

WATER INFRASTRUCTURE FINANCE AUTHORITY



FY 2015

Annual Report



The *Mission* of the **Water Infrastructure Finance Authority** is to maintain and improve water quality in Arizona by providing financial assistance and technical assistance for basic water infrastructure.

Water Infrastructure Finance Authority

ANNUAL REPORT

OVERVIEW OF WIFA

The Arizona Legislature established the Water Infrastructure Finance Authority of Arizona (WIFA) in 1989. As an independent agency of the state of Arizona, WIFA works to maintain and improve water quality in the state by financing the construction, rehabilitation and improvement of drinking water and wastewater facilities and nonpoint source pollution projects.

Maintaining water quality in Arizona requires communities to make large investments in drinking water and wastewater infrastructure. State revolving funds are the primary resources for helping communities meet their continuing and significant water infrastructure needs. WIFA maintains Arizona's revolving loan fund programs, capitalized by the Environmental Protection Agency (EPA), to provide low cost financing for water infrastructure projects.

Sustainable Infrastructure

The effective management of water infrastructure is one of the main challenges faced by water systems across the nation and in Arizona. Sustainable infrastructure and systems are essential to ensuring the environmental and economic sustainability of communities.

Sustainability can be achieved through strong infrastructure planning and management practices. To help communities in Arizona, WIFA provides low-interest loans and planning and design technical assistance funding for drinking water and wastewater projects designed to ensure safe, reliable drinking water and proper wastewater treatment. Most of WIFA's funding is directed toward its loan program which can assist with design, improvement, construction and acquisition. WIFA's technical assistance program is available for the planning and design phase of an infrastructure project. A wide variety of drinking water and wastewater projects can be funded through WIFA.



Example projects include storage tanks, meters, wells and booster pumps, arsenic treatment systems, water and sewer distribution line replacement, solar, new wastewater facilities, plant upgrades, and reclaimed water projects. WIFA can also fund watershed restoration, stormwater management and green infrastructure projects.

- 30 WIFA-funded projects were completed in FY 2015 for Arizona's communities (19 drinking water projects and 11 wastewater projects totaling more than \$56 million) (See 2015 Completed Projects list at the end of report for a summary of each project)

2015 Highlights

- 30 WIFA-funded projects were completed in FY 2015 for Arizona's communities (19 drinking water projects and 11 wastewater projects totaling more than \$56 million) (See 2015 Completed Projects list at the end of report for a summary of each project)
- Approved nine new loans and provided \$38.7 million in financial assistance to cities, towns, and private water companies
- Maintained "AAA" credit ratings (the highest level of ratings) due to demonstrated commitment to responsible fiscal fund management
- Improved efficiency in procurement processes - for a needed purchase on statewide contract or small purchase with state registered vendor, WIFA can process and award a purchase order within half an hour
- Co-financed six projects with contributions from other agencies and local entities
- Processed loan documents, on average, in less than one week - from Board action (loan resolution approval) to distribution of loan documents
- Processed \$54 million in disbursements and processed disbursement requests, on average, in six business days
- Provided \$34 million in funding to maintain or achieve compliance
- Assisted disadvantaged communities by providing \$5 million in forgivable principal for seven projects
- Provided outreach and assistance to small and rural communities - Over 40% of drinking water loans were provided to small systems serving less than 10,000 people. For wastewater projects, 100% of new clean water loans were provided to communities serving fewer than 50,000 people

