# KENTUCKY
# INTEGRATED PROJECT PRIORITY RANKING SYSTEM

For Wastewater, Stormwater and Nonpoint Source Projects
Eligible To Be Funded By The

KENTUCKY CLEAN WATER STATE REVOLVING FUND

**2015 Funding Cycle**


**ENERGY AND ENVIRONMENTCABINET**
**Department for Environmental Protection**
**Division of Water**

200 Fair Oaks Lane – 4th Floor
Frankfort, Kentucky 40601
Phone: (502) 564-3410
Fax: (502) 564-0111
water.ky.gov

# Table of Contents

I. Introduction ..... 1

II. Identifying and Ranking Water Quality Priorities ..... 2

A. Project Needs ..... 2
B. Regionalization ..... 4
C. Compliance and Enforcement ..... 5
D. Water Quality ..... 5
E. Financial Need ..... 7
F. Asset Management ..... 7
G. Green Projects ..... 7
H. Project Readiness .....

III. Summary of Points System Used to Establish Project Priority Ranking ..... 13

IV. Developing and Updating the Project Priority List and Intended Use Plan ..... 17

V. Eligible Project Applicants ..... 18

VI. References ..... 18

VII. Kentucky Division of Water State Priority Watersheds ..... 19

VIII. 319h Funded Watershed-Based Plans in Kentucky…..……20

# I. Introduction

The Federal Water Pollution Control Act of 1956 provided a strong role for the federal government in the construction of publicly owned wastewater treatment works. The amendments enacted in 1972, commonly referred to as the Clean Water Act (CWA), expanded the level of federal aid and increased the federal grant share in an effort by Congress to speed up the pace of construction of wastewater treatment facilities and eliminate the backlog of needed facilities. The 1977 Amendments to the Clean Water Act directed the Environmental Protection Agency (EPA) to delegate most of its construction grants management functions to the states. EPA continued to provide funds for grants to local governments to construct wastewater treatment facilities through federal fiscal year (FFY) 1990. The Water Quality Act of 1987, which amended the CWA, authorized EPA to make capitalization grants to each state for the purpose of establishing a water pollution control revolving fund for providing financial assistance for projects that protect and restore water quality, including publicly owned treatment works (POTWs), nonpoint source pollution control and estuary management. EPA made capitalization grants beginning in FFY 1987; however, when federal funding ends, the Clean Water State Revolving Fund (CWSRF) is to be maintained in perpetuity by the state to replace the previous federal participation.

The Kentucky General Assembly enacted House Bill 217 during the 1988 legislative session, which established the CWSRF as an enduring and viable fund. This fund is intended to allow the Commonwealth of Kentucky to qualify for the federal CWSRF capitalization grants. The CWA requires in section 602 a state match to be deposited into the CWSRF of an amount equal to at least 20 percent of the total amount of all capitalization grants which will be made to the State.

The CWSRF may fund projects for construction of publicly owned treatment works as defined in section 212 of the Clean Water Act, including stormwater projects. The CWSRF may also fund nonpoint source pollution control activities which implement the U.S. EPA-approved *Kentucky Nonpoint Source Management Program - 2.0* (Kentucky Division of Water, 2002) required under Section 319 of the Clean Water Act, which lists specific activities for controlling nonpoint source pollution impacts and identifies responsible implementing agencies and potential/available funding sources.

The purpose of this document is to outline the Division of Water's (DOW) project selection and ranking criteria which shall be used to establish project priority ranking in the annual CWSRF Intended Use Plan (IUP). This document, entitled the *Integrated Project Priority Ranking System (IPPRS)*, complies with EPA's *Integrated Planning and Priority Setting in the Clean Water State Revolving Fund* guidance (EPA-832-R-01-002 March 2001), which states, "An integrated planning and priority setting system is effective if it ensures that CWSRF-funded projects address high priority water quality problems. Four actions are key to its success: identifying water quality priorities, assessing the CWSRF role, undertaking outreach efforts, and selecting priority projects."

DOW is committed to reassessing the Integrated Project Priority Ranking Criteria and Points System upon the completion of the initial review and ranking process and development of the 2015 Project Priority List. Modifications may be made to the criteria and points system if it is determined that this process does not meet EPA's guidance for utilizing the CWSRF to address the high priority water quality problems.

## II. Identifying and Ranking Water Quality Priorities

According to the March 2001 EPA IPPS guidance:

> "Water quality priorities provide a context for the activities of the CWSRF program. CWSRF resources should address these priorities in the most efficient manner possible. State water quality priorities also provide a valuable standard against which a state can measure the success of its water quality programs, i.e., has the state used its resources to address its highest water quality priorities?
>
> A state's water quality program should be the CWSRF's major resource in identifying the state's water quality priorities. A water quality program has typically developed its understanding of the state's priorities by considering water quality information from many sources. Familiarity with these sources of water quality information is also useful to the CWSRF during the development of project ranking systems."

DOW operates several water quality programs that have been used to identify criteria for ranking projects in the context of CWSRF funding priority.

All surface waters in Kentucky are assessed based on a five-year, rotating watershed basin cycle. Assessment data and narrative explanations are compiled into the 305(b) Report to Congress. Section 303(d) of the CWA requires each state to list those waters within its boundaries for which technology based effluent limitations are not stringent enough to protect any water quality standard applicable to such waters. The 303(d) List of Waters identifies all waters assessed as "impaired" for one or more pollutants, and are therefore waters not "meeting the water quality standard." Listed waters are prioritized with respect to designated use classifications and the severity of pollution. The 305(b) report and 303(d) list are now published together in the *2010 Integrated Report to Congress on Water Quality in Kentucky* (Kentucky DOW, April 2010).

