
CLEAN WATER STATE REVOLVING FUND

State Fiscal Year 2020 Intended Use Plan

COMMONWEALTH OF KENTUCKY



Prepared by the

KENTUCKY INFRASTRUCTURE AUTHORITY
&
ENERGY AND ENVIRONMENT CABINET

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INTRODUCTION

The 2020 Intended Use Plan (IUP) is a document that is required for participation in the Clean Water State Revolving Fund Program (CWSRF). The IUP's purpose is to communicate Kentucky's CWSRF plan for state fiscal year 2020 to potential borrowers from the CWSRF, the public wastewater systems, the public, the U.S. Environmental Protection Agency (USEPA), and other interested parties. The IUP is prepared in accordance with Title VI of the Clean Water Act (CWA) and the Consolidated Appropriations Act, 2019 (Pub. L. 116-6, March 15, 2019).

Projects to be considered for funding through the CWSRF are submitted during the call for projects. Projects are reviewed for eligibility and ranked for funding priorities. Eighty-four projects were considered for funding from the CWSRF. The total amount requested is approximately \$242 million. The total project need from all funding sources is nearly \$600 million. The requests are primarily to fund construction but includes planning and design. The purpose of the IUP is to serve as the public documentation of the list of projects anticipated for funding as shown on the Comprehensive Project Priority List. This Project Priority List (PPL) is provided in Appendix A.

An annual IUP is required by Title VI of the CWA and is an integral part of the process to request the federal funds. Each year, the US Congress authorizes funding for the CWSRF through the USEPA. USEPA then prepares allocations for states to receive the funds by way of a Capitalization Grant. The current IUP is for the 2019 Capitalization Grant, which is the FFY of October 1, 2019 through September 30, 2020. This IUP identifies how the funds available to Kentucky's CWSRF will be used during the state fiscal year (SFY) of July 1, 2019 through June 30, 2020.

The IUP identifies how the funds will be used to support the goals of the CWSRF. The 2020 IUP includes:

1. A description of the short and long term goals of the CWSRF;
2. The criteria and methods established for selecting projects;
3. Administration and operation policies of the CWSRF established by the KIA for compliance with requirements of the US Congress authorization as administered by the USEPA;
4. The public participation process;
5. The sources and uses of available funds; and
6. The Project Priority List - a list of eligible projects whose sponsors expressed interest in low interest rate loans from the CWSRF.

What is the Clean Water State Revolving Fund?

The CWSRF is a national program by which the USEPA provides capitalization grants to states to further the goals of the CWA. The national CWSRF was created in 1988, to establish a water pollution control revolving fund that would provide financial assistance for construction of publicly owned treatment works under section 212 of the CWA, implementation of watershed management plans under section 319 of the CWA, and development and implementation of conservation and management plans under section 320 of the CWA.

The CWSRF was established to fund projects and activities whose primary goal is the protection of water quality. In 1996, the USEPA issued the funding framework, which encouraged all states that fund both point and nonpoint source projects to integrate their planning and priority ranking systems so that CWSRF funds can most effectively target the nation's highest water quality problems.

The general intent of Title VI of the CWA is to ensure that each state's CWSRF is designed and operated to provide financial assistance for water pollution control activities in perpetuity. This is done by providing annual capitalizations grants, while allowing states to utilize principal and interest repaid on prior loans to fund new loans. The Water Resources Reform and Development Act (WRRDA) amended Titles I, II, V, and VI of the CWA. The EPA implements the national CWSRF program in such a manner that preserves for states a high degree of flexibility to operate their programs in accordance with each state's unique needs and circumstances.

Kentucky's CWSRF financing program provides low interest loans for infrastructure projects that are considered a priority based on the water pollution control criteria outlined in the CWA. Projects identified to receive funding are selected from the ranked group of Project Profiles submitted during the annual Call for Projects. The Fund is administered by the KIA. By Memorandum of Agreement, the Kentucky Energy and Environment Cabinet (EEC) through the Division of Water (DOW) perform environmental and technical reviews on projects that seek assistance from the CWSRF. Since its inception in 1988, Kentucky's CWSRF has committed funds to 392 wastewater infrastructure projects, totaling more than \$1.5 billion (through April, 2019).

Eligibility

Only projects listed in the IUP are eligible for funding. Examples of eligible projects include:

- Planning, design, and construction of wastewater or stormwater collection, conveyance, and treatment facilities.
- The implementation of nonpoint source pollution control management programs.
- Purchase of another wastewater system eligible under 33 U.S.C. 1383(d).

An eligible borrower or borrowing entity means any agency of the state or its political subdivisions, any city, or any special district created under the laws of the state acting individually or jointly under interagency or interlocal cooperative agreements to enter into assistance agreements with the authority as defined in KRS 224A.011(6).

Some examples include:

- Municipal corporations
- Cities
- Agencies
- Commissions
- Authorities
- Districts

Ineligible Projects

The DOW declared two projects for the City of Cumberland as ineligible. The reason for the first, SX20195003 titled Tri Cities Sewer Interconnect Phase 1 was “It requires a Facility Plan and the project wasn’t resubmitted as a P&D loan”. The reason for the second, SX20195009 titled Wastewater Treatment Plant Rehabilitation was “The City isn’t clear what they want – expand their treatment plant or construct a new one for which they were planning to reduce their infiltration/inflow”.

Significant Federal Components and Requirements

Davis-Bacon Prevailing Wage Labor Laws Compliance

Federal labor laws regarding prevailing wages, hours of work, and rates of pay are collectively known as the Davis-Bacon laws. All projects funded in whole or in part with assistances from CWSRF will be required to comply with Davis-Bacon laws and incorporate their provisions into any project work that has been or will be contracted. For more information on Davis Bacon laws, please visit: <http://www.dol.gov/whd/regs/compliance/whdfs66.pdf>.

Additional Subsidization

The authorization of the federal capitalization grant requires that beyond the subsidization provided through the low interest financing, additional subsidization is to be provided to utilities in disadvantaged communities. The amount of the capitalization grant received from the federal government that is available for additional subsidization varies each year based on the allowable range authorized by the federal grant, and the amount decided upon by the Commonwealth of Kentucky. The FFY 2019 Capitalization Grant requires that at least 10 percent, or \$2,022,300 be provided as additional subsidization. An additional subsidization consistent with the WRRDA amended provisions will be provided between 0 to 30 percent, or up to \$6,066,900.

This additional subsidization is provided through forgiveness of a portion of the principal loan amount upon completion of the project. The KIA Board sets the amount of additional subsidization to be provided, and determines the maximum amount to any single borrower as well as the criteria for determining the projects that will be offered additional subsidization. For SFY 2020 the total amount of additional subsidization is approximately thirty percent (\$6,066,900).

Fifty percent of the loan amount, up to a maximum of \$1.3 million, may be offered as principal forgiveness to projects that qualify for the lowest non-standard interest rate. Kentucky based the determinations on the system’s MHI and affordability index. The affordability index is calculated by the utility rate (4,000 gallons) for the year divided by the MHI. Whether or not a borrower has instituted regular rate increases is also a significant consideration. The table below consists of the nine projects being invited to submit a loan application that includes principal forgiveness in order of their affordability index.

Loan Number	Applicant	Requested Loan Amount	Date of Last Rate Adjustment	Affordability Index	Principal Forgiveness
A20-028	Beattyville, City of	\$ 1,000,000	04/01/2018	2.03%	\$ 500,000
A20-002	Burkesville, City of	\$ 2,580,370	09/01/2018	1.98%	\$ 1,000,000
A20-019	Dawson Springs City Water/Sewer	\$ 951,000	07/01/2017	1.91%	\$ 475,500
A20-023	Bedford, City of	\$ 1,872,500	09/15/2016	1.69%	\$ 936,250
A20-003	Lincoln County Sanitation District ¹	\$ 4,336,000	10/02/2014	See note ¹	\$ 1,000,000
A20-030	Jackson, City of	\$ 1,017,000	07/01/2017	1.63%	\$ 508,500
A20-037	South Shore, City of	\$ 1,035,000	06/23/2011	1.52%	\$ 517,500
A20-004	Pineville, City of	\$ 3,741,746	07/01/2014	1.37%	\$ 919,050
A20-035	Graves County Water District ²	\$ 2,101,000	N/A	N/A	\$ 210,100
TOTAL:					\$ 6,066,900
¹ System newly formed in 2014. Rate increase expected.					
² This projects is eliminating the Fancy Farm wastewater package treatment plant.					

Three utilities have not adjusted rates since 2014. Those projects will be evaluated upon receipt of their loan documents. Accordingly, the amount of principal forgiveness allocated to the project may be reduced. Principal forgiveness will be reallocated in subsequent invitations as available.

If a loan is eligible for principal forgiveness, it will be allocated only once. Principal forgiveness will not be provided on loan increase requests. This includes projects receiving financing over multiple funding cycles.

In an effort to further protect public health and provide assistance to small wastewater systems and package treatment plants, KIA worked with DOW to identify such systems and will provide critical funding that will allow these systems to become sustainable through consolidation and regionalization. This is considered a “set aside” subsidization under the CWSRF program. If the total amount set aside for this purpose is not utilized during the 2020 funding cycle, KIA may retain the funds in the CWSRF program or provide additional principal forgiveness to eligible projects. Funding will be allocated based on the following factors: age of the system, the history of non-compliance, the structural condition of the wastewater treatment plant, and the population served.

Three potential projects were identified for Kentucky’s small wastewater “set-aside”, of which two are listed in the 2019 IUP. The City of Tompkinsville has CWSRF funding committed as of May 8, 2019 to eliminate the JH Carter High School package treatment plant. The Greenup Joint Sewer Agency did not meet program requirements prior to June 30, 2019. That project will eliminate the Greenup County High School package treatment plant and will receive an invitation for second round consideration. Therefore, \$210,100 is set-aside from the 2020 CWSRF program for the Graves County Water District project to eliminate the Fancy Farm package treatment plant.

Green Project Reserve

Provided that there are sufficient eligible projects in the 2020 Project Priority List, not less than 10 percent (\$2,022,300) of the funds shall be used by the KIA for projects that address green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities.

KIA will extend invitations to the following potential applicants. The Green Project Reserve requirement should be exceeded.

Loan Number	Applicant	Green Amount	Green Category
A20-002	Burkesville, City of	\$180,000	3, 4
A20-004	Pineville, City of	\$328,000	
A20-007	Mount Sterling, City of	\$10,842,500	1, 3, 4
A20-008	Louisville And Jefferson County Metropolitan Sewer District	\$1,540,000	3
A20-010	Louisville And Jefferson County Metropolitan Sewer District	\$2,025,000	3, 4
A20-012	Auburn, City of	\$1,110,000	2, 3
A20-013	Winchester Municipal Utilities Commission	\$20,000	
A20-014	Lewisburg, City of	\$540,000	3
A20-015	Brandenburg, City of	\$238,000	3, 4
A20-016	Adair County Water District	\$25,000	3
A20-020	Morehead, City of	\$1,365,500	3, 4
A20-023	Bedford, City of	\$100,000	3
A20-027	Eddyville, City of	\$65,000	1, 3
A20-030	Jackson, City of	\$447,130	3
A20-031	Russell, City of	\$350,000	3
		\$19,176,130	

The City of Burkesville and Pineville projects are highlighted because each have received loans for planning and design from KIA.

American Iron and Steel (AIS) Utilization

On June 10, 2014, the previously mentioned WRRDA amended the CWA to include permanent requirements for the use of American iron and steel products in CWSRF projects. Materials utilized must be certified as AIS. Implementation guidance can be found at the link below:

<https://www.epa.gov/cwsrf/state-revolving-fund-american-iron-and-steel-ais-requirement>

Fiscal Sustainability Plan

Section 603(d)(1)(E) of the CWA requires that a loan recipient develop and implement a fiscal sustainability plan that includes:

1. An inventory of critical assets that are a part of the treatment works;
2. An evaluation of the condition and performance of inventoried assets or asset groupings;
3. A certification that the recipient has evaluated and will be implementing water and energy conservation efforts as part of the plan; and
4. A plan for maintaining, repairing, and, as necessary, replacing the treatment works and a plan for funding such activities.

The recipient may also certify that they have developed and implemented a plan that meets the forgoing requirements.

Cost and Effectiveness Evaluation

In accordance with Section 602(b)(13) of the CWA, as amended: "... the recipient of such assistance must certify, in a manner determined by the Governor of the State, that the recipient has studied and evaluated the cost and effectiveness of the processes, materials, techniques, and technologies for carrying out the proposed project or activity for which assistance is sought under this title; and has selected, to the maximum extent practicable, a project or activity that maximizes the potential for efficient water use, reuse, recapture, and conservation, and energy conservation, taking into account the cost of constructing the project or activity, the cost of operating and maintaining the project or activity over the life of the project or activity, and the cost of replacing the project or activity."

Single Audit Requirement

If more than \$750,000 of federal funds is disbursed during any one (borrower) fiscal year, the borrower is required to have a single or program-specific audit conducted for that year in accordance with 2 CFR 200 *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

CLEAN WATER STATE REVOLVING FUND GOALS

The following are goals for implementation of the CWSRF. Some goals address improvements and enhancements to the process of administering the CWSRF by the KIA, while other goals address the overall priorities of meeting clean water goals for the citizens of the Commonwealth of Kentucky.