Organization

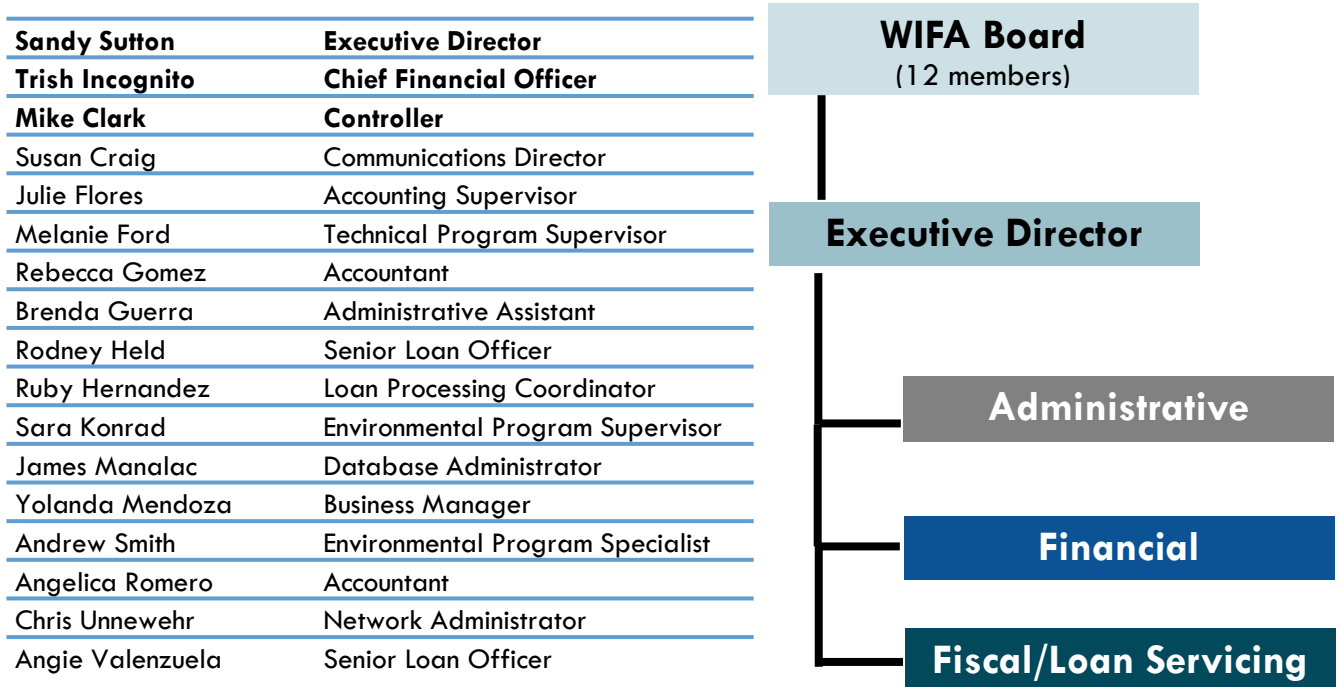
WIFA is governed by a 12-member Board of Directors, who provides leadership in setting WIFA's administrative policies and approving loans and other assistance for borrowers. WIFA's Board of Directors offers expertise on environment, finance, business, and government policies.

- **Misael Cabrera, Chairman** - Arizona Department of Environmental Quality
- **Keith Watkins, Vice Chairman** - Arizona Commerce Authority
- Alan Baker - Municipalities of more than 50,000 residents
- Sean Dollman - Office of State Treasurer
- Paul Gardner - Water systems which serve more than 500 people
- William Garfield - Water systems which serve less than 500 people
- Stanley Gibson - Municipalities with population less than 50,000 and Counties less than 500,000
- Mark Heberer - Sanitary Districts from Counties with population less than 500,000
- Ray Montoya - Counties with population more than 500,000
- Del Smith- Arizona Corporation Commission
- Lynne Smith- Arizona Department of Water Resources

WIFA Board Members

There is currently one vacant position representing Indian tribes.

WIFA is administered by Executive Director, Sandra Sutton, Chief Financial Officer, Trish Incognito, Controller, Mike Clark, and a strong team of 15 staff. WIFA's friendly and helpful staff has broad state and local government experience as well as private sector business and finance experience. WIFA's staff is committed to providing exceptional service to Arizona's communities.



WIFA's Credit Profile

WIFA maintained "AAA" credit ratings (the highest level of ratings) from Moody's, Standard and Poor's, and Fitch. The ratings are based on:

- Program structure that provides significant over-collateralization to the bonds
- Strong credit quality of the local borrowers
- Loan portfolio and investments with the ability to withstand substantial losses to revenue
- Large size and diversity of loan portfolio
- Strong management practices and policies

These ratings support WIFA's low cost of borrowing from investors when WIFA issues bonds. In turn, this allows WIFA to pass on the benefit to its borrowers and the citizens of Arizona in the form of low interest loans. In FY 2015, WIFA's average interest rate for public entities was **2.17%**.

At the close of the fiscal year, WIFA had **\$261 million** invested. Dollars invested are primarily used to originate loans to WIFA borrowers and provide security for WIFA's bond portfolio. Interest generated from the invested funds helps subsidize WIFA borrower rates.

WIFA is able to maintain a diverse portfolio of borrowers by balancing the needs of low-credit borrowers with high-credit borrowers. The presence of strongly rated borrowers within the portfolio benefits all program participants.

Another indicator of WIFA's responsible fiscal fund management is the annual audit performed by Henry & Horne, LLP. WIFA's 2015 Audited Financial Statements are attached and available on WIFA's website - www.azwifa.gov/publications. In FY 2015, WIFA's net position increased by \$26.9 million, primarily due to the prepayment of certain outstanding bonds and issuance of refunding bonds. In addition, total program expenses decreased by over \$6 million, which included a 4.6% reduction in administrative expenses. The Agency continues to keep administrative expenses as low as possible while still performing its mission.

“WIFA calls itself the perfect public-private partnership, working with the federal, state and local governments to sell bonds on the private market to the benefit of everyone.”

Kathleen Ferris | Arizona Municipal Water Users Association

LOW-INTEREST LOAN PROGRAM

WIFA operates as a “bond bank” and is able to issue water quality bonds on behalf of communities for water and wastewater infrastructure. Through an active portfolio and sound financial management, WIFA provides significant savings to borrowers by offering loans with below market interest rates.

WIFA's means for providing low interest financial assistance are the Clean Water Revolving Fund (for publicly-held wastewater treatment facilities) and the Drinking Water Revolving Fund (for both publicly and privately-held drinking water systems). Both funds were established by the EPA and are funded by federal capitalization grants, state matching funds, loan repayments and WIFA bond proceeds.

