

# Green Infrastructure Examples by Category

## Water Efficiency Eligible Project Examples

Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances (Water Sense labeled products should be the preferred choice)

Installing any type of water meter reading systems in previously unmetered areas (if rate structure is based on metered use, can include backflow prevention devices if installed in conjunction with water metered use)

Replacing existing broken/malfunctioning water meters or upgrading existing meters with automatic meter reading systems (AMRs) such as advanced metering infrastructure (AMI) and smart meters, meters with built-in leak detection (Can include backflow prevention devices if installed in conjunction with water meter replacement)

Retrofitting/adding AMR capabilities or leak detection equipment to existing meters (not replacing the meter itself)

Water audit and water conservation plans, which are reasonably expected to result in a capital project.

Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate and wastewater effluent reuse systems where local codes allow the practice, extra treatment costs and distribution pipes associated with water reuse)

Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems, including moisture and rain sensing controllers

Retrofit or replacement of existing landscape/agricultural irrigation systems to more efficient landscape/agricultural irrigation systems

Water efficiency is accomplished through water saving elements or reducing water consumption including projects that reduce the amount of water taken out of rivers, lakes, streams, groundwater, or from other sources.

Water efficiency projects that deliver equal or better services with less net water use as compared to traditional or standard technologies and practices

Efficient water projects that have the added benefit of reducing the amount of energy required by a POTW, including projects that reduce water needing to be collected and treated.

Internal plant water reuse (such as backwash water recycling)

Distribution system leak detection equipment, portable or permanent

Automatic flushing systems (permanent)

Pressure reducing valves (PRVs)

**Energy Efficiency  
Eligible Project Examples**

Renewable energy generation which is part of a wastewater, drinking water, or stormwater facility infrastructure project (Wind, solar, geothermal, micro-hydroelectric, and biogas combined heat and power) that provide power to a POTW.
Energy efficiency retrofits and upgrades to pumping systems and treatment process that are cost effective
Pump refurbishment to optimize pump efficiency
Projects that cost effectively eliminate pumps or pumping stations
Infiltration/inflow correction projects that save energy
I/I correction projects where excessive groundwater infiltration is requiring unnecessary treatment processes
Collection system Infiltration/Inflow (I/I) detection equipment
Replacing pre-Energy Policy Act of 1992 motors with NEMA premium efficiency motors
Energy assessments, audits, optimization studies or sub-metering individual processes as part of a POTW energy management planning or treatment works energy management planning which is expected to result in a capital project.
Automated and remote-control system (such as SCADA) that achieve substantial energy efficiency improvements
Upgrade of lighting to energy efficient sources for a wastewater, drinking water or stormwater facility infrastructure project including metal halide pulse start technologies, compact fluorescent or light emitting diode (LED).
Projects that achieve a 20% reduction in energy consumption. Retrofit projects should compare energy used by the existing system or unit process to the proposed project. The energy used by the existing system should be based on name plate data when the system was first installed, recognizing that the old system is currently operating at a lower overall efficiency than at the time of installation. New projects or capacity expansion projects should be designed to maximize energy efficiency and should select high efficiency premium motors and equipment where cost effective
Installation of variable frequency drives (VFDs)

**Environmentally Innovative  
Eligible Project Examples**

Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal
US Building Council LEED certified water system facilities that are part of an eligible CDBG project (Any level of certification (Platinum, Gold, Silver, Certified))
Projects or project components resulting from total/integrated water resource management planning

Projects that facilitate adaptation to climate change identified by a carbon footprint analysis or climate adaptation study
Upgrades or retrofits that remove phosphorus for biofuel production
Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment
Treatment technologies or approaches that significantly reduce the volume of residuals or lower chemical volume in residuals
Projects that achieve the goals of utility asset management plans
Sub-surface land application of effluent and other means for ground water recharge such as spray irrigation and overland flow
Total/integrated water resources management planning likely to result in a capital project
Utility Sustainability Plan
Greenhouse gas (GHG) inventory or mitigation plan
Publicly Owned Treatment Works planning activities to adapt to long-term effects of climate change and/or extreme weather
Sub-surface land application of effluent and others means for ground water recharge such as spray irrigation and overland flow
Decentralized wastewater treatment solutions to existing deficient or failing (individual or cluster) onsite wastewater systems
Reflective roofs at Publicly Owned Treatment Works to combat heat island effect
<b>Nature-based Solutions Eligible Project Examples</b>
Green Streets
Permeable pavement
Bioretention
Biosolids reuse: Class A biosolids, community fertilizer programs, struvite palletization
Green roofs
Rainwater harvesting/cisterns
Xeriscape
Real-time control systems for harvested rainwater
Wet weather management systems for parking areas including permeable pavement, bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales.
Constructed wetlands, including surface flow and subsurface flow (gravel)
Bioswales (rain gardens)
Other practices that mimic natural hydrology to prevent wet weather flows

Implementation of comprehensive street tree or urban forestry programs, including expansion of tree boxes to manage additional stormwater and enhance tree health.
Stormwater harvesting and reuse projects, such as cisterns and the systems that allow for utilization of harvested stormwater, including pipes to distribute stormwater for reuse
Comprehensive retrofit programs designed to keep wet weather discharges out of all types of sewer systems using green infrastructure technologies and approaches such as green roofs, green walls, trees and urban reforestation, permeable pavements and bioretention cells, and turf removal and replacement with native vegetation or trees that improve permeability.
The use of nutrient removal from wastewater through the use of microorganisms as prescribed in EPA's guidance. ( <a href="https://www.epa.gov/system/files/documents/2022-08/innovative-nutrient-removal-technologies-report-082721.pdf">https://www.epa.gov/system/files/documents/2022-08/innovative-nutrient-removal-technologies-report-082721.pdf</a> )
Downspout disconnection into rain barrels, cisterns, or permeable areas to manage runoff onsite.
Riparian buffers (floodplains, wetlands, bioengineered streambank or stream daylighting)
Projects that involve the management of wetlands to improve water quality and/or support green infrastructure efforts (e.g., flood attenuation)
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