Sustainable Infrastructure Initiative

The combination of aging water and wastewater infrastructure, population fluctuates, and declining investments in the area of water pollution abatement is forcing states and local governments to explore innovative methods for funding future water and wastewater capital projects. The USEPA collaborated with external stakeholders and developed the Sustainable Infrastructure (SI) Initiative with a goal to reduce the funding gap between projected investment needs and current spending levels at the federal and local levels so the public can continue to enjoy safe drinking water and adequate sanitary service.

Kentucky is working to provide knowledge and tools to ensure that the investments made in our water infrastructure to move us toward a more sustainable footing. The goal can be achieved through strong infrastructure planning and management practices. Some of the key areas for action are:

- Asset Management - A management framework that ensures the right investments are made at the right time.
- Water & Energy Efficiency - Ensuring that water sector systems adopt sustainable practices and technologies for improving their efficiency, reducing costs and addressing future needs.
- Infrastructure Financing & the Price of Water Services - Options to pay for water infrastructure needs.
- Alternative Technologies & Assessment - Using the best, newest, and most innovative solutions when investing in water infrastructure.

Short-Term Goals

Goal #1: Enhance loan closing procedures and refine repayment procedures.

Goal #2: Promote the principles of USEPA's SI Initiative to loan recipients through education and outreach so that SI practices are considered in planning, design, and construction activities.

Goal #3: Improve SRF training to borrowers, project administrators, Area Development Districts (ADDs), and the engineering community.

Goal #4: Identify distressed borrowers through compliance monitoring and provide targeted financial and managerial guidance.

Goal #5: Develop a focused marketing strategy in conjunction with EEC to target systems with compliance and energy efficiency needs.

Goal #6: Work toward the use of electronic forms and data as opposed to paper documents, where possible.

Long-Term Goals

- Goal #1: Work with the EEC to explore solutions to increase energy efficiency for clean water utilities and future non-compliance issues under the CWA.
- Goal #2: Streamline loan processes, communication, and the sharing of data between KIA and DOW.
- Goal #3: Implement the utility portal within the Water Resources Information System (WRIS) to improve communication and reporting between the utility, KIA, and regulatory agencies.
- Goal #4: Participate in planning for small wastewater package treatment plant elimination and regionalization.

PROJECT PRIORITY LIST

Following the USEPA's recommendation, Kentucky developed the Priority System Guidance Document (Appendix C), designed to equally evaluate publicly owned treatment works, storm water, and nonpoint source projects according to water quality based criteria developed by the DOW.

Each year, the KIA issues a Call for Projects where potential borrowers are invited to submit CWSRF project information via the WRIS. The 2020 Call for Projects occurred October 3, 2018 through December 14, 2018. To communicate this Call for Projects, a press release through the Governor's Office was issued. Additionally, an email distribution was sent to all sewer utilities, ADDs, mayors, county judge executives, and the engineering community. A sample of the Call for Projects email is attached in Appendix B.

Properly submitted projects were considered for funding and eligible projects placed on the Project Priority List. Projects were evaluated and assigned a score based upon the ranking criteria in the Priority System Guidance Document (Appendix C). In the event of a tie, the following factors were utilized to priority rank each project:

1. The size of 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 of the project; and
4. Financial need as evidenced by the median household income of the applicant.

The 2020 Project Priority List (Appendix A) shows that Kentucky has sufficient eligible projects to meet the binding commitment requirements of the FFY 2019 Capitalization Grant. A brief description of the following fields will be helpful in reviewing the list.

Rank: Rank of project on the comprehensive Project Priority List.

Score: Total number of points the project received using the ranking criteria in Appendix C.

Loan Number: Priority list tracking number for project. This is the assigned loan number for the project throughout the process and should be referred to on all correspondence regarding the project.

Applicant: Name of applicant identified on the Project Profile Form or the community in which the project is associated.

Loan Package Title: Short description of project components (may include multiple project profiles identified by their WRIS #).

Requested Loan Amount: Amount of desired SRF loan identified on the Project Profile Form.

Invited Loan Amount: The amount of CWSRF funds that KIA has allocated to the proposed project. If this field lists a dollar amount greater than zero, then the project is invited for funding.

Principal Forgiveness Amount: Estimated amount of principal forgiveness that a project is eligible to receive. Eligibility does not guarantee that a project will be offered principal forgiveness due to the amount of funds available.

GPR Amount: Amount of desired SRF loan identified that may qualify as green infrastructure.

Green Category: Identified numerically as to which category identified green infrastructure components are classified (1 – Green Infrastructure, 2 – Water Efficiency, 3 – Energy Efficiency, 4 – Environmentally Innovative).

WRIS #: The WRIS number is the identification number assigned to each project profile by an Area Water Management Council after a project has received endorsement. Information stored in the WRIS database includes geographic information system (GIS) data, information on water resources, and drinking and wastewater facilities. It is used by different entities and provides much of the information needed for all aspects of water resource planning.

The 2021 IUP process will begin in October 2019 with the annual Call for Projects and will conclude in December 2019 for projects to be considered in the SFY 2021 funding cycle. The following schedule is tentative:

2021 Call for Projects	October 1, 2019 - December 13, 2019
Creation of Project Priority List	January 1, 2020 - March 31, 2020
Public Notice Period for IUP	May 1, 2020 - June 1, 2020
Finalize 2020 IUP and send to USEPA	Prior to June 30, 2019

Email notifications will be sent in September 2019 to all sewer utilities, ADDs, mayors, county judge executives, economic development directors, the engineering community and other stakeholders announcing the Call for Projects.

CWSRF ADMINISTRATION AND OPERATION

Although developing and maintaining a priority list is required by the CWA, states are not required to select the highest ranked projects in any given year for funding. However, due to limited funding availability, Kentucky will fund projects primarily based on priority ranking. Projects are vetted and many variables are considered prior to distribution of loan invitations.

Administrative Considerations

Funding Limits

Kentucky's CWSRF does not have a limit on the amount of funds that will be made available to any one borrower from a specific capitalization grant. However, limits may be imposed on borrowers that have outstanding loan balances or loan commitments that increase the concentration risk for the total KIA loan portfolio.

Addition of New Projects to the Project Priority List

The Project Priority List may be amended during the year to add eligible projects. Major revisions to the IUP require public notice.

Emergency Projects

The Project Priority List may be amended during the year for declarations of emergencies designated by the Governor or the Secretary of EEC. An emergency project might involve an unanticipated failure requiring immediate attention to protect public health. The emergency project must meet all eligibility and loan requirements, but the additional public review and comment requirement may be waived. The EPA must approve these deviations.

Refinancing

Governmental agencies may request to refinance non-KIA loans through the CWSRF. Refinancing projects will be considered by KIA only when all the following criteria are met:

1. There are sufficient funds available in the CWSRF to meet all other identified project needs for the program year;
2. The applicant can show significant savings as a result of the refinancing;
3. The applicant can identify an environmental problem within their jurisdiction that they are willing to immediately address with the savings achieved through the refinancing; and
4. Projects, as constructed, met all the applicable program requirements.

Financial Terms of Loans

Interest Rates

The KIA Board sets the interest rates provided through the CWSRF. The KIA Board must review and approve the interest rates at least annually. Rates are based on prevailing market conditions with the 20 Bond General Obligation Index as a reference rate. Kentucky has one standard interest rate and two non-standard interest rates for the CWSRF program primarily dependent upon the community's Median Household Income (MHI). Information is provided in the next section for Kentucky's methodology for MHI determination.

1. The standard rate is applied when the MHI is equal to or above the Kentucky MHI of \$46,535.
2. The first non-standard rate is applied for the following reasons:
 - a. When the MHI is greater than 80% but less than the Kentucky MHI;
 - b. Projects that meet the definition for regionalization; or
 - c. Projects necessary for compliance with an Agreed Order or Consent Decree.
3. The second non-standard rate is applied when the MHI is equal to or below 80% of the Kentucky MHI. This rate is also known as the Disadvantaged Community Rate (DCR).
 - a. Projects that qualify for the DCR are eligible for principal forgiveness consideration for and may request a loan amortization up to 30 years or the life expectancy of the facilities being financed.

The following interest rates were approved by the KIA Board on July 9, 2019 for this funding cycle:

Interest rate	MHI Threshold	Loan Type
2.50 (Standard)	> or = \$46,535	Construction
1.50 (Non-standard)	\$37,227 to \$46,534	Construction
0.50 (Non-standard or DCR)	< or = \$37,228	Construction
2.50	NA	Planning and Design

MHI Determination

Each project's MHI threshold is calculated automatically in the WRIS Portal. The calculation uses a Default Weighted Proximity Analysis (DWPA). This analysis uses the water distribution/sewer collection lines in the project profile mapping to perform a spatial analysis that estimates the serviceable population of the project area. This is done by applying 2010 census blocks and a weighted MHI value using the applicable 5-Year American Community Survey Estimates. The MHI values generated using the DWPA method are in the WRIS Project Profiles.

If the applicant or representative has concerns with the default method, two alternative options are available: Modified Weighted Proximity Analysis or MHI Income Survey. Borrowers should not proceed with either alternative MHI methodology without first contacting KIA Staff. The Modified Weighted Proximity Analysis is a GIS based assessment that uses customer meters or address points

to calculate an estimated MHI for the project or service area. The second option is to complete an MHI Income Survey using a multi-funding source questionnaire for the project service area.

Repayment Terms

Planning, design, and sanitary sewer evaluation study (SSES) loans will be amortized over five years. If the planning and design loan is rolled into a KIA funded construction loan, the term for the planning and design amount will convert to the term approved for the construction loan. Construction loans will have a standard 20 year repayment term. At the KIA Board's discretion, the repayment term for a construction loan for a service area that is eligible for the lowest non-standard rate may be extended to 30 years, but not beyond the expected design life of the project. Principal and interest payments on each loan will commence no later than the date specified in the Assistance Agreement.

Loan Servicing Fees

A loan servicing fee of 0.2 percent on the outstanding loan balance will be charged as a part of each semi-annual loan payment in accordance with 200 KAR 17:050, Section 12. The fee is assessed to recover administrative expenses of the Authority incurred over the life of the loan. These fees are accounted for outside of the program fund and will be used for necessary CWSRF program expenses.

Large Project Financing

Due to statewide demand, KIA may not have the capacity to offer full construction loans for large projects during a single funding cycle. As such, large project funding may be provided in increments pursuant to the initial loan Assistance Agreement and subsequent amendments. Each increment will have the same interest rate as established in the initial agreement. Approval of each amount is not guaranteed and would depend on the continued creditworthiness of the borrower. KIA will reassess loan compliance and creditworthiness prior to approval of each planned increment.

The City of Marion has the highest priority in the 2020 project ranking. KIA has committed \$587,200 for planning and design loan and \$4,802,590 for a construction loan to this large project financing to date. The City will receive an invitation to submit a loan application in the amount of \$5,455,000 for additional funding of the new wastewater treatment plant (see Appendix A.)

If a Modified Weighted Proximity Analysis or Income Survey Report is prepared to justify the lowest non-standard interest rate in the initial construction loan period, the borrower will automatically qualify for the disadvantaged or lowest nonstandard interest rate for the subsequent funding cycles without having to perform additional MHI analysis.

Planning and Design (P&D) Loans

KIA recognizes that larger or particularly complex projects may require a lengthy planning and design process and thus may not be ready for construction within the allotted twelve months after the Conditional Commitment Letter is issued or perhaps even with a six month extension period. For ranked projects that require funding for planning and design, before funding is available to draw (under a construction loan), KIA encourages applicants to apply for a P&D loan rather than a full construction loan.

P&D loans provide an opportunity for utilities to determine their exact needs without the time constraints in the project funding process. P&D loans can cover initial engineering assessments of the facilities, regionalization studies, alternative analyses, water supply evaluations, and rate studies for affordability. Additionally, P&D loans can be utilized to move forward into project design. This is specifically helpful for projects that may involve significant renovations at existing facilities or phased projects. P&D loans can also include easement acquisition and legal costs. Borrowers may draw funds throughout the planning process, however, only 50% of design costs may be drawn until plans and specifications have been approved by the DOW.

The standard interest rate will apply during the five-year term of the loan. However, if the applicant initiates construction within a prescribed timeframe (generally one year) after approval of plans and specifications for the project, the P&D loan may be added to a construction loan with the applicable interest rate for which the applicant would otherwise qualify and the term established in the Conditional Commitment Letter. Projects with an existing P&D loan through the CWSRF or any other KIA loan fund receive a priority funding position to apply for a construction loan in a subsequent year's Intended Use Plan, based upon project readiness. Subsequent construction loans will be subject to interest rates and principal forgiveness amounts for the funding cycle in which the construction loan is reviewed by the KIA board.