Kentucky is required to develop TMDLs for those water bodies that are not meeting water quality standards. The TMDL process establishes the allowable loadings of pollutants or other quantifiable parameters for a waterbody based on the relationship between point and nonpoint pollution sources and in-stream water quality conditions. See the following website for approved TMDLs http://water.ky.gov/waterquality/Pages/ApprovedTMDLs.aspx.

As required in 200 KAR 17:050, the cabinet shall determine the priority for funding eligible projects to be included on the Project Priority List based on criteria established pursuant to 33 U.S.C. 1296, which states that projects should be designed to achieve optimum water quality management consistent with public health and water quality goals, and the following:

### A. Project Needs

A project is awarded points based on the importance of the need in addressing a water quality or public health problem. Each of the need categories are defined in this section.

Criterion #1: Combined Sewer Overflow (CSO) Correction- Correction measures used to achieve water quality objectives by preventing or controlling periodic discharges of a mixture of storm water and untreated wastewater (combined sewer overflows) that occur when the capacity of a sewer system is exceeded during a rainstorm.
**Points Received: 40**

Criterion #2: Sanitary Sewer Overflow (SSO) Correction- Control of sanitary sewer overflows caused by excessive infiltration and inflow into the sanitary sewer collection system. The problem of water penetration into a sewer system from the ground through such means as defective pipes or manholes (infiltration) or from sources such as drains, storms sewers, and other improper entries into the systems (inflow). Sanitary sewer overflow refers to overflow, spill, release, or discharge of untreated or partially treated wastewater from a sanitary sewer system.
**Points Received: 30**

Criterion #3: Replacement or Rehabilitation of Aging Infrastructure, including correction of moderate infiltration and inflow (i.e., no associated SSO)- Reinforcement or reconstruction of structurally deteriorating interceptor or collector sewers and pipes used to collect and convey wastewater by gravity or pressure flow to a common point. Projects that propose to correct infiltration and inflow (i.e., no associated SSO) go under this criterion.
**Points Received: 20**

Criterion #4: New Treatment Plant- Construction of a new facility including any devices and systems used in the storage, treatment, recycling or reclamation of municipal sewage, sewage sludge, and biosolids, or industrial waste.
**Points Received: 10**

Criterion #5: New Collector Sewers and Appurtenances- Install new pipes used to collect and carry wastewater from a sanitary or industrial wastewater source to an interceptor sewer that will convey the wastewater to a treatment plant.
**Points Received: 10**

Criterion #6: Decentralized Wastewater Treatment Systems- This includes onsite, mound, and/or cluster treatment systems that process household and commercial sewage that may include, but are not limited to, septic systems, disposal beds and packaged wastewater treatment plants configured to treat and dispose of the wastewater without offsite discharge. Usually the wastewater is percolated into the soil through infiltration beds or trenches or is disposed by irrigation or other means.
**Points Received: 20**

Criterion #7: Upgrade to Advanced Treatment- Upgrade of a facility to a level of treatment that is more stringent than secondary treatment or produces a significant reduction in nonconventional pollutants.
**Points Received: 20**

Criterion #8: Rehabilitation/Upgrade/Expansion of Existing Treatment Plant- Rehabilitation, upgrades, improvements, or expansion of existing treatment plant.
**Points Received: 20**

Criterion #9: New Interceptors and Appurtenances- Install new major sewer lines receiving wastewater flows from collector sewers. The interceptor sewer carries wastewater directly to the treatment plant or another interceptor.
**Points Received: 10**

Criterion #10: Storm Water Control- Storm water is defined as runoff water resulting from precipitation. Includes activities to plan and implement municipal storm water management programs with environmental benefits pursuant to National Pollutant

Discharge Elimination System permits for discharges from municipal separate storm sewer systems.
**Points Received: 20**

Criterion #11: Nonpoint Source (NPS) Pollution Control- NPS project may include, but not limited to, stream restoration, Best Management Practices, and land purchases.
**Points Received: 20**

Criterion #12: Recycled Water Distribution- Project that may include, but are not limited to, the recycling of nonpotable water or reclaimed water for irrigation and other nonpotable uses.
**Points Received: 10**

Criterion #13: Planning- Developing plans to address water quality and water quality-related public health problems that are supported by sound science and appropriate technology. Examples included Watershed-Based Plan, Total Maximum Daily Load Implementation Plans and Long-term Control Plans for Combined Sewer Overflow (CSO).
**Points Received: 10**

Criterion #14: Other- If any project that does not meet the list of project needs definitions and/or standards provided above. If it does meet the Other category please list a project need.
**Points Received: 10**

## B. Regionalization

1. Criterion #1: Will this project provide regionalization and/or consolidation of wastewater treatment systems?
   This question addresses regionalized wastewater treatment approaches which may significantly minimize wastewater impacts. Regionalization occurs when smaller systems integrate part or all of their wastewater management systems to reduce costs, improve service, and maintain regulatory compliance. Smaller systems, regardless of ownership status, lack economics of scale and are having an increasingly difficult time finding the capital and human resources required to comply with stringent water quality standards to remain viable. Large wastewater systems are generally encouraged to acquire smaller systems in an effort to address the growing number of unviable water/ wastewater systems. Regionalized wastewater treatment approach may significantly minimize wastewater impacts, resulting in a reduced number of NPDES discharges. This includes projects that will combine and/or eliminate one or more existing treatment plants, result in the abandonment of one or more wastewater treatment plants and connection to an existing wastewater treatment plant, acquisitions of smaller systems by larger systems, mergers between utilities. Project must reduce the number of KPDES discharges.
   **Points Received: 20**

## C. Compliance and Enforcement

Criterion #1: Is the project necessary to achieve full or partial compliance with a court order, or a judicial or administrative consent decree?
**Points Received: 50**

Criterion #2: Will the project achieve voluntary compliance (violation with no order)?

