

CWSRF Project Descriptions and Examples for Green Project Reserve

I. Water Efficiency

- a. Water efficiency is the use of improved technologies and practices to deliver equal or better services with less water.
- b. Projects eligible for assistance include assistance
 - i. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act
 1. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible.
 2. Building activities that implement capital water efficiency projects are eligible.
 - ii. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act
 1. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible.
 2. Building activities that implement capital water efficiency projects are eligible.
 - iii. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.
 1. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible.
 2. Building activities that implement capital water efficiency projects are eligible.
- c. Water efficiency projects can be stand alone projects. They do not need to be part of a larger capital improvement project.
- d. Examples of projects include
 - i. Installation of water meters
 - ii. Retrofit or replacement of water using fixtures, fittings, equipment or appliances
 - iii. Efficient landscape or agricultural irrigation equipment
 - iv. Systems to recycle gray water
 - v. Reclamation, recycling, and reuse of existing rainwater, condensate, degraded water, stormwater, and/or wastewater streams.
 - vi. Collection system leak detection equipment
 - vii. Development and initial distribution of public education materials

II. Energy Efficiency

- a. Energy efficiency includes capital projects that reduce the energy consumption of eligible water quality projects or produce clean energy used by a treatment works defined in Sec. 212.
 - i. Web link to EPA's clean energy site
<http://www.epa.gov/cleanenergy/>
 - ii. Clean energy includes wind, solar, geothermal, hydroelectric, and biogas combined heat and power systems.
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- c. Energy efficiency projects can be stand alone projects. They do not need to be part of a larger capital improvement project.
- d. Examples of projects include
 - i. Energy efficient retrofits and upgrades to pumps and treatment processes
 - ii. Leak detection equipment for treatment works
 - iii. Producing clean power for 212 treatment works on site (wind, solar, hydroelectric, geothermal, biogas powered combined heat and power)
 - iv. Pro-rata share of capital costs for offsite publicly owned clean energy facilities that provide power to a treatment works.

III. Green Infrastructure

- a. Definition: Green Infrastructure includes a wide array of practices at multiple scales that manage wet weather to maintain and restore natural hydrology by infiltrating, evapotranspiring and capturing and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale green infrastructure consists of site- and neighborhood-specific practices, such as bioretention, trees, green roofs, porous pavements and cisterns. In addition to managing rainfall, these green infrastructure technologies can simultaneously provide other benefits such as helping filter air pollutants, reducing energy demands, mitigating urban heat islands, and sequestering carbon while also providing communities with aesthetic, recreational and natural resource benefits.
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- d. Examples of projects include
 - i. Implementation of comprehensive street tree or urban forestry programs, including expansion of tree box sizes to manage additional stormwater and enhance tree health.

- ii. Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-ways), for either new development, redevelopment or retrofits
- iii. Implementation of water harvesting and reuse programs or projects, where consistent with state and local laws and policies.
- iv. Implementation of wet weather management systems for parking areas which include: the incremental cost of porous pavement, bioretention, trees, green roofs, and other practices that mimic natural hydrology and reduce effective imperviousness at one or more scales.
- v. Establishment and restoration of riparian buffers, floodplains, wetlands and other natural features.
- vi. Downspout disconnection to remove stormwater from combined sewers and storm sewers.
- vii. Comprehensive retrofit programs designed to keep wet weather out of all types of sewer systems using green infrastructure technologies and approaches.

IV. Environmentally Innovative Projects

- a. Projects that demonstrate new and/or innovative approaches to managing water resources in a more sustainable way, including projects that achieve pollution prevention or pollutant removal at the least life-cycle costs, subject to environmental review results. Includes approaches to incorporate green infrastructure into drinking water, stormwater and wastewater utility infrastructure and management.
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 2. Building activities that implement capital water efficiency projects are eligible.
- c. Examples of projects include
- i. Green Infrastructure/Low Impact development stormwater projects
 - ii. Wetland restoration
 - iii. Decentralized wastewater treatment solutions to existing deficient or failing on site systems.
 - iv. Water reuse projects that reduce energy consumption, recharge aquifers and reduce water withdrawals and treatment costs
 - v. The water quality portion of projects that employ development and redevelopment practices that preserve or restore site hydrologic processes through sustainable landscaping and site design.
 - vi. Projects that use water balance approaches (water budgets) at the project, local or state level that preserve site, local or regional hydrology. Such an effort could show-case efforts to plan and manage in a concerted manner, surface and groundwater withdrawals, stream flow (aquatic species protection), wetland and floodplain storage, groundwater recharge and regional or local reuse and harvesting strategies using a quantified methodology.
 - vii. The water quality portion of projects that demonstrate the energy savings and climate change implications of sustainable site design practices and the use of green stormwater infrastructure.
 - viii. Projects that demonstrate the differential uses of water based on the level of treatment and potential uses as a means to reducing the costs of treating all water to potable water standards.
 - ix. Projects that identify and quantify the benefits of using integrated water resources management approaches.