Loan Invitations

Bypass Process

Once the projects submitted are ranked in the Project Priority List, the KIA issues conditional invitations to apply for funding. A high-priority project that does not demonstrate readiness to proceed within the given timeframe will be bypassed. This bypass may occur at the request of the utility or as a decision from the KIA staff. A bypassed project may become ineligible for CWSRF funding in the current funding year. Bypassed project profiles will remain in the WRIS portal, but the utility must reapply through the annual Call for Projects process to be re-ranked for future funding cycles. Some examples that justify a bypass include, but are not limited to the following:

- Incomplete or unavailable audits (2016, 2017, and 2018);
- Borrower does not demonstrate readiness to proceed based upon project schedule;
- Non-compliance or delinquent payment on an existing KIA loan ;
- Incomplete loan application;
- Applicant unresponsiveness;

- Applicant cannot establish a dedicated source of revenue for the repayment of the loan;
- Applicant has multiple projects under construction; or
- Applicant voluntarily postpones accepting invitation.

Invitation Process

An invitation letter is emailed to potential borrowers with specific instructions. There are two types of invitations:

1. Standard invitations that do not require consultation with the KIA staff and the invitations will include instructions to electronically accept or decline the invitation through KIA's website with a deadline for submitting a loan application.
2. Conditional invitations that require consultation with the KIA staff before proceeding. The conditional invitation will provide reasons for the consultation, which is required prior to proceeding with the loan process.

Applicants that do not meet the deadline requirements may also be bypassed and subsequent eligible project(s) will receive invitations. This process will continue until all estimated available funds have been allocated. If upon receipt of the loan application, the project scope differs significantly from information originally scored in the ranked project profile, KIA reserves the right to have the project reassessed by DOW. Changes in project scope can potentially impact funding priority.

Upon receipt of a complete loan application, KIA staff will review the information and prepare a credit analysis. KIA staff will present financial analysis and any conditional requirements for each loan to the KIA Board. Upon KIA Board approval, a Conditional Commitment Letter will assure that funding will remain committed to the project for a period established in the letter, provided all of the conditions are met. All CWSRF program requirements must be met by the term outlined in the Conditional Commitment Letter. An extension of up to six months for approved applicants that experience extenuating circumstances may be granted.

Actual project funding amounts may vary from amounts presented in the Project Priority List due to updated cost estimates and funding received from other sources. Increases to existing loans must be approved prior to the date of initiation of operation. The application invitation process is designed to commit available funds as soon as possible with limited invitation iterations. Given an uncertain invitation acceptance rate, KIA will invite significantly more project dollars than are available to fund. If more projects than anticipated accept an invitation to apply it is possible that presentation of an invited project or projects to the KIA Board will be delayed until later in the year, will not be funded, or will be invited to apply for other KIA loan programs. If this situation occurs KIA will communicate with individual borrowers as expeditiously as possible.

Invitation List

The following 31 projects will receive an invitation to participate in the CWSRF (fundable list with status of invitation) for SFY 2020. The five highlighted projects have received KIA funding for large project financing (yellow) or a planning and design loan (blue).

Rank	Score	Loan Number	Applicant	Project Title	Invited Loan Amount	Invite Status/ Bypassed	Disadvantage Community	Principal Forgiveness Amount
0		A18-003	Marion, City of	City of Marion - New Wastewater Treatment Plant	\$5,455,000		Yes	\$0
1		A20-001	Lancaster, City of	Lancaster Sanitary Sewer Improvements Project	\$3,858,200		Yes	\$0
2		A20-002	Burkesville, City of	Burkesville WWTP Improvements	\$2,580,370		Yes	\$1,000,000
3		A20-003	Lincoln County Sanitation District	LCS D - US 127 Corridor Sanitary Sewer Project, Phase 2	\$4,336,000		Yes*	\$1,000,000
4		A20-004	Pineville, City of	Virginia Avenue/Courthouse Square Utility Replacements	\$3,741,746		Yes	\$919,050
7	360	A20-007	Mount Sterling, City of	Wastewater Capacity Upgrade Project	\$525,000			\$0
8	355	A20-008	Louisville And Jefferson County Metropolitan Sewer District	Yorktown and Pond Creek I & I Project	\$2,120,000			\$0
10	340	A20-010	Louisville And Jefferson County Metropolitan Sewer District	Upper Middle Fork Pump Station Improvements and Diversion	\$7,007,500			\$0
12	290	A20-012	Auburn, City of	City of Auburn - Upgrade of Existing Wastewater Treatment Plant	\$8,750,000			\$0
13	260	A20-013	Winchester Municipal Utilities Commission	WMU - Flanagan and Madison Outfall Sewers	\$6,430,000			\$0
14	255	A20-014	Lewisburg, City of	Lewisburg Sewer System Upgrade	\$750,000		Yes	\$0
15	220	A20-015	Brandenburg, City of	Brandenburg Wastewater Treatment Plant Upgrade & Expansion	\$3,315,000			\$0
16	198	A20-016	Adair County Water District	Downtown Sewer System Improvements - Phase 1	\$2,104,870	Conditional	Yes	\$0
17	194	A20-017	Mercer County Sanitation District	M C S D - Gwinn Island Road Sanitary Sewer Extension	\$1,521,477			\$0
18	192	A20-018	Calvert City, City of	WWTP INFLUENT LIFT STATION AND PLANT IMPROVEMENTS	\$2,955,000			\$0
19	185	A20-019	Dawson Springs City Water and Sewer	Sanitary Sewer System Rehabilitation and WWTP Improvements	\$951,000		Yes	\$475,500
20	185	A20-020	Morehead, City of	Derrickson Lift Station Upgrade Project	\$949,000			\$0
22	178	A20-022	Kuttawa, City of	City of Kuttawa - Lift Station & Force Main Replacement Projects	\$1,264,200	Conditional		
23	177	A20-023	Bedford, City of	Wastewater System Improvements	\$1,872,500	Conditional	Yes	\$936,250
24	175	A20-024	Smithland, City of	Smithland Sewer Rehabilitation	\$1,517,000	Conditional	Yes	\$0
25	172	A20-025	Hodgenville, City of	Hodgenville WWTP Upgrade & Wet Weather Storage	\$227,000	Conditional	Yes	\$0
26	170	A20-026	Ashland, City of	Ashland: Enlarge Sewer Treatment Plant to Eliminate Overflows	\$12,500,000			\$0
27	166	A20-027	Eddyville, City of	Wastewater SSES and Rehabilitation - South of Fairview Ave	\$251,500		Yes	\$0
28	163	A20-028	Beattyville, City of	Beattyville Sewer Rehabilitation Project	\$1,000,000		Yes	\$500,000
30	150	A20-030	Jackson, City of	Jackson Sewer Rehabilitation Project	\$1,017,000		Yes	\$508,500
31	150	A20-031	Russell, City of	City of Russell I & I Study and Sewer Rehab Project	\$500,500	Conditional		\$0
32	144	A20-032	Paducah McCracken County Joint Sewer Agency	Paducah LTCP Project #3 - Outfall 003 Fine Screening - Phase One	\$5,170,000			\$0
33	143	A20-033	Sebree, City of	Sebree Sanitary Sewer Replacement	\$1,821,655		Yes	\$0
34	142	A20-034	Maysville, City of	Wall Street Combined Sewer Elimination	\$850,000		Yes	\$0
35	140	A20-035	Graves County Water District	Graves County-KY 80 North, Fancy Farm	\$2,101,000		Yes (PTP)	\$210,100
37	132	A20-037	South Shore, City of	South Shore: Upgrade Forest Heights Collection Lines	\$1,035,000		Yes	\$517,500
Totals:					\$88,477,518			\$6,066,900

Structure of the CWSRF Program in Kentucky

KIA administers the CWSRF under a Memorandum of Agreement with DOW, pursuant to Kentucky Revised Statute (KRS) 224A.111 and Kentucky Administrative Regulation (KAR) 200 KAR 17:050¹. The following contacts can assist with CWSRF inquiries:

Contact	Agency	
Donna McNeil Executive Director (502) 892-3496 Donna.McNeil@ky.gov	KIA	Intended Use Plan, Loan Application, Financial Terms, Interest Rates, General Information
Don Schierer WRIS Data Manager (502) 892-3446 Donald.Schierer@ky.gov	KIA	Project Profile Submittal
Jory Becker Environmental Control Branch Manager (502) 782-6887 Jory.Becker@ky.gov	DOW	Request for Proposals (RFPs), Asset Management, Package Treatment Plants
Russell Neal Environmental Control Supervisor (502) 782-7026 Russell.Neal@ky.gov	DOW	CW Priority List, Environmental Review, Regional Facility Plans
Buddy Griffin Environmental Control Supervisor (502) 564-3410 Buddy.Griffin@ky.gov	DOW	Procurement, Bidding Requirements

Borrower Loan Compliance and Financial Monitoring

The borrower's ability to repay its loans has a direct effect on the financial condition of the CWSRF. Additionally, maintaining a positive operating cash flow and capital asset reserve funding program will protect both the utility and its customers financially against unforeseen capital replacements in the future. Upon acceptance of a loan, each borrower agrees to a number of post-closing conditions, some of which are noted below, to remain in compliance with the terms of the loan.

- The borrower must provide audited financial statements to KIA within six months of the entity's fiscal year end date. KIA will review each borrower's financial performance and, if necessary, will work with them to identify ways to remedy any non-compliance issues.

¹ KRS Ch. 224A.111 and 200 KAR 17:050 may be found on the Internet from the Kentucky Legislature Home Page address: <http://lrc.ky.gov/home.htm>.

- Borrowers are required to fund a repair and replacement reserve account equal to 5 percent of the KIA loan amount over 20 years and maintained for the life of the loan. This requirement may be waived if a documented replacement program is in place and being actively funded at a level that is acceptable to KIA.

KIA has three staff members that will be responsible to monitor borrower loan compliance as well as process specific loan documents such as the loan assistance agreements, draw requests, closeout documents, and required audit information. The compliance coordinators have been assigned borrowers geographically by ADDs. Their contact information and assigned ADD offices are as follows:

Regional Compliance Coordinator	ADDs
Debbie Landrum (502) 892-3454 Debbie.Landrum@ky.gov	Lincoln Trail, KIPDA, Northern Kentucky, Bluegrass
Sarah Parsley (502) 892-3177 Sarah.Parsley@ky.gov	Buffalo Trail, Gateway, FIVCO, Big Sandy, Kentucky River, Cumberland Valley
Julie Bickers (502) 892-3455 Julie.Bickers@ky.gov	Purchase, Pennyryle, Green River, Barren River, Lake Cumberland

Fund Transfers between the CWSRF and the DWSRF

Transfers between the SRF programs are allowed up to a maximum of 33 percent of the total DWSRF capitalization grants received. KIA reserves the right to transfer the maximum allowable 33 percent of uncommitted repayment funds from the CWSRF to the DWSRF repayment fund as loan demand arises. This decision will be evaluated annually by KIA and DOW. These funds will be distributed using the same criteria and method as described in the governing IUP. Funds not transferred within one fiscal year of receipt of a capitalization grant award shall be reserved for transfer in future years.

FUNDS AVAILABLE TO BE COMMITTED AND DISBURSED

Kentucky's CWSRF is capitalized by appropriations from the U.S. Congress and the Kentucky General Assembly. The CWSRF provides, in perpetuity, financial assistance to Kentucky's eligible CWSRF projects. As of June 30, 2018 the CWSRF had net assets of \$770,496,000 and 251 active loans. During SFY 2020, Kentucky will rely on funding as outlined in Table A to provide financial assistance and to support the operations of KIA and DOW.

Table A
Kentucky CWSRF Sources and Uses of Funds for SFY 2020
 July 1, 2019 through June 30, 2020

Funding Sources	Federal Contribution	State Contribution	CWSRF Fund	Total
Estimated Deobligated Funds (net of increases)			12,570,155	12,570,155
Loan Repayments (P&I)			59,482,315	59,482,315
Investment Interest Earnings			2,000,000	2,000,000
Banked Prior Year Administration Funds	625,000			625,000
FFY 2019 Capitalization Grant	20,223,000	4,044,600		24,267,600
Total Funding Sources	20,848,000	4,044,600	74,052,470	98,945,070
Funding Uses				
Financial Assistance	19,414,080	4,044,600	51,541,320	75,000,000
Leverage Bond Debt Service			22,511,150	22,511,150
Banked Prior Year Administration Funds	625,000			625,000
FFY 2019 Administration (4%)	808,920			808,920
Total Funding Uses	20,848,000	4,044,600	74,052,470	98,945,070

During the 2020 IUP funding cycle, KIA will have an estimated \$75,000,000 available to fund eligible CWSRF projects. This is comprised of the estimated FFY 2019 capitalization grant of \$20,223,000, state match funds of \$4,044,600, estimated loan repayments of \$59,482,315, uncommitted or deobligated prior year loan funds of \$4,215,000, and interest earnings of \$2,000,000 on existing cash balances. The KIA does not anticipate rolling the full deobligated funds out of \$12,570,155 anticipating current project increase requests. Funding is reduced by leverage bond debt service of \$22,511,150 and capitalization grant administration funds of \$808,920 used by KIA and DOW to administer the CWSRF program. Any administration funds that are not used or are transferred into the construction account will be reserved for use in a future year. KIA and DOW will have \$625,000 in banked administrative funds from prior capitalization grants for administration of the program.

The \$4,044,600 state match will consist of proceeds from the sale of tax-exempt revenue bonds with debt service provided by the Commonwealth. If additional capitalization grant funding is made available, the required 20 percent state match will be provided to the full extent of the available

capitalization grant. The anticipated submission date for the FFY 2019 Capitalization Grant application is June 30, 2019, with the grant award and the entire cap grant amount being made available on October 1, 2019.

