

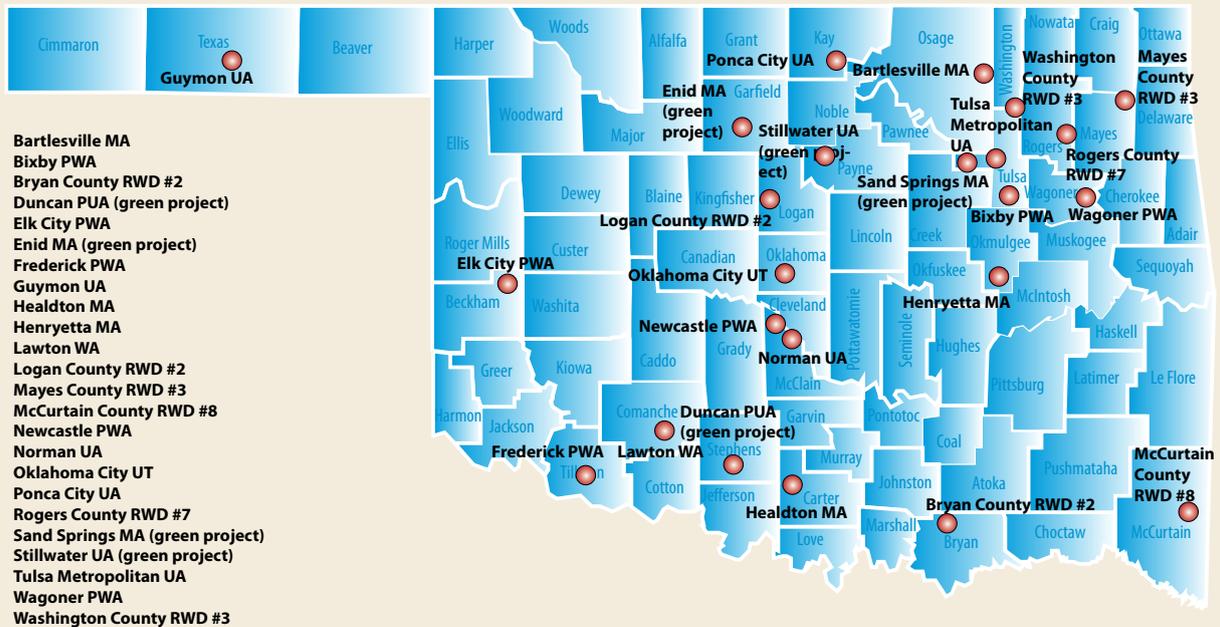


WATER

ARRA and DWSRF PROJECTS

REPORT

Drinking Water State Revolving Fund (DWRSF) & American Recovery and Reinvestment Act (ARRA) Projects





WATER

ARRA and DWSRF PROJECTS

REPORT

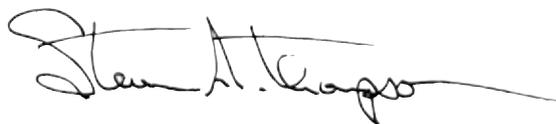
Letter from the Executive Director

Thank you – to Oklahoma drinking water systems that helped make the American Recovery and Reinvestment Act (ARRA) of 2009 a success. The short time frame to get these projects under contract and under construction was accomplished through the teamwork of water systems, Oklahoma Department of Environmental Quality (DEQ), Oklahoma Water Resources Board (OWRB), Environmental Protection Agency (EPA), consulting engineers, bond counsel, local counsel, and financial consultants.

The DEQ and OWRB funded twenty-four (24) drinking water projects for a total of \$136,914,600 through the Drinking Water State Revolving Fund (DWSRF) program. ARRA funds were awarded at 30 percent up to a maximum of two million dollars as principal forgiveness and 70 percent was in the form of a DWSRF low interest loan. ARRA funds were in the amount of \$30,221,760 and the DWSRF loan amount was \$106,692,840. A total of sixty-three (63) prime contracts are being utilized to construct the projects. ARRA and these projects provide an investment in Oklahoma's drinking water infrastructure while providing jobs and contributing to our economic growth.

A variety of projects were funded through ARRA which include new water treatment plants, upgrades to water systems, increased capacity, new water lines and raw water lines and replacement of the same, transmission lines, raw water intakes, automated meters and instrumentation, pumps, storage tanks, standpipes, groundwater wells, well houses, fences, pump stations, clear wells, and generators.

The DWSRF program has a long and successful history in providing assistance to municipalities and rural water districts for needed water projects. The added experience gained from implementing ARRA in 2009 has provided DEQ with a more capable and efficient program.



Oklahoma Department of Environmental Quality Drinking Water State Revolving Fund (DWSRF) Staff

Patty S. Thompson, P.E., DWSRF Engineering Manger

Vicki Reed, DWSRF Program Coordinator

Rebecca Poole, P.E., DWSRF Project Engineer

Leslie Smith, P.E., DWSRF Project Engineer

Justin Hodge, DWSRF Project Engineer

Gregory Carr, P.E., DWSRF Project Engineer

Tiger Feng, P.E., DWSRF Project Engineer

Leandra "Andy" Callaway, DWSRF Environmental Coordinator

Bradley S. Cook, DWSRF Capacity Development Coordinator

Chemetrea Hagens, DWSRF Administrative Technician

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Where Did All the **Money** Go?

You hear it on every radio political talk program. You read it in every news publication. STIMULUS.

Since February 17, 2009, when President Barack Obama signed into law the American Recovery and Reinvestment Act (ARRA) of 2009, the word “stimulus” has become a household catch phrase. And for the many programs directly affected by ARRA, it has become a roller coaster ride that has definitely provided excitement, and a little fear. Through this article, I would like to share a little of what the Oklahoma Drinking Water State Revolving Fund (DWSRF) Program has done to implement ARRA and how 24 specific water systems have benefitted from the funds allocated.

As one of several legislative attempts to bolster the economy, ARRA specifically targeted job creation, infrastructure rehabilitation and environmental initiatives. Nationally, the DWSRF Program received \$2 Billion through the ARRA which was then distributed from EPA to individual states through capitalization grants based upon an allocation calculation. Just so you get a full picture, ARRA allocated a total of \$787.2 Billion. So, DWSRF received approximately ¼ of 1 percent of the total funds. In Oklahoma, our DWSRF allocation was a little over \$31 Million. Have you built anything for your water system lately? If so, you know that \$31 Million dollars doesn't go very far and one single project for one of our larger cities could have claimed all of the state's allocation – but they didn't, and I can't wait to tell you why.

Before we get into the specifics of how Oklahoma is spending their ARRA funds, let's back up a little and look at the overall ARRA law.

The ARRA legislation has five major purposes:

- (1) To preserve and create jobs and promote economic recovery.
- (2) To assist those most impacted by the recession.
- (3) To provide investments needed to increase economic efficiency by spurring technological advances in science and health.
- (4) To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits.
- (5) To stabilize state and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.

ARRA provided funding to many different types of entities, and as I mentioned above, the DWSRF program only represents a very small portion. In Oklahoma, we were both excited about the opportunities that ARRA would provide and cautious about the new requirements imposed on our program. Implementation of the rule required adherence to the original language of the legislation and to the additional requirements imposed by the EPA. Here is a partial list of the provisions:

1. Follow all requirements for implementation of the normal DWSRF program.
2. Implement federal prevailing wage rate requirements as established in the Davis-Bacon Act.
3. Incorporate only American made iron, steel and manufactured goods into all projects funded through ARRA.
4. Report at least weekly to EPA on the progress of the ARRA projects.
5. Include at least 20 percent of projects that are defined as green infrastructure, water or energy efficiency projects, or other environmentally innovative activities.
6. Provide priority for projects that are ready to proceed to construction within 12 months.
7. Obtain certification for each project from the Governor.
8. Utilize at least 50 percent of the capitalization grant as additional subsidies in the form of principal forgiveness, negative interest loans, grants or a combination of these.
9. No ARRA funds may be used for any casino or other gambling establishment, aquarium, zoo, golf course or swimming pool.

As with any federal funding program, there are detailed interpretations and implementation guidelines for each of these provisions, with some waivers or variances given in extreme situations.

