# Overview of Clean Water State Revolving Fund Eligibilities

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# Overview of Clean Water State Revolving Fund Eligibilities

## Introduction

The Clean Water State Revolving Fund (CWSRF) program can fund a wide variety of water quality protection efforts. The program's flexibility and broad range of project eligibilities enable states to target CWSRF funds to their specific water quality priorities. State innovation and statutory changes have resulted in an evolution of project eligibilities since the program was authorized in 1987 (Figure 1). This paper provides a current overview of CWSRF project eligibilities.

The program was established in 1987 with three statutory eligibilities: the construction of publicly owned treatment works (POTWs), the implementation of a state nonpoint source (NPS) management program, and the development and implementation of a National Estuary Program (NEP) Comprehensive Conservation and Management Plan (CCMP). In 1996, EPA published *The Clean Water State Revolving Fund Funding Framework* (Funding Framework), which articulated a process for identifying and prioritizing nontraditional projects in an effort to move toward a watershed approach. Building on the solid foundation laid by the Funding Framework, EPA completed the final draft of *The Clean Water State Revolving Fund Program: Tapping Its Untapped Potential* (White Paper) in October 2007. The White Paper is a compilation of the many nontraditional CWSRF eligibilities under the original statutory authority. In 2009, the American Recovery and Reinvestment Act (ARRA) created the Green Project Reserve, which increased the focus on green infrastructure, water and energy efficiency, and environmentally innovative projects. Most recently, the CWSRF was amended by the Water Resources Reform and Development Act (WRRDA) of 2014, which further expanded the program's eligibilities.

The 51 state programs have the flexibility to direct funding to their particular environmental needs. In addition, each state program may have its own statutes, rules, and regulations that guide project eligibilities. This paper represents a set of examples of what may be eligible at the national level. Within these parameters, each state program will determine what projects and borrowers are eligible to receive assistance.

Figure 1: CWSRF eligibilities timeline

## How to Use This Paper

- The paper is organized into project categories. Use the table of contents to quickly navigate to the category of interest. Some activities are relevant to more than one project category; however, each activity is only discussed once to avoid repetition. In these situations, there are references to the other relevant sections of the paper.

> **Water Conservation**
> Eligible water conservation projects are those that reduce the demand for POTW capacity through reduced water consumption (i.e., water efficiency). Water reuse and precipitation harvesting are also eligible. Water audits and water conservation plans that are reasonably expected to result in a capital project are also eligible (see *Planning/Assessments and Monitoring*).

- Examples of eligible projects for a given project category are organized into call out boxes.

| Water Efficiency | Water Reuse and Precipitation Harvesting |
|---|---|
| • Water meters<br>• Plumbing fixture retrofits or replacement<br>• Water efficient appliances<br>• Water efficient irrigation equipment (e.g., moisture and rain sensing equipment)<br>• Education programs<br>• Incentive programs (e.g., rebates for installing rain barrels or permeable surfaces) | • Collection and treatment systems (e.g., wastewater, stormwater, and subsurface drainage water collection and treatment)<br>• Distribution lines to support water reuse and the use of harvested precipitation<br>• Transmission lines, injection wells, and green infrastructure infiltration systems for groundwater recharge<br>• Equipment to reuse reclaimed water<br>• Direct potable reuse |

- The nuances of when projects are eligible based on ownership, regulatory status, and type of borrower are provided in the bulleted list. Information within each project category is organized by eligibility. Because there is overlap between many of the eligibilities, projects are only listed as eligible under the most specific authority to avoid repetition.

> Assistance may be provided:
> - to any municipality or intermunicipal, interstate, or State agency for publicly owned water conservation projects. *Section 603(c)(1)*
> - to any borrower for water conservation projects that implement a Section 319 NPS management program. *Section 603(c)(2)*
> - to any borrower for water conservation projects that implement a Section 320 CCMP. *Section 603(c)(3)*
> - to any borrower for water conservation projects that recapture stormwater or subsurface drainage water. *Section 603(c)(5)*
> - to any municipality or intermunicipal, interstate, or State agency for water conservation projects that reduce the demand for POTW capacity. *Section 603(c)(6)*
> - to any municipality or municipal entity for stormwater BMPs in municipal separate storm sewers (MS4s) for the purpose of demonstrating and determining controls that are cost-effective and use innovative technologies. *Section 603(c)(7)*
> - to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*
> - to any borrower for projects to reuse or recycle wastewater, stormwater, or subsurface drainage water. This includes recycling of nutrient and organic content (e.g., privately owned CHP). *Section 603(c)(9)*
> - to any qualified nonprofit entity to assist owners and operators of small and medium POTWs with water conservation projects. This includes construction activities as well as activities necessary to plan, develop, and obtain financing for CWSRF-eligible projects. *Section 603(c)(11)*

