Advancing Energy Efficiency in Urban Water Supply Systems

### **US Water-Related Infrastructure Needs and Potential Funding Opportunities**

The following tables contain the reported state and national investment needs for water supply and wastewater infrastructure. They also provide information on the major available funding programs found for projects that would address these needs. This information was collected from reports and technical papers developed by the EPA and ASCE. Funding opportunities were compiled based on information available from state, federal, and local government websites and press releases as of the end of 2015. Additional information on available funding specifically available for water and wastewater agencies can also be found at the EPA's Water Infrastructure and Resiliency Finance Center located at www.epa.gov/waterfinancecenter.

Table 1 provides information on investment needs highlighting major infrastracture improvements projects. This information has been broken down further for some categories in Table 2. Detailed breakdown information was not available for most categories. Table 1 is organized alphabetically by category (since this project focuses on water supply systems, information for wastewater systems is shown at the end of the table). The available funding sheet (Table 3) provides information on federal, state, and local government funding available for water and wastewater infrastructure projects as of the end of 2015. This information is representative of the types of funding that may be available for a given project and should be used only as a starting point for researching how to fund a large improvement project. Note that in most cases the grant providers strongly urge working with them prior to completing the application to ensure eligibility.





### **Investment Need**

Category	Subcategory	Need* (billions)	Over How Many Years	Scope Stat Fed		Source
California Drinking Water Source	N/A	\$2.6	total 20 year capital improvement need	All Source for Drinking Water	California	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
California Drinking Water Treatment	N/A	\$8.5	total 20 year capital improvement need	All Treatment for Drinking Water	California	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Florida Drinking Water Treatment	N/A	\$3.6	total 20 year capital improvement need	All Treatment for Drinking Water	Florida	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Illinois Drinking Water Other	N/A	\$0.4	total 20 year capital improvement need	All Other for Drinking Water	Illinois	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Illinois Drinking Water Source	N/A	\$1.6	total 20 year capital improvement need	All Source for Drinking Water	Illinois	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
New York Drinking Water Source	N/A	\$1.8	total 20 year capital improvement need	All Source for Drinking Water	New York	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
New York Drinking Water Treatment	N/A	\$3.8	total 20 year capital improvement need	All Treatment for Drinking Water	New York	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Other (Drinking Water)	N/A	\$4.2	total 20 year capital improvement need	All Other for Drinking Water	National	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Source (Drinking Water)	N/A	\$20.3	total 20 year capital improvement need	All Source for Drinking Water	National	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Storage (Drinking Water)	N/A	\$39.0	total 20 year capital improvement need	All Storage for Drinking Water	National	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)

### **Investment Need**

Category	Subcategory	Need* (billions)	Over How Many Years	Scope	State or Federal	Source
Texas Drinking Water Other	N/A	\$0.4	total 20 year capital improvement need	All Other for Drinking Water	Texas	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Texas Drinking Water Treatment	N/A	\$6.7	total 20 year capital improvement need	All Treatment for Drinking Water	Texas	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Transmission/D istribution (Drinking Water)	N/A	\$247.5	total 20 year capital improvement need	All Transmission and Distribution (Total, Drinking Water)	National	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Treatment (Drinking Water)	N/A	\$67.1	total 20 year capital improvement need	All Treatment for Drinking Water	National	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Water	N/A	\$4.6	annually over 10	Collection, storage, treatment, and	California	ASCE 2012 Report Card
Wastewater	N/A	\$4.5	annually over 10 years	Wastewater collection, treatment, and disposal	California	ASCE 2012 Report Card (California)
Wastewater	Total	\$298.1	capital needs for up to a 20-year period	All wastewater collection, treatment, and disposal	National	EPA Clean Watershed Needs Survey 2008
Wastewater	Wastewater Treatment Systems	\$105.2	capital needs for up to a 20-year period	Includes Secondary and Advanced Wastewater Treatment needs	National	EPA Clean Watershed Needs Survey 2008
Wastewater	New Pipes and Pipe Repair	\$82.6	capital needs for up to a 20-year period	Includes infiltration/inflow correction repairs, new collector and interceptor sewers	National	EPA Clean Watershed Needs Survey 2008
Wastewater	Secondary Wastewater Treatment	\$59.9	capital needs for up to a 20-year period		National	EPA Clean Watershed Needs Survey 2008
Wastewater	Advanced Wastewater Treatment	\$45.3	capital needs for up to a 20-year period		National	EPA Clean Watershed Needs Survey 2008
Wastewater	Infiltration/Inflow Correction	\$8.2	capital needs for up to a 20-year period		National	EPA Clean Watershed Needs Survey 2008
Wastewater	Replacement/ Rehabilitation of Sewers	\$33.7	capital needs for up to a 20-year period		National	EPA Clean Watershed Needs Survey 2008