KIA received budgetary authorization to issue agency leverage bonds during the 2018-2020 biennium in an amount not to exceed \$30 million. Bond proceeds are deposited into the fund and used to make eligible CWSRF loans. For this authorization to become effective, KIA must obtain approval from the Kentucky Infrastructure Authority Board, the Capital Projects and Bond Oversight Committee, the Office of the State Budget Director and the Office of Financial Management in the Finance and Administration Cabinet with respect to the timing and amount of the leverage bond issuance. KIA may elect to defer issuance of bonds or to not commit the entire authorization amount.

PUBLIC PARTICIPATION

The draft 2020 CWSRF IUP including the Project Priority List was available for public review and comment on the KIA website at www.kia.ky.gov from June 5, 2019 through July 5, 2019. A public meeting was held Wednesday, June 18, 3:30 p.m., EST, at the office of the Kentucky Infrastructure Authority, 100 Airport Road, 3rd Floor, Frankfort, KY 40601. One written comment was accepted during the review and comment period and is summarized in the Final IUP (Appendix E). Written comments were to be submitted to Donna McNeil, Executive Director, by mail to the address above or by email: Donna.McNeil@ky.gov.

APPENDIX A

COMPREHENSIVE PROJECT PRIORITY LIST

2020 CWSRF Comprehensive Project Priority List
(The heavy dark line indicates end of 1st round of loan invitations.)

Rank	Score	Loan Number	WRIS PNum	Applicant	Loan Package (Project) Title	Requested Loan Amount	Invited Loan Amount	Project Invite Status	Utility Population	Utility MHI	Qualifies for DCR	Principal Forgiveness Amount	Green Amount	Green Category
0		A18-003	SX21055006	Marion, City of	City of Marion - New Wastewater Treatment Plant	\$5,455,000	\$5,455,000		3,175	\$32,166	Yes	\$0	\$0	
1		A20-001	SX21079019	Lancaster, City of	Lancaster Sanitary Sewer Improvements Project	\$3,858,200	\$3,858,200		3,992	\$31,381	Yes	\$0	\$0	3
2		A20-002	SX21057002	Burkesville, City of	Burkesville WWTP Improvements	\$2,580,370	\$2,580,370		1,491	\$19,772	Yes	\$1,000,000	\$180,000	3, 4
3		A20-003	SX21137023	Lincoln County Sanitation District	LCSD - US 127 Corridor Sanitary Sewer Project, Phase 2	\$4,336,000	\$4,336,000		1,726	\$43,298	Yes*	\$1,000,000	\$0	
4		A20-004	SX21013003	Pineville, City of	Virginia Avenue/Courthouse Square Utility Replacements	\$3,741,746	\$3,741,746		3,106	\$22,582	Yes	\$919,050	\$328,000	
5		A20-005	SX21127030	Louisa, City of	City of Louisa I & I Rehab Project	\$2,983,830	\$0	Funded	3,434	\$27,973	Yes	\$0	\$0	
6		A20-006	SX21071007	Prestonsburg, City of	PCUC: Big Sandy Regional Waste Water Treatment Plant	\$4,172,249	\$0	Bypassed	10,041	\$28,352	Yes	\$0	\$0	
7	360	A20-007	SX21173075	Mount Sterling, City of	Wastewater Capacity Upgrade Project	\$525,000	\$525,000		11,920	\$41,280		\$0	\$10,842,500	1, 3, 4
8	355	A20-008	SX21111009	Louisville And Jefferson County Metropolitan Sewer District	Yorktown and Pond Creek I & I Project	\$2,120,000	\$2,120,000		732,492	\$53,919		\$0	\$1,540,000	3
9	348	A20-009	SX21171020	Tompkinsville, City of	Tompkinsville WWTP Expansion & Sanitary Sewer Collection Improve	\$886,448	\$0	Funded	2,458	\$30,801	Yes	\$0	\$1,049,000	1, 3, 4
10	340	A20-010	SX21111006	Louisville And Jefferson County Metropolitan Sewer District	Upper Middle Fork Pump Station Improvements and Diversion	\$7,007,500	\$7,007,500		732,492	\$53,919		\$0	\$2,025,000	3, 4
11	295	A20-011	SX21083062	Wingo, City of	City of Wingo - Wastewater System Improvements	\$566,900	\$0	Bypassed	595	\$36,323	Yes	\$0	\$0	3
12	290	A20-012	SX21141048	Auburn, City of	City of Auburn - Upgrade of Existing Wastewater Treatment Plant	\$8,750,000	\$8,750,000		1,459	\$42,772		\$0	\$1,110,000	2, 3
13	260	A20-013	SX21049026	Winchester Municipal Utilities Commission	WMU - Flanagan and Madison Outfall Sewers	\$6,430,000	\$6,430,000		25,141	\$44,634		\$0	\$20,000	
14	255	A20-014	SX21141014	Lewisburg, City of	Lewisburg Sewer System Upgrade	\$750,000	\$750,000		856	\$36,352	Yes	\$0	\$540,000	3
15	220	A20-015	SX21163007	Brandenburg, City of	Brandenburg Wastewater Treatment Plant Upgrade & Expansion	\$3,315,000	\$3,315,000		2,797	\$41,958		\$0	\$238,000	3, 4
16	198	A20-016	SX21001004	Adair County Water District	Downtown Sewer System Improvements - Phase 1	\$2,104,870	\$2,104,870	Conditional	4,652	\$27,317	Yes	\$0	\$25,000	3
17	194	A20-017	SX21167019	Mercer County Sanitation District	M C S D - Gwinn Island Road Sanitary Sewer Extension	\$1,521,477	\$1,521,477		808	\$41,683		\$0	\$0	
18	192	A20-018	SX21157039	Calvert City, City of	WWTP INFLUENT LIFT STATION AND PLANT IMPROVEMENTS	\$2,955,000	\$2,955,000		2,424	\$54,234		\$0	\$0	3
19	185	A20-019	SX21107025	Dawson Springs City Water and Sewer	Sanitary Sewer System Rehabilitation and WWTP Improvements	\$951,000	\$951,000		2,674	\$24,198	Yes	\$475,500	\$0	3
20	185	A20-020	SX21205042	Morehead, City of	Derrickson Lift Station Upgrade Project	\$949,000	\$949,000		15,127	\$39,950		\$0	\$1,365,500	3, 4
21	180	A20-021	SX21203317	Brodhead, City of	City of Brodhead - WWTP Upgrade and Improvement	\$3,222,500	\$0	Bypassed	1,187	\$22,617	Yes	\$0	\$350,000	3
22	178	A20-022	SX21143009	Kuttawa, City of	City of Kuttawa - Lift Station & Force Main Replacement Projects	\$1,264,200	\$1,264,200	Conditional	901	\$53,320		\$0	\$0	3
23	177	A20-023	SX21223013	Bedford, City of	Wastewater System Improvements	\$1,872,500	\$1,872,500	Conditional	957	\$31,701	Yes	\$936,250	\$100,000	3
24	175	A20-024	SX21139010	Smithland, City of	Smithland Sewer Rehabilitation	\$1,517,000	\$1,517,000	Conditional	335	\$33,125	Yes	\$0	\$0	3

Rank	Score	Loan Number	WRIS PNum	Applicant	Loan Package (Project) Title	Requested Loan Amount	Invited Loan Amount	Project Invite Status	Utility Population	Utility MHI	Qualifies for DCR	Principal Forgiveness Amount	Green Amount	Green Category
25	172	A20-025	SX21123007	Hodgenville, City of	Hodgenville WWTP Upgrade & Wet Weather Storage	\$227,000	\$227,000	Conditional	3,629	\$33,030	Yes	\$0	\$0	
26	170	A20-026	SX21019065	Ashland, City of	Ashland: Enlarge Sewer Treatment Plant to Eliminate Overflows	\$25,000,000	\$12,500,000	Conditional	21,626	\$40,073		\$0	\$0	
27	166	A20-027	SX21143011	Eddyville, City of	Wastewater SSES and Rehabilitation - South of Fairview Ave	\$1,043,750	\$251,500		2,143	\$35,015	Yes	\$0	\$65,000	1, 3
28	163	A20-028	SX21129004	Beattyville, City of	Beattyville Sewer Rehabilitation Project	\$1,000,000	\$1,000,000		3,177	\$20,596	Yes	\$500,000	\$0	3
29	160	A20-029	SX21089111	Greenup Joint Sewer Agency	Phase 2 Sewer Line Extension Project (Lloyd)	\$4,215,000	\$0	Bypassed			Yes*	\$0	\$0	
30	150	A20-030	SX21025009	Jackson, City of	Jackson Sewer Rehabilitation Project	\$1,017,000	\$1,017,000		3,083	\$27,310	Yes	\$508,500	\$447,130	3
31	150	A20-031	SX21089110	Russell, City of	City of Russell I & I Study and Sewer Rehab Project	\$500,500	\$500,500	Conditional	853	\$58,137		\$0	\$350,000	3
32	144	A20-032	SX21145034	Paducah McCracken County Joint Sewer Agency	Paducah LTCP Project #3 - Outfall 003 Fine Screening - Phase One	\$5,170,000	\$5,170,000		43,554	\$39,962		\$0	\$0	
33	143	A20-033	SX21233027	Sebree, City of	Sebree Sanitary Sewer Replacement	\$1,821,655	\$1,821,655		1,471	\$33,171	Yes	\$0	\$0	3
34	142	A20-034	SX21161028	Maysville, City of	Wall Street Combined Sewer Elimination	\$850,000	\$850,000		8,735	\$29,845	Yes	\$0	\$0	
35	140	A20-035	SX21083007	Graves County Water District	Graves County-KY 80 North, Fancy Farm	\$2,101,000	\$2,101,000		565	\$55,711	Yes (PTP)	\$210,100	\$0	3
36	138	A20-036	SX21193013	Perry County Sanitation District	Wendell H. Ford Airport Subdivisions Sewer System	\$4,100,000	\$0	Bypassed	1,603	\$35,791	Yes	\$0	\$0	3
37	132	A20-037	SX21089096	South Shore, City of	South Shore: Upgrade Forest Heights Collection Lines	\$1,035,000	\$1,035,000		2,277	\$36,203	Yes	\$517,500	\$0	3
38	125	A20-038	SX21225033	Morganfield, City of	Morganfield WWTP Upgrade	\$19,952,000	\$0		5,754	\$34,592	Yes	\$0	\$790,000	3
39	125	A20-039	SX21137022	Stanford Water Commission	Stanford Sewer Rehabilitation - Phase I	\$2,020,000	\$0		4,851	\$29,929	Yes	\$0	\$1,600,000	3
40	125	A20-040	SX21185051	Oldham County Environmental Authority	OCEA Lift Station Rehab, Renovation, and Replacement	\$2,944,345	\$0		19,684	\$103,094		\$0	\$925,000	3
41	124	A20-041	SX21019062	Boyd County Sanitation District #2	Sd2: System-Wide Inflow and Infiltration Abatement Project	\$2,173,000	\$0		4,144	\$39,633		\$0	\$84,500	3
42	123	A20-042	SX21147006	McCreary County Water District	McCreary Co./KY 1651/East Appletree Rd. Area Sewer System Extensions	\$713,000	\$0		5,274	\$17,506	Yes	\$0	\$0	
43	123	A20-043	SX21147012	McCreary County Water District	McCreary Co WD-Pine Knot (KY 1651 & US 92) Area Sanitary Sewer Project	\$888,500	\$0		5,274	\$17,506	Yes	\$0	\$0	
44	120	A20-044	SX21073074	Frankfort, City of	Silverlake Pump Station Replacement	\$2,283,450	\$0		34,505	\$48,674		\$0	\$30,000	3
45	116	A20-045	SX21113028	Nicholasville, City of	Nicholasville WWTP Expansion Planning & Design	\$992,500	\$0		29,116	\$47,964		\$0	\$275,000	3
46	112	A20-046	SX21089095	South Shore, City of	South Shore: Upgrade McKell Lift Station	\$425,000	\$0		2,277	\$36,203	Yes	\$0	\$0	3
47	111	A20-047	SX21147019	McCreary County Water District	MCWD-Stearns to Smithtown Sewer System	\$2,043,000	\$0		5,274	\$17,506	Yes	\$0	\$0	3
48	107	A20-048	SX21189005	Booneville, City of	Booneville I/I Replacement Project	\$726,000	\$0		904	\$32,938	Yes	\$0	\$0	3
49	106	A20-049	SX21151022	Northern Madison Sanitation District	Boone Village Wastewater Collection System	\$730,000	\$0		4,958	\$61,653		\$0	\$0	
50	105	A20-050	SX21001019	Adair County Water District	Burkesville Street Lift Station Replacement and Sanitary Sewer Expansion	\$1,488,455	\$0		4,652	\$27,317	Yes	\$0	\$0	3
51	105	A20-051	SX21059055	Regional Water Resource Agency	Max Rhoads WWTP Sludge Process Improvements	\$1,450,246	\$0		72,417	\$44,779		\$0	\$0	3