This question refers to when the facility/system is out of compliance before the project is implemented and will be in compliance at project completion.
**Points Received: 25**

## D. Water Quality

Criterion #1: Will the project implement an approved Total Maximum Daily Load (TMDL) for impaired waterbodies?
This question addresses the TMDL process, which establishes the allowable loadings of pollutants or other quantifiable parameters for a waterbody based on the relationship between point and nonpoint pollution sources and in-stream water quality conditions. See the following website for approved TMDLs http://water.ky.gov/waterquality/Pages/ApprovedTMDLs.aspx.
**Points Received: 10**

Criterion #2: Will the project allow that system to address existing or projected nutrient TMDL?

This question considers the impact of a project on the water quality of nutrient impaired streams that have an existing or are projected to have a nutrient TMDL.
**Points Received: 30**

Criterion #3: Will the project implement any part of an approved Watershed Plan?
Please refer to list of approved watershed plans on page 20.
**Points Received: 10**

Criterion #4: Will the project make reasonable progress towards eliminating identified pollutant sources for waterbodies that appear on the *2010 Integrated Report to Congress on Water Quality in Kentucky*?
This question addresses the state's goal to improve water quality in impaired waterbodies. The 2010 Integrated Report and maps are available on DOW's website. http://water.ky.gov/waterquality/Pages/IntegratedReport.aspx. The reports list the impaired waterbodies with the pollutants of concern and probable sources of the pollutants.
**Points Received: 20 for each pollutant-water body combination addressed**

Criterion #5: Will the project eliminate existing or potential sources of pollution in groundwater sensitivity areas?
This question considers the importance of groundwater as one of Kentucky's vital resources as a source of drinking water, a source for industrial and agricultural use, and the source of sustained base flow in most streams. Groundwater is classified across the state on a scale from 1 (lowest) to 5 (highest) sensitivity. Groundwater data is available for download at http://kygeonet.ky.gov/metadataexplorer/.
**Points Received: 15 if project is in a 4 or 5 sensitivity area**
**Points Received: 10 if project is in a 2.5 or 3 sensitivity area**

Criterion #6: Will the project eliminate existing or potential sources of pollution in an identified SWAPP zone or WHPA?
Each public water supply (PWS) must develop a Source Water Assessment and Protection Plan (SWAPP) which delineates its drinking water source protection area, called SWAPP zones or Wellhead Protection Areas (WHPA), and potential sources of contamination within those areas. Look up your SWAPP and WHPA areas in the Watershed Viewer at http://eppcmaps.ky.gov/website/watershed/viewer.htm.

**Points Received: 10 for each SWAPP Zone 1 or WHPA Zone 3**
**Points Received: 7 for each SWAPP Zone 2 or WHPA Zone 2**
**Points Received: 3 for each SWAPP Zone 3 or WHPA Zone 1**

Criterion #7: Will the project make reasonable progress towards eliminating identified pollutant sources of water quality impairments within an identified DOW Priority Watershed?
The Division of Water has developed a list of state priority watersheds at the HUC11 level. *Please refer to the list of Kentucky Division of Water State Priority Watersheds on Page 19.*
**Points Received: 20**

Criterion #8: Will the project protect Special Use Waters?
This question considers the importance of protecting special waters in Kentucky. Special Use Waters are rivers, streams and lakes listed in Kentucky Administrative Regulations (http://www.lrc.state.ky.us/kar/TITLE401.HTM) as Cold Water Aquatic Habitat (401 KAR 10:031 Section 4), Exceptional Waters (401 KAR 10:030 Section 1), Reference Reach Waters (401 KAR 10:030 Section 1), Outstanding State Resource Waters (401 KAR 10:031 Section 8), Outstanding National Resource Waters (401 KAR 10:030 Section 1), State Wild Rivers (Kentucky Wild Rivers Act of 1972), and Federal Wild and Scenic Rivers (Wild and Scenic Rivers Act, PL 90-542). http://water.ky.gov/waterquality/Pages/SpecialUseWaters.aspx
**Points Received: 10**

Criterion #9: Will the project eliminate existing or potential sources of contamination within a 5-mile radius of a drinking water source location?
This question considers the importance of protecting drinking water supplies from potential contaminant sources.
**Points Received: 10**

Criterion #10: Will the project eliminate failing on-site septic tanks or straight pipes?
This question considers the importance of protecting groundwater and surface water quality from potential contaminant sources.
**Points Received: 15**

## E. Financial Need

This section of the project ranking criteria considers the importance or the ability of facilities/systems to acquire and manage sufficient financial resources to achieve and maintain regulatory compliance.