## **Investment Need**

Category	Subcategory	Need* (billions)	Over How Many Years	Scope	State or Federal	Source
Wastewater	New Collector Sewers	\$21.4	capital needs for up to a 20-year period		National	EPA Clean Watershed Needs Survey 2008
Wastewater	New Interceptor Sewers	\$19.4	capital needs for up to a 20-year period		National	EPA Clean Watershed Needs Survey 2008
Wastewater	Stormwater Management	\$42.3	capital needs for up to a 20-year period	stormwater programs, conveyance and treatment systems	National	EPA Clean Watershed Needs Survey 2008
Wastewater	Combined Sewer Overflow Correction	\$63.6	capital needs for up to a 20-year period		National	EPA Clean Watershed Needs Survey 2008
Wastewater	Recycled Water Distribution	\$4.4	capital needs for up to a 20-year period		National	EPA Clean Watershed Needs Survey 2008
*Estimates may n	ot be mutually exclusive and	thus not addi	tive.			

Investment Breakdown

Category	Need (billions)	State or Federal	Scope	Source
Other (Drinking Water)	\$4.2	National	Needs not included in the previous four categories. Examples of "other" projects are system-wide telemetry, supervisory control and data acquisition (SCADA) systems, and water system security measures that were not assigned to another category.	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Source (Drinking Water)	\$20.5	National	Includes constructing or rehabilitating surface water intake structures, drilled wells, and spring collectors. Needs for dams and raw water reservoirs are excluded from DWSRF funding and this Assessment.	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Storage (Drinking Water)	\$39.5	National	Includes projects to construct, rehabilitate, or cover fi nished water storage tanks, but it excludes dams and raw water reservoirs (unless the raw water basins are onsite and part of the treatment process).	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Transmission and Distribution (Total, Drinking Water)	\$247.5	National	Mainly replacing or refurbishing aging or deteriorating transmission and distribution mains, but also includes new pipe to loop dead end mains to avoid stagnant water, installing water mains in areas where existing homes do not have a safe and adequate water supply, and installing or rehabilitating pumping stations to maintain adequate pressure, replacement of appurtenances, such as valves that are essential for controlling flows and isolating problem areas during repairs, hydrants to flush the distribution system to maintain water quality, backflow-prevention devices to avoid contamination, and meters to record fl ow and water consumption.	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Treatment (Drinking Water)	\$72.5	National	Includes construction, expansion, and rehabilitation of infrastructure to reduce contamination through various treatment processes (e.g., fi Itration, disinfection, corrosion control). A large percentage of the regulatory need is in this category.	EPA Drinking Water Infrastructure Needs Survey and Assessment (2011)
Wastewater	\$4.5	California	Wastewater collection, treatment, and disposal	ASCE 2012 Report Card