Rank	Score	Loan Number	WRIS PNum	Applicant	Loan Package (Project) Title	Requested Loan Amount	Invited Loan Amount	Project Invite Status	Utility Population	Utility MHI	Qualifies for DCR	Principal Forgiveness Amount	Green Amount	Green Category
52	102	A20-052	SX21197010	Stanton, City of	Stanton SSES and Sewer Rehab	\$552,205	\$0		32	\$31,477	Yes	\$0	\$10,000	3
53	100	A20-053	SX21133018	Letcher County Water & Sewer District	WWTP for Federal Prison at Roxanna	\$1,331,000	\$0		94	\$35,391	Yes	\$0	\$460,000	2, 3, 4
54	100	A20-054	SX21003036	Scottsville, City of	City of Scottsville - Inflow and Infiltration Project, Phase I	\$1,912,850	\$0		4,313	\$30,372	Yes	\$0	\$1,327,500	3
55	100	A20-055	SX21209013	Georgetown Municipal Water and Sewer Service	Wastewater Treatment Plant No. 1 Expansion and Upgrade	\$2,600,000	\$0		30,633	\$60,710		\$0	\$30,000	3
56	95	A20-056	SX21143015	Eddyville, City of	Eddyville - New Industrial Park Lift Station Project	\$557,250	\$0		2,143	\$35,015	Yes	\$0	\$40,000	3
57	94	A20-057	SX21089121	Flatwoods, City of	Rehab of sewer lines on Gregory and Diedrich	\$173,000	\$0		7,722	\$49,167		\$0	\$0	3
58	91	A20-058	SX21133015	Fleming-Neon, City of	Fleming-Neon Sewer Rehabilitation Project	\$1,558,120	\$0		2,696	\$33,562	Yes	\$0	\$730,000	3
59	90	A20-059	SX21083064	Mayfield, City of	Mayfield Outfall Relocation	\$100,000	\$0		10,821	\$26,247	Yes	\$0	\$0	
60	87	A20-060	SX21161027	Maysville, City of	East Kentucky Lift Station Rehabilitation	\$50,000	\$0		8,735	\$29,845	Yes	\$0	\$0	3
61	86	A20-061	SX21151039	Northern Madison Sanitation District	NMCSD - Madison Village Collection System Rehab	\$1,525,000	\$0		4,958	\$61,653		\$0	\$1,275,000	3
62	85	A20-062	SX21225031	Morganfield, City of	Job Corps Sewer Rehabilitation and Replacement Project	\$5,005,000	\$0		5,754	\$34,592	Yes	\$0	\$0	3
63	85	A20-063	SX21027013	Hardinsburg, City of	Hardinsburg Sewer System Rehabilitation Phase 2	\$825,230	\$0		2,242	\$44,046		\$0	\$0	3
64	83	A20-064	SX21073084	Frankfort, City of	East Frankfort Interceptor Phase III Wet Weather Facility	\$12,000,000	\$0		34,505	\$48,674		\$0	\$15,000	3
65	77	A20-065	SX21143016	Eddyville, City of	Eddyville - Sewer Lagoon Dredge	\$1,350,000	\$0		2,143	\$35,015	Yes	\$0	\$0	
66	68	A20-066	SX21099022	Munfordville, City of	Munfordville Sewer Extensions and Pump Station Rehabilitations	\$1,430,525	\$0		1,584	\$24,396	Yes	\$0	\$100,000	3
67	68	A20-067	SX21013005	Middlesboro, City of	Middlesboro WWTP UV Disinfection Addition	\$950,000	\$0		10,364	\$22,737	Yes	\$0	\$750,000	4
68	65	A20-068	SX21151057	Berea, City of	BMU - Madison County Airport - Sewer Line Extension Project	\$620,350	\$0		14,194	\$42,100		\$0	\$0	
69	60	A20-069	SX21099026	Caveland Environmental Authority	Progress Park Industrial Park Pretreatment Expansion	\$853,442	\$0		8,241	\$36,698	Yes	\$0	\$0	
70	60	A20-070	SX21111008	Louisville And Jefferson County Metropolitan Sewer District	Biosolids Processing Solution	\$22,000,000	\$0		732,492	\$53,919		\$0	\$10,280,000	3, 4
71	60	A20-071	SX21049044	Winchester Municipal Utilities Commission	WMU - Strodes Creek WWTP Solids Processing Facility Improvements	\$3,000,000	\$0		25,141	\$44,634		\$0	\$0	
72	55	A20-072	SX21027022	Hardinsburg, City of	Hardinsburg WWTP Improvements II	\$406,430	\$0		2,242	\$44,046		\$0	\$0	
73	55	A20-073	SX21059057	Regional Water Resource Agency	Spring Lane Sewer Extension	\$425,000	\$0		72,417	\$44,779		\$0	\$0	
74	53	A20-074	SX21003024	Scottsville, City of	City of Scottsville - US 231 Sewer Extension	\$4,341,000	\$0		4,313	\$30,372	Yes	\$0	\$0	
75	53	A20-075	SX21033006	Fredonia, City of	Fredonia - Lift Station Improvements	\$369,736	\$0		413	\$54,577		\$0	\$0	
76	50	A20-076	SX21033010	Princeton Water & Wastewater Commission	Princeton - WWTP Improvements-Grit Chamber and Sludge Holding Tank	\$803,500	\$0		6,262	\$43,969		\$0	\$0	
77	50	A20-077	SX21019077	Boyd County Sanitation District #4	SD4: Rehab Ray Drive Sewer Line	\$312,000	\$0		10,732	\$54,687		\$0	\$0	
78	49	A20-078	SX21107022	Madisonville, City of	Madisonville - Noel Avenue Interceptor Project	\$5,433,001	\$0		21,408	\$41,161		\$0	\$0	

Rank	Score	Loan Number	WRIS PNum	Applicant	Loan Package (Project) Title	Requested Loan Amount	Invited Loan Amount	Project Invite Status	Utility Population	Utility MHI	Qualifies for DCR	Principal Forgiveness Amount	Green Amount	Green Category
79	45	A20-079	SX21239014	Versailles, City of	Versailles - WWTP Improvements - Belt Filter Press Replacement	\$1,000,000	\$0		15,614	\$47,788		\$0	\$0	
80	44	A20-080	SX21149034	Sacramento, City of	Sacramento Gravity Sewers - Phase II	\$1,508,852	\$0		760	\$40,233		\$0	\$0	
81	43	A20-081	SX21199009	Somerset, City of	New Sludge Dewatering Facility and Grit Removal Rehab at Pitman Creek WWTP	\$2,952,000	\$0		12,914	\$25,641	Yes	\$0	\$0	
82	40	A20-082	SX21225022	Uniontown, City of	Uniontown Lagoon Dredging	\$1,500,000	\$0		1,088	\$26,265	Yes	\$0	\$0	
83	40	A20-083	SX21083063	Mayfield, City of	Cuba Road Gravity Relief Sewer	\$520,400	\$0		10,821	\$26,247	Yes	\$0	\$0	
84	30	A20-084	SX21021006	Danville, City of	Danville - Wastewater Treatment Plant Improvements	\$9,750,600	\$0		19,829	\$37,829		\$0	\$0	
Totals:						\$241,892,682	\$88,477,518					\$6,066,900	\$39,297,130	

APPENDIX B

CALL FOR PROJECTS LETTER

and

EMAIL LANGUAGE



KENTUCKY INFRASTRUCTURE AUTHORITY

Matthew G. Bevin
Governor

Capital Center Complex
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601
(502) 573-0260
(502) 573-0157 (fax)
kia.ky.gov

Donna McNeil
Executive Director

September 28, 2018

To Whom It May Concern:

The Kentucky Infrastructure Authority and the Kentucky Division of Water are announcing the 2020 Clean Water State Revolving Fund (CWSRF) Call for Projects.

The Clean Water State Revolving Fund Call For Projects Will Be Open from October 3, 2018 to December 14, 2018

If you have a wastewater, stormwater or nonpoint source project that will need funding during the 2020 state fiscal year (July 1, 2019 through June 30, 2020), we want to hear from you as your project may be eligible for funding from the CWSRF. The CWSRF is a competitive program. To apply for a low interest CWSRF loan, your project must be ranked on the 2020 CWSRF Project Priority List developed by the Division of Water (DOW). Projects will not be carried forward from the 2019 Project Priority List to the 2020 Project Priority List.

You Will Need a Project Profile for Your Project

To submit a project for inclusion on the CWSRF Priority List, you must work with your local Area Development District (ADD) to complete or update a Project Profile (and related mapping) in the Water Resource Information System (WRIS). The ADD will ask you to complete a [Project Profile Pre-Application Form](#) which includes all of the information needed by DOW to review and rank potential CWSRF projects. Once your project has been submitted electronically by the ADD, you will receive an email confirmation. Please ensure that the project cost estimate and schedule have been updated. No requests for funding will be accepted after the Call for Projects period ends.

Your Project Profile MUST be Approved by the Area Water Management Council

For your project to be included in the CWSRF Priority List your Project Profile must have Area Water Management Council (AWMC) approval. The ADD staff may have already contacted you to provide additional information to update your existing project profiles. To give the ADD staff time to get your profile approved by the AWMC, you must get the profile information to your AWMC before their next meeting.

DOW strongly encourages you to read the [Priority System Guidance Document](#) before you submit your Project Profile as you might obtain some useful ideas to improve your project's overall score. Only those projects that start construction by March 31, 2021 will be considered for funding.

Current Interest Rates

KIA sets interest rates annually. Projected interest rates for the 2020 funding cycle will be provided in the CWSRF Intended Use Plan (IUP) which will be available late spring 2019. KIA currently offers three interest rates for the CWSRF program in the 2019 funding cycle.

Loan Type	MHI Threshold	Interest Rate
Construction	> or = \$44,811	3.0%
Construction	\$35,850 - \$44,810	2.0%
Construction	< or = \$35,849	0.5%
Planning and Design	NA	3.0%

The 2.0% rate also applies to those projects that facilitate compliance with an order or judgment addressing environmental non-compliance or those systems that are considered regional. If you are interested in pursuing an alternative Median Household Income (MHI) determination methodology (Modified Weighted Proximity Analysis/Income Survey) you must contact KIA during the Call for Projects before you proceed. Consideration for an alternate MHI determination and the methodology used will be at the discretion of KIA. These must be completed prior to our Spring Intended Use Plan/Invitation cycle. Please consult our Median Household Income Determination Guidance documents on the [KIA Forms page](#) for more information.

Questions?

If you have questions regarding project eligibility please contact Anshu Singh (anshu.singh@ky.gov) at (606) 929-5285 or Russell Neal (russell.neal@ky.gov) of the Division of Water, Water Infrastructure Branch at (502) 782-7026. For more information on loan requirements, terms or borrower eligibility contact Ashley Adams (ashleym.adams@ky.gov) of the Kentucky Infrastructure Authority at (502) 892-3429. For more information about completing a Project Profile contact Kelly Cunnagin (kelly.cunnagin@ky.gov) of the Kentucky Infrastructure Authority at (502) 892-3178.

Sincerely,



Donna McNeil, Executive Director
Kentucky Infrastructure Authority

Kentucky Infrastructure Authority 2020 SRF Call For Projects

Note: This is an auto-generated message to announce the 2020 SRF Call for Projects. Please do not use the Reply button to respond to this message. Use the email links provided below to contact the Kentucky Division of Water or the Kentucky Infrastructure Authority regarding this announcement.

Fall is here and marks the beginning of the annual Call for Projects. The Kentucky Infrastructure Authority ([KIA](#)) and the Kentucky Division of Water ([DOW](#)) are pleased to announce the 2020 Call for Projects for the Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) infrastructure loan programs. The 2020 Call for Projects will be open from **October 3, 2018 to December 14, 2018**. Time to get your Project Profiles ready!

To view the FY 2020 Call for Projects announcement letters please click on one of the following links:

[2020 Clean Water SRF Call for Projects](#)

or

[2020 Drinking Water SRF Call for Projects](#)

To view the FY 2020 Priority System Guidance Documents please click on one of the following links:

[2020 Clean Water Priority System Guidance Document](#)

or

[2020 Drinking Water Priority System Guidance Document](#)

What is the SRF?

The State Revolving Fund (SRF) programs are low interest loan programs for drinking water, wastewater, stormwater or nonpoint source infrastructure projects. Examples include: water and sewer line replacements and extensions, new water storage tanks, tank refurbishment, treatment projects, and much more! Our loan terms consist of 20-30* year terms with competitive interest rates. Interest rates are set annually and have not been established for the 2020 funding cycle, however, current interest rates range from 0.5 percent to 3.0 percent.

How do I apply?

If you are interested in receiving funding from either SRF loan program, you must coordinate with your Area Development District Planner to prepare an electronic Project Profile. Information contained in the Project Profile will be used by the Division of Water to score and rank projects based on the published set of criteria. Requests for funding will not be accepted after the Call for Projects period ends.

How do I know if I will receive funding?

After the Call for Projects closes in December, the Division of Water scores all of the projects submitted for consideration and prepares a Project Priority List. This list is released in May of each year as part of the Intended Use Plan or IUP. Projects are funded in ranked priority order.