Points will be given if the project is in an area of Kentucky where the Median Household Income (MHI) is at or below 80 percent of the State's MHI as determined by the American Community Survey (ACS) 5-Year Estimate (2009-2013).
**Points Received: 20**

Points will be given if the project is an area with a MHI between 80 percent of the State's MHI and the State's MHI as determined by the ACS 5 Year Estimate (2009-2013).
**Points Received: 10**

## F. Asset Management

Criterion #1: System has a Capital Improvement Plan or similar planning document.
Points will be given if the system has mapped its treatment and collection system and

analyzed conditions, including risks of failure, expected dates of renewals and ultimate replacements, and sources and amounts of revenues needed to finance operation, maintenance, and capital needs (e.g., Capital Improvement Plan (CIP), Asset Inventory Report Form). To obtain points under this category a copy of the planning document should be uploaded in WRIS.
**Points Received: 20**

Criterion #2: System has developed appropriate rate structures to build, operate, and maintain the water works.
To obtain points under this category supporting documents should be uploaded in WRIS.
**Points Received: 10**

Criterion #3: System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure.
To obtain points under this category supporting documents should be uploaded in WRIS.
**Points Received: 10**

**G. Green Projects**

The following four categories will be considered incentives by the Kentucky Division of Water, and projects that incorporate components from any of the categories will receive bonus points. ***Projects with an "*" require business case***.

**1. Green Infrastructure:**

**Definition:** Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintains and restores natural hydrology by infiltrating, evapotranspiring and harvesting 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, permeable pavements and cisterns.

**Examples:**

- Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-ways), for either new development, redevelopment or retrofits 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. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.
- 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. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.
- 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.

- Downspout disconnection to remove stormwater from sanitary, combined sewers and separate storm sewers and manage runoff onsite.
- 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.
- Establishment or restoration of permanent riparian buffers, floodplains, wetlands and other natural features, including vegetated buffers or soft bioengineered stream banks. This includes stream day lighting that removes natural streams from artificial pipes and restores a natural stream morphology that is capable of accommodating a range of hydrologic conditions while also providing biological integrity. In highly urbanized watersheds this may not be the original hydrology.
- Projects that involve the management of wetlands to improve water quality and/or support green infrastructure efforts (e.g., flood attenuation).
    - Includes constructed wetlands.
    - May include natural or restored wetlands if the wetland and its multiple functions are not degraded and all permit requirements are met.
- 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.
- Fee for simple purchase of land or easements on land that has a direct benefit to water quality, such as riparian and wetland protection or restoration.
- Fencing to keep livestock out of streams and stream buffers. Fencing must allow buffer vegetation to grow undisturbed and be placed a sufficient distance from the riparian edge for the buffer to function as a filter for sediment, nutrients and other pollutants.*

**Points Received: 5 each / maximum 10**

Projects That Do Not Meet the Definition of Green Infrastructure:

- Stormwater controls that have impervious or semi-impervious liners and provide no compensatory evapotranspirative or harvesting function for stormwater retention.
- Stormwater ponds that serve an extended detention function and/or extended filtration. This includes dirt lined detention basins.
- In-line and end-of-pipe treatment systems that only filter or detain stormwater.
- Underground stormwater control and treatment devices such as swirl concentrators, hydrodynamic separators, baffle systems for grit, trash removal/floatables, oil and grease, inflatable booms and dams for in-line underground storage and diversion of flows.
- Stormwater conveyance systems that are not soil/vegetation based (swales) such as 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.

**2. Water Efficiency:**

**Definition:** EPA's WaterSense program defines water efficiency as the use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future.

**Examples:**

- Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances
  - For example -- shower heads, toilets, urinals and other plumbing devices
  - Implementation of incentive programs to conserve water such as rebates.
- Installing any type of water meter in previously unmetered areas
  - If rate structures are based on metered use
  - Can include backflow prevention devices if installed in conjunction with water meter
- Replacing existing broken/malfunctioning water meters, or upgrading existing meters, with:
  - Automatic meter reading systems (AMR), for example: Advanced metering infrastructure (AMI), 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 with more efficient landscape irrigation systems, including moisture and rain sensing equipment.
- Retrofit or replacement of existing agricultural irrigation systems with more efficient agricultural irrigation systems.
- Water meter replacement with traditional water meters.*
- Projects that result from a water audit or water conservation plan.*
- Storage tank replacement/rehabilitation to reduce loss of reclaimed water.*
- New water efficient landscape irrigation system (where there currently is not one).*
- New water efficient agricultural irrigation system (where there currently is not one).*

**Points Received: 5 each / maximum 10**

Projects That Do Not Meet the Definition of Water Efficiency:

- Agricultural flood irrigation.
- Lining of canals to reduce water loss.
- Replacing drinking water distribution lines.
- Leak detection equipment for drinking water distribution systems, unless used for reuse distribution pipes.

**3. Energy Efficiency:**

**Definition:** Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water quality projects, use energy in a more efficient way, and/or produce/utilize renewable energy.