	Water	\$4.6	California	Collection, storage, treatment, and delivery	ASCE 2012 Report Card
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Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decision Process/Special Requirments	Source
Advanced Pumping Efficiency Program	Local (PG&E)	APEP is an educational and incentive program intended to improve overall pumping efficiency and encourage energy conservation in PG&E is funding APEP through 2015 using Public Purpose Programs Funds under the auspices of the CPUC. The Center for Irrigation Technology (CIT) at California State University, Fresno administers the program. From 2002 through 2015CIT has operated APEP with funding from the CPUC and provided California water pumpers with: 2,167 pump retrofit / repair rebates Approximately \$12,000,000 in incentive rebates, and 138,800,000 kilowatt-hours and 373,000 therms saved annually for those projects 35,404 subsidized pump efficiency tests (approximately \$5,000,000 in subsidies) 175 educational seminars	All owners or users of a non-residential, PG&E utility account that is primarily used for pumping water for agriculture, landscape or turf irrigation, or municipal purposes, including potable and tertiary-treated (reclaimed) water; excludes pumps used for industrial processes, raw sewage, or secondary- treated sewage	Rebates and subsidized pump testing	\$12 million available	Unknown	Unknown	http://www.pumpefficiency. org/
Clean Water State Revolving Fund (CWSRF)	Federal-State Partnership	CWSRFs fund a wide range of water infrastructure projects. 11 types of projects are eligible to receive CWSRF assistance: Construction of publicly owned treatment works, Nonpoint source, National estuary program projects, Decentralized wastewater treatment systems, Stormwater, Water conservation, efficiency, and reuse, Watershed pilot projects, Energy efficiency, Water reuse, Security measures at publicly owned treatment works, and Technical assistance. States are responsible for the operation of their CWSRF program. Under the CWSRF, states may provide various types of assistance, including loans, refinancing, purchasing, or guaranteeing local debt and purchasing bond insurance. States may also set specific loan terms, including interest rates from zero percent to market rate and repayment periods of up to 30 years. States have the flexibility to target financial resources to their specific community and environmental needs.	Cities, communities, municipalities	Loans, purchase debt or refinance, guarantees and insurance, guarantee SRF Revenue Debt, Loan Guarantees, Subsidizing, and Interest Earnings	\$105.4 billion since 1987	Continuous	Beginning in 2009, Congress authorized the CWSRFs to provide further financial assistance through additional subsidization, such as grants, principal forgiveness, and negative interest rate loans. Through the Green Project Reserve, the CWSRFs target critical green infrastructure, water and energy efficiency improvements, and other environmentally innovative activities. As money is paid back into the state's revolving loan fund, the state makes new loans to other recipients for high priority, water quality activities.	http://www2.epa.gov/cwsrf

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Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decisio R
Clean Water State Revolving Loan Fund	State (Florida)	The Clean Water State Revolving Fund (CWSRF) program provides low-interest loans for planning, designing, and constructing water pollution control facilities. The Department receives requests for funding each year for wastewater and stormwater projects. The information is used to establish project priorities for the following annual cycle. Funds are made available for Planning Loans, Design Loans, Inflow/Infiltration Loans and Construction Loans.	Cities, counties, authorities, and special districts responsible for sewerage services, stormwater management, and estuary protection are eligible for loans.	20-year laons, amortization and low- interest rates	Mostly \$1-5 million, up to \$150 million	Annual	Not stated
Drinking Water State Revolving Fund (DWSRF)	Federal-State Partnership	DWSRF provides funds for states to help PWS systems finance infrastructure improvements, including increasing a utility's resiliency to disasters. In fact, after Hurricane Sandy, Congress provided supplemental funding through the DWSRF to enhance resiliency of impacted water utilities in New Jersey and New York.	Cities, communities, municipalities	Loans, purchase debt/ refinance, guarantees/ insurance, guarantee SRF Revenue Debt, Loan Guarantees, Subsidees, Interest Earnings	\$798,660,000 total in 2014	Continuous	Provided base proportional s needs for the s the newest pro Assessment
Drinking Water State Revolving Fund (DWSRF)	State (WA)	Funds available to drinking water systems to pay for infrastructure improvements. Funded through federal and state money and subject to state laws and additional federal regulations. The program provides: Low-interest preconstruction and construction loans or grants to publicly owned (municipal) and privately owned drinking water systems. These loans or grants cover capital improvements that increase public health and compliance with drinking water regulations. Loan repayments can range from 6 to 20 years. In some cases, partial loan forgiveness is offered.	Operators and managers of water systems	Loans and grants	Not stated	Annual	Smaller system have water que treatment tech frequent wate high operator demonstrate a to sanitary sur indicators of a are favored.