If you have questions on project eligibility please contact Anshu Singh (anshu.singh@ky.gov) at (606) 929-5285 or Russell Neal (russell.neal@ky.gov) of the Division of Water, Water Infrastructure Branch at (502) 782-7026. For more information on loan requirements, terms or borrower eligibility contact Ashley Adams (ashleym.adams@ky.gov) of the Kentucky Infrastructure Authority at (502) 892-3429. For more information about completing a Project Profile contact Kelly Cunnagin (kelly.cunnagin@ky.gov) of the Kentucky Infrastructure Authority at (502) 892-3178.

Other important links associated with KIA and DOW funding programs:

[KIA Loan Programs](#)

[Federally Assisted Wastewater Revolving Loan \(CWSRF\)](#)

[Federally Assisted Water Revolving Loan \(DWSRF\)](#)

[WRIS Portal - Project Profile](#)

[WRIS Portal - System Information](#)

[Clean Water Project Profile Pre-Application](#)

[Drinking Water Project Profile Pre-Application](#)

[DOW Clean Water State Revolving Fund](#)

[DOW Drinking Water State Revolving Fund](#)

[DOW Nonpoint Source Grants](#)

(*for qualified borrowers)

APPENDIX C

PRIORITY SYSTEM GUIDANCE DOCUMENT

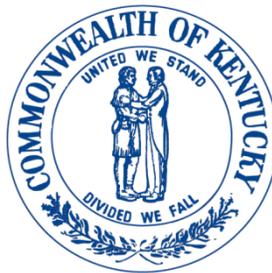
KENTUCKY

Priority System Guidance Document

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

KENTUCKY CLEAN WATER STATE REVOLVING FUND

2020 Funding Cycle



ENERGY AND ENVIRONMENT CABINET
Department for Environmental Protection
Division of Water

300 Sower Boulevard – 3rd Floor
Frankfort, Kentucky 40601
Phone: (502) 564-3410
Fax: (502) 564-4245
water.ky.gov

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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 designed to 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 in place of 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. Amendments to the program will also allow funding of projects for: decentralized systems; stormwater or subsurface drainage water; water conservation, efficiency, or reuse; watershed projects as defined in section 122; energy consumption; reuse or recycling of wastewater, stormwater, or subsurface drainage water; security; and assistance by nonprofit agencies. 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 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 Project Priority List. Modifications may be made to the criteria and points system if it is determined 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 proven useful 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 *Integrated Report to Congress on Water Quality in Kentucky* <http://water.ky.gov/waterquality/Pages/IntegratedReport.aspx>.

Kentucky is required to develop Total Maximum Daily Loads (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 must 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 stormwater and untreated wastewater (combined sewer overflows) that occur when the capacity of a sewer system is exceeded.

Points Received: 40

Criterion #2: Sanitary Sewer Overflow (SSO) Correction- Control of sanitary sewer overflows caused by undersized lines and/or excessive infiltration and inflow into the sanitary sewer collection system. 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)- The problem of water penetration into a sewer system from the ground through such means as defective pipes or manholes or from sources such as drains, storm sewers, and other improper entries into the systems is referred to as infiltration and inflow (I/I). Reinforcement or reconstruction of structurally deteriorating sewers and pipes used to collect and convey wastewater by gravity or pressure flow to a common point are projects designed to correct I/I (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/or 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 wastewater without offsite discharge. Often 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: Optimization 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 projects may include, but are not limited to, stream restoration, Best Management Practices, and land purchases.

Points Received: 20

Criterion #12: Recycled Water Distribution- Projects 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- Any project that does not meet the list of project needs definitions and/or standards provided above. Project need must be provided.

Points Received: 10

B. Regionalization

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 economies of scale and often have a difficult time finding the capital and human resources required to comply with stringent water quality standards to remain viable. Regionalized wastewater treatment approaches may significantly minimize wastewater impacts, resulting in a reduced number of KPDES discharges. This includes projects that will combine 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, and mergers between utilities. Project must reduce the number of KPDES discharges.

Points Received: 20

Criterion # 2: Will this project eliminate a package treatment plant that is more than 25 years old?

Points Received: 25

Criterion # 3: Will this project eliminate a package treatment plant that has received notices of violations resulting in degradation of waters of Commonwealth within the last two state fiscal years - July 2016 - June 2018?

Points Received: 25

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: Primary system has not received any CWA Notices of Violation within the previous state fiscal year-July through June, i.e. July 2017 – June 2018).

Points Received: 25

D. Water Quality

Criterion #1: Will the project implement an approved Total Maximum Daily Load (TMDL) for impaired waterbodies?

Is the project located on a stream having an approved TMDL? See the following website for approved TMDLs <http://water.ky.gov/waterquality/Pages/ApprovedTMDLs.aspx>.

Points Received: 10

Criterion #2: Will the project address existing or projected nutrient TMDL?

Is the TMDL established for nutrients or is the stream nutrient impaired? Refer to the DOW website for impairment/TMDL information

<http://water.ky.gov/waterquality/Pages/ApprovedTMDLs.aspx>.

Points Received: 30

Criterion #3: Will the project implement any part of an approved Watershed Plan?

Please refer to list of approved watershed plans in Section VIII.

Points Received: 10

Criterion #4: Will the project make reasonable progress towards eliminating identified pollutant sources for waterbodies that appear in the *Integrated Report to Congress on Water Quality in Kentucky*?

This question addresses the state's goal to improve water quality in impaired waterbodies. The 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 according to its sensitivity to pollution on a scale from 1 (lowest) to 5 (highest). 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 system (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 SWAPP and WHPA areas in the Watershed Viewer at <https://epcgis.ky.gov/watershed/>

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. Refer to the list of Kentucky Division of Water State Priority Watersheds in Section VII.

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 below 80 percent of the Commonwealth's MHI as determined by the American Community Survey (ACS) 5-Year Estimate (2012-2016).

Points Received: 20

Points will be given if the project is an area with a MHI between 80 and 100 percent of the Commonwealth's MHI as determined by the ACS 5 Year Estimate (2012-2016).

Points Received: 10

F. Asset Management

Criterion #1: System has or is developing an Asset Management Program 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 (i.e. Capital Improvement Plan (CIP), Asset Inventory Report). To obtain points under this category, evidence of the program must be uploaded in WRIS.

Points Received: 20

Criterion #2: System's monthly wastewater bill, based on 4,000 gallons, as a percentage of Median Household Income is:

Greater than or equal to 2%
Between 1 and 1.99%
Below 1%

Points Received: 10
Points Received: 5
Points Received: 0

Criterion #3: System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure. (The funds allocated to the current sinking fund account should not be a requirement of an existing loan, but a good business practice).

To obtain points under this category supporting documents must be uploaded in WRIS (i.e. approved budget).

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:

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. Vector 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:

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: 15 each/ no maximum

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:

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: 15 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:

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 U. S. Army Corps of Engineers); 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: A full environmental review does not have to be finalized however the cross-cutter scoping process must be complete. Plans do not have to be approved by the Division of Water, but they must have been submitted for review. Potential borrowers may be asked to provide proof to substantiate claims.

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
2.	Will this project eliminate a package treatment plant that is more than 25 years old?	25
3.	Will this project eliminate a package treatment plant that has received notices of violations resulting in degradation of waters of Commonwealth within the last two state fiscal years - July 2016 - June 2018?	25
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.	System has not received any Notices of Violation within the previous state fiscal year – July 2017-June 2018	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

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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 <i>2014 Integrated Report to Congress on Water Quality in Kentucky</i> ?	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 10 points for moderate sensitivity
6.	Is the project located within an identified SWAPP zone or WHPA?	10 for each Zone 1 7 for each Zone 2 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) below 80 percent of the State's MHI as determined by the current American Community Survey (ACS) 5-Year Estimate	20
2.	Borrowers with a MHI between 80 and 100 percent of the State's MHI as determined by the current ACS 5-Year Estimate	10
F. Asset Management		
1.	System has an Asset Management Program or similar planning document	20
2.	System's monthly wastewater bill, based on 4,000 gallons, as a percentage of Median Household Income is:	
	Greater than or equal to 2.0%	10
	Between 1 and 1.99%	5
	Below 1%	0
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.	<p><u>Green Infrastructure:</u> 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:</p> <ul style="list-style-type: none"> • Implementation of green streets • Wet Weather management systems for parking areas • Implementation of comprehensive urban forestry programs • Stormwater harvesting and reuse • Downspout disconnection • Comprehensive retrofit programs designed to keep wet weather discharges out of sewer systems • Establishment or restoration of riparian buffers, floodplains, wetlands or other natural features • Management of wetlands • Purchase of land or easements on land that has a direct benefit to water quality 	5 pts. each/10 pts. Maximum
2.	<p><u>Water Efficiency:</u> 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:</p> <ul style="list-style-type: none"> • Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals) • Installing any type of water meter in previously unmetered areas (can include backflow prevention if in conjunction with meter replacement) • Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention • Retrofitting/adding AMR capabilities or leak equipment to existing meters • Developing water audit and 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, extra treatment or distribution costs associated with water reuse) • Retrofit or replacement of existing landscape irrigation/agricultural systems to more efficient landscape/agricultural irrigation systems (rain and moisture sensing equipment) • Water meter replacement with traditional water meters * • Projects that result from a water audit or water conservation plan* • Storage tank replacement/rehabilitation to reduce water loss* • New water efficient landscape/agricultural irrigation system, where there currently is not one* 	15 pts. each

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<p align="center">3.</p>	<p><u>Energy Efficiency:</u> 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:</p> <ul style="list-style-type: none"> • Renewable energy projects such as wind, solar, geothermal, and micro-hydroelectric, and biogas combined heat and power systems that provide power to a POTW • POTW-owned renewable energy projects • 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 • Projects that achieve a reduction in energy consumption (pumps, motors)* • Projects that cost effectively eliminate pumps or pumping stations* • I/I correction projects that save energy from pumping and reduced treatment costs* • Replacing old motors with premium energy efficiency motors* • Upgrade of POTW lighting to energy efficient sources* • SCADA systems where substantial energy savings can be demonstrated* • Variable Frequency Drive (VFD) controllers where substantial energy savings can be demonstrated* 	<p align="center">15 pts. each</p>
<p align="center">4.</p>	<p><u>Environmentally Innovative:</u> 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:</p> <ul style="list-style-type: none"> • Total integrated water resources management planning likely to result in a capital project • Utility sustainability plan consistent with EPA's sustainability policy • 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 • Planning activities by a POTW to prepare for adaption to the long-term affects 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 that result from total/integrated water resource management planning consistent with the decision criteria for environmentally innovative projects and that are CWSRF eligible* • Projects that facilitate adaptation of POTWs to climate change identified by a carbon footprint assessment or climate adaption study* • POTW upgrades or retrofits that remove phosphorus for beneficial use, such as biofuel production with algae* • Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment* • Treatment technologies that significantly reduce the volume of residuals, generation of residuals, or lower the amount of chemicals in the residuals* • 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 groundwater recharge, such as spray irrigation and overland flow* 	<p align="center">5 pts. each/10 pts. maximum</p>

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 US Army Corps of Engineers 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). **Projects will *not be accepted* after the call for projects is closed.** 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. A sewer extension project will be deemed ineligible if the receiving wastewater treatment plant is at or over 90% (for <10 mgd) or 95% (for >10 mgd) of its design capacity.

VI. References

Kentucky Division of Water website: <http://water.ky.gov/Pages/Division%20of%20Water.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 CWSRF website: <https://www.epa.gov/cwsrf>

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

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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				

APPENDIX D

GREEN RESERVE GUIDANCE

2012 Clean Water State Revolving Fund 10% Green Project Reserve: Guidance for Determining Project Eligibility

I. Introduction: The Fiscal Year (FY) 2012 Appropriation Act (P.L. 112-74) included additional requirements affecting the Clean Water State Revolving Fund (SRF) program. This attachment is included in the *Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2012 Appropriation Affecting the Clean Water and Drinking Water State Revolving Fund Programs*. This attachment includes the details for determining green project reserve (GPR) eligibility for the Clean Water SRF program.

Public Law 112-74 states: “*Provided, That for fiscal year 2012, to the extent there are sufficient eligible project applications, not less than 10 percent of the funds made available under this title to each State for Clean Water State Revolving Fund capitalization grants shall be used by the State for projects to address green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities.*” These four categories of projects are the components of the Green Project Reserve (GPR).

II. GPR Goals: Congress’ intent in enacting the GPR is to direct State investment practices in the water sector to guide funding toward projects that utilize green or soft-path practices to complement and augment hard or gray infrastructure, adopt practices that reduce the environmental footprint of water and wastewater treatment, collection, and distribution, help utilities adapt to climate change, enhance water and energy conservation, adopt more sustainable solutions to wet weather flows, and promote innovative approaches to water management problems. Over time, GPR projects could enable utilities to take savings derived from reducing water losses and energy consumption, and use them for public health and environmental enhancement projects. Additionally, EPA expects that green projects will help the water sector improve the quality of water services without putting additional strain on the energy grid, and by reducing the volume of water lost every year.

III. Background: For the FY 2010 GPR Guidance, EPA used an inclusive approach to determine what is and is not a ‘green’ water project. Wherever possible, this guidance references existing consensus-based industry practices to provide assistance in developing green projects. Input was solicited from State-EPA and EPA-Regional workgroups and the water sector. EPA staff also reviewed approaches promoted by green practice advocacy groups and water associations, and green infrastructure implemented by engineers and managers in the water sector. EPA also assessed existing ‘green’ policies within EPA and received input from staff in those programs to determine how EPA funds could be used to achieve shared goals.

