DRAFT
INTENDED USE PLAN

CLEAN WATER
STATE REVOLVING FUND

State Fiscal Year 2016

COMMONWEALTH OF KENTUCKY

DRAFT
Amended January 27, 2016

PREPARED BY THE

KENTUCKY INFRASTRUCTURE AUTHORITY
&
ENERGY AND ENVIRONMENT CABINET

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I. INTRODUCTION

Kentucky's Intended Use Plan (IUP) for the Clean Water State Revolving Fund (CWSRF, the Fund) is prepared in accordance with the provisions of Title VI of the Clean Water Act of 1987 (CWA), the Water Resources Reform Development Act (WRRDA, June 10, 2014) and the Consolidated and Further Continuing Appropriations Act 2015 (December 16, 2014). The purpose of the IUP is to communicate Kentucky's CWSRF plan for state fiscal year 2016 to potential borrowers from the Fund, the public, the Environmental Protection Agency (EPA), and other state agencies.

An annual IUP is required by Title VI of the CWA and is an integral part of the process to request the Federal Fiscal Year (FFY) 2015 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 2016 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. Assurances and specific certifications for meeting certain requirements of the Capitalization Grant Agreement;
5. The public participation process;
6. The sources and uses of available funds; and
7. 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?

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 the annual Call for Projects. Since its inception in 1988 Kentucky's CWSRF has committed funds to about 330 clean water infrastructure projects totaling approximately $1.38 billion (includes commitment estimates through June 2015).

Title VI of the CWA authorized the Environmental Protection Agency to make capitalization grants to each state to establish a water pollution control revolving fund to provide financial assistance for constructing publicly owned treatment works under section 212 of the CWA, implementing watershed management plans under section 319 of the CWA, and developing and implementing a conservation and management plan under section 320 of the CWA. A state match must be deposited into the CWSRF in an amount equal to at least 20 percent of the total Federal Capitalization Grant. 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. WRRDA amended Titles I, II, V, and VI of the CWA.

The Kentucky General Assembly enacted House Bill 217 during the 1988 legislative session, which established a Clean Water State Revolving Fund, the "Federally Assisted Wastewater Revolving Fund," as an enduring and viable fund. This fund is intended to allow Kentucky to qualify for the Federal CWSRF capitalization grants. The Fund is administered by the Kentucky Infrastructure Authority (KIA). The Kentucky Energy and Environment Cabinet's (EEC) Division of Water (DOW) staff performs environmental and technical reviews on projects that seek assistance from the CWSRF.

Eligibility

Any governmental agency, as defined in KRS 224A.011, is eligible to apply for financial assistance for planning, design and construction of eligible projects.

Some 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.
- Guaranteeing or purchasing insurance for a local obligation to improve credit market access or reduce the interest rate of the obligations.
- Purchase of another wastewater system eligible under 33 U.S.C. 1383(d).
- Any applicant's project eligible for funding under 33 U.S.C. 1383

Significant Federal Requirements

A. 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. These requirements are in addition to the requirements of Kentucky prevailing wage 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.

B. American Iron and Steel (AIS)

As amended, the Federal Water Pollution Control Act (Section 608) requires the use of iron and steel produced in the United States for all CWSRF funded projects. Implementation guidance can be found at http://water.epa.gov/grants_funding/upload/AIS-final-guidance-3-20-14.pdf.

C. 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.

D. Procurement

CWSRF funded contracts for architectural and engineering services associated with equivalency projects must comply with 40 U.S.C. 1101 *et seq.*, or an equivalent state requirement.

- Public announcement of the solicitation (e.g., a Request for Qualifications);
- Evaluation and ranking of the submitted qualifications statements based on established, publicly available criteria (e.g., identified in the solicitation);
  - Evaluation criteria should be based on demonstrated competence and qualification for the type of professional services required (e.g., past performance, specialized experience, and technical competence in the type of work required);
- Discussion with at least three firms to consider anticipated concepts and compare alternative methods for furnishing services;
- Selection of at least three firms considered to be the most highly qualified to provide the services required; and
- Contract negotiation with the most highly qualified firm to determine compensation that is fair and reasonable based on a clear understanding of the project scope, complexity, professional nature, and the estimated value of the services to be rendered;
  - In the event that a contract cannot be negotiated with the most highly qualified firm, negotiation continues in order of qualification.

E. Affordability Criteria / Additional Subsidization

The FFY 2015 Federal capitalization grant authorization permits up to 30% of the grant amount be made available to provide additional subsidization to eligible applicants. States are not required to provide a minimum amount of additional subsidization. For SFY 2016 Kentucky may provide up to $5,361,000 in additional subsidization. This will be provided in the form of loans with principal forgiveness based on the criteria described below. Twenty-five percent of the loan amount, up to a maximum of $1.3 million per borrower, will be offered as principal forgiveness to projects in rank order that qualify for a .75% interest rate. Principal forgiveness will not be provided on loan increase requests for commitments made after June 30, 2015. A total of $4,861,000 will be made available under the criteria set forth below.

Affordability criteria is based on weighted factors for MHI, unemployment rate, and population trend for the County (or Counties) of the primary service area with a possible total of ten points. A borrower must receive a minimum of eight points to qualify for principal forgiveness. Points available for each factor are as follows:

1. Income - if MHI is below $34,430, or 80%% of the State's MHI ($43,036) as determined by

the American Community Survey (ACS) 5 Year Estimates 2009-2013 eight points will be awarded. If MHI does not meet the threshold then five points will be awarded.

2. Unemployment - if the unemployment rate is above the State unemployment rate for 2014 one point will be awarded. Otherwise, zero points will be awarded.
3. Population Trends - if population declined from the 2000 Census to the 2010 Census one point will be awarded. Otherwise, zero points will be awarded.

Projects that might be eligible for principal forgiveness may not receive an allotment if the designated amount has been awarded to higher ranking projects. Additionally, if there are insufficient eligible project applications to meet the targeted subsidization amount of $4,861,000, KIA may invite additional project applications or increase the subsidization percentage to existing qualifying applicants.

With increasing frequency the Authority is becoming aware of situations where very small wastewater systems serving disadvantaged communities are either failing or in severe distress. These systems may either be privately owned, publicly owned or there may be no clear ownership; however, these conditions tend to be primarily at systems that are not publicly owned. In general, these systems are not eligible for funding from the Authority because they are not publicly owned. However, the Authority may fund a project if an eligible borrower acquires the system. In an effort to protect public health and provide assistance to these communities, 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 principal forgiveness from the FFY 2015 Capitalization Grant to this program. An eligible project will receive 95% principal forgiveness of funds provided. These situations will be designated as emergency projects and will be funded without modification to the project priority list (see "IV. Fund Administration and Operation, D. Emergency Projects" later in this document). If these funds are not utilized during the 2016 funding cycle, KIA may retain the funds in the CWSRF program or provide additional principal forgiveness to eligible projects based on affordability as discussed above.

In emergency situations as described above, principal forgiveness will be provided where 1) the additional subsidization will benefit individual rate payers in the residential user rate class; 2) the ratepayers will experience a significant hardship from the increase in rates necessary to finance the project or activity for which assistance is sought, and 3) the utility ensures, as part of the assistance agreement between the Authority and the recipient, that the additional subsidization provided is directed through a user charge rate system to affected rate payers. "Affected rate payers" may be defined as the entire residential rate class or only the rate payers that are affected by the specific project.