**Examples:**

- Renewable energy projects such as wind, solar, geothermal, micro-hydroelectric, and biogas combined heat and power systems (CHP) that provide power to a POTW. Micro-hydroelectric projects involve capturing the energy from pipe flow.
  - POTW owned renewable energy projects can be located onsite or offsite.
  - Includes the portion of a publicly owned renewable energy project that serves POTW's energy needs.
  - Must feed into the grid that the utility draws from and/or there is a direct connection.
- Collection system Infiltration/Inflow (I/I) detection equipment
- POTW energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas, which are reasonably expected to result in a capital project are eligible.
- POTW projects or unit process projects that achieve energy efficiency improvement. 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 POTW projects or capacity expansion projects should be designed to maximize energy efficiency and should select high efficiency premium motors and equipment where cost effective. Estimation of the energy efficiency is necessary for the project to be counted toward GPR.*
- Projects implementing recommendations from an energy audit.*
- Projects that cost effectively eliminate pumps or pumping stations.*
- Infiltration/Inflow (I/I) correction projects that save energy from pumping and reduced treatment costs and are cost effective*.
- Projects that count toward GPR cannot build new structural capacity. These projects may, however, recover existing capacity by reducing flow from I/I.*
- Replacing pre-Energy Policy Act of 1992 motors with National Electric Manufacturers Association (NEMA) premium energy efficiency motors.*
- Upgrade of POTW lighting to energy efficient sources such as metal halide pulse start technologies, compact fluorescent, light emitting diode (LED).*
- SCADA systems can be justified based upon substantial energy savings.*
- Variable Frequency Drive can be justified based upon substantial energy savings.*

**Points Received: 10 each/ no maximum**

Projects That Do Not Meet the Definition of Energy Efficiency:

- Renewable energy generation that is *privately* owned or the portion of a publicly owned renewable energy facility that does not provide power to a POTW, either through a connection to the grid that the utility draws from and/or a direct connection to the POTW.
- Simply replacing a pump, or other piece of equipment, because it is at the end of its useful life, with something of average efficiency.
- Facultative lagoons, even if integral to an innovative treatment process.
- Hydroelectric facilities, except micro-hydroelectric projects. Micro-hydroelectric projects involve capturing the energy from pipe flow.

**4. Environmentally Innovative:**

**Definition:** Environmentally innovative projects include those that demonstrate new

and/or innovative approaches to delivering services or managing water resources in a more sustainable way.

**Examples:**

- Total/integrated water resources management planning likely to result in a capital project.
- Utility Sustainability Plan consistent with EPA SRF's sustainability policy.
- Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry)
- Planning activities by a POTW to prepare for adaptation to the long-term effects of climate change and/or extreme weather.
- Construction of US Building Council LEED certified buildings or renovation of an existing building on POTW facilities.
- Decentralized wastewater treatment solutions to existing deficient or failing onsite wastewater systems.
- Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal.*
- Projects or components of projects that result from total/integrated water resource management planning consistent with the decision criteria for environmentally innovative projects and that are Clean Water SRF eligible.*
- Projects that facilitate adaptation of POTWs to climate change identified by a carbon footprint assessment or climate adaptation study.*
- POTW upgrades or retrofits that remove phosphorus for beneficial use, such as biofuel production with algae.*
- Application of innovative treatment technologies or systems that improve environmental conditions and are consistent with the Decision Criteria for environmentally innovative projects such as:*
    - Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment;
    - Treatment technologies or approaches that significantly reduce the volume of residuals, minimize the generation of residuals, or lower the amount of chemicals in the residuals. Includes composting, class A and other sustainable biosolids management approaches.
- Educational activities and demonstration projects for water or energy efficiency.*
- Projects that achieve the goals/objectives 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.*
    - Spray irrigation and overland flow of effluent is not eligible for GPR where there is no other cost effective alternative.

**Points Received: 5 each / maximum 10**

Projects That Do Not Meet the Definition of Environmentally Innovative:

- Air scrubbers to prevent nonpoint source deposition.
- Facultative lagoons, even if integral to an innovative treatment processes.
- Surface discharging decentralized wastewater systems where there are cost effective soil-based alternatives.
- Higher sea walls to protect POTW from sea level rise.
- Reflective roofs at POTW to combat heat island effect.

**H. Project Readiness:**

Criterion# 1: Borrower has submitted complete technical plans to the Division of Water; and

Criterion# 2: Borrower has conducted a full environmental review for all components of the project or has completed the cross-cutter scoping process (including eClearinghouse, US Fish and Wildlife service, National Resource Conservation Service, and State Historic Preservation Office reviews); and

Criterion# 3: Borrower has received funding commitments from other funding sources; or the CWSRF is the sole source of funding.

To be considered "project ready", the borrower must have completed a majority of the planning phase and be ready to bid the project.

**Points Received: 30 if all three criteria have been met**

**Note:** Plans do not have to be approved by the Division of Water, but they must have been submitted for review. A full environmental review does not have to be finalized however the cross-cutter scoping process must be complete. To obtain points under this category supporting documents should be submitted to Anshu Singh via email Anshu.singh@ky.gov or mailed to Division of Water, 200 Fair Oaks Lane, 4th Floor, Frankfort, KY 40601.