## CWSRF Program Eligibilities

To be eligible for CWSRF assistance, a project must meet the criteria of one of the eleven CWSRF eligibilities. Section 603(c) of the Clean Water Act (CWA) states that the CWSRF can provide assistance:

*(1) to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works (as defined in section 212);*
*(2) for the implementation of a management program established under section 319;*
*(3) for the development and implementation of a conservation and management plan under section 320;*
*(4) for the construction, repair, or replacement of decentralized wastewater treatment systems that treat municipal wastewater or domestic sewage;*
*(5) for measures to manage, reduce, treat, or recapture stormwater or subsurface drainage water[1];*
*(6) to any municipality, intermunicipal, interstate, or State agency for measures to reduce the demand for publicly owned treatment works capacity through water conservation, efficiency, or reuse;*
*(7) for the development and implementation of watershed projects meeting the criteria set forth in section 122;*
*(8) to any municipality, intermunicipal, interstate, or State agency for measures to reduce the energy consumption needs for publicly owned treatment works;*
*(9) for reusing or recycling wastewater, stormwater, or subsurface drainage water;*
*(10) for measures to increase the security of publicly owned treatment works*
*(11) to any qualified nonprofit entity, as determined by the Administrator, to provide assistance to owners and operators of small and medium sized publicly owned treatment works*
*(A) to plan, develop, and obtain financing for eligible projects under this subsection, including planning, design, and associated preconstruction activities; and*
*(B) to assist such treatment works in achieving compliance with this Act.*

The majority of the eleven eligibilities refer to measures that attain an objective; however four eligibilities reference other sections of the CWA (e.g., Section 212, Section 319, Section 320, and Section 122). Those four eligibilities have additional criteria that must be considered when determining if a project may receive CWSRF assistance. Criteria for those four eligibilities are summarized below.

[1] Subsurface drainage is an underground collection system (e.g., sewer, tile drain, etc.) used to manage overland flow of water (e.g., stormwater, irrigation water, etc.). Depending on the type of collection system, subsurface drainage may be a point source or nonpoint source of pollution.

**Section 603(c)(1) Eligibility: Section 212**
POTWs, as defined in Section 212 of the CWA, are eligible for CWSRF assistance. The eligibility criteria for Section 603(c)(1) projects are:

- Projects must be consistent with the definition of "treatment works" as set forth in Section 212.
- Projects must be publicly owned, as required by CWA Section 603(c)(1).
- Only capital projects (e.g., construction activities, equipment purchase) are eligible. The CWSRF cannot fund ongoing operation and maintenance activities; however, planning and design for capital projects, as well as broader water quality planning where there is a reasonable expectation that the planning will result in a capital project, are eligible.

**Section 603(c)(2) Eligibility: Section 319**
Publicly or privately owned projects that implement NPS management programs established under Section 319 of the CWA are eligible. The eligibility criteria for Section 319 projects are:

- Projects must support the implementation of a current EPA approved state NPS management program plan or nine-element watershed based plan.
- Projects can be publicly or privately owned.
- Section 603(c)(2) funding is for the control of NPS pollution; only projects that do not directly implement a final National Pollutant Discharge Elimination System (NPDES) permit are eligible.

EPA encourages CWSRFs to work with their state NPS programs to ensure that projects funded under the Section 319 authority are consistent with the current approved state NPS management program plan.

**Section 603(c)(3) Eligibility: Section 320**
The development and implementation of an estuary CCMP under Section 320 of the CWA is eligible. CCMPs are long-range plans developed by each NEP Management Conference; they contain actions to address water quality, living resources, and habitat challenges in the estuary and the surrounding area called the "study area." The study area includes the estuary and the land area adjacent to the estuary that is affected by the estuary and/or has a significant effect on the estuary, such as salt marshes, coastal and intertidal areas, bays, harbors, lagoons, inshore waters, and channels. Some NEPs also work in the upland areas of the larger surrounding watershed. Activities located outside the study area, but within the "estuarine zone" or watershed as defined in CWA Section 104(n)(4) and Section 320(k), may have an impact on the water quality of the estuary and may implement the CCMP. The CWSRF can fund projects located within an NEP watershed (Figure 2) so long as the project implements a CCMP. The eligibility criteria for Section 603(c)(3) projects are:

- Projects must develop, amend, or implement a Section 320 CCMP.
- Projects can be publicly or privately owned.

EPA encourages CWSRFs to work with the appropriate NEP to ensure that projects funded under the Section 603(c)(3) eligibility are consistent with the CCMP.

Figure 2: Map of the National Estuary Program watersheds

**Section 603(c)(7) Eligibility: Section 122**
Projects that develop or implement watershed pilot projects related to at least one of the six areas identified in Section 122 are eligible:

Watershed Management of Wet Weather Discharges
Watershed management of wet weather discharges includes the management of municipal combined sewer overflows (CSOs), sanitary sewer overflows, and stormwater discharges.

