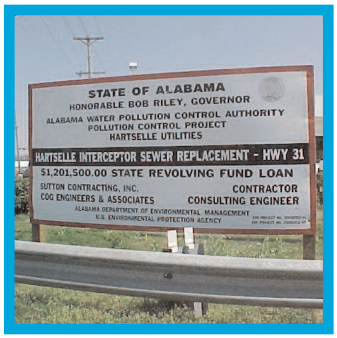
CWSRF Pisces Awards

Performance and Innovation in the SRF Creating Environmental Success



2006 Award Winners

Clean Water
State Revolving Fund

Dear Colleagues:

I want to congratulate each of the winners of the 2nd annual ***P**erformance and **I**nnovation in the **S**RF **C**reating **E**nvironmental **S**uccess* (PISCES) Awards! The PISCES Awards acknowledge and promote program innovations that advance EPA goals of performance and water quality protection.

The Clean Water State Revolving Fund (CWSRF) finances innovative projects that increase the sustainability of wastewater infrastructure across the nation. For the first time, the 2006 PISCES Awards provide recognition of CWSRF borrowers that achieved significant environmental and economic benefits with innovative and effective projects.

Each State SRF program was given the opportunity to nominate one of its CWSRF projects for a PISCES Award. The nominees had to demonstrate leadership and innovation in one of the following criteria:

- financing,
- project implementation,
- partnerships, or
- sustainable infrastructure.

The PISCES Award winners will be announced at the national meeting of the Council for Infrastructure Finance Authorities (CIFA) in Philadelphia, PA in November 2006. EPA regions will present the winning projects with a plaque and certificate at a later date.

I am pleased to share with you the winners of the 2006 PISCES Awards.

Sincerely,

Benjamin H. Grumbles
Assistant Administrator

Clean Water
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Cover Photos:
Top
Dearborn, MI: Construction of the sinking caisson for a new 136-foot inside diameter capture shaft.

Middle
Missoula, MT: Interior photo of the wastewater treatment facility.

Bottom
Hartselle, AL: Project site sign announcing CWSRF funding.

Photo at Right:
City of Bayfield and Pike's Bay Sanitary District, WI: Construction of the joint wastewater treatment facility.

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Region 1

Greenville Estates Village District, NH

Greenville Estates, a mobile home park, entered into an agreement with the Town of Greenville that Greenville Estates be established as a "Village District" making it eligible for SRF funds. The District received two CWSRF bridge loans totaling $1.7 million, which it repaid with Rural Development grants and state grants. The funds were used to replace failing septic systems with a sewer collection system and pumping stations to deliver wastewater to the Town of Greenville.

Region 2

Atlantic County Utilities Authority, NJ

The Atlantic County Utilities Authority used a $2.1 million CWSRF loan and $1.9 million in rebates from the New Jersey Board of Public Utilities to implement a photovoltaic generation system at its wastewater treatment facility. Since it went into operation in October 2005, the system has generated over 390,000 kW hours of electricity, eliminating the need for 388 barrels of crude oil and reduced carbon dioxide emissions by approximately 660,000 pounds. Energy cost savings are projected to be at least $115,000 per year.

Region 3

City of Rockville, MD

A $1.4 million CWSRF loan funded the planning, design, and restoration of the main stem of Watts Branch. The restoration included enhancement of existing wetlands, restoring a stream buffer, stabilizing 4,000 feet of eroding stream bank and upgrading storm drain outfalls. This project helps reduce non-point source pollution in streams and the Chesapeake Bay, and enhances aquatic habitat. This was the first project in Maryland to benefit from a 0% interest rate CWSRF loan – a part of the Governor's effort to encourage more non-point source projects.

City of Lynchburg, VA

The City of Lynchburg developed a three-part plan to address the city's combined sewer overflow (CSO) problems by utilizing complete sewer separation, rainleader disconnection, and interceptor replacement. The project has closed 97 of the 132 originally identified CSO points and has reduced overflow volume in the James River by 78%. The city has borrowed $70,000,000 from the Virginia Clean Water Revolving Loan Fund for the direct costs associated with the CSO program.

