INTENDED USE PLAN

CLEAN WATER
STATE REVOLVING FUND

State Fiscal Year 2019

COMMONWEALTH OF KENTUCKY

PREPARED BY THE

KENTUCKY INFRASTRUCTURE AUTHORITY
&
ENERGY AND ENVIRONMENT CABINET

TABLE OF CONTENTS

INTRODUCTION

The Intended Use Plan (IUP) is a document the Kentucky Infrastructure Authority (KIA) prepares for the U.S. Environmental Protection Agency (EPA) and others interested in Kentucky's Clean Water State Revolving Fund Program (CWSRF, the Fund). The IUP is prepared in accordance with Title VI of the Clean Water Act (CWA) and the Consolidated Appropriations Act, 2018 (March 23, 2018). The purpose of the IUP is to communicate Kentucky's CWSRF plan for state fiscal year 2019 to potential borrowers from the Fund, the state's public wastewater systems, the public, the Environmental Protection Agency (EPA), and other interested parties. The IUP also includes the Priority System Guidance Document, which is the set of criteria used to score and rank projects.

An annual IUP is required by Title VI of the Clean Water Act (CWA) and is an integral part of the process to request the Federal Fiscal Year (FFY) 2018 Capitalization Grant. The IUP will identify how the funds available to Kentucky's CWSRF will be used during each state fiscal year (SFY) to support the goals of the CWSRF. The 2019 IUP includes:

1. A description of the short and long term goals of the Fund;
2. The criteria and methods established for selecting projects;
3. Administration and operation policies of the Fund;
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 EPA provides 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 general intent of Title VI of the CWA is to ensure that each state's fund is designed and operated to provide financial assistance for water pollution control activities in perpetuity. 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 promote the goals of the CWA. Projects identified to receive funding are selected from the ranked group of Project Profiles submitted during an Annual Call for Projects. The ranking is based on the water pollution control criteria outlined in the CWA. The Fund is administered by KIA while 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 355 wastewater infrastructure projects, totaling more than $1.8 billion (through April, 2018).

Eligibility

An eligible borrower must be a public wastewater system that is also a governmental agency, as defined in KRS 224A.011. Some examples include:

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

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).

Significant Federal Requirements

Davis-Bacon Compliance

Federal labor laws regarding prevailing wages, hours of work, and rates of pay shall apply to construction carried out in whole or in part with assistance from CWSRFs. These requirements are collectively known as the Davis-Bacon laws. All CWSRF funded projects 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 principal forgiveness provision of the FFY 2018 capitalization grant requires that at least 10 percent, or $2,042,800, and not more than 30 percent, or $6,128,400 be made available to provide additional subsidization to eligible applicants in the 2018 capitalization grant language. The State will make such additional subsidization in the form of loans with principal forgiveness based on the system's median household income (MHI) and affordability index. Whether or not a borrower has instituted regular rate increases is also a significant consideration. Principal forgiveness allocations are at the discretion of the Executive Director and KIA Board. Fifty percent of the loan amount, up to a maximum of $1.3 million per borrower, may be offered as principal forgiveness to projects that qualify for the lowest non-

standard interest rate. Principal forgiveness will not be provided on loan increase requests. *See page 10 for principal forgiveness allocation for large project financing over multiple funding cycles.

In an effort to protect public health and provide assistance to small wastewater systems and package treatment plants, KIA will work with DOW to identify such systems and will provide critical funding that will allow these systems to become sustainable through consolidation and regionalization. The Authority has allocated $500,000 in subsidy from the FFY 2018 Capitalization Grant to provide principal forgiveness loans for this purpose. *The subsidy will be no more than 95% of the project amount. If these funds are not utilized during the 2019 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.

*KIA does not have the authority to provide 100% subsidy.

Green Project Reserve

KIA will identify projects that address green infrastructure, water or energy efficiency improvements or other environmentally innovative activities in the 2019 Project Priority List and fund an amount not less than 10 percent of the FFY 2018 capitalization grant.

American Iron and Steel (AIS)

The Consolidated Appropriations Act of 2018 requires the use of American Iron and Steel (AIS) products in all CWSRF projects. 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) 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

In accordance with Section 602(b)(13) of the Clean Water Act, 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."

Structure of the CWSRF Program in Kentucky

KIA and the DOW jointly administer the program via a Memorandum of Agreement in accordance with Kentucky Revised Statute (KRS) 224A.111 and Kentucky Administrative Regulation (KAR) 200 KAR 17:050[1]. The following contacts can assist with CWSRF inquiries:

Contact	Agency	Subject
Ashley Adams (502) 892-3429 AshleyM.Adams@ky.gov	KIA	Loan Application, Financial Terms, Interest Rates, General Information
Jory Becker (502) 782-6887 Jory.Becker@ky.gov	DOW	Request for Proposals (RFPs), Asset Management, Package Treatment Plants
Russell Neal (502) 782-7026 Russell.Neal@ky.gov	DOW	CW Priority List, Environmental Review, Regional Facility Plans
Buddy Griffin (502) 564-3410 Buddy.Griffin@ky.gov	DOW	Procurement, Bidding Requirements

[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.

CLEAN WATER STATE REVOLVING FUND GOALS

The Sustainable Infrastructure Initiative

The combination of aging water and wastewater infrastructure, growing population, 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 EPA 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 innovative solutions when investing in water infrastructure.

Short-Term Goals

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

Goal #2: Promote the principals of EPA's Sustainable Infrastructure (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, 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 and improve communication and the sharing of data between KIA and DOW.

Goal #3 Create a 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.

CRITERIA FOR PROJECT SELECTION

Project Priority List

The CWSRF was established to fund projects and activities whose primary goal is the protection of water quality. In 1996, EPA 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. Following the EPA'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 Kentucky Division of Water.

During the Call for Projects, which began October 2, 2017 and ended December 13, 2017, KIA and DOW invited all eligible borrowers to submit CWSRF project information via the WRIS. An official press release through the Governor's Office, along with an email distribution was sent to all sewer utilities, area development districts, mayors, county judges executive, and the engineering community. A sample of the Call for Projects email is attached in Appendix B. Designated projects submitted via the WRIS during the Call for Projects process were considered for funding and placement on the Project Priority List. Projects were evaluated and assigned a score based upon the ranking criteria in the Priority System Guidance Document. In the event of a tie, the following factors were 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 evidenced by the median household income of the applicant. More information on tie breakers can be found in the priority ranking guidance attached in Appendix C.

The 2019 Project Priority List (Appendix A) shows that Kentucky has sufficient eligible projects to meet the binding commitment requirements of the FFY 2018 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 WRIS numbers).