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
Adam Scott (502) 573-0260 Adam.Scott@ky.gov	KIA	General Information
Jami Johnson (502) 573-0260 Jami.Johnson @ky.gov	KIA	Loan Application, Financial Terms, Interest Rates
Jocelyn Gross (502) 573-0260 Jocelyn.Gross@ky.gov	KIA	Project Profile Submittal
Cindy McDonald (502) 564-3410 Cindy.McDonald@ky.gov	DOW	Priority List, Environmental Review, Regional Facility Plans
Buddy Griffin (502) 564-3410 Buddy.Griffin@ky.gov	DOW	Procurement, Bidding Requirements

II. 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 the EPA, states and local governments to explore innovative methods for funding future water and wastewater capital projects. Kentucky submitted documented needs of approximately $6.5 billion to meet its wastewater needs over the next 20 years for the 2012 Clean Watersheds Needs Survey. The survey is conducted every four years. 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.

[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.

The EPA is working with partners across the water sector and beyond to provide the knowledge and tools to ensure that the investments we make in our water infrastructure move us toward a more sustainable footing. The goal can be achieved through strong infrastructure planning and management practices at our water sector systems. Some of the key areas for action are:

Another goal for the SI Initiative is to help change the way people view, value, manage, and invest in water and wastewater infrastructure. EPA is in the process of training state personnel to promote sustainable infrastructure through a four focused area approach:

- Asset Management - A management framework that ensures that 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.

For more information, see EPA's Sustainable Infrastructure for Water and Wastewater website http://www.epa.gov/waterinfrastructure/index.html.

Short-Term Goals

1. Promote the principles of EPA's Sustainable Infrastructure Initiative to loan recipients so CWSRF borrowers will consider SI Initiatives in their planning, design, and construction activities.

2. Use the Integrated Project Priority Ranking System to prioritize water pollution control projects and activities according to specific criteria aimed at correcting the state's highest priority water quality problems.

3. Promote green infrastructure initiatives to loan recipients to meet the 2015 capitalization grant requirements. The FFY2015 capitalization grant requires that to the extent there are sufficient eligible project applications, not less than 10% ($1,787,000) of the funds made available under that grant must be used by the State for projects to address green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities (collectively referred to as "green" projects). The priority list reflects green projects that are eligible under the GPR. Other projects on the priority list may be able to show, through a business case or other information, that they also are green projects and will be considered eligible for award under the GPR.

4. Educate borrowers, Area Development Districts and engineers to assure compliance with Davis Bacon and American Iron and Steel requirements.

5. Improve the pace at which available funds are disbursed. The best way to ensure the perpetuity of the fund is to revolve the available funds more quickly. KIA and DOW staff will work to match available funding with either planning and design loans or construction ready projects.

6. Expand the use of the fund by soliciting nonpoint source projects to address some of the state's high-priority water quality problems, such as nutrient impairments caused by agricultural runoff.

7. Continue to refine the integration of the SRF Call for Projects, project ranking and project tracking into the Water Resource Information System (WRIS).

Long-Term Goals

1. Maintain a self-sustaining revolving loan program that will contribute to improving and protecting water quality and public health.

2. Assist publicly owned treatment works in maintaining compliance with their discharge permit limits.

3. Continue to assess the project selection and ranking criteria to determine whether revisions are needed to address the state's current high-priority water quality problems.

4. Ensure technical compliance of each project through adequate and effective planning, design and construction management.

5. Work with the EEC to explore solutions to increase energy efficiency for wastewater utilities.

6. Continue to work towards making the program easier to use from the borrower's standpoint. The easement will be achieved by improving communications as well as sharing of data between KIA and DOW, in addition to integrating the use of electronic forms and data as opposed to paper documents.

III. CRITERIA FOR PROJECT SELECTION

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 Kentucky Integrated Project Priority Ranking System (IPPRS, 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 1, 2014 and ended December 12, 2014, KIA and DOW invited all eligible borrowers to submit CWSRF project information via the WRIS. An email invitation 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 (Appendix B). Only 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 IPPRS ranking criteria. 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 integrated priority ranking guidance (Appendix C).

The 2016 Project Priority List (Appendix A) shows that Kentucky has sufficient eligible projects to meet the binding commitment requirements of the FFY 2015 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 IPPRS 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 about the project.

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

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.

Green 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 2017 IUP process will begin in October 2015. The annual Call for Projects will be open from October 2015 to December 2015 during which time projects will be accepted for ranking in the SFY 2017 funding cycle. **An applicant must submit a request for each project to be ranked for the 2017 cycle even if it was included on a previous year's Project Priority List.** The following tentative schedule will apply:

2017 Call for Projects	**October 1, 2015 - December 11, 2015**
Creation of Project Priority List	**January 1, 2016 - March 31, 2016**
Public Notice Period for IUP	**May 1, 2016 - June 1, 2016**
Finalize 2017 IUP and send to EPA	**Prior to June 30, 2016**

Email notifications will be sent in September 2015 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.

IV. FUND ADMINISTRATION AND OPERATION

A. Project Funding

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 based on priority ranking and readiness to proceed. KIA anticipates that the 10% GPR requirement will be met with no changes to the Project Priority List.

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 loan portfolio.

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.

Invited Projects

Applicants whose projects contain an "Invited Loan Amount" on the Project Priority List are invited to submit a loan application package for financial assistance from the CWSRF. A letter of invitation to apply was e-mailed to applicants concurrent with publication of the IUP. The letter of invitation provides instructions to accept or decline the invitation through KIA's web site. Invitees will have seven days from the end of the IUP thirty day comment period to accept the invitation. First round invitation applicants will be given 21 days from the end of the IUP thirty day comment period to submit a complete loan application. Applicants that do not submit a loan application, complete with Kentucky e-Clearinghouse comments, by the deadline will be bypassed and the next eligible project(s) will be invited and they will have 45 days to submit a loan application. This process will continue until all estimated available funds have been allocated to projects.

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 we will communicate with individual borrowers as expeditiously as possible.

Upon receipt of a complete loan application, KIA staff will review the information and prepare a credit analysis. Applicants must provide the three most current years (2012, 2013, 2014) of audited financial statements to support the credit analysis. A loan request will be presented to the KIA Board for financial review and conditional approval for each qualifying project. 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.

All CWSRF program requirements must be met by the term outlined in the Conditional Commitment Letter. A one-time extension of up to six months for approved applicants that experience extenuating circumstances may be granted. Projects that are not approved for an extension will not be eligible for funding during the funding cycle in which the Conditional Commitment Letter expires unless they were resubmitted and ranked during that cycle's Call for Projects.

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 the project can be bid, 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. Upon approval of plans and specifications the applicant will receive a priority funding position to apply for a construction loan in the subsequent year's IUP. If the applicant declines the invitation to apply for a construction loan the project will need to be resubmitted during future Calls for Projects to be considered for funding.

B. Bypass Process

A high priority project that is not ready to proceed or by virtue of being funded will cause loan portfolio concentration concerns within the given timeframe will be bypassed. A bypassed project will become ineligible for CWSRF funding in the current funding year and will have to reapply through the annual Call for Projects process to be re-ranked for future funding cycles. If, after receipt of the first round applications, KIA does not have sufficient applications to meet the GPR requirement, projects will be bypassed until a qualifying GPR project is reached.

C. 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.

D. Emergency Projects

These are projects that do not appear on the Project Priority List and result from unanticipated failures of wastewater infrastructure (treatment and/or collection and conveyance systems) that have a direct adverse effect on public health and the quality of surface and groundwater. The CWSRF may provide financial assistance to emergency projects, subject to their eligibility and the availability of funds.

E. Refinancing

KIA is willing to accept governmental agency requests of the refinancing of projects originally funded from other sources be included on the Project Priority List. 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.

F. Financial Terms of Loans

1. Interest Rates

The KIA Board must establish interest rates at least annually. Staff intends to present rates for Board consideration at the beginning of the State fiscal year. The rates are based on prevailing market conditions with the 20 Bond General Obligation (GO) index as a reference rate. Staff intends to recommend a standard rate of 2.75 percent with two non-standard rates of 1.75 percent and 0.75 percent.