n Process/Special equirments	Source
d on each State's	http://dep.state.fl.us/water/ wff/cwsrf/index.htm http://water.epa.gov/grants
hare of the total eligible States as derived from evious Needs	<u>funding/dwsrf/index.cfm</u>
ns and systems that hality, monitoring, or nnique violations, suffer r outages, experience turnover rates, or in insufficient response vey deficiencies are all lack of system capacity	http://www.doh.wa.gov/Co mmunityandEnvironment/Dri nkingWater/WaterSystemAss istance/DrinkingWaterStateR evolvingFundDWSRF

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Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decision Process/Special Requirments	Source
Drinking Water State Revolving Fund (DWSRF)	State (Illionois)	Beginning in FY 2013, the CWI will provide significant new resources for SRF loan projects to leverage the amount of funding available for water infrastructure, and will allow the IEPA to supplement resources available for SRF loan projects based on project demand and readiness to proceed in the SRF programs. IEPA's SRF programs will offer significant resources at affordable interest rates. CWI will provide a significant boost in funding for the programs over the next several years, providing substantial new resources to meet our growing infrastructure needs. The SRF programs are true revolving loan programs and have traditionally been supported by a combination of federal grant funds, state matching funds, loan program repayments and investment income.	Drinking Water Systems	SRF program loans provide a 20 year repayment term. IEPA will finance all principal in FY 2013 for loans between 10/1/2012 and 10/30/2013 at a 1.930% simple annual interest rate.	Unknown	Annual	Requirements: approved Project or Facilities Plan, complete financial package, approved design and bid packages, and a variety of executed legal documents, including construction permits, necessary for project implementation. Staff review is governed by a priority system that is based primarily on compliance issues, water quality issues, economic considerations and the date of project submission.	http://www.epa.state.il.us/w ater/financial- assistance/state-revolving- fund
Drinking Water State Revolving Fund (DWSRF)	State (North Carolina)	NC makes loans at 1/2 of the market rate for a period of up to 20 years. An administrative funding fee of 2% is charged and made payable upon award of funding. All funded projects must address a threat to public health. Loans are subject to additional federal regulations regarding environmental review, outreach for disadvantaged business enterprises, payroll, etc. Eligible projects include: Treatment, Transmission and distribution, Source, Storage, or Consolidation. Ineligible projects include: Dams or rehabilitation of dams, Water rights not acquired through system consolidation, Reservoirs that either do not store finished water or are not part of the treatment process, Projects needed mainly for fire protection, primarily intended to serve future growth, or receiving DWSRF funds from the national set-aside for Indian Tribes. Applicants must document both the existence of the problem and the costs of alternatives to address it.	Under 15A NCAC 01N .0301(c) applications are ineligible if filed after the award of a construction contract on the project, unless: The applicant is subject to an administrative order or deadline issued by the Division or The project qualifies as an emergency situation.	Loans at 1/2 of the market rate for a period of up to 20 years. An administrative funding fee of 2.00% is charged and made payable upon award of funding.	Not stated	Annual	The Division prioritizes projects first by category and then by the number of priority points awarded as defined in OA S.1.b.(i).	http://portal.ncdenr.org/web /wi/drinkingwater/srf

