US EPA ARCHIVE DOCUMENT

Attachments 7 and 8 are from the American Recovery and Reinvestment Act Guidance, produced March 2, 2009 by the U.S. EPA Office of Water. Attachments 7 and 8 specifically address the 20% Green Project Reserve provision of the Act.

ATTACHMENT 7

CWSRF Project Descriptions and Examples for Green Project Reserve

The ARRA requires that at least 20% of each State's capitalization grant be used to fund projects referred to as the Green Project Reserve. The following is a set of examples for projects EPA believes would be eligible. It should be noted that all project eligibility requirements otherwise applicable to the CWSRF program apply to the Green Project Reserve.

Under the Green Project Reserve in the CWSRF both entire projects may be considered for inclusion or appropriate identifiable components of larger projects may be considered for inclusion. Whatever projects or project components are included, such projects or project components must clearly advance the objectives articulated in the specific categories discussed below.

Business Case Requirements for Counting Costs toward the 20% Reserve

There are some types of projects that clearly will qualify towards the 20% Green Project Reserve, being entirely and explicitly framed as a green infrastructure or a water or energy efficiency project. However, some types of traditional projects may also have benefits that may in some cases be counted towards the 20% Green Project requirement. For such traditional projects (or portion of a project) to be counted towards the 20% requirement, the State's project files must contain documentation that the clear business case for the project (or portion) investment includes achievement of identifiable and substantial benefits that qualify as Green Project benefits.

The required documentation could be a simple memo but must indicate the basis on which this project was judged to qualify to be counted toward the 20% requirement. Such a memo would typically include direct reference to a preliminary engineering or other planning document that makes clear that the basis upon which the project (or portion) was undertaken included identifiable and substantial benefits qualifying for the Green Project Reserve.

Water Efficiency

I. Water efficiency is the use of improved technologies and practices to deliver equal or better services with less water.

II. Projects eligible for assistance include assistance

a. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act

i. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible; to the extent practicable, such projects should be coordinated with drinking water systems and projects.

ii. Building activities that implement capital water efficiency projects are eligible.

b. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act

i. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital water efficiency projects are eligible.

US EPA ARCHIVE DOCUMENT

c. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.

i. Planning and design activities for water efficiency that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital water efficiency projects are eligible.

III. Water efficiency projects can be stand alone projects. They do not need to be part of a larger capital improvement project.

IV. Drinking Water Utilities may apply to the Clean Water State Revolving Fund.

V. Examples of projects include

a. Installation of water meters

b. Retrofit or replacement of water using fixtures, fittings, equipment or appliances

c. Efficient landscape or irrigation equipment

d. Systems to recycle gray water

e. Reclamation, recycling, and reuse of existing rainwater, condensate, degraded water, stormwater, and/or wastewater streams.

f. Collection system leak detection equipment

Energy Efficiency

I. Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water quality projects, including projects to reduce energy consumption or produce clean energy used by a treatment works defined in Sec. 212.

a. Web link to EPA's clean energy site http://www.epa.gov/cleanenergy/

b. Clean energy includes wind, solar, geothermal, hydroelectric, and biogas combined heat and power systems.

II. Projects eligible for assistance include assistance a. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act

i. Planning and design activities for energy efficiency that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital energy efficiency projects are eligible.

b. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act

i. Planning and design activities for energy efficiency that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital energy efficiency projects are eligible.

c. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.

i. Planning and design activities for energy efficiency that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital energy efficiency projects are eligible.

III. Energy efficiency projects can be stand alone projects. They do not need to be part of a larger capital improvement project.

IV. Examples of projects include

a. Energy efficient retrofits and upgrades to pumps and treatment processes

b. Leak detection equipment for treatment works

c. Producing clean power for 212 treatment works on site (wind, solar, hydroelectric, geothermal, biogas powered combined heat and power)[3]

[3] Project file should include a calculation of the energy efficiency of the project.

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

Green Infrastructure

I. Definition: Green Infrastructure includes a wide array of practices at multiple scales that manage and treat stormwater and that 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.

II. Projects eligible for assistance include assistance

a. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act

i. Planning and design activities for green infrastructure that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital green infrastructure projects are eligible.

b. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act

i. Planning and design activities for green infrastructure that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital green infrastructure projects are eligible.

c. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.

i. Planning and design activities for green infrastructure that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital green infrastructure projects are eligible.