The standard rate will apply to all borrowers with a service area MHI at or above the ACS 5 Year Estimate 2009-2013 State MHI of $43,036. To qualify for the non-standard rate of 1.75%, the project must assist the system to achieve compliance with an order or judgment addressing environmental noncompliance, or the borrower must have a MHI between $43,036 and $34,429 (80% of the State MHI) or be considered regional. To qualify for the non-standard rate of 0.75%, a borrower must have a MHI below $34,430. Qualifications for rates are subject to 200 KAR 17:050.

For ranked projects that require funding for planning and design before the project can be bid, 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.

2. Repayment Terms

Planning, design and sanitary sewer evaluation study (SSES) loans will not 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 up to a 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, currently 0.75%, 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 one year after initiation of operation of the project for which the loan was made. The recipient of each loan must establish a dedicated source of revenue for the repayment of the loan.

3. Loan Servicing Fees

A loan servicing fee of 0.2 percent on the annual 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.

4. 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 are 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 OMB Circular A-133.

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 annually based on amounts and the time period specified by KIA unless a documented replacement program is in place and being actively funded at a level that is acceptable to KIA.

G. 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.

KIA will be transferring the entire allowable 33% of $4,544,100 from the CWSRF to the DWSRF repayment fund.

V. ASSURANCES AND SPECIFIC CERTIFICATIONS

The State will provide the assurances and certifications required by the EPA as part of the Operating Agreement. This agreement is the official document between Kentucky and the EPA setting forth legal responsibilities of each. Pursuant to Section 606(c)(4) of the CWA, the State certifies that:

1. The State will enter into binding commitments equal to at least 120 percent of each quarterly grant payment within one year after receipt of the payment;
2. The State will expend all funds in the CWSRF in an expeditious and timely manner;
3. Funds will first be used to assure maintenance of progress toward compliance with enforceable deadlines, goals and requirements of the CWA, including the municipal compliance deadline; and
4. The State will conduct environmental reviews on projects that receive CWSRF assistance.

VI. 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, 2014 the CWSRF had net assets of $675,816,000 and 228 active loans. During 2016, 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 2016
July 1, 2015 through June 30, 2016

Funding Sources	Federal Contribution	State Contribution	Other	Total
Uncommitted Prior Year Loan Funds				0
Loan Repayments (P&I)			40,314,700	40,314,700
Interest Earnings (from cash on hand)			175,000	175,000
Leverage Bond Proceeds			45,000,000	45,000,000
Banked Prior Year Administration Funds			1,250,000	1,250,000
FFY 2015 Capitalization Grant	17,870,000	3,574,000		21,444,000
Total Funding Sources	17,870,000	3,574,000	86,739,700	108,183,700
Funding Uses				
Financial Assistance	17,155,200	3,574,000	64,270,800	85,000,000
Leverage Bond Debt Service			25,763,000	25,763,000
Banked Prior Year Administration Funds			1,250,000	1,250,000

FFY 2015 Administration (4%)	714,800			714,800
Total Funding Uses	17,870,000	3,574,000	86,739,700	108,183,700

During the 2016 funding cycle KIA will have an estimated $85,000,000 available to fund eligible CWSRF projects. This is comprised of the FFY 2015 capitalization grant of $17,870,000, state match funds of $3,574,000, leverage bond authorization of $45,000,000, estimated loan repayments of $40,314,700 (minus the CWSRF transfer to DWSRF for the full allowable 33% equaling $4,544,100) and interest earnings of $175,000 on existing cash balances. Funding is reduced by leverage bond debt service of $25,763,000 and $714,800 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 $1,250,000 in banked administrative funds from prior capitalization grants for administration of the program.

The $3,574,000 state match will consist of proceeds from the sale of tax-exempt revenue bonds with debt service provided by the Commonwealth. KIA will coordinate with the Finance and Administration Cabinet regarding the anticipated sale date of the bonds. If additional capitalization grant funding is made available, the required 20% state match will be provided to the full extent of the available capitalization grant. The anticipated submission date for the 2015 capitalization grant application is June 2, 2015. Grant awards are typically made within 90 days but not later than September 30 of each year. The estimated federal to state cash draw ratio for the CWSRF for fiscal 2016 is 83:17.

KIA received budgetary authorization to issue agency leverage bonds during the 2014-2016 biennium in an amount not to exceed $100 million. Bond proceeds will be 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 allocated $55 million to fiscal 2015 based on funding demand and $45 million to fiscal 2016.

Additionally, KIA reserves the right to defer issuance of bonds based on conditions in financial markets. Unstable market conditions could negatively impact the amount of funds available for loans. KIA intends to maximize the amount of funding available for eligible projects.

VII. PUBLIC PARTICIPATION

The draft 2016 CWSRF IUP including the Project Priority List was made available for public review and comment Kentucky Infrastructure Authority website at www.kia.ky.gov and the Division of Water website at water.ky.gov from May 15, 2015 through June 15, 2015. A public meeting was held to discuss the plan contents on May 27, 2015. Public written comments were taken during the review and comment period. A summary of verbal and written comments received appear in Appendix E.

The draft Amended 2016 CWSRF IUP including the Project Priority List will be made available for public review and comment on the Kentucky Infrastructure Authority website at

www.kia.ky.gov and the Division of Water website at water.ky.gov from January 4, 2016 through February 4, 2016. A public meeting to discuss the plan contents will be held on February 9, 2016, at 1:30 p.m. at the office of the Kentucky Infrastructure Authority located at 1024 Capital Center Drive, Suite 340, Frankfort, Kentucky.