## III. Summary of Points System Used to Establish Project Priority Ranking

| Priority Ranking Criteria | | Possible Points |
|---|---|---|
| **A. Project Needs Category** | | |
| 1. | Combined Sewer Overflow (CSO) Correction | 40 |
| 2. | Sanitary Sewer Overflow (SSO) Correction | 30 |
| 3. | Replacement or Rehabilitation of Aging Infrastructure, including correction of moderate infiltration and inflow (i.e., no associated SSO). | 20 |
| 4. | New Treatment Plant | 10 |
| 5. | New Collector Sewers and Appurtenances | 10 |
| 6. | Decentralized Wastewater Treatment Systems | 20 |
| 7. | Upgrade to Advanced Treatment | 20 |
| 8. | Rehabilitation/Upgrade/Expansion of Existing Treatment Plant | 20 |
| 9. | New Interceptors and Appurtenances | 10 |
| 10. | Storm Water Control | 20 |
| 11. | Nonpoint Source (NPS) Pollution Control | 20 |
| 12. | Recycled Water Distribution | 10 |
| 13. | Planning | 10 |
| 14. | Other (specify): | 10 |
| **B. Regionalization** | | |
| 1. | Will this project provide regionalization and/or consolidation of wastewater treatment systems? Proposed project reduces the number of NPDES discharges by regionalization. | 20 |
| **C. Compliance and Enforcement** | | |
| 1. | Is the project necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree? | 50 |
| 2. | Will the project achieves voluntary compliance (violation with no order)? | 25 |
| **D. Water Quality** | | |
| 1. | Will the project allow the system to address existing Total Maximum Daily Load (TMDL)? | 10 |
| 2. | Will the project allow the system to address existing or projected nutrient TMDL? | 30 |
| 3. | Will the project allow the system to address an approved Watershed Management Plan? | 10 |
| 4. | Will the project make reasonable progress towards eliminating identified pollutant sources for waterbodies that appear on the *2010 Integrated Report to Congress on Water Quality in Kentucky*? | 20 points for each pollutant-waterbody combination |

| | | |
|---|---|---|
| 5. | Does the project eliminate existing or potential sources of pollution in groundwater sensitivity areas? | 15 points for high or highest sensitivity<br>10 points for moderate sensitivity |
| 6. | Is the project located within an identified SWAPP zone or WHPA? | 10 for each Zone 1<br>7 for each Zone 2<br>3 for each Zone 3 |
| 7. | Will the project make reasonable progress towards eliminating identified pollutant sources of water quality impairments within an identified DOW Priority Watershed? | 30 points |
| 8. | Will the project have a positive effect on Special Use Waters? | 10 points |
| 9. | Will the project have a positive impact on drinking water sources within a 5-mile radius of its location? | 10 |
| 10. | Will the project eliminate failing on-site septic tanks or straight pipes? | 15 |
| **E. Financial Need** | | |
| 1. | Borrowers with a median household income (MHI) at or below 80 percent of the State's MHI as determined by the American Community Survey (ACS) 5 Year Estimate (2007-2011) | 20 |
| 2. | Borrowers with a MHI between 80 percent of the State's MHI and the State's MHI as determined by the ACS 5 Year Estimate (2007-2011) | 10 |
| **F. Asset Management** | | |
| 1. | System has a Capital Improvement Plan or similar planning document | 20 |
| 2. | System has developed appropriate rate structures to build, operate, and maintain the water works | 10 |
| 3. | System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure | 10 |

| G. Green Projects (See Green Project Reserve Guidance Document) | | |
|---|---|---|
| 1. | Green Infrastructure: Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintains and restores natural hydrology by infiltrating, evapotranspiring and harvesting 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:<br>• Bioretention<br>• Trees<br>• Green roofs<br>• Permeable pavement<br>• Cisterns<br>• Constructed wetlands<br>• Urban forestry programs<br>• Downspout disconnection<br>• Riparian buffers and wetlands<br>• Sustainable landscaping and site design<br>• Purchase of land or easements on land for riparian and wetland protection or restoration<br>• Fencing to divert livestock from streams and stream buffers* | 5 pts. each/10 pts. maximum |
| 2. | Water Efficiency: The use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future. Examples include:<br><br>• Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals)<br>• Installing any type of water meter in previously unmetered areas (can include backflow prevention if in conjunction with meter replacement)<br>• Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention<br>• Retrofitting/adding AMR capabilities or leak equipment to existing meters<br>• Developing water audit and conservation plans, which are reasonably expected to result in a capital project<br>• Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate, and wastewater effluent reuse systems, extra treatment or distribution costs associated with water reuse)<br>• Retrofit or replacement of existing landscape irrigation/agricultural systems to more efficient landscape/agricultural irrigation systems (rain and moisture sensing equipment)<br>• Water meter replacement with traditional water meters *<br>• Projects that result from a water audit or water conservation plan*<br>• Storage tank replacement/rehabilitation to reduce water loss*<br>• New water efficient landscape/agricultural irrigation system, where there currently is not one* | 5 pts. each/10 pts. maximum |