Stormwater Best Management Practices (BMPs)
Stormwater BMPs include activities that manage, reduce, treat, recapture, or reuse municipal stormwater.

Watershed Partnerships
Watershed partnerships include efforts to demonstrate cooperative ways to address nonpoint sources of pollution to reduce adverse impacts on water quality.

Integrated Water Resource Planning
An integrated water resource plan facilitates the coordinated management and protection of surface water, ground water, and stormwater resources on a watershed or subwatershed basis to meet the objectives, goals, and policies of the CWA.

Municipality-Wide Stormwater Management Planning
A municipality-wide stormwater management plan identifies the most effective placement of stormwater technologies and management approaches to reduce water quality impairments from stormwater on a municipality-wide basis.

Increased Resilience of Treatment Works
Eligible projects are those that increase the resilience of treatment works to manmade or natural disasters, such as extreme weather events and sea-level rise. This includes efforts to assess future risks and vulnerabilities.

The eligibility criteria for Section 603(c)(7) projects are:

- Projects must meet the criteria set forth in CWA Section 122.
- Assistance may only be provided to a municipality or municipal entity.
- Projects can be publicly or privately owned.

## Project Categories

The eleven eligibilities allow CWSRFs to fund a variety of project types. Eligible projects exist under all of the following categories. This list is not meant to be exclusive; it is possible that there are other eligible projects that are not mentioned in this paper.

- Centralized Wastewater Treatment
- Energy Conservation
- Water Conservation
- Stormwater
- Agricultural Best Management Practices
- Decentralized Wastewater Treatment
- Resource Extraction
- Contaminated Sites
- Landfills
- Habitat Protection and Restoration
- Silviculture
- Desalination
- Groundwater Protection and Restoration
- Surface Water Protection and Restoration
- Planning/Assessment

In addition to what is included under each project category, the acquisition of land[2] is eligible as part of an otherwise eligible project, such as where it is necessary to locate eligible projects or to store equipment and materials during construction. Land integral to a treatment process is also eligible. Any other situation where land acquisition is eligible will be specifically mentioned under the appropriate project category.

[2] This includes surface and subsurface easements, leasing, and fee simple purchase.

## Centralized Wastewater Treatment

Eligible centralized wastewater treatment projects include: primary and secondary treatment, advanced treatment, sewer system, CSO correction, climate resilience[3], and security. Eligibilities related to energy and water conservation (e.g., cogeneration systems) are addressed in other sections of the paper (see *Energy Conservation* and *Water Conservation*).

| Primary/Secondary | Advanced | Sewer System | CSO Correction |
|---|---|---|---|
| • Upgrade, repair, replacement, or installation/construction of new:<br>o Headworks<br>o Screening systems<br>o Grit chambers<br>o Clarifiers<br>o Biological treatment systems<br>o Biosolids dewatering and residuals handling equipment<br>• Pro rata share of capital costs of off-site co-digestion facilities that receive residuals from a treatment works | • Upgrade, repair, replacement, or installation/ construction of new:<br>o Nutrient removal processes<br>o Filtration systems<br>o Disinfection processes | • Upgrade, repair, replacement, or installation/ construction of new:<br>o Pipes<br>o Pump stations<br>o Force mains | • Installation of separate sanitary and storm sewers<br>• Downspout disconnection |

| Climate Resilience for Treatment Works | Security |
|---|---|
| • Sea walls<br>• Levies/dykes/berms<br>• Relocation/elevation of certain assets or entire facility above current/projected flood stage<br>• Installation of flood attenuation, diversion, or retention infrastructure within or beyond the footprint of a treatment works that protects the treatment works including floodwater channels/culverts, green infrastructure, and natural systems capable of mitigating a storm surge (e.g., barrier beach and dune systems, tidal wetlands, and living shorelines)<br>• Installation of wind resistant features<br>• Saltwater resistant equipment/components<br>• Backup generators and fuel transport and storage tanks<br>• Portable pumps<br>• Floodwater pumping systems<br>• Physical hardening of electrical systems/equipment<br>• Dry floodproofing of structures<br>• Elevated walls/caps for treatment tanks<br>• Installation of redundant equipment/components<br>• Overflow tanks/tunnels<br>• Regionalization/Interconnections | • Fencing<br>• Security cameras<br>• Security lighting<br>• Motion detectors |

[3] Projects throughout the paper may be considered climate resilience projects (e.g., green infrastructure, water conservation, etc.). The projects listed in this section are specific to treatment works.