Like every other state, Oklahoma had to jump into high gear on February 17th to determine how we could meet all of the requirements and utilize the ARRA funds to the greatest extent possible within our state. Although the DWSRF program had a great track record of moving projects quickly through the application and review process, the extremely short timeframe dictated by ARRA was an immediate concern. We began by reviewing our DWSRF priority list. Almost 40 potential projects were listed, but we quickly recognized that many could not be potentially ready to start construction within 12 months. Thus began our public outreach program where we sent letters to every community water system within the state of Oklahoma that met the initial eligibility requirements for DWSRF funding. The systems were invited to attend large public meetings where we would give an overview of the ARRA legislation and provide details about how they could apply. We also started looking at how we would distribute the ARRA funds and began inter-agency meetings with other funding agencies that received ARRA. Last, but certainly not least, we started filling our calendars with dozens of conference calls, webcasts and internal meetings which would become the forums for discussion about every aspect of our ARRA implementation.

Remember when I said that one large water system could have potentially utilized all of the funds allocated to Oklahoma? Here's why it didn't work that way. The DWSRF program in Oklahoma is administered by the Oklahoma

Department of Environmental Quality (DEQ) and our first impression of ARRA was that we would finally have a subsidized loan program that could potentially assist all types of systems. Priority points were given to systems which were already having difficulty meeting the Safe Drinking Water Act, served small populations or were under an enforcement order.

Several key decisions were made within the first few weeks of implementation of the rule. First, it was determined that all of the DWSRF ARRA funds received, less a small administrative set-aside, would be distributed as principal forgiveness. Systems would be given approximately 30 percent of their total project cost in principal forgiveness, up to a maximum of \$2 Million of principal forgiveness. The remaining 70 percent of the project cost would be funded through the normal DWSRF loan program. Second, systems must meet a "shovel ready" target date of June 16th, 120 days after the ARRA bill was signed into law. To be "shovel ready," a system was required to have five milestones completed: 1) Placement on the DWSRF Project Priority List; 2) Approval of their financial application; 3) Approval of all environmental documentation; 4) Approval of engineering report; and 5) Approval of engineering plans, specification and bidding documents. On June 16th, a total of 23 water systems had met these five milestones and became our Fundable List. Project bids came in below the engineers' estimates enabling the DSWRF to fund 24 ARRA projects. By combining the ARRA funds with the leveraged DWSRF funds, \$137 million worth of drinking water infrastructure projects were identified.

Here are some interesting facts about the 24 systems and their projects:

- The smallest total project cost was \$355,000 and the largest was over \$17 Million.
- The systems serve populations from 1,285 to 621,590.
- The systems are located in 20 different counties. The attached map shows how the projects are distributed all throughout the state.
- The 24 systems will enter into an estimated total of 63 different construction contracts.
- Projects included everything from repair of water lines, replacement of water meters, backup emergency generators, and new water treatment plants.

As of the date this article was written, all of the 24 systems have closed their loans, all construction contracts have been signed, and 23 are under construction. The 24th will be under construction by February 15, 2010.

Without a doubt, there are many different opinions about the "stimulus" bill passed in February 2009. Ask any of our 24 water systems, and I think you will get a resounding positive reaction because they see first-hand how the money is being spent to improve water infrastructure. If you would like more information on how the ARRA funds are being spent, visit the Web site: www.recovery.gov.

— Rebecca Poole, P.E., DWSRF Project Engineer

Oklahoma Congressional Leaders

The Oklahoma Department of Environmental Quality and the Drinking Water State Revolving Program want to thank Oklahoma's Congressional Leaders for their support in the American Recovery and Reinvestment Act (ARRA) of 2009. ARRA made it possible for improving Oklahoma's drinking water infrastructure, creating jobs, and strengthening the economy.

United States Senate

U.S. Senator James M. Inhofe

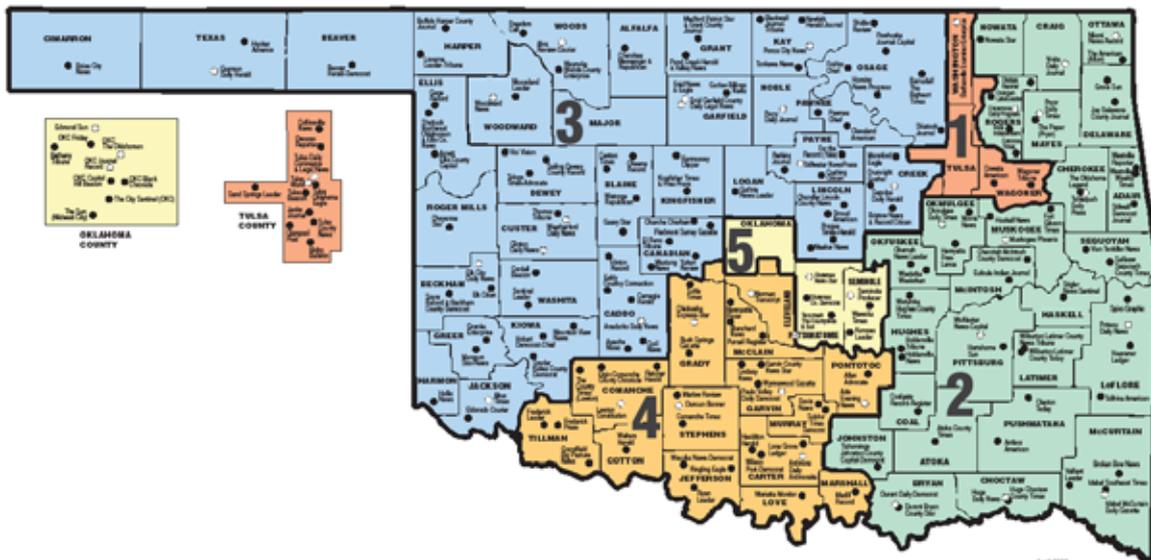
U.S. Senator Tom A. Coburn

United States House of Representatives

First Congressional District
Second Congressional District
Third Congressional District
Fourth Congressional District
Fifth Congressional District

Congressman John Sullivan
Congressman Dan Boren
Congressman Frank Lucas
Congressman Tom Cole
Congresswoman Mary Fallin

2009 STATE of OKLAHOMA CONGRESSIONAL DISTRICTS





**Additional Requirements for ARRA 2009
Drinking Water State Revolving Fund**

Buy American

None of the funds appropriated or otherwise made available by ARRA 2009 may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States.

Green Projects

Projects are for water efficiency, energy efficiency, green infrastructure, or other environmentally innovative activities.

Davis Bacon Act

Contractors must pay their employees the prevailing wage rates listed by the U.S. Department of Labor.





Bartlesville Municipal Authority

- Projects:
- New 4 Million Gallon Storage Tank
 - New 36" Water Transmission Line
 - New 1 Million Gallon Elevated Storage Tank
 - Renovation of the Indiana Pump Station
 - Installation of Emergency Power Generators at Various Pump Stations
 - Demolition of Old Water Treatment Plant

DWSRF Loan Amount	\$5,620,000.00
ARRA Principal Forgiveness Amount	\$2,000,000.00
Total Project Cost	\$7,620,000.00

The Bartlesville Municipal Authority is no stranger to the DWSRF program. This project is their fourth project over eight years and combined several interesting projects into one loan. The goal of these projects was to increase storage and transmission in two crucial areas of the water distribution system as well as improve the existing pumping systems by adding back-up power generators. The new four million gallon Mounds ground storage tank will replace two smaller tanks and a new transmission line to the tank will improve overall pressure and quantity of water. The new elevated Madison storage tank in the city will hold 1 million gallons and also improve the distribution of water throughout the system. Adding backup generators at several critical pump stations will ensure that the authority can provide an uninterrupted water supply throughout the most difficult power outages. The final portion

of the project is to complete demolition on the old water treatment plant. When the new water treatment plant was built in 2002, the Authority did not feel it could incur the additional debt to complete demolition of the old plant. With the availability of ARRA funds, Bartlesville was finally able to clean up the old treatment plant site and sludge lagoons.

