toilets, irrigation controllers, etc.)
- **Nonpoint Source Pollution Control Projects**  
Employing wise land use and conservation practices, implementation of capital projects that result in direct benefits to water quality, such as tree planting and certain education projects, and streambank stabilization and related efforts to reduce erosion.
- **Green Infrastructure**  
Green streets, permeable pavement, green roofs, and related projects that reduce impervious surfaces and increase stormwater quality, bioretention of runoff and sediments, stormwater harvesting and reuse, increased urban forestry, establishment of rain gardens, and other efforts that enhance natural habitat, and Low Impact Development (LID), characterized by a wide range of accepted sustainable stormwater practices that can be implemented virtually anywhere.
- **Related Innovative Measures**  
Develop long-range system management and utility sustainability plans, establish contingencies to address acute climate variability impacts, and participate in Leadership in Energy and Environmental Design (LEED) certified projects that reduce waste and conserve energy and water resources.

## Leak Repair

The El Reno Municipal Authority replaced leaking water lines throughout the city to increase efficiency (CWSRF).

## Automated Meter Reading

Lawton Water Authority installed an automated meter reading (AMR) system, which allows them to more effectively identify and repair leaks and increase efficiency (DWSRF).



## Innovative Measures

- High efficiency codes
- Leak detection and prevention
- Education programs
- Promoting green infrastructure
- Promoting water recycling/reuse systems
- Control of invasive species
- Use of marginal quality waters



The cheapest and most accessible source of water is conservation. "Water for 2060" represents a wide range of innovative conservation measures, incentives, and related project financing options available to solidify Oklahoma's water future and minimize deficits projected by the 2012 Update of the Oklahoma Comprehensive Water Plan (OCWP).

### Water Reuse

Hennessey Public Works Authority added a gray water land application system as part of the community's recent lagoon expansion project (CWSRF).

### Streambank Stabilization

The Oklahoma Conservation Commission and Oklahoma State University partnered on a streambank stabilization project on Cow Creek. Among assorted benefits, restoring streams to their natural state reduces sediment loading and enhances water quality, leading to improved water supplies (CWSRF).



### Green Infrastructure

Bixby Public Works Authority has embraced low-impact development innovations through the installation of rain gardens and permeable pavement to improve drainage and reduce wastewater treatment (CWSRF).



## What every Oklahoman can do to conserve:

### Indoors:

- Repair running toilets, dripping faucets, and other water leaks.
- Turn off the tap while shaving or brushing teeth.
- Showers typically use less water than baths.
- Plug up the sink if washing dishes by hand.
- If you use a dishwasher, make sure it's fully loaded.
- Add suitable food wastes to your compost pile instead of using the garbage disposal.
- Wash only full loads of laundry or use the washing machine's load size selection.

### Outdoors:

- Don't overwater. If you step on your lawn and the grass springs back, it does not require water.
- Water in the early morning (4 to 7 a.m.) to reduce evaporation.
- Sweep—rather than hose off—driveways, sidewalks and porches.
- Check your garden hose for leaks and a tight connection to the spigot.
- Wash the car with water from a bucket, or consider using a commercial car wash that recycles water.
- Use native and drought-tolerant plants that require less water and reduce the amount of turfgrass.

### Water Reuse

Gaillardia, a golf course community, has been irrigating with reclaimed water since 1996. This alternative to potable water, provided by Oklahoma City, is also used by two electrical utilities. Collectively, these reuse programs save more than 1 billion gallons of drinking water annually.

### Rainwater Harvesting

A modest OWRB Water Conservation Grant allowed Tahlequah High School to capture rainwater and store it in a 6,000 gallon cistern for use in watering the area's landscape.



### Green Roofs

At OU's National Weather Center, a vegetative roof system (green roof) reduces stormwater runoff, improves water quality, and reduces the building's energy demands (CWSRF).

### Leak Detection

Grady County Rural Water District #6 has reduced system leakage by 25 percent by replacing old valves and meters and installing a new automated meter reading system, along with improved management techniques.

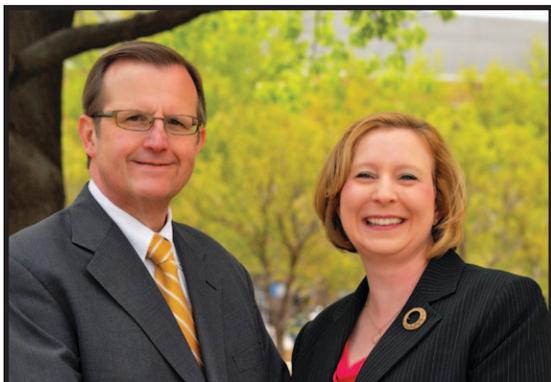
## Incentives

- Economic considerations
- Low-interest loans
- Cost-sharing
- Tiered water pricing

State of Oklahoma  
**OWRB**  
 WATER RESOURCES BOARD  
 the water agency

Visit the OWRB's Water for 2060 webpage at [www.owrb.ok.gov/supply/conservation.php](http://www.owrb.ok.gov/supply/conservation.php)

# Your Financial Assistance Division For FY 2013



Joe Freeman-Chief  
Jennifer Wasinger-Assistant Chief



Claressa Bailey  
Files Administrator



Johnny Barron  
Professional Engineer



Kate Burum  
Staff Attorney



Charles de Coune  
Lending Manager



Barry Fogerty  
Public Information  
Officer



Tamara Griffin  
Environmental  
Programs Specialist



Jerri Hargis  
Loan Analyst



Daniel Hughes  
Loan Analyst



Lori Johnson  
Environmental  
Programs Specialist



Christi Koehn  
Administrative  
Assistant



**Kathy Koon**  
Environmental  
Programs Specialist



**Robert Lindenberger**  
Administrative  
Assistant



**Tony Mensah**  
Engineering Manager



**Laura Oak**  
Staff Accountant



**Vivek Rajaraman**  
Engineering Intern



**Anita Ray**  
Administrative  
Assistant



**Michelle Reeves**  
Files Administrator



**Simeon Stoitzev**  
Loan Analyst



**Byju Sudhakaran**  
Professional Engineer



**Shelly Whitmire**  
Operations Manager

Sonia Mock, not pictured.

## INTRODUCTION

The federal Clean Water Act (CWA) requires a report of the annual Clean Water State Revolving Fund (CWSRF) activities. The OWRB hereby submits the CWSRF Annual Report for Fiscal Year 2013 (July 1, 2012 through June 30, 2013).

This report describes sources and uses of funds, environmental performance of construction activities, OWRB's financial position, as well as the manner in which OWRB met the FY 2013 Intended Use Plan Goals and Objectives.

The OWRB has agreed to submit this report to the Environmental Protection Agency (EPA) within 90 days following the end of the fiscal year. In addition, Oklahoma Statutes require an annual report be submitted to the Governor and Legislature within 120 days of the end of the state fiscal year. This report is intended to fulfill both requirements.

## EXECUTIVE SUMMARY

Since 1990, the OWRB's CWSRF program has approved over \$1 billion in wastewater infrastructure projects throughout the State, providing

over 65% of Oklahoma's wastewater financing needs. Although enormous progress has been made, much work is still required. Based on the Oklahoma Comprehensive Water Plan (OCWP), anticipated wastewater infrastructure needs through 2060 are more than \$44 billion in current dollars.

The CWSRF plays a crucial role in financing this ever-growing need by providing financing at 40% below-market interest rate with standalone AAA bond ratings. The AAA ratings allow OWRB to provide access to significantly lower interest rates than Oklahoma communities are able to obtain through local debt issuance. Utilizing the CWSRF program has saved Oklahomans over \$136 million in principal and interest.

Fiscal Year 2013 saw another outstanding year for wastewater infrastructure rehabilitation, new construction and project refinancing. Oklahoma's CWSRF committed approximately \$50.7 million in loans for projects listed on the FY 2013 Project Priority List.

## FY 2012 APPROPRIATIONS ACT REQUIREMENTS

The *Procedures for Implementing Certain Provision of EPA's Fiscal Year 2012 Appropriation Affecting the Clean Water (CWSRF) and Drinking Water State Revolving Fund (DWSRF) Program* (Procedures) was signed and sent to the States on March 2, 2012. The Procedures detailed changes in the requirements relating to additional subsidization, green project reserve and Davis-Bacon requirements.

### Sustainability Requirements

EPA's Sustainability Policy was finalized in February 2011 with the intent of "...encouraging communities to develop sustainable systems that employ effective utility management practices to build and maintain the level of technical, financial, and managerial capacity necessary to ensure long-term sustainability." This statement summarizes measures currently utilized in Oklahoma to encourage system sustainability and green infrastructure as well as provide technical assistance to small and disadvantaged communities. Oklahoma worked with systems in FY 2013 to ensure that potential



SRF recipients are implementing sustainability practices. Table 1 details the practices that systems will implement as part of their SRF funding.

### Affordability

Eight (8) of the nine (9) projects funded (or 89%) in FY 2013 were located in communities considered disadvantaged. For the CWSRF program, disadvantaged communities are defined as areas where the income of the community is less than 85% of the U.S. median household income. Two (2) of the disadvantaged communities funded received additional subsidy in the form of principal forgiveness for incorporating green components in their projects.