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 if sufficient principal forgiveness is 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 assigned by an Area Water Management Council after a project has received endorsement by a regional planning group. 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 2020 IUP process will begin in October 2018. The annual Call for Projects will be open from October to December 2018 during which time projects will be accepted for ranking in the SFY 2020 funding cycle. **An applicant must submit a request for each project to be ranked for the 2020 cycle even if it was included on a previous year's Project Priority List.** The following tentative schedule will apply:

2020 Call for Projects	October 3, 2018 - December 14, 2018
Creation of Project Priority List	January 2, 2019 - March 29, 2019
Public Notice Period for IUP	May 1, 2019 - June 1, 2019
Finalize 2020 IUP and send to EPA	Prior to June 30, 2019

Email notifications will be sent in September 2018 to all sewer utilities, area development districts, mayors, county judge executives, economic development directors, and the Kentucky Society of Professional Engineers announcing the Call for Projects.

FUND ADMINISTRATION AND OPERATION

Invitation Process

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. Projects that don't demonstrate readiness or have current audits (2015, 2016, and 2017) may be bypassed. For all others, a letter of invitation to submit a loan application is emailed to applicants and provides instructions to electronically accept or decline the invitation through KIA's website. Applicants that do not submit a loan application, complete with Kentucky e-Clearinghouse comments, by the deadline, may also be bypassed (see *Bypass Process Prior to Loan Commitment* below) 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 what was 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 eligibility.

Upon receipt of a complete loan application, KIA staff will review the information and prepare a credit analysis. A loan request will be presented to the KIA Board for financial review and conditional approval for each qualifying applicant. 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 of the letter are met. If, during the loan commitment period, an unforeseeable circumstance arises that causes delay in the construction progress, beyond the current funding cycle, the project may be bypassed to the following funding cycle (see *Bypass Process Post Loan Commitment* below).

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.

Bypass Process Prior to Loan Commitment

A high-priority project that does not demonstrate capacity or is not ready to proceed within the given timeframe will be bypassed. A bypassed project will become ineligible for CWSRF funding in the current funding year and 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

- Borrower does not demonstrate readiness 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.

Bypass Process Post Loan Commitment

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. For borrowers that experience extenuating circumstances that cause delay beyond the loan commitment period in the funding cycle in which the commitment expires, the project funding may be bypassed in order to provide loan funds for other projects. The loan commitment may resume in the following funding cycle.

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.

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 could have a separate interest rate as established in the Intended Use Plan for each funding year and requires KIA Board approval. After a project is initially funded by KIA it may receive priority funding during subsequent funding cycles based on funding limits and the original project budget amount. Approval of each amount is not guaranteed and would depend on the continued creditworthiness of the Utility. KIA will reassess loan compliance and creditworthiness prior to approval of each planned increment. 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 non-standard interest rate for the subsequent funding cycles without having to perform additional MHI analysis. However, the lowest nonstandard interest rate is not locked for subsequent years. KIA evaluates interest rate structures annually based on market conditions, so if the disadvantaged interest rate goes up, then the loan would be subject to the increase based on the funding cycle year in which the increment is taken. See table below.

If a loan is eligible for principal forgiveness it will be allocated only once. Currently the allocation is 50% of the loan amount up to $1.3M. This would apply for the entire project, not individual increments. If the $1.3M cap isn't reached in the first construction loan funding cycle, it cannot be allocated in the second increment or any other subsequent increments (this excludes P&D loans). How much KY allocates in principal forgiveness is dictated by the federal government, and how it is allocated is determined by the

state. These scenarios can change with each funding cycle. Because of this, the principal forgiveness will be allocated with the first increment of the construction loan.

Example:

Funding Cycle Year	Loan Commitment Offered by KIA	Interest Rate	Principal Forgiveness
2018	$800,000 (Planning & Design)	2.75	NA
2019	$5,000,000 (Construction)	0.5% (anticipated)	50% of increment, up to $1,300,000 maximum (Applied during first increment of construction loan)
2020	$6,000,000 (Construction)	To be determined	NA
2021	$7,000,000 (Construction)	To be determined	NA
Total	$18,800,000	Blended	$1,300,000

Planning and Design 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 will encourage the applicant to apply for a Planning and Design loan rather than a full construction loan. The standard interest rate will apply during the five year term of the loan. However, if the applicant initiates construction within a prescribed time frame after approval of plans and specifications for the project, the loan can be converted to a construction loan with the interest rate that the applicant would otherwise qualify for and the term established in the Conditional Commitment Letter. Planning and Design loan borrowers will 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 approved by the KIA board.

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 the Energy and Environment Cabinet. 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

KIA is willing to accept governmental agency requests to refinance non-KIA loans. 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 must meet all the applicable program requirements.

Financial Terms of Loans

Interest Rates

The KIA Board must establish interest rates at least annually. Rates are based on prevailing market conditions with the 20 Bond General Obligation (GO) index as a reference rate. The following interest rates were approved by the KIA Board for the 2019 funding cycle, but are subject to change:

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

Each project's MHI threshold is determined by using the Default Weighted Proximity Analysis (DWPA) in the WRIS Portal. This analysis is automatic and uses the water distribution/sewer collection lines in the project profile mapping to perform a spatial analysis that estimates 1) the serviceable population of the project area using 2010 census blocks and 2) 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 and can be reviewed under the Impacts Tab at any time by the applicant, administrator, or engineer. This is the primary MHI determination method for KIA and will be used unless the applicant contacts KIA with concerns. KIA will then advise the borrower if they should proceed with an alternative method and which method they should use.

If the applicant or representative finds that the MHI values are inappropriate or skewed for the project area there are two alternative options. The first option is the Modified Weighted Proximity Analysis, which 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. If applicants are interested in using an alternative MHI determination method, KIA should be contacted during the SRF Call for Projects or prior

to release of the Intended Use Plan. Borrowers should not proceed with any alternative MHI methodologies without first contacting KIA Staff.

Repayment Terms

Planning, design, and sanitary sewer evaluation study (SSES) loans will be amortized over, but not to exceed, five years. If the planning and design loan is rolled into a CWSRF 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 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.

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.

a) 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 Principals, and Audit Requirements for Federal Awards*.

b) 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.

c) 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.

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 Drinking Water State Revolving Fund (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 Fund provides, in perpetuity, financial assistance to Kentucky's eligible CWSRF projects. As of June 30, 2017 the CWSRF had net assets of $740,828,000 and 241 active loans. During 2019, 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 2019
July 1, 2018 through June 30, 2019

Funding Sources	Federal Contribution	State Contribution	Other	Total
Uncommitted Prior Year Loan Funds			10,915,000	10,915,000
Loan Repayments (P&I)			58,823,728	58,823,728
Interest Earnings (from cash on hand)			1,500,000	1,500,000
Banked Prior Year Administration Funds			745,000	745,000
FFY 2018 Capitalization Grant	20,428,000	4,085,600		24,513,600
Total Funding Sources	20,428,000	4,085,600	71,983,728	96,497,328
Funding Uses				
Financial Assistance	19,610,880	4,085,600	48,303,520	72,000,000
Leverage Bond Debt Service			22,935,208	22,935,208
Banked Prior Year Administration Funds			745,000	745,000
FFY 2018 Administration (4%)	817,120			817,120
Total Funding Uses	20,428,000	4,085,600	71,983,728	96,497,328

During the 2019 funding cycle KIA will have an estimated $72,000,000 available to fund eligible CWSRF projects. This is comprised of uncommitted Series 2018 A bond proceeds that were carried over from fiscal 2018, the estimated FFY 2018 capitalization grant of $20,428,000, state match funds of $4,085,600, estimated loan repayments of $58,823,728, uncommitted prior year loan funds of $4,215,000, and interest earnings of $1,500,000 on existing cash balances. Funding is reduced by leverage bond debt service of $22,935,208 and $817,120 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 $745,000 in banked administrative funds from prior capitalization grants for administration of the program.