The project manager for the Bartlesville MA is Mike Hall, Utilities Director. Mr. Hall and his staff have been excellent to work with during the planning, design and construction phases of this complicated set of projects.

— *Rebecca Poole, P.E., DWSRF Project Engineer*

- Mayor: Ron Nikkel
- City Manager: Ed Gordon
- Design Engineer: Jay Updike, P.E., Holloway, Updike and Bellen Muskogee, OK
- Prime Contractors: McGuire Brothers Construction, Inc., Tulsa, OK (transmission line)
- Preload, Inc., Hauppauge, New York (4 MG storage tank)
- CB&I, Inc., The Woodlands, Texas (1 MG storage tank)
- L&L Construction, Jenks, OK (Indiana pump station)
- Oil Capital Electric, LLC, Tulsa, OK (generators)
- Ark Wrecking Co., Tulsa, OK (demolition)
- State Senator: John W. Ford
- State Representative: Steve Martin



Bixby Public Works Authority

Project: Bore 2900 linear feet under the Arkansas River for a 24-inch water main, construct 1700 linear feet of 24-inch water line, 5200 linear feet of 16-inch water line, and 5400 linear feet of 12-inch water line.

DWSRF Loan Amount	\$ 1,504,201.74
ARRA Principal Forgiveness Amount	\$ 655,798.26
Total Project Cost	\$ 2,160,000.00

The Bixby Public Works Authority (PWA) currently purchases all of their water from the City of Tulsa. The Bixby PWA serves approximately 20,475 residential and commercial customers and the City of Bixby’s service area is divided by the Arkansas River. Water is supplied to the south part of Bixby by both a 36-inch line owned by the City of Tulsa and a 12-inch line owned by the City of Bixby. The 12-inch line limits the capacity of water delivered to the areas south of the Arkansas River.

The Bixby PWA will bore 2900 linear feet of 24-inch water line under the Arkansas River in the area of Mingo Road using steerable directional boring

equipment. In addition, the City will construct a 16-inch water line from 141st Street South to 131st Street South and a 12-inch water line from 131st Street South to 121st Street South, all along Mingo Road. These projects will greatly add to the City’s ability to meet its water demand. The health and safety of the citizens will be further enhanced by the improvements and redundancy.

Mr. Hulsey, City Manager, and Jay Updike, P.E., Bea Aamodt, Public Works Director, and Jared Cottle, P.E. put forth an effort to ensure the project was ready in time to receive ARRA funding.

— *Gregory Carr, P.E., DWSRF Project Engineer*

- Mayor/Chairman: Ray Bowen
- City Manager: Blu Hulsey
- Design Engineer: Jay Updike, P.E., Holloway, Updike & Bellen Engineers, Muskogee, OK
- Prime Contractors: McGuire Brothers Construction, Inc., Tulsa, OK
- State Senator: Dan Newberry
- State Representative: Mike Ritze



Bryan County Rural Water, Sewer and Solid Waste Management District No. 2

Project: Upgrades at water treatment plant, including emergency generators, pumps, electrical system, and security fence.

DWSRF Loan Amount	\$ 266,020.86
ARRA Principal Forgiveness Amount	\$ 115,979.14
Total Project Cost	\$ 382,000.00

Bryan County Rural Water, Sewer, and Solid Waste Management District No. 2 (District) provides services to approximately 3,200 residential and commercial customers. The District’s water treatment plant does not currently have a backup source of electrical power, and a major power outage would result in a failure of services to the community. Also, the water treatment plant and nearby backwash lagoons do not have adequate fencing, a necessary security measure.

The District will install an emergency generator at the water treatment plant, as well as obtaining a portable generator for the remotely located booster pump station. Perimeter security fencing will encompass the water treat-

ment plant and backwash lagoons. In addition, the District will improve drinking water services by installing two 50-horsepower high service clearwell pumps with variable frequency drives (VFD), and adding VFD to an existing pump. Construction started on January 4, 2010, and ends on October 1, 2010. Regina Clinton, RW District Manager, Merle Pearce, Water Superintendent and Jason Henderson, P.E., have been a great help in getting this project underway.

— Gregory Carr, P.E., DWSRF Project Engineer

- Chairman: Jerry Lewis
- RWD Manager: Regina Clinton
- Design Engineer: Jason Henderson, P.E., Poe & Associates, Oklahoma City, OK.
- Prime Contractors: Mid-Plains Construction, Inc., Mead, OK (water treatment plant)
Collins & Hermann, Inc., Owasso, OK (security fence)
- State Senator: Jay Paul Gumm
- State Representative: John Wayne Carey

Duncan Public Utility Authority



Project: Automated Meter Reading System, Humphrey and Fuqua raw water pump replacements, new recycle pump station at the water treatment plant, pump replacements at the El Ranch pump station; and pump replacement at the Elk pump station.

DWSRF Loan Amount	\$9,245,000.00
ARRA Principal Forgiveness Amount	\$ 2,000,000.00
Total Project Cost	\$ 11,245,000.00

The City of Duncan/Duncan Public Utilities Authority is making improvements to its water system that will benefit the citizens and customers of the City. The improvements to the various raw water and finished water pump stations will result in more efficient use of water and electricity consumption. Replacement of the water meters and installation of an automated meter reading system will result in increased accountability of water use, energy savings, and will likely encourage improved water conservation.

Most of the water meters in Duncan are 30 years old. The Duncan Utilities Authority has about 10,200 meters city wide. No large scale effort has been made to replace the meters since original installation. The Authority has projected a 10 percent and 15 percent loss of water due to the old meters. New meter installation will replace all old meters with a state of the art automated

meter reading system that includes meters, transponders, data collection points, and computer based utility billing software.

Duncan's engineers and staff have made a rigorous effort to present the necessary ARRA documents to the DWSRF for approval and award of the ARRA funding. Scott Vaughn, P.E. is the City Engineer, and John M. Baker, P.E. of Crafton Tull Sparks, were instrumental in developing this project. Project completion is expected by fall 2010.

— Justin Hodge, DWSRF Project Engineer

- Mayor/Chairman: Gene Brown
- City Manager: Clyde Shaw
- Design Engineer: John Baker, P.E., Crafton Tull Sparks, Oklahoma City, OK
- Prime Contractors: Honeywell International, Inc., Morristown, NJ
BRB Contractors, Inc., Topeka, KS
- State Representative: Dennis Johnson
- State Senators: Don Barrington
Anthony Sykes



Elk City Public Works Authority

Project: New Raw Water Transmission Line from Well Field to Elk City

DWSRF Loan Amount	\$ 6,825,000.00
ARRA Principal Forgiveness Amount	\$ 2,000,000.00
Total Project Cost	\$ 8,825,000.00

- Elk City Public Works Authority owns and operates its water and wastewater facilities. It provides drinking water to approximately 4,600 service connections, serving roughly 10,510 customers. The growth experienced in the project area commensurate an increase to the Authority's water system capabilities to ensure –
 - (a) Adequate water supply,
 - (b) Redundancy, and
 - (c) Adequate fire protection.

The proposed project will include the construction of more than 28,000 linear feet of 16 and 20-inch water mains. The new water lines will parallel to existing mains within the existing well field and along the existing transmission lines connecting the well field to the City. The well field mains and transmis-

sion lines are critical to maintain potable water supply to the residents and businesses of Elk City, as well as maintaining fire flow.

- Due to the likelihood of Indian archeological sites existing in the project area, the contractor had to wait until the state environmental review was cleared on December 7, 2009, to schedule a construction start date.
- Special thanks should be given to all Elk City staff for their genuine and sincere efforts in putting all required activities together to secure ARRA funding.

— Tiger Feng, P.E., DWSRF Project Engineer

- Mayor/Chairman: Teresa Mullican
- City Manager: Gary Dumas
- Design Engineer: William T. Myers, P.E., Myers Engineering, Inc., Oklahoma City, OK
- Prime Contractor: McKee Utility Contractors, Inc., Prague, OK
- State Senator: Tom Ivester
- State Representative: Pursy Walker



Enid Municipal Authority

Project: Automated Meter Reading System

DWSRF Loan Amount	\$ 6,345,000.00
ARRA Principal Forgiveness Amount	\$ 2,000,000.00
Total Project Cost	\$ 8,345,000.00

The Enid Municipal Authority (MA) was in the process of considering an automatic meter reading system for several years. However, the Authority was unable to develop the financial backing to implement the program. The Enid MA was notified of the possibility of utilizing ARRA funds for this type of green project and the potential for a residual loan to fund the entire replacement of their existing water meters. The Enid MA prepared plans and ARRA specifications in anticipation of funding the project through an ARRA principal forgiveness and a DWSRF loan with DEQ.

