



2019 PISCES and AQUARIUS Recognition Ceremony

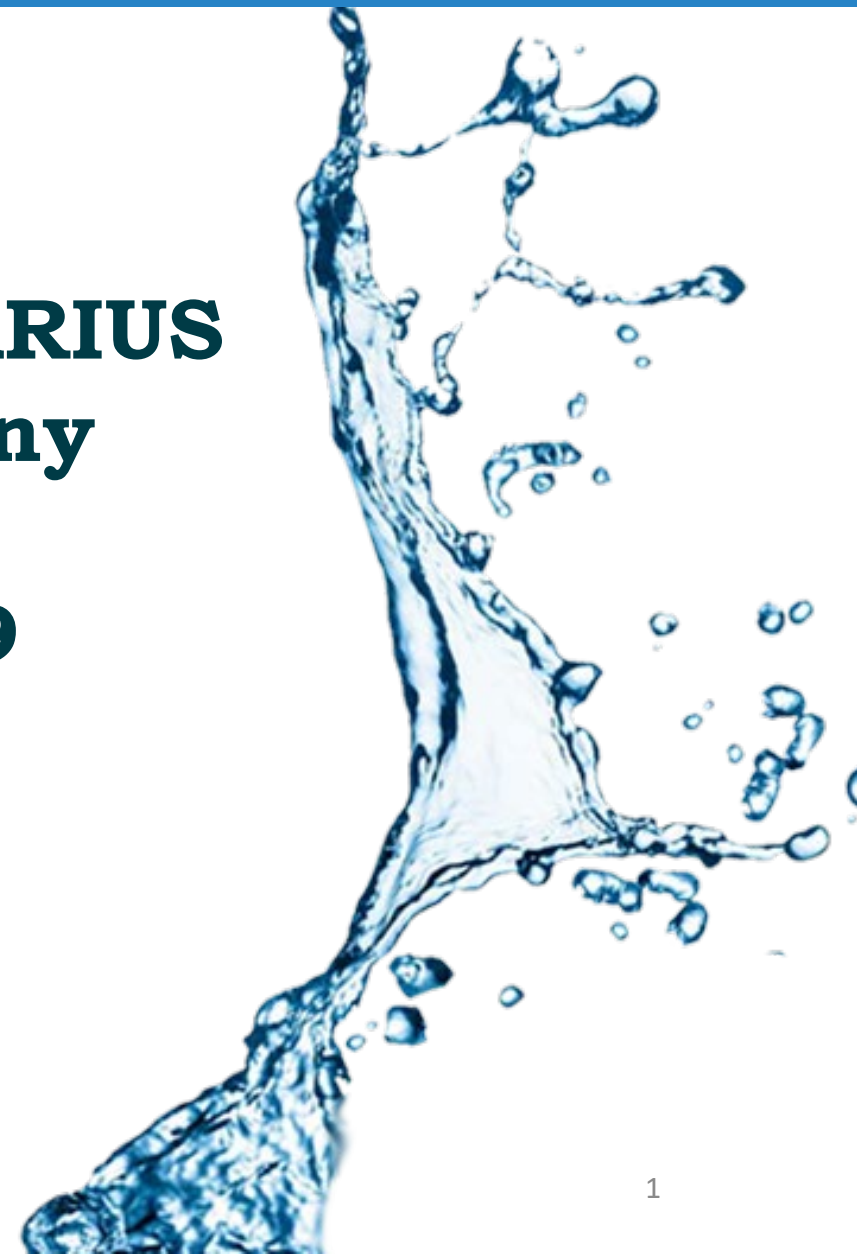
November 18, 2019



AQUARIUS




Clean Water
State Revolving Fund



PISCES

Performance and Innovation in the SRF Creating Environmental Success






The PISCES program allows assistance recipients to gain national recognition for projects that demonstrate one or more of the evaluation criteria:

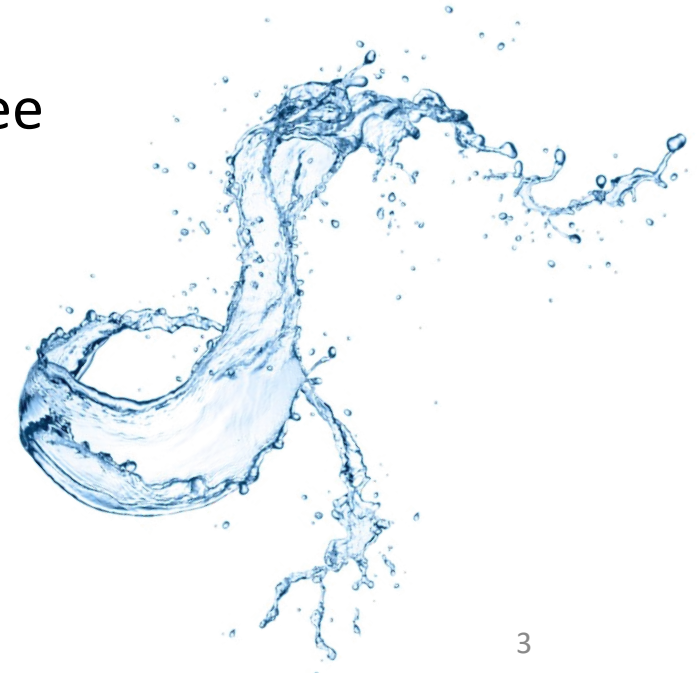
- Water quality, public health, or economic benefits
- Sustainability
- Innovation