| | | |
|---|---|---|
| 3. | Energy Efficiency: Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water projects, use energy in a more efficient way, and/or produce/utilize renewable energy. Examples include:<br><br>• Renewable energy projects such as wind, solar, geothermal, and micro-hydroelectric, and biogas combined heat and power systems that provide power to a POTW<br>• POTW-owned renewable energy projects<br>• Collection system infiltration/inflow (I/I) detection equipment<br>• POTW energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas<br>• Projects that achieve a reduction in energy consumption (pumps, motors)*<br>• Projects that cost effectively eliminate pumps or pumping stations*<br>• I/I correction projects that save energy from pumping and reduced treatment costs*<br>• Replacing old motors with premium energy efficiency motors*<br>• Upgrade of POTW lighting to energy efficient sources*<br>• SCADA systems where substantial energy savings can be demonstrated*<br>• Variable Frequency Drive (VFD) controllers where substantial energy savings can be demonstrated* | 10 pts. each |
| 4. | Environmentally Innovative: Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way. Examples include:<br><br>• Total integrated water resources management planning likely to result in a capital project<br>• Utility sustainability plan consistent with EPA's sustainability policy<br>• Greenhouse gas inventory or mitigation plan and submission of a GHG inventory to a registry as long as it is being done for an SRF eligible facility<br>• Planning activities by a POTW to prepare for adaption to the long-term affects of climate change and/or extreme weather<br>• Construction of US Building Council LEED certified buildings, or renovation of an existing building on POTW facilities<br>• Decentralized wastewater treatment solutions to existing deficient or failing onsite wastewater systems<br>• Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal*<br>• Projects that result from total/integrated water resource management planning consistent with the decision criteria for environmentally innovative projects and that are CWSRF eligible*<br>• Projects that facilitate adaptation of POTWs to climate change identified by a carbon footprint assessment or climate adaption study*<br>• POTW upgrades or retrofits that remove phosphorus for beneficial use, such as biofuel production with algae*<br>• Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment*<br>• Treatment technologies that significantly reduce the volume of residuals, generation of residuals, or lower the amount of chemicals in the residuals*<br>• Educational activities and demonstration projects for water or energy efficiency*<br>• Projects that achieve the goals/objectives of utility asset management plans*<br>• Sub-surface land application of effluent and other means for groundwater recharge, such as spray irrigation and overland flow* | 5 pts. each/10 pts. maximum |

| H. Project Readiness | | |
|---|---|---|
| 1. | Borrower has submitted complete technical plans and specifications to the Division of Water; and | 30 |
| 2. | Borrower has conducted a full environmental review for all components of the project or has completed the cross-cutter scoping process (including eClearinghouse, US Fish and Wildlife service, National Resource Conservation Service, and State Historic Preservation Office reviews); and | |
| 3. | Borrower has received funding commitments from other funding sources, where applicable | |

*Denotes that a business case may be required.

## IV. Developing and Updating the Project Priority List and Intended Use Plan

In order for a project to be considered for funding from the CWSRF, it must appear on the Comprehensive Project Priority List for the state fiscal year in which the project will receive a binding commitment. To be included in this list, an eligible project applicant must complete or update a Project Profile (and related mapping) in the Water Resource Information System (WRIS) through the Area Development District (ADD). Once the project is submitted for CWSRF funding, DOW staff will evaluate the project based on the ranking system discussed above and assign the project a numeric score. Eligible projects will then be added to the next Comprehensive Project Priority List. In the event of a tie, the following factors will be utilized to priority rank each project: (1) service of a small system as defined by population; (2) projects with existing enforcement actions (i.e. Agreed Orders, Consent Decrees); (3) water quality impacts; and (4) financial need as evident by the median household income of the applicant. If the project is only for accommodating future growth and will not address an existing water quality or public health need, and therefore does not receive any points from the above criteria, the project will be still included on the Comprehensive Project Priority List if it is eligible for CWSRF funding.

DOW and the Kentucky Infrastructure Authority (KIA) will prepare an annual Intended Use Plan (IUP) that will describe how the state intends to use the funds in the Kentucky CWSRF for each state fiscal year, and how those uses support the objectives of the CWA. DOW will publish and maintain the IUP and Project Priority List on its CWSRF website. Each IUP will include an updated Comprehensive Project Priority List and a Fundable List of projects that are anticipated to receive funding during that state fiscal year. Once the IUP has been drafted, notice will be given to the public that the draft IUP is available for review and comment for a period of at least 30 days. After the comment period has ended DOW and KIA will review any comments received and make changes to the IUP as appropriate. Both the draft and final IUPs will be available on DOW's CWSRF website.
http://water.ky.gov/Funding/Pages/CleanWaterStateRevolvingFund.aspx

## V. Eligible Project Applicants/Projects

Any governmental agency shall be eligible to apply for financial assistance for planning, design and construction of eligible projects. Any project that triggers the requirement of 401 KAR 5:006 wastewater planning regulation to submit a facility plan will be eligible for planning and design loan only.

## VI. References

Kentucky Division of Water website: http://water.ky.gov/Pages/default.aspx

Kentucky Division of Water CWSRF website: http://water.ky.gov/Funding/Pages/CleanWaterStateRevolvingFund.aspx