The water meters were outdated at 25 years old and in some cases 40 years old. The Enid MA has about 19,149 residential and commercial meters. The Authority has experienced a 20 percent to 25 percent loss in water pumped from their water well fields located over 32 miles away from the city.

The automatic meter reading and replacement program will replace the existing water meters with new high accuracy meters and automated meter reading registers and transponders. The system will include placement of

data collection sites, base station hardware, meter reading and data interpretation software. National Metering Services, Inc. is the contractor supplying and installing the automated metering system. With the proposal, the City also bid for a mobile emergency generator for use at their wells and booster pump stations.

Enid’s engineers and staff made a concerted timely effort to submit the necessary ARRA documents to DWSRF for approval and subsequent award of the ARRA funding. The engineering staff designed, bid and contracted the automated meter reading system project which provided additional savings. Robert Hitt, P.E., City Engineer, and Jason Brinley, P.E., Project Engineer were instrumental in developing the project. The City plans to complete the project within the next year.

— Leslie Smith, P.E., DWSRF Project Engineer

- Mayor/Chairman: John Criner
- City Manager: Eric Benson
- Design Engineer: Enid Engineering Department
- Prime Contractor: National Metering Services, Inc.
- State Senator: Patrick Anderson
- State Representative: Mike Jackson



Frederick Public Works Authority

Project: Water Treatment Plant Improvements
 New 1 Million Gallon Clearwell
 Replacement of 6 and 8 inch water lines

DWSRF Loan Amount	\$ 3,133,753.63
ARRA Principal Forgiveness Amount	\$ 1,366,246.37
Total Project Cost	\$ 4,500,000.00

- Frederick Public Works Authority owns and operates its water and wastewater facilities. It is the regional supplier of treated water. The service area includes Tillman County Rural Water District #1 and the communities of Grandfield, Tipton, Manitou, Hollister, Loveland, and Davidson in Tillman County. The Frederick water treatment plant is unable to meet the current drinking water standards. The system is under a consent order for Disinfection By-Product violations. The primary purpose of the project is to comply with the Drinking Water Standards. The proposed project includes:
 - Contract 1: Modifications to the existing water treatment plant, raw water pump stations, clearwell, high service pump station piping, chemical feed system, airport water storage tank, and control valve .

Contract 2: Construction of a one million gallon pre-stressed concrete clearwell.

Contract 3: Construction of approximately 6,000 linear feet of 8-inch and 2,000 linear feet of 6-inch water lines to replace the existing 4, 6 and 8-inch lines.

- Special thanks should be given to the City Manager, Robert Johnston, for his diligent and persistent efforts in securing the DWSRF ARRA funds.

— Tiger Feng, P.E., DWSRF Project Engineer

Mayor/Chairman: Eddie Whitworth
 City Manager: Robert Johnston
 Design Engineer: Stephen B. Cesar, P.E., SBC Consulting Engineers, Inc., Altus, OK
 Prime Contractors: Howard-Estruct, JV, Ardmore, OK
 Natgun Corporation, Wakefield, MA
 Shoestring Enterprises, Inc., Olustee, OK
 State Senator: Tom Ivester
 State Representative: Don Armes



Guymon Utility Authority

Project: Construction of three new groundwater wells and 12,000 linear feet of 12-inch PVC water line.

DWSRF Loan Amount	\$ 873,969.07
ARRA Principal Forgiveness Amount	\$ 381,030.93
Total Project Cost	\$ 1,255,000.00

The Guymon Utility Authority (UA) uses a system of groundwater wells to serve drinking water to approximately 12,100 residential and commercial customers. The Authority is outgrowing the ability to provide redundancy to customers, and has recently experienced situations wherein the failure of one groundwater well would have potentially resulted in the need for water rationing.

Three new groundwater wells will be drilled and developed, and an estimated 12,000 linear feet of 12-inch water line will be constructed to connect the new water wells to the Authority's distribution system, thereby enhancing the health and safety of consumers.

The Layne Christensen Company of Wichita, Kansas is currently drilling test wells. HTM Underground LLC of Perkins, OK will provide the water line construction. Construction started on December 7, 2009, and ends on July 1, 2010.

Ted Graham, City Manager, Ivan Clark, Public Works Director, and Bill Myers, P.E., the design engineer, worked together with the DEQ to get all the necessary requirements completed in time to be awarded ARRA funds for this project.

— Gregory Carr, P.E., DWSRF Project Engineer

- Mayor/Chairman: Kenny Huckins
- City Manager: Ted Graham
- Design Engineer: William T. Myers, P.E., Myers Engineering, Oklahoma City, OK
- Prime Contractors: Layne Christensen Company, Wichita, KS (groundwater wells)
Underground LLC, Perkins, OK (water line)
- State Senator: Bryce Marlatt
- State Representative: Gus Blackwell



Healdton Municipal Authority

Project: Construction of two new groundwater wells with zone testing, 25,571 linear feet of 6-inch water line, and 5303 linear feet of 4-inch water line.

DWSRF Loan Amount	\$ 748,618.92
ARRA Principal Forgiveness Amount	\$ 326,381.08
Total Project Cost	\$ 1,075,000.00

The Healdton Municipal Authority (MA) currently uses water from Healdton Lake to serve approximately 2,785 residential and commercial customers. Concerns over the capacity of the lake to produce water, in addition to meeting drinking water regulatory requirements, has led the Authority to explore development of groundwater wells. Also, the Authority has experienced peak water losses of up to 44 percent in the distribution system due to leaks, broken meters, unmetered customers, and maintenance.

Layne Christensen will individually test at least four different ground water zones at two proposed groundwater wells for water quality and adequate production. Numerous water lines will be replaced, and meters and isolation

valves will be added or replaced, as needed. Construction started on November 20, 2009, and ends on September 1, 2010.

Rick Smith, Municipal Finance Services, Inc., Allan Brooks, Attorney, Oklahoma Public Finance Law, and Scott Myers, Oklahoma Department of Commerce (CDBG) were instrumental in working with Healdton and the DEQ to move this project forward to obtain ARRA and CDBG funding.

— Gregory Carr, P.E., DWSRF Project Engineer

- Mayor/Chairman: Herb Collier
- City Manager: Ralph Brugger
- Design Engineer: Robert Mullins, P.E., Mehlburger Brawley, Oklahoma City, OK
- Prime Contractors: Layne Christensen Company, Wichita, KS (groundwater wells)
CD Brown Construction, Inc., Sulphur, OK (water line, meters, and valves)
- State Senator: Johnnie C. Crutchfield
- State Representative: Pat Ownbey



Henryetta Municipal Authority

Project: Water treatment plant improvements including 2 new clarifier units rated at 3.3 MGD each, new clarifier building, modification of existing filters, new backwash pump, new chemical feed building and equipment, clearwell baffling, new high service pump, new generator; 5,640 linear feet of 14-inch Ductile Iron Finished Water Transmission Line; rehabilitation of an existing booster pump station including a new booster pump and back-up generator; construction of a new intake structure on the North Canadian River with pumps; 23,000 linear feet of 18-inch raw water transmission line; city wide water line replacement project that includes 5,400 linear feet of 6-inch water line, 21,000 linear feet of 8-inch water line, 1,500 linear feet of 10-inch water line and 10,300 linear feet of 12-inch water line.

DWSRF Loan Amount	\$7,500,000.00
ARRA Principal Forgiveness Amount	\$ 2,000,000.00
Total Project Cost	\$ 9,500,000.00

Henryetta MA is currently trying to bring the water treatment facilities into compliance with drinking water standards as well as provide capacity to meet the projected future demands.