WIFA is making a difference in Arizona. Over \$2 billion has been invested in the state since WIFA's inception in 1989, and WIFA has funded more than 400 projects across the state. Each project results in the creation of construction and engineering jobs.

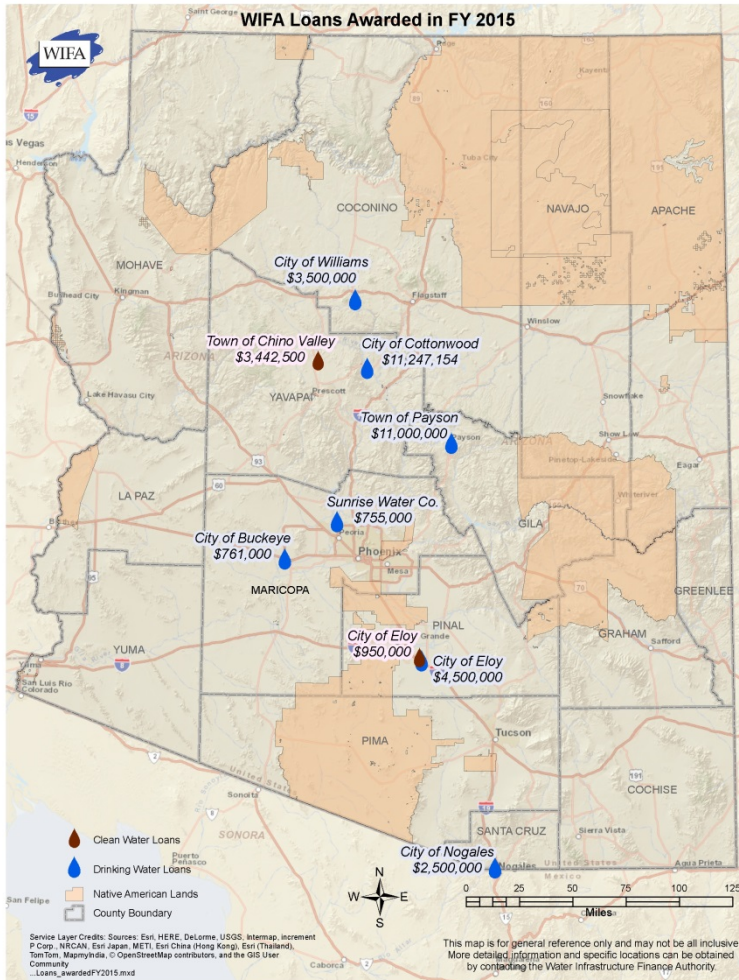
WIFA has quadrupled its federal capitalization grants into more than \$2.2 billion for critical public health and water quality projects statewide.

**Federal dollars
invested**
\$575 million



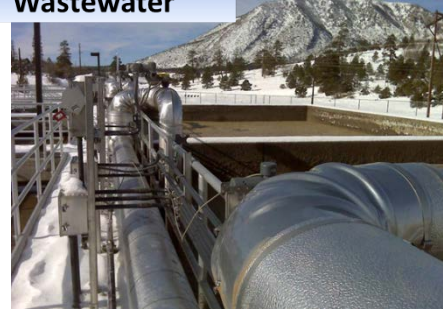
\$2.2 billion
**Funds committed to Arizona
water infrastructure**

Loan Agreements Executed in FY 2015



WIFA provides funds for both rural and urban communities, and has financed projects all over the state. In FY 2015, WIFA executed nine new loans, including seven drinking water loans for a total of **\$34,263,154** and two wastewater loans for a total of **\$4,392,500**.

Wastewater



Drinking Water



The following water and wastewater service providers obtained financing through WIFA:

Borrower	Project Title	Amount
Drinking Water Loans		
City of Buckeye	Hopeville Water System Acquisition	\$761,000
City of Cottonwood	Mingus Avenue Waterline and Refinance	\$11,247,154
City of Eloy	Pump Station and Reservoir Improvements, Well Rehab, Waterline	\$4,500,000
City of Nogales	Extreme West Pressure Zone (EWPZ) Storage and Improvements	\$2,500,000
*Town of Payson	CC Cragin Water Supply Project	\$11,000,000
Sunrise Water Company	Arsenic Treatment, Booster Pumps and Storage Tank	\$755,000
*City of Williams	Water Supply / Water Sustainability and Storage	\$3,500,000

Borrower	Project Title	Amount
Wastewater Loans		
Town of Chino Valley	Purchase of WWTP and Installation of Screen	\$3,442,500
City of Eloy	Lift Station and Wastewater Treatment Facility Improvements	\$950,000
Drinking Water Total		\$34,263,154
Wastewater Total		\$4,392,500
TOTAL		\$38,655,654

* Green project

- A closer look at how WIFA is helping two Arizona communities -

City of Williams

The City of Williams was in dire straits when one of its two wells failed in May 2014. The City had already declared a water crisis and implemented the highest level of water restrictions back in February 2014 after the prolonged drought and years of dismal winter snow pack in its watersheds had resulted in water demand exceeding total water production. As a result, the volume of water stored in reservoirs began to decline at an alarming rate. The City approached WIFA for assistance. WIFA was able to offer the City a \$3,500,000 loan with nearly \$1.5 million in forgivable principal to offset project costs. The funds have been used to repair the failed Dogtown well and to replace 1,500 water meters, thereby reducing water loss and improving accuracy and revenues.



