DRINKING WATER STATE REVOLVING FUND

State Fiscal Year 2011
DRAFT INTENDED USE PLAN
August 3, 2010

RICHMOND

GRAYSON

LOGAN-TODD REGIONAL

Created by the:
Energy and Environment Cabinet
and the
Kentucky Infrastructure Authority

Kentucky
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INTRODUCTION

Kentucky's Intended Use Plan (IUP) for the Drinking Water State Revolving Fund (DWSRF) is prepared in accordance with the provisions of the Safe Drinking Water Act (SDWA) Amendments of 1996. The IUP describes the sources and uses of funds for the 2011 state funding cycle (SFC), July 1, 2010, to June 30, 2011 and provides specific details regarding the state's prioritization process for ranking projects, short-term and long-term goals, environmental benefits, set-aside activities and the listing of eligible projects. The purpose of this IUP is to communicate Kentucky's DWSRF plan for the 2011 funding cycle to the state's public water systems (PWSs), the public, the Environmental Protection Agency (EPA), and other state agencies.

An Intended Use Plan is required by Section 1452 of the SDWA, which identifies how the funds available to Kentucky's DWSRF will be used during each state fiscal year (SFY) to support the goals of the DWSRF. This 2011 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. The public participation process;
4. The sources of available funds and the uses of those funds; and,
5. The project priority list---a list of eligible projects and activities whose sponsors expressed interest in low interest rate loans from the DWSRF.

What is the Drinking Water State Revolving Fund?

The DWSRF is a national program by which the Environmental Protection Agency (EPA) provides grants to states to further the goals of the SDWA. The national DWSRF originated in 1996, as recognition of SDWA compliance costs led to support for a DWSRF program. The EPA implements the national DWSRF program in such a manner that preserves for states a high degree of flexibility to operate their programs in accordance with each state's unique needs and circumstances.

Kentucky's DWSRF financing program provides low interest loans for drinking water infrastructure projects that promote the goals of the SDWA. Projects identified to receive funding are selected from the ranked group of Project Questionnaires received during the Annual Call for Projects. The ranking is based on the public health criteria outlined in the SDWA. Since its inception in 1997, Kentucky's DWSRF has committed funds to 68 drinking water infrastructure projects, totaling more than $180 million.

New DWSRF Requirements

The Federal Fiscal Year (FFY) 2010 budget (PL 111-88), providing the 2010 appropriation for the DWSRF, contains three provisions that establish new requirements for SRF funding. These requirements address wage rate provisions, additional subsidization, and "green" projects.

To address wage rate provisions, EPA's interpretation of PL 111-88 requires that all drinking water treatment projects for which SRF assistance agreements are executed on or after October 30, 2009 and prior to October 1, 2010 must meet federal Davis Bacon wage requirements unless

construction was completed prior to October 30, 2009. This Davis Bacon provision applies to all assistance agreements signed during the specified time frame.

Another new provision in the FFY10 DWSRF appropriation is that at least 30% ($5,877,600) of the DWSRF capitalization grant must be provided as additional subsidy.

The final new provision is that at least 20 percent of the 2010 capitalization grant ($3,918,400) must be used to fund green projects as defined by EPA.

A. DAVIS-BACON COMPLIANCE

As part of the FFY 2010 budget appropriation for the DWSRF, Congress mandated that 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 DWSRFs. These requirements are collectively known as the Davis-Bacon laws. These requirements are in addition to the requirements of Kentucky prevailing wage laws. Recent EPA guidance requires that any DWSRF financings made on or after October 30, 2009 and prior to October 1, 2010, will be required to comply with the Davis-Bacon laws and incorporate these provisions into any project work that has been or will be contracted. With the exception of projects funded by American Recovery and Reinvestment Act of 2009 funds, projects that signed an assistance agreement prior to October 30, 2009 will generally not be required to incorporate Davis-Bacon requirements. Work done by a municipal applicant's employees, generally known as "force account" or "work force", is not generally subject to Davis-Bacon requirements. For more information on Davis Bacon laws please visit http://www.dol.gov/whd/regs/compliance/whdfs66.pdf.

B. ADDITIONAL SUBSIDIZATION

Provisions in the FFY2010 capitalization grant authorization also require that at least $5,877,600 of the funds made available under that grant must be used by the State to provide additional subsidization to eligible recipients. The State will make such additional subsidization in the form of loans with 35% principal forgiveness. To be eligible to receive principal forgiveness, the borrower's entire service area must have a median household income (MHI) less than $26,938, or 80% of the State's MHI as determined by the 2000 U.S. Census. If a borrower provides service to more than one jurisdiction, an average MHI will be calculated based on each jurisdiction's MHI. Should there be insufficient eligible project applications to meet the required subsidization level, KIA may invite additional project applications or may increase the percentage subsidization level to the existing qualifying participants.

C. GREEN PROJECT RESERVE (GPR)

The FFY2010 capitalization grant also requires that to the extent there are sufficient eligible project applications, not less than 20% ($3,918,400) of the funds made available under that grant must be used by the State for projects which 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; these projects too will be considered eligible for award under the GPR.

Structure of the DWSRF…

The Kentucky Infrastructure Authority (KIA) and the Kentucky Energy and Environment Cabinet (EEC) through the Division of Water (DOW) jointly administer the program via a Memorandum of Agreement in accordance with Kentucky Revised Statute KRS 224A.1115 and Kentucky Administrative Regulation 200 KAR 17:070[1].

The following contacts can assist you with your DWSRF inquiries:

Contact	Agency	Subject
Sandy Williams - (502) 573-0260 Sandy.williams@ky.gov	KIA	Loan Application, Financial Terms, Rates
Amanda Yeary - (502) 564-3410 Amanda.yeary@ky.gov	DOW	Project Questionnaire, Priority List, Environmental Review
Buddy Griffin - (502) 564-3410 Buddy.griffin@ky.gov	DOW	Loan Application, Procurement, Bidding Requirements
Solitha Dharman - (502) 564-3410 Solitha.Dharman@ky.gov	DOW	Plans and Specifications
Shafiq Amawi, Water Infrastructure Branch Mgr. - (502) 564-3410 Shafiq.amawi@ky.gov	DOW	General Information, Set-Asides Activities, RFPs

Who is Eligible?

An eligible borrower must be a public water system that is also a governmental agency. Some examples include:

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

An eligible borrower must also demonstrate the technical, financial and managerial capability to ensure compliance with the requirements of the SDWA, unless the completion of the project receiving financial assistance will ensure compliance and the owners or operators of the systems agree to undertake feasible and appropriate changes in operations to ensure compliance over the long term. If you need assistance determining if your utility is eligible, contact Sandy Williams, KIA for help.

[1] KRS Ch 224A.1115 and 200 KAR 17:070 may be found on the Internet from the Kentucky Legislature Home Page address: http://lrc.ky.gov/home.htm.

What is Eligible?

Some examples of eligible projects include:

- Planning, design, and construction of drinking water intake, treatment, or distribution systems
- Purchase of water systems by other public water systems
- Storage tanks
- Clearwells
- Drilled wells and wellhead areas
- Security related facilities
- Emergency measures for the protection of public health
- Refinancing or buying eligible debt obligations of a public water system
- Any other structure of facility that the DOW considers necessary to the efficient and sanitary operation of a public water system

If you need assistance determining if your project is eligible for funding, contact Amanda Yeary at the DOW for more information.

I. DWSRF GOALS AND ACCOMPLISHMENTS

The primary goal of the DWSRF program is to assist PWSs in providing safe drinking water at an affordable cost to their customers. The program offers low-cost financing to PWSs for eligible drinking water infrastructure construction projects, planning and design costs relating to eligible projects, and eligible security projects. Through set-aside funds, the DWSRF is also used to improve environmental programs that support the goals of the SDWA. Examples include capacity development, operator certification, source water protection and wellhead protection. Effective and efficient administration of the DWSRF program, combined with below-market interest rates and long-term financing, will assist PWSs in providing sufficient quality and quantity of affordable potable water throughout Kentucky. Progress is reported for each SFY in the Annual Report to EPA.

A. Goals for the 2011 Funding Cycle

Short-Term Goals

1. Work with EPA Region IV, the Office of the State Budget Director and the Office of Financial Management in the Finance and Administration Cabinet to complete the steps necessary to issue leverage bonds.

2. Continue to define and develop specific environmental outcomes and measures that will demonstrate the protection of public health by category type through DWSRF funding.

3. Continue to issue and evaluate contracts associated with set-aside initiatives.

4. Promote the green infrastructure initiative to potential DWSRF borrowers to solicit enough projects to meet the new green project reserve requirement.

5. Train borrowers to assure compliance with Davis Bacon requirements.

6. Provide the benefits of DWSRF-funded projects by updating the online DWSRF Benefits Reporting System.

7. Fund projects designed to remediate risk to human health, or are necessary to ensure compliance with the requirements of the SDWA.

8. Support components of the state drinking water and groundwater programs by directing the necessary resources toward the state's most pressing compliance and health needs.

Long-Term Goals

1. Support protection of public health by ensuring drinking water state revolving funds are used to finance only those projects necessary to remediate serious risk to human health or are necessary to ensure compliance with the requirements of the SDWA.

2. Maintain the fiscal integrity of the DWSRF and preserve the fund to ensure funding availability in perpetuity. Progress toward this goal will be documented via the annually audited financial statements, loan monitoring activities and KIA Board changes to the lending rate policy.