The water treatment plant doesn't meet the drinking water standards for disinfectant by-product levels; a consent order was issued by the Oklahoma Department of Environmental Quality that required a compliance schedule

and plan of action to comply with the standards. The new water treatment plant modification is for the purpose to achieve compliance.

The North Canadian raw water intake structure and raw water line will provide additional capacity to meet Henryetta's needs. Lake Henryetta does not yield enough water to meet current and future demand.

The rehabilitation of the pump station and water lines are necessary due to maintenance issues created by ageing equipment and water lines. This part of the project will reduce water loss for a more efficient distribution system.

Henryetta MA engineers and staff have made a rigorous effort to present the necessary ARRA documents to the DWSRF for approval and award of the ARRA funding. Raymond Eldridge, City Manager and Robert Vaughn, P.E., Mehlburger Brawley were instrumental in developing this project. Project completion is expected by winter 2011.

— Justin Hodge, DWSRF Project Engineer

- Mayor/Chairman: Richard Larney
- City Manager: Raymond Eldridge
- Engineering Firm: Robert Vaughn, P.E., Mehlburger Brawley, McAlester, OK
- Prime Contractors: Wynn Construction Company, Inc., Oklahoma City, OK
 Ram Utility Construction, Inc., Tulsa, OK
 McKee Utility Construction, Prague, OK
 United Utilities Specialists, Claremore, OK
- State Senator: Roger Ballenger
- State Representative: Jerry Shoemaker



Lawton Water Authority

Project: Construction of 51,400 linear feet of 8-inch and 10-inch water lines.

DWSRF Loan Amount	\$ 3,290,441.31
ARRA Principal Forgiveness Amount	\$ 1,434,558.69
Total Project Cost	\$ 4,725,000.00

These projects consist of the construction of 53,000 linear feet of 8- inch and 10- inch water lines to various areas of the City of Lawton. Inadequate and old 2-inch and 4-inch water lines make it difficult to meet and maintain state drinking water pressure requirements. These larger replacement lines will provide greater capacity and pressures in these areas..

The Lawton Water Authority engineers and staff made an enormous and timely effort to present the ARRA documents for DWSRF approval and award of the ARRA funding. Jerry Ihler, P.E., City Engineer, Mike Johnson, P.E., Design Engineer and M.M. Azim, P.E. Project Engineer were influential in creating this project. Project completion is expected by the winter of 2011.

— Justin Hodge, DWSRF Project Engineer

- Mayor/Chairman: John Purcell
- City Manager: Larry Mitchell
- Design Engineer: Lawton Engineering Department
- Prime Contractors: Bowles Construction Company, Wichita Falls, TX
Luckinbill, Inc., Enid, OK
- State Senators: Don Barrington, Rand Bass,
- State Representatives: Don Armes, Ann Coody, T.W. Shannon, and Joe Dorman



Logan County Rural Water District No. 2

Project: Construct 2 New Water Wells
 Install New Water Lines
 Construct New Water Storage Standpipe

DWSRF Loan Amount	\$ 640,678.52
ARRA Principal Forgiveness Amount	\$ 279,321.48
Total Project Cost	\$ 920,000.00

- Logan County Rural Water District No. 2 owns and operates its water supply facilities. The District has 399 service connections and serves approximately 1,146 residential and 635 wholesale customers. The water wells currently in use by Logan #2 are in violation of water standards by exceeding the nitrate Maximum Contaminant Level (MCL). The proposed project is aimed at reducing nitrate levels in their finished water. The proposed project includes:
 - Construction of two new water wells.
 - Construction of two new well houses.
 - Installation of approximately 2,300 linear feet of 6-inch and 4,600 linear feet of 8-inch water lines.

(d) Construction of a new standpipe of 20 feet diameter by 120 feet high.

- A groundbreaking ceremony was held at the construction site on October 27th, 2009.
- Special thanks should be given to the District Chairman, Art Platt, for his diligent effort and desire in getting all requirements timely completed to be awarded ARRA funding.

— Tiger Feng, P.E., DWSRF Project Engineer

Chairman: Art Platt
 District Manager: Wesley Short
 Design Engineer: Phil Brown, P.E., Brown Engineering, P.C., Stillwater, OK
 Prime Contractors: Ewbank, Inc., Fairview, OK
 Bowen Construction, Inc., Oklahoma City, OK
 Calvin Mays Oilfield Services, Inc., Guthrie, OK
 Circle P. Welding, Inc., Norman, OK
 State Senator: Patrick Anderson
 State Representatives: Jason Murphey

Mayes County Rural Water District No. 3



Project: One (1) 250,000 gallon clearwell, two (2) 1,280-gpm backwash pumps, two (2) 420-gpm distribution pumps, and one new filter building.

DWSRF Loan Amount	\$ 626,750.73
ARRA Principal Forgiveness Amount	\$ 273,249.27
Total Project Cost	\$ 900,000.00

Mayes County RWD No. 3 is making much needed improvements to its 45 year old water treatment plant that will benefit the citizens and customers of the district for years to come. The water plant improvement project will include upgrading and new equipment. This project is needed to lengthen the life of the water plant and enhance the operations of the plant.

The upgrade will provide the system with more water capacity to connect with additional new customers (2.1 percent growth rate per year) who have

been waiting for water service. This includes the 41 customers in the Windmill Run Condominiums who have not been in compliance with the drinking water health standards

Recognition should be made to James Thomasson, District Manager and Gary Utter, PE, Utter and Associates for making this project possible for ARRA funding.

— Justin Hodge, DWSRF Project Engineer

- Chairman: Clyde Johnson
- Manager: James Thomasson
- Design Engineer: Gary Utter, P.E., Utter and Associates, Adair, OK
- Prime Contractor: Northern Equipment Inc., Grove, OK
- State Senator: Mary Easley
- State Representative: Doug Cox



McCurtain County Rural Water District No. 8

Project: One (1) 700-gpm membrane filtration water treatment plant; one (1) one million gallon clearwell; and one (1) 550-gpm booster pump station.

DWSRF Loan Amount	\$ 5,038,410.00
ARRA Principal Forgiveness Amount	\$ 2,000,000.00
Total Project Cost	\$ 7,038,410.00

McCurtain County RWD #8 serves water to about 5,700 residents with several poultry and swine operations in area. A new microfiltration membrane process water treatment plant and clearwell was needed to replace the 40-year old plant. The new water treatment plant will provide additional capacity for the current and future water demand and to provide additional treatment to maintain compliance with the drinking water standards.

The design engineer for this project Jason Henderson, PE, Poe and Associates and the McCurtain County RWD staff deserve recognition for provide all the necessary information to make this project eligible for ARRA DWSRF and ARRA funding.

— Justin Hodge, DWSRF Project Engineer

- Chairman: Clyde Dale Pratt
- Manager: James Mitchell
- Design Engineer: Jason Henderson, P.E., Poe and Associates, Oklahoma City, OK
- Prime Contractors: Ideal Construction, Muskogee, OK
Preload Construction, Hauppauge, NY
- State Senator: Jerry Ellis
- State Representative: Dennis Bailey



Newcastle Public Works Authority

Project: Water Line Replacement

DWSRF Loan Amount	\$ 1,355,430.92
ARRA Principal Forgiveness Amount	\$ 590,937.52
Total Project Cost	\$ 1,946,368.44

- Newcastle Public Works Authority (City of Newcastle) has planned to use its own labor force, Force Account Operation, to replace the existing aging and inadequately sized water lines that have troubled the owner in recent years, particularly in the central and south parts of the city due to the growth. The proposed project includes replacing and upsizing existing water lines from Portland Avenue south approximately four miles with interconnections to the existing system, ½ mile of 12-inch water line along Fox Lane and 1½ miles of 12-inch water line from Fox Lane south to connect to an existing storage facility. All new lines will be constructed parallel to existing lines and within existing right-of-ways and easements. The project will increase water transport to meet the usage demands in these locations.

- Newcastle PWA has also planned to use its well trained reliable workforce to install the new water lines.
- Special thanks should be given to the City Manager, Nick Nazar, and City Clerk, Camille Dower, for their sincere desire in making this ARRA project proceed in the smoothest possible manner.