### Green Project Reserve (GPR)

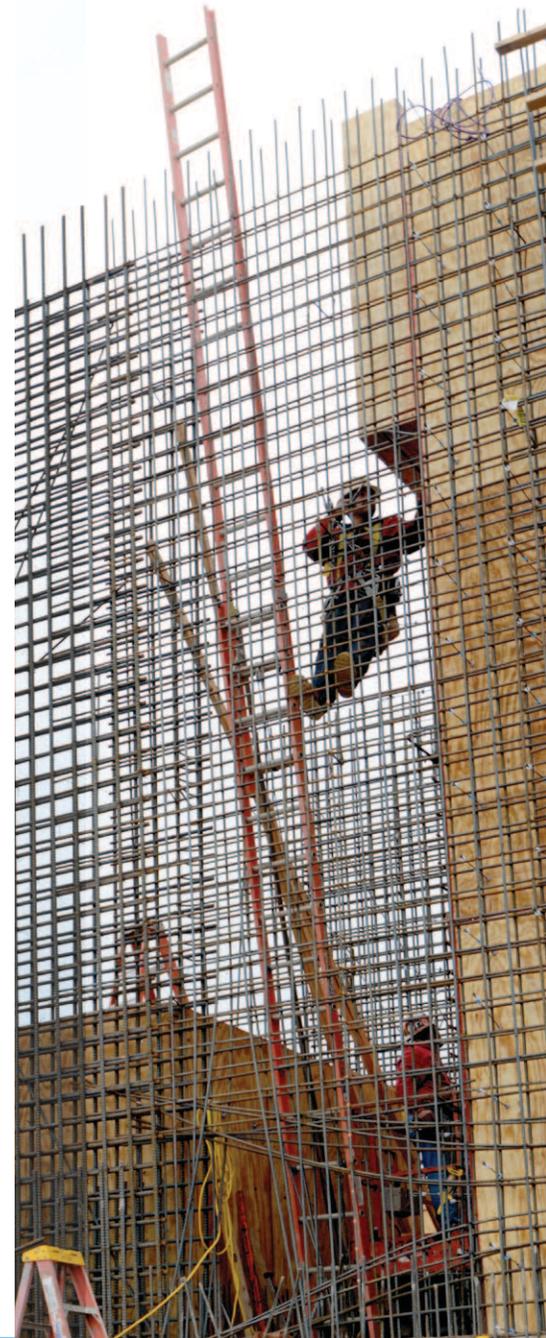
The Appropriations Act states that: "Provided, that for fiscal year 2012, to the extent there are sufficient eligible project applications, not less than 10 percent of the funds made available under this title to each State for Clean Water State Revolving Fund Capitalization grants shall be used by the State for projects to address green infrastructure, water or energy efficiency improvements or other environmentally innovative

activities." This requirement continued the framework set forth under the American Recovery and Reinvestment Act (ARRA). Oklahoma was required to allocate a minimum of approximately \$634,627 to projects which met the GPR requirements.

OWRB utilized the Procedures as issued on March 2, 2012 for determining the eligibility of projects under the GPR. All projects listed on the FY 2013 Project Priority List were evaluated to determine if the project could be eligible under the GPR. As of June 30, 2013, two (2) of the loans funded included green components totaling more than \$4 million (Table 2). Final business cases and/or justification was made available for public viewing at [www.owrb.ok.gov/CWSRF](http://www.owrb.ok.gov/CWSRF) within the quarter in which the loan was made.

### Additional Subsidization

The Appropriations Act states that "... not less than 20 percent but not more than 30 percent of the funds made available under this title to each State for Clean Water State Revolving Fund capitalization grants.... shall be used by the State to provide additional subsidy to eligible recipients in the form of forgiveness of principal,



**TABLE 1**

Oklahoma CWSRF Sustainability					
This table indicates how projects funded satisfy the intent of EPA's Sustainability Policy					
Sustainability Criteria	Loan Number	Recipient	Project Title	Loan Amount	Sustainability Criterion Met
	ORF-13-0014-CW	Antlers PWA	Refinance of existing RD sewer debt	\$2,352,000.00	2
1. Repair, replacement and upgrade of infrastructure in existing communities	ORF-13-0004-CW	Ardmore PWA	Sanitary Sewer Collection System Rehab	\$8,697,000.00	1
2. Investigations, studies or plans to improve Technical Managerial or Financial Capacity	ORF-13-0010-CW	Broken Arrow MA	Improvements to Haikey Creek WWTP	\$6,540,000.00	1, 3
	ORF-13-0013-CW	Broken Bow PWA	Refinance of existing RD sewer debt	\$4,550,000.00	2
	ORF-13-0001-CW	Chouteau PWA	Refinance of existing sewer debt	\$3,513,000.00	2
	ORF-13-0009-CW	Hennessey UA	Wastewater System Improvements	\$1,800,000.00	1
	ORF-04-0011-CW	Lone Grove W&STA	New WWTP and collection system rehab and replacement	\$11,755,000.00	1, 3
3. Preliminary planning and projects that reflect life cycle costs, conservation of natural resources, alternative approaches	ORF-13-0015-CW	Salina PWA	Refinance of existing RD sewer loans	\$1,480,000.00	2
	ORF-13-0006-CW	Tulsa MUA	Sanitary Sewer System and WWTP Improvements	\$9,850,000.00	1,3



negative interest loans, or grants (or any combination of these)..."

Over \$600,000 of Oklahoma's FY 2012 appropriations was earmarked for additional subsidization under the CWSRF. Oklahoma chose to provide the subsidization in the form of principal forgiveness. The forgiveness was targeted first to projects eligible under the Green Project Reserve and second to disadvantaged communities as defined through the 30 year financing negotiation. As funding was available, 15% of a green project's costs or the cost of the green elements of the project was available in principal

forgiveness. The forgiveness was capped at \$500,000. As of June 30, 2013, two (2) projects (Hennessey MA and Lone Grove W&STA) were identified to receive principal forgiveness from the FY 2012 Appropriations Bill. The entities met both of the additional subsidization requirements (Table 2).

### Reporting Requirements

The OWRB complied with reporting requirements regarding the utilization of funds under the FY 2013 Intended Use Plan. The major reporting vehicle was the CWSRF Benefits Reporting Database. Reporting included basic information regarding how the

additional subsidization was utilized, use of GPR funds, general data elements and environmental benefits. Additionally, reporting under the Federal Funding Accountability and Transparency Act was completed as required.

**TABLE 2**

Green Project Reserve and Subsidization for FY 2013								
Detailed information regarding each project is available at <a href="http://www.owrb.ok.gov">www.owrb.ok.gov</a>								
	Borrower	Disadvantaged Community Y/N	Appropriation Year	Binding Commitment Amount	Green Amount	Principal Forgiveness	Green Project Description	Green Category
1	Hennessey MA	Y	2012	\$1,800,000.00	\$350,793.45	\$134,627.00	Groundwater Recharge	EI
2	Lone Grove W & STA	Y	2012	\$11,755,000.00	\$3,735,535.53	\$500,000.00	High Efficiency Pumps and Motors; Cascade Aerators; Extended Aeration Activated Sludge Facility	EE

**TOTALS**

Green Component Amount      \$4,086,329  
 Principal Forgiveness          \$634,627

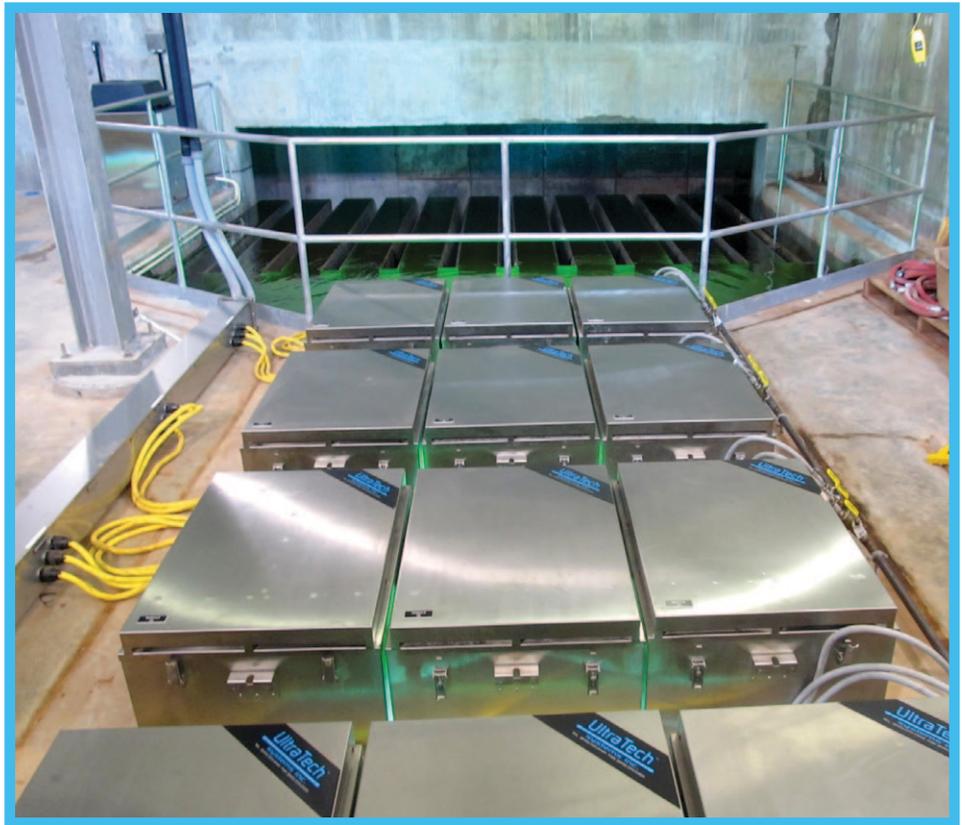


## Davis Bacon

The Appropriations Act states that: "For fiscal year 2012 and each fiscal year thereafter, the requirements of section 513 of the Federal Water Pollution Control Act (33 U.S.C. 1372) shall apply to the construction of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund as authorized by title VI of that Act (22 U.S.C. 1381 et seq.), or with assistance made available under section 205(m) of that Act (33 U.S.C. 1285(m)), or both." Compliance procedures were provided in a November 30, 2009 memo and further defined via Attachment 5 of EPA's May 20, 2011 "Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2012 Full-Year Continuing Appropriations Affecting the Clean Water and Drinking Water State Revolving Fund Programs (Procedures)." The requirements were included in all project bids as ORF-185 (pink sheets) and posted on OWRB's website.