AMD Reclamation, Dunkard Township, PA

AMD Reclamation, Inc. received an SRF loan of $4.3 million to help build an acid mine drainage treatment facility and outfall sewer, preventing the discharge of raw mine water into the area's surface waters. The creation of the acid mine drainage pond not only protected surface waters but allowed an existing mine to be reopened creating an economic benefit to the community. This was the nation's first CWSRF loan to address acid mine drainage.

Region 4

Holloway Technology Inc., Leesburg, FL

Holloway, which received a $226,935 CWSRF loan in 2003, has developed a process for large-scale irrigation of plants, which uses approximately 20% less water per plant than conventional irrigation systems. The closed-loop system has not drawn any water from surface, ground, or aquifer sources since 1998, and has no agricultural wastewater runoff. To date, it has conserved over 100 million gallons of water.

Hartselle Utilities, Hartselle, AL

Hartselle initiated an Inflow/Infiltration (I/I) Mitigation Program in 2000 to eliminate surcharging and sanitary sewer overflows (SSO) and restore capacity to the collec-

tion system. The program has resulted in an estimated reduction of I/I flows of over 20%. As of 2005 there have been no SSO attributable to excessive I/I flows. By using a combination of low-interest CWSRF loans and grant funds, the utility was able to eliminate two proposed rate increases.

City of Jumpertown, MS

A combination of a CWSRF loan and four grants were used to construct a collection system, lift station, pumping stations, and treatment facilities in this previously unsewered community. Failing septic systems caused partially treated wastewater to fill the community's ditches and streams, leading to health and environmental problems. Jumpertown's persistence in obtaining the needed funding from a variety of sources enabled this small but growing community to overcome the serious issues that many small communities are facing today.

City of Wilson, NC

Wilson utilized several funding sources including $32.3 million in CWSRF loans to improve the city's solids processing and create a water reclamation system as part of an overall strategy to improve water quality in the Neuse River Basin. The increase in quality of the residual from the solids processing reduced land application costs by 30% and provides $60,000 in natural gas savings for the system. When constructing the 6.0 MGD water reclamation facility, an abandoned polishing pond was reused as a storage pond to conserve funds. Wilson created a fee program that gives an incentive to use reclaimed water thus conserving water resources and increasing nutrient removal.

Region 5

City of Evanston, IL

Evanston has worked to eliminate combined sewer overflow problems by building the capacity needed to access the Metropolitan Water Reclamation District of Greater Chicago's (MWRDGC) North Side Water Reclamation Plant. This $152 million project required 25 CWSRF loans since 1991, and involved an innovative partnership with MWRDGC, saving the city millions of dollars in additional expenses.

City of West Lafayette, IN

West Lafayette used CWSRF financing to establish a Fats, Oils and Grease Program, as well as a Cogeneration Facility at its wastewater treatment plant (WWTP). The WWTP is receiving and treating fats, oils and grease to produce methane gas and an earth-like byproduct. The methane is used to generate electricity, providing environmental as well as economic benefits.

City of Dearborn, MI

The City of Dearborn has utilized nearly $148 million in CWSRF loans to fund a multi-year project to combat combined sewer overflow at seventeen outfalls along the Rouge River and Lower Rouge River. After an attempted tunnel project was hampered by difficult hydrological conditions, the city turned to an innovative treatment shaft design to treat and divert the CSO. This cost-saving decision reduced total project costs by an estimated $150 million over the course of the planning efforts.

City of Bayfield and Pike's Bay Sanitary District, WI

When wastewater treatment facilities in Bayfield and Pike's Bay exceeded their capacity and useful life expectancies, these two small communities built a joint wastewater treatment facility. The new facility utilizes multiple treatment technologies to produce effluent with 70% fewer pollutants than typical treatment plants, thereby protecting the health of nearby Lake Superior. The project employed CWSRF loans totaling $3.6 million along with 10 other funding mechanisms, eliminating the need for increases in user charges.