— Tiger Feng, P.E., DWSRF Project Engineer

- Mayor/Chairman: Karl Nail
- City Manager: Nick Nazar
- Design Engineer: Kenny Sullivan, P.E., Glenn Sullivan & Associates, Inc., Norman, OK
- Prime Contractors: Pipe Supplier - Ferguson Water Works, Oklahoma City, OK
Directional Boring - SMC Utility Construction, Oklahoma City, OK
- State Senator: Anthony Sykes
- State Representative: Scott Martin



Norman Utilities Authority

Project: Water Treatment Plant Improvements (Phase 1)

DWSRF Loan Amount	\$ 12,000,000.00
ARRA Principal Forgiveness Amount	\$ 2,000,000.00
Total Project Cost	\$ 14,000,000.00

The Norman Utilities Authority serves water to more than 111,000 residents in the City of Norman, including the University of Oklahoma. This project was an extensive rehabilitation of the electrical systems at the water treatment plant and will serve as the first phase to an overall goal of upgrading and expanding the treatment plants capacity.

The project includes the expansion of the existing water treatment plant from 14 Million Gallons per Day (MGD) to 17 MGD including the addition of a new 100 foot diameter, 10 MGD rated solids contact clarifier and influent flow control vault; replacement of media, surface wash and underdrains in Filters no. 1 through No. 4; replacement of media and underdrain repair in Filters No. 5 through No. 8; rehabilitation of Main Service Pumps No. 1 through No. 4; installation of a new electrical building; demolition of existing

lime paste slaking system; installation of a new batch lime slaking system; improvements to the existing Alum Storage and Feed System; modification of the existing Carbon Dioxide Feed System from gas feed to a pressurized solution feed system; installation of variable frequency drive equipment for Main Service Pumps No. 1 and No. 3; new electrical service throughout the water treatment plant site; new back-up power generator; site work, yard piping, SCADA, instrumentation and controls; and all associated appurtenances.

Chris Mattingly, P.E., Norman Water Treatment Supervisor, and the water treatment plant staff deserve special appreciation for their dedication to continue to provide safe and sufficient water during the challenges of construction on their plant.

— *Rebecca Poole, P.E., DWSRF Project Engineer*

- Mayor/Chairman: Cindy S. Rosenthal
- City Manager: Steve Lewis
- Design Engineer: Tom Crowley, P.E., Carollo Engineers, Overland Park, KS.
- Prime Contractor: Wynn Construction Company, Inc., Oklahoma City, OK
- State Senators: Jonathan Nichols, John Sparks
- State Representatives: Bill Nations, Wallace Collins



Oklahoma City Water Utilities Trust

Project: Water Distribution System Improvements

DWSRF Loan Amount	\$5,634,177.00
ARRA Principal Forgiveness Amount	\$2,000,000.00
Total Project Cost	\$7,634,177.00

The Oklahoma City Water Utilities Trust (OCWUT) serves the City of Oklahoma City. The OCWUT provides water supply, treatment and distribution for approximately 500,000 people. The Trust treats 90 million gallons per day and has an ample water supply for the next 50 years. The Trust has many miles of water line over the Oklahoma City metropolitan system that needs replacement due to aging, deterioration and demand.

Project WC-0501 is a \$5,796,516.50 construction project which includes three miles of 48-inch DIP water transmission main along SE 164th Street from Telephone Road to Pennsylvania Avenue, to meet increased water demand to this area.

Project WC-0420 is a \$722,335 construction project that will replace 8-inch water mains near NW 58th Street to 60th Street from MacArthur Boulevard to Redmond Street to ensure reliable service and safe drinking water. The project manager is Shannon Calhoun of the OCWUT. Cimarron Construction Company is the prime contractor.

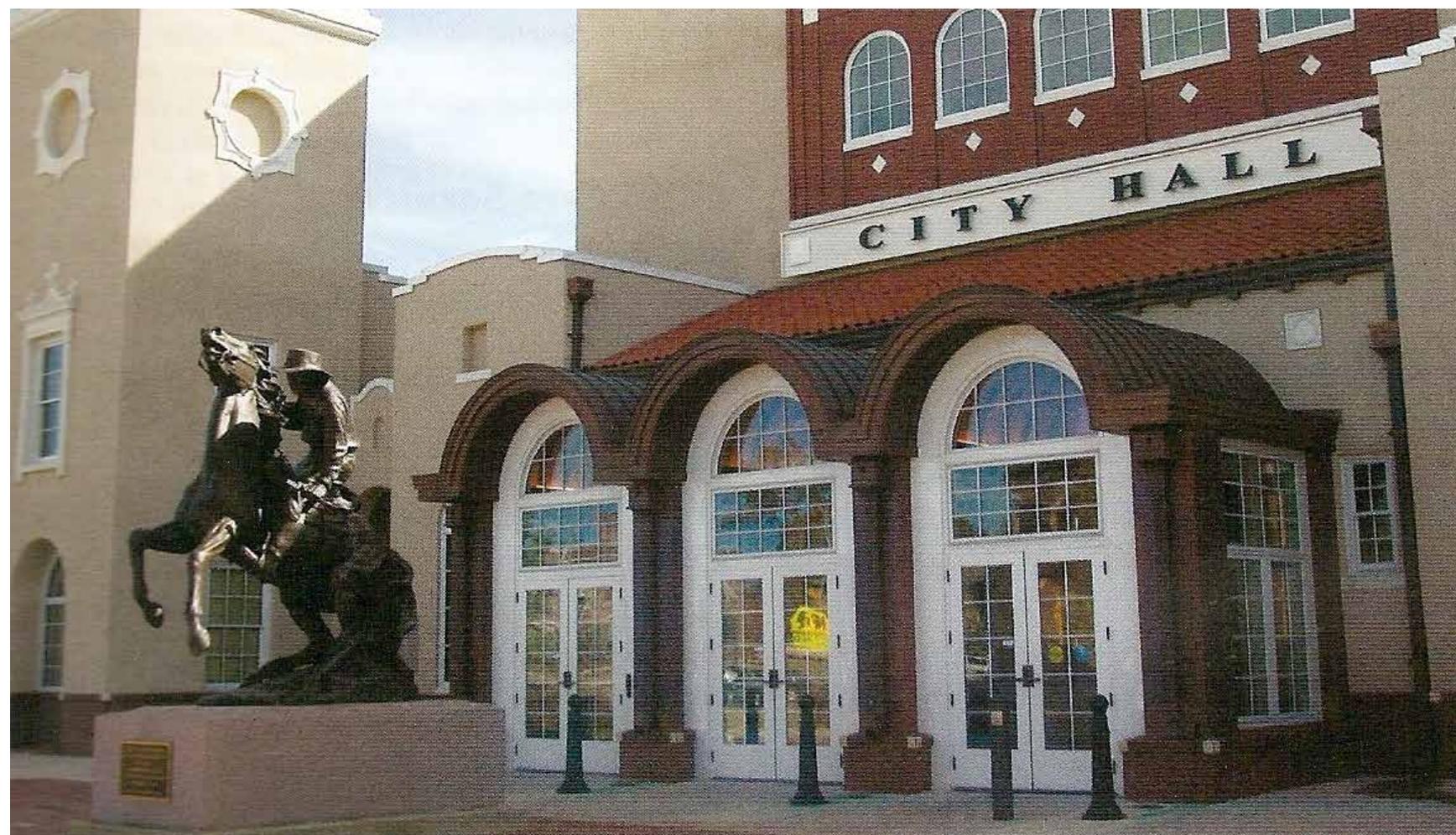
Project WC-0589 is a \$751,793.50 construction project replacing water mains along NW 84th Street from Western and Waverly Avenues, and along Agnew-

Villa Avenue between SW 51st and SW 55th Streets to ensure reliable service and safe drinking water. The project manager is Christopher Ferguson of the OCWUT. Amis Construction Company is the prime contractor for the project.

Marsha Slaughter, P.E., Utilities Director, Sam Samandi, P.E., Engineering Manager, Larry Hare, P.E. C.I.P. Design Engineer, and Crystal Kowalik, P.E., Civil Engineer, III, submitted the project plans, specifications and ARRA documentation within the stipulated time constraints and set the project out for bids under separate water construction areas. With the funds, OCWUT is replacing water lines throughout the City.