3. Conduct the loan process with timely and consistent timeframes and deadlines each year.

4. Take the steps necessary to integrate the project questionnaire into the Water Resource Information System (WRIS).

5. Ensure that all public water systems have the necessary technical, financial and magerial capacity to maintain compliance with the current and foreseeable SDWA requirements and provide safe drinking water to their customers.

B. Accomplishments During the 2010 Funding Cycle

1. Improved Communication: Much of the recent success of the program is due to the improved working relationship between the KIA (grantee) and the DOW. Joint monthly meetings between the KIA and DOW have been conducted since the summer of 2007, to discuss projects status and processes refinement. The meetings are now vital to the functionality of the program.

2. Improved Marketing: The DWSRF program is becoming increasingly popular among public water systems and consultants seeking funding for infrastructure projects. We

believe this is in part due to the annual "call for projects" that is distributed to all public water systems, local officials, area development districts, and the engineering community, advertising the DWSRF program and its benefits.

3. Consistency: It is our accomplishment and our goal to provide consistency throughout the program for our applicants. For the last four funding cycles, we have conducted a "call for projects" that the utilities have come to expect. We have been attempting to streamline as many processes as possible to make the loan process easier for applicants and more efficient for administrators.

II. SFY 2010 PLAN OF ACTION

A. Financial Status of the DWSRF

Sources and Uses of Funds

Capitalization grants are received each year through EPA. Figure 1, below, demonstrates a declining trend from the inception of the program in 1997 through 2009. However, with the passage of the American Recovery and Reinvestment Act of 2009 (ARRA) and the 2010 Capitalization Grant appropriation, DWSRF allocations have more than doubled over the previous 4 years. State allocations are based on the nation-wide Needs Survey and yearly congressional appropriations. The Needs Survey is conducted every four years.

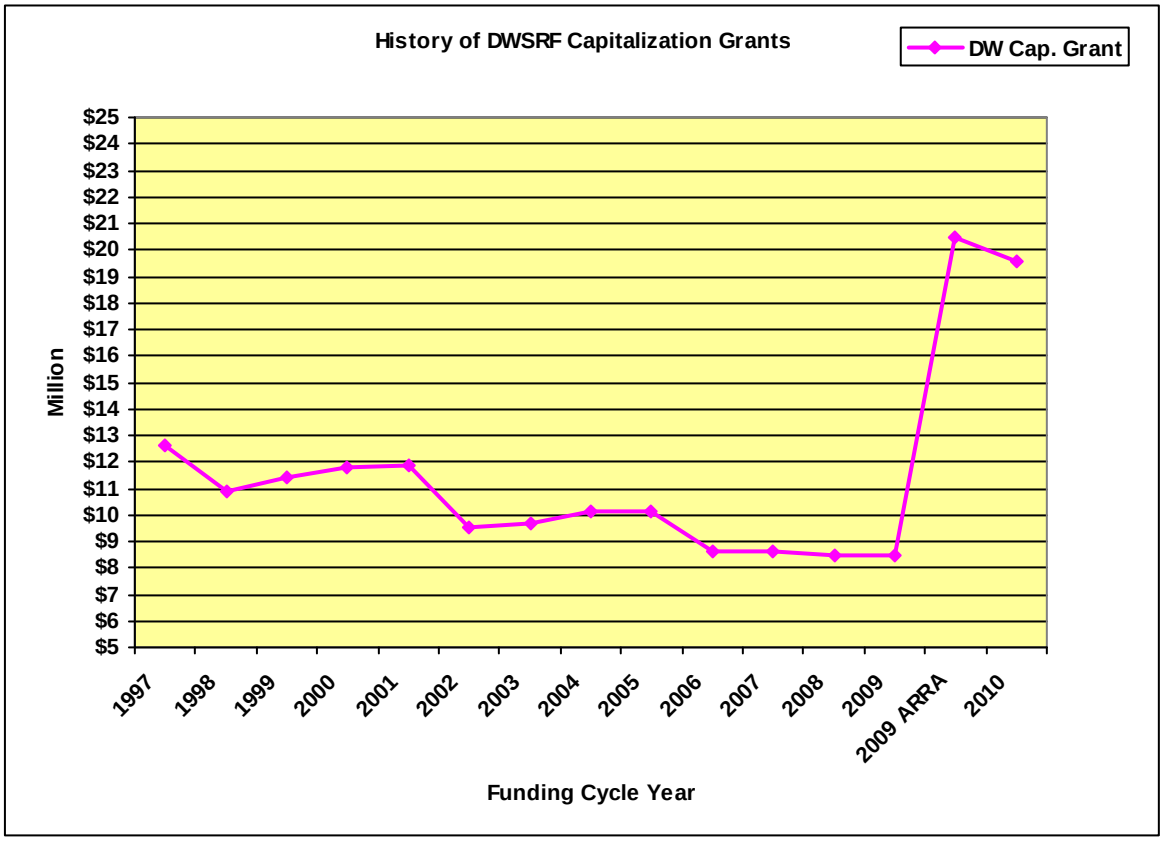

Figure 1

Kentucky's DWSRF is capitalized by appropriations by the United States Congress with the Kentucky General Assembly providing the required 20% state match funding. Additional funding during the 2008-2010 biennium was provided from the issuance of $30 million in leverage bonds. KIA received authorization from the Kentucky General Assembly to issue an additional $25 million in leverage bonds during the 2010-2012 biennium. The DWSRF fund provides, in perpetuity, financial assistance to Kentucky's PWSs. During 2011, Kentucky will rely on funding as outlined in Table 1 to provide financial assistance to communities, support operations in KIA and DOW, and support related program activities.

Table 1 - DRAFT

Kentucky DWSRF Sources and Uses of Funds for 2011

July 1, 2010 through June 30, 2011

Funding Sources	**Federal Contribution**	**State Contribution**	**Other**	**Total**
Uncommitted (Overcommitted) Prior Year Loan Funds *			7,744,089	7,744,089
Loan Repayments *			6,107,407	6,107,407
Leverage Bond Proceeds			12,500,000	12,500,000
Banked Prior Year Set-Aside Funds			6,744,197	6,744,197
Banked Prior Year ARRA Set-Aside Funds			1,211,987	1,211,987
2010 Capitalization Grant	19,592,000	3,918,400		23,510,400
State Program Management Expenditure Match**		1,959,200		1,959,200
Total Funding Sources	19,592,000	5,877,600	34,307,680	59,777,280
Funding Uses				
Financial Assistance ***	14,243,384	3,918,400	24,941,538	43,103,322
Leverage Bond Debt Service			1,409,958	1,409,958
Banked Prior Year Set-Aside Funds			6,744,197	6,744,197
Banked Prior Year ARRA Set-Aside Funds	-		1,211,987	1,211,987
2010 Administration (4%)	783,680			783,680
2010 State Program Management (10%)	1,959,200	1,959,200		3,918,400
2010 Technical Assistance (2%)	391,840			391,840
2010 Local and Other Assistance (11.3%)	2,213,896			2,213,896
Total Funding Uses	19,592,000	5,877,600	34,307,680	59,777,280

* Estimate as of May 14, 2010.

** The State Program Management Expenditure Match is an in kind match and does not represent funds available for construction projects.

*** An amount equal to 20% of the federal capitalization grant must be used for green projects to the extent that KIA receives sufficient applications. The green project reserve equals $3,918,400.

In SFY 2010, KIA will have up to $43,103,322 available to fund eligible DWSRF projects. This is comprised of the 2010 capitalization grant of $14,243,384 (after set-asides) *plus* state funds of $3,918,400, uncommitted prior-year loan funds of $7,744,089, estimated repayment funds of $4,697,449 (net of leverage bond debt service), and up to $12,500,000 from leverage bond proceeds. From the capitalization grants, KIA and DOW will have an additional $4,564,936 set-aside for environmental initiatives and $783,680 for administration.

The $3,918,400 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. The anticipated submission dates for the 2010 capitalization grant application is September 1, 2010. Grant awards are typically made within 90 days.

Transfers between the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund programs are allowed up to a maximum of 33 percent of the total DWSRF capitalization grants received. While KIA reserves the right to transfer available funds, a transfer is not expected during the SFY 2011.

KIA requested budgetary authorization to issue agency leverage bonds during the 2010-2012 biennium in an amount not to exceed $25 million. Bond proceeds would be deposited into the fund and would be used to make eligible DWSRF loans. This authorization was granted in the 2010-2012 biennial budget. For this authorization to become effective, KIA must obtain approval from EPA Region IV. Next, KIA must acquire approval from the KIA Board, the Office of the State Budget Director and the Office of Financial Management in the Finance and Administration Cabinet as to the timing and amount of the leverage bonds issuance. KIA anticipates that approximately one-half of the authorization will be used in each state fiscal year.

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

Financial Terms of Loans

1. Funding Limit

Kentucky's DWSRF has a $4,000,000 annual limit on the amount of funds that will be available to any one borrower from a specific capitalization grant. A funding limit was implemented to allow greater access to low-interest SRF funds to more projects and to maintain an acceptable risk level on the long-term viability of the DWSRF loan fund account. This limit is reviewed annually to assure the most equitable allocation of funds for potential borrowers.

2. Interest Rates

The KIA Board must establish interest rates at least annually. Staff intends to present rates for Board consideration at the August 5, 2010 KIA Board meeting. The rates are based on prevailing market conditions, availability of funds, and funding demand. Staff intends to recommend a standard rate of 3 percent with two non-standard rates at 2 percent and 1 percent to start off the 2011 fiscal year.