City of Bayfield and Pike's Bay Sanitary District, WI: View of the joint wastewater treatment facility constructed by the two communities using CWSRF funds.

Region 6

The Nature Conservancy, Little Rock, AR

The Nature Conservancy (TNC) purchased 4,361 acres of bottomland hardwood wetlands to preserve and restore prime wildlife habitat along the Cache and Bayou DeView Rivers. TNC purchased the property when the U.S. Fish and Wildlife Service (USFWS) was unable to make the purchase. After restoring the property, TNC sold the property in pieces, as the USFWS obtained the needed appropriations. The CWSRF loan was repaid within three years.

Town of Henderson, LA

Henderson was an unsewered community with approximately 2,000 residents and a median household income below the state's average. Many of the on-site septic systems were inadequate or failing, making a wastewater treatment and collection system a necessity. The $4.2 million project was funded with a combination of loans and grants from CWSRF, RUS, and CDBG, as well as a hardship grant, allowing the town to lower user fees to $25 per month.

City of Rio Rancho, NM

The City of Rio Rancho used a $10 million CWSRF loan to finance upgrades to its wastewater treatment system. Upgrades included the addition of denitrification facilities, biological nutrient removal and a new lift station and forcemain to the system. One of the fastest-growing cities in the Southwest, it actively promotes sustainability and conservation. Its Water Resources Management Plan seeks ways to allow the population to grow while conserving its limited water resources.

Tulsa Metropolitan Utility Authority, Tulsa, OK

The City of Tulsa has received $250 million in CWSRF loans (as well as significant loan and grant funds from other sources) since 1990 to correct sanitary sewage system illegal discharges and meet wastewater environmental infrastructure needs. Through the construction and rehabilitation projects, the city eliminated excess flows. The City's interest rate savings from utilizing CWSRF funds are estimated to exceed $100 million.

High Island Independent School District, Galveston County, TX

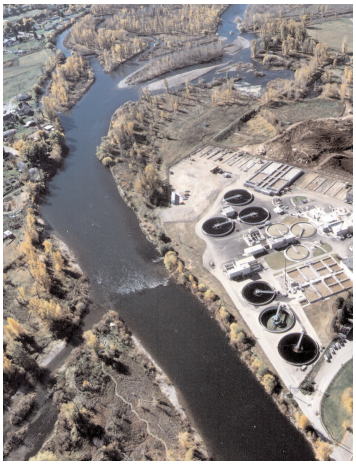
The District replaced inadequate septic systems with a low pressure septic tank pump system and a constructed wetlands treatment system, reducing point and nonpoint source pollution. The project utilized a $250,000 CWSRF loan and Federal and State grants. In addition, the land was donated by the Audubon Society, and has been restored as a wildlife/bird watching area. The CWSRF loan helped the District capitalize on its only revenue source, school property taxes.

Region 8

City of Fort Collins, CO

The City of Fort Collins obtained a $9.9 million loan from the CWSRF to upgrade its storm water system and increase capacity to provide an adequate level of protec-

tion. The major components of the upgrade included reinforced concrete pipes, grated curb inlet systems, and a water quality treatment pond system. The city found that installing a new system using innovative construction methods and materials while maintaining much of the existing storm water system was the most cost effective option to meet their needs.



City of Missoula, MT: Wastewater treatment facility along the Clark Fork River.

City of Missoula, MT

The city utilized over $12 million in CWSRF loan funds to upgrade the capacity of the city's wastewater treatment plant in order to accommodate a growing population. The project also converted the existing activated sludge secondary treatment system to a biological nutrient removal (BNR) process, reducing nitrogen and phosphorus loading in the Clark Fork River by 70 and 80%, respectively. The project was funded though diverse financing mechanisms, including the CWSRF loan, thereby allowing the citizens of Missoula to maintain some of the lowest sewer rates in Montana.

Pickerel Lake Sanitary District, Grenville, SD

Pickerel Lake has approximately 950 seasonal and permanent residents. The homes were served by individual septic systems, which were suspected of causing excessive fecal bacterial levels in the lake. Two CWSRF loans totaling $1.5 million, along with $600,000 in state grants, financed the construction of a small diameter septic tank effluent pump collection system and an artificial wetland treatment system to replace the septic systems. The District also gave residents several payment options to help reduce the amount each resident would pay over the life of the loans.