The $4,085,600 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. KIA anticipates that the capitalization grant will be awarded and available by October 1, 2018.

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 2019 CWSRF IUP including the Project Priority List was made available for public review and comment on the KIA website at www.kia.ky.gov and the Division of Water website at www.water.ky.gov from May 16, 2018 through June 15, 2018. A public meeting was held on Wednesday, June 6, 1:00 p.m., EST, at the office of the Kentucky Infrastructure Authority, 1024 Capital Center Drive, Ste. 340. Written comments were accepted during the review and comment period and are summarized in the Final IUP, Appendix E.

APPENDIX A

COMPREHENSIVE PROJECT PRIORITY LIST

2019 CWSRF Project Priority List

(The heavy dark line indicates 1st-round loan invites, excluding bypassed projects.)

Rank	Score	Loan Number	Applicant	Loan Package Title	DOW Project Description	Total Project Costs	Requested Loan Amount	Utility Service Area MHI	Population	Green Amount	Green Category	WRIS #
*	*	A18-003	Marion, City of	City of Marion - New Wastewater Treatment Plant	New WWTP, Sewer Extension	$ 13,405,790	$ 4,455,000	$ 29,853	3,175	$ 0		SX21055006
1	**	A19-001	Elkton, City of	Elkton - Wastewater System Rehabilitation and Improvements	SSO Correction, WWTP Replacement/Rehabilitation, Planning	3,934,451	3,434,451	32,632	2,170	10,000	3	SX21219014
2	**	A19-002	Louisa, City of	City of Louisa I & I Rehab Project	Sewer Replacement/Rehabilitation	4,000,000	3,643,940	30,830	3,433	4,300,000	3	SX21127030
3	*	A19-003	Hopkinsville Water Environment Authority	HWEA SRF Phase VIII - Expand Hammond-Wood WWTP & Interceptor	WWTP Replacement/Rehabilitation, Advanced Treatment	39,324,000	5,000,000	36,177	42,973	0	3	SX21047028
4	**	A19-004	Pineville, City of	Virginia Avenue/Courthouse Square Utility Replacements & Revitalization	CSO Correction	3,941,746	3,741,746	20,956	3,106	328,000		SX21013003
5	*	A19-005	Prestonsburg, City of	PCUC: Big Sandy Regional Waste Water Treatment Plant		8,817,398	8,344,498	26,744	9,827	0		SX21071007
6	476	A19-006	Martin, City of	City of Martin New Sewerline Extention to Eliminate Package Treatment Plants	Sewer and WWTP Replacement/Rehabilitation, Sewer Extension	2,435,000	2,435,000	22,645	916	0	3	SX21071006
7	390	A19-007	Prestonsburg City's Utilities Commission	Prestonsburg City's Utilities Commission (PCUC) Allen and Dwale	Sewer Replacement/Rehabilitation	600,036	496,956	26,744	9,827	0	3	SX21071014
8	280	A19-008	Hopkinsville Water Environment Authority	HWEA Phase IX Sewer Rehabilitation Priority 3 & 3A	Sewer Replacement/Rehabilitation	7,044,050	7,044,050	36,177	42,973	0	3	SX21047031
9	280	A19-009	Georgetown, City of	Georgetown/Scott County South Sewer Extension	Sewer Extension	6,500,000	4,500,000	59,816	30,633	325,000	3	SX21209012
10	265	A19-010	Louisville And Jefferson County Metropolitan Sewer District	Upper Middle Fork Pump Station Diversion	CSO Correction, SSO Correction	11,720,000	9,880,000	51,417	732,223	1,575,000	3, 4	SX21111006
11	253	A19-011	Lancaster, City of	Lancaster Sanitary Sewer Improvements Project	Sewer and WWTP Replacement/Rehabilitation	5,564,800	5,564,800	30,785	3,992	0	3	SX21079019
12	213	A19-012	Tompkinsville, City of	Tompkinsville WWTP Expansion & Sanitary Sewer Collection Improve	Sewer and WWTP Replacement/Rehabilitation, Sewer Extension	2,386,448	886,448	29,783	2,458	339,000	1, 3, 4	SX21171020
13	212	A19-013	Vanceburg, City of	Vanceburg - Meadowbrook & Black Oak Sewer Consolidation	WWTP Replacement/Rehabilitation, Sewer Extension	1,386,500	1,386,500	19,272	1,745	75,000	3	SX21135010
14	210	A19-014	Menifee County Fiscal Court	System Improvements Project	Sewer and WWTP Replacement/Rehabilitation, Sewer Extension	1,459,000	1,459,000	40,431	429	105,000	3	SX21165010
15	210	A19-015	Louisville And Jefferson County Metropolitan Sewer District	Nightingale I & I Elimination Project	Sewer Replacement/Rehabilitation	4,870,000	3,870,000	51,417	732,223	25,000	3, 4	SX21111007
16	208	A19-016	Wheelwright Utilities Commission	Wheelwright - Replacement of Sewer System	Sewer Replacement/Rehabilitation	587,000	587,000	21,788	933	0	3	SX21071902

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan or multi-year loans.

** Funding is being prioritized for projects with an active SRF planning and design loan.

2019 CWSRF Project Priority List

(The heavy dark line indicates 1st-round loan invites, excluding bypassed projects.)