AQUARIUS Recognition Program

The DWSRF AQUARIUS program nationally recognizes DWSRF-funded projects for exceptional focus on sustainability and protection of public health. These projects are examples of the high level of innovation possible with the DWSRF. The projects must meet three criteria:

-  Safe Drinking Water Act compliance
-  Financial integrity
-  Public health benefits



New Hampshire – Region 1



Project: Wastewater Treatment Facility Upgrade

Recipient: Town of Newmarket

Program: New Hampshire Department of Environmental Services

Summary

- \$14 million CWSRF loan to the Town located in the Lamprey River and Great Bay watersheds.
- Conversion to nitrogen-removal processes enables the Town to meet future effluent TN limitations.
- Upgrade included energy improvements to provide long-term electrical cost savings.

Connecticut – Region 1



Project: Water System Improvements Project

Recipient: Woodland Summit Community Water Association

Program: Connecticut Department of Health



Summary

- Project included several improvements, including the replacement of iron/manganese filtration systems and installation of a new radon treatment system.
- System was built prior SDWA and in poor condition due to lack of maintenance and capital investment.
- Worked with RCAP to utilize CUPSS and implement AMP.
- WSCWA has volunteer leadership—worked together to adjust water rates, making project possible, and plan for the future.

New Jersey – Region 2



Project: Jersey City MUA Green Infrastructure

Recipient: Jersey City Municipal Utilities Authority

Program: New Jersey Department of Environmental Protection

Summary:

- Green Infrastructure, community-driven project to mitigate the city's CSO issues.
- Main project site is in front of a school that used to flood and impede students from entering.
- A science teacher at the school had his class calculate how much rainwater would need to be absorbed to prevent flooding, which led to the design and construction of this GI project.

New Jersey – Region 2



Project: Pump Station Reconstruction

Recipient: Long Beach Township

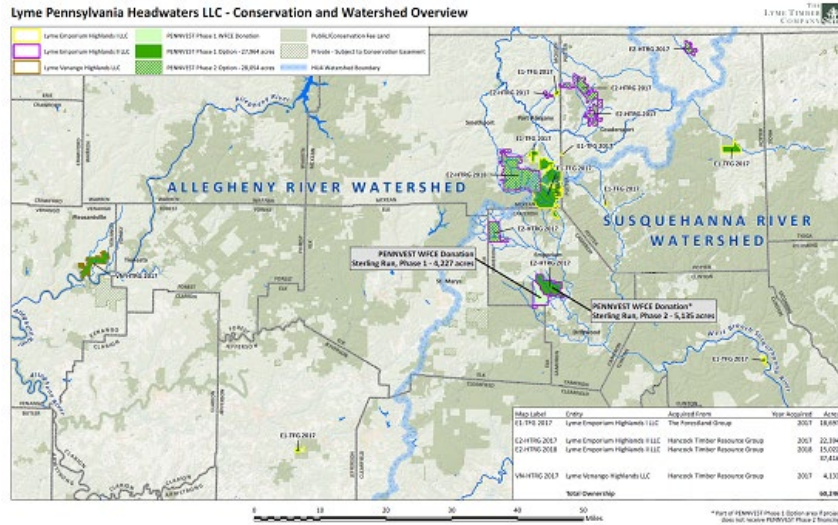
Program: New Jersey Water Bank



Summary

- Brant Beach WTP was severely flooded during Superstorm Sandy in 2012, taking on approximately 3 feet of water.
- Project included demolition and reconstruction of existing well building and generator room to comply with 500-year flood elevation; new equipment was also installed.
- Project brought the pump station into compliance with FEMA flood zone regulations and SDWA.

Pennsylvania – Region 3



Project: Sterling Run Conservation and Restoration

Recipient: Lyme Emporium Highlands II LLC

Program: PENNVEST

Summary:

- Lyme Timber Company is using the \$50 million loan towards the purchase of 63,500 acres.
- A conservation easement on 9,500 acres of these acres will ensure the property remains protected in perpetuity, the rest of the land will be managed with a sustainable timber management plan.
- \$750,000 will go towards acid mine drainage remediation work on the land.