— Leslie Smith, P.E., DWSRF Project Engineer

- Mayor/Chairman: Mick Cornett
- City Manager: James Couch
- Design Engineer: Oklahoma City Engineering Department
Robby Williams, P.E., Triad Engineering
- Project Managers: Daniel Wade, P.E., OCWUT (WC-0501)
Shannon Calhoun, OCWUT (WC-0420)
Christopher Ferguson, OCWUT (WC-0589)
- Prime Contractors: Lewis Contractors, Inc., Bertram, TX, OK (WC-0501)
Cimarron Construction Co., Oklahoma City, OK (WC-0420)
Amis Materials Company, Oklahoma City, OK (0589)
- State Senators: Debbie Leftwich, Glen Coffee, Anthony Sykes
- State Representatives: Michael Christian, Sally Kern, Mike Thompson, Scott Martin, Randy Terrill



Ponca City Utility Authority

Project: Two Replacement Water Wells
 New Lime Feed and Slaking System at the Water Treatment Plant
 Rehabilitation of the Raw Water Transmission Lines

DWSRF Loan Amount	\$ 2,082,205.19
ARRA Principal Forgiveness Amount	\$ 907,794.81
Total Project Cost	\$ 2,990,000.00

The Ponca City Utility Authority (PCUA) serves the City of Ponca City and nine rural water systems in Kay and Osage Counties. The Ponca City Utility Authority submitted a multi-faceted project including rehabilitation of two ground-water wells, replacement of two sections of their raw water transmission lines and a new lime feed and slaking system at the water treatment plant. These projects were identified as critical needs to sustain the source, delivery and treatment of water to over 30,000 people who are served water by the PCUA.

A special appreciation goes to Hong Fu, Ph.D., Environmental Services Director, and her staff for their dedication and diligence throughout the process.

Marc LaBossiere, Financial Services Director, was also instrumental in providing the necessary information to ensure that the funding could be accomplished by the ARRA deadlines.

— Rebecca Poole, P.E., DWSRF Project Engineer

Mayor/Chairman: Homer Nicholson

City Manager: Craig Stephenson

Design Engineers and Construction Managers:

Bret Cabbiness, P.E., Cabbiness Engineering, LLC,
 Norman, OK

Josh Caywood, P.E., C.H. Guernsey and Company,
 Oklahoma City, OK

Tom Crowley, P.E., Carollo Engineers, Overland Park, KS

Gary Wade, P.E., Smith Roberts Baldishwiler, LLC, OKC, OK

Prime Contractors: Clarke Well and Equipment, Inc., Great Bend, KS

Sober Brothers, Inc., Ponca City, OK

Howard-Estruct, JV, Ardmore, OK

State Senator: David Myers

State Representative: Ken Luttrell



Rogers County Rural Water District No. 7

Projects: New 12-Inch Water Transmission Line
 Automated Meter Reading System
 Repair and Repainting of Three Water Storage Tanks

DWSRF Loan Amount	\$ 528,559.78
ARRA Principal Forgiveness Amount	\$ 230,440.22
Total Project Cost	\$ 759,000.00

- Rogers County Rural Water District No. 7 owns and operates its water storage and transmission system. The District purchases treated water from the Oklahoma Ordnance Works Authority (OOWA), and maintains a connection to Mayes County Rural Water District No. 4 as a backup water source. The District also sells water to Rogers County Rural Water District No.8, and serves as a secondary source of treated water for Rogers County Rural Water District No. 9. The existing water distribution system has several inadequate hydraulic deficiencies at various points. It is especially critical during the peak demand periods. The main purpose of the project is to meet the District's water needs for the next 40 years. The proposed project includes:

- A. Install approximately 7,500 linear feet of 12-inch water lines
- B. Replace and Install 1,500 new Automatic Meters
- C. Repair and Repaint three water storage tanks; i.e. Mullins Tower, Walton Tower and Young's Tower
- Special thanks should be given to the District Manager, Charlie Tipton, and Consulting Engineer, David Dollar, for their prompt and responsive action to meet the required deadlines for ARRA funds.

— Tiger Feng, P.E., DWSRF Project Engineer

Chairman: Lewis Stephens
 District Manager: Charlie Tipton
 Design Engineer: David Dollar, P.E., Water PAQ Engineering, Claremore, OK
 Prime Contractors: Infinity metering Company, Inc., Claremore, OK (AMR)
 Walden Construction, LLC, Claremore, OK (water line)
 Tankco Construction, LLC, Oklahoma City, OK (tanks)

State Senator: Sean Burrage
 State Representative: Chuck Hofkin



Sand Springs Public Municipal Authority

Project: Automated Meter Reading System

DWSRF Loan Amount	\$ 3,920,673.98
ARRA Principal Forgiveness Amount	\$ 1,709,326.02
Total Project Cost	\$ 5,630,000.00

Can a city with a variable and hilly terrain utilize automatic meter reading? The City of Sand Springs completed a propagation study to determine the best components to attain an automated meter reading system.

Since 2007 the Sand Springs Public Municipal Authority (PMA) staff noticed an increasing trend in water production and sales. Authority staff calculated that water loss rates for the water system had an annual increasing trend of 1.3 percent per year. Approximately 22 to 28 percent of the water treated and distributed was unaccounted for on an annual basis. Manual reading also contributed to the difficulty in obtaining accurate records. Authority Staff recognized the problem as inefficient water metering, but finding and securing sufficient funding for such a large extensive project was difficult.

The Sand Springs PMA heard of the proposed ARRA funding and developed a business plan showing the efficiency of installing new automated meter reading systems. One problem to overcome was the hilly terrain over a large service area. The Authority decided to use radio transmitters with an FCC license throughout the system with a backhaul to the City's utility billing of-

fices for improved customer service. With their business plan complete, Sand Springs contacted the DWSRF.

The automatic metering system was considered "green" because it will help account for and reduce water losses resulting in conservation of water and reduction in energy usage. The meter reading is automatic and will reduce unnecessary manpower of cut off or restoring water services, locates areas of potential water leaks, and reports water consumption automatically to City Hall. Since the area of service is over several square miles, the reduction in fuel consumption and mileage driven will cut operational costs.

The Sand Springs engineering staff provided in-house engineering services to develop the project resulting in savings for the Authority. Doug Enevoldsen, City Manager, Derek Campbell, P.E., Public Works Director, and Cody Blair, P.E., Project Engineer, formed a team to meet all the required deadlines and approvals for ARRA funds.

— Leslie Smith, P.E., DWSRF Project Engineer

Mayor/Chairman: Robert Walker

City Manager: Doug Enevoldsen

Design Engineer: Sand Springs Engineering Department

Prime Contractors: Itron, Inc., Liberty Lake, WA

State Senator: Dan Newberry

State Representatives: Chris Benge, Lucky Lamons, Rex Duncan

Stillwater Utilities Authority

Project: Automated Meter Reading System, water line replacements, pump stations improvements, rehabilitation of storage tank, and generator.

DWSRF Loan Amount	\$ 9,645,000.00
ARRA Principal Forgiveness Amount	\$ 2,000,000.00
Total Project Cost	\$11,645,000.00

The Stillwater Utilities Authority (SUA) has been busy this year planning improvements with ARRA funds to make their water infrastructure greener, energy efficient, and more cost effective. The eight projects were selected and designed to reduce power costs, water loss and provide increased efficiency.

The primary project consists of replacing the Authority's 16,600 residential and commercial water meters with the third generation automated water meters and automated meter reading system at a purchase cost of over \$6,400,000. Stillwater's water meters were aging at more than 20 years old and water losses were reported at 18 percent. With Authority construction forces, SUA plans to replace the actual meters at the service points over a three year period. The new system will feature Advanced Meter Infrastructure allowing Automatic Meter Reading several times a day, thereby notifying personnel of excessive water usage. The system utilizes fixed based radio read technology to record the consumption.

Also, the SUA has four water line replacement projects in several older areas of the City of Stillwater. The Range Road Tank will be rehabilitated, the SUA water treatment plant high service piping will be reconfigured to reduce head losses and new booster pumps. The Authority has purchased a new mobile emergency generator for use at their booster pump stations.