Kentucky Infrastructure Authority website: http://kia.ky.gov/

U.S. EPA 2010 website: http://www.epa.gov/waterinfrastructure/

## VII. Kentucky Division of Water State Priority Watersheds

| HUC | Watershed | River Basin |
|---|---|---|
| 05110001150 | Bacon Creek | Green and Tradewater |
| 05100101290 | Banklick Creek | Licking |
| 05140101250 | Beargrass Creek, St. Matthews | Salt |
| 05110001090 | Big Pitman Creek | Green and Tradewater |
| 05140104250030 | Boiling Springs | Salt |
| 05090201130 | Cabin Creek | Licking |
| 05100205280200 | Cane Run | Kentucky |
| 06040006040 | Clarks River | Four Rivers |
| 05100205190 | Clarks Run | Kentucky |
| 05130101330 | Clear Fork, Cumberland River | Upper Cumberland |
| 05130101330 | Clear Fork, Cumberland River | Upper Cumberland |
| 05130101055 | Clover Fork, Cumberland River | Upper Cumberland |
| 05100205170 | Dix River, Herrington Lake | Kentucky |
| 05100205410 | Eagle Creek mouth | Kentucky |
| 05130101350 | Elk Fork Creek | Upper Cumberland |
| 05070202060290 | Elkhorn Creek, near Pine Mountain | Big, Little Sandy and Tygarts |
| 05100101200 | Fleming Creek | Licking |
| 05140102180 | Floyds Fork | Salt |
| 05140102190 | Floyds Fork | Salt |
| 05100205180 | Hanging Fork Creek | Kentucky |
| 05070202020 | Jonican Branch, near Fish Trap Lake | Big, Little Sandy and Tygarts |
| 05130101450 | Laurel River | Upper Cumberland |
| 05070203170 | Levisa Fork, near Louisa | Big, Little Sandy and Tygarts |
| 05100101010 | Licking River, headwaters | Licking |
| 08010201010 | Mayfield Creek | Four Rivers |
| 05130101340 | Mud Creek | Upper Cumberland |
| 05100205020 | Muddy Creek | Kentucky |
| 00005100201 | North Fork Kentucky River | Kentucky |
| 05130206090010 | Pleasant Grove Creek | Four Rivers |
| 05070203040 | Prater Creek, near Banner | Big, Little Sandy and Tygarts |
| 05100204120 | Red River Gorge | Kentucky |
| 05140104250 | Sinking Creek, at Hardinsburg | Salt |
| 05130102090 | Sinking Creek, of Rockcastle River | Upper Cumberland |
| 05100205270 | South Elkhorn Creek | Kentucky |
| 05130205180 | South Fork Little River | Four Rivers |
| 05100102030 | Strodes Creek | Licking |
| 05100102050 | Townsend Creek | Licking |
| 05110002220 | West Fork Drakes Creek | Green and Tradewater |
| 05130206230 | West Fork Red River | Four Rivers |
| 05130206150 | Whippoorwill Creek | Four Rivers |

## VIII. 319h Funded Watershed-Based Plans in Kentucky

| Current 319(h) Funded Watershed-Based Plans in Kentucky | | | | |
|---|---|---|---|---|
| **Project Year** | **Watershed Name** | **Basin** | **Size of Watershed (sq. miles)** | **Completion Date** |
| 2002 | Dix River/Herrington Reservoir Applies to Clark's Run and Hanging Fork Subwatersheds | Kentucky | 28.5 / 96.5 | Accepted November 2009 |
| 2002 | Cane Creek | Four Rivers | 26 | Inactive* |
| 2002 | Upper East Fork Clarks River | Four Rivers | 48 | Accepted March 2010 |
| 2003 | Floyds Fork | Salt | 284 | Inactive* |
| 2004 | Corbin City/Laurel River | Upper Cumberland | 200.5 | Accepted May 2007 |
| 2004 | Darby Creek of Harrods Creek | Salt | 10.4 | Inactive* |
| 2004 | Dry Creek of Triplett Creek | Licking | 11.5 | Accepted May 2010 |
| 2004 | Town Branch (Stockton Creek) of Fleming Creek | Licking | 5.9 | Accepted June 2010 |
| 2004 | Hancock Creek of Strodes Creek | Licking | 12.9 | Accepted June 2010 |
| 2005 | Bacon Creek | Green | 90.5 | Accepted March 2011 |
| 2005 | Pleasant Grove Creek | Four Rivers | 34 | Inactive* |
| 2005 | Ten Mile Creek of Eagle Creek | Kentucky | 10.5 | Accepted Nov 2005 |
| 2005 | Pleasant Run | Green | 13 | Accepted Dec 2005 |
| 2005 | Benson Creek (Goose Creek) | Kentucky | 107 (10.27) | Inactive* |
| 2006 | Curry's Fork | Salt | 28.5 | Accepted March 2012 |
| 2006 | Three sub-watersheds of Big South Fork: Bear Creek, Roaring Paunch, Big Creek | Upper Cumberland | 155.5 | Provisional Acceptance Oct 2012 |
| 2006 | Cane Run | Kentucky | 24.7 | Accepted Oct 2011 |
| 2006 | Rock Creek | Upper Cumberland | 13.2 | Accepted April 2008 |
| 2007 | Banklick Creek | Licking | 58 | Accepted May 2010 |
| 2007 | Elkhorn Creek | Big Sandy | 53 | Inactive* |
| 2008 | Triplett Creek | Licking | 180 | Expected Completion Dec 2013 |
| 2008 | Hinkston Creek | Licking | 260 | Accepted July 2011 |
| 2009 | Red River | Kentucky | 105 | Expected Completion Dec 2013 |
| 2009 | Gunpowder Creek | Licking | 58 | Expected Completion Dec 2013 |

| | | | | |
|---|---|---|---|---|
| 2009 | Wolf Run | Kentucky | 10 | Accepted March 2013 |
| 2010 | Woolper Creek | Licking | 33 | Expected Completion Oct 2014 |
| 2010 | Brushy Creek | Upper Cumberland | 44 | Expected Completion Dec 2013 |
| 2011 | Sinking Creek | Upper Cumberland | 34 | Expected Completion Dec 2015 |
| 2011 | Kinniconick Creek | Licking | 23 | Expected Completion Dec 2015 |
| * Inactive - Partial plan completed but not accepted by Kentucky Division of Water | | | | |