17	208	A19-017	Pikeville, City of	Pikeville Yorkwood Forest Subdivision Sewerline Extension South Along US 23	Sewer Extension	391,800	391,800	36,091	9,726	0		SX21195102
18	205	A19-018	Paintsville Utilities Commission	Paintsville Utilities Powell Addition Sewer Project	Sewer Extension	2,750,000	2,750,000	30,448	8,258	0		SX21115510
19	205	A19-019	Pikeville, City of	Pikeville Cedar Creek Sewer Extension	Sewer Extension	550,000	550,000	36,091	9,726	0		SX21195105
20	203	A19-020	Mercer County Sanitation District	M C S D - Gwinn Island Road Sanitary Sewer Extension	Sewer Extension	1,525,676	1,525,676	40,390	808	0		SX21167019
21	196	A19-021	Pikeville, City of	Storm Water Separation 2nd Street	Storm Water Control	29,825	4,560	36,091	9,726	0	3	SX21195028
22	195	A19-022	Oldham County Environmental Authority	OCEA Lift Station Rehab, Renovation, and Replacement	Sewer and WWTP Replacement/Rehabilitation	2,944,345	2,944,345	96,771	19,684	925,000	3	SX21185051
23	193	A19-023	Wheelwright Utilities Commission	Extend Service to Golf Hollow and Branham Hollow (Stoker Branch)	Sewer Extension	150,000	150,000	21,788	933	0		SX21071001
24	190	A19-024	Regional Water Resource Agency	RWRA Tunnel Lings & Repair Project	Sewer Replacement/Rehabilitation	3,800,000	3,800,000	42,618	72,417	724,500	3, 4	SX21059056
25	190	A19-025	Corbin City Utilities Commission	Master Street Sewer Main Upgrade	SSO Correction	1,613,960	1,262,600	28,297	13,022	0		SX21121004
26	180	A19-026	La Center, City of	Wastewater Treatment Plant Upgrade and I/I Reduction	SSES, Sewer and WWTP Replacement/Rehabilitation	2,050,049	1,050,049	34,006	1,063	0	3	SX21007019
27	175	A19-027	Benton, City of	LIFT STATION ELIMINATION	SSO Correction	1,175,715	1,175,715	43,052	4,765	0	3	SX21157038
28	175	A19-028	Louisville And Jefferson County Metropolitan Sewer District	Hite Creek Water Quality Treatment Center	WWTP Replacement/Rehabilitation, Advanced Treatment	24,840,000	19,500,000	51,417	732,223	3,150,000	2, 3, 4	SX21111101
29	171	A19-029	Coal Run Village, City of	City of Coal Run Village - US 23 North Sanitary Sewer Project	Sewer Extension	1,173,722	1,173,722	36,091	9,726	0		SX21195031
30	165	A19-030	Paintsville Utilities Commission	Paintsville Utility Commission Van Lear Waste Water Project	Sewer Extension	4,640,000	4,640,000	30,448	8,258	0		SX21115502
31	165	A19-031	Murray, City of	Sewer Project #1 (MH 5-11 to 5-44)	SSO Correction	550,000	550,000	25,556	19,390	8,500,000	3	SX21035025
32	163	A19-032	Morehead, City of	US 60 West and KY 801 SSO Correction Project	SSO Correction, Sewer Extension	3,671,000	3,671,000	38,498	15,128	135,000	3	SX21205037
33	160	A19-033	Brandenburg, City of	Brandenburg Wastewater Treatment Plant Upgrade & Expansion	WWTP Replacement/Rehabilitation	3,315,000	3,315,000	41,471	2,797	238,000	3, 4	SX21163007
34	160	A19-034	Salyersville Water Works	Magoffin County Garage Lift Station and Line Replacement Project	Sewer Replacement/Rehabilitation	735,000	735,000	24,911	3,093	0	3	SX21153004
35	160	A19-035	Brodhead, City of	City of Brodhead - WWTP Upgrade and Improvement	Sewer and WWTP Replacement/Rehabilitation. Sewer Extension	5,000,000	3,222,500	19,273	1,187	700,000		SX21203317
36	160	A19-036	Ashland, City of	Ashland: Enlarge Sewer Treatment Plant to Eliminate Overflows	Sewer and WWTP Replacement/Rehabilitation	25,000,000	25,000,000	39,725	21,625	0		SX21019065
37	155	A19-037	Springfield Water and Sewer Commission	Springfield Wastewater Treatment Plant Expansion	WWTP Replacement/Rehabilitation	11,903,720	11,903,720	32,252	2,714	0		SX21229010
38	155	A19-038	Murray, City of	Sewer Project #3 (MH 2-3 to 2-8, plus 2-7A to 2-167)	Sewer Replacement/Rehabilitation	900,000	900,000	25,556	19,390	350,000	3	SX21035010

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan or multi-year loans.

** Funding is being prioritized for projects with an active SRF planning and design loan.

2019 CWSRF Project Priority List

(The heavy dark line indicates 1st-round loan invites, excluding bypassed projects.)

39	152	A19-039	Paducah McCracken County Joint Sewer Agency	Perkins/Crooked Creek Wet Weather Tank	SSO Correction	5,193,000	5,193,000	38,940	43,554	0	3	SX21145027
40	149	A19-040	Western Mason Sanitation District	Pinewood Subdivision Sewer	Sewer Extension	100,000	100,000	46,469	1,219	30,000	3	SX21161006
41	148	A19-041	Kuttawa, City of	City of Kuttawa - Lift Station & Force Main Replacement Projects	SSO Correction	1,264,200	1,106,137	48,682	901	0	3	SX21143009
42	147	A19-042	***Hodgenville, City of	Hodgenville WWTP Upgrade & Wet Weather Storage	WWTP Replacement/Rehabilitation, Planning	3,570,000	227,000	32,450	3,647	0		SX21123007
43	145	A19-043	Benton, City of	TOWN CREEK INTERCEPTOR SEWER - PHASE 2	Sewer Extension	689,400	689,400	43,052	4,765	55,000		SX21157037
44	145	A19-044	Paducah McCracken County Joint Sewer Agency	Massac Creek Phase III	SSO Correction	2,314,500	2,020,000	38,940	43,554	0		SX21145017
45	142	A19-045	Burkesville, City of	Burkesville WWTP Improvements	Sewer and WWTP Replacement/Rehabilitation	3,282,000	212,200	20,028	1,491	180,000	3	SX21057002
46	142	A19-046	Carrollton, City of	Carrollton Utilities Industrial Customer Expansion (ICE)	Sewer Replacement/Rehabilitation, Sewer Extension	5,390,490	3,890,490	38,376	8,578	62,000	3	SX21041004
47	140	A19-047	Bardstown, City of	Rowan Creek Sewer Upgrade	SSO Correction, WWTP Replacement/Rehabilitation	6,999,740	6,999,740	43,372	17,207	0	3	SX21179029
48	140	A19-048	Lincoln County Sanitation District	LCSD - US 127 Corridor Sanitary Sewer Project, Phase 2	Sewer Extension	4,870,000	614,000			0		SX21137023
49	138	A19-049	Kuttawa, City of	Magnolia Lift Station & Force Main Replacement	Sewer Replacement/Rehabilitation	451,835	451,835	48,682	901	0	3	SX21143014
50	138	A19-050	Richmond, City of	Richmond - Silver Creek Outfall Sewer, Phase I	SSO Correction	10,142,000	10,142,000	33,096	32,242	25,000	3	SX21151054
51	137	A19-051	***Greenup Wastewater District	Phase 2 Sewer Line Extension Project (Lloyd)	Sewer Extension	4,215,000	4,215,000			0		SX21089111
52	133	A19-052	Paris, City of	City of Paris-Southern Hills Sanitary Sewer Collection Project	Sewer Extension	1,820,000	1,820,000	34,667	10,102	0	3	SX21017010
53	125	A19-053	Russell, City of	City of Russell I & I Study and Sewer Rehab Project	SSES, Sewer Replacement/Rehabilitation	500,500	500,500	57,999	854	350,000	3	SX21089110
54	124	A19-054	Boyd County Sanitation District #2	Sd2: System-Wide Inflow and Infiltration Abatement Project	SSES, Sewer Replacement/Rehabilitation	2,173,000	2,173,000	39,703	4,144	84,500	3	SX21019062
55	120	A19-055	Morganfield, City of	Morganfield Combined Sewer Separation Project Phase 3	CSO Correction	2,153,883	2,153,883	37,984	5,754	0		SX21225030
56	120	A19-056	Columbia/Adair County Water Commission	Burkesville Street Lift Station Replacement and Sanitary Sewer Expansion	Sewer Replacement/Rehabilitation, Sewer Extension	1,488,455	1,488,455	28,609	4,652	125,000	3	SX21001019
57	120	A19-057	Magoffin County Fiscal Court	Magoffin County Industrial Park Sewer Extension	WWTP Replacement/Rehabilitation, Advanced Treatment, Sewer Exten	2,115,000	2,115,000	24,911	3,093	0		SX21153522
58	120	A19-058	Hopkinsville Water Environment Authority	HWEA - Oak Grove Spring Meadows Sewer	Sewer Extension	4,244,652	4,244,652	36,177	42,973	0		SX21047009
59	118	A19-059	Sebree, City of	Sebree Sanitary Sewer Replacement	Sewer Replacement/Rehabilitation, Sewer Extension	1,821,655	1,178,940	33,238	1,471	0	3	SX21233027
60	115	A19-060	Hickman, City of	WWTP Improvement (Phase II) & Sanitary Sewer Rehab	WWTP Replacement/Rehabilitation	2,131,445	1,600,000	20,508	2,404	0		SX21075010