APPENDIX A

COMPREHENSIVE PROJECT PRIORITY LIST

2016 CWSRF Project Priority List

Rank	Score	Loan Number	Applicant	Loan Package Title	DOW Project Description	Total Project Costs	Requested Loan Amount	Invited Loan Amount	Utility Service Area MHI	Population	Principal Forgiveness Amount	Green Amount	Green Category	WRIS #
*	*	A15-026	Lexington-Fayette Urban County Government	West Hickman WWTP Wet Weather Storage Tanks - Phase 1	WWTP Rehabilitation	$ 71,303,742	$ 35,303,742	$ 35,303,742	$ 48,430	286,776	$ 0	$ 137,106	4	SX21067048
*	*	A15-077	Mountain Water District	Douglas WWTP Expansion	WWTP Rehabilitation	3,700,000	2,702,921	0	31,132	1,739	0	0		SX21195699
*	*	A15-094	Glasgow, City of	Glasgow Southside Interceptor Project	SSO	5,500,000	5,500,000	0	29,455	15,071	0	0		SX21009018
*	*	A15-095	Frankfort, City of	City of Frankfort/Frankfort Sewer Department Old Lawrenceburg Rd	Sanitary Sewer Rehabilitation	1,570,000	1,570,000	0	44,754	34,505	0	350,000	3	SX21073066
*	*	A15-100	Owingsville, City of	Industrial Park WWTP Expansion	WWTP Rehabilitation	2,700,000	2,700,000	0	31,678	2,004	0	0		SX21011022
1	376	A16-001	Martin, City of	City of Martin Package Treatment Plant Elimination Project	Sewer Rehab, WWTP Rehab	2,435,000	2,435,000	0	22,323	789	0	0		SX21071006
2	232	A16-002	Oldham County Environmental Authority	Orchard Grass Regional WWTP Phase 3	New Interceptor	6,300,000	6,300,000	6,300,000	96,055	17,408	0	100,000	3	SX21185053
3	228	A16-003	Prestonsburg City's Utilities Commission	Stephens Branch & Lower Abbott Creek Sewer Extension Projects	Sanitary Sewer Extensions	2,033,200	2,033,200	2,033,200	25,316	7,689	508,300	0		SX21071210
4	220	A16-004	Mercer County Sanitation District	MCSD - Kennedy Bridge Road Sanitary Sewer Improvements Project	Sewer Rehab & Extensions, WWTP Rehab	848,000	848,000	848,000	42,539	402	0	0		SX21167021
5	208	A16-005	Hopkinsville Water Environment Authority	HWEA SRF Phase VIII - Expand Hammond-Wood WWTP & Interceptor	Sewer Rehab, WWTP Adv Upgrade	39,324,000	39,324,000	2,500,000	35,204	42,917	0	0		SX21047028
6	200	A16-006	Georgetown, City of	Georgetown/Scott County South Sewer Extension	Sanitary Sewer Extensions	2,820,000	745,000	745,000	57,531	31,845	0	325,000	3	SX21209012
7	195	A16-007	Prestonsburg City's Utilities Commission	PCUC - US 23 Banner Community Sewer System	Sanitary Sewer Extensions	2,163,000	2,163,000	2,163,000	25,316	7,689	540,750	0		SX21071231
8	175	A16-008	Marion, City of	Marion - WWTP Wet Weather Improvements Project	WWTP Rehabilitation	808,000	808,000	808,000	29,447	3,175	202,000	25,000	3	SX21055005
9	175	A16-009	Lexington-Fayette Urban County Government	UK Trunk A	SSO	2,832,319	2,832,319	0	48,430	286,776	0	28,544	1, 3, 4	SX21067052
10	166	A16-010	Pineville, City of	Courthouse Square Utility Replacement	CSO	2,255,948	1,580,000	1,580,000	25,692	3,106	395,000	400,500	1	SX21013003
11	165	A16-011	Southern Water & Sewer District	Phase III - Harold Sewer Project	Sanitary Sewer Extensions	1,575,000	300,000	300,000	33,886	175	75,000	0		SX21071005
12	153	A16-012	Mercer County Sanitation District	M C S D - Gwinn Island Road Sanitary Sewer Extension	Sanitary Sewer Extensions	1,525,676	838,625	838,625	42,539	402	0	0		SX21167019
13	140	A16-013	Campton, City of	Campton Sewer Rehab Project	Sanitary Sewer Rehabilitation	248,973	1,227,000	1,227,000	18,322	712	306,750	20,000	3	SX21237004
14	130	A16-014	Lewis County Sanitation District #1	LCSD #1 Sewer Plant Upgrade	Sewer Extensions, WWTP Rehab	2,170,000	2,170,000	2,170,000	32,837	803	542,500	40,050	1, 2, 3	SX21135018
15	125	A16-015	Lexington-Fayette Urban County Government	Marquis Drive Cross Connection Elimination	SSO	636,893	636,893	0	48,430	286,776	0	2,162	4	SX21067056
16	123	A16-016	Harrison County Sanitation District	HCSD - Northside Sewer Extension and Cedarbrook Replacement Project	Sewer Rehab, Extensions, WWTP Rehab	2,567,885	1,567,885	1,567,885			449,563	0		SX21097015

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan.
** Funding is being prioritized for projects having an active SRF planning and design loan.

2016 CWSRF Project Priority List

Rank	Score	Loan Number	Applicant	Loan Package Title	DOW Project Description	Total Project Costs	Requested Loan Amount	Invited Loan Amount	Utility Service Area MHI	Population	Principal Forgiveness Amount	Green Amount	Green Category	WRIS #
17	120	A16-017	Greenup, City of	Greenup: Rehab Or Replacement of Collection System	SSO	5,000,000	5,000,000	5,000,000	42,731	1,270	0	4,300	3	SX21089036
18	120	A16-018	Vanceburg, City of	Vanceburg - Meadowbrook & Black Oak Sewer Consolidation	Sewer Extensions, WWTP Rehab	1,386,500	1,386,500	1,386,500	18,041	1,734	346,625	75,000	3	SX21135010
19	112	A16-019	Carrollton, City of	CU - The 3444 Sanitary Sewer Project	Sewer Rehab & Extensions	2,120,926	2,120,926	2,120,926	37,521	8,578	0	1,498,145	3, 4	SX21041003
20	112	A16-020	Augusta Regional Sewer Authority	Augusta/Brooksville Regional Sewer Project	New WWTP	12,208,500	7,000,000	7,000,000			1,300,000	61,000	1, 2, 3	SX21023005
22	110	A16-022	Hopkinsville Water Environment Authority	HWEA - Oak Grove Spring Meadows Sewer	Sanitary Sewer Extensions	2,875,000	2,875,000	2,875,000	35,204	42,917	0	0		SX21047009
23	105	A16-023	Versailles, City of	Sanitary Sewer System Rehabilitation - Phase 3	SSO	1,974,800	1,974,800	1,974,800	50,676	15,614	0	809,000	3	SX21239012
24	100	A16-024	Perry County Sanitation District	PCSD#1 - Chavies Wastewater Collection System - Phase 1	Sanitary Sewer Extensions	678,000	500,000	500,000	36,942	961	0	0		SX21193008
25	100	A16-025	Hardinsburg, City of	Hardinsburg Sewer System Rehabilitation Phase 2	Sanitary Sewer Rehabilitation	1,000,000	827,240	827,240	30,870	2,169	206,810	400,000	3	SX21027013
26	100	A16-026	Regional Water Resource Agency	Ravines Sewer Upgrade	CSO	3,465,000	3,465,000	3,465,000	43,245	72,417	0	300,000	3	SX21059027
27	99	A16-027	Western Mason Sanitation District	Stonelick Line Extension	Sanitary Sewer Extensions	650,000	650,000	650,000	36,284	8,568	0	30,000	3	SX21161006
28	88	A16-028	Prestonsburg City's Utilities Commission	PCUC - KY 1428 and Stonecrest Sewer Extension Project	Sanitary Sewer Extensions	1,952,900	1,952,900	1,952,900	25,316	7,689	488,225	0		SX21071235
29	87	A16-029	Hodgenville, City of	Hodgenville Sanitary and Storm Water Improvements Phase II	Sanitary Sewer Rehabilitation	970,000	970,000	970,000	30,354	3,558	242,500	550,000	1, 3	SX21123005
30	85	A16-030	Calhoun, City of	Calhoun Wastewater Plant Replacement Project	WWTP Rehabilitation	2,480,000	2,400,000	2,400,000	34,068	1,176	600,000	168,000	3, 4	SX21149031
31	85	A16-031	Versailles, City of	Versailles Wastewater Treatment Plant Expansion	WWTP Advanced Treatment	20,911,190	20,911,190	20,911,190	50,676	15,614	0	1,985,000	2, 3, 4	SX21239010
33	80	A16-033	Harrodsburg, City of	Sanitary Sewer Rehabilitation 2015	Sanitary Sewer Rehabilitation	1,569,300	1,371,400	1,371,400	30,375	8,778	342,850	485,000	3	SX21167022
34	75	Withdrawn	Midway, City of	Midway Sanitary Sewer Evaluation and Improvements	Planning	420,000	1,420,000	1,420,000	55,465	1,723	0	0		Withdrawn
35	75	A16-035	Mount Vernon, City of	City of Mt. Vernon Wastewater Replacement Along Main Street	Sanitary Sewer Rehabilitation	1,640,000	1,640,000	1,640,000	22,483	3,009	410,000	769,500	3	SX21203190
36	75	Withdrawn	Elkhorn City, City of	Elkhorn City Wastewater Treatment Plant Project	WWTP Rehabilitation	3,815,000	1,000,000	1,000,000	26,813	1,050	250,000	0		Withdrawn
37	70	A16-037	Midway, City of	Midway Brand Street Sewer Rehab Project	Sanitary Sewer Rehabilitation	670,000	670,000	670,000	55,465	1,723	0	0		SX21239003
38	67	A16-038	South Shore, City of	South Shore: Upgrade Forest Heights Collection Lines	Sanitary Sewer Rehabilitation	889,100	889,100	889,100	29,071	2,282	222,275	1,500	3	SX21089096
39	65	A16-039	Butler, City of	City of Butler Sewer System Rehabilitation Project	Sanitary Sewer Rehabilitation	560,000	560,000	560,000	37,809	741	0	3,000	1	SX21191007

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan.
** Funding is being prioritized for projects having an active SRF planning and design loan.