The FY 2012 SRF GPR Guidance provides States with information needed to determine which projects count toward the GPR requirement. The intent of the GPR Guidance is to describe projects and activities that fit within the four specific categories listed in the FY 2012

Appropriations Act. This guidance defines each category of GPR projects and lists projects that are clearly eligible for GPR, heretofore known as categorically eligible projects. For projects that do not appear on the list of categorically projects, they may be evaluated for their eligibility within one of the four targeted types of GPR eligible projects based upon a business case that provides clear documentation (see the *Business Case Development* sections in Parts A & B below).

GPR may be used for planning, design, and/or building activities. Entire projects, or the appropriate discrete components of projects, may be eligible for GPR. Projects do not have to be part of a larger capital project to be eligible. All projects or project components counted toward the GPR requirement must clearly advance one or more of the objectives articulated in the four categories of GPR discussed below.

The Green Project Reserve sets a new precedent for the SRFs by targeting funding towards projects that States may not have funded in prior years. Water quality benefits from GPR projects rely on proper operation and maintenance to achieve the intended benefits of the projects and to achieve optimal performance of the project. EPA encourages states and funding recipients to thoroughly plan for proper operation and maintenance of the projects funded by the SRFs, including training in proper operation of the project. It is noted, however, that the SRFs cannot provide funding for operation and maintenance costs, including training, in the SRF assistance agreements.

CWSRF Eligibility Principles

State SRF programs are responsible for identifying projects that count toward GPR. The following overarching principles, or decision criteria, apply to all projects that count toward GPR and will help states identify projects.

0.1 All GPR projects must otherwise be eligible for CWSRF funding. The GPR requirement does not create new funding authority beyond that described in Title VI of the CWA. Consequently, a subset of 212, 319 and 320 projects will count towards the GPR. The principles guiding CWSRF funding eligibility include:

- 0.2 All Sec 212 projects must be consistent with the definition of “treatment works” as set forth in section 212 of the Clean Water Act (CWA).
 - 0.2-1 All section 212 projects must be publicly owned, as required by CWA section 603(c)(1).
 - 0.2-2 All section 212 projects must serve a public purpose.
 - 0.2-3 POTWs as a whole are utilized to protect or restore water quality. Not all portions of the POTW have a direct water quality impact in and of themselves (i.e. security fencing). Consequently, POTW projects are not required to have a direct water quality benefit, though most of them will.

- 0.3 Eligible nonpoint source projects implement a nonpoint source management program under an approved section 319 plan or the nine element watershed plans required by the 319 program.
 - 0.3-1 Projects prevent or remediate nonpoint source pollution.
 - 0.3-2 Projects can be either publicly or privately owned and can serve either public or private purposes. For instance, it is acceptable to fund land conservation activities that preserve the water quality of a drinking water source, which represents a public purpose project. It is also acceptable to fund agricultural BMPs that reduce nonpoint source pollution, but also improve the profitability of the agricultural operation. Profitability is an example of a private purpose.
 - 0.3-3 Eligible costs are limited to planning, design and building of capital water quality projects. The CWSRF considers planting trees and shrubs, purchasing equipment, environmental cleanups and the development and initial delivery of education programs as capital water quality projects. Daily maintenance and operations, such as expenses and salaries are not considered capital costs.
 - 0.3-4 Projects must have a direct water quality benefit. Implementation of a water quality project should, in itself, protect or improve water quality. States should be able to estimate the quantitative and/or qualitative water quality benefit of a nonpoint source project.
 - 0.3-5 Only the portions of a project that remediate, mitigate the impacts of, or prevent water pollution or aquatic or riparian habitat degradation should be funded. Where water quantity projects improve water quality (e.g. reduction of flows from impervious surfaces that adversely affect stream health, or the modification of irrigation systems to reduce runoff and leachate from irrigated lands), they would

be considered to have a water quality benefit. In many cases, water quality protection is combined with other elements of an overall project. For instance, brownfield revitalization projects include not only water quality assessment and cleanup elements, but often a redevelopment element as well. Where the water quality portion of a project is clearly distinct from other portions of the project, only the water quality portion can be funded by the CWSRF.

- 0.3-6 Point source solutions to nonpoint source problems are eligible as CWSRF nonpoint source projects. Section 319 Nonpoint Source Management Plans identify sources of nonpoint source pollution. In some cases, the most environmentally and financially desirable solution has point source characteristics and requires an NPDES discharge permit. For instance, a septage treatment facility may be crucial to the proper maintenance and subsequent functioning of decentralized wastewater systems. Without the septage treatment facility, decentralized systems are less likely to be pumped, resulting in malfunctioning septic tanks.

- 0.4 Eligible projects under section 320 implement an approved section 320 Comprehensive Conservation Management Plan (CCMP).
 - 0.4-1 Section 320 projects can be either publicly or privately owned.
 - 0.4-2 Eligible costs are limited to capital costs.
 - 0.4-3 Projects must have a direct benefit to the water quality of an estuary. This includes protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on water, and requires the control of point and nonpoint sources of pollution to supplement existing controls of pollution.
 - 0.4-4 Only the portions of a project that remediate, mitigate the impacts of, or prevent water pollution in the estuary watershed should be funded.

- 0.5 GPR projects must meet the definition of one of the four GPR categories. The Individual GPR categories do not create new eligibility for the CWSRF. The projects that count toward GPR must otherwise be eligible for CWSRF funding.

- 0.6 GPR projects must further the goals of the Clean Water Act.¹

¹ Drinking Water Utilities can apply for CWSRF funding

CWSRF Technical Guidance

The following sections outline the technical aspects for the CWSRF Green Project Reserve. It is organized by the four categories of green projects: green infrastructure, water efficiency, energy efficiency, and environmentally innovative activities. Categorically green projects are listed, as well as projects that are ineligible. Design criteria for business cases and example projects that would require a business case are also provided.

1.0 GREEN INFRASTRUCTURE

- 1.1 Definition: Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintain and restore 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.

- 1.2 Categorical Projects
 - 1.2-1 Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-ways), for either new development, redevelopment or retrofits including: permeable pavement², 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.
 - 1.2-2 Wet weather management systems for parking areas including: permeable pavement², 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.
 - 1.2-3 Implementation of comprehensive street tree or urban forestry programs, including expansion of tree boxes to manage additional stormwater and enhance tree health.
 - 1.2-4 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.
 - 1.2-5 Downspout disconnection to remove stormwater from sanitary, combined sewers and separate storm sewers and manage runoff onsite.
 - 1.2-6 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

² The total capital cost of permeable pavement is eligible, not just the incremental additional cost when compared to impervious pavement.

pavements and bioretention cells, and turf removal and replacement with native vegetation or trees that improve permeability.

- 1.2-7 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.
 - 1.2-8 Projects that involve the management of wetlands to improve water quality and/or support green infrastructure efforts (e.g., flood attenuation).³
 - 1.2-8a Includes constructed wetlands.
 - 1.2-8b May include natural or restored wetlands if the wetland and its multiple functions are not degraded and all permit requirements are met.
 - 1.2-9 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.
 - 1.2-10 Fee simple purchase of land or easements on land that has a direct benefit to water quality, such as riparian and wetland protection or restoration.
- 1.3 Projects That Do Not Meet the Definition of Green Infrastructure
- 1.3-1 Stormwater controls that have impervious or semi-impervious liners and provide no compensatory evapotranspirative or harvesting function for stormwater retention.
 - 1.3-2 Stormwater ponds that serve an extended detention function and/or extended filtration. This includes dirt lined detention basins.
 - 1.3-3 In-line and end-of-pipe treatment systems that only filter or detain stormwater.
 - 1.3-4 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.
 - 1.3-5 Stormwater conveyance systems that are not soil/vegetation based (swales) such as pipes and concrete channels. Green infrastructure projects that include pipes to collect stormwater may be justified as innovative environmental projects pursuant to Section 4.4 of this guidance.
 - 1.3-6 Hardening, channelizing or straightening streams and/or stream banks.
 - 1.3-7 Street sweepers, sewer cleaners, and vactor trucks unless they support green infrastructure projects.

1.4 Decision Criteria for Business Cases

³ Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, vernal pools, and similar areas.

- 1.4-1 Green infrastructure projects are designed to mimic the natural hydrologic conditions of the site or watershed.
 - 1.4-2 Projects that capture, treat, infiltrate, or evapotranspire water on the parcels where it falls and does not result in interbasin transfers of water.
 - 1.4-3 GPR project is in lieu of or to supplement municipal hard/gray infrastructure.
 - 1.4-4 Projects considering both landscape and site scale will be most successful at protecting water quality.
 - 1.4-5 Design criteria are available at:
<http://cfpub.epa.gov/npdes/greeninfrastructure/munichandbook.cfm> and
<http://cfpub.epa.gov/npdes/greeninfrastructure/technology.cfm>
- 1.5 Examples of Projects Requiring A Business Case
- 1.5-1 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.

2.0 WATER EFFICIENCY

- 2.1 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.
- 2.2 Categorical Projects
 - 2.2-1 Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances
 - 2.2-1a For example -- shower heads, toilets, urinals and other plumbing devices
 - 2.2-1b Where specifications exist, WaterSense labeled products should be the preferred choice (<http://www.epa.gov/watersense/index.html>).
 - 2.2-1c Implementation of incentive programs to conserve water such as rebates.
 - 2.2-2 Installing any type of water meter in previously unmetered areas
 - 2.2-2a If rate structures are based on metered use
 - 2.2-2b Can include backflow prevention devices if installed in conjunction with water meter
 - 2.2-3 Replacing existing broken/malfunctioning water meters, or upgrading existing meters, with:
 - 2.2-3a Automatic meter reading systems (AMR), for example:
 - 2.2-3a(i) Advanced metering infrastructure (AMI)
 - 2.2-3a(ii) Smart meters
 - 2.2-3b Meters with built in leak detection
 - 2.2-3c Can include backflow prevention devices if installed in conjunction with water meter replacement
 - 2.2-4 Retrofitting/adding AMR capabilities or leak detection equipment to existing meters (not replacing the meter itself).

- 2.2-5 Water audit and water conservation plans, which are reasonably expected to result in a capital project.
 - 2.2-6 Recycling and water reuse projects that replace potable sources with non-potable sources,
 - 2.2-6a Gray water, condensate and wastewater effluent reuse systems (where local codes allow the practice)
 - 2.2-6b Extra treatment costs and distribution pipes associated with water reuse.
 - 2.2-7 Retrofit or replacement of existing landscape irrigation systems with more efficient landscape irrigation systems, including moisture and rain sensing equipment.
 - 2.2-8 Retrofit or replacement of existing agricultural irrigation systems with more efficient agricultural irrigation systems.
- 2.3 Projects That Do Not Meet the Definition of Water Efficiency
- 2.3-1 Agricultural flood irrigation.
 - 2.3-2 Lining of canals to reduce water loss.
 - 2.3-3 Replacing drinking water distribution lines. This activity extends beyond CWSRF eligibility and is more appropriately funded by the DWSRF.
 - 2.3-4 Leak detection equipment for drinking water distribution systems, unless used for reuse distribution pipes.
- 2.4 Decision Criteria for Business Cases
- 2.4-1 Water efficiency can be accomplished through water saving elements or reducing water consumption. This will reduce the amount of water taken out of rivers, lakes, streams, groundwater, or from other sources.
 - 2.4-2 Water efficiency projects should deliver equal or better services with less net water use as compared to traditional or standard technologies and practices
 - 2.4-3 Efficient water use often has the added benefit of reducing the amount of energy required by a POTW, since less water would need to be collected and treated; therefore, there are also energy and financial savings.
- 2.5 Examples of Projects Requiring a Business Case.
- 2.5-1 Water meter replacement with traditional water meters (see AWWA M6 *Water Meters – Selection Installation, Testing, and Maintenance*).
 - 2.5-2 Projects that result from a water audit or water conservation plan
 - 2.5-3 Storage tank replacement/rehabilitation to reduce loss of reclaimed water.
 - 2.5-4 New water efficient landscape irrigation system (where there currently is not one).
 - 2.5-5 New water efficient agricultural irrigation system (where there currently is not one).

3.0 ENERGY EFFICIENCY

- 3.1 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.

3.2 Categorical Projects

- 3.2-1 Renewable energy projects such as wind, solar, geothermal, micro-hydroelectric, and biogas combined heat and power systems (CHP) that provide power to a POTW. (<http://www.epa.gov/cleanenergy>). Micro-hydroelectric projects involve capturing the energy from pipe flow.
 - 3.2-1a POTW owned renewable energy projects can be located onsite or offsite.
 - 3.2-1b Includes the portion of a publicly owned renewable energy project that serves POTW's energy needs.
 - 3.2-1c Must feed into the grid that the utility draws from and/or there is a direct connection.
- 3.2-2 Projects that achieve a 20% reduction in energy consumption are categorically eligible for GPR⁴. Retrofit projects should compare energy used by the existing system or unit process⁵ 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. If a project achieves less than a 20% reduction in energy efficiency, then it may be justified using a business case.
- 3.2-3 Collection system Infiltration/Inflow (I/I) detection equipment
- 3.2-4 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. Guidance to help POTWs develop energy management programs, including assessments and audits is available at http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymangement.pdf.