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan or multi-year loans.

** Funding is being prioritized for projects with an active SRF planning and design loan.

***Project will be considered in the 1st-round of the 2019 funding cycle.

2019 CWSRF Project Priority List

(The heavy dark line indicates 1st-round loan invites, excluding bypassed projects.)

61	110	A19-061	Elkhorn City, City of	Elkhorn City - Wastewater Collection Improvements Project	Planning	500,000	500,000	25,539	1,072	0		SX21195032
62	110	A19-062	Hardin, City of	Hardin - Wastewater Rehabilitation Phase II	SSES, Sewer Replacement/Rehabilitation	1,001,000	1,001,000	30,135	641	0	3	SX21157034
63	110	A19-063	Scottsville, City of	City of Scottsville - Inflow and Infiltration Project, Phase I	Sewer Replacement/Rehabilitation	1,750,000	1,750,000	31,531	4,313	1,327,500	3	SX21003036
64	106	A19-064	Pikeville, City of	City of Pikeville KY Wastewater Treatment Plant Upgrade	WWTP Replacement/Rehabilitation, Advanced Treatment	22,671,226	3,504,633	36,091	9,726	0		SX21195024
65	105	A19-065	Dawson Springs City Water and Sewer	Sanitary Sewer System Rehabilitation and WWTP Improvements	Sewer and WWTP Replacement/Rehabilitation	1,901,000	950,000	25,408	2,674	0	3	SX21107025
66	105	A19-066	Auburn, City of	City of Auburn - Upgrade of Existing Wastewater Treatment Plant	WWTP Replacement/Rehabilitation	6,600,000	3,600,000	34,946	1,459	450,000	3	SX21141048
67	105	A19-067	Berea, City of	BMU - Walnut Meadow Pump Station & South Middletown Trunk Sewer Improvements	Sewer Replacement/Rehabilitation	2,050,336	2,078,400	40,653	14,190	175,000	3	SX21151052
68	105	A19-068	Paris, City of	City of Paris Rehab Sanitary Sewer Mains	Sewer Replacement/Rehabilitation	250,000	250,000	34,667	10,102	0	3	SX21017015
69	105	A19-069	Hopkinsville Water Environment Authority	HWEA Oak Grove Village Sewer Project	Sewer Replacement/Rehabilitation, Sewer Extension	7,500,000	7,500,000	36,177	42,973	0		SX21047023
70	101	A19-070	Calhoun, City of	Revlett Drive Sewer Line Repair	Sewer Replacement/Rehabilitation	551,500	551,500	38,056	1,176	0	3	SX21149035
71	97	A19-071	Paducah, City of	Circle Park Stream and Flood Storage Restoration	Storm Water Control	500,832	500,832	33,574	25,024	55,000	1	SX21145029
72	95	A19-072	Princeton Water & Wastewater Commission	Princeton Sewer Rehabilitation Phase II Basins 7 & 8	Sewer Replacement/Rehabilitation	1,450,000	1,450,000	39,759	6,255	0	3	SX21033007
73	95	A19-073	Garrard Co Sanitation District	Garrard Co SD - Paint Lick Sewer System - Phase 1	Decentralized System	440,000	410,000	30,785	3,992	185,000	4	SX21079014
74	95	A19-074	Martin County Sanitation District	Martin County Sanitation District - Belt Press and Sludge Handling	WWTP Replacement/Rehabilitation	2,000,000	2,000,000	28,179	1,579	0		SX21159007
75	93	A19-075	Munfordville, City of	Munfordville Sewer Extensions and Pump Station Rehabilitations	Sewer Replacement/Rehabilitation, Sewer Extension	1,430,525	1,430,525	22,305	1,584	100,000	3	SX21099022
76	93	A19-076	Paris, City of	City of Paris-Mill Run Road & Cathy Drive Sanitary Sewer Project	Sewer Extension	900,000	900,000	34,667	10,102	0		SX21017005
77	92	A19-077	South Shore, City of	South Shore: Upgrade Forest Heights Collection Lines	Sewer Replacement/Rehabilitation	1,035,000	1,035,000	32,609	2,270	1,500	3	SX21089096
78	92	A19-078	Paris, City of	City of Paris - Claysville Trunk Sewer Replacement Project, Phase II	SSO Correction	1,825,000	1,825,000	34,667	10,102	1,825,000	3	SX21017004
79	91	A19-079	Calhoun, City of	Calhoun Wastewater Plant Replacement Project	New WWTP	4,925,000	4,976,300	38,056	1,176	85,000	3	SX21149031

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan or multi-year loans.

** Funding is being prioritized for projects with an active SRF planning and design loan.

2019 CWSRF Project Priority List

(The heavy dark line indicates 1st-round loan invites, excluding bypassed projects.)