For every project, OWRB staff verified that appropriate wage rates were being utilized. Additionally, OWRB received certifications from borrowers or their designees that payroll reports were

reviewed on a weekly basis. OWRB staff also conducted interviews with workers on site to ensure compliance with all Davis Bacon requirements.



## PROJECT ACTIVITY

The capital financing through the CWSRF Program enables Oklahoma's wastewater systems to affordably meet treatment standards for wastewater discharged into the State's rivers and lakes in accordance with the National Pollutant Discharge Elimination System (NPDES), administered by the Oklahoma Department of Environmental Quality (ODEQ).

The FY 2013 projects allowed borrowers to cost effectively rehabilitate aging treatment plants and collection lines, expand capacity to meet anticipated population and economic growth opportunities throughout the design life, attain compliance with State effluent discharge requirements to protect Oklahoma's water resources, and in some locations improve the quality of priority rivers and lakes identified as threatened or impaired.

Nine (9) Oklahoma entities received binding commitments totaling approximately \$50.7 million during FY 2013 for eligible projects including construction of new treatment and collection systems, rehabilitation of existing facilities, refinancing of

existing debt, and green infrastructure. With a fixed, 40% below-market interest rate and a payback period of up to 30 years, these communities are expected to save more than \$18.5 million in capital expenditures (interest savings) for their essential wastewater infrastructure over the life of the loans. Three (3) large communities (Tulsa Metropolitan Utility Authority, Ardmore Public Works Authority, and Broken Arrow Municipal Authority) and two (2) small communities (Hennessey Municipal Authority, Lone Grove Water and Sewer Trust Authority) were funded with CWSRF loans. Additionally, four (4) small communities (Chouteau Public Works Authority, Antlers Public Works Authority, Broken Bow Public Works Authority, and Salina Public Works Authority) refinanced their long term debt at a lower interest rate through the CWSRF.

In order to make the project information presented within this document consistent with the OCWP, binding commitments approved within FY 2013 are presented by the OCWP Watershed Planning Region in which they are located.



## HENNESSEY UTILITY AUTHORITY

ORF-13-0009-CW

Loan Amount: \$1,800,000.00

Percent Complete: 70%

GPR: Yes

Additional Subsidization: \$134,627

Principal Forgiveness

Loan Analyst : Sonia Mock

Environmental Specialist: Lori Johnson

Engineer: Johnny Barron

The City of Hennessey is located in Kingfisher County. The Hennessey Utility Authority owns and operates the wastewater system that serves a population of approximately 2,058. The project consists of the construction of two additional lagoons to serve as cells No. 5 and No. 6. Each lagoon will cover 7.1 acres and have the storage capacity of 3.4 million gallons. New parshall flumes with flow meters will also be installed. A microstrainer bar screen with concrete bypass channel will be installed at the headworks of the plant and new floating aerators will be installed in existing lagoons. The plant will be converted from surface discharge to land application by the construction of a new irrigation system that will consist of floating pumps, piping and valves, connection assemblies, and a travel gun type irrigation reel to apply treated effluent onto 35 acres of adjacent farmland.





## CHOUTEAU PUBLIC WORKS AUTHORITY

ORF-13-0001-CW

Loan Amount: \$3,513,000.00

Percent complete: Refinance

GPR: No

Additional Subsidization: \$0

Chouteau Public Works Authority utilized this funding to refund a portion of the Authority's 2006 Revenue Bonds used to fund the replacement of Chouteau's wastewater plant. This project was originally proposed to receive CWSRF funding but a last minute decision resulted in the system issuing their own revenue bonds. The project was to improve existing plant processes to achieve new effluent permit requirements. Phase I of the project was to increase the treatment capacity to 0.32 MGD. The replacement of the wastewater treatment plant consisted of new headworks, manual degritting, screening, a rectangular primary clarifier, a single slow-rate rock media trickling filter, an effluent polishing lagoon, and other related construction and appurtenances.

Loan Analyst : Simeon Stoitzev  
Environmental Specialist: Kathy Koon  
Engineer: Vivek Rajaraman



## SALINA PUBLIC WORKS AUTHORITY

ORF-13-0015-CW

Loan Amount: \$1,485,000.00

Percent Complete: Refinance

GPR: No

Additional Subsidization: \$0

Loan Analyst : Simeon Stoitzev

Environmental Specialist: Tamara Griffin

Engineer: Vivek Rajaraman

Salina Public Works Authority is located in Mayes County. The purpose of this project was to refinance United States Department of Agriculture (USDA) Rural Development loans for the purpose of improving plant processes to achieve new effluent permit requirements and to provide capacity for the design flow. The wastewater system serves a population of approximately 1,422. The project consisted of constructing a new 0.14 mgd extended aeration activated sludge wastewater treatment plant. Construction items included an influent lift station, bar screen, grit chamber, aeration basin, sedimentation basin, ultraviolet (UV) disinfection system, cascade aerator, two aerobic digesters, emergency power generator, polymer feed system, trailer mounted sludge dewatering container and pad, return activated sludge lift station, waste activated sludge lift station, effluent pipe, outfall structure and other related construction.



## ARDMORE PUBLIC WORKS AUTHORITY

ORF-13-0004-CW

Loan Amount: \$8,697,000.00

Percent complete: 0%

GPR: No

Additional Subsidization: \$0

Loan Analyst : Daniel Hughes

Environmental Specialist: Tamara Griffin

Engineer: Vivek Rajaraman

The City of Ardmore is located in south-central Oklahoma in Carter County. The Ardmore Public Works Authority owns and operates the wastewater treatment plant and sanitary sewer collection system that serves a population of approximately 24,283. The collection system is experiencing high infiltration and inflow due to groundwater and rainfall runoff that enters the collection system through broken pipelines, open pipe joints, vented manhole covers, defective manholes, unauthorized storm drain connections, roof drains, etc. To solve the problem the Authority conducted a comprehensive Sanitary Sewer Evaluation Survey of Basins. The resulting project consists of rehabilitating manholes, service lines, mainlines and to perform heavy cleaning to restore the integrity of the pipes and other related construction.



## LONE GROVE WATER & SEWER TRUST AUTHORITY

ORF-04-0011-CW

Loan Amount: \$11,755,000.00

Percent Complete: 15%

GPR: Yes

Additional Subsidization: \$500,000

Principal Forgiveness

Loan Analyst : Sonia Mock  
Environmental Specialist: Lori Johnson  
Engineer: Byju Sudhakaran

City of Lone Grove is located in Carter County in south-central Oklahoma. The Lone Grove Water & Sewer Trust Authority owns and operates its own water and sewer systems. The existing wastewater system consists of collection system and three lagoons for wastewater treatment. The existing three lagoons are insufficient to handle the present demand resulting in notices of violation from the ODEQ for discharge permit limit violations. The proposed project consists of construction of a new extended aeration activated sludge plant, a new influent lift station, aerobic digestion system, sludge dewatering system, UV disinfection system, and collection system improvements.



## BROKEN ARROW MUNICIPAL AUTHORITY

ORF-13-0010-CW

Loan Amount: \$6,540,000.00

Percent complete: 20%

GPR: No

Additional Subsidization: \$0

**Loan Analyst : Sonia Mock**

**Environmental Specialist: Tamara Griffin**

**Engineer: Johnny Barron**

The City of Broken Arrow is located in Tulsa County. The Broken Arrow Municipal Authority owns and operates the wastewater treatment plant and sanitary sewer collection system that serves a population of approximately 99,580. The proposed project consists of four construction projects and two design projects. These are to be jointly funded by the Broken Arrow Municipal Authority (BAMA) and the Tulsa Metropolitan Utility Authority (TMUA). BAMA's obligations include the Haikey Creek Flow Equalization Basin Improvements consisting of the replacement of the 25 year old liner in the flow equalization basin and making improvements to the wash down system., Additionally, security and safety improvements will be made at the Haikey Creek Wastewater Treatment Plant as well as the replacement of the current chlorine and

sulfur dioxide gas disinfection process equipment with a non gas system. Improvements will also be made at the Haikey Creek Lift Station including replacing the screens at the influents to the lift station for the protection to new pumps, add odor control and other related construction and Haikey

Creek WWTP Activated Sludge and Aeration System Improvements will include improvements to the aeration system and activated sludge system. This funding is also to be utilized to fund the Phase 3 design of the flow equalization basin (FEB) expansion at the Haikey Creek Lift Station.