City of Cheyenne, WY

Cheyenne used CWSRF funds to renovate and upgrade its water reclamation facilities, allowing the reclaimed water to be used for land application and extending the life of the city's water treatment facility. The city used a collaborative decision making process in bringing together contractors, subcontractors, consultants, regulators, SRF and local representatives prior to beginning the project to discuss every aspect of the process and predict potential pitfalls. At $40 million, this is Wyoming's largest CWSRF loan.

Region 9

The Nature Conservancy, San Francisco, CA

The Nature Conservancy used $17 million in CWSRF loans to partially finance the acquisition of three properties that provided significant watershed restoration and preservation. The project will conserve the watersheds by protecting the land from overgrazing, urban encroachment, or vineyard conversion. As one of its achievements, the project protected the Palo Corona Ranch from imminent development that would have increased sedimentation and storm water runoff, and threatened to impair coastal and aquatic resources.

City of Bullhead City, AZ

Bullhead City received a $31 million CWSRF loan to complete the third and final phase of its city-wide sewering project. The city conducted an extensive public relations campaign, including newsletters and open-houses. In addition, residents could arrange for a consultant to visit their property to explain how they would be affected by the project. By moving from septic systems to sewers, the city helps prevent contamination to the Colorado River, also benefiting residents of California and Mexico.

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Department of Public Works and Environmental Management, County of Maui, HI

Maui installed a new force main along a major road in Lahaina and modified two wastewater pump stations in a $3.3 million project utilizing CWSRF funds. The force main was rerouted to avoid potential contamination of the nearby shoreline.

Washoe County, NV

Washoe County and the Cities of Reno and Sparks agreed to purchase water rights to the Truckee River and Pyramid Lake and dedicate the water to instream flows. A CWSRF loan helped finance the purchase of the water rights. This transaction will help improve the water quality in the river and the lake, which had been impacted by the discharge of treated wastewater, nonpoint source pollution, and water diversions. Pyramid Lake is home to endangered and threatened fish species, and is essential to the Paiute Tribe reservation. The cities, county, state, federal governments and the tribe worked closely together to come to this solution.

Region 10

Anchorage Water and Wastewater Utility, Anchorage, AK

AWWU used a combination of Clean Water and Drinking Water SRF loans to construct a new remote supervision facility. This will allow the utility to ensure that unattended and remote treatment facilities are properly operating and problems are corrected before public health hazards arise. Data collected through this new remote system will allow the utility to link water usage to energy consumption and build a more accurate dynamic hydraulic model for the water and wastewater systems. The utility is saving $4.1 million in interest on this 20-year, $9 million loan.

Hood River, OR: Canal pipe crossing the main stem of the Hood River.

Farmer's Irrigation District, Hood River, OR

A multifaceted sustainability plan carried out by the nonprofit Farmer's Irrigation District used CWSRF funds to improve water quality and flow in the Hood River. The project installed continuous flow vortex tubes and silt management structures, and replaced open ditches with pipe, reducing the quantity of chemicals, sewage and sediments entering the river. The District also carried out a low-flow sprinkler head exchange program, installed flow meters and restrictors, and ran an education program to encourage water conservation. The project improved Hood River flow by 5 cfs, increasing hydroelectric generation by 1,113,000 kWh annually.

LOTT Wastewater Alliance, Olympia, WA

The Cities of Lacey, Olympia, and Tumwater came together to form the LOTT Wastewater Alliance, creating a Wastewater Resource Treatment Plan. The plan involves three Reclaimed Water Satellites, the first of which has been constructed in Lacey, WA. The Hawks Prairie Reclaimed Water Satellite includes a reclaimed water plant, wetland ponds, groundwater recharge basins, and conveyance pipelines. The public was involved and kept informed throughout the project through update mailings, workshops, and involving nearby residents in the design of the facility.

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