2016 CWSRF Project Priority List

Rank	Score	Loan Number	Applicant	Loan Package Title	DOW Project Description	Total Project Costs	Requested Loan Amount	Invited Loan Amount	Utility Service Area MHI	Population	Principal Forgiveness Amount	Green Amount	Green Category	WRIS #
40	65	A16-040	Martin County Sanitation District	Martin County Sanitation District - Belt Press and Sludge Handling	WWTP Rehabilitation	2,000,000	2,000,000	2,000,000	26,218	1,193	500,000	0		SX21159007
41	65	A16-041	Lexington-Fayette Urban County Government	West Hickman Subbasin WH-7 WWS Tank	Wet Weather Storage	19,087,695	19,087,695	19,087,695	48,430	286,776	0	65,639	4	SX21067053
42	65	A16-042	Regional Water Resource Agency	Pleasant View Estates Sewer Expansion	Sanitary Sewer Extensions	540,000	540,000	540,000	43,245	72,417	0	0		SX21059039
43	65	A16-043	Regional Water Resource Agency	Woodlands South Sewer Extension	Sanitary Sewer Extensions	515,000	515,000	515,000	43,245	72,417	0	323,250		SX21059026
45	60	A16-045	Manchester, City of	Lift Station Rehabilitation and Replacement	Sanitary Sewer Rehabilitation	1,180,000	1,180,000	1,180,000	24,711	4,514	295,000	350,000	1	SX21051006
47	56	A16-047	Centertown, City of	Centertown Liftstation Rebuild Project	Sanitary Sewer Rehabilitation	150,000	150,000	150,000	39,031	538	0	45,400	3	SX21183016
48	55	A16-048	Crab Orchard, City of	Crab Orchard Sewer Line Rehab - Phase I	Sanitary Sewer Rehab	727,000	727,000	727,000	24,587	894	181,750	507,500	1, 3	SX21137016
49	50	A16-049	South Shore, City of	South Shore: Upgrade Lift Stations 4, 5, and 6	Sanitary Sewer Rehabilitation	785,200	753,000	753,000	29,071	2,282	188,250	3,410	3	SX21089095
50	50	A16-050	Sacramento, City of	Sacramento Gravity Sewer Project, Phase II	Sanitary Sewer Rehabilitation	940,000	940,000	940,000	32,621	685	235,000	84,600	3	SX21149023
51	50	A16-051	Munfordville, City of	City of Munfordville - Sewer Extensions and Pump Station Rehabilitations	Sewer Rehab & Extensions	1,250,620	125,620	125,620	16,100	1,585	31,405	0		SX21099022
52	50	Withdrawn	Harrodsburg, City of	Sunset Lane Sewer Replacement	Sanitary Sewer Rehabilitation	197,900	197,900	197,900	30,375	8,778	49,475	0		Withdrawn
53	50	A16-053	Hopkinsville Water Environment Authority	HWEA Oak Grove Village Sewer Project	Sanitary Sewer Rehabilitation	7,500,000	7,500,000	7,500,000	35,204	42,917	0	0		SX21047023
54	46	A16-054	Frankfort, City of	Glenns Creek Interceptor	Sanitary Sewer Rehabilitation	2,481,630	2,481,630	2,481,630	44,754	34,505	0	5,000	3	SX21073065
55	40	A16-055	Crab Orchard, City of	Crab Orchard UV Replacement	WWTP Rehabilitation	275,000	275,000	275,000	24,587	894	0	90,000		SX21137020
56	40	A16-056	Mountain Water District	MWD- Sewer Lift Station Upgrades	Sanitary Sewer Rehabilitation	400,000	400,000	0	31,132	1,739	0	0		SX21195004
58	40	A16-058	Olive Hill, City of	Olive Hill: Oxidation Ditch Upgrade and Electrical Repairs	WWTP Rehabilitation	65,000	65,000	65,000	31,732	1,837	0	0		SX21043036
59	40	A16-059	Hawesville, City of	Hawesville Sewer Plant Rebuild Project	WWTP Rehabilitation	3,800,000	5,000,000	5,000,000	47,448	1,266	0	0		SX21091015
60	30	A16-060	Jackson, City of	Wal-Mart Area Sewer Project	Sanitary Sewer Extensions	284,700	510,000	510,000	21,051	2,960	0	0		SX21025007
61	30	A16-061	Crab Orchard, City of	Crab Orchard - William Whitley Road Sanitary Sewers	Sanitary Sewer Extensions	712,000	712,000	712,000	24,587	894	0	0		SX21137021
62	30	A16-062	Ohio County Fiscal Court	North 231 Sewer Extension Project	Sanitary Sewer Extensions	700,000	700,000	700,000	34,066	2,635	0	0		SX21183002
63	30	A16-063	Lexington-Fayette Urban County Government	Expansion Area Three Sanitary Sewer Infrastructure	Sanitary Sewer Extensions	16,888,634	16,888,634	0	48,430	286,776	0	238,379	1	SX21067002
64	30	A16-064	Morehead, City of	Sunnybrook Development Sewer Line Extension	Sanitary Sewer Extensions	1,300,000	1,000,000	1,000,000	33,919	15,139	0	0		SX21205029

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2016 CWSRF Project Priority List