Virginia – Region 3



Project: Living Shorelines Resiliency Loan Program

Recipient: Middle Peninsula Planning District Commission

Program: Virginia Department of Environmental Quality

Summary:

- Created a Living Shoreline Revolving Loan Program for homeowners.
- Provides low-interest financing to establish living shorelines.
- VA General Assembly expanded the program to include bed and breakfast operations, campgrounds, restaurants and businesses that use working waterfronts.

Maryland – Region 3



Project: Prince Albert and Sunnyside Water Extension

Recipient: Allegany County

Program: Maryland Water Quality Financing Administration



Summary

- 61 households in rural Allegany County had no access to the public water supply. They received drinking water through private wells or the local creek.
 - Mining activity led to discolored water supply. Nitrates and fecal coliform bacteria were also found during well testing. Those without wells were taking water from local streams and disinfecting with their own chlorine supplies.
- MD partnered with other funding agencies to complete this project. The households are now connected to Frostburg's drinking water system.

North Carolina – Region 4



Project: Bioenergy Recovery Project

Recipient: City of Raleigh Public Utilities Department

Program: North Carolina Department of Environmental and Natural Resources

Summary:

- \$50 million Green Project Reserve loan for the Bioenergy Recovery Project (BRP), which will allow them to sustainably manage biosolids generated at the City's Neuse River Resource Recovery.
- The facility uses reclaimed biogas to fuel its operations and excess biogas will be used as a renewable natural gas (RNG) to help fuel 40 compressed gas buses.

South Carolina – Region 4



Project: Florence Acquires the Timmonsville System

Recipient: City of Florence

Program: South Carolina Department of Health and Environmental Control

Summary:

- Florence formed a partnership with the own of Timmonsville to help restore their system and fund needed upgrades.
- Great example of regulatory agencies, municipalities, and stakeholders coming together to solve a problem using long-term solutions and cooperative finance programs.
- Much needed assistance to a small, disadvantaged town.

Kentucky – Region 4



Project: Water Treatment Plant and Raw Water Improvements

Recipient: City of Danville

Program: Kentucky Infrastructure Authority



Summary

- Project had several components including: re-purposing approx. 16,000 SF of the existing WTP; new chemical building; new pumps and filters; and upgrades to 80-year old raw water intake facility.
- Plant's performance remained steady but ability to meet Stage 2 DBP Rule was a concern, so the community was proactive in capital investments.
- The challenges of this project were to expand/upgrade the WTP on the existing site while maintaining constant water production, to re-purpose the existing historic structures, and to incorporate cutting edge treatment technologies.

Indiana – Region 5



Project: Stormwater and Deicing Capacity Project

Recipient: Indianapolis Airport Authority

Program: Indiana State Revolving Fund Loan Program

Summary:

- This stormwater project samples and monitors the airport's runoff and directs it to the treatment plant or discharges it in accordance with their NPDES permit.
- A sophisticated management approach that minimizes unnecessary treatment, saves energy and money, and increases efficiency.



Project: Pumping Station 15 Rehabilitation

Recipient: Madison Metropolitan Sewerage District

Program: Wisconsin Department of Natural Resources

Summary:

- Pump station upgrade adaptable to extreme storm events.
- Includes bioretention ponds, a green roof, rain gardens and other flora, permeable pavement walkways.
- A real-time informative display visible to the public was included to show information about pumping speeds, water flow, and other data.



Project: Ashland Private Lead Service Line Replacements (Year 1)

Recipient: City of Ashland

Program: Wisconsin Safe Drinking Water Loan Program



Summary

- Project included private lead service line (LSL) replacements in the City. Prioritized replacements in households with children under the age of 6, in high-risk ethnic groups, or below the federal poverty level, as well as schools and daycares.
- The City replaced 109 residential LSL using the Year 1 funding.
- This project is an example of innovative financing. Providing 100% principal forgiveness was necessary to comply with state laws, since no public debt was incurred for costs of work done on private property.

New Mexico – Region 6



Project: Peralta Regional Sanitary Sewer Project

Recipient: Town of Peralta

Program: New Mexico Environment Department

Summary:

- The town of Peralta was using unmaintained septic systems and then partnered with their neighboring town of Bosque Farms to connect to their sewer system.
- Project installed a low-pressure grinder pump and conveyance system. A traditional gravity system with pump stations was not feasible in this shallow aquifer.