## TULSA METROPOLITAN UTILITY AUTHORITY

ORF-13-0006-CW

Loan Amount: \$9,850,000.00

Percent complete: 0%

GPR: No

Additional Subsidization: \$0

Loan Analyst : Charles de Coune

Environmental Specialist: Tamara Griffin

Engineer: Vivek Rajaraman

The City of Tulsa (City), through the Tulsa Metropolitan Utility Authority owns and operates several wastewater treatment plants and collection systems which serve a combined population of approximately 500,000. The proposed project includes improvements at the Northside WWTP Nitrification which consists of replacing final clarifier launder covers, replace mud valves, aeration train gate valves, replace waste pumps and waster return pumps, replace blower cooling jackets, bio selector mixers, replace switch gear and Motor Control Center. Additionally, the project includes improvements at the Southside WWTP System (SSWWTP) Odor Control consisting of construction of odor control for the transfer box recycle for the SSWWTP, construction of odor control biofilter for the 71st street dewatering facility

and design of the odor control for the SSWWTP intermediate pump station. Haikey Creek WWTP Aeration Basin Study & Repairs project will study the aerators and recommend short term solution and long term solution for aeration issues. Improvements will also be made at the Mingo, Coal

& Flatrock FEB Facility including minor rehabilitation of Mingo, Coal and Flatrock flow equalization basin facilities in order to improve diversion of flow to the basins by installing flow meter in the basins, add hoist rails for pump maintenance, and replace sluice gates and other related construction



## ANTLERS PUBLIC WORKS AUTHORITY

ORF-13-0014-CW

Loan Amount: \$2,352,000.00

Percent Complete: Refinance

GPR: No

Additional Subsidization: \$0

**Loan Analyst :** Jerri Hargis

**Environmental Specialist:** Lori Johnson

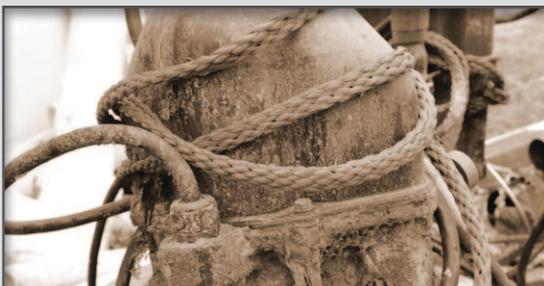
**Engineer:** Johnny Barron

The Antlers Public Works Authority is located in the Pushmataha County, and serves a population of about 2,600 people. The project was to refinance two WWTP improvement projects originally funded by USDA Rural Development Loans. Project 1 began in March 2005 and was completed in September 2007. The project involved substantial rehabilitation of the existing WWTP including the construction of two new aeration basins equipped with an air distribution grid with fine bubble diffusers. Also constructed were two new clarifiers, influent pump station, mechanical bar screen, forced vortex grit removal system, return activated sludge pumps station and blower building and 1250 feet of new 24-inch gravity influent sewer line.

Project 2 began in April 2006 and was completed in Sept 2007. This

project included the conversion of the existing aeration basins to sludge digesters with an air distribution grid with membrane disc diffusers. Also constructed was a chlorine contact basin and chlorine building, sludge digester aeration system, blower building, office/laboratory building, sludge loading station, electrical,

site work, and fencing. Additionally, improvements were made to sewer collection system improvements including the replacement of 700 feet of 18-inch sewer line, 3,020 feet of 12-inch sewer, 9,333 feet of 10-inch sewer, 3,973 feet of 8-inch sewer line and 84 manholes which were either installed or rehabilitated.



## BROKEN BOW PUBLIC WORKS AUTHORITY

ORF-13-0013-CW

Loan Amount: \$4,550,000.00

Percent Complete: Refinance

GPR: No

Additional Subsidization: \$0

The City of Broken Bow is located in McCurtain County. Broken Bow Public Works Authority owns and operates a wastewater treatment system that serves a population of approximately 4,120. This project was to refinance sewer projects funded by USDA Rural Development Loans.

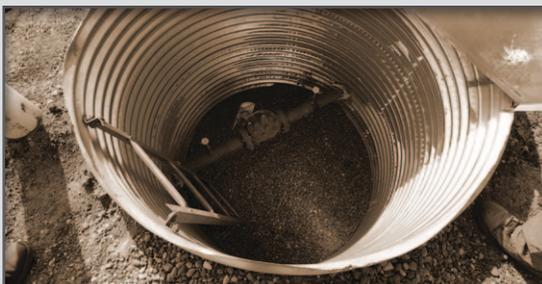
Work began on the sewer collection system improvements in February 2007 and was completed in August 2007. The project included the installation of 3,045 feet of 8-inch PVC pipe, 894 feet of 8-inch ductile iron pipe, 19 manholes and 18 pier supports .

Work on the WWTP Improvements began in December 2007 and was completed in August 2009. The project included the conversion of an existing clarifier to a sludge digester and the construction of a new sludge

Loan Analyst : Jerri Hargis  
Environmental Specialist: Kathy Koon  
Engineer: Johnny Barron

digester, each with an air supply grid with ceramic disc diffusers. Also constructed were a blower building with four centrifugal blowers, two diameter secondary clarifiers, an influent pump station and headworks with mechanical bar screens and grit removal and clarifier system, sludge pump station, an UV light disinfection

system, belt filter press with polymer feed system and post aeration structure with flow measurement device with appurtenances, electrical controls, and site work as designed.



# 2013 Intended Use Plan Accomplishments

## LOAN ADJUSTMENTS FOR BINDING COMMITMENTS

### FY 2012

The initial binding commitment for the Vian Public Works Authority was approved in February 2012. Bids came in \$100,000 over the engineer's estimate. As a result, Vian was taken back to the Board for an increase equal to the overage in December 2012.

### FY 2013

Fifteen (15) projects were completed within SFY 2013. Excess funds were de-obligated. Attachment 1 details the changes in assistance.

## INTENDED USE PLAN

### Status and Changes

The FY 2013 Intended Use Plan (IUP) was amended twice for the addition of new projects, adjustments to the loan award dates, revisions to the construction assistance amounts, updates to the GPR amounts as well as subsidy amounts.

### Amendment I - October 2012

Addition of New Projects- The Broken Arrow Municipal Authority (2013 PPL) and Norman Utilities Authority (2014 PPL) submitted requests to be considered for loan funding.

Removal of Projects- The Hydro Development Authority obtained funding from another source for the construction of a new non-traditional wastewater treatment facility. Per the Authority's request, the project was removed from the PPL.

Other changes- Several entities with projects listed on the FY 2013 CWSRF PPL requested changes due to revised project items or construction estimates and/or target project approval dates. The list was revised to reflect these adjustments.

GPR and Subsidization as Required under the FY 2012 Capitalization Grant – The OWRB identified two (2) projects as potentially eligible for GPR and/or subsidization. Lone Grove Water and Sewer Trust Authority and the Hennessey Utility Authority, were identified as potentially meeting the

GPR requirements possibly receiving additional subsidization under the FY 2012 Appropriations Provisions.

### Amendment II - March 2013

GPR Addition of New Projects- Oilton Public Works Authority, Frederick Public Works Authority, Antlers Public Works Authority, Broken Bow Public Works Authority, Quinton Public Works Authority, and Salina Public Works Authority submitted requests to be considered for loan funding during FY 2013. Kiefer Public Works Authority submitted a request to be considered for loan funding during FY2014.

## GOALS AND ACCOMPLISHMENTS

Goals set out in the IUP provide a road map for activities conducted throughout the year. The FY 2013 IUP included nine (9) short-term and six (6) long-term goals for the year.

### Short-term Goals and Accomplishments

**I** Provide financing to communities listed in this plan that are under NPDES enforcement orders to meet deadlines for municipal compliance in accordance with Section 301(I)(I) of the Act.



STATUS: Eight (8) of the nine (9) projects funded during FY 2013 were proposed as a result of violations to wastewater discharge permits and/or enforceable order violations detailing a specific short-term compliance schedule. This assistance allows these communities to attain compliance with the enforceable requirements of the Clean Water Act and improve or maintain water quality in receiving streams and underlying groundwater. The OWRB continued to implement a process initiating immediate contact with municipalities receiving new consent orders to inform and work with them in determining eligibility and to provide funding in accordance with enforcement schedules.

**2** Provide financing to assist communities in eliminating water pollution problems, improving water quality in the State's waters, and building sewage facilities needed to maintain surface water and groundwater quality standards.

STATUS: Once constructed, all funded projects will contribute to the long-term elimination of pollution to surface and groundwater. As detailed in Attachment 2, loans were

made to eight (8) communities to address consent order or enforceable schedule. Five (5) projects will reduce pollutants discharged from entities with discharge points located on State priority stream segments identified as threatened or impaired on the Impaired Waterbodies List, Section 303 (d) (Oklahoma's Integrated Water Quality Assessment Report). Six (6) projects are located within hydrologic basins where groundwater vulnerability is designated as "Very High" to contamination from surface sources of pollution or within drainage basins of "waters with recreational and/ or ecological significance", as designated in Oklahoma's Water Quality Standards or affecting source water protection areas.

**3** Work with state/local agencies to identify current gaps in the State's nonpoint source, stormwater, and Brownfields funding, identify potential CWSRF eligible projects, and develop appropriate financing strategies, as necessary.

STATUS: The Oklahoma CWSRF program team consults with our sister state agencies periodically during the year to identify nonpoint source,

stormwater and Brownfield projects. Additionally, the ability to fund these types of projects is forefront in program presentations made by staff to systems as well as service providers. In FY 2013, no projects were identified in these areas for funding.

**4** Provide 25% of all CWSRF loans to communities of less than 10,000 population for assistance in building more affordable sewage treatment works or implementing NPS pollution control activities.

STATUS: Sixtyseven percent (67%) of FY 2013 binding commitments for long-term, low-interest loans were made to Oklahoma's small communities, totaling approximately \$25.45 million. The cumulative total is above the program goal and the CWSRF program is anticipated to continue providing below market rate loans to help ensure project affordability and environmental health protection for small communities across Oklahoma.



# 2013 Intended Use Plan Accomplishments

**5** Obtain maximum capitalization of the Fund for the State in the shortest time possible.

STATUS: This goal is being achieved on an ongoing basis. The CWSRF five-year Project Priority List identifies more long-term project needs than available CWSRF funds. To provide for these needs, the OWRB financing plan makes loan repayments, as well as federal funds, available to obligate to new wastewater construction projects or to place in reserve for leveraged bond issues, sized to meet current and future demand according to cash flow modeling.

**6** Gain approval of applications for the FY 2013 CWSRF capitalization grant appropriations and have grant funds awarded within the 2nd quarter FFY 2013.

STATUS: The FY 2013 CWSRF capitalization grant was awarded on and had a budget project period beginning July 1, 2012.