Assistance may be provided:

- to any municipality or intermunicipal, interstate, or State agency for publicly owned centralized wastewater treatment projects. *Section 603(c)(1)*
- to any borrower for centralized wastewater treatment projects that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for management of municipal wet weather discharges on an integrated watershed or subwatershed basis for the purpose of demonstrating the effectiveness of a unified wet weather approach. *Section 603(c)(7)*
- to any municipality or municipal entity for projects that increase resilience of POTWs. *Section 603(c)(7)*
- to any municipality or intermunicipal, interstate, or State agency for projects that reduce the energy consumption needs of a POTW including projects to correct inflow and infiltration (I/I) of collection systems that result in reduced flow to the POTW[4] (e.g., privately-owned laterals). *Section 603(c)(8)*
- to any borrower for measures to increase the security of POTWs. *Section 603(c)(10)*
- to any qualified nonprofit entity to assist owners and operators of small and medium POTWs with centralized wastewater treatment projects. This includes construction activities as well as activities necessary to plan, develop, and obtain financing for CWSRF-eligible projects. *Section 603(c)(11)*

[4] There is no minimum reduction in energy consumption that must be achieved for the project to be eligible. Projects must achieve a 20% reduction in energy consumption to be categorically eligible for the Green Project Reserve.

**Energy Conservation**

Eligible energy conservation projects are those that reduce the amount of thermoelectric energy used, either through reduced energy consumption or use of renewable energy sources. Both of these activities, in turn, lead to reduced atmospheric deposition (see *Surface Water*). Projects that reduce the volume of water being pumped and treated (e.g., I/I correction and water conservation activities) also result in reduced energy usage, but are not addressed here (for I/I correction see *Centralized Wastewater Treatment* and for water conservation activities see *Water Conservation*). Planning activities, such as energy audits and optimization studies that have a reasonable prospect of resulting in a capital project are also eligible (see *Planning/Assessment)*.

| Energy Efficiency | On-site Renewable Energy | Off-site Renewable Energy |
|---|---|---|
| • Energy efficient equipment and components, including:<br>o Lighting<br>o HVAC<br>o Process equipment<br>o Electronic systems | • Wind and solar<br>• Methane capture and energy conversion equipment<br>• Biosolids drying/dewatering and energy conversion equipment<br>• Co-digestion<br>• Combined heat and power (CHP) systems<br>• Hydroelectric systems that harness wastewater flows to, from, or within a treatment works | • Pro rata share of capital costs of offsite clean energy facilities that provide power to a treatment works, including:<br>o Wind and solar<br>o Methane capture and energy conversion equipment<br>o Waste to energy systems<br>o Micro hydroelectric power generation |

Assistance may be provided:

- to any municipality or intermunicipal, interstate, or State agency for energy conservation projects for POTWs[5]. *Section 603(c)(1)*
- to any borrower for energy conservation projects for treatment works that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or intermunicipal, interstate, or State agency for the pro rata share of capital costs of energy conservation projects that provide power to a POTW (e.g., landfill gas conversion and waste to energy projects). *Section 603(c)(8)*
- to any borrower for energy conservation projects at water reuse facilities. *Section 603(c)(9)*
- to any borrower for projects to reuse the energy content of wastewater (e.g., privately owned CHP systems) or generate energy from water reuse

**Energy Conservation through Water Efficiency**

Projects that reduce the volume of water being pumped and treated may result in reduced energy usage. Examples of these types of projects include:

- Inflow and infiltration correction
- Downspout disconnection
- Water conservation activities
- Water meters
- Plumbing fixture retrofits or replacement
- Water efficient appliances

[5] Renewable energy projects at POTWs are eligible regardless of whether the power is used by the POTW or sold back to the grid.

activities (e.g., micro hydro turbines). *Section 603(c)(9)*

- to any borrower for energy efficient security systems at POTWs. *Section 603(c)(10)*
- to any qualified nonprofit entity to assist owners and operators of small and medium POTWs with energy conservation projects. This includes construction activities as well as activities necessary to plan, develop, and obtain financing for CWSRF-eligible projects. *Section 603(c)(11)*

**Water Conservation**

Eligible water conservation projects are those that reduce the demand for POTW capacity through reduced water consumption (i.e., water efficiency). Water reuse and precipitation harvesting are also eligible. Water audits and water conservation plans that are reasonably expected to result in a capital project are also eligible (see *Planning/Assessments*).

| Water Efficiency | Water Reuse and Precipitation Harvesting |
|---|---|
| • Water meters<br>• Plumbing fixture retrofits or replacement<br>• Water efficient appliances<br>• Water efficient irrigation equipment (e.g., moisture and rain sensing equipment)<br>• Education programs<br>• Incentive programs (e.g., rebates for installing rain barrels or permeable surfaces) | • Collection and treatment systems (e.g., wastewater, stormwater, and subsurface drainage water collection and treatment)<br>• Distribution lines to support water reuse and the use of harvested precipitation<br>• Transmission lines, injection wells, and green infrastructure infiltration systems for groundwater recharge<br>• Equipment to reuse reclaimed water<br>• Direct potable reuse |

Assistance may be provided:

- to any municipality or intermunicipal, interstate, or State agency for publicly owned water conservation projects. *Section 603(c)(1)*
- to any borrower for water conservation projects that implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for water conservation projects that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any borrower for water conservation projects that recapture stormwater or subsurface drainage water. *Section 603(c)(5)*
- to any municipality or intermunicipal, interstate, or State agency for water conservation projects that reduce the demand for POTW capacity. *Section 603(c)(6)*
- to any municipality or municipal entity for stormwater BMPs in municipal separate storm sewers (MS4s) for the purpose of demonstrating and determining controls that are cost-effective and use innovative technologies. *Section 603(c)(7)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*
- to any borrower for projects to reuse or recycle wastewater, stormwater, or subsurface drainage water. This includes recycling of nutrient and organic content (e.g., privately owned CHP). *Section 603(c)(9)*
- to any qualified nonprofit entity to assist owners and operators of small and medium POTWs with water conservation projects. This includes construction activities as well as activities necessary to plan, develop, and obtain financing for CWSRF-eligible projects. *Section 603(c)(11)*

**Stormwater**

Eligible stormwater projects include gray and green infrastructure. Stormwater harvesting and use (see *Water Conservation*) and land conservation/easements (see *Surface Water Protection and Restoration*) are also eligible (see *Water Conservation*). Stormwater projects must have a water quality benefit.

| Gray Infrastructure | Green Infrastructure |
|---|---|
| • Traditional pipe, storage, and treatment systems<br>• Real-time control systems for CSO management<br>• Sediment controls including:<br>  o Filter fences<br>  o Storm drain inlet protection<br>  o Street sweepers<br>  o Vacuum trucks | • Green roofs, green streets, and green walls<br>• Rainwater harvesting collection, storage, management, and distribution systems<br>• Real-time control systems for harvested rainwater<br>• Infiltration basins<br>• Constructed wetlands, including surface flow and subsurface flow (e.g., gravel) wetlands<br>• Bioretention/bioswales (e.g., rain gardens, tree boxes)<br>• Permeable pavement<br>• Wetland/riparian/shoreline creation, protection, and restoration<br>• Establishment/restoration of urban tree canopy<br>• Replacement of gray infrastructure with green infrastructure including purchase and demolition costs |

Assistance may be provided:

- to any municipality or intermunicipal, interstate, or State agency for publicly owned stormwater projects. *Section 603(c)(1)*
- to any borrower for stormwater projects that implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for stormwater projects that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any borrower for projects that manage, reduce, treat, or recapture stormwater or subsurface drainage water. *Section 603(c)(5)*
- to any municipality or municipal entity for management of municipal wet weather discharges on an integrated watershed or subwatershed basis for the purpose of demonstrating the effectiveness of a unified wet weather approach. *Section 603(c)(7)*
- to any municipality or municipal entity for stormwater BMPs in municipal separate storm sewers (MS4s) for the purpose of demonstrating and determining controls that are cost-effective and use innovative technologies. *Section 603(c)(7)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*
- to any municipality or municipal entity for the development and implementation of a municipality-wide stormwater management plan. *Section 603(c)(7)*
- to any borrower for projects to reuse stormwater or subsurface drainage water. *Section 603(c)(9)*

**Agricultural Best Management Practices**

Eligible agricultural BMPs address runoff and erosion from agricultural cropland and animal feeding operations (AFOs). Concentrated animal feeding operations (CAFOs) are a type of AFO. CAFOs are not eligible for assistance under section 603(c)(2) or the watershed partnerships area of 603(c)(7) because they are defined as point sources in section 502(4) of the CWA. Projects at CAFOs are eligible unless otherwise noted.

| Cropland Activities | AFO Activities |
|---|---|
| • Manure injection equipment<br>• Manure spreaders<br>• Water efficient irrigation equipment<br>• Conservation tillage equipment<br>• Windbreaks<br>• Sediment control basins<br>• Terraces<br>• Diversions<br>• Buffer and filter strips<br>• Rip-rapping<br>• Streambank stabilization<br>• Chemical use reduction (e.g., chemical spray equipment and chemical storage containment structures) | • Livestock/milk house waste management systems<br>• Manure containment structures<br>• Vessel composters<br>• Manure injection equipment<br>• Well sealing and water diversions to avoid feedlots<br>• Fencing/alternative water supply for animals to keep them out of water bodies |

Assistance may be provided:

- to any borrower for BMPs on agricultural land or at AFOs that implement a Section 319 NPS management program. Projects at CAFOs are not eligible[6]. *Section 603(c)(2)*
- to any borrower to refinance debt undertaken by an AFO[7] for projects to remove the characteristics that made it a CAFO if the project implements a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for agricultural BMPs that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any borrower for projects that manage, reduce, treat, or recapture agricultural stormwater or subsurface drainage water. *Section 603(c)(5)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. Projects at CAFOs are not eligible. *Section 603(c)(7)*
- to any municipality, intermunicipal, interstate, or State agency to cover the pro rata costs of renewable energy projects at AFOs that provide power to a POTW. *Section 603(c)(8)*
- to any borrower for projects to reuse agricultural wastewater, stormwater, or subsurface drainage water. *Section 603(c)(9)*
- to any borrower for projects to receive and distribute reclaimed water for irrigation systems or other agricultural uses. *Section 603(c)(9)*

[6] BMPs to treat or make beneficial use of manure that is not under the control of a CAFO are eligible.
[7] As long as the AFO is no longer a CAFO at the time of the CWSRF binding commitment.