Rank	Score	Loan Number	Applicant	Loan Package Title	DOW Project Description	Total Project Costs	Requested Loan Amount	Invited Loan Amount	Utility Service Area MHI	Population	Principal Forgiveness Amount	Green Amount	Green Category	WRIS #
65	30	A16-065	Morehead, City of	KY 801 and KY 158 Sewer Extension Project	Sanitary Sewer Extensions	1,800,000	1,500,000	1,500,000	33,919	15,139	0	0		SX21205036
66	30	A16-066	Hopkinsville Water Environment Authority	HWEA Oak Grove Industrial Park Sewer Line Extension	Sanitary Sewer Extensions	490,000	490,000	490,000	35,204	42,917	0	0		SX21047006
67	30	A16-067	Hopkinsville Water Environment Authority	HWEA SRF Phase VIII - Rockbridge Interceptor	New Interceptor	12,328,550	12,328,550	12,328,550	35,204	42,917	0	0		SX21047029
68	30	A16-068	Hopkinsville Water Environment Authority	HWEA - Crofton Division Gordon Park Sewer Main Extension	Sanitary Sewer Extensions	104,700	104,700	104,700	35,204	42,917	0	0		SX21047030
69	20	A16-069	Grayson, City of	Grayson: Rolling Hills Subdivision Sewer Extension	Sanitary Sewer Extensions	1,200,000	1,200,000	1,200,000	34,859	4,637	0	0		SX21043030
70	20	A16-070	Grayson, City of	Grayson: Plantation Subdivision Sewer Extension Project	Sanitary Sewer Extensions	1,900,000	1,900,000	1,900,000	34,859	4,637	0	0		SX21043035
71	20	A16-071	Centertown, City of	Centertown Sewer Clean Out Machine Purchase Project	Equipment	50,000	50,000	50,000	39,031	538	0	0		SX21183007
72	20	A16-072	Paducah McCracken County Joint Sewer Agency	Reidland Collection System Above Ground Storage Tank	Storage	2,385,000	2,385,000	2,385,000	40,790	43,554	0	0		SX21145015
73	135	A16-073	Mountain Water District	MWD - Forest Hills Phase III		1,050,000	600,000	600,000	31,132	1,739	0	0		SX21195696
74	120	A16-074	Marion, City of	City of Marion - New Wastewater Treatment Plant		11,276,960	587,200	587,200	29,447	3,175	0	0		SX21055006
75	97	A16-075	Bedford, City of	Wastewater System Improvements		1,500,000	1,500,000	1,500,000	37,838	983	0	0		SX21223013
76	70	A16-076	New Haven, City of	City of New Haven I and I Sewer Rehab. Phase II		603,000	263,000	263,000	29,043	935	0	0		SX21179017
77	60	A16-077	Salyersville Water Works	Grinder Pump Replacement, Line Extension and Equipment Purchase Project		615,230	550,000	550,000	21,408	2,989	0	0		SX21153003
78	50	A16-078	Prestonsburg City's Utilities Commission	Big Sandy Regional Waste Water Treatment Plant	New WWTP	10,770,430	600,000	600,000	25,316	7,689	0	0		SX21071007
79	40	A16-079	Mountain Water District	Residential Grinder Unit Up Grade		250,000	250,000	250,000	31,132	1,739	0	0		SX21195025
80	30	A16-080	Ashland, City of	New Wastewater Facilities		800,000	800,000	800,000	35,423	21,646	0	0		SX21019080
81	48	A16-081	Elizabethtown, City of	Village / Poplar Drive Sewer Improvements		11,005,500	11,005,500	11,005,500			0	0		SX21093029
Total					**Totals:**	**$ 342,463,601**	**$ 271,032,070**	**$ 198,542,303**			**$ 8,910,028**	**$ 10,280,985**		

* Funding is being prioritized for projects requesting an increase to an existing SRF construction loan.
** Funding is being prioritized for projects having an active SRF planning and design loan.

APPENDIX B

CALL FOR PROJECTS LETTER

KENTUCKY INFRASTRUCTURE AUTHORITY

Steven L. Beshear
Governor

1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601
Phone (502) 573-0260
Fax (502) 573-0157
http://kia.ky.gov

John E. Covington, III
Executive Director

September 25, 2014

To Whom It May Concern:

The Kentucky Infrastructure Authority and the Kentucky Division of Water are announcing the 2016 Clean Water State Revolving Fund Call for Projects.

The Clean Water State Revolving Fund Call For Projects

Will Be Open from October 1, 2014, to December 12, 2014

If you have a wastewater, stormwater or nonpoint source project that will need funding during the 2016 state fiscal year (July 1, 2015 thru June 30, 2016), we want to hear from you as your project may be eligible for funding from the Clean Water State Revolving Fund (CWSRF). The CWSRF is a competitive program. To qualify to apply for a low interest CWSRF loan, your project MUST be ranked and listed on the 2016 CWSRF Project Priority List developed by the Division of Water (DOW). Projects will not be carried forward from the 2015 project priority list to the 2016 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 Water Management Council (AWMC) through the Area Development District (ADD) to complete or update a Project Profile (and related mapping) in the Water Resource Information System (WRIS). The Project Profile includes the information necessary to evaluate potential CWSRF projects. All information needed by DOW to review and rank potential CWSRF projects has been incorporated into the Project Profile template. If you do not have a Project Profile, you can complete the fill in template and then send the information to your AWMC before their next meeting. Please ensure that project cost estimates have been updated.

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 AWMC approval. 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 can start construction by March 31, 2017, will be considered for funding.**

Current Interest Rates

Interest rates for the 2016 SRF funding cycle have not yet been determined. Projected interest rates for the program will be provided in the 2016 CWSRF Intended Use Plan (IUP) which will be available late spring of 2015. Rates provided in the IUP are subject to approval by the KIA Board.

As an example, KIA currently offers three interest rates for the CWSRF program. The standard rate of 2.75% is available for borrowers with a median household income (MHI) at or above $42,610, the MHI of the Commonwealth based on U.S. Census, American Community Survey, 5-year estimates. A 1.75% rate is offered to borrowers whose MHI is between $42,609 and $34,088. 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. To qualify for the 0.75% rate, the borrower must have an MHI below $34,088. Keep in mind these figures may change in the coming funding cycle.

Sustainable Infrastructure Initiative

A brochure that highlights the Sustainable Infrastructure (SI) initiative launched by EPA and the Kentucky Division of Water in 2008 is available on KIA's and DOW's websites. Projects that incorporate some of the practices and recommendations described in the SI brochure might receive additional points, resulting in a higher ranking on the CWSRF Project Priority List. The DOW encourages you to contact them with any questions or feedback regarding the SI initiative.

Questions?

If you have questions about completing the questionnaire or project eligibility for priority list inclusion, please contact Cindy McDonald (cindy.mcdonald@ky.gov) or Shafiq Amawi (shafiq.amawi@ky.gov) at the Water Infrastructure Branch or call (502) 564-3410. For more information on loan requirements, terms or eligibility, please contact Jeff Abshire (jeff.abshire@ky.gov) or Brandi Armstrong (brandi.armstrong@ky.gov) at KIA or call (502) 573-0260.

Sincerely,

John E. Covington, III, Executive Director
Kentucky Infrastructure Authority

APPENDIX C

INTEGRATED PROJECT PRIORITY RANKING SYSTEM (IPPRS)

KENTUCKY
Priority System Guidance Document

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

KENTUCKY CLEAN WATER STATE REVOLVING FUND

2016 Funding Cycle

ENERGY AND ENVIRONMENT CABINET
Department for Environmental Protection
Division of Water

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I. Introduction

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

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

The CWSRF may fund projects for construction of publicly owned treatment works as defined in section 212 of the Clean Water Act, including stormwater projects. Amendments to the program will also allow funding of projects for: decentralized systems; stormwater or subsurface drainage water; water conservation, efficiency, or reuse; watershed projects as defined in section 122; energy consumption; reuse or recycling of wastewater, stormwater, or subsurface drainage water; security; and assistance by nonprofit agencies. The CWSRF may also fund nonpoint source pollution control activities which implement the U.S. EPA-approved *Kentucky Nonpoint Source Management Program - 2.0* (Kentucky Division of Water, 2002) required under Section 319 of the Clean Water Act, which lists specific activities for controlling nonpoint source pollution impacts and identifies responsible implementing agencies and potential/available funding sources.