**7** Generate sufficient investment and loan interest earnings to retire state revenue bonds.

STATUS: During FY 2013, one (1) CWSRF Bond Issue was completed in the amount of \$86,505,000.00. Funds from the 2012B Issue were used to meet the State Match requirement for the 2012 Capitalization Grant.

Based on detailed projected cash flows of the Board's CWSRF Program provided by FirstSouthwest, the Board's financial advisor, the state match debt was structured to coincide with the repayment of the bonds. The intention was for total income to be slightly in excess of debt service to ensure adequate coverage. This schedule and bond sizing provides for required bond repayment while allowing the CWSRF program sufficient operational capacity for upcoming projects.

Additionally, significant cost savings are passed on to CWSRF loan recipients by leveraging federal capitalization grant monies with larger bond issuances, reducing bond issuance costs.

Sufficient funds will be generated from interest and investment earnings to retire the balance of the State match bonds by April 1, 2031.

**8** Gain EPA approval to reserve transfer authority of an amount equal to 33% of the DWSRF capitalization grants between the DWSRF and the CWSRF.

STATUS: This goal was met, as this request was made through both the CWSRF and DWSRF Intended Use Plans. Oklahoma has reserved the authority to transfer 33% of the FY 03 through 12 capitalization grants, totaling over \$43 million. To date, \$32.9 million has been transferred from the CWSRF to the DWSRF. It is anticipated that an additional \$3.4 million will be available through the FY 13 DWSRF Capitalization Grant.

**9** Complete a revenue bond issue of up to \$100 million to meet funding shortfalls and to provide matching funds for Federal Capitalization Grants, as necessary.

STATUS: The 2012B CWSRF Bond Issue was completed on November 7, 2012 in the amount of \$86,505,000.00 (Attachment 3).



## Long-term Goals and Accomplishments

**1** Assist borrowers in complying with the enforceable requirements of the Clean Water Act to reach the goal of eliminating discharge of pollutants into the State's waters.

STATUS: This goal is being accomplished on an ongoing basis. As detailed in short-term goal No. 1, financial assistance provided through the CWSRF focuses on providing loans to communities with wastewater discharge permit violations and/or consent orders detailing a schedule of compliance. For FY 2013 eight (8) commitments were made for projects as a result of a state or federal enforceable construction schedule. CWSRF assistance will contribute to bringing these Oklahoma communities into compliance with the enforceable requirements of the Act. The OWRB continued to provide technical assistance to communities with projects listed on the FY 2013 IUP, but were not ready to proceed to loan commitments during the year. Many of the projects not funded in FY 2013 have been moved to the FY 2014 IUP and are scheduled to be funded during FY 2014.

**2** Assist in the maintenance, restoration and protection of beneficial uses identified in Oklahoma's Water Quality Standards to provide for the propagation of fish and wildlife and the protection of water and recreational resources in and on waters of the State.

STATUS: This goal is accomplished on an ongoing basis. Loans made during FY 2013 assist communities in 1) eliminating sewage system bypasses which degrade the integrity of the surface water of the state through rehabilitation efforts to repair damaged or inoperable components or to reduce system infiltration and inflow, 2) providing greater system capacity, and/or 3) providing additional levels of treatment to reduce pollutant loads to effluent receiving streams. Loan commitments and subsequent construction directly accomplish this goal by enabling municipalities to discharge water which meets discharge permit requirements in place to meet the "fishable/swimmable goals" of the Clean Water Act and Oklahoma's Water Quality Standards for surface and groundwater. By providing increased levels of treatment prior to discharge into surface waters of the

State, fish and wildlife habitat is better protected and recreational uses are enhanced.

**3** Assist the State in meeting water quality goals identified in the Continuing Planning Process and Nonpoint Source Management Program to reduce or eliminate water quality threats in Oklahoma's priority watersheds

STATUS: This goal is achieved on an ongoing basis through the funding projects under the program. Of the nine (9) projects funded in FY 2013:

Eight (8) projects implemented aspects of approved water quality plans

One (1) project was located in a top ten Nonpoint Source Priority Watershed

Five (5) projects discharge into 303(d) listed stream segments

**4** Maintain the fiscal integrity of the CWSRF to ensure it remains viable and self-perpetuating to meet the long-range water quality needs of the State.

STATUS: This goal is being achieved on an ongoing basis through stringent program procedures and financial



# 2013 Intended Use Plan Accomplishments

controls as well as continuous repayment of previously issued loans that provide a “renewable” source of funding for future loans.

To maintain the fiscal integrity of the CWSRF, the OWRB performs a variety of processes including providing credit reviews and technical assistance to loan recipients, establishing fiscal controls, and maintaining financial accounts within the CWSRF sufficient to minimize financial risk. The OWRB’s credit review of CWSRF applications and the OWRB’s procedures for monitoring loan conditions and collecting payments of interest and principal have enhanced the fiscal integrity of the program. Traditionally, each of these processes has ensured that payments from loan recipients are billed and paid in a prompt manner, thus enhancing the fiscal integrity of the CWSRF. To date the program has maintained a zero default loan repayment record (see Attachment 4b. Aging Schedule). Should a default occur, the cross-collateralization strategy included in the Master Trust Agreement will allow excess CWSRF revenues to be available to cure any CWSRF bond payment default or reserve fund deficiency, or vice versa. The OWRB also maintains the Capacity

Model, which demonstrates perpetuity (see Attachment 14 for spreadsheet, including assumptions).

**5** Maintain the perpetuity of the CWSRF through maintaining net assets equal to federal capitalization grants and state matching funds.

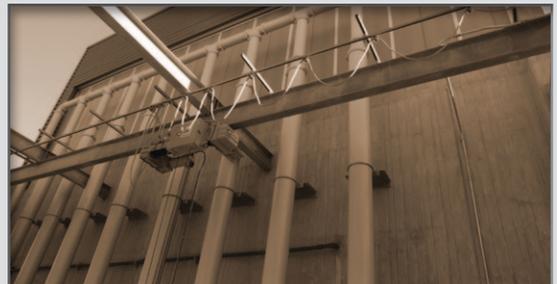
STATUS: The OWRB has defined the perpetuity of the CWSRF as “maintaining an amount in the CWSRF equal to the capitalization grants and State match indefinitely.” When investment and loan interest earnings by the CWSRF meet or exceed the administrative funds withdrawn from the CWSRF then the OWRB can demonstrate that this goal has been met.

The OWRB’s target interest rate, approximately 60% of market rate, provides financial incentives for water quality improvements through participation in the program. This target rate, combined with a sound, innovative long-term financing plan, should help maintain the buying power of the fund in perpetuity. The financial indicator for perpetuity, sustainability, or retained earnings shows an 18.9% cumulative retained earnings as a percentage of contributed capital (Attachment 8).

**6** Encourage communities to develop sustainable systems that employ effective utility management practices to build and maintain the level of technical, financial and managerial capacity necessary to ensure long-term sustainability.

STATUS: OWRB is working with Northbridge Environmental to develop the OASIS Program which is a web based program that will assist communities in making sustainable decisions. The program will be available for use by Oklahoma systems in January 2014. Additionally, OWRB is finalizing a wastewater planning guide to help systems with long-term sustainable infrastructure planning. The wastewater planning guide is anticipated to be available for use by Oklahoma systems in January 2014.





# Fund Financial Management

## FUND FINANCIAL STATUS

### 1 Binding Commitments & Assistance Activity

As detailed in Attachment 1, the Oklahoma CWSRF entered into binding agreements with loans closed for nine (9) FY 2013 projects and one (1) funding increase from FY 2012. Assistance to Section 212 sewer construction and refinancing projects, including adjustments, totaled \$40.9 million. FY 13 binding commitments reportable to EPA's National Information Management System (NIMS) totaled \$50.76 million.

### 2 Sources, Uses and Guarantees of Funds

Attachment 4a presents sources and uses of funds. Sources totaled approximately \$140.8 million. Federal funds are drawn as construction is completed and reimbursement requests are submitted. Federal Funds are drawn down as quickly as possible using the First In First Out method.

OWRB has established bypass procedures within OWRB Rules which, along with the Integrated Priority Rating System, guides project funding. The bypass procedure states "A project

on the fundable portion of the list may be bypassed if it is determined that the project will not be ready to proceed during the funding year. This determination will be made on projects that are unable to meet the schedule established on the priority list. The applicant whose project is affected shall be given written notice that the project is to be bypassed. Projects that have been bypassed may be reinstated on the fundable portion of the list if sufficient funds are available, and the applicant completes the necessary tasks to proceed. Funds which become available due to the utilization of these bypass procedures will be treated in the same manner as additional allotments."

Total expenditures or "uses" of funds, totaled \$95.2 million.

### 3 Program Capacity – 30 Year Financing

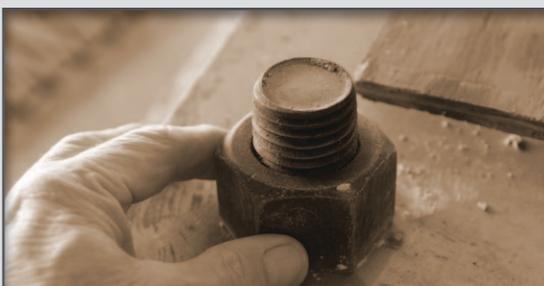
The OWRB and FirstSouthwest Company have developed the Clean Water SRF capacity model to gauge the long-term health of the SRF. The model is continually monitored throughout each fiscal year to assure that the perpetuity of the CWSRF program is sustainable. Moreover, the

model is used to aid in illustrating the overall impact to program capacity as a result of extended term financings, fluctuating federal funding levels, lending rate policies, market volatility etc. As the Capacity Model for FY 2013 indicates (see Attachment 5), the degradation to overall program capacity, as a result of the extended term financing approved in FY 2013, resulted in a loss of less than 1.936% over a 60 year period.