Williams' Santa Fe Reservoir

Town of Payson

The Town of Payson's drinking water source currently consists of 43 drought-sensitive groundwater wells. Prolonged drought and declining groundwater levels have the Town concerned about the need for additional water supplies. The Town of Payson has entered into a partnership with the Salt River Project for the use of water from the C.C. Cragin (formerly Blue Ridge) Reservoir. Using this renewable surface water supply will, in most cases, replace limited groundwater supplies as a source. This project will not only firm up Payson's water supply; other communities along the project route will also have the potential to receive water from this pipeline. The anticipated costs associated with this project are estimated at approximately \$55M. These costs represent an estimate for the construction of a pipeline, treatment facilities and rehabilitation of existing C.C. Cragin pumping facilities. Initial project funding provided by WIFA (three loans totaling \$27.8M, with \$5M in forgivable principal) has resulted in substantial engineering, design, and initial construction projects either underway or completed. However, additional funding is needed to complete construction of the designed raw and treated water lines and finalize the engineering design and construction of the water treatment plant. The Town will be executing a fourth loan for an additional \$11M from WIFA in FY2016, and a final loan for the remainder in FY2017.

TECHNICAL ASSISTANCE PROGRAM

In addition to loans, WIFA also offers planning and design technical assistance funding. Once a year, funding awards are made to eligible wastewater and drinking water systems for the planning or design phase of a project. The purpose of the program is to help prepare water and wastewater facilities for the construction of a capital improvement project.

Funding for Planning and Design

WIFA provides planning and design technical assistance funding to cities, towns, special districts, tribal communities and Arizona Corporation Commission-regulated private water companies to help prepare water and wastewater facilities for capital improvement project construction. Awards are targeted toward communities with limited resources that need assistance in completing the planning and/or design phase of an infrastructure project. Funding is provided to employ the services of an engineer or other consultant to complete these activities. Awards are capped at \$35,000 per project. Project examples include:

- Feasibility Studies
- Rate Studies/Financial Audits
- District Formation
- Capital Improvement Plans
- Preliminary Engineering Reports
- Environmental Assessments
- Engineering Plans and Specifications

The following planning and design technical assistance awards were made in FY 2015:

Awardee	Project Title	Amount
Drinking Water Technical Assistance		
*City of Buckeye	Distribution Leak Survey Phase I	\$22,000
Town of Clarkdale	Upper Town Water Main Replacement Project	\$35,000
*City of Goodyear	Demonstration Concentrate Management Wetlands	\$19,760
Town of Kearny	Water System Infrastructure Master Plan, Rate Study, and PER	\$32,900
*Lake Havasu City	Water Audit	\$35,000
Town of Patagonia	Drinking Water Aquifer Delineation	\$17,278
Ponderosa Utility Corporation	Water Distribution System Study and Energy Evaluation	\$20,520
Q Mountain Mobile Home Park	Pipeline Replacement and Upgrade	\$30,000
Rancho Del Conejo Community Water Co-op Inc.	Water System Mapping and PER Water Master Plan	\$34,500
*City of Safford	Water Reclamation System	\$29,943
*Town of Snowflake	Citywide Water Distribution Leak Detection	\$21,000

Awardee	Project Title	Amount
Wastewater Technical Assistance		
*City of Cottonwood	Wastewater Treatment Facility Roof Removal and Solar Installation	\$35,000
*Town of Oro Valley	Green Stormwater Infrastructure Action Plan	\$35,000
Seligman Sanitary District	Seligman Sanitary Proposed New Wastewater Treatment Facility	\$18,600
*City of Tempe	Loma Vista Flood Mitigation and Stormwater Re-Use Project	\$35,000
City of Yuma	Figueroa Ave Water Pollution Control Facility Feasibility Study	\$26,400
Drinking Water Total		\$297,901
Wastewater Total		\$150,000
TOTAL		\$447,901