The standard rate will apply to all borrowers at or above the 2000 Census State Median Household Income (MHI) of $33,672. To qualify for the non-standard rate of 2%, 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 $33,672 and $26,938 (80% of the State MHI) or be considered regional. To qualify for the non-standard rate of 1%, a borrower must have a MHI at or below $26,938. Qualifications for rates are subject to 200 KAR 17:070.

Planning and design loans will be made at the standard rate during the planning and design phase of the project. Should the planning and design loan be rolled into a construction loan, the rate on the planning and design loan amount will revert to the rate approved for the construction loan.

3. Repayment Terms

Planning and design loans will have a five-year repayment term. Should the planning and design loan be rolled into a construction loan, the term for the planning and design loan amount will revert to the term approved for the construction loan.

Construction loans will have a 20-year repayment term. At the KIA Board's discretion, the repayment term for a construction loan for disadvantaged communities may be extended to 30 years, but not beyond the expected design life of the project. At no time will an amount exceeding 30 percent of the capitalization grant be provided as subsidy to disadvantaged communities.

Principal and interest payments on each loan will commence not 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.

4. Loan Servicing Fees

A loan servicing fee of 0.25 percent on the annual outstanding loan balance will be charged as a part of each semi-annual loan payment in accordance with 200 KAR 17:070, 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 DWSRF program expenses.

5. Financial Options of the Fund

The SDWA provides guidelines under which the DWSRF program is to be operated. However, the specific implementation of those guidelines affects the long-term financial viability of the fund. The following are allowable options within the DWSRF and Kentucky's treatment of each.

a. Loan Subsidies – The 2010 Capitalization Grant appropriation required that at least 30% ($5,877,600) of the DWSRF capitalization grant must be provided as additional subsidy. The State will make such additional subsidization in the form of loans with 35% principal forgiveness. To be eligible to receive principal forgiveness, the borrower's entire service area must have a median household income (MHI) less than $26,938, or 80% of the State's MHI as determined by the 2000 U.S. Census. If a borrower provides service to more than one jurisdiction, an average MHI will be calculated based on each jurisdiction's MHI. Should there be insufficient eligible project applications to meet the required subsidization level, KIA may invite additional project applications or may increase the percentage subsidization level to the existing qualifying participants.

b. Set-Asides – The SDWA allows up to 31 percent of the fund to be used as set-asides. However, fund dollars used as set-asides, other than set-asides dedicated for loans for land acquisition and conservation easements for source water protection, are not available for loans. EEC and KIA use a team approach to carefully plan and monitor the set-asides. In 2011, 27.3% of the 2010 capitalization grant will be used for set-aside activities.

c. Borrower Repayment – The borrower's ability to repay has a direct effect on the amount of funds available. A thorough credit analysis is performed for each borrower. Loan monitoring is performed throughout the life of the loan. All loan repayments begin within one year of the initiation of operations of the project.

d. Leveraging – KIA has received an authorization to issue up to $25 million in leverage bonds during the 2010-2012 biennium. Bonds will only be issued if there is sufficient demand for financial assistance.

Fund Transfers Between the CWSRF and the DWSRF

Transfers between the SRF programs are allowed up to a maximum of 33 percent of the total DWSRF capitalization grants received. KIA reserves the right to transfer the maximum allowable 33 percent of uncommitted repayment funds from the Clean Water SRF to the Drinking Water repayment fund as loan demand arises. This decision will be evaluated annually by DOW and KIA. 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.

B. Method for Distribution of Funds

Project Prioritization- How the 2011 project priority list was created…

A project priority ranking system was established to determine the order in which projects are evaluated for funding. Kentucky's priority ranking formula was designed by DOW and is based on the following criteria: (1) most serious risk to human health; (2) ensure compliance with the requirements of the SDWA; and (3) assist systems most in need on a per-household basis according to state affordability criteria. Minor modifications were made to the project priority ranking system to address the new "green project reserve" requirement. A Project Priority List is produced annually based on this ranking system. The Project Priority List is comprised of one list which serves as both a "fundable list" and a "comprehensive list." The fundable list is defined as a list of projects eligible for funding with available funds for the SFY 2011. The projects on the comprehensive list may receive funding in the event that a project from the fundable list is withdrawn, deemed ineligible, or unable to meet the DWSRF program requirements within the given time frame.

The Project Priority List is developed through an annual call for projects distributed to all PWSs, area development districts, mayors, county judges executive, and the engineering community. Only those applications submitted through the call for projects process were considered for funding and placement on the Project Priority List. Additionally, the applicant must develop a project profile, receive endorsement by the Area Water Management Council, and be included in the Water Resource Information System (WRIS) to be considered eligible for funding. Projects listed on the 2011 Project Priority List were evaluated and assigned a score based upon the priority formula. A table of the ranking categories and point system can be found under Appendix A of this document. The 2011 Project Priority List is located in Appendix B. All applicants will be notified of their ranking and funding status eligibility on the 2011 Project Priority List.

Projects that received a conditional commitment of funding from KIA during a prior funding cycle but have not completed the requirements necessary to enter into an Assistance Agreement have been re-ranked at the request of the Project Administrator. In the event they do not complete the requirements by the funding commitment expiration, they may be invited to re-apply if funding is available.

As required by the SDWA, to the maximum extent practicable, the highest priority projects are funded first. The projects chosen for funding are based on their readiness to proceed. In the event of ties in the ratings, priority will be given to the project serving the larger total population based on information maintained by EEC.

Application Deadlines

In October 2009, KIA and DOW invited all all public water systems to submit their DWSRF project questionnaires through an open call for projects that was distributed to all public water systems, area development districts, mayors, county judges executive, and the engineering community. The Call for Projects submittal deadline was extended from January 6, 2010 to

March 12, 2010 to allow potential applicants additional time to submit project questionnaires for green projects or those projects that may qualify for additional subsidization. The Call for Projects letters are attached in Appendix C. Only questionnaires submitted through the Call for Projects process were considered for funding and placement on the Project Priority List. Each project was scored and a ranked list of projects was created for inclusion in this 2011 IUP.

Those applicants ranking high on the 2011 Project Priority List will be notified of their status on the list and be invited to submit a complete loan application package, including all supporting documentation required for consideration for financial assistance from the DWSRF. Applicants will be given 45 days from the date of the request to meet the application deadline. Those applicants that do not submit a loan application, complete with Kentucky e-Clearinghouse comments, by the 45-day deadline will be bypassed and the next eligible project will be invited with 45 days to submit a loan application.

Upon submittal of a complete loan application, the documents will be reviewed and a credit analysis performed. For those qualifying applicants, a loan request will be taken before the KIA Board for financial review and conditional approval. Upon board approval, a conditional binding commitment letter will assure that funding will be dedicated to that project for a period of 12 months provided all of the conditions of the loan are met.

Within three months of receipt of the conditional binding commitment letter, the applicant is required to have performed the following:

1. Meet with DWSRF personnel to discuss the environmental and technical requirements; and

2. Submit environmental information that conforms to the DOW's environmental review process, which includes:

    a. Submission of the Environmental Information Document (EID) or Project Narrative for Categorical Exclusion (CE)
    b. Federal cross-cutting agency scoping letters and responses.

Within nine months of receipt of the conditional binding commitment letter, the applicant is required to have accomplished the following:

1. Meet the environmental review requirement of the DWSRF;

2. Receive DOW approval for plans and specifications, including authorization to advertise the project to bid; and

3. Conduct bid opening and tentative award.

All DWSRF program requirements must be met by the term outlined in the conditional binding commitment letter. A one-time extension of up to six months for approved applicants that experience extenuating circumstances may be granted. Those applicants not

approved for an extension are no longer eligible for funding out of the current funding cycle and must re-apply during the next call for projects.

The 2012 IUP process will begin in October 2010. The call for projects will be open during October, November and December 2010, at which time project questionnaires will be accepted for the SFY 2012 funding cycle. The following schedule will apply:

2012 Call for Projects	**October 1, 2010- December 31, 2010**
Creation of Project Priority List and Capacity Development Review	**January 1, 2011- March 31, 2011**
Public Notice Period for IUP	**May 1, 2011- June 1, 2011**
Finalize 2012 IUP and send to EPA	**Prior to June 30, 2011**

Email notifications will be sent in September 2010 to all water utilities, area development districts, mayors, county judge executives, and Kentucky Society of Professional Engineers.

Small Systems

To the extent possible, a minimum of 15 percent of all funds credited to the project fund will be used to assist systems serving fewer than 10,000 persons. The Project Priority List contains the population for each project. Therefore, the number of small systems receiving funding can be easily tracked.

Bypass Process

A high-priority project that does not demonstrate capacity or is not ready to proceed within the given timeframe will be bypassed. A bypassed project will become ineligible for DWSRF 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 the receipt of the first round applications, KIA does not have sufficient applications to meet the GPR or additional subsidization requirements, project will be by-passed until a qualifying GPR or additional subsidization project is reached.

Emergency Projects

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

Refinancing

Refinancing of existing projects will be allowed only for debt incurred after July 1993. Any project requesting to refinance existing debt must be on the project priority list in a position high enough to be eligible to receive funding and meet all program requirements. Refinancing will only be offered for terms up to 20 years from the original debt issuance or the remaining useful life of the equipment, whichever is less.

