

Green Infrastructure

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| Business Case Required | | <ul style="list-style-type: none"> • Fencing to keep livestock out of streams and stream buffers | <ul style="list-style-type: none"> • Fencing to keep livestock out of streams and stream buffers |
| Categorically Eligible | <p>Publicly Owned:</p> <ul style="list-style-type: none"> • Green streets <ul style="list-style-type: none"> • Permeable pavement • Bioretention • Trees • Green roofs • Constructed wetlands • Other practices that mimic natural hydrology to prevent wet weather flows • Equipment to maintain green streets <ul style="list-style-type: none"> • Vactor trucks • Other equipment • Street tree/urban forestry <ul style="list-style-type: none"> •Expansion of tree boxes • Stormwater harvesting/reuse <ul style="list-style-type: none"> • Cisterns • Distribution pipes • Downspout disconnection • Riparian buffers <ul style="list-style-type: none"> • Floodplains • Wetlands • Bioengineered streambank • Stream daylighting • Sustainable landscaping and site design | <ul style="list-style-type: none"> • Green streets <ul style="list-style-type: none"> • Permeable pavement • Bioretention • Trees • Green roofs • Constructed wetlands • Other practices that mimic natural hydrology to prevent wet weather flows • Equipment to maintain green streets <ul style="list-style-type: none"> • Vactor trucks • Other equipment • Street tree/urban forestry <ul style="list-style-type: none"> •Expansion of tree boxes • Stormwater harvesting/reuse <ul style="list-style-type: none"> • Cisterns • Distribution pipes • Downspout disconnection • Riparian buffers <ul style="list-style-type: none"> • Floodplains • Wetlands • Bioengineered streambank • Stream daylighting • Sustainable landscaping and site design • Fee simple land purchase or easement | <ul style="list-style-type: none"> • Green streets <ul style="list-style-type: none"> • Permeable pavement • Bioretention • Trees • Green roofs • Constructed wetlands • Other practices that mimic natural hydrology to prevent wet weather flows • Equipment to maintain green streets <ul style="list-style-type: none"> • Vactor trucks • Other equipment • Street tree/urban forestry <ul style="list-style-type: none"> •Expansion of tree boxes • Stormwater harvesting/reuse <ul style="list-style-type: none"> • Cisterns • Distribution pipes • Downspout disconnection • Riparian buffers <ul style="list-style-type: none"> • Floodplains • Wetlands • Bioengineered streambank • Stream daylighting • Sustainable landscaping and site design • Fee simple land purchase or easement |
| CWSRF GPR Ineligible | <ul style="list-style-type: none"> • Stormwater controls with impervious or semi-impervious liners with no evapotranspiration or harvesting functions • Stormwater ponds with extended detention and/or filtration <ul style="list-style-type: none"> • Dirt-lined detention basins • In-line or end-of-pipe treatment systems that only filter or detain stormwater • Underground stormwater control <ul style="list-style-type: none"> • Swirl concentrators • Hydrodynamic separators • Baffle systems for grit • Trash/floatables removal • Oil and grease • Inflatable booms • Dams for in-line underground storage and flow diversion • Stormwater conveyance systems that are not soil/vegetation-based <ul style="list-style-type: none"> • Pipes and concrete channels • Hardening, channelizing or straightening streams and/or stream banks • Street sweepers, sewer cleaners and vactor trucks (unless they support green infrastructure projects) | <ul style="list-style-type: none"> • Stormwater controls with impervious or semi-impervious liners with no evapotranspiration or harvesting functions • Stormwater ponds with extended detention and/or filtration <ul style="list-style-type: none"> • Dirt-lined detention basins • In-line or end-of-pipe treatment systems that only filter or detain stormwater • Underground stormwater control <ul style="list-style-type: none"> • Swirl concentrators • Hydrodynamic separators • Baffle systems for grit • Trash/floatables removal • Oil and grease • Inflatable booms • Dams for in-line underground storage and flow diversion • Stormwater conveyance systems that are not soil/vegetation-based <ul style="list-style-type: none"> • Pipes and concrete channels • Hardening, channelizing or straightening streams and/or stream banks • Street sweepers, sewer cleaners and vactor trucks (unless they support green infrastructure projects) | <ul style="list-style-type: none"> • Stormwater controls with impervious or semi-impervious liners with no evapotranspiration or harvesting functions • Stormwater ponds with extended detention and/or filtration <ul style="list-style-type: none"> • Dirt-lined detention basins • In-line or end-of-pipe treatment systems that only filter or detain stormwater • Underground stormwater control <ul style="list-style-type: none"> • Swirl concentrators • Hydrodynamic separators • Baffle systems for grit • Trash/floatables removal • Oil and grease • Inflatable booms • Dams for in-line underground storage and flow diversion • Stormwater conveyance systems that are not soil/vegetation-based <ul style="list-style-type: none"> • Pipes and concrete channels • Hardening, channelizing or straightening streams and/or stream banks • Street sweepers, sewer cleaners and vactor trucks (unless they support green infrastructure projects) |