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

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

II. Identifying and Ranking Water Quality Priorities

According to the March 2001 EPA IPPS guidance:

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

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

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

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

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

A. Project Needs

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

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

Criterion #2: Sanitary Sewer Overflow (SSO) Correction- Control of sanitary sewer overflows caused by undersized lines and/or excessive infiltration and inflow into the sanitary sewer collection system. Sanitary sewer overflow refers to overflow, spill, release, or discharge of untreated or partially treated wastewater from a sanitary sewer system.
Points Received: 30

Criterion #3: Replacement or Rehabilitation of Aging Infrastructure, including correction of moderate infiltration and inflow (i.e., no associated SSO)- The problem of water penetration into a sewer system from the ground through such means as defective pipes or manholes or from sources such as drains, storm sewers, and other improper entries into the systems is referred to as infiltration and inflow (I/I). Reinforcement or reconstruction of structurally deteriorating sewers and pipes used to collect and convey wastewater by gravity or pressure flow to a common point are projects designed to correct I/I (i.e., no associated SSO) go under this criterion.
Points Received: 20

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

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

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

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

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

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

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

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

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

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

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

Criterion #14: Other- Any project that does not meet the list of project needs definitions and/or standards provided above. Project need must be provided.
Points Received: 10

B. Regionalization

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

C. Compliance and Enforcement

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

Criterion #2: Will the project achieve voluntary compliance (violation with no order)?
This question refers to when the facility/system is out of compliance (has received Notices of Violation or Letters of Warning) before the project is implemented and will be in compliance at project completion.
Points Received: 25

D. Water Quality

Criterion #1: Will the project implement an approved Total Maximum Daily Load (TMDL) for impaired waterbodies?
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/Integrated Report.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 http://eppcmaps.ky.gov/website/watershed/viewer.htm.
Points Received: 10 for each SWAPP Zone 1 or WHPA Zone 3
Points Received: 7 for each SWAPP Zone 2 or WHPA Zone 2
Points Received: 3 for each SWAPP Zone 3 or WHPA Zone 1

Criterion #7: Will the project make reasonable progress towards eliminating identified pollutant sources of water quality impairments within an identified DOW Priority Watershed?

The Division of Water has developed a list of state priority watersheds at the HUC11 level. 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 (2009-2013).
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 (2009-2013).
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). Points will also be given to systems in the process of developing an Asset Management Program or similar planning document. To obtain points under this category, evidence of the program must be uploaded in WRIS.

Points Received: 20 for Fully Operational Asset Management Program
10 for Asset Management Program Under Development

Criterion #2: System has developed appropriate rate structures to build, operate, and maintain the water works.
To obtain points under this category supporting documents must be uploaded in WRIS (i.e. rate study and ordinance).
Points Received: 10

Criterion #3: System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure.
To obtain points under this category supporting documents 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
C. Compliance and Enforcement		
1.	Is the project necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree?	50
2.	Will the project achieves voluntary compliance (violation with no order)?	25
D. Water Quality		
1.	Will the project allow the system to address existing Total Maximum Daily Load (TMDL)?	10
2.	Will the project allow the system to address existing or projected nutrient TMDL?	30
3.	Will the project allow the system to address an approved Watershed Management Plan?	10
4.	Will the project make reasonable progress towards eliminating identified pollutant sources for waterbodies that appear on the *2010 Integrated Report to Congress on Water Quality in Kentucky*?	20 points for each pollutant-waterbody combination

5.	Does the project eliminate existing or potential sources of pollution in groundwater sensitivity areas?	15 points for high or highest sensitivity 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 or is developing an Asset Management Program or similar planning document	20 for fully functional 10 for under development
2.	System has developed appropriate rate structures to build, operate, and maintain the water works	10
3.	System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure	10

G. Green Projects (See Green Project Reserve Guidance Document)		
1.	Green Infrastructure: Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintains and restores natural hydrology by infiltrating, evapotranspiring and harvesting and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains, and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale, green infrastructure consists of site- and neighborhood-specific practices, such as: • Bioretention • Trees • Green roofs • Permeable pavement • Cisterns • Constructed wetlands • Urban forestry programs • Downspout disconnection • Riparian buffers and wetlands • Sustainable landscaping and site design • Purchase of land or easements on land for riparian and wetland protection or restoration • Fencing to divert livestock from streams and stream buffers*	5 pts. each/10 pts. maximum
2.	Water Efficiency: The use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future. Examples include: • 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). Once the project is submitted for CWSRF funding, DOW staff will evaluate the project based on the ranking system discussed above and assign the project a numeric score. Eligible projects will then be added to the next Comprehensive Project Priority List. In the event of a tie, the following factors will be utilized to priority rank each project: (1) service of a small system as defined by population; (2) projects with existing enforcement actions (i.e. Agreed Orders, Consent Decrees); (3) water quality impacts; and (4) financial need as evident by the median household income of the applicant. If the project is only for accommodating future growth and will not address an existing water quality or public health need, and therefore does not receive any points from the above criteria, the project will be still included on the Comprehensive Project Priority List if it is eligible for CWSRF funding.

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

V. Eligible Project Applicants/Projects

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

VI. References

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

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

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

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

VII. Kentucky Division of Water State Priority Watersheds

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

VIII. 319h Funded Watershed-Based Plans in Kentucky

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

APPENDIX D

GREEN RESERVE GUIDANCE

2016 Clean Water and Drinking Water State Revolving Fund 10% Green Project Reserve: Guidance for Determining Project Eligibility

The following section includes Green Project Reserve guidance for the Clean Water SRF program.

The FFY 2015 capitalization grant requires that "to the extent there are sufficient eligible projects, not less than 10% of the funds made available to each State for Clean Water State Revolving Fund capitalization grants shall be used by the State for projects to address 1) green infrastructure, 2) water efficiency improvements, 3) energy efficiency improvements, or 4) other environmentally innovative activities." These four categories are the components of the Green Project Reserve (GPR).

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

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

The current guidance provides States with information needed to determine which projects count toward the GPR requirement. The intent of the GPR Guidance is to describe projects and activities that fit within the four specific categories listed above. This guidance defines each category of GPR projects and lists projects that are clearly eligible for GPR, heretofore known as categorically eligible projects. For projects that do not appear on the list of categorically projects, they may be evaluated for their eligibility within one of the four targeted types of GPR eligible projects based upon a business case that provides clear documentation (see the *Business Case Development* sections in Part A).

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

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

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.

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

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[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

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

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. 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.

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

1.5 Examples of Projects Requiring A Business Case

- 1.5-1 Fencing to keep livestock out of streams and stream buffers. Fencing must allow buffer vegetation to grow undisturbed and be placed a sufficient distance from the riparian edge for the buffer to function as a filter for sediment, nutrients and other pollutants.

2.0 WATER EFFICIENCY

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

2.2 Categorical Projects

- 2.2-1 Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances
  - 2.2-1a For example -- shower heads, toilets, urinals and other plumbing devices
  - 2.2-1b Where specifications exist, WaterSense labeled products should be the preferred choice (http://www.epa.gov/watersense/index.html).
  - 2.2-1c Implementation of incentive programs to conserve water such as rebates.
- 2.2-2 Installing any type of water meter in previously unmetered areas
  - 2.2-2a If rate structures are based on metered use
  - 2.2-2b Can include backflow prevention devices if installed in conjunction with water meter
- 2.2-3 Replacing existing broken/malfunctioning water meters, or upgrading existing meters, with:
  - 2.2-3a Automatic meter reading systems (AMR), for example:
    - 2.2-3a(i) Advanced metering infrastructure (AMI)
    - 2.2-3a(ii) Smart meters
  - 2.2-3b Meters with built in leak detection
  - 2.2-3c Can include backflow prevention devices if installed in conjunction with water meter replacement

2.2-4 Retrofitting/adding AMR capabilities or leak detection equipment to existing meters (not replacing the meter itself).

2.2-5 Water audit and water conservation plans, which are reasonably expected to result in a capital project.

2.2-6 Recycling and water reuse projects that replace potable sources with non-potable sources,

2.2-6a Gray water, condensate and wastewater effluent reuse systems (where local codes allow the practice)

2.2-6b Extra treatment costs and distribution pipes associated with water reuse.

2.2-7 Retrofit or replacement of existing landscape irrigation systems with more efficient landscape irrigation systems, including moisture and rain sensing equipment.

2.2-8 Retrofit or replacement of existing agricultural irrigation systems with more efficient agricultural irrigation systems.

2.3 Projects That Do Not Meet the Definition of Water Efficiency

2.3-1 Agricultural flood irrigation.

2.3-2 Lining of canals to reduce water loss.