### 4 A-133 Audit, Compliance and Financial Audits

Arledge & Associates Inc., Certified Public Accountants were retained to audit FY 13 CWSRF financial statements for the program. A copy of the audited financial statements, along with the financial statements of the administrative fund held outside the CWSRF, are included as Attachments 6 and 7. An A-133 Audit was not required for SFY 2013.

Financial Indicators and Interest Rate Subsidy - Over the past several years EPA and the State SRF Workgroup have developed a process to measure the pace of the CWSRF Program. In an effort to measure the pace,



Oklahoma's CWSRF incorporates "financial indicators" into annual program review. Attachment 8 presents five key measures that reflect the different financial objectives of the SRF and provides broad indicators of how the CWSRF is meeting them.

In addition to these five numeric indicators, an additional indicator, "Estimated Interest Rate Subsidy" provides a description of the subsidy provided by the CWSRF program's AAA rated bonds compared to interest rates available to communities whose local debt would fit into a given credit rating category. The OWRB offers CWSRF loans at an interest rate equal to 60% of the Municipal Market Daily (MMD) AAA scale spot rates for each year though maturity with 70 basis points added to compensate for risk. The interest rate is calculated approximately 10 days prior to loan closing and is provided to communities regardless of credit quality. Our interest rates have stayed similar to past CWSRF interest rates and are commonly in the 2.16% – 3.26% range.



## STATE MATCHING FUNDS

Through FY 2013, Oklahoma received federal capitalization grant awards totaling \$295.8 million matched in previous years by \$52.8 million in State funds. Attachment 9 lists sources of State match funding for FFY capitalization grants awarded through the Clean Water Act from 1988 through 2013. As a part of the Series 2012B Bond Issue, \$2,047,000.00 in bonds were designated to provide State matching funds to cover a portion of the 20% match for the remainder of the FY 2012 capitalization grant and the 2013 capitalization grant.

Since July 24, 1996 the OWRB has expended available State matching funds prior to expending federal funds for the convenience of accounting for the drawdown of State funds to ensure Federal capitalization grant funds are not drawn down prior to State funds, in accordance with Federal regulations. These regulations, found in 40 CFR 35.3135, stipulate that, at a minimum, State match funds proportional to the State match share (17% of combined State match and capitalization grant funds) must be expended as Federal funds are drawn down. This approach is not intended to alter any relationship,

legal or otherwise, that would have existed had the prescribed draw down ratio been followed.

## PROPOSED PROGRAM INITIATIVES

### Modifications of the Program

There were no major modifications to the program in FY 2013.

### Document Management System Implementation of CWSRF Documents

The OWRB is continuing its efforts to streamline operations by implementing a document management system for the Financial Assistance Division's documents. Program staff utilizes the document management system daily to view and process documents. The repository will contribute to better management of the programs' records by improving staff efficiency and providing greater records integrity. The system allows faster access to files by multiple people simultaneously and increases staff productivity by decreasing time required for retrieving files and finding misplaced files. Other advantages to document imaging include reducing risk by providing backup to critical and essential paper documents and reducing physical storage space. Subsequent

plans include implementing workflow to route documents and automate many of the programs' processes. The system will also integrate with the division's loan servicing software to provide staff convenient access to loan documents.

### Goals for Future Intended Use Plans

To provide for better management and greater flexibility of the CWSRF, as well as the DWSRF, the OWRB again requested EPA approval to reserve the right to transfer funds, of up to 33% of the DWSRF capitalization grant, between the two programs. The OWRB anticipates that transfers between the CWSRF and DWSRF may be necessary in order to provide adequate funds to meet the demand in future years. Any transfers will be implemented in accordance with state and federal laws and program regulations.

No changes in the loan interest rate subsidy are anticipated, however, the OWRB is currently utilizing an independent financial advisor to review all OWRB lending programs and identify the strategy's long term impact on the health of the fund, along with the financial aspects of the loan application and loan monitoring processes.



## RULE CHANGES

The following rule changes related to the CWSRF program were approved by the OWRB on February 19, 2013 and ratified by the Legislature and Governor to become effective on June 13, 2013.

Section 785:50-9-9 has been amended to include a definition of "Water Reuse". The change was proposed to clarify what is considered an eligible project under a Water Reuse definition. The intended effect is to ensure that the definition is consistent with state and the U.S. Environmental Protection Agency (EPA) guidelines.

Section 785:50-9-21 has been amended to provide language to include Recycled Water as an eligible funding category. This amendment will correspond to the changes made by the Oklahoma Department of Environmental Quality and guidelines provided by the EPA. The intended effect is to include all eligible funding categories that are allowed for CWSRF projects under federal and state law and EPA guidelines.

Section 785:50-9-60 has been amended to include the requirements of environmental decisions more than

5 years old. This amendment will correspond to the changes created by the National Environmental Policy Act (NEPA) and EPA guidelines. The intended effect is to make the rules consistent with the environmental review process and provide flexibility.

Section 785:50-9-61 has been amended to change the language in the Environmental Information Document (EID) to correspond with the requirements according to NEPA and the EPA. This amendment will clarify what is required in an EID and remove redundancy. The intended effect is to make the rules consistent with the environmental process under the guidelines of federal law.

Section 785:50-9-61 has been amended to clarify the language regarding transcripts of hearings in the environmental review process and adding an audio component when appropriate. This amendment will clarify what is required in a transcript of a hearing in conjunction with modern technology capabilities. The intended effect is to update the language to include modern technology and clarify the requirements for the public.

EPA reviewed and approved the changes on April 29, 2013.



# Environmental Benefit and Performance

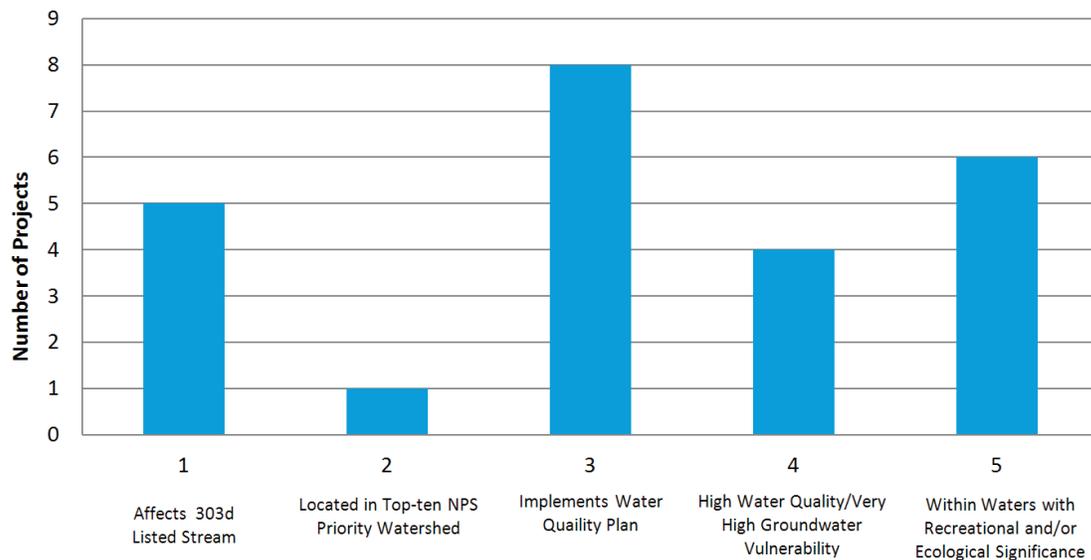
The CWSRF program continues to provide affordable financing to communities, achieving its ultimate purpose of protecting public health and the environment while helping the State work towards meeting the “fishable/swimmable” goals of the Clean Water Act. Oklahoma’s integrated priority rating system prioritizes projects based upon multiple environmental benefit metrics to ensure that CWSRF funds are most effectively used, to provide a standardized intra-agency method

for benefit comparison and reporting, and to provide reference data that can be used to fulfill OWRB’s reporting requirements in accordance with Environmental Results Assistance Agreement Order No. 5700.7.

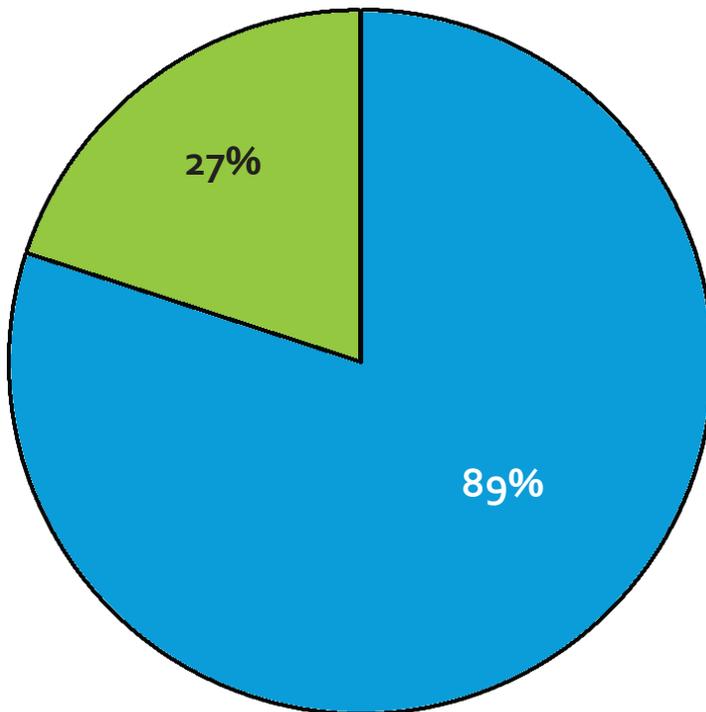
Eight (8) of the nine (9) projects approved for funding during FY 2013 were proposed as a result of a documented public health threat and/or NPDES discharge permit violation and would fund construction to allow borrowers to come into permit compliance.