SUA worked hard to meet project deadlines to implement ARRA funding requirements. Anthony Daniels P.E., Stillwater Utilities Director, led the project effort with a SUA professional team of engineering and planning staff. The SUA team consisted of William Millis, P.E., Deputy Water Utilities Director/Engineering Manager, Inger Avila and Melinda Davis from the water utilities planning department, Scott Taylor, Superintendent of the SUA water treatment plant, Susan Hall, Administrative Assistant, and Christy Cluck, CPA of the Water Trust Finance. Before writing specifications and going out for bids, the team researched extensively current meter reading systems in the United States. The SUA team executed a diligent effort to get the project packages out to bid to contractors within the project deadlines.

The projects under construction are as follows:

- 10WT12 Water Line Replacement: Tucker Addition
- 10WT13 Water Line Replacements-Between Main Street and Husband Street from 6th to 8th Avenue
- 10WT14 Refurbish Range Road Elevated Water Storage Tank
- 10WT15 Automated Meter Reading System



- 10WT16 Washington and Stallard Booster Pump Stations Improvements and High Service Piping at the Water Treatment Plant
- 10WT18 Trailer Mounted Generator and Transfer Switches
- 10WT25 Water Line Replacements-Elmwood Addition
- 10WT11 Water Line Replacement: Main Street-McElroy to Tyler and West and East Brush Creek crossings at East Sixth Avenue

— Leslie Smith, P.E., DWSRF Project Engineer

- Mayor/Chairman: Nathan Bates
- City Manager: Dan Galloway
- Design Engineer: Stillwater Engineering Department (AMR)
Cobb Engineers, Tulsa, OK (water lines)
Garver Engineers, Norman, OK (tank rehabilitation)
Poe & Associates, Tulsa, OK (pump stations)
- Prime Contractors: L&F Construction, LLC, Grove, OK (10WT12)
Triangle Construction & Utility, LLC, Collinsville, OK (10WT13)
H&R Construction, Sapulpa, OK (10WT14)
Itron, Inc., Liberty Lake, WA (10WT15)
Utility Contractors, Inc., Wichita, KS (10WT16)
Barco Pump, Inc., Oklahoma City, OK (10WT18)
L&F Construction, LLC, Grove, OK (10WT25)
Utili-link, Inc., Collinsville, OK (10WT11)
- State Senators: James E. Halligan
- State Representatives: Cory T. Williams
Lee Denney
Rex Duncan



Tulsa Metropolitan Utility Authority

Project: Construct 60,600 linear feet of 6-inch water lines.

DWSRF Loan Amount	\$ 3,638,636.16
ARRA Principal Forgiveness Amount	\$ 1,586,363.84
Total Project Cost	\$ 5,225,000.00

The Tulsa Metropolitan Utility Authority (UA) serves water to approximately 471,000 residential and commercial customers in the City of Tulsa. Several areas in the City have deteriorating 2-inch water lines that limit service to its customers.

Tulsa Metropolitan UA will replace the existing 2-inch water lines with new 6-inch water lines, thereby improving water service and pressure to the areas served. Construction starts on February 1, 2010, and ends on November 26, 2010.

Joan Arthur, P.E., and Anthony Wilkins, P.E., both with the City of Tulsa, were instrumental in working with DWSRF to obtain ARRA funds and they continue as valuable team members.

— Gregory Carr, P.E., DWSRF Project Engineer

Mayor: Kathy Taylor

Chairman: John Eagleton

Design Engineers: William S. Cyganovich, P.E., C2A, Tulsa, OK
 Charles A. Richardson, P.E., High Plains Technical Services, Inc., Tulsa, OK
 Karl E./ Stickley, P.E., C.H. Guernsey & Company, Oklahoma City, OK
 David P. Pearce, P.E., Hood Construction Services, PLLC, Tulsa, OK

Prime Contractors: T-G Excavating, Inc., Catoosa, OK
 McGuire Brothers Construction, Inc., Tulsa, OK
 Shrum Excavation Company, Inc., Tulsa, OK
 NPL Construction Company, Tulsa, OK

State Senators: Judy Eason McIntyre, Mary Easley, Mike Mazzei, Tom Adelson, Randy Brogdon, Gary Stanislawski, Bill Brown, Dan Newberry, and Brian Crain

State Representatives: Sue Tibbs, Eddie Fields, Lucky Lamons, Pam Peterson, Chris Bengel, Fred Jordan, Ron Peters, Daniel Sullivan, Seneca Scott, Jabar Shumate, Dan Kirby, Eric Proctor, Jeannie McDaniel, Weldon Watson, and John Trebilcock

Wagoner Public Works Authority



Project: Water Line Replacement

DWSRF Loan Amount	\$ 835,667.63
ARRA Principal Forgiveness Amount	\$ 364,332.37
Total Project Cost	\$ 1,200,000.00

- Wagoner Public Works Authority owns and operates its water and wastewater facilities. The owner has been actively and consistently repairing/replacing the aging units.
- Wagoner has planned to use its own labor force, Force Account Operation, to replace the aging cast iron water pipes installed in the early 1900's. The proposed project includes installation of a total 9,600 linear feet of 12, 10, 8 and 6-inch PVC, and cast iron pipes along Cherokee Street and Main Street. Also included in the project is a portable generator to provide electrical back-up for power outages.
- The owner is using its well trained and experienced Force Account workforce to install all replacement water lines.

- Special thanks to the leadership of the Public Works Director, Dwayne Elam, Construction Manager, Kenneth Peters, and City Accountant, Laura Duvall, for their enthusiastic and responsive management in undertaking the citywide waterline replacement project.

— Tiger Feng, P.E., DWSRF Project Engineer

Mayor/Chairman: James Jennings

Design Engineer: Doug Alexander, Alexander Engineering, Broken Arrow, OK

Suppliers: Utility Supply Company, Inc., Tulsa, OK (pipe)
Water Products, Inc., Owasso, OK (pipe)
Ron Welcher Construction, Inc., Wagoner, OK (generator)

State Senator: Mary Easley

State Representative: Wade Rousselot



Washington County Rural Water District No. 3

Project: Water Treatment Plan Expansion

DWSRF Loan Amount	\$ 15,394,645.00
ARRA Principal Forgiveness Amount	\$ 2,000,000.00
Total Project Cost	\$ 17,394,645.00

For Washington County Rural Water District No. 3, ARRA funds made the difference in getting the construction project underway. The District is located in the vicinity north of Tulsa, Owasso and Collinsville, Oklahoma.

The District needed to find a suitable water source to economically serve existing and projected water users as well as a plan to expand their existing treatment plant to serve a population of 16,283 people. The District’s current water treatment plant had a maximum capacity of 4.0 MGD, and needed to expand the water treatment capacity to 12 MGD. The District was in the master planning phase for several years investigating the best and most cost effective alternates for supplying source water to the water treatment expansion project. It was decided the best alternate for a water supply source was the Caney River where water will be pumped into the proposed water treatment plant.

When ARRA funding became available, the District Chairman, William Jacobs and Jerry Gammill, Manager, immediately directed their engineers and staff to submit the design plans, project specifications and engineering report to apply for ARRA funding.

— Leslie Smith, P.E., DWSRF Project Engineer

- Mayor/Chairman: James Jennings
- Design Engineer: Thomas Mansur, P.E., Benham Group, Tulsa, OK
- Construction Engineer: W.B. Smith, P.E., HIS, Inc., Mannford, OK
- RW District Engineer: David Dollar, P.E., Water PAQ, Engineering Inc., Claremore, OK
- Prime Contractor: Crossland Heavy Contractors, Tulsa, OK
- State Senators: John Ford, Sean Burrage, Joe Sweeden, Randy Brogden
- State Representatives: Tad Jones, Steve Martin, Earl Sears, Eddie Fields, David Derby



Oklahoma Department of Environmental Quality
Water Quality Division
PO Box 1677
707 North Robinson
Oklahoma City, Oklahoma
73101-1677
405-702-8100

www.deq.state.ok.us



ARRA and DWSRF PROJECTS

WATER

R E P O R T