80	90	A19-080	Princeton Water & Wastewater Commission	Princeton Sanitary Sewer Rehabilitation	Sewer Replacement/Rehabilitation	2,150,000	2,150,000	39,759	6,255	10,000	1, 3	SX21033011
81	90	A19-081	Olive Hill, City of	Olive Hill: Rehab of City Lines to Replace Clay Pipe	Sewer Replacement/Rehabilitation	1,400,000	1,400,000	26,607	1,821	1,000,000	3	SX21043017
82	90	A19-082	Regional Water Resource Agency	Max Rhoads WWTP Sludge Process Improvements	WWTP Replacement/Rehabilitation	1,450,246	1,450,246	42,618	72,417	0	3	SX21059055
83	90	A19-083	Bourbon County Fiscal Court	BCFC - Bedford Acres Sanitary Sewer Project Phase 2	Sewer Extension	1,850,000	1,850,000	34,667	10,102	0		SX21017013
84	89	A19-084	Flatwoods, City of	City of Flatwoods I & I Study and Rehab Project	SSES, Sewer Replacement/Rehabilitation	650,000	650,000	47,110	7,719	400,000	3	SX21089056
85	88	A19-085	Middlesboro, City of	Middlesboro WWTP UV Disinfection Addition	WWTP Replacement/Rehabilitation	950,000	950,000	22,681	10,364	750,000	4	SX21013005
86	83	A19-086	Trenton, City of	Trenton - Wastewater Treatment Plant Improvements Project	WWTP Replacement/Rehabilitation	525,000	525,000	49,791	388	0		SX21219011
87	82	A19-087	South Shore, City of	South Shore: Upgrade McKell Lift Station	Sewer Replacement/Rehabilitation	425,000	425,000	32,609	2,270	3,410	3	SX21089095
88	81	A19-088	Martin, City of	Garth Hollow Sewerline Extension	Sewer Extension	429,938	429,938	22,645	916	0		SX21071012
89	80	A19-089	Danville, City of	Danville - Wastewater Treatment Plant Improvements	WWTP Replacement/Rehabilitation	11,182,230	11,182,230	36,915	20,004	0		SX21021006
90	77	A19-090	Smithland, City of	Smithland Sewer Rehabilitation	Sewer Replacement/Rehabilitation	1,517,000	1,517,000	29,357	335	0	3	SX21139010
91	75	A19-091	Scottsville, City of	City of Scottsville - US 231 Sewer Extension - Stage 1 of Phase 1	Sewer Extension	2,650,000	2,650,000	31,531	4,313	0		SX21003024
92	73	A19-092	Prestonsburg, City of	Rehab Prestonsburg's Old Wastewater Treatment Plant	WWTP Replacement/Rehabilitation	847,400	847,000	26,744	9,827	0		SX21071013
93	72	A19-093	Oldham County Environmental Authority	Kentucky State Reformatory - Rehab Phase I	WWTP Replacement/Rehabilitation	2,751,300	2,751,300	96,771	19,684	500,000	3	SX21185032
94	72	A19-094	Paducah, City of	Buckner Lane Bridge Replacement and Stormwater ReRouting	Storm Water Control	863,067	863,067	33,574	25,024	0		SX21145030
95	72	A19-095	Paducah, City of	Branch Street Detention Basin and Parallel Conveyance	Storm Water Control	881,929	881,929	33,574	25,024	0		SX21145031
96	70	A19-096	Morganfield, City of	Job Corps Sewer Rehabilitation and Replacement Project	Sewer Replacement/Rehabilitation	5,005,000	5,005,000	37,984	5,754	0	3	SX21225031
97	69	A19-097	Sacramento, City of	Sacramento Gravity Sewers - Phase II	Sewer Replacement/Rehabilitation	1,508,852	1,508,852	36,128	760	0		SX21149034
98	67	A19-098	Smithland, City of	Smithland Lagoon Rehabilitation Project	WWTP Replacement/Rehabilitation	135,812	135,812	29,357	335	0		SX21139014

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan or multi-year loans.

** Funding is being prioritized for projects with an active SRF planning and design loan.

2019 CWSRF Project Priority List

(The heavy dark line indicates 1st-round loan invites, excluding bypassed projects.)

99	65	A19-099	Uniontown, City of	Uniontown Lagoon Dredging	WWTP Replacement/Rehabilitation	1,500,000	1,500,000	25,894	1,088	0		SX21225022
100	63	A19-100	Prestonsburg City's Utilities Commission	PCUC - Lakeview Village Sewer System	Sewer Extension	212,000	212,000	26,744	9,827	0		SX21071234
101	60	A19-101	Elkhorn City, City of	Stonecoal Sanitary Sewer Project	Sewer Extension	1,050,348	1,050,348	25,539	1,072	0		SX21195029
102	60	A19-102	Graves County Water District	Graves County-KY 80 North, Fancy Farm	Sewer Extension	2,100,800	2,100,800	54,750	565	0		SX21083007
103	56	A19-103	Northern Madison Sanitation District	NMCSD - Madison Village Collection System Rehab	Sewer Replacement/Rehabilitation	1,525,000	1,525,000	59,636	4,958	1,275,000	3	SX21151039
104	55	A19-104	Princeton Water & Wastewater Commission	Princeton-Wastewater Treatment Plant Phosphorus Upgrade	Advanced Treatment	2,555,850	2,555,850	39,759	6,255	2,009,000	4	SX21033009
105	55	A19-105	Edmonton, City of	Highway 68 North Sewer Service Project	Sewer Extension	740,000	740,000	21,934	1,625	0		SX21169002
106	55	A19-106	Mayfield Electric & Water Systems	Mayfield-10th Street Lift Station and Sewer Line Rehab	Sewer Replacement/Rehabilitation	515,000	515,000	26,423	10,821	0	3	SX21083016
107	55	A19-107	Mayfield Electric & Water Systems	Parallel Force Main around I-69 the Intersection	Sewer Replacement/Rehabilitation	1,194,820	1,194,820	26,423	10,821	0	3	SX21083037
108	55	A19-108	Mayfield Electric & Water Systems	Mayfield Electric & Water - 15th Street Lift Station Removal and Interceptor	Sewer Replacement/Rehabilitation, Sewer Extension	462,000	462,000	26,423	10,821	0		SX21083048
109	55	A19-109	Mayfield Electric & Water Systems	WNGO PUMP STATION AND FORCE MAIN REPLACEMENT	SSO Correction	508,800	508,800	26,423	10,821	0		SX21083060
110	51	A19-110	Northern Madison Sanitation District	Boone Village Wastewater Collection System	Sewer Extension	730,000	730,000	59,636	4,958	0		SX21151022
111	50	A19-111	Princeton Water & Wastewater Commission	Princeton - WWTP Improvements-Grit Chamber and Sludge Holding Tank	WWTP Replacement/Rehabilitation	803,500	803,500	39,759	6,255	0		SX21033010
112	50	A19-112	Bourbon County Fiscal Court	Bourbon County Fiscal Court - Bedford Acres Storm Water Control	Storm Water Control	1,425,004	1,425,004	34,667	10,102	0		SX21017018
113	50	A19-113	Boyd County Sanitation District #4	SD4: Rehab Ray Drive Sewer Line	Sewer Replacement/Rehabilitation	312,000	312,000	50,793	10,724	0		SX21019077
114	48	A19-114	Fredonia, City of	Fredonia - Lift Station Improvements	Sewer Replacement/Rehabilitation	369,736	369,736	54,749	413	0		SX21033006
115	46	A19-115	Madisonville, City of	Madisonville - Hanson Relief Interceptor	Sewer Replacement/Rehabilitation, Sewer Extension	5,433,001	5,433,001	41,357	21,408	0		SX21107022
116	45	A19-116	Versailles, City of	Versailles - WWTP Improvements - Belt Filter Press Replacement	WWTP Replacement/Rehabilitation	1,000,000	1,000,000	47,314	15,614	0		SX21239014
117	45	A19-117	West Point, City of	West Point WWTP Renovation	Planning	3,257,000	252,000	47,609	23,214	0		SX21093025
118	40	A19-118	Cloverport, City of	Cloverport Wastewater Plant Improvements	WWTP Replacement/Rehabilitation	1,070,000	115,000	24,671	1,071	0		SX21027005
119	40	A19-119	Pikeville, City of	Pike County Airport Sewer Line Extension	Sewer Extension	2,460,150	2,460,150	36,091	9,726	0		SX21195030
120	40	A19-120	Danville, City of	Danville Major Sewer System Rehabilitation	Sewer Replacement/Rehabilitation	1,740,000	1,740,000	36,915	20,004	0	3	SX21021004

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan or multi-year loans.