Energy Efficiency

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Business Case Required

Categorically Eligible

CWSRF GPR Ineligible

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| <p>Publicly Owned:</p> <ul style="list-style-type: none"> • POTW projects or unit process projects that achieve less than a 20% energy efficiency improvement • (Non-categorical) projects implementing recommendations from an energy audit • 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 • Replacing pre-Energy Policy Act of 1992 motors with NEMA premium efficiency motors • Upgrade of POTW lighting to energy efficient sources <ul style="list-style-type: none"> • Metal halide pulse start technologies • Compact fluorescent • Light emitting diode (LED) • SCADA systems • Variable Frequency Drives | <ul style="list-style-type: none"> • Projects that cost effectively eliminate pumps or pumping stations | <ul style="list-style-type: none"> • Treatment works projects or unit process projects that achieve less than a 20% energy efficiency improvement • (Non-categorical) projects implementing recommendations from an energy audit • 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 • Replacing pre-Energy Policy Act of 1992 motors with NEMA premium efficiency motors • Upgrade of treatment works lighting to energy efficient sources <ul style="list-style-type: none"> • Metal halide pulse start technologies • Compact fluorescent • Light emitting diode (LED) • SCADA systems • Variable Frequency Drives |
| <p>Publicly Owned:</p> <ul style="list-style-type: none"> • Renewable energy source for a POTW <ul style="list-style-type: none"> • Wind • Solar • Geothermal • Micro-hydroelectric • Biogas combined heat and power (CHP) • Projects that achieve 20% reduction in energy consumption • Collection system I/I detection equipment • POTW energy management planning (reasonably expected to result in a capital project) <ul style="list-style-type: none"> • Energy assessments • Energy audits • Optimization studies • Sub-metering individual processes | <ul style="list-style-type: none"> • Projects that achieve 20% reduction in energy consumption | <ul style="list-style-type: none"> • Renewable energy source for a treatment works <ul style="list-style-type: none"> • Wind • Solar • Geothermal • Micro-hydroelectric • Biogas combined heat and power (CHP) • Projects that achieve 20% reduction in energy consumption • Collection system I/I detection equipment • Treatment works energy management planning (reasonably expected to result in a capital project) <ul style="list-style-type: none"> • Energy assessments • Energy audits • Optimization studies • Sub-metering individual processes |
| <ul style="list-style-type: none"> • Privately owned renewable energy generation • The portion of a publicly owned renewable energy facility that does not provide power to a POTW • Simply replacing a piece of equipment that is at the end of its useful life with something of average efficiency • Facultative lagoons • Hydroelectric facilities | | <ul style="list-style-type: none"> • The portion of a renewable energy facility that does not provide power to a treatment works • Simply replacing a piece of equipment that is at the end of its useful life with something of average efficiency • Facultative lagoons • Hydroelectric facilities |