**Decentralized Wastewater Treatment**

Decentralized wastewater treatment is an onsite[8] or clustered system[9] used to collect, treat, and disperse or reclaim wastewater from a small community or service area (e.g., septic systems, cluster systems, lagoons). Eligible decentralized wastewater treatment projects include the upgrade (e.g., nutrient removal), repair, or replacement of existing systems; construction/installation of new systems; costs associated with the establishment of a responsible management entity (RME) (e.g., permitting fees, legal fees, etc.); and septage treatment works and pumper trucks to support the proper maintenance of decentralized systems.

Assistance may be provided:

- to any borrower for decentralized wastewater treatment projects if they implement a Section 319 NPS management program, including privately owned decentralized systems treating non-municipal, non-domestic sewage that correct an existing NPS problem[10] (e.g., direct pipe from residence to waterbody, cesspool). *Section 603(c)(2)*
- to any borrower for the portion of a centralized wastewater treatment works that is associated with the collection and treatment of effluent from properties with failing decentralized systems or properties where no active treatment system is in place (e.g., cesspools), including the house lateral to connect such homes to a centralized treatment works, if the project implements a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for decentralized wastewater treatment projects if they implement a Section 320 CCMP. This includes privately owned decentralized systems treating non-municipal, non-domestic sewage. *Section 603(c)(3)*
- to any borrower for decentralized wastewater treatment projects treating municipal or domestic sewage. *Section 603(c)(4)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*

[8] A system relying on natural processes and/or mechanical components to collect, treat, and disperse or reclaim wastewater from a single dwelling or building.

[9] A wastewater collection and treatment system under some form of common ownership that collects wastewater from two or more dwellings or buildings and conveys it to a treatment and dispersal system located on a suitable site near the dwellings or buildings.

[10] Decentralized systems for new construction do not correct an existing NPS problem.

**Resource Extraction**
Resource extraction includes mining, quarrying, hydraulic fracturing, and oil/gas operations. Eligible water quality projects that remediate or prevent contamination from these sites, whether active or abandoned, include projects to treat drainage (e.g., acid mine drainage) and wastewater (e.g., fracking wastewater), prevent aquifer contamination, excavate and remediate contaminated soil at the site, remove contamination from water or soil that is not part of the site (e.g., removal of mine tailings from stream beds), or prevent runoff. Runoff control projects include discharge diversion, runoff dispersion, sediment control and collection, grading and capping of contaminated sources, backfilling site openings, and soil stabilization.

Assistance may be provided:

- to any municipality or intermunicipal, interstate, or State agency for publicly owned water quality projects that remediate or prevent contamination from resource extraction sites. *Section 603(c)(1)*
- to any borrower for water quality projects that remediate or prevent contamination from resource extraction sites if they implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for water quality projects that remediate or prevent contamination from resource extraction sites if they implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*
- to any borrower for projects to reuse wastewater generated by resource extraction activities (e.g., hydraulic fracturing wastewater). *Section 603(c)(9)*

**Contaminated Sites**

Contaminated sites include brownfields, Superfund sites, and sites of current or former aboveground or underground storage tanks.[11] Eligible projects include those that remediate or prevent contamination from these sites.

| Brownfields/Superfund | Storage Tanks |
| --- | --- |
| • Site assessments<br>• Excavation, removal, and disposal of contaminated sediment/soil<br>• Cleanup of contaminated groundwater or surface water<br>• Capping of wells<br>• Environmental insurance premiums[12]<br>• Collection/remediation of stormwater generated at the site | • Site assessments<br>• Excavation, removal, and disposal of leaking storage tanks<br>• Replacement storage tanks that meet federal leak prevention standards<br>• Excavation, removal, and disposal of contaminated sediment/soil<br>• Cleanup of contaminated groundwater or surface water<br>• Capping of wells<br>• Environmental insurance premiums[12] |

Assistance may be provided:

- to any borrower for water quality projects to clean up contaminated sites if they implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for water quality projects to clean up contaminated sites if they implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*

[11] For information about eligible projects at abandoned mines, see *Resource Extraction*.

[12] Eligible as a cost of construction if both the construction and insurance policy are for water quality related projects. Not eligible as a stand-alone CWSRF project, and payments of premiums may only be made during the construction period.