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Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decision Process/Special Requirments	Source
Drinking Water State Revolving Loan Fund (DWSRLF)	State (Vermont)	The DWSRLF program provides low cost loan financing to municipal and privately owned public water systems for capital improvements that improve public health protection and facilitate compliance with the Safe Drinking Water Act. The DWSRF has three separate funding opportunities. The Construction Loan Program provides funding for a variety of water system improvements, for public community water system and non-profit non-community water system. The DWSRF develops an Intended Use Plan IUP which outlines how the program intends to spend the money, both to support special water system projects and staffing, and infrastructure improvement projects. An important expenditure proposed in the IUP is money for the Planning Loan Program to public water systems seeking to conduct preliminary and final design engineering.	Public and private owners of water systems	Loans	Maximum of \$3 million per cycle, total maximum of \$6 million per project	Annual	A Priority list is developed on an annual basis, contained within the Intended Use Plan; an annual application is required. The list prioritizes water system infrastructure improvement projects for funding based on specific criteria. For a description of the priority ranking system please refer to section 5 of the Intended Use Plan. For the most current priority list, refer to section 9 of the most recent IUP.	http://drinkingwater.vt.gov/f undingdwsrf.htm
Drinking Water State Revolving Loan Fund (DWSRLF)	State (Florida)	Pre-construction loans are available for rate-based public water systems having a public health risk priority component. A project sponsor must qualify as a small community. Pre-construction loans for the planning, engineering, and administrative allowances provide rate- based community water systems funds to complete the planning and engineering work necessary to proceed with project construction. Construction grants are available to project sponsors that qualify as financially disadvantaged communities. Grants shall be awarded only for projects to which a public health risk component is assigned. Projects must meet the user charge financial burden, benefit limitation, and priority criteria as defined in the drinking water rule.	Cities, counties, authorities, special districts and other privately owned, investor-owned, or cooperatively held public water systems that are legally responsible for public water services are eligible for loans.	20-year (30- year for financially disadvantaged communities) amortization and low- interest rates. Funds made available for Pre-const Loans to rate- based public water systems.	Const. Loans of at least \$75,000. 15% of funds are reserved exclusively for small communities. Pre-construction loans are limited by a max project cost of \$2 million.	Annual	Florida's participation rate goals are 9% minority owned businesses, and 3% women owned businesses. Contractors wishing to use minority or women owned companies should encourage them to complete a certification application. Grant funding is limited to 65% or 85% of the estimated post-allowance costs for the public health component. Construction grants are limited to 25% of available funds or \$750,000 in any single year, whichever is less.	<u>http://dep.state.fl.us/water/</u> <u>wff/dwsrf/index.htm</u>

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Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decision Process/Special Requirments	Source
Economically Distressed Areas Program (EDAP)	State (Texas Water Development Board)	The Economically Distressed Areas Program (EDAP) provides financial assistance to provide water and wastewater services to economically distressed areas where services do not exist or systems do not meet minimum state standards. The EDAP provides planning, acquisition, design (PAD) and construction phase funding for projects that have been determined eligible for the program. Funding is available in a two (or more) phase application process. PAD phase activities must be completed, and approved by Board staff, prior to consideration of an application for construction phase funding.	Cities, counties, water districts, non-profits, water supply corporations, and all other political subdivisions	Loans, grants, or a combination	TWDB will work with applicants	Continuous, schedule pre- application process before applying	Projects must be located in economically distressed areas and meet characteristics as defined. The city/county where the project is located must adopt model Subdivision Rules for regulating subdivisions prior to applying for financial assistance. These rules must be consistent with the model rules adopted by the TWDB.	<u>http://www.twdb.texas.gov/</u> <u>financial/programs/EDAP/</u>
Emergency Community Water Assistance Grants	Federal (USDA)	USDA can provide funds at two different levels: 1) to assist a rural community that has experienced a significant decline in quantity or quality of drinking water due to an emergency, or in which such decline is considered imminent, for the construction of a water source up to and including the treatment plant, and 2) to make emergency repairs and replacement of facilities on existing systems such as distribution waterline extensions and repairs on distribution waterlines.	Rural communities with water quality or supply emergencies	Grants	Maximum of \$500,000 when water quanitity or quality is in significant decline, \$150,000 to make emergency repairs and replacment of facilities on existing systems.	Continuous	Applicants must demonstrate that a significant decline in quantity or quality of water occurred within 2 years of the date the application was filed with USDA Rural Development State or District offices. Congress may appropriate funds for the program after a flood, earthquake, or other disaster if Federal assistance is warranted.	http://water.epa.gov/infrastr ucture/watersecurity/fundin g/fedfunds/ecwag.cfm