Five (5) of the nine (9) projects would also benefit communities discharging into priority stream segments identified as threatened or impaired in Oklahoma’s Integrated Water Quality Assessment Report. Additionally, six (6) projects lie within hydrologic basins where groundwater is considered highly vulnerable, within or affecting a source water protection area, or upstream of waters with recreational and/or segments of ecological significance.

## WATER QUALITY RESTORATION/PROTECTION FACTORS



## 2013 CWSRF PROJECT ENVIRONMENTAL BENEFITS



- Sustain or reduce current degree of treatment, increase capacity, reliability, or efficiency, reclaim/reuse water, or reduce documented water quality threat
- Eliminate or reduce documented health threat or NPDES violation within watershed that is a water supply



# American Recovery and Reinvestment Act

President Obama signed the American Recovery and Reinvestment Act of 2009 into law on February 17, 2009. The legislation provided an unprecedented opportunity to improve wastewater infrastructure across the nation while creating jobs for our citizens. Oklahoma received approximately \$31.6 million in federal funding to provide increased funding for wastewater system improvements funded through the CWSRF program. Projects funded were required to be under construction or have construction contracts awarded by February 17, 2010.

By the ARRA deadline of February 17, 2010, the OWRB was under construction or had construction contracts awarded for 33 projects from 32 entities. The total funding for these projects was more than \$96 million of which \$30 million was in the form of principal forgiveness from ARRA.

The ARRA funds were expended by September 30, 2012 with construction complete on the blended projects by June 30, 2013. Projects funded in Oklahoma met the intent of ARRA by initiating much needed infrastructure as well as creating construction jobs within Oklahoma communities.

## ARRA PROJECT HIGHLIGHTS

### Oklahoma Conservation Commission

#### **Streambank Restoration in the Illinois River and Eucha/Spavinaw Watersheds**

**Loan Amount: \$2,000,000.00**

The goal of the Streambank Restoration Project was to prioritize and implement stream channel restoration projects in the Eucha/Spavinaw and Illinois River Watersheds. The secondary purpose was to provide training and create the awareness of the knowledge and skills related to design and restoration of natural stream channels. The project was a cooperative effort between Oklahoma State University, Oklahoma Water Resources Board, Oklahoma Conservation Commission and other agencies.

Stream bank instability and the resulting erosion is a widespread problem throughout Oklahoma waters. Channel alterations, riparian degradation, increases in livestock and human traffic, and changes in land use are all contributing factors.

The project included reestablishing native vegetation on stream banks, re-sloping banks as necessary, installing various in-stream structures as needed (i.e. rock veins, etc.), and all related construction.

An alternative project delivery method was utilized to ensure that the project was completed on time and within budget. State of Oklahoma's best value design-build process was used and worked very well. Eleven sites totaling 6,657 feet of stream bank were restored. Construction was completed in about 5 months and the techniques used involved using mostly local materials that were harvested on site. The contractor and all the equipment were all from Oklahoma. All these made an impact on the local economy.

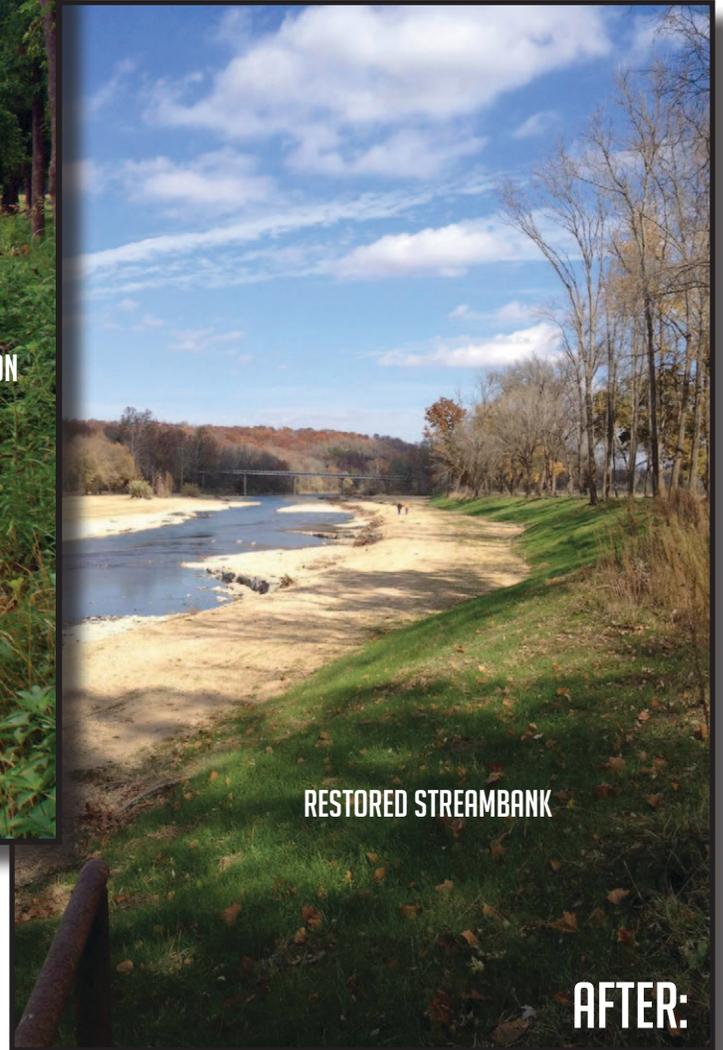
The project was successfully completed on time and within budget, and this project has provided the necessary groundwork for natural stream and stream bank restoration in Oklahoma.



**BEFORE:**



**CUT STREAMBANK PRIOR TO RESTORATION**



**RESTORED STREAMBANK**

**AFTER:**



# American Recovery and Reinvestment Act

## ARRA PROJECT HIGHLIGHTS

### Central Oklahoma Master Conservancy District

#### Lake Thunderbird Restoration

**Loan Amount: \$1,501,285.20**

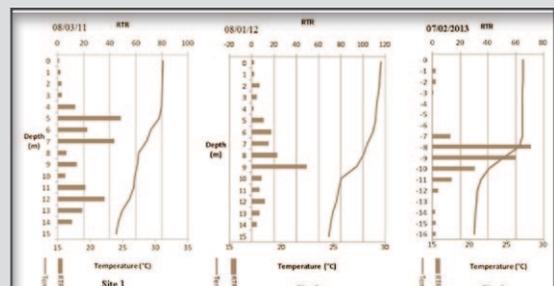
The Central Oklahoma Master Conservancy District (COMCD) is made up of representatives from the cities of Del City, Midwest City and Norman and is responsible for managing the resources of Lake Thunderbird which is the primary water source for these cities.

Lake Thunderbird is a 303(d) listed priority watershed currently listed for impairments related to color, turbidity and dissolved oxygen. COMCD proposed to manage the anoxic hypolimnion of Lake Thunderbird addressing the dissolved oxygen impairment by utilizing a supersaturated dissolved oxygen injection system (SDOX) to maintain the bottom 5 meters of hypolimnion at 3 ppm. The SDOX method involved installing an onshore pump and appropriate piping to allow water to be withdrawn, supersaturated to around 300% and then injected back to the

hypolimnion with minimal thermal impact. The project consisted of two SDOX chambers, one control panel, one programmable logic controller (PLC), two pumps and motors, packaging and testing and protective coatings.

The project was completed on time and within budget and had an impact on the local economy as well as water quality. Water quality was monitored after the completion of the project to assess the impact of the SDOX system on the lake.

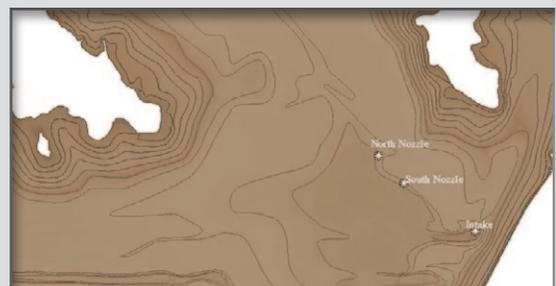
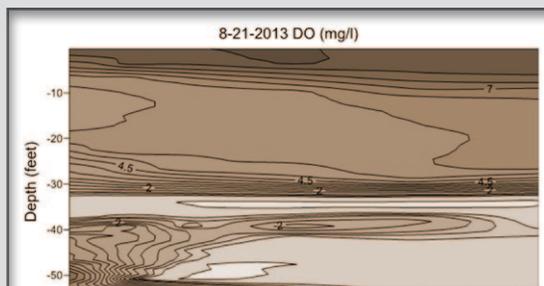
Water quality monitoring data showed significant changes in dissolved oxygen and oxidation-reduction potential compared to historical data in the first two years of operation. The 2012 calendar year represented the first year since 2007 that peak chlorophyll-a has been reduced. After modifications to the discharge nozzle in 2012, results in 2013 exceeded 2012, fully achieving the primary goals of the project. The success of the project has prompted the COMCD board to continue using the system, and looking into the possibility of installing additional systems in strategic locations in the lake.



## Sediment Phosphorus Load



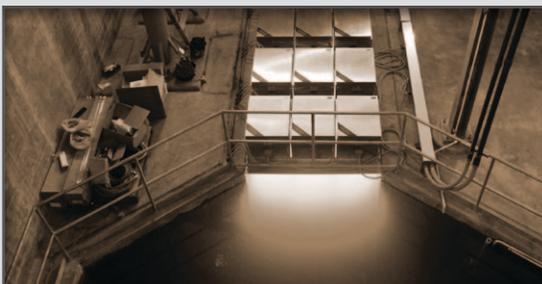
SDOX SYSTEM AT LAKE THUNDERBIRD, OK.