* Green project

Water and Wastewater Rates Survey and Dashboard

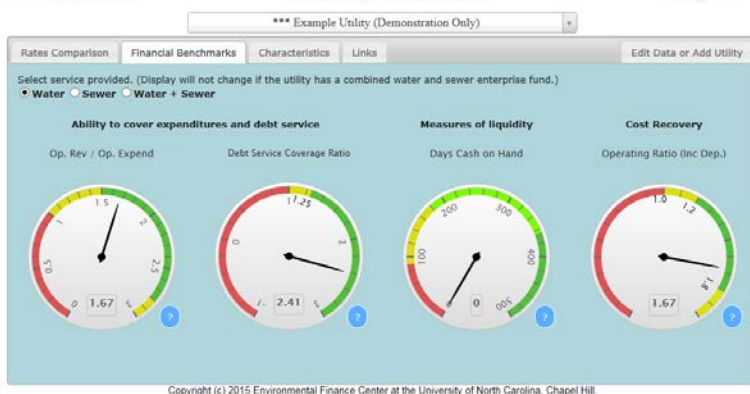
Arizona's Water and Wastewater Rates Dashboard is an interactive, online rates and financial benchmarking tool designed to assist communities with assessing their financial sustainability, rate setting and rate structures. New to the dashboard this year: financial data and a pre-populated cost recovery dial for each utility; multiple new comparison groups (e.g. watershed, climate zone); and a much larger number of utilities (nearly 90% of the state). Created for WIFA by the [Environmental Finance Center](#) (EFC) at the University of North Carolina at Chapel Hill, the enhanced version of the dashboard this year has received a lot of positive feedback from utility managers, elected officials, consultants and more, and the verdict is simple – it's a valuable resource, easy to use, and great for explaining rates to audiences who are not finance experts! The dashboard has proved to be a great resource for small communities struggling to cover costs and maintain their infrastructure, and WIFA has promoted it at the state's Rural Water Association spring conference, Arizona Water Association's annual conference, and more. Additional associated resources include a summary report and detailed rate tables, produced by EFC and linked from WIFA's website at <http://www.azwifa.gov/waterrates/>. Additional support was provided by the following partners: Arizona Municipal Water Users Association, University of Arizona Water Resources Research Center, League of Arizona Cities and Towns and the Northern Arizona Municipal Water Users Association.



New Features in 2015:

- Operating ratio w/wo depreciation
- Debt service coverage ratio
- Days cash on hand

Provides complete picture of utilities' financial status



RURAL WATER INFRASTRUCTURE COMMITTEE (RWIC)

Led by WIFA, the Rural Water Infrastructure Committee (RWIC) is an informal partnership of various organizations, mainly federal and state agencies, who provide loans, grants and technical assistance to Arizona's rural communities. RWIC serves as a "One-Stop Shop" for rural communities with a population of less than 10,000.

RWIC core members include: WIFA, Arizona Department of Environmental Quality (ADEQ), USDA Rural Development (USDA-RD), Arizona Department of Housing (ADOH), North American Development Bank (NADBank), Border Environment Cooperation Commission (BECC), Rural Community Assistance Corporation (RCAC), and U.S. Department of Housing & Urban Development (HUD).

RWIC: One-Stop Shopping in Arizona

- A resource for applicants to locate federal, state and local financial assistance programs
- Affordable funding solutions and technical assistance to small, rural communities throughout Arizona

In FY 2015, RWIC held regular quarterly meetings to provide a platform for small communities to present about their project needs. Executive Committee members then discuss and follow-up with available assistance options. On December 9th, 2014, RWIC held its 4th annual Funding Expo, which has previously featured presentations by the member agencies on the funding and technical assistance they could offer. Replacing those presentations this year were presentations by two representatives from Pima County wastewater utilities. The session was titled “Making your water infrastructure project happen,” and provided information on how to select the best engineer for a project, and how to incorporate alternative project delivery methods (e.g. job order contracting, design-build). It was a great learning experience for Arizona’s rural communities as well as for the RWIC partner agencies, and particularly valuable coming from a utility that had extensive experience with the topics. The topics were selected based on feedback RWIC received from attendees at last year’s event. For the afternoon of the Expo, RWIC partner agencies set up informational booths and met with communities one-on-one to discuss funding and technical assistance opportunities.



MARKETING AND OUTREACH

The following is a summary of WIFA’s outreach and marketing efforts for FY2015:

- Launched WIFA’s new and improved online application system. The new system provides a great marketing tool for WIFA’s programs, delivers a better user-experience for WIFA applicants, and has improved the quality of the applications.
- Developed new webpages:
 - *The scoop: projects completed, on deck and in the pipeline* - This new webpage was created to more clearly define the “what, when and how” of WIFA financing. It provides a big picture look at WIFA by featuring completed projects, projects on deck and projects in the pipeline.
 - *Public Notices* - WIFA expanded this page to include all public notices, including hyperlinks to environmental review decisions and public hearings.
 - *Stay Informed* - This new webpage allows interested parties to sign up for WIFA’s e-mail distribution lists. WIFA’s General Distribution list provides information about upcoming events, trainings, resources and funding opportunities. WIFA’s new Public Notices distribution list informs subscribers of all public notices.