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# AVAILABLE FUNDING

Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decision Process/Special Requirments	Source
Green Bonds	State or local	A tax-exempt capital raising mechanism for investments in new and existing projects with significant environmental benefits. A new segment of the bond market, green bonds are issued by federally qualified organizations or municipalities	Entities implementing "Environmentally Friendly Projects"	Varies	Unknown; Institutionalinve stor.com reports that there were \$35.8 billion worth of green bonds outstanding as of September 2014	Unknown	Varies, but voluntary guidelines exist to encourage accountability and transparency (see link). Examples include projects related to clean water, renewable energy, energy efficiency, river/habitat restoration, acquisition of land, or mitigation of "climate change."	http://www.ceres.org/resour ces/reports/green-bond- principles-2014-voluntary- process-guidelines-for- issuing-green-bonds
Pennsylvania Infrastructure Investment Authority (PennVEST)	State (PA)	Low-interest loans for design, engineering and construction of publicly and privately owned drinking water distribution and treatment facilities, storm water conveyance and wastewater treatment and collection systems. Design, engineering and construction costs associated with publicly and privately owned drinking water distribution and treatment facilities, storm water conveyance and wastewater collection, conveyance, treatment facilities and Brownfield site remediation. 1% to 5% interest rate, depending upon the county/area to be served by the project and the resulting residential user rate; Length of repayment is usually 20 years; Disbursement made monthly based upon submitted invoicing and reimbursable expenses	Any owner or operator (public or private) of an existing or proposed drinking water or wastewater system; Any municipal owner of a storm water conveyance system	Grants, loans, loan garuntees, and tax incentives	Funding packages vary up to 100% of the eligible project costs	Annual	Offer a wide range of funding packages. Pre-application conferences are required to discuss options and eligibility.	http://community.newpa.co m/programs/pennsylvania- infrastructure-investment- authority-pennvest/

### February 29, 2016

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Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decision Process/Special Requirments	Source
Proposition 50	State (CA)	Proposition 50 passed in 2002 providing more than \$3 billion in funding for a variety of water projects in California including urban and agricultural water use efficiency projects; grants and loans to reduce Colorado River water use; purchasing, protecting and restoring coastal wetlands near urban areas; competitive grants for water management and quality improvement projects; improved security for state, local and regional water systems; and grants for desalination and drinking water disinfection. Here we focus on the drinking water funding portion.	Public water system operators, public entities	One-to-one s match funding is required	Up to \$5 million	Annual until depleted	Designated funds held for disadvantaged communities (no match required)	http://www.waterboards.ca. gov/drinking_water/services /funding/Prop50.shtml
Title 16 Water Reclamation and Reuse	Federal, USBR	Under Title XVI of Public Law 102-575, Reclamation works to identify and investigate opportunities to reclaim and reuse wastewater and naturally impaired ground and surface water in the 17 Western States and Hawaii. Title XVI also provides authority for Reclamation to provide up to the lesser of 25 percent of, or the Federal appropriations ceiling (typically \$20 million), for the cost of planning, designing, and constructing specific water recycling projects. The objective of this FOA is to invite sponsors of congressionally authorized Title XVI Projects to request cost-shared funding for the planning, design, and/or construction of those authorized projects.	Sponsors of water reclamation and reuse projects specifically authorized for funding under Title XVI of Public Law 102-575, as amended (43 United States Code [U.S.C.] 390h through 390h-39)	Cooperative Agreement Grant, cost shared funding	\$4-20 million per project, about 10 projects	Annual	7 criterion, water supply, status of title 16 project, environmental and water quality, renewable energy and energy efficiency, cost per acre foot, benefit to rural and disadvantaged communities, and watershed perspective	http://www.grants.gov/web/ grants/view- opportunity.html?oppId=279 685