** Funding is being prioritized for projects with an active SRF planning and design loan.

2019 CWSRF Project Priority List

(The heavy dark line indicates 1st-round loan invites, excluding bypassed projects.)

121	35	**A19-121**	Martin County Sanitation District	Martin County Sanitation District - KY 645 Development Area Sewer Extensions	Sewer Extension	404,905	404,905	28,179	1,579	0		**SX21159006**
122	35	**A19-122**	Mayfield Electric & Water Systems	Mayfield Electric & Water- New Generator for Todd Lift Station	Equipment	100,000	100,000	26,423	10,821	0		**SX21083035**
123	35	**A19-123**	Mayfield Electric & Water Systems	Mayfield Electric & Water- New Generator for WWTP	Equipment	100,000	100,000	26,423	10,821	0		**SX21083036**
124	33	**A19-124**	Hopkinsville Water Environment Authority	HWEA- Rockbridge Interceptor	Sewer Extension	12,624,576	12,624,576	36,177	42,973	0		**SX21047029**
Total					**Totals:**	**$ 424,265,469**	**$ 323,700,362**			**$ 32,867,410**		

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan or multi-year loans.

** Funding is being prioritized for projects with an active SRF planning and design loan.

APPENDIX B

CALL FOR PROJECTS LETTER

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, 2017

To Whom It May Concern:

The Kentucky Infrastructure Authority and the Kentucky Division of Water are announcing the 2019 Clean Water State Revolving Fund (CWSRF) Call for Projects.

The Clean Water State Revolving Fund Call For Projects

Will Be Open from October 2, 2017 to December 13, 2017

If you have a wastewater, stormwater or nonpoint source project that will need funding during the 2019 state fiscal year (July 1, 2018 through June 30, 2019), 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 2019 CWSRF Project Priority List developed by the Division of Water (DOW). Projects will not be carried forward from the 2018 Project Priority List to the 2019 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, 2020 will be considered for funding.

Current Interest Rates

KIA sets interest rates annually. Projected interest rates for the 2019 funding cycle will be provided in the CWSRF Intended Use Plan (IUP) which will be available late spring 2018. KIA currently offers three interest rates for the CWSRF program in the 2018 funding cycle.

Loan Type	MHI Threshold	Interest Rate
Construction	> or = $43,740	2.75%
Construction	$34,993 - $43,739	1.75%
Construction	< or = $34,992	0.50%
Planning and Design	NA	2.75%

The 1.75% 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.

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 Jocelyn Gross (jocelyn.gross@ky.gov) of the Kentucky Infrastructure Authority at (502) 892-3446.

Sincerely,

Donna McNeil, Executive Director
Kentucky Infrastructure Authority

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

2019 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

Table of Contents

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 2015 - June 2017?
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 2016 – June 2017).
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://eppcgis.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 (2011-2015).
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 (2011-2015).
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%	**Points Received: 10**
Between 1 and 1.99%	**Points Received: 5**
Below 1%	**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. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.*
- *Wet weather management systems for parking areas including: permeable pavement, bioretention, trees, green roofs, and other practices such as*

constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.

- *Implementation of comprehensive street tree or urban forestry programs, including expansion of tree boxes to manage additional stormwater and enhance tree health.*
- *Stormwater harvesting and reuse projects, such as cisterns and the systems that allow for utilization of harvested stormwater, including pipes to distribute stormwater for reuse.*
- *Downspout disconnection to remove stormwater from sanitary, combined sewers and separate storm sewers and manage runoff onsite.*
- *Comprehensive retrofit programs designed to keep wet weather discharges out of all types of sewer systems using green infrastructure technologies and approaches such as green roofs, green walls, trees and urban reforestation, permeable pavements and bioretention cells, and turf removal and replacement with native vegetation or trees that improve permeability.*
- *Establishment or restoration of permanent riparian buffers, floodplains, wetlands and other natural features, including vegetated buffers or soft bioengineered stream banks. This includes stream day lighting that removes natural streams from artificial pipes and restores a natural stream morphology that is capable of accommodating a range of hydrologic conditions while also providing biological integrity. In highly urbanized watersheds this may not be the original hydrology.*
- *Projects that involve the management of wetlands to improve water quality and/or support green infrastructure efforts (e.g., flood attenuation).*
  - *Includes constructed wetlands.*
  - *May include natural or restored wetlands if the wetland and its multiple functions are not degraded and all permit requirements are met.*
- *The water quality portion of projects that employ development and redevelopment practices that preserve or restore site hydrologic processes through sustainable landscaping and site design.*
- *Fee for simple purchase of land or easements on land that has a direct benefit to water quality, such as riparian and wetland protection or restoration.*
- *Fencing to keep livestock out of streams and stream buffers. Fencing must allow buffer vegetation to grow undisturbed and be placed a sufficient distance from the riparian edge for the buffer to function as a filter for sediment, nutrients and other pollutants.**

Points Received: 5 each / maximum 10

Projects That Do Not Meet the Definition of Green Infrastructure:

- Stormwater controls that have impervious or semi-impervious liners and provide no compensatory evapotranspirative or harvesting function for stormwater retention.
- Stormwater ponds that serve an extended detention function and/or extended filtration. This includes dirt lined detention basins.
- In-line and end-of-pipe treatment systems that only filter or detain stormwater.
- Underground stormwater control and treatment devices such as swirl concentrators, hydrodynamic separators, baffle systems for grit, trash removal/floatables, oil and grease, inflatable booms and dams for in-line underground storage and diversion of flows.
- Stormwater conveyance systems that are not soil/vegetation based (swales) such as pipes and concrete channels.
- Hardening, channelizing or straightening streams and/or stream banks.
- Street sweepers, sewer cleaners, and vactor trucks unless they support green infrastructure projects.