# Current and Future Wastewater and Runoff Control Needs

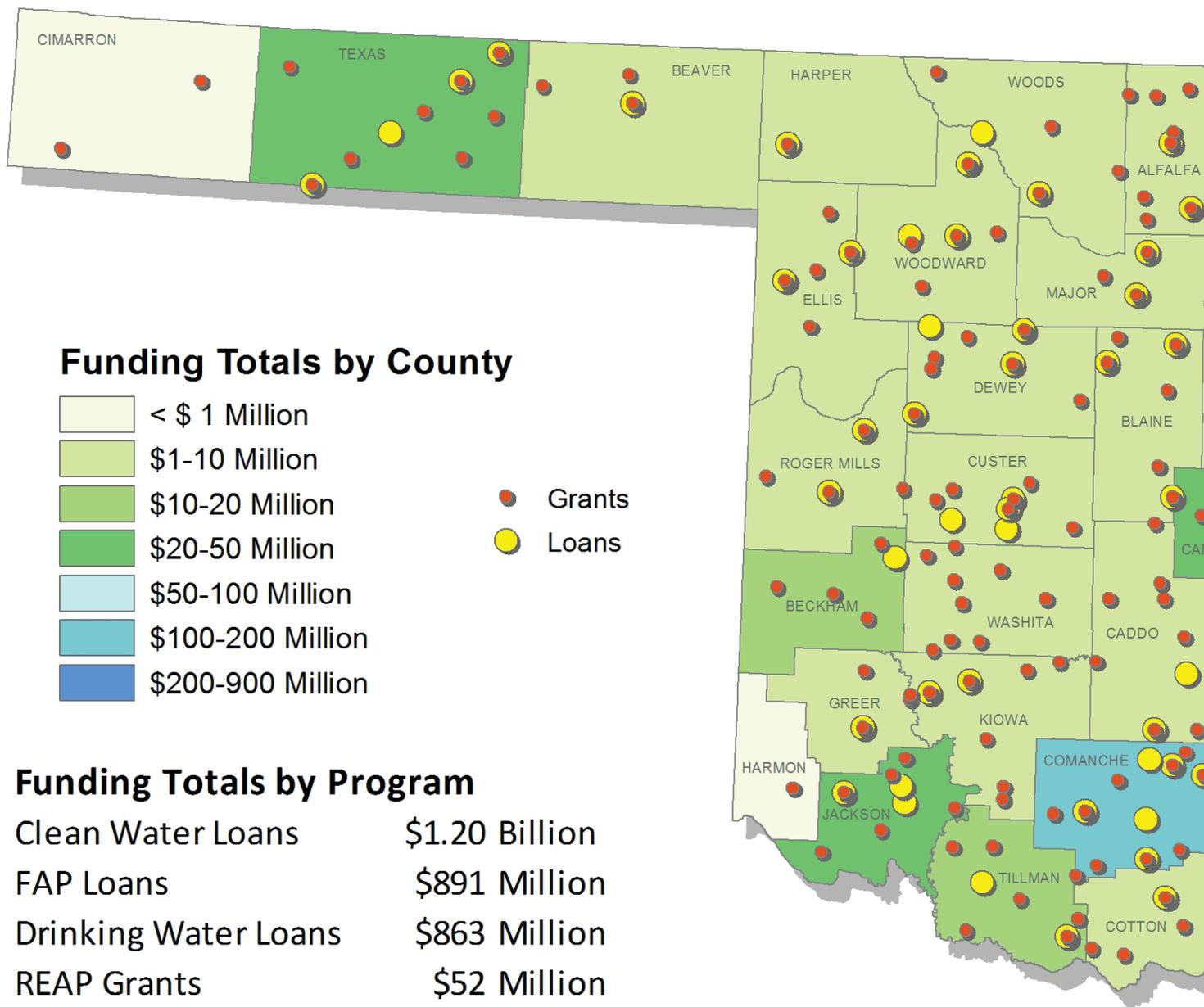
As a result of the widespread need for water pollution control infrastructure financing and efforts by the OWRB to implement a “lower than market rate” loan program, the Board has received an overwhelming response from communities across the state requesting their projects be added to the five-year CWSRF Project Priority List (PPL). For FY 2014, seventeen (17) communities have made requests for wastewater construction projects totaling over \$151.3 million. The demand through 2018 totals over \$330.2 million. This number is likely low, as historically the number of projects identified on the CWSRF PPL target for future years underestimates the actual project demand due to the uncertainty of future construction schedules, the issuance of new enforcement or administrative orders, etc. The Oklahoma Comprehensive Water Plan documents over \$12.5 Billion in wastewater construction needs thru the year 2020.

The OWRB’s Financial Assistance Division has funded Oklahoma water and wastewater infrastructure projects for 30 years. We look forward to working with our partners to develop solutions in order to help communities address their infrastructure needs for this generation and generations to come!





# LOAN AND GRANT RECIPIENT STATUS



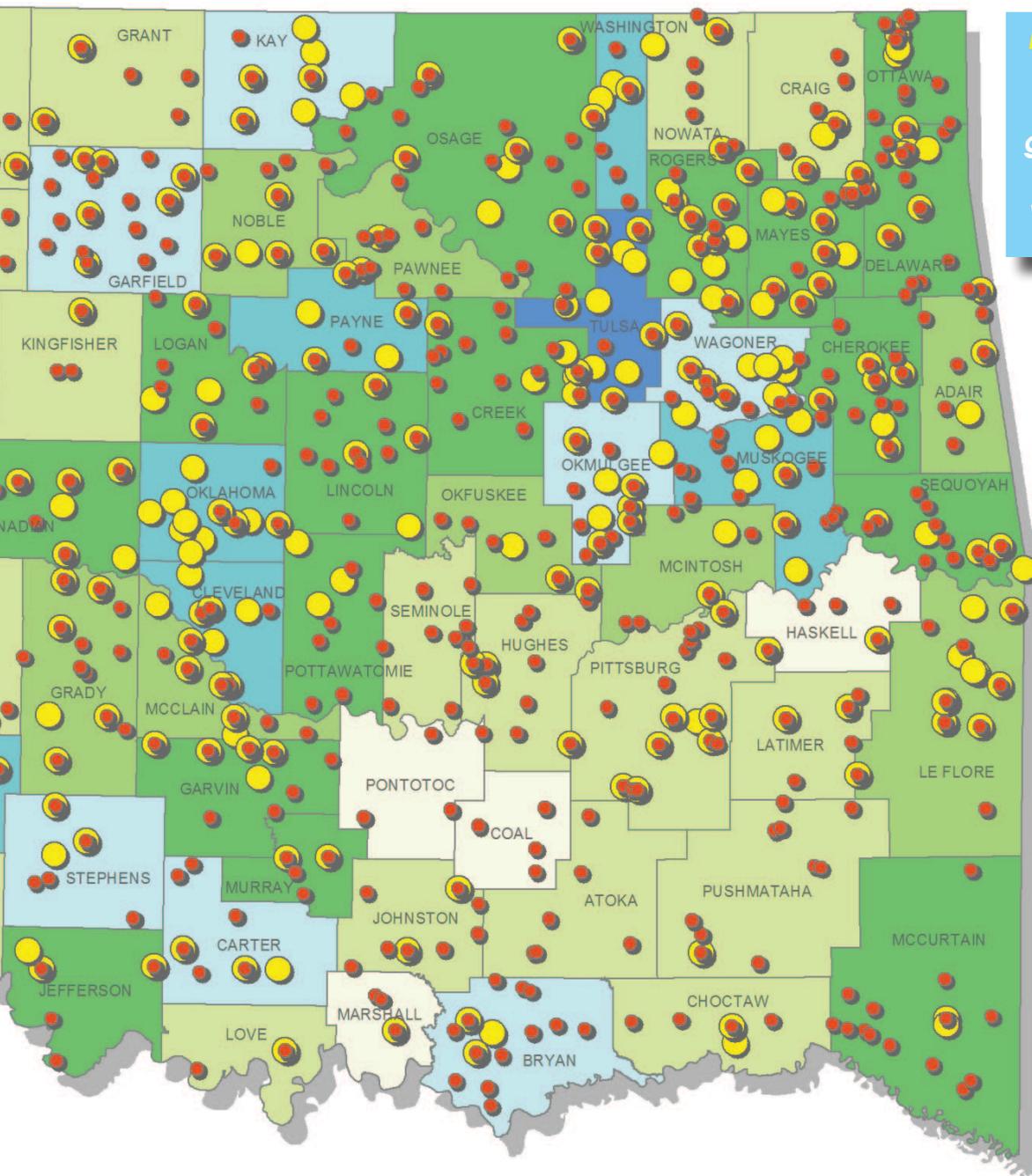
## Funding Totals by County



## Funding Totals by Program

Clean Water Loans	\$1.20 Billion
FAP Loans	\$891 Million
Drinking Water Loans	\$863 Million
REAP Grants	\$52 Million
Emergency Grants	\$34 Million
Drought Grants	\$491 Thousand
<b>TOTAL</b>	<b>\$3.04 Billion</b>
<b>TOTAL SAVINGS</b>	<b>\$1 Billion</b>

# Loans and Grants approved as of October 1, 2013



Now available online as  
an interactive viewer.  
Easy to find loan and  
grant information for any  
of these projects.  
[www.owrb.ok.gov/cwsrf](http://www.owrb.ok.gov/cwsrf)

## ACKNOWLEDGEMENTS

The Financial Assistance Division would like to thank our FY 2013 assistance recipients, as well as past recipients, for helping making Oklahoma's Clean Water State Revolving Fund Program a success.

Thank you to the Financial Assistance Division staff for their hard work over the last year. The program would not be the success that it is without them! Special thanks to Owen Mills for his vision with the formatting of this report.

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