III. If a project is specifically required by a draft or final NPDES permit, then it can only be funded through Sec. 212 or Sec. 320 authority

IV. Green infrastructure projects can be stand alone projects. They do not need to be part of a larger capital improvement project.

V. Examples of projects include

a. Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-ways), for either new development, redevelopment or retrofits

b. Implementation of water harvesting and reuse programs or projects, where consistent with state and local laws and policies.

c. 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, including constructed wetlands.

d. Hydromodification to establish or restore riparian buffers, floodplains, wetlands and other natural features.

e. Downspout disconnection to remove stormwater from combined sewers and storm sewers.

f. Comprehensive retrofit programs designed to keep wet weather out of all types of sewer systems using green infrastructure technologies and approaches.

g. Implementation of comprehensive street tree or urban forestry programs, including expansion of tree box sizes to manage additional stormwater and enhance tree health.

Environmentally Innovative Projects

I. 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 with reduced costs and projects that foster adaptation of water protection programs and practices to climate change.

II. Projects eligible for assistance include assistance

a. to any municipality, intermunicipal, interstate, or State agency for construction of publicly owned treatment works defined in section 212 of the Clean Water Act

i. Planning and design activities for environmentally innovative projects that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital environmentally innovative projects projects are eligible.

b. to public or privately owned projects that implement State Nonpoint Source Management Plans established under section 319 of the Clean Water Act

i. Planning and design activities for environmentally innovative projects that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital environmentally innovative projects projects are eligible.

c. to public or privately owned projects that develop or implement a Comprehensive Conservation Management Plan established under section 320 of the Clean Water Act.

i. Planning and design activities for environmentally innovative projects that are reasonably expected to result in a capital project are eligible.

ii. Building activities that implement capital environmentally innovative projects projects are eligible.

III. Examples of projects include

a. Green Infrastructure/Low Impact development stormwater projects

b. Wetland restoration and constructed wetlands

c. Decentralized wastewater treatment solutions to existing deficient or failing on site systems.

d. Water reuse projects that reduce energy consumption, recharge aquifers or reduce water withdrawals and treatment costs

e. 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.

f. 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 showcase 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.

g. Projects that facilitate adaptation of clean water programs and practices to climate change.

h. The water quality portion of projects that demonstrate the energy savings and greenhouse reduction benefits of sustainable site design practices and the use of green stormwater infrastructure.

i. Projects that incorporate differential uses of water based on the level of treatment to reduce the costs of treating all water to potable water standards.

j. Projects that identify and quantify the benefits of using integrated water resources management approaches.

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

ATTACHMENT 8

DWSRF Project Descriptions and Examples for Green Project Reserve

The ARRA requires that, to the extent there are eligible project applications, a State shall use 20% of its DWSRF capitalization grant under the ARRA for green infrastructure projects to address water and energy efficiency improvements or other environmentally innovative activities. EPA is referring to this provision as creating a Green Infrastructure Reserve within each DWSRF capitalization grant. This guidance provides clarification of this provision of the law and examples of projects that might be considered for assistance from the Green Project Reserve.

EPA anticipates that "water or energy efficiency" projects will likely be the principal focus of the Green Project Reserve under the DWSRF. However, there may also be projects, or components of projects, that qualify for consideration under the Green Infrastructure Reserve in the DWSRF on the basis of application of green infrastructure or being environmentally innovative.

Under the Green Project Reserve in the DWSRF both entire projects may be considered for inclusion or appropriate identifiable components of larger projects may be considered for inclusion. Whatever projects or project components are included, such projects or project components must clearly advance the objectives articulated in the specific categories discussed below.

Business Case Requirements for Counting Costs toward the 20% Reserve for Energy and Water Efficiency

There are some types of projects that clearly will qualify towards the 20% Green Project Reserve, being entirely and explicitly framed as a green infrastructure or a water or energy efficiency project. However, some types of traditional projects may also have benefits that may in some cases be counted towards the 20% Green Project requirement. For example, lower friction afforded by a new distribution pipe could reduce the energy needed to pump water through the distribution system. For such traditional projects (or portion of a project) to be counted towards the 20% requirement, the State's project files must contain documentation that the clear business case for the project (or portion) investment includes achievement of identifiable and substantial benefits that qualify as Green Project benefits.