2. Water Efficiency:

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

Examples:

- *Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances*
  - *For example -- shower heads, toilets, urinals and other plumbing devices*
  - *Implementation of incentive programs to conserve water such as rebates.*
- *Installing any type of water meter in previously unmetered areas*
  - *If rate structures are based on metered use*
  - *Can include backflow prevention devices if installed in conjunction with water meter*
- *Replacing existing broken/malfunctioning water meters, or upgrading existing meters, with:*
  - *Automatic meter reading systems (AMR), for example: Advanced metering infrastructure (AMI), Smart meters*
  - *Meters with built in leak detection*
  - *Can include backflow prevention devices if installed in conjunction with water meter replacement*
- *Retrofitting/adding AMR capabilities or leak detection equipment to existing meters (not replacing the meter itself).*
- *Water audit and water conservation plans, which are reasonably expected to result in a capital project.*
- *Recycling and water reuse projects that replace potable sources with non-potable sources,*
  - *Gray water, condensate and wastewater effluent reuse systems (where local codes allow the practice)*
  - *Extra treatment costs and distribution pipes associated with water reuse.*
- *Retrofit or replacement of existing landscape irrigation systems with more efficient landscape irrigation systems, including moisture and rain sensing equipment.*
- *Retrofit or replacement of existing agricultural irrigation systems with more efficient agricultural irrigation systems.*
- *Water meter replacement with traditional water meters.**
- *Projects that result from a water audit or water conservation plan.**
- *Storage tank replacement/rehabilitation to reduce loss of reclaimed water.**
- *New water efficient landscape irrigation system (where there currently is not one).**
- *New water efficient agricultural irrigation system (where there currently is not one).**

Points Received: 5 each / maximum 10

Projects That Do Not Meet the Definition of Water Efficiency:

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

3. Energy Efficiency:

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

Examples:

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

Points Received: 10 each/ no maximum

Projects That Do Not Meet the Definition of Energy Efficiency:

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

4. Environmentally Innovative:

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 2015 - June 2017?	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 2016-June 2017	25
D. Water Quality		
1.	Will the project allow the system to address existing Total Maximum Daily Load (TMDL)?	10
2.	Will the project allow the system to address existing or projected nutrient TMDL?	30

3.	Will the project allow the system to address an approved Watershed Management Plan?	10
4.	Will the project make reasonable progress towards eliminating identified pollutant sources for waterbodies that appear on the *2014 Integrated Report to Congress on Water Quality in Kentucky*?	20 points for each pollutant-waterbody combination
5.	Does the project eliminate existing or potential sources of pollution in groundwater sensitivity areas?	15 points for high or highest sensitivity 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.	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: • 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.	Water Efficiency: The use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future. Examples include: • 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*	5 pts. each/10 pts. maximum

3.	Energy Efficiency: Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water projects, use energy in a more efficient way, and/or produce/utilize renewable energy. Examples include: • 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*	10 pts. each
4.	Environmentally Innovative: Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way. Examples include: • 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*	5 pts. each/10 pts. maximum

H. Project Readiness		
1.	Borrower has submitted complete technical plans and specifications to the Division of Water; and	30
2.	Borrower has conducted a full environmental review for all components of the project or has completed the cross-cutter scoping process (including eClearinghouse, US Fish and Wildlife service, National Resource Conservation Service, and 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.

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

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

PART A – CWSRF GPR SPECIFIC GUIDANCE

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.[1]

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

[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 INFRASTRUCUTRE

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 pavement[2], 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 pavement[2], 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 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.

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

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

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.

[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.

1.4-5 Design criteria are available at:
http://cfpub.epa.gov/npdes/greeninfrastructure/munichandbook.cfm and
http://cfpub.epa.gov/npdes/greeninfrastructure/technology.cfm and

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 to more efficient landscape irrigation systems, including moisture and rain sensing controllers.

2.2-8 Retrofit or replacement of existing agricultural irrigation systems to 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.
2.5-5 New water efficient agricultural irrigation system.

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 GPR[4]. Retrofit projects should compare energy used by the existing system or unit process[5] 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_energymanagement.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.

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_energymanagement.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_portfoliomana

[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 States 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.

ger) 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.

3.5-8a 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.

3.5-9Variable 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's SRF 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.theclimateregistry.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

4.3 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

4.5-1Constructed 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=10WCAP2&Action=LONG&subsystem=ORD%3cbr).

4.5-5b(i) Includes composting, class A and other sustainable biolsolids 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 III.A. in the *Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2010 Appropriation 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.

APPENDIX E

PUBLIC COMMENTS

2019 Clean Water State Revolving Fund Intended Use Plan
Summary of Comments and Questions Received During the Public Comment Period

1. Q: Will guidance for identifying Income Survey boundaries and analysis be provided in regard to the Median Household Income (MHI) qualifying projects? (*Question provided by Colette Easter, MSD*)

   A: The Kentucky Infrastructure Authority (KIA) guidance for identifying Income Survey boundaries and analysis will be available to MHI qualifying projects. The KIA has created an income survey that provides three separate options for determining the MHI for a project area. The first two methods are based on the Water Resource Information System (WRIS), while the third is a direct option. These methods are the "Default Weighted Proximity Analysis". The "Modified Weighted Proximity Analysis", and the standard "Income Survey" (based on sample and census). KIA collaborated in conjunction with CDBG and USRD to show all requirements on one form. KIA will be offering guidance and training on all three methods during the State Fiscal Year 2019.

2. Q: Does a borrowers request for a loan need to go to their own board before it goes to the KIA board? And, does KIA require a resolution or anything passed by the borrower's board in advance? (*Question provided by Brad Good, Louisville MSD)*

   A: KIA requires an authorizing resolution from the legal applicant initially. After the KIA Board approval, the legal applicant will have (12) months to satisfy any conditions before the loan is formalized with an assistance agreement.

3. Q: Can a loan term be extended to 30 years? (*Question provided by Darren Thompson, Lebanon Water Works)*

   A: A loan term can be extended up to 30 years if: (1) The project is a qualified disadvantaged community, and: (2) The useful life of the asset is 30 years.

4. Q: When does a borrower know they have been granted principal forgiveness? (*Question provided by Darren Thompson, Lebanon Water Works)*

   A: The borrower will know they have been granted principal forgiveness prior to assignment of a financial analyst. For State Fiscal Year 2019, the first round of invitations will be assigned by September 1st.

5. Q: What is the maximum principal forgiveness for State Fiscal Year 2019? (*Question provided by Darren Thompson, Lebanon Water Works)*

   A: The maximum principal forgiveness for the State Fiscal Year 2019 currently is 50% of the loan amount up to $1.3 million. This is subject to change upon the KIA Board Ad-Hoc Committee review for FY2019.

6. Q: When are applicants taken to the KIA Board for approval? (*Question provided by Darren Thompson, Lebanon Water Works)*

   A: Applicants are taken to the KIA Board for approval based on the project schedule and the determination of the loan analyst. The KIA Board meeting is convened monthly.

7. Q: How will Principal forgiveness be assigned? (*Question provided by Darren Thompson, Lebanon Water Works)*

   A: Principal forgiveness is evaluated based on the project qualifying as a disadvantaged community, its affordability index, and the last time rates were increased by the utility. The information is provided to the KIA Board Ad Hoc Committee for review and allocation.

8. Q: What is required when selecting professional services? (*Question provided by Darren Thompson, Lebanon Water Works)*

   A: All borrowers utilizing State Revolving Funds must adhere to the Kentucky Model Procurement Code, KRS Chapter 45A.740.