- Presented at 15 conferences/meetings, including a presentation for a national webinar (Council of Development Finance Agencies) and a national Public Works Association conference in Phoenix, reaching over 1,300 people. Other highlights included:
 - Presented for 200 people on a national *Rural Development Finance Training Series: Building Rural Infrastructure* webinar hosted by the Council of Development Finance Agencies (CDFA) for U.S. Department of Agriculture (USDA) field staff and leadership. WIFA received accolades from the CDFA President for coordination efforts with Arizona's Rural Water Infrastructure Committee and USDA, and for being a model for other State Revolving Fund programs around the U.S.
 - Presented at ASU's Sustainable Cities Network attended by all the major cities in the metro valley.
- Distributed information about upcoming events, trainings, resources and technical assistance opportunities to WIFA's email distribution list (~400 people).
 - Wrote an article titled *Raise the Grade with WIFA*, which was distributed to WIFA's listserv and published in AZ Water Association's *Kachina News*. The article raised awareness about the condition of Arizona's infrastructure and the financing WIFA offers for water and wastewater infrastructure projects. Many partners used the information for their awareness campaigns as well, including RWAA who printed copies of the article for handouts.
- Arizona Public Works Association New Member Spotlight - Susan Craig, Communications Director, was featured in the March 2015 APWA AZ Newsletter. In the spotlight, WIFA was able to convey a message to all APWA members regarding the cost of deferred maintenance, the need for capital improvements, encouraging utilities to invest with WIFA now while interest rates are still low.
- Numerous meetings with consulting and engineering firms to discuss WIFA's programs, including an emphasis on the non-traditional projects WIFA can fund and marketing (stormwater, green infrastructure, flood control, watershed protection, reuse, energy efficiency and recharge).
- Coordinated with state partners (RWAA, RCAC, ADEQ, USDA-RD) and shared notes (key messages and answers to interview questions) with other State Revolving Fund programs in preparation for the U.S. Government Accountability Office's interview/report on asset management.

NEW INITIATIVES

WIFA is spearheading initiatives to direct some of its funds to address serious threats to Arizona's water supply, nonpoint source pollution (including watershed protection and forest restoration) and stormwater.

Natural landscapes filter pollutants and protect water quality. Floodplains and natural landscapes minimize the area and impacts of floods, reduce the burden on public drainage infrastructure, and increase groundwater recharge. These types of projects ensure a resilient water infrastructure system, and can reduce capital costs to supply clean drinking water and to treat wastewater.



2015 COMPLETED PROJECTS

MAKING A DIFFERENCE IN ARIZONA

Below is a summary of the projects that have been completed during the year, through construction loans and planning and design technical assistance funding.

30 projects completed

- \$56,066,568
 - \$55,591,285 in loans
 - \$475,229 in technical assistance funding
- 19 drinking water projects
 - 16 completed by small/rural communities (less than 10,000 population)
- 11 clean water (wastewater) projects
 - 5 completed by small/rural communities (less than 10,000 population)

Completed Loans

City of El Mirage

Population: 30,000

WWTP Contact Chlorination Station

Loan Amount: \$1,406,078

Project Results: El Mirage constructed a new wastewater treatment facility where the chlorination station was located (at the site of the decommissioned facilities). The City used the loan funds to construct a new chlorination station within an enclosed facility adjacent to the new treatment facilities.

City of El Mirage

Population: 35,500

Water Reclamation Facility Efficiencies

Loan Amount: \$500,000

Project Results: More than 24% of the operating expenses associated with the City's wastewater treatment facility were related to energy consumption to pump water into the treatment facility and to use ultraviolet treatment. Replacing the internal pump station with gravity flow and replacing ultraviolet treatment with chlorination resulted in expected energy costs savings of \$102,000 annually.

Apache Junction Water Utilities Community Facilities District

Population: 9,000

WUCFD Mesa Interconnect

Loan Amount: \$4,956,200

Project Results: Problems with the District's three wells left it unable provide sufficient supply, and temporary package treatment facilities were constructed as an interim solution. This project constructed a water line, booster station and storage tank to receive water from the City of Mesa to meet demand.



Town of Eagar

Population: 4,535

Water System Expansion

Loan Amount: \$413,667

Project Results: The Town utilized the WIFA funds to install a new well and well connector line as well as replace water lines on Spanish Trail and Burk Street.

Yavapai-Apache Nation

Population: 2,000

Tunlii and Clarkdale Sewer Project

Loan Amount: \$8,560,590

Project Results: The Yavapai-Apache Nation constructed a new sewer lift station, abandoned at-capacity wastewater treatment facilities (WWTF) for Cliff Castle Casino and Distant Drums RV Park, and upgraded sewer lines along Middle Verde Road to the Nation's Middle Verde WWTF. The Casino had been hauling effluent to the Middle Verde WWTF at a cost of \$300,000 annually. The project eliminated this cost and provided necessary infrastructure to service the RV Park and the community.



City of Tucson

Population: 675,000

SAVSARP Reservoir, Booster, and Interconnect Pipeline

Loan Amount: \$16,000,000

Project Results: The City of Tucson constructed an 8.5 million gallon forebay reservoir and booster station as part of the Southern Avra Valley Storage and Recovery Project (SAVSARP). The project also included three miles of pipeline to connect to the Central Avra Valley Storage and Recovery Project (CAVSARP) Recovered Water Pipeline. This project enables the City to use its complete CAP water allocation. It also provides for the conveyance of CAP water from the reservoir and booster station to the Tucson Water distribution system. The increased water recovery will reduce reliance on limited groundwater supplies and prevent over-drafting of the aquifer.