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Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decision Process/Special Requirments	Source
Water Energy Efficiency Program	State (II)	For 2015, the program expanded to include publicly owned and operated facilities that treat and distribute potable water. The Program will focus exclusively on energy efficiency improvements. A typical profile of total electricity use in wastewater plants is 67% for aeration, 21% for pumping, 9% for other loads and 3% for lighting. Applicants must target aeration and pumping systems. Energy saving measures include but are not limited to: aeration systems, turbo blowers, dissolved oxygen sensors, sludge dewatering, and VFD for pumps and motors. Renewable energy systems are eligible for support. Measures not eligible for funding: building automation controls, voltage regulators, motors, innovative HVAC, lighting, and on-site electricity generating turbines	Publicly owned and operated potable water pumping/distribution and wastewater treatment facilities; either by local government or public agency established by legislative action. Eligible facilities must be designed and scheduled to operate on a 24/7/365 basis.	Grants	Funding available up to \$500,000. Applicants subject to \$500,000 funding cap for energy efficiency improvements only.	Biannual (Jan and July)	Applications will follow the two stage process used in the competitive grant cycles starting with a Letter of Inquiry and a Full Proposal if invited.	http://www.illinoiscleanener gy.org/water-energy- efficiency-program/
Water Management Plans	Various (see links)	Various grant programs for the funding of different types of water management programs. Eligible entities can receive funding to develop water conservation and drought plans, implement water conservation goals outlined in a water conservation plan and educate the public about water conservation. See individual links for more information.	Various	grants and loans	various	various	various	http://cwcb.state.co.us/Loan sGrants/Pages/LoansGrantsH ome.aspx
Water Quality Improvement Project Program	State (New York)	Through the Regional Economic Development Council (REDC) initiative, DEC has made up to \$35 million available to support water quality improvements through Round 12 of the Water Quality Improvement Project (WQIP) Grant Program. Funding is available for municipalities, soil and water conservation districts and non-profit organizations. Grants awarded through the WQIP program can fund. Eligible Project Types: Nonagricultural Nonpoint Source Abatement and Control (NPS) Municipal Wastewater Treatment (WWT) Aquatic Habitat Restoration (AHR) Municipal Separate Storm Sewer Systems (MS4)	Municipalities Municipal Corporations Soil and Water Conservation Districts Not for Profit Corporations	Up to 85% of the total project cost for Wastewater Treatment Improvement projects or up to 75% for others	Previous round (Round 12) had \$35 million available total	annual	The WQIP program is a competitive, reimbursement grant programAll municipalities and soil and water conservation districts must register in the NYS Grants Management System (leaving DEC website) to be eligible for this grant. Must register and prequalify in the NYS Grants Management System (leaving DEC website) to be eligible for this grant.	http://www.dec.ny.gov/pubs /4774.html

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Name of Program	Fed, State, or Local	Description	Target Groups for Funding	Structure of Funding	Typical Amount Funded	Frequency	Decision Process/Special Requirments	Source
WaterSMART Advanced Water Treatment Grants	Federal, DOI	Technical developments in the field of water treatment have increased the use of impaired waters that previously weren't viable. Advanced Water Treatment Pilot and Demonstration Grants aim to encourage pilot and demonstration projects that address technical, economic and environmental viability of treating and using brackish groundwater, seawater, impaired waters or otherwise create new water supplies within a specific locale. The grants are made available through cost-shared funding on a competitive basis.	States, Indian tribes, irrigation districts, water districts, or other organizations with water or power delivery authority located in the western United States or United States Territories as identified in the Reclamation Act of June 17, 1902, as amended.	Cost sharing	About \$2 million	Annual	The grants should aim to encourage pilot and demonstration projects that address technical, economic and environmental viability of treating and using brackish groundwater, seawater, impaired waters or otherwise create new water supplies within a specific locale.	<u>http://www.usbr.gov/waters</u> <u>mart/awtg/</u>
WaterSMART Water and Energy Efficiency Grants	Federal, DOI	WaterSMART provides grants for projects to conserve and use water more efficiently, increase the use of renewable energy, improve energy efficiency, benefit endangered and threatened species, facilitate water markets, or carry out other activities to address climate-related impacts on water or prevent any water-related crisis or conflict. The focus is on projects that can be completed within 24 months that will help sustainable water supplies in the western US. Projects can include installing SCADA components that allow for remote monitoring of irrigation delivery system conditions (flow rates, water elevations, controls devices openings, etc.) Installing automation components that allow for remote operation of delivery system control features (gates, valves, turnouts, etc.)	States, Indian tribes, irrigation districts, water districts, or other organizations with water or power delivery authority located in the western United States or United States Territories as identified in the Reclamation Act of June 17, 1902, as amended	50% cost share or more	\$20 million available in 2016	Annual	Projects are selected through a competitive process.	http://www.usbr.gov/waters mart/grants.html