The required documentation could be a simple memo but must indicate the basis on which this project was judged to qualify to be counted toward the 20% requirement. Such a memo would typically include direct reference to a preliminary engineering or other planning document that makes clear that the basis upon which the project (or portion) was undertaken included identifiable and substantial benefits qualifying for the Green Project Reserve.

Although not intended to be an exhaustive list, we have identified a number of project and project-related costs below that could count toward the 20%. Examples that would require a business case are so noted.

Energy Efficiency:

I. Energy efficiency includes capital projects that reduce the energy consumption of eligible drinking water infrastructure projects

a. Web link to EPA's Better Management-Energy page
http://www.epa.gov/waterinfrastructure/bettermanagement_energy.html

b. Web link to EPA's clean energy site http://www.epa.gov/cleanenergy/

c. Clean energy includes wind, solar, geothermal, hydroelectric, and biogas combined heat and power systems.

II. Eligible costs associated with energy efficiency projects may include:

a. Planning and design activities for energy efficiency that are reasonably expected to result in a capital project are eligible.

b. Building activities that implement capital energy efficiency projects are eligible.

c. Costs associated with a utility energy audit if required as a condition of assistance

III. Energy efficiency projects can be stand alone projects. They do not need to be part of a larger capital improvement project.

IV. Examples of projects include, but are not limited to:

a. Energy efficient retrofits and upgrades to pumps and treatment processes (requires business case)

b. Leak detection equipment

c. Producing clean power for treatment systems on site (wind, solar, hydroelectric, geothermal, biogas powered combined heat and power)

d. Replacement or rehabilitation of distribution lines (requires business case)

Water Efficiency:

I. Water efficiency is the use of improved technologies and practices to deliver equal or better services with less water.

a. WaterSense program Focus on Utilities - http://www.epa.gov/watersense/tips/util.htm

II. Eligible costs associated with water efficiency projects may include:

a. Planning and design activities for water efficiency that are reasonably expected to result in a capital project.

b. Purchase of water efficient fixtures, fittings, equipment, or appliances

c. Purchase of leak detection devices and equipment

d. Purchase of water meters, meter reading equipment and systems, and pipe

e. Construction and installation activities that implement capital water efficiency projects.

f. Costs associated with development of a water conservation plan if required as a condition of DWSRF assistance.

III. Water efficiency projects can be stand alone projects. They do not need to be part of a larger capital improvement project.

IV. Examples of projects include, but are not limited to**:**

a. Installation of water meters or automated meter reading systems

b. Retrofit or replacement of water using fixtures, fittings, equipment or appliances (can include rebate programs)

c. Distribution system leak detection equipment

d. Replacement or rehabilitation of distribution lines (requires business case)

Green Infrastructure:

I. Definition: Green Infrastructure includes a wide array of practices that manage wet weather to maintain and restore natural hydrology by infiltrating, evapotranspiring and capturing and using stormwater. In the context of the DWSRF, green infrastructure consists of site-specific practices, such as green roofs and porous pavement at drinking water utility facilities. In addition to managing rainfall, these green infrastructure technologies can simultaneously provide other benefits such as reducing energy demands.

a. Green infrastructure projects can be stand alone projects. They do not need to be part of a larger capital improvement project.

b. Examples of projects include, but are not limited to:

US EPA ARCHIVE DOCUMENT

i. Implementation of wet weather management systems for utility buildings and 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.

Environmentally Innovative Projects:

I. Definition: Within the context of the DWSRF program, "environmentally innovative projects" would include those that are: (1) consistent with the underlying project eligibilities of the DWSRF program; and (2) consistent with the timelines and objectives
of the ARRA; and (3) that demonstrate new and/or innovative approaches to delivering service and/or managing water resources in a more sustainable way, including projects that achieve public health protection and environmental protection objectives at the least life-cycle costs,

a. Environmentally innovative projects can be stand alone projects. They do not need to be part of a larger capital improvement project. Any project which a State wishes to qualify for funding from the Green Project Reserve on the basis of being an "Environmentally Innovative Project" would require business case documentation.

b. Examples of projects include, but are not limited to:

i. Projects, or components of projects, that enable the utility to adapt to the impacts of global climate change

ii. Projects, or components of projects, consistent with a "Total Water Management" planning framework; or other planning framework within which project life cycle costs (including infrastructure, energy consumption and other operational costs) are minimized.

US EPA ARCHIVE DOCUMENT