III. 2011 SET-ASIDE ACTIVITIES

The federal authority to establish assistance priorities and to carry out oversight and related activities of the DWSRF program, other than financial administration of the fund, resides with the EEC after consultation with other appropriate state agencies. Federal regulations allow states to "set aside" up to 31 percent of each capitalization grant for various programs, aside from project loans, that support the act. Kentucky will set aside 27.3 percent of the 2010 capitalization grant. The following is a list of Kentucky's set-aside allotments:

	KY's 2010 Allotment
DWSRF Program Administration (4% maximum)	4%
State Program Management (10% maximum)	10%
Small Systems Technical Assistance (2% maximum)	2%
State and Local Assistance (15% maximum)	11.3%
Total	27.3%

A. DWSRF Program Administration - Sect. 1452(g)(2) – four percent maximum

Section 1452(g)(2) of the SDWA allows up to four percent of a DWSRF capitalization grant to be set aside for administration of the DWSRF program.

Kentucky will set aside four percent from the 2010 capitalization grant for administration. The percent of each grant designated for the DOW and designated for the KIA is agreed upon in Memorandum of Agreement between the two parties.

The EEC and KIA conduct regular activities to develop and maintain the DWSRF program. These include reporting activities, payment processing, pre-application activities, travel, application review, engineering review, environmental review, project management, program coordination, construction progress inspection, training, evaluating infrastructure needs for the Needs Survey; portfolio management, audit management, cash management, securities management, financial management, financial analysis and capacity review.
Funds may be used for travel and equipment as specified in work plans. Funds not obligated within one fiscal year of receipt of a capitalization grant award shall be reserved for use in future years.

B. State Program Management – Sect. 1452(g)(2)(A) - 10 percent maximum

Kentucky will set-aside 10 percent for PWSS

The act allows a state to set aside 10 percent of its annual capitalization grant to support other program initiatives of the SDWA, which include:

- Supplementing the Public Water System Supervision (PWSS) Program
- Providing Technical Assistance through Source Water Protection
- Development/Implementation of a Capacity Development Program
- Development/Implementation of an Operator Certification Program

The program set-asides require an additional one-to-one state match. Thus, money diverted to these set-asides will demand a heavier investment of state funds. Kentucky will set aside 10 percent from the 2010 capitalization grant to supplement the DOW PWSS program and to support the Division of Compliance Assistance, Operator Certification Program, to include:

1. Supporting the compliance activities associated with the drinking water program, including receipt and review of data, issuing and tracking public notifications and Consumer Confidence Reports, enforcement activities, database management, providing technical and compliance assistance and conducting inspections and sanitary surveys.

2. Other activities include: revising and developing regulations, preparing primacy applications, preparing and issuing annual compliance reports; enforcement activities; conducting training events for drinking water personnel and strengthening inter-agency relationships as they relate to the program.

3. Providing training and certification exam opportunities to operators and potential operators. Auditing existing exam questions and developing new exams to ensure that that the testing process is up to date with current trends and regulations and is as relevant as possible.

Funds may be used for travel and equipment as specified in work plans. Funds not obligated within one fiscal year of receipt of a capitalization grant award shall be reserved for use in future years.

C. Technical Assistance – Sect. 1452(g)(2)(D) - two percent maximum

Kentucky will set-aside two percent for Technical Assistance

The act allows a state to set aside two percent of its annual capitalization grant to support technical assistance initiatives of the SDWA such as the following: compliance with the Stage 2 and LT2 early implementation requirements; groundwater under the direct influence of surface water determinations; small system applicability under the SDWA; treatment and distribution optimization; and sanitary survey implementation for very small

public water systems. Kentucky will set aside two percent from the 2010 capitalization grant to provide technical assistance to small systems.

Contractual services may also be acquired for the following initiatives:

- Targeted, on-sight training of water plant and distribution system operators; and
- Very small system compliance assistance.

Funds may be used for travel and equipment as specified in work plans. Funds not obligated within one fiscal year of receipt of a capitalization grant award shall be reserved for use in future years.

D. State/Local Assistance – Section 1452(k) - 15 percent total, 10 percent maximum for any one activity

Kentucky will set-aside 10 percent for Capacity Development and 1.3 percent for the Source Water Protection

Section 1452(k) of the SDWA allows up to 15 percent of the DWSRF capitalization grant to be set aside to support local assistance and other program initiatives of the SDWA with a 10 percent maximum allotment for the individual program areas as outlined below:

- Loans for source water protection through land acquisition or conservation easements
- Loans for Source Water Quality Protection
- Technical, managerial, or financial assistance via the Capacity Development Program
- Source Water Protection Program
- Wellhead Protection Program

Kentucky will set aside 10 percent from the 2010 capitalization grant to support technical, managerial or financial assistance for the Capacity Development Program as allowed under 1452(k)(2)(C).

- Activities may include, but are not limited to, identification of PWSs that may need assistance obtaining or maintaining financial, managerial, or technical capacity to operate in compliance with the SDWA; developing water loss/unaccounted-for water documents; capital improvement and asset management planning; developing and assisting with water system management training events and enhanced tracking of technical/managerial/financial information. EEC may limit the amount of participation for contracts funded by these activities.

Kentucky will set aside 1.3 percent from the 2010 capitalization grant to support Source Water Protection as allowed under 1452(k)(2)(D).

Activities may include, but are not limited to:

- Support U. S. Geological Survey stream gauging activities for source water assessment and protection purposes.

Funds may be used for travel and equipment as specified in work plans. State/Local Assistance Program funds for Capacity Development or the Source Water Assessment Program, not obligated within four fiscal years of receipt of the capitalization grant shall be transferred to the construction loan account.

IV. PUBLIC REVIEW AND COMMENT

The 2011 DWSRF IUP including the project priority list will be available for public review and comment on the Division of Water website at www.water.ky.gov and on the Kentucky Infrastructure Authority website at www.kia.ky.gov. After being available for public comment from August 5, 2010 through September 7, 2010, a public meeting to discuss the plan contents will be held on September 7, 2010, at 1:30 P.M. EST at the offices of the Kentucky Infrastructure Authority located at 1024 Capital Center Drive, Suite 340, Frankfort, Kentucky.

APPENDIX A

PRIORITY SYSTEM GUIDANCE

PRIORITY SYSTEM GUIDANCE

PURPOSE

The DWSRF priority system was developed to prioritize eligible projects for funding from the DWSRF. The DWSRF funds are intended to facilitate the ability of a PWS to obtain and maintain financial, managerial and technical capabilities for compliance with the SDWA. This includes compliance with existing and future national drinking water standards or other activities to significantly further the health protection objectives of the SDWA.

METHODOLOGY

The structure of the priority system incorporates new rules and initiatives promulgated since the 1996 amendments to the SDWA. The amendments encompass financial, managerial and technical capacity; Surface Water Treatment Rule; Total Coliform Rule; Lead and Copper Rule; Asbestos Standard; Enhanced Surface Water Treatment Rule; Disinfectants and Disinfection Byproducts Rule; Groundwater Rule; and best available and affordable technology. Projects are prioritized based on a priority formula.

PRIORITY FORMULA

Violations of drinking water standards occur primarily as a result of inadequate infrastructure or poor operation. A proactive approach was developed to set priority based on infrastructure needs to achieve and maintain compliance with National Drinking Water Standards or otherwise promote the public health objectives of the SDWA.

APPLYING THE PRIORITY SYSTEM TO PROJECTS

The DOW Water Infrastructure Branch assigns points in each of eight categories: Regionalization, Public Health Criteria- Treatment, Public Health Criteria- Distribution, Extension of Service, Security, Compliance with Enforcement Action, Public Water System Financial Need, Sustainable/Green Infrastructure Incentives (see Table 1, DWSRF Ranking Criteria). Points are based on information supplied by PWSs, their consultants, and local area development districts in the Project Questionnaire form. The project priority points will be the sum of all points assigned in each of the eight categories.

TIE BREAKER

The tie breaker was developed to consider the following three factors: maintaining priorities to be funded in the order as set forth by the priority formula, expending DWSRF dollars to maximize the benefit toward compliance with the SDWA, and providing funding of projects that are affordable to the households that benefit from the project.

The tie breaker first considers the size of the PWS. PWSs that serve less than 10,000 people are prioritized higher than those serving populations of 10,000 or more. The tie breaker then calculates the DWSRF project cost per household that benefits from the project and assigns the highest priority to the project with the lowest cost per household.

I. REGIONALIZATION

This category also allows affordable alternatives for a PWS to obtain and maintain financial, managerial and technical capabilities to comply with the SDWA through mergers, interconnections, and emergency planning.

(a) Elimination of a Public Water System (PWS) through a merger or acquisition (elimination of a PWSID). 50 pts.

Under this category, points will be provided to projects that promote regionalization. Section (a) applies points to water systems that are absorbing another water system, with its own water supply and/or distribution system, that may not be financially, managerially, or technically capable of complying with the SDWA. This is not the same as an interconnection where two or more water systems provide potable water supplies to one another, but retain their own individual entities and PWSIDs. The merger must result in the dissolution of the PWSID of the receiving PWS. (Example: Sun Water Works is extending a transmission main to Beach Water Works because their wells are contaminated. Under formal agreement, the entire Beach Water Works service area will now be converted to the Sun Water Works service area and the wells and treatment plant will be closed. Beach Water Works will no longer be in the business of producing water or maintaining a distribution system and therefore will not have a PWSID number.)

(b) Elimination of a water treatment plant as a result of an interconnection 25 pts.