Louisiana – Region 6



Project: Waterline Replacement Project (Loan 1)

Recipient: Saint Bernard Parish (SBP) Waterworks

Program: Louisiana Department of Health



Summary

- Project included replacement of aged and deteriorated cast iron waterline segments and addition of fire hydrants, valves, service lines, meters, fittings, and replacement of asphalt pavement.
- This project was in response to three Administrative Orders in 2013-2014 regarding inadequate chlorine residuals and CDC confirmation that SBP's Water System tested positive for the brain-eating amoeba "Naegleria fowleri".
- Project met EPA's 100% Green Project Reserve. The system was losing a large amount of water pumped (43%) due to leaks in the cast iron mains.

Kansas – Region 7



Project: Storm Sewer Restoration and Repair

Recipient: Westwood Hills

Program: Kansas Water Pollution Control Revolving Fund

Summary:

- Project rehabilitated a 1920s storm sewer collection system to reduce erosion around culverts, curb inlets, junction boxes and storm sewer pipes.
- Project repaired broken curb inlets, curb inlet throats, and tops and culverts.

Kansas – Region 7



Project: New Regional PWS System in Brown County

Recipient: Public Wholesale Water Supply District No. 27

Program: Kansas Public Water Supply Loan Fund



Summary

- Project included the creation of a new PWS system. The treatment facility was constructed to allow expansion of the treatment process if nitrate removal becomes necessary.
- Four systems in the area had consistently exceeded the MCL for nitrate for 4 years and worked together to form a Public Wholesale Water Supply District (PWWSD) and find a new water source.
- The PWWSD is actively planning to connect other area public water supply systems that are trying to resolve nitrate MCL violations.

South Dakota – Region 8



Project: Dell Rapids Wastewater Treatment Facility

Recipient: City of Dell Rapids

Program: South Dakota Water and Waste Funding Program

Summary:

- WWTP expansion and upgrade to meet growing capacity needs.
- Upgrade includes a sequencing batch reactor treatment system, new inlet works building, an on-site surge watering tank, and an ultraviolet disinfection system.

South Dakota – Region 8



Project: East Rapid City Water Expansion

Recipient: Rapid City

Program: South Dakota Department of Environment and Natural Resources



Summary

- This project is the largest water regionalization project the City has completed and included a major expansion of the municipal water distribution system to serve those located east of the current city limits.
 - These residents were previously served by individual wells, small private, or public water systems which were inadequate, unreliable, and failed to meet EPA safe drinking water standards.
- There are currently 179 new active service connections (433 people) in the project area that are now being provided a consistent, safe drinking water supply.

Arizona – Region 9



Project: Adonis Sewer Connection to Town of Marana

Recipient: Town of Marana

Program: Arizona Water Infrastructure Finance Authority

Summary:

- The Adonis Mobile Home Park used an outdated lagoon system and the Town of Marana constructed a sewer connection for Adonis to connect them to the Town's system.
- Effluent from Adonis Mobile Home Park is now treated to Class A+ reclaimed water standards and discharged at the Marana Water Reclamation Facility.

California – Region 9



Project: Cool Valley Reservoir Cover/Liner Replacement

Recipient: Valley Center Municipal Water District

Program: California State Water Board



Summary

- Project included designing and installing geomembrane liner with a geotextile underlayment and replacing Hypalon floating cover with a new chlorosulfonated polyethylene (CSPE) floating cover.
- The Reservoir's concrete liner was showing signs of movement, cracking, and leakage; the liner also served as a medium for bacterial growth, increasing chlorine demand and chemical and operational costs.
- The new liner will prevent leakage from the Reservoir and reduce bacteria by creating a barrier between the finished drinking water and the concrete liner. This will reduce chemical and energy use to maintain chlorine residuals.

Idaho – Region 10



Old Hallway Fountain



Old Classroom Bubbler



Old Lavatory Faucet



New Hallway Fountain



New Classroom Bubbler



New Lavatory Faucet

Project: Boise Public School District Lead Remediation

Recipient: Boise Public School District

Program: Idaho Department of Environmental Quality

Summary:

- 20 schools were continuously flushing their water lines to reduce exposure from old lead faucets.
- 1,597 old fixtures were replaced with new water efficient lead-free faucets.
- New fixtures use around 65% less water, saving approximately 1.8M gallons of water a year.

Washington – Region 10



Project: Liberty Lake Sewer and Water District-Eastside Liberty Lake Consolidation

Recipient: LLSWD

Program: Washington Department of Health

Summary

- In 2014, Eastside received a DWSRF loan for water system improvements. In 2016, this project was converted to a consolidation project between LLSWD and Eastside and was then eligible for 50% PF.
- The revised project included transferring ownership of Eastside to LLSWD, abandoning the existing wells serving Eastside that needed major upgrades, utilizing the existing intertie as the main water source to Eastside, and conducting needed improvements to Eastside's distribution system to address leaks.
- Water rates for Eastside customers dropped from \$50.76, which included the surcharge for the DWSRF loan, to \$18.52 upon consolidation.





Thank you to all of our participants this year.

Congratulations!



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