Water Efficiency

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| Business Case Required | <p>Publicly Owned:</p> <ul style="list-style-type: none"> Water meter replacement with traditional water meters Projects that result from a water audit Storage tank replacement/rehabilitation New water efficient landscape irrigation | <ul style="list-style-type: none"> Projects that result from a water audit New water efficient landscape irrigation New water efficient agricultural irrigation | <ul style="list-style-type: none"> Water meter replacement with traditional water meters Projects that result from a water audit Storage tank replacement/rehabilitation New water efficient landscape irrigation New water efficient agricultural irrigation |
| Categorically Eligible | <p>Publicly Owned:</p> <ul style="list-style-type: none"> Install or retrofit water efficient devices <ul style="list-style-type: none"> Plumbing fixtures Appliances Water conservation incentive programs <ul style="list-style-type: none"> Rebates Install water meters in previously unmetered areas (if rate structure is based on metered use) <ul style="list-style-type: none"> Backflow prevention devices (installed in conjunction with meter replacement) Replace broken water meters or upgrade existing meters with: <ul style="list-style-type: none"> Automatic meter reading systems Advanced metering infrastructure Smart meters Meters with built-in leak detection Backflow prevention devices (installed in conjunction with meter replacement) Retrofit existing meters to add AMR capability or leak detection equipment Water audit and water conservation plans Recycling and water reuse projects that replace potable sources with non-potable <ul style="list-style-type: none"> Gray water/condensate/wastewater effluent reuse systems Extra treatment costs and distribution pipes associated with water reuse Retrofit or replace landscape irrigation systems with more efficient systems <ul style="list-style-type: none"> Moisture and rain sensing controllers | <ul style="list-style-type: none"> Water audit and water conservation plans Recycling and water reuse projects that replace potable sources with non-potable <ul style="list-style-type: none"> Gray water/condensate/wastewater effluent reuse systems Retrofit or replace landscape irrigation systems with more efficient systems <ul style="list-style-type: none"> Moisture and rain sensing controllers Replace or retrofit existing agricultural irrigation systems with more efficient systems | <ul style="list-style-type: none"> Install or retrofit water efficient devices <ul style="list-style-type: none"> Plumbing fixtures Appliances Water conservation incentive programs <ul style="list-style-type: none"> Rebates Install water meters in previously unmetered areas (if rate structure is based on metered use) <ul style="list-style-type: none"> Backflow prevention devices (installed in conjunction with meter replacement) Replace broken water meters or upgrade existing meters with: <ul style="list-style-type: none"> Automatic meter reading systems Advanced metering infrastructure Smart meters Meters with built-in leak detection Backflow prevention devices (installed in conjunction with meter replacement) Retrofit existing meters to add AMR capability or leak detection equipment Water audit and water conservation plans Recycling and water reuse projects that replace potable sources with non-potable <ul style="list-style-type: none"> Gray water/condensate/wastewater effluent reuse systems Extra treatment costs and distribution pipes associated with water reuse Retrofit or replace landscape irrigation systems with more efficient systems <ul style="list-style-type: none"> Moisture and rain sensing controllers Replace or retrofit existing agricultural irrigation systems with more efficient systems |
| CWSRF GPR Ineligible | <ul style="list-style-type: none"> Replacing drinking water distribution lines Leak detection equipment for drinking water distribution systems (except reuse) | <ul style="list-style-type: none"> Agricultural flood irrigation Lining of canals to reduce water loss | <ul style="list-style-type: none"> Agricultural flood irrigation Lining of canals to reduce water loss Replacing drinking water distribution lines Leak detection equipment for drinking water distribution systems (except reuse) |

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| Business Case Required | <p>Publicly Owned:</p> <ul style="list-style-type: none"> • Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal • Projects or project components resulting from total/integrated water resource management planning • Projects that facilitate POTW adaptation to climate change identified by a carbon footprint analysis or climate adaptation study • POTW 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 • Educational activities and demonstration projects for water or energy efficiency • 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 | <ul style="list-style-type: none"> • Projects or project components resulting from total/integrated water resource management planning • Educational activities and demonstration projects for water or energy efficiency | <ul style="list-style-type: none"> • Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal • Projects or project components resulting from total/integrated water resource management planning • Projects that facilitate treatment works adaptation to climate change identified by a carbon footprint analysis or climate adaptation study • Treatment works 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 • Educational activities and demonstration projects for water or energy efficiency • 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 |
| Categorically Eligible | <p>Publicly Owned:</p> <ul style="list-style-type: none"> • Total/integrated water resources management planning likely to result in a capital project • Utility Sustainability Plan • Greenhouse gas (GHG) inventory or mitigation plan • POTW planning activities to adapt to long-term effects of climate change and/or extreme weather • Construction of LEED certified buildings or renovation of an existing building on POTW facilities • Decentralized wastewater treatment solutions <ul style="list-style-type: none"> • Individual onsite systems • Cluster systems | <ul style="list-style-type: none"> • Total/integrated water resources management planning likely to result in a capital project • Construction of LEED certified buildings | <ul style="list-style-type: none"> • Total/integrated water resources management planning likely to result in a capital project • Utility Sustainability Plan • Greenhouse gas (GHG) inventory or mitigation plan • Treatment works planning activities to adapt to long-term effects of climate change and/or extreme weather • Construction of LEED certified buildings or renovation of an existing building on treatment works facilities • Decentralized wastewater treatment solutions <ul style="list-style-type: none"> • Individual onsite systems • Cluster systems |
| CWSRF GPR Ineligible | <ul style="list-style-type: none"> • Air scrubbers to prevent nonpoint source deposition • Facultative lagoons • Surface discharging decentralized wastewater systems • Higher seawalls to protect POTWs from rising sea levels • Reflective roofs at POTW | <ul style="list-style-type: none"> • Air scrubbers to prevent nonpoint source deposition | <ul style="list-style-type: none"> • Air scrubbers to prevent nonpoint source deposition • Facultative lagoons • Surface discharging decentralized wastewater systems • Higher seawalls to protect treatment works from rising sea levels • Reflective roofs at treatment works |