Town of Clarkdale

Population: 2,323

Broadway Water Reclamation Facility

Loan Amount: \$5,154,652

Project Results: The Town was served by a wastewater treatment lagoon system that was over 30 years old and is immediately adjacent to Verde River. It was cost-prohibitive for the Town to construct a new wastewater treatment plant (WWTP) so they used WIFA funding to purchase a decommissioned WWTP from a subdivision in Surprise, and refurbish and install it within the same footprint.



City of Tucson

Population: 529,770

SAVSARP Collector Pipelines

Loan Amount: \$4,000,000

Project Results: Tucson Water constructed collector pipelines to convey water to the Southern Avra Valley Storage and Recovery Project (SAVSARP) Forebay Reservoir and Booster Station from the SAVSARP recovery wells. The wells recover recharged CAP water, and the collector pipelines will now provide the link for delivering the water to the Tucson Water distribution system. This was one of many projects that now allow the City to use its full allocation of CAP water.



City of Bisbee

Population: 5,575

San Jose WWTP Solar Addition

Loan Amount: \$1,563,863

Project Results: The City installed a 400kW solar array to provide power to its WWTP. It is estimated the solar array will offset 60% of the Plant's electrical usage, resulting in a savings of approximately \$50,000 per year.



Casa Grande West Water Company

Population: 834

Casa Grande West Arsenic Removal

Loan Amount: \$259,127

Project Results: The new treatment system and storage tank have resolved the company's arsenic exceedances and improved the system's storage capacity.



Metropolitan Domestic Water Improvement District

Population: 47,954

Phase II of CIP Program

Loan Amount: \$11,762,915

Project Results: This loan funded several major projects from Metro Water's capital improvement program, including transmission main replacement, arsenic treatment installation, fixed network metering and well site improvements.

Southland Utilities Company

Population: 1,958

Well Improvements and New Storage Tanks

Loan Amount: \$1,014,193

Project Results: This project installed over 20,000 linear feet of distribution lines, a generator, new booster station, pressure reducing valves, and fire hydrants, and included the purchase of two 165,000 gallon storage tanks.

Completed Technical Assistance Projects

Avra Water Co-op, Inc.

Population: 5,687

Waterline Replacement Program

TA Amount: \$23,654

Project Results: The Co-op was experiencing high leakage from its water lines and used the technical assistance funds to conduct a water leak study and develop a waterline replacement plan. The Co-op has stated the project has been a great benefit, as they now have updated maps that indicate age, type, size, condition, and expected life of the co-op's waterlines.

City of Casa Grande

Population: 48,571

Water Reclamation Facility Selenium Reduction Study

TA Amount: \$18,850

Project Results: After exceeding its AZPDES permit for selenium, Casa Grande used the technical assistance funds to conduct a selenium reduction study. The study identified an improved testing method to obtain more accurate lab results, resulting in compliance with the permit. The study also identified a chemical injection process for enhanced selenium removal with minimal capital or operating costs should selenium levels rise beyond current levels.

Maricopa Mountain Domestic Water Improvement District

Population: 822

Groundwater Well Siting Study and Technical Specifications

TA Amount: \$26,900

Project Results: Maricopa Mountain Domestic Water Improvement District needed to plan for the addition of a new production well. The District used the technical assistance funding to determine the best location for the well based on yield and quality, and to develop technical specifications for permitting and construction of the new well. The District has stated they are now prepared to make a decision on location and purchase land for the new well, and may seek WIFA and/or USDA funding.

Sunrise Water Co.

Population: 4,100

Arsenic Remediation Well #2

TA Amount: \$22,409

Project Results: Well #2 had been taken out of production in 2006 because it exceeded the arsenic standard implemented then. The Company used these funds to design an arsenic treatment system for the well. Recently, the Company received a loan from WIFA for the installation of the arsenic treatment system.

Town of Superior

Population: 3,254

Preliminary Engineering Report for WWTP

TA Amount: \$34,800

Project Results: The Town used the funds to develop a Preliminary Engineering Report (PER) to address needed repairs, rehabilitation and upgrades to its WWTP. The Town has stated they are now ready to approach USDA and/or CDBG for construction funding.

Tri-city Regional Sanitary District**Population: 4,014****Special Assessment Process for Septic to Sewer Planning****TA Amount: \$34,980**

Project Results: This project addressed a cluster of homes on septic systems between the Town of Miami and the City of Globe. The technical assistance funded the district formation process. The District is already on WIFA's Project Priority List for a future loan.

Fort Defiance/Window Rock/St. Michael's Water System**Population: 1,295****Black Rock Water Treatment Plant****TA Amount: \$29,070**

Project Results: Technical assistance funding was used to complete a Preliminary Engineering Report (PER) to identify options for the Navajo Tribal Utility Authority to consider to correct exceedances for disinfection byproducts. Options identified include flushing or shock chlorinating wells, testing for total organic compounds (TOC), and reconfiguring an interconnection to reduce water age.