3.3 Projects That Do Not Meet the Definition of Energy Efficiency

- 3.3-1 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.
- 3.3-2 Simply replacing a pump, or other piece of equipment, because it is at the end of its useful life, with something of average efficiency.
- 3.3-3 Facultative lagoons, even if integral to an innovative treatment process.

⁴ The 20% threshold for categorically eligible CWSRF energy efficiency projects was derived from a 2002 Department of Energy study entitled *United States Industrial Electric Motor Systems Market Opportunities Assessment, December 2002* and adopted by the Consortium for Energy Efficiency. Further field studies conducted by Wisconsin Focus on Energy and other State programs support the threshold.

⁵ A unit process is a portion of the wastewater system such as the collection system, pumping stations, aeration system, or solids handling, etc.

- 3.3-4 Hydroelectric facilities, except micro-hydroelectric projects. Micro-hydroelectric projects involve capturing the energy from pipe flow.
- 3.4 Decision Criteria for Business Cases
 - 3.4-1 Project must be cost effective. An evaluation must identify energy savings and payback on capital and operation and maintenance costs that does not exceed the useful life of the asset.
http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymangement.pdf
 - 3.4-2 The business case must describe how the project maximizes energy saving opportunities for the POTW or unit process.
 - 3.4-3 Using existing tools such as Energy Star’s Portfolio Manager (http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager) or Check Up Program for Small Systems (CUPSS) (<http://www.epa/cupss>) to document current energy usage and track anticipated savings.
- 3.5 Examples of Projects Requiring a Business Case
 - 3.5-1 POTW projects or unit process projects that achieve less than a 20% energy efficiency improvement.
 - 3.5-2 Projects implementing recommendations from an energy audit that are not otherwise designated as categorical.
 - 3.5-3 Projects that cost effectively eliminate pumps or pumping stations.
 - 3.5-4 Infiltration/Inflow (I/I) correction projects that save energy from pumping and reduced treatment costs and are cost effective.
 - 3.5-4a Projects that count toward GPR cannot build new structural capacity. These projects may, however, recover existing capacity by reducing flow from I/I.
 - 3.5-5 I/I correction projects where excessive groundwater infiltration is contaminating the influent requiring otherwise unnecessary treatment processes (i.e. arsenic laden groundwater) and I/I correction is cost effective.
 - 3.5-6 Replacing pre-Energy Policy Act of 1992 motors with National Electric Manufacturers Association (NEMA) premium energy efficiency motors.
 - 3.5-6a NEMA is a standards setting association for the electrical manufacturing industry (<http://www.nema.org/gov/energy/efficiency/premium/>).
 - 3.5-7 Upgrade of POTW lighting to energy efficient sources such as metal halide pulse start technologies, compact fluorescent, light emitting diode (LED).
 - 3.5-8 SCADA systems can be justified based upon substantial energy savings.
 - 3.5-9 Variable Frequency Drive can be justified based upon substantial energy savings.

4.0 ENVIRONMENTALLY INNOVATIVE

- 4.1 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.

- 4.2 Categorical Projects
- 4.2-1 Total/integrated water resources management planning likely to result in a capital project.
 - 4.2-2 Utility Sustainability Plan consistent with EPA SRF's sustainability policy.
 - 4.2-3 Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry)
 - 4.3-3a Note: GHG Inventory and mitigation plan is eligible for CWSRF funding.
 - 4.2-3b EPA Climate Leaders:
 - <http://www.epa.gov/climateleaders/basic/index.html>
 - Climate Registry: <http://www.theclimaterestistry.org/>
 - 4.2-4 Planning activities by a POTW to prepare for adaptation to the long-term effects of climate change and/or extreme weather.
 - 4.2-4a Office of Water – Climate Change and Water website:
 - <http://www.epa.gov/water/climatechange/>
 - 4.2.5 Construction of US Building Council LEED certified buildings or renovation of an existing building on POTW facilities.
 - 4.2-5a Any level of certification (Platinum, Gold, Silver, Certified).
 - 4.2-5b All building costs are eligible, not just stormwater, water efficiency and energy efficiency related costs. Costs are not limited to the incremental additional costs associated with LEED certified buildings.
 - 4.2-5c U.S. Green Building Council website:
 - <http://www.usgbc.org/displaypage.aspx?CategoryID=19>
 - 4.2-6 Decentralized wastewater treatment solutions to existing deficient or failing onsite wastewater systems.
 - 4.2-6a Decentralized wastewater systems include individual onsite and/or cluster wastewater systems used to collect, treat and disperse relatively small volumes of wastewater. An individual onsite wastewater treatment system is a system relying on natural processes and/or mechanical components, that is used to collect, treat and disperse or reclaim wastewater from a single dwelling or building. A cluster system is a wastewater collection and treatment system under some form of common ownership that collects wastewater from two or more dwellings or buildings and conveys it to a treatment and dispersal system located on a suitable site near the dwellings or buildings. Decentralized projects may include a combination of these systems. EPA recommends that decentralized systems be managed under a central management entity with enforceable program requirements, as stated in the *EPA Voluntary Management Guidelines*.
 - http://www.epa.gov/owm/septic/pubs/septic_guidelines.pdf
 - 4.2-6b Treatment and Collection Options: A variety of treatment and collection options are available when implementing decentralized wastewater systems. They typically include a septic tank, although many configurations include additional treatment components following or in place of the septic tank, which provide for advanced treatment solutions. Most disperse treated effluent to the soil where further treatment occurs, utilizing either conventional soil absorption fields or alternative soil dispersal methods which provide advanced treatment. Those that

discharge to streams, lakes, tributaries, and other water bodies require federal or state discharge permits (see below). Some systems promote water reuse/recycling, evaporation or wastewater uptake by plants. Some decentralized systems, particularly cluster or community systems, often utilize alternative methods of collection with small diameter pipes which can flow via gravity, pump, or siphon, including pressure sewers, vacuum sewers and small diameter gravity sewers. Alternative collection systems generally utilize piping that is less than 8 inches in diameter, or the minimum diameter allowed by the state if greater than 8 inches, with shallow burial and do not require manholes or lift stations. Septic tanks are typically installed at each building served or another location upstream of the final treatment and dispersal site. Collection systems can transport raw sewage or septic tank effluent. Another popular dispersal option used today is subsurface drip infiltration. Package plants that discharge to the soil are generally considered decentralized, depending on the situation in which they are used. While not entirely inclusive, information on treatment and collection processes is described, in detail, in the “*Onsite Wastewater Treatment Technology Fact Sheets*” section of the EPA Onsite Manual http://www.epa.gov/owm/septic/pubs/septic_2002_osdm_all.pdf and on EPA’s septic system website under Technology Fact Sheets. http://cfpub.epa.gov/owm/septic/septic.cfm?page_id=283

4.2-6c For the purposes of the CWSRF, decentralized systems are considered to be section 319 projects and Davis-Bacon does not apply.

4.3 Projects That Do Not Meet the Definition of Environmentally Innovative

- 4.3-1 Air scrubbers to prevent nonpoint source deposition.
- 4.3-2 Facultative lagoons, even if integral to an innovative treatment processes.
- 4.3-3 Surface discharging decentralized wastewater systems where there are cost effective soil-based alternatives.
- 4.3-4 Higher sea walls to protect POTW from sea level rise.
- 4.3-5 Reflective roofs at POTW to combat heat island effect.

4.4 Decision Criteria for Business Cases

- 4.4-1 State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical or climatological conditions.
 - 4.4-1a Technology or approach whose performance is expected to address water quality but the actual performance has not been demonstrated in the state;
 - 4.4-1b Technology or approach that is not widely used in the State, but does perform as well or better than conventional technology/approaches at lower cost; or
 - 4.4-1c Conventional technology or approaches that are used in a new application in the State.

4.5 Examples of Projects Requiring a Business Case

- 4.5-1 Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal.
 - 4.5-1a Natural wetlands, as well as the restoration/enhancement of degraded wetlands, may not be used for wastewater treatment purposes and must comply with all regulatory/permitting requirements.
 - 4.5-1b Projects may not (further) degrade natural wetlands.
- 4.5-2 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.
- 4.5-3 Projects that facilitate adaptation of POTWs to climate change identified by a carbon footprint assessment or climate adaptation study.
- 4.5-4 POTW upgrades or retrofits that remove phosphorus for beneficial use, such as biofuel production with algae.
- 4.5-5 Application of innovative treatment technologies or systems that improve environmental conditions and are consistent with the Decision Criteria for environmentally innovative projects such as:
 - 4.5-5a Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment;
 - 4.5-5b 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. (National Biosolids Partnership, 2010; *Advances in Solids Reduction Processes at Wastewater Treatment Facilities Webinar*; http://www.e-wef.org/timssnet/meetings/tnt_meetings.cfm?primary_id=10CAP2&Action=LONG&subsystem=ORD%3cbr).
 - 4.5-5b(i) Includes composting, class A and other sustainable biosolids management approaches.
- 4.5-6 Educational activities and demonstration projects for water or energy efficiency.
- 4.5-7 Projects that achieve the goals/objectives of utility asset management plans (http://www.epa.gov/safewater/smallsystems/pdfs/guide_smallsystems_assetmanagement_bestpractices.pdf; <http://www.epa.gov/owm/assetmanage/index.htm>).
- 4.5-8 Sub-surface land application of effluent and other means for ground water recharge, such as spray irrigation and overland flow.
 - 4.5-8a Spray irrigation and overland flow of effluent is not eligible for GPR where there is no other cost effective alternative.

Business Case Development

This guidance is intended to be comprehensive: however, EPA understands our examples projects requiring a business case may not be all inclusive. A business case is a due diligence document. For those projects, or portions of projects, which are not included in the categorical projects lists provided above, a business case will be required to demonstrate that an assistance recipient has thoroughly researched anticipated ‘green’ benefits of a project. Business cases will be approved by the State (see section IV.A.a. in the *Procedures for Implementing Certain Provisions of EPA’s Fiscal Year 2012 Appropriations Affecting the Clean Water and Drinking Water State Revolving Fund Programs*). An

approved business case must be included in the State’s project files and contain clear documentation that the project achieves identifiable and substantial benefits. The following sections provide guidelines for business case development.

- 5.0 Length of a Business Case
 - 5.0-1 Business cases must address the decision criteria for the category of project
 - 5.0-2 Business cases should be adequate, but not exhaustive.
 - 5.0-2a There are many formats and approaches. EPA does not require any specific one.
 - 5.0-2b Some projects will require detailed analysis and calculations, while others many not require more than one page.
 - 5.0-2c Limit the information contained in the business case to only the pertinent ‘green’ information needed to justify the project.
 - 5.0-3 A business case can simply summarize results from, and then cite, existing documentation – such as engineering reports, water or energy audits, results of water system tests, etc.
- 5.1 Content of a Business Case
 - 5.1-1 Quantifiable water and/or energy savings or water loss reduction for water and energy efficiency projects should be included.
 - 5.1-2 The cost and financial benefit of the project should be included, along with the payback time period where applicable. (NOTE: Clean Water SRF requires energy efficiency projects to be cost effective.)
- 5.2 Items Which Strengthen Business Case, but Are Not Required
 - 5.2-1 Showing that the project was designed to enable equipment to operate most efficiently.
 - 5.2-2 Demonstrating that equipment will meet or exceed standards set by professional associations.
 - 5.2-3 Including operator training or committing to utilizing existing tools such as Energy Star’s Portfolio Manager or CUPSS for energy efficiency projects.
- 5.3 Example Business Cases Are Available at <http://www.srfbusinesscases.net/>

APPENDIX E

PUBLIC COMMENTS

Comment:

Submitted by Mike McGhee, McGhee Engineering:

Several utility providers that I work with have adopted an automatic rate indexing ordinance. Some at the encouragement of KIA, and some of their own volition. When allowed to function as intended, these serve to keep utility rates more in line with the cost of providing the service.

Having attended many city council and water board meetings in my career, I often see two interrelated problems with these rate indexing plans. The first is that there is no utility rate benchmark that I am aware of to use as a basis for the indexing. This often results in the utility using an arbitrary percentage. The second is when during the budget making process some board member inevitably suggests that the utility forego the rate increase for that particular year. Sometimes the suggestion is made in good faith, but other times it is simply political grandstanding. Either way, when a motion is on the floor to not increase rates, it's hard to vote against.

My first suggestion is for KIA to develop some form of utility cost index. This would give boards and councils a more defensible basis for rate changes, and would benefit all systems whether KIA borrowers or not.

My suggestion is that for some or possibly all KIA loans, rate indexing be mandated as part of the loan agreement, and if the utility wants to forego the increase, they have to justify that action. This would provide some political cover for council and board members, and be in the best financial interest of the utility. The indexing period wouldn't have to be one year - two or three might be better, and the justification for maintaining rates unchanged wouldn't have to be exhaustive. Maybe this would help avoid the scenario I often see where a utility has been starved for funds for so long that their assets fall into serious disrepair, and they need a 100% rate increase to rebuild it.

Response:

KIA will study the suggestion for consideration in future processes. Currently a defined index does not exist specific to the water industry. Additionally KIA will need to confer with bond counsel and regulatory agencies, such as the Public Service Commission, prior to considering implementing a mandated utility cost index.