2.3-3 Replacing drinking water distribution lines. This activity extends beyond CWSRF eligibility and is more appropriately funded by the DWSRF.

2.3-4 Leak detection equipment for drinking water distribution systems, unless used for reuse distribution pipes.

2.4 Decision Criteria for Business Cases

2.4-1 Water efficiency can be accomplished through water saving elements or reducing water consumption. This will reduce the amount of water taken out of rivers, lakes, streams, groundwater, or from other sources.

2.4-2 Water efficiency projects should deliver equal or better services with less net water use as compared to traditional or standard technologies and practices

2.4-3 Efficient water use often has the added benefit of reducing the amount of energy required by a POTW, since less water would need to be collected and treated; therefore, there are also energy and financial savings.

2.5 Examples of Projects Requiring a Business Case.

2.5-1 Water meter replacement with traditional water meters (see AWWA M6 *Water Meters – Selection Installation, Testing, and Maintenance*).

2.5-2 Projects that result from a water audit or water conservation plan

2.5-3 Storage tank replacement/rehabilitation to reduce loss of reclaimed water.

2.5-4 New water efficient landscape irrigation system (where there currently is not one).

2.5-5 New water efficient agricultural irrigation system (where there currently is not one).

3.0 ENERGY EFFICIENCY

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

3.2 Categorical Projects

3.2-1 Renewable energy projects such as wind, solar, geothermal, micro-hydroelectric, and biogas combined heat and power systems (CHP) that provide power to a POTW. (http:///www.epa.gov/cleanenergy). Micro-hydroelectric projects involve capturing the energy from pipe flow.

3.2-1a POTW owned renewable energy projects can be located onsite or offsite.

3.2-1b Includes the portion of a publicly owned renewable energy project that serves POTW's energy needs.

3.2-1c Must feed into the grid that the utility draws from and/or there is a direct connection.

3.2-2 Projects that achieve a 20% reduction in energy consumption are categorically eligible for 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.

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

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

3.3 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_portfoliomanager) or Check Up Program for Small Systems (CUPSS) (http://www.epa/cupss) to document current energy usage and track anticipated savings.

3.5 Examples of Projects Requiring a Business Case

3.5-1 POTW projects or unit process projects that achieve less than a 20% energy efficiency improvement.

3.5-2 Projects implementing recommendations from an energy audit that are not otherwise designated as categorical.

3.5-3 Projects that cost effectively eliminate pumps or pumping stations.

3.5-4 Infiltration/Inflow (I/I) correction projects that save energy from pumping and reduced treatment costs and are cost effective.

3.5-4a Projects that count toward GPR cannot build new structural capacity. These projects may, however, recover existing capacity by reducing flow from I/I.

3.5-5 I/I correction projects where excessive groundwater infiltration is contaminating the influent requiring otherwise unnecessary treatment processes (i.e. arsenic laden groundwater) and I/I correction is cost effective.

3.5-6 Replacing pre-Energy Policy Act of 1992 motors with National Electric Manufacturers Association (NEMA) premium energy efficiency motors.

3.5-6a NEMA is a standards setting association for the electrical manufacturing industry (http://www.nema.org/gov/energy/efficiency/premium/).

3.5-7 Upgrade of POTW lighting to energy efficient sources such as metal halide pulse start technologies, compact fluorescent, light emitting diode (LED).

3.5-8 SCADA systems can be justified based upon substantial energy savings.

3.5-9 Variable Frequency Drive can be justified based upon substantial energy savings.

4.0 ENVIRONMENTALLY INNOVATIVE

4.1 Definition: Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way.

4.2 Categorical Projects

4.2-1 Total/integrated water resources management planning likely to result in a capital project.

4.2-2 Utility Sustainability Plan consistent with EPA SRF's sustainability policy.

4.2-3 Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry)

4.3-3a Note: GHG Inventory and mitigation plan is eligible for CWSRF funding.

4.2-3b EPA Climate Leaders:
http://www.epa.gov/climateleaders/basic/index.html
Climate Registry: http://www.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

4.5-1 Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal.

4.5-1a Natural wetlands, as well as the restoration/enhancement of degraded wetlands, may not be used for wastewater treatment purposes and must comply with all regulatory/permitting requirements.

4.5-1b Projects may not (further) degrade natural wetlands.

4.5-2 Projects or components of projects that result from total/integrated water resource management planning consistent with the decision criteria for environmentally innovative projects and that are Clean Water SRF eligible.

4.5-3 Projects that facilitate adaptation of POTWs to climate change identified by a carbon footprint assessment or climate adaptation study.

4.5-4 POTW upgrades or retrofits that remove phosphorus for beneficial use, such as biofuel production with algae.

4.5-5 Application of innovative treatment technologies or systems that improve environmental conditions and are consistent with the Decision Criteria for environmentally innovative projects such as:

4.5-5a Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment;

4.5-5b Treatment technologies or approaches that significantly reduce the volume of residuals, minimize the generation of residuals, or lower the amount of chemicals in the residuals. (National Biosolids Partnership, 2010; *Advances in Solids Reduction Processes at Wastewater Treatment Facilities Webinar*; http://www.e-wef.org/timssnet/meetings/tnt_meetings.cfm?primary_id=10CAP2&Action=LONG&subsystem=ORD%3cbr).

4.5-5b(i) Includes composting, class A and other sustainable biosolids management approaches.

4.5-6 Educational activities and demonstration projects for water or energy efficiency.

4.5-7 Projects that achieve the goals/objectives of utility asset management plans (http://www.epa.gov/safewater/smallsystems/pdfs/guide_smallsystems_assetmanagement_bestpractices.pdf; http://www.epa.gov/owm/assetmanage/index.htm).

4.5-8 Sub-surface land application of effluent and other means for ground water recharge, such as spray irrigation and overland flow.

4.5-8a Spray irrigation and overland flow of effluent is not eligible for GPR where there is no other cost effective alternative.

Business Case Development

This guidance is intended to be comprehensive: however, EPA understands our examples projects requiring a business case may not be all inclusive. A business case is a due diligence document. For those projects, or portions of projects, which are not included in the categorical projects lists provided above, a business case will be required to demonstrate that an assistance recipient has thoroughly researched anticipated 'green' benefits of a project. Business cases will be approved by the State (see section III.A. in the *Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2011 Full-Year Continuing 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.
- 5.2-2 Demonstrating that equipment will meet or exceed standards set by professional associations.
- 5.2-3 Including operator training or committing to utilizing existing tools such as Energy Star's Portfolio Manager or CUPSS for energy efficiency projects.

5.3 Example Business Cases Are Available at http://www.srfbusinesscases.net/.

APPENDIX E

PUBLIC COMMENTS

2016 Clean Water State Revolving Fund Intended Use Plan
Public Comments

Summary of Comments Received During the Public Comment Period

No verbal comments were received during the public comment period. A written comment from one source was received during the meeting and is summarized below.

Roger Recktenwald
Director of Research & Planning
Kentucky Association of Counties
400 Englewood Drive
Frankfort, Kentucky 40601

Comment 1
Mr. Roger Recktenwald commented on the problems with the "abandonment" of small privately owned waste water systems with the suggestion of the Commonwealth allocating a minimal portion of funds to assisting those systems in transition of adopting the failing system. Mr. Recktenwald additionally commented similar funding circumstances with two or more neighboring utilities when neither system may have enough free cash to expend on collaboration. A similar suggestion was made for this opportunity for the Commonwealth to assist with transitional funding gaps.

Response:
KIA has become aware of the increasing problems of abandonment and the need for interim funding for transition circumstances. KIA appreciates the comment and will take Mr. Recktenwald's suggestion into consideration while working within the confines of federal and state legislation and regulation.