Old Concho Water Users Corporation**Population: 150****Old Concho Water Infrastructure Upgrades-Phase I****TA Amount: \$15,606**

Project Results: Old Concho's water distribution system is in very poor condition and experiencing frequent breaks, and, as a result of the line breaks, total coliform MCL exceedances. They used WIFA technical assistance funds to develop a Preliminary Engineering Report (PER) to study alternatives to improve the water system, including an opinion of probable construction costs and recommended next steps. They intend to approach USDA for construction funding in 2016.

Queen Valley DWID**Population: 1,500****New Source Engineering and Design****TA Amount: \$4,650**

Project Results: Over the last few years Queen Valley has seen a drastic decline in aquifer water levels and took action to drill a new well. This technical assistance award provided funding for the design work to equip and connect the well to the water system. The District has obtained its Approval to Construct and plans to begin construction in 2015.

Town of Star Valley**Population: 2,200****Water System Mapping and Water Master Plan****TA Amount: \$22,885**

Project Results: Star Valley received WIFA technical assistance to develop a Water Master Plan and new water system maps. They had recently purchased their community's water system from a private owner and needed technical assistance to assess the water sources, storage and distribution system. The Town now has a full set of maps for the water system and has already started implementing projects from the Master Plan.

Tonto Village Water Company, Inc.**Population: 300****Tonto Village Water Company PER****TA Amount: \$10,500**

Project Results: The Tonto Village water system suffers from an aging distribution and storage system, resulting in leaks and other deficiencies associated with older infrastructure operating beyond its useful life span. A Preliminary Engineering Report (PER) was developed for replacing the water distribution system piping.

Vail Water Company**Population: 7,100****Energy Audit and Pump Efficiency Study****TA Amount: \$35,000**

Project Results: Vail Water Company received WIFA technical assistance to conduct an energy audit and pump efficiency study. The company suffers from aging facilities that operate with inefficiencies. The study enabled the company to operate their pumps more efficiently, reducing their energy consumption and identify criteria for future replacement.

Valley Pioneers Water Company Inc.**Population: 5,765****2012 Water Master Plan Update****TA Amount: \$35,000**

Project Results: Valley Pioneers' distribution system dates to the late 1960's and was started primarily by volunteers. With WIFA's technical assistance funding, a Master Plan was developed, which will assist management in making decisions on infrastructure additions and upgrades to improve current pressure conditions, as well as show the components of the distribution system that are most vulnerable and critical for water service. The Master Plan has identified a bottleneck of the system, and Valley Pioneers intends to add a second reservoir and booster pump at this location to eliminate the issue.

Brooke Water LLC**Population: 3,320****Water Loss Investigation: Moovalya Keys and Lakeside Water Systems****TA Amount: \$34,500**

Project Results: Because of the reduction of water loss caused by leaks, the system is now able to produce higher quantities of water at lower cost. The Company has already undertaken additional steps to repair or replace non-functioning meters to further decrease water loss and increase revenues and has identified numerous other areas where improvement of water system management will allow them to more efficiently deliver water.

City of Mesa**Population: 450,000****Low Impact Development Toolbox (LID Tools)****TA Amount: \$35,000**

Project Results: The LID Toolkit provides policy direction for the City as it designs and constructs infrastructure improvements, in addition to providing direction to private developers in the design and construction of new (re)development projects. Implementation of LID through these public infrastructure and private development projects can reduce infrastructure costs while reducing the impact of flooding on the City and improving the quality of the stormwater that eventually ends up in natural waterways. The Toolkit also satisfies the requirement of the City's Municipal Separate Storm Sewer System (MS4) Permit to explore Low-Impact Development.



Ray Water Company**Population: 4,600****Water & Energy Efficiency Study****TA Amount: \$35,000**

Project Results: The energy audit revealed better ways to manage the system's pumps more efficiently. Although the water audit did not reveal any major system leaks, the Company discovered that their meter replacement program needs to be ramped up in order to deal with the water loss percentage. The company is in process of replacing several hundred residential meters.

City of Somerton**Population: 14,854****Somerton Effluent Management Feasibility Study****TA Amount: \$21,559**

Project Results: This study evaluated the costs and benefits of effluent reuse for park irrigation in comparison with groundwater and canal water irrigation sources. The City is evaluating the results to determine the most feasible option.

City of Tucson**Population: 520,116****Green Stormwater Infrastructure for Tucson's Airport Wash****TA Amount: \$34,920**

Project Results: Residents in the Airport Wash area of Tucson are significantly impacted by impassable or dangerously flooded roads, damage to roads and buildings, pollution in washes and rivers, as well as the pollution remaining when the water recedes. This project used a holistic cost benefit analysis to assess the full range of benefits if green stormwater infrastructure (GSI) were implemented throughout the Airport Wash. Results from modeling show GSI can have a significant impact in reducing flooding, runoff and pollution from both large and small storm events.