This section applies points to a project that will result in the elimination of a water treatment plant, as a result of an interconnection, that is in need of rehabilitation, modification or expansion to comply with the SDWA. This is different from a merger in that both utilities will remain solvent with individual PWSIDs. (Example: Coral Water Works is extending a transmission main to the Reef Water Works system that will allow the aging water treatment plant to be closed down. Coral Water Works will provide all of the water to the Reef Water Works distribution system under a purchase contract, however, Reef Water Works will remain in business as a distribution system only and will retain a PWSID number.)

(c) Acquisition of a supplemental potable water supply 15 pts.
(d) Replacement or supplemental raw water supply 15 pts.
(e) Acquisition of an emergency potable water supply 15 pts.

A PWS is responsible for ensuring, even in drought conditions, that sufficient quantity and quality of raw water are available to meet existing demands based on water treatment capabilities. This section provides points to projects that are securing supplemental potable water supplies rather than constructing a new water treatment plant; or to projects that look to replace an existing raw water supply rather than provide additional treatment. This section also provides points to those utilities that protect public health by planning for emergencies though an interconnection with a neighboring utility.

RESTRICTIONS: Reservoirs, dams, dam rehabilitation, and water rights are not eligible for funding from the DWSRF.

II. PUBLIC HEALTH CRITERIA- TREATMENT

This category provides points to treatment projects that will provide improved compliance with the National Drinking Water Standards of the SDWA.

(a) Treatment Facilities
(i) Construction of a new water treatment plant or expansion 20 pts.
(ii) Rehabilitation and/or upgrade of the water treatment plant 10 pts.
(iii) Redundant processes/emergency power generators 10 pts.

New water treatment facilities or water treatment plant expansions are limited to 20 points under II(a)(i), unless a need for best available technology is demonstrated, based on raw or finished water quality or other extenuating circumstances. Additional points may be applied under II(b), II(c), or II(d) for such cases.

Water treatment plant rehabilitation projects are limited to 10 points under II(a)(ii), unless the proposed project is needed to acquire or maintain compliance with the National Drinking Water Standards of the SDWA.

Redundant processes and/or emergency power generators at the treatment facilities will receive 10 pts. per unit.

(b) Treatment- Acute Public Health Risk

(i) Infrastructure options to meet Cryptosporidium removal/inactivation requirements 25 pts.

(ii) Modifications to meet CT inactivation requirement 20 pts.

Examples of treatment projects under II(b)(i) include, but are not limited to, installation of membrane technology, additional filtration, improvements to sedimentation basins such as softening or construction of a pre-sedimentation basin, ozone, UV, chlorine dioxide, etc.

Section II(b)(ii) refers to disinfection techniques needed to comply with CT inactivation requirements of the Surface Water Treatment Rule and the Groundwater Rule. Examples of treatment projects under II(b)(ii) include, but are not limited to, alternate disinfection feed points, baffling of clearwells, etc.

(c) Treatment- Chronic Public Health Risk

(i) Modifications to address disinfection byproducts requirements 20 pts.

(ii) Modifications to address VOC, IOC, SOC, radionuclide requirements 15 pts.

Examples of treatment projects under II(c)(i) include, but are not limited to, changing disinfectants, modification of disinfection feed points, Granular Activated Carbon (GAC), coagulation, etc.

Examples of treatment projects under II(c)(ii) include, but are not limited to, aeration, improved coagulation, non-conventional treatments, air stripping, new chemical feed, etc.

(d) Treatment- Infrastructure to address Secondary Contaminants 10 pts.

Examples of treatment projects under II(d) to address Secondary Contaminants include, but are not limited to, water softening, sedimentation basin covers, corrosion control systems, green sand filters, new chemical feed system for manganese removal, etc.

RESTRICTIONS: Points will be assigned to project components under II(b), (c), and (d) where a need for the project can be adequately demonstrated. A history of non-compliance may be required for certain treatment applications in order to receive points. In some cases, specific monitoring must warrant the need for the project in order to receive points.

III. PUBLIC HEALTH CRITERIA- DISTRIBUTION

This category provides points to distribution projects that will provide improved compliance with the National Drinking Water Standards of the SDWA.

(a) Hydraulics/Storage

(i) Replacement of inadequately sized waterlines	***10 pts.***
(ii) Replacement of lines with leaks, breaks, or restrictive flows due to age	***10 pts.***
(iii) Construction of a new water storage tank	***10 pts.***
(iv) Rehabilitation of a water storage tank or pump station	***10 pts.***

Examples of projects under this category include waterline replacements, new water storage tank/s, rehabilitation of a storage tank or pump station, etc. The applicant must be prepared to demonstrate loss of pressure, inadequate storage, or significant water loss to support the need for the project.

(b) Finished Water Quality

(i) Infrastructure to address inadequate turnover	***10 pts.***
(ii) Infrastructure to address inability to maintain disinfection residual	***10 pts.***
(iii) Replacement of lead or asbestos-cement waterlines	***10 pts.***
(iv) Redundant equipment/emergency power generators	***10 pts.***

Examples include new pump stations, chlorine booster pump stations, looping of waterlines to improve flow, replacement of asbestos-cement waterlines. Those utilities unable to comply with the DBP Rule, Lead and Copper Rule, or the Asbestos Standard will be given first priority over replacement projects with no violations.

Projects to provide redundancy or emergency power within the distribution system will receive 10 pts. per unit.

RESTRICTIONS:
A waterline replacement project cannot receive points for III(a)(i), III(a)(ii), and III(b)(iii) cumulatively for one alignment. Identify in the Questionnaire, the primary reason for the replacement and select accordingly. If a project consists of multiple replacements throughout an area, each alignment can be assigned 10 points for either inadequately sized lines; leaks, breaks or restrictive flows; or asbestos cement or lead waterlines. For example:

Project A consists of a county-wide waterline replacement project broken down as follows:

▪ *Replacement of 2,000 LF of undersized waterline along Riley Road*	*10 pts.*
▪ *Replacement of 3,000 LF of undersized waterline along Fair Road*	*10 pts.*
▪ *Replacement of 1,000 LF of asbestos-cement waterline along Oaks Rd.*	*10 pts.*
	30 pts.

On the contrary, if a waterline is both undersized and is composed of asbestos-cement (within the same alignment), only 10 points could be applied, as follows:

▪ *Replacement of 2,000 LF of undersized waterline along KY Road*	*10 pts.*
▪ *Replacement of 2,000 LF of asbestos-cement waterline along KY Road*	*0 pts.*
	10 pts.

IV. EXTENSION OF SERVICE

(a) Waterline extensions to serve existing households with inadequate domestic water supplies such as contaminated wells or cisterns (up to 10 existing homes) receive 20 pts. and 2 additional points for every additional 10 households thereafter.

This section applies points to waterline extension projects. The waterline extension must be for the use of existing households and to serve areas where existing households have insufficient financial and technical

capabilities to maintain water supply systems that comply with the SDWA. Twenty points will be applied to a waterline extension project under this category for the first 10 households. Every 10 households thereafter will accumulate two additional points, to be added to the total score, for example:

Project A consists of a county-wide waterline extension project, extending approximately 40,000 LF of waterlines to 150 existing homes throughout the county.

- *First 10 households* *20 pts.*
- *140 remaining households (14*2pts=28pts)* *28 pts.*

Total: 48 pts.

RESTRICTIONS:
The DWSRF cannot fund waterline extension projects to primarily accommodate growth. The need must apply to at least 50 percent of the households potentially affected by the project.

V. SECURITY

(a) Measures taken at the water treatment plant facilities or within the distribution system 5 pts.

This category allows points to be applied to a project for measures taken at the physical location of the water treatment plant facilities or within the distribution system, with the intent to prevent, deter, and readily respond to terroristic acts. Examples include, but are not limited to, fencing, video surveillance of treatment and/or storage facilities, alarms, signs, lock gates, and radio intercom systems

RESTRICTIONS:
Salaries for security personnel are not eligible for funding through the DWSRF.

VI. COMPLIANCE WITH ENFORCEMENT ACTION

(a) Entities with executed Agreed Orders or Administrative Orders or other enforcement actions 15 pts.

The proposed project must improve a PWSs ability to achieve capacity to comply with existing and future national drinking water standards. The Agreed Order or other enforcement action must outline remedial measures with deadlines for return to compliance. The proposed project must rectify the problem/s within the PWS that resulted in the need for the enforcement action. In order for a project to receive the 15 points allotted in this category, the Agreed Order or other enforcement action must be eligible for termination upon completion of the project.

VII. PUBLIC WATER SYSTEM FINANCIAL NEED

(a) Borrowers with a median household income (MHI) less than $26,937 15 pts.
(b) Borrowers with a MHI between $33,672 and $26,937 10 pts.

VIII. SUSTAINABLE/GREEN INFRASTRUCTURE INCENTIVES

(a) Energy Efficiency

(i) Project reduces energy costs and consumption by replacing, reducing and/or controlling high-use operations used in treatment, pumping, storage, and support systems 5 pts.

Examples include, but are not limited to, variable frequency drive pumps, energy efficient pumps, energy efficient building materials for water treatment plant structures, etc.

(ii) Project utilizes SCADA (Supervisory Control and Data Acquisition) system, which performs data collection and control at the supervisory level that is placed on top of a real-time control system to reduce energy consumption and enhance process operation 5 pts.

(iii) Facility site planning includes facilities and building components designed to maximize energy efficiency 3 pts.