**Landfills**

Eligible landfill projects include landfill closure and landfill leachate collection and treatment. For information on landfill projects as a source of renewable energy for POTWs, see *Energy Conservation*.

| Landfill Closure | Landfill Leachate Collection and Treatment |
| --- | --- |
| • Capping systems (gas venting layer, geosynthetics, barrier layer, top cover, etc.)<br>• Leachate collection, storage, and treatment systems (onsite or off-site)<br>• Side slope seepage prevention and control systems<br>• Gas condensation systems<br>• Monitoring wells and equipment<br>• Stormwater runoff controls | • Landfill liner systems<br>  o Drainage blankets and geomembranes<br>  o Landfill liners and sumps<br>  o Perforated pipe networks<br>  o Filter layers<br>• Leachate removal or collection systems<br>• Toe drains and cut-off walls<br>• Onsite leachate treatment facilities<br>• Barge shelters, containment booms, litter fences |

Assistance may be provided:

- to any municipality or intermunicipal, interstate, or State agency for projects that prevent or reduce leachate pollution from publicly owned landfills. *Section 603(c)(1)*
- to any borrower for water quality projects that reduce NPS pollution from landfills if they implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for water quality projects that prevent or reduce pollution from landfills if they implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*
- to any borrower for projects to reuse landfill leachate. *Section 603(c)(9)*
- to any qualified nonprofit entity to assist owners and operators of small and medium publicly owned landfills with projects that prevent or reduce leachate pollutions. This includes construction activities as well as activities necessary to plan, develop, and obtain financing for CWSRF-eligible projects. *Section 603(c)(11)*

**Habitat Protection and Restoration**

Eligible habitat protection and restoration projects include shoreline activities, instream activities, and capital costs associated with the control of invasive vegetative and aquatic species. The purchase of water rights to support fish and aquatic life habitat is also eligible (see *Surface Water Protection and Restoration*).

| Shoreline Activities | Instream Activities | Invasive Species Control |
|---|---|---|
| • Re-establishing riparian vegetation<br>• Wetlands development or restoration<br>• Living shorelines<br>• Swales<br>• Filter Strips<br>• Barrier beach and dune systems | • Re-establishing aquatic vegetation<br>• Restoring oyster/mussel beds<br>• Artificial reef establishment<br>• Fisheries and shellfish restocking and restoration<br>• Fish ladders<br>• Removal of contaminated sediments<br>• Water control structures for flow regime and salinity<br>• Dam removal<br>• Culvert removal | • Equipment to remove or prevent the spread of invasive species |

Assistance may be provided:

- to any borrower for habitat protection and restoration projects that implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for habitat protection and restoration projects that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*

**Silviculture**

Silviculture includes forestry activities such as removal of streamside vegetation, road construction and use, timber thinning and harvesting, and site preparation for the planting of trees. Eligible water quality projects that remediate or prevent pollution from silviculture activities include capital projects, or portions of projects, that control erosion from access roads, maintain the stability of stream banks, ensure the revegetation of harvested areas, and control the introduction of pesticides and fertilizers into waterways. The purchase of forested land for water quality purposes is also eligible (see *Surface Water Protection and Restoration*).

Assistance may be provided:

- to any borrower for water quality projects that remediate or prevent pollution from silviculture activities if they implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for water quality projects that remediate or prevent pollution from silviculture activities if they implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*

**Desalination**
Desalination projects are eligible where there is a water quality benefit. Projects include treatment and disposal of brine, desalination of brackish water to augment water supply, aquifer recharge using desalinated sea water, and treatment/reinjection of brackish groundwater.

Assistance may be provided:

- to any municipality or intermunicipal, interstate, or State agency for treatment and disposal of brine from the desalination process. *Section 603(c)(1)*
- to any borrower for desalination projects that decrease the burden on aquifers where there is causal relationship between aquifer withdrawals and saltwater intrusion[13] if the projects implement a Section 319 NPS management program. This could include projects in which desalinated seawater is injected into the aquifer to mitigate or prevent salt water intrusion, as well as projects in which brackish water is removed from an aquifer, desalinated, and returned to the aquifer. *Section 603(c)(2)*
- to any borrower for the treatment and disposal of brine from the desalination process. Eligibility may extend to other parts of the desalination process, if the project implements a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*

[13] In cases where only a portion of the project will mitigate or prevent salt water intrusion, the CWSRF may finance the eligible projects costs on a pro rata basis.