Examples include buildings with south-facing windows to provide good daylight in order to maximize natural lighting, planting of trees to shade at least 50 percent of roofs and hardscapes within 10 yrs., roofs and hardscapes made with high solar reflectance to reduce heat island effects (light colors, "white" roofing), geothermal heating/cooling or other high efficiency HVAC, or alternative energy source.

(iv) Project/System has conducted an energy audit and/or energy reduction/management plan 5 pts.

An energy management plan may include:

- Creating a system to track energy usage and costs
- Planning for the upgrade of equipment to energy efficient models (ie: conventional gas or electric HVAC to geothermal or solar; upgrade to hybrid or biofuel vehicles)
- Development of in-house energy management training for operators and staff

(b) Water Efficiency/Green Infrastructure

(i) Use of improved technologies and practices to deliver equal or better services with less water 5 pts.

Examples include:

- Purchase of water efficient fixtures, fittings, equipment, or appliances
- Purchase of leak detection devices and equipment
- Purchase of water meters, meter reading equipment and systems, and waterline
- Construction and installation activities that implement capital water efficiency projects

(ii) Implementation of a water conservation plan 3 pts.

(iii) Implementation of infrastructure practices that provide pollutant removal benefits for both surface and groundwater sources 5 pts.

This category provides incentive points to projects that include erosion control methods and other practices that preserve and enhance riparian buffers and wetlands. Wetlands and riparian buffers improve water quality, alleviate flooding, recharge groundwater and reduce greenhouse gases via natural processes. Incentive points will be applied to projects that net a positive impact on wetlands, stream banks, riparian zones, floodplains, and both surface and ground drinking water sources.

(iv) Low impact construction technology is used to minimize impacts to the existing surface 5 pts.

The installation or rehabilitation of water distribution systems by open-cut construction can cause significant disturbance. Utilities that use low-impact technologies to complete pipe installation reduce environmental impacts, soil erosion, traffic obstructions, and in some cases construction costs. Examples of low-impact pipe installation/rehabilitation technologies include:

- Pipe bursting
- Cured in place pipe (CIPP)
- Slip-lining
- Horizontal directional boring
- Bore and jack
- Robotic lateral methods
- Fold and form pipe
- Spiral wound

(v) Environmentally innovative technologies/ other (specify) 5 pts.

Points may be applied to projects in this category that demonstrate new and/or innovative approaches to managing water resources in a more sustainable way, including projects that achieve pollution prevention or pollutant removal with reduced costs. Participants are encouraged to introduce additional sustainable infrastructure/green technologies for consideration.

(c) Asset Management

(i) System has mapped its treatment, distribution, and storage infrastructure and analyzed conditions, including risks of failure, expected dates of renewals and ultimate replacements, and sources and amounts of revenues needed to finance operations, maintenance, and capital needs (e.g., Capital Improvement Plan (CIP)) 5 pts.

(ii) System has developed appropriate rate structures to build, operate, and maintain the water works 3 pts.

(iii) System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure 5 pts.

To obtain points under this category, a copy of a CIP or similar document must be submitted upon request. Additionally, the applicant must be prepared to provide proof of revenues and infrastructure savings upon request. For more guidance on asset management, contact the Capacity Development Section of the KY Division of Water at (502) 564-3410.

DWSRF Ranking Criteria

	I. Regionalization	Possible Points
(a)	Elimination of a Public Water System (PWS) through a merger or acquisition (*Elimination of a PWSID)*.	50
(b)	Elimination of a water treatment plant through an interconnection	25
(c)	Acquisition of a supplemental potable water supply	15
(d)	Replacement or supplemental raw water source	15
(e)	Acquisition of an emergency potable water supply	15

	II. Public Health Criteria, Treatment	Possible Points
(a)	Treatment Facilities (i) Construction of a new water treatment plant or expansion (ii) Rehabilitation and/or upgrade of the water treatment plant (iii) Redundant processes/ emergency power generators	 20 10 10
(b)	Treatment- Acute Public Health Risk (i) Infrastructure options to meet Cryptosporidium removal/ inactivation requirements (ii) Modifications to meet CT inactivation requirement	 25 20
(c)	Treatment- Chronic Public Health Risk (i) Modifications to address disinfection byproducts requirements (ii) Modifications to address VOC, IOC, SOC, radionuclide requirements	 20 15
(d)	Treatment- Infrastructure to address Secondary Contaminants	10

	III. Public Health Criteria, Distribution	Possible Points
(a)	Hydraulics/Storage (i) Replacement of inadequately sized waterlines (ii) Replacement of lines with leaks, breaks, or restrictive flows due to age (iii) Construction of a new water storage tank (iv) Rehabilitation of a water storage tank or pump station	 10 10 10 10
(b)	Finished Water Quality (i) Infrastructure to address inadequate turnover (II) Infrastructure to address inability to maintain disinfection residual (III) Replacement of lead or asbestos-cement waterlines (IV) Redundant equipment/emergency power generators	 10 10 10 10

	IV. Extension of Service	Possible Points
(a)	Waterline extensions to serve existing households with inadequate domestic water supplies such as contaminated wells or cisterns (Up to 10 existing homes) Two additional points for every additional 10 households thereafter	20 2

	V. Security	Possible Points
(a)	Measures taken at the water treatment plant facilities or within the distribution system	5

	VI. Compliance With Enforcement Action	Possible Points
(a)	Entities with executed Agreed Orders, Administrative Orders or other enforcement actions (*Project must address the terms of the Agreed Order)*	15

	VII. Public Water System Financial Need	Possible Points
(a)	Borrowers with a MHI less than $26,937	15
(b)	Borrowers with a MHI between $33,672 and $26,937	10

	VIII. Sustainable/ Green Infrastructure Incentives	Bonus Points
(a)	Energy Efficiency (i) Project reduces energy costs and consumption by replacing, reducing and/or controlling high-use operations used in treatment, pumping, storage, and support systems (ii) Project utilizes SCADA (Supervisory Control and Data Acquisition) system, which performs data collection and control at the supervisory level that is placed on top of a real-time control system to reduce energy consumption and enhance process control (iii) Facility site planning includes facilities and building components designed to maximize energy efficienc (iv) Project/System has conducted an energy audit and/or energy reduction plan	 5 5 3 5
(b)	Water Efficiency/Green Infrastructure (i) Use of improved technologies and practices to deliver equal or better services with less water (ii) Implementation of a water conservation plan (iii) Implementation of infrastructure practices that provide pollutant removal benefits for both surface and groundwater sources (iv) Low impact construction technology is used to minimize impacts to the existing surface (v) Environmentally innovative technologies/ other (specify)	 5 3 5 5 5
(c)	Asset Management (i) System has mapped its treatment, distribution, and storage infrastructure and analyzed conditions, including risks of failure, expected dates of renewals and ultimate replacements, and sources and amounts of revenues needed to finance operations, maintenance and capital needs (e.g., Capital Improvement Plan). (ii) System has developed appropriate rate structures to build, operate, and maintain the water works (iii) System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure	 5 3 5

APPENDIX B

2011 FUNDING CYCLE

PROJECT PRIORITY LIST

Rank	Score	DWSRF#	WRIS#	Apply Entity	Brief Project Description	Total Project Cost	Total Requested Amount	Invited Amount	Cumulative Invited	MHI	Principal Forgiveness Amount (35%)	Cumulative Principal Forgiveness	GPR	GPR Amount	Categorically Green?	Population
1	216	DWL1147	WX21117208	Northern Kentucky Water District	Advanced Treatment Project	$96,327,000	$96,327,000	$8,000,000	$8,000,000	43,906			G	$10,262,000	No	201,663
2	166	DWL1174	WX21025012 WX21025013 WX21025099	Breathitt County Water District	KY 1812, KY 540, KY 378 & KY 394 Frozen Area Waterline Extension	$8,000,000	$4,000,000	$4,000,000	$12,000,000	19,155	$1,400,000	$1,400,000				1,316
3	135	DWL1193	WX21171027	Monroe Co. Water District	Monroe County Regional Water Treatment Plant	$12,000,000	$4,000,000	$4,000,000	$16,000,000	22,356	$1,400,000	$2,800,000				9,908
4	126	DWL1155	WX21027033	City of Hardinsburg	Waterline Extensions-Area 6 & Area 8	$4,000,000	$4,000,000	$4,000,000	$20,000,000	26,447	$1,400,000	$4,200,000				13,312
5	108	DWL1128	WX21047027 WX21047013 WX21047004 WX21047003	Hopkinsville Water Environment Authority	Crofton Waterline Extension, Replacement & System Improvements	$23,500,000	$4,000,000	$4,000,000	$24,000,000	30,419						36,102
6	103	DWL1137	WX21093020	Hardin Co. Water District No. 1	New Elevated Storage Tank & Distribution System Upgrades	$8,600,000	$4,000,000	$4,000,000	$28,000,000	37,744			G	$640,000	No	29,700
7	102	DWL1146	WX21001025	Adair County Water District	ACWD-Phase 11 Water System Extensions & Improvements	$3,439,000	$1,500,000	$1,500,000	$29,500,000	24,055	$525,000	$4,725,000				17,226
8	100	DWL1195	WX21225034	Union Co. Water District	Union Co./Sturgis Interconnect	$2,986,450	$2,986,450	$2,986,450	$32,486,450	35,018						6,590
9	95	DWL1162	WX21211068	Shelbyville Municipal Water & Sewer Commission	I-64 Pipeline	$51,500,000	$4,000,000	$4,000,000	$36,486,450	37,607						23,499
10	90	DWL1141	WX21081019	City of Williamstown	US 25N Water Main Replacement Phase II & III	$2,250,000	$2,250,000	$2,250,000	$38,736,450	33,750						5,495
11	85	DWL1158	WX21151033	Madison Co. Utilities District	Madison Co. Improvements-Phase III	$1,190,225	$940,225	$940,225	$39,676,675	32,861			G	$1,190,225	No	28,871
12	80	DWL1184	WX21177019	Muhlenburg County Water District No.1	Emergency Standby Generators	$1,110,000	$1,110,000	$1,110,000	$40,786,675	28,566						18,064

Rank	Score	DWSRF#	WRIS#	Apply Entity	Brief Project Description	Total Project Cost	Total Requested Amount	Invited Amount	Cumulative Invited	MHI	Principal Forgiveness Amount	Cumulative Principal Forgiveness	GPR	GPR Amount	Categorically Green?	Population
13	75	DWL1135	WX21183020	City of Hartford	Pre-treatment Basin and System Improvements	$125,907	$125,907	$125,907	$40,912,582	24,958	$44,067	$4,769,067				3,119
14	70	DWL111	WX21133101	City of Whitesburg	Whitesburg Water Treatment Plant Expansion	$5,000,000	$4,000,000	$4,000,000	$44,912,582	28,750			G	$308,900	No	3,861
15	70	DWL1114	WX21125562	Wood Creek Water District	WCWD Generators	$1,400,000	$1,400,000	$1,400,000	$46,312,582	27,015						13,953
16	68	DWL1172	WX21025015	Breathitt County Water District	KY 1098 South Fork Waterline Project	$1,500,000	$1,500,000	$1,500,000	$47,812,582	19,155	$525,000	$5,294,067				1,316
17	68	DWL1175	WX21025021	Breathitt County Water District	KY 3237 Canoe Road, KY 315, KY 28 Waterline Extension	$2,000,000	$2,000,000	$2,000,000	$49,812,582	19,155	$700,000	$5,994,067				1,316
18	65	DWL1152	WX21083055	Symsonia Water District	Water Tank & Distribution Project	$1,250,000	$655,000	$655,000	$50,467,582	30,874						852
19	65	DWL1124	WX21081306	Bullock Pen Water District	BPWD Waterline Improvement- Phase 2	$560,380	$560,380	$560,380	$51,027,962	38,438			G	$560,380	No	19,715
20	65	DWL1126	WX21015006	Bullock Pen Water District	BPWD Boone County Improvements	$1,549,600	$1,549,600	$1,549,600	$52,577,562	38,438						19,715
21	60	DWL1171	WX21025014	Breathitt County Water District	KY 2436 Airport Road Waterline Extension	$500,000	$500,000	$500,000	$53,077,562	19,155	$175,000	$6,169,067				1,316
22	60	DWL1127	WX21121550	Barbourville Utility Commission	Raw Waterline Upgrades	$6,000,000	$3,000,000	$3,000,000	$56,077,562	13,297	$1,050,000	$7,219,067				17,279
23	60	DWL1138	WX21093040	Hardin Co. Water District No. 1	HCWD #1 New Intake & Treatment Upgrades	$6,115,410	$4,000,000	$4,000,000	$60,077,562	37,744			G	$146,000	Yes	29,700
24	60	DWL1161	WX21093042	Louisville Water Company	Fort Knox/Hardin Co. Regional Water Supply	$4,500,000	$2,250,000	$2,250,000	$62,327,562	28,843						730,611
25	58	DWL1132	WX21163012	City of Brandenburg	Brandenburg Water Treatment Plant Expansion	$3,100,000	$3,100,000	$3,100,000	$65,427,562	36,351			G	$1,190,000	No	3,828
26	55	DWL1179	WX21007022 WX21007020	City of Barlow	New Clearwell Construction Project & Water Tank Refurbishment	$230,000	$230,000	$230,000	$65,657,562	23,333	$80,500	$7,299,567				1,069

Rank	Score	DWSRF#	WRIS#	Apply Entity	Brief Project Description	Total Project Cost	Total Requested Amount	Invited Amount	Cumulative Invited	MHI	Principal Forgiveness Amount	Cumulative Principal Forgiveness	GPR	GPR Amount	Categorically Green?	Population
27	55	DWL1134	WX21179014	City of Bloomfield	Bloomfield Water System Improvements	$800,000	$800,000	$800,000	$66,457,562	33,393						5,643
28	52	DWL1173	WX21025008	Breathitt County Water District	KY 30 East and KY 542 Lambric Waterline Extension	$1,500,000	$1,500,000	$1,500,000	$67,957,562	19,155	$525,000	$7,824,567				1,316
29	50	DWL1168	WX21175016	City of West Liberty	W. Liberty Alternative Power Source for WTP	$550,000	$550,000	$550,000	$68,507,562	21,429	$192,500	$8,017,067				2,655
30	50	DWL1178	WX21177012	Muhlenburg County Water District No.3	Water Tank Improvements Project	$360,000	$360,000	$360,000	$68,867,562	28,566						6,293
31	50	DWL1156	WX21127011	City of Louisa	Water Storage Tank Interconnection	$375,000	$375,000	$375,000	$69,242,562	16,690	$131,250	$8,148,317	G			7,511
32	50	DWL1133	WX21081304	Bullock Pen Water District	BPWD Grant County Improvements	$1,663,000	$1,663,000	$1,663,000	$70,905,562	38,438						19,715
33	50	DWL1150	WX21113028 WX21113027	City of Nicholasville	Nicholasville 20" Backbone Watermain Extension and Elevated Storage Tank Project	$4,154,018	$4,154,018	$4,154,018	$75,059,580	37,462						20,552
34	50	DWL11110	WX21107038	City of Madisonville	North Water Pressure Zone	$1,605,000	$460,000	$460,000	$75,519,580	31,097						28,102
35	48	DWL1194	WX21191507	Pendleton Co. Fiscal Court	Pendleton Co. & E. Pendleton Water Districts Joint Waterline Extension	$1,874,500	$1,874,500	$1,874,500	$77,394,080	38,125						5,198
36	45	DWL112	WX21149041	City of Sacramento	Sacramento-Calhoun Interconnect	$527,000	$527,000	$527,000	$77,921,080	23,889	$184,450	$8,332,767				2,239
37	45	DWL1159	WX21045011	City of Liberty	North Liberty Water Storage Tank	$1,000,000	$1,000,000	$1,000,000	$78,921,080	18,525	$350,000	$8,682,767				2,946
38	45	DWL1169	WX21151017	Southern Madison Water District	Scaffold Cane Area Waterline Extension Project	$600,000	$600,000	$600,000	$79,521,080	32,861						13,552
39	45	DWL1199	WX21049005	Winchester Municipal Utilities	Winchester Raw Water Pump Stat. /Main Upgrade	$6,300,000	$4,000,000	$4,000,000	$83,521,080	31,254						30,707

Rank	Score	DWSRF#	WRIS#	Apply Entity	Brief Project Description	Total Project Cost	Total Requested Amount	Invited Amount	Cumulative Invited	MHI	Principal Forgiveness Amount	Cumulative Principal Forgiveness	GPR	GPR Amount	Categorically Green?	Population
40	45	DWL11107	WX21227049	Bowling Green Municipal Utilities	New Backwash System	$850,000	$850,000	$850,000	$84,371,080	29,047						54,945
41	40	DWL11114	WX21009039	Caveland Environmental Authority	Cave City Water Tank & Line Work	$2,200,000	$1,000,000	$1,000,000	$85,371,080	31,240						823
42	40	DWL1167	WX21175019	City of West Liberty	W. Liberty Riverside Dr. Watermain Replacement	$350,000	$350,000	$350,000	$85,721,080	21,429	$122,500	$8,805,267	G			2,655
43	40	DWL119	WX21021023 WX21021022 WX21021018 WX21021024	Parksville Water District	Water System Improvements Project	$1,025,000	$1,025,000	$1,025,000	$86,746,080	35,241			G			4,589
44	40	DWL1118	WX21125561	West Laurel Water Association	Parker Road & Hwy 192 Transmission Main	$2,000,000	$2,000,000	$2,000,000	$88,746,080		$700,000	$9,505,267				14,099
45	40	DWL1121	WX21125512	West Laurel Water Association	West Laurel Water System Improvements	$1,900,000	$1,900,000	$1,900,000	$90,646,080	27,015						14,099
46	40	DWL1117	WX21125564	East Laurel Water District	East Laurel Water District Generators	$500,000	$500,000	$500,000	$91,146,080	27,015						14,749
47	40	DWL1185	WX21177018	Muhlenburg County Water District No.1	Nebo Pump Station, Watermain, & Tank	$2,293,110	$2,293,110	$2,293,110	$93,439,190	28,566						18,064
48	40	DWL1123	WX21147022	McCreary Co. Water District	New Pine Knot & Marshes Sidings Water Storage Tanks	$4,596,000	$4,000,000	$4,000,000	$97,439,190	19,348	$1,400,000	$10,905,267				18,224
49	40	DWL11109	WX21071730	Southern Water & Sewer District	Lackey to Wayland Waterline Replacement	$750,000	$750,000	$750,000	$98,189,190	21,168	$262,500	$11,167,767	G			22,480
50	40	DWL117	WX21227072	Bowling Green Municipal Utilities	Painting of Two Elevated Water Storage Tanks	$500,000	$500,000	$500,000	$98,689,190	29,047						54,945
51	35	DWL1182	WX21039015	City of Bardwell	Water Tank & Distribution Project	$1,200,000	$300,000	$300,000	$98,989,190	21,406	$105,000	$11,272,767				1,485
52	35	DWL1125	WX21149046	Island Water Department	Island Water Tank Painting	$98,213	$98,213	$98,213	$99,087,403	23,750	$34,375	$11,307,142				1,512