**Groundwater Protection and Restoration**

Eligible groundwater projects include those that protect and restore aquifers. This includes pump and treat projects, aquifer recharge projects, and projects that decrease aquifer withdrawals through rainwater harvesting, water conservation, or water reuse. Other projects that protect groundwater include leachate control and septic system replacement; however, these are addressed in other sections of the paper (see *Decentralized Wastewater Systems* and *Surface Water).*

Assistance may be provided:

- to any borrower for groundwater projects that implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for groundwater projects that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*
- to any borrower for treatment, transmission, and injection of wastewater, stormwater, and subsurface drainage water for aquifer recharge. *Section 603(c)(9)*

**Surface Water Protection and Restoration**

Many of the activities described in this paper result in the protection or restoration of surface water, such as stormwater management and habitat restoration. In addition to the activities already covered, eligible surface water projects include land[14] and water rights acquisition to protect water quality and activities that reduce atmospheric deposition of pollutants.

| Land and Water Rights to Protect Water Quality | Atmospheric Deposition |
|---|---|
| • Purchase of land[15]<br>  o Leasing<br>  o Fee-simple purchase<br>  o Easement<br>• Purchase of water rights | • Air pollution reducing technologies<br>  o Scrubbers<br>• Activities that reduce the use of thermoelectric power<br>  o Energy efficient upgrades (e.g., appliances, HVAC, insulation, etc.)<br>  o Renewable energy generation projects |

Assistance may be provided:

- to any borrower for surface water projects that implement a Section 319 NPS management program. *Section 603(c)(2)*
- to any borrower for surface water projects that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any municipality or municipal entity for efforts of municipalities and property owners to develop or implement watershed partnerships to address nonpoint sources of pollution. *Section 603(c)(7)*

[14] Land for water quality purposes need not be prorated. States should include deed restrictions to protect water quality with a caveat that they be permanent unless the original purpose for which the land or easement was purchased is unobtainable or the land is no longer needed for water quality protection.

[15] Includes amenities that improve water quality on purchased land (e.g., water quality related signage, pervious trails, etc.).

**Planning/Assessment**

There are many eligible activities that fall within the scope of planning/assessment. Planning activities that have a reasonable prospect of resulting in a capital project are eligible. The CWSRF can fund the water quality portion of planning/assessment activities on a pro rata basis. Routine water quality monitoring is not eligible.

| Planning/Assessment |
| --- |
| • Asset management/fiscal sustainability plans<br>• Cost and effectiveness analyses<br>• Capital improvement plans<br>• Integrated planning<br>• Long term control plans<br>• Water/energy audits and conservation plans<br>• Wastewater and stormwater management plans<br>• Facility plans<br>• Treatment works security plans/safety plans<br>• Planning activities that assess a POTW's vulnerability to extreme weather and climate change<br>  o Risk/vulnerability assessments<br>  o Emergency preparedness, response, and recovery plans<br>  o Drought management plans<br>  o Climate adaptation plans<br>• Environmental management systems<br>• Watershed management plans<br>• TMDL implementation plans<br>• Assessment of project effectiveness:<br>  o Equipment (e.g., sensors, meters, gauges, hardware and software used to store and interpret data)<br>  o Activities (e.g., sampling, lab work, data analysis)[16, 17] |

Assistance may be provided:

- to any municipality or intermunicipal, interstate, or State agency for planning/assessment for POTWs that can reasonably be expected to lead to an eligible capital project. *Section 603(c)(1)*
- to any borrower for planning/assessment activities that implement a Section 319 NPS management program as long as the activity is not required by a permit. *Section 603(c)(2)*
- to any borrower for planning/assessment activities that implement a Section 320 CCMP. *Section 603(c)(3)*
- to any borrower for development or amendment of a Section 320 CCMP. *Section 603(c)(3)*
- to any borrower for planning/assessment for decentralized wastewater treatment systems that can reasonably be expected to lead to a capital project. *Section 603(c)(4)*

[16] The length of time these activities may need to be done will depend upon the type of project and should be based upon the best professional judgement of the state CWSRF project engineer/project manager.

[17] Under Sections 603(c)(1) and 603(c)(4), activities to assess project effectiveness are not eligible. Only the purchase of equipment to assess project effectiveness is eligible.

- to any borrower for planning/assessment necessary to manage, reduce, treat, or recapture stormwater or subsurface drainage water. *Section 603(c)(5)*
- to any municipality or intermunicipal, interstate, or State agency for planning/assessment aimed at reducing the demand for POTW capacity through water conservation, efficiency, or reuse. *Section 603(c)(6)*
- to any municipality or municipal entity for the development and implementation of an integrated water resource plan or municipality-wide stormwater management plan. *Section 603(c)(7)*
- to any municipality or intermunicipal, interstate, or State agency for planning/assessment aimed at reducing the energy consumption needs of a POTW. *Section 603(c)(8)*
- to any borrower for planning/assessment necessary to reuse or recycle wastewater or subsurface drainage water. *Section 603(c)(9)*
- to any borrower for planning/assessment to increase the security of POTWs. *Section 603(c)(10)*
- to any qualified nonprofit entity for planning/assessment to assist owners and operators of small and medium POTWs comply with the CWA. This includes construction activities as well as activities necessary to plan, develop, and obtain financing for CWSRF-eligible projects. *Section 603(c)(11)*