Rank	Score	DWSRF#	WRIS#	Apply Entity	Brief Project Description	Total Project Cost	Total Requested Amount	Invited Amount	Cumulative Invited	MHI	Principal Forgiveness Amount	Cumulative Principal Forgiveness	GPR	GPR Amount	Categorically Green?	Population
53	35	DWL1166	WX21175017	City of West Liberty	W. Liberty New Water Supply Transmission Main Project	$4,750,000	$4,750,000	$4,750,000	$103,837,403	21,429	$1,662,500	$12,969,642	G			2,655
54	35	DWL1143	WX21113029	Jessamine South Elkhorn Water District	Northwest Watermain Replacement and Hydraulic Looping	$2,000,000	$2,000,000	$2,000,000	$105,837,403	40,096			G			7,621
55	35	DWL1148	WX21093026	Hardin Co. Water District No. 1	Automated Meter Reading Conversion & Transmission Main Upgrades	$3,916,000	$3,100,000	$3,100,000	$108,937,403	37,744			G			29,700
56	35	DWL1197	WX21049004	Winchester Municipal Utilities	Winchester Water Treatment Plant	$39,100,000	$4,000,000	$4,000,000	$112,937,403	31,254						30,707
57	30	DWL1186	Pending	City of Raceland	Phase XIII U.S. 23 Pond Run to Mead Road Extension	$165,000	$165,000	$165,000	$113,102,403	31,500						4,024
58	30	DWL1187	WX21089033	City of Raceland	Phase XI Chinns Branch Extension	$60,000	$60,000	$60,000	$113,162,403	31,500						4,024
59	30	DWL1183	WX21075013	City of Hickman	Water Tank Rehabilitation	$75,000	$75,000	$75,000	$113,237,403	21,655	$26,250	$12,995,892	G			4,060
60	30	DWL1140	WX21189002	City of Booneville	Old Hwy. 11 Water Main Replacement	$652,000	$652,000	$652,000	$113,889,403	15,833	$228,200	$13,224,092	G			4,455
61	30	DWL1139	WX21001020	City of Columbia	Columbia Greensburg St. Waterline Replacement	$1,000,000	$500,000	$500,000	$114,389,403	22,861	$175,000	$13,399,092	G			4,862
62	30	DWL1119	WX21125514	West Laurel Water Association	West Laurel Waterline Extensions	$70,680	$70,680	$70,680	$114,460,083	27,015						14,099
63	30	DWL1122	WX21125563	West Laurel Water Association	WLWA Generators	$500,000	$500,000	$500,000	$114,960,083	27,015						14,099
64	30	DWL11100	Pending	Winchester Municipal Utilities	Waterworks Road Waterline Extension	$110,000	$110,000	$110,000	$115,070,083	31,254						30,707
65	30	DWL11101	WX21049025	Winchester Municipal Utilities	Ecton Rd. Elevated Storage Tank Rehabilitation	$800,000	$800,000	$800,000	$115,870,083	31,254						30,707

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66	30	DWL11103	Pending	Winchester Municipal Utilities	Manor/Windridge Dr. Water System Improvements	$575,000	$575,000	$575,000	$116,445,083	31,254						30,707
67	30	DWL11105	Pending	Winchester Municipal Utilities	Sunset Heights Waterline Replacement Project	$350,000	$350,000	$350,000	$116,795,083	31,254						30,707
68	30	DWL11106	Pending	Winchester Municipal Utilities	LHC WWTP Waterline Extension	$750,000	$750,000	$750,000	$117,545,083	31,254						30,707
69	30	DWL1196	WX21049024	Winchester Municipal Utilities	Clark-Cherry St. Elevated Storage Tank Rehabilitation	$525,000	$525,000	$525,000	$118,070,083	31,254						30,707
70	30	DWL11112	WX21227019	Bowling Green Municipal Utilities	Water Mains Replacement Project	$1,600,000	$1,600,000	$1,600,000	$119,670,083	29,047			G			54,945
71	25	DWL118	WX21149017	City of Island	Island Pump Station	$315,000	$125,000	$125,000	$119,795,083	23,750	$43,750	$13,442,842				1,512
72	25	DWL1112	WX21113010 WX21113012 WX21113015	Jessamine Co. Water District #1	Water System Improvements Project	$3,175,000	$1,225,000	$1,225,000	$121,020,083	40,096						5,495
73	25	DWL1157	WX21179016	City of Bloomfield	Water Storage Tank	$1,250,000	$1,250,000	$1,250,000	$122,270,083	33,393						5,643
74	25	DWL1177	WX21177016 WX21177015	Muhlenburg County Water District No.3	West Whitmer St. and Clark St. Water Main Replacement	$135,000	$135,000	$135,000	$122,405,083	28,566			G			6,293
75	25	DWL1110	WX21005006	City of Lawrenceburg	Lawrenceburg Center St. Tank Replacement	$1,000,000	$1,000,000	$1,000,000	$123,405,083	41,329						17,282
76	25	DWL1111	WX21019041	City of Ashland	SCADA Telemetry System	$175,000	$175,000	$175,000	$123,580,083	30,309			G			44,402
77	25	DWL11108	WX21227064	Bowling Green Municipal Utilities	High Service Pump #4	$600,000	$600,000	$600,000	$124,180,083	29,047			G			54,945
78	25	DWL116	WX21227071	Bowling Green Municipal Utilities	Water Treatment Plant Filter Valve	$1,200,000	$1,200,000	$1,200,000	$125,380,083	29,047			G			54,945
79	25	DWL1163	WX21111856	Louisville Water Company	Shepherdsville Area Main Replacement Project	$565,000	$565,000	$565,000	$125,945,083	28,843			G			730,611

Rank	Score	DWSRF#	WRIS#	Apply Entity	Brief Project Description	Total Project Cost	Total Requested Amount	Invited Amount	Cumulative Invited	MHI	Principal Forgiveness Amount	Cumulative Principal Forgiveness	GPR	GPR Amount	Categorically Green?	Population
80	22	DWL1145	WX21113031	Jessamine South Elkhorn Water District	Fort Bramlett/Camp Nelson Waterline Extension	$500,000	$500,000	$500,000	$126,445,083	40,096						7,621
81	20	DWL1181	WX21035029	South 641 Water District	Water District Isolation Valve Installation Project	$185,000	$185,000	$185,000	$126,630,083	30,134			G			1,040
82	20	DWL113	WX21149022	North McLean Co. Water District	US 431 Water Tank	$1,500,000	$1,250,000	$1,250,000	$127,880,083	29,675						3,715
83	20	DWL1188	WX21089032	City of Raceland	Phase X West Raceland Tank	$325,000	$325,000	$325,000	$128,205,083	31,500						4,024
84	20	DWL1189	Pending	City of Raceland	Phase VIII Chinns Branch-Caroline Road Water System	$165,000	$165,000	$165,000	$128,370,083	31,500						4,024
85	20	DWL1190	Pending	City of Raceland	Poplar Highland Tank Lift Station Upgrade	$135,000	$135,000	$135,000	$128,505,083	31,500						4,024
86	20	DWL1191	Pending	City of Raceland	Phase XII Poplar Highlands Rehabilitation	$150,000	$150,000	$150,000	$128,655,083	31,500						4,024
87	20	DWL1192	WX21089031	City of Raceland	Phase IX Loop Along U.S. 23 from Pond Run to Caroline Road	$150,000	$150,000	$150,000	$128,805,083	31,500						4,024
88	20	DWL1170	WX21151032	Southern Madison Water District	Smith Lane Waterline Upgrade Project	$250,000	$250,000	$250,000	$129,055,083	32,861						13,552
89	20	DWL1113	WX21125533	Wood Creek Water District	WCWD System Improvement #7	$1,200,000	$1,200,000	$1,200,000	$130,255,083	27,015						13,953
90	20	DWL1120	WX21125547	West Laurel Water Association	Hwy 552 Project	$200,000	$200,000	$200,000	$130,455,083	27,015						14,099
91	20	DWL1115	WX21125453	East Laurel Water District	Hwy 229, 830, and 1189 Waterline Project	$1,069,200	$1,069,200	$1,069,200	$131,524,283	27,015						14,749
92	20	DWL1116	WX21125454	East Laurel Water District	East Laurel Water System Improvement #2	$1,047,500	$1,047,500	$1,047,500	$132,571,783	27,015						14,749
93	20	DWL11104	WX21049014	Winchester Municipal Utilities	Elevated Pressure Zone No. 3	$350,000	$350,000	$350,000	$132,921,783	31,254						30,707

Rank	Score	DWSRF#	WRIS#	Apply Entity	Brief Project Description	Total Project Cost	Total Requested Amount	Invited Amount	Cumulative Invited	MHI	Principal Forgiveness Amount	Cumulative Principal Forgiveness	GPR	GPR Amount	Categorically Green?	Population
94	20	DWL1198	WX21049022	Winchester Municipal Utilities	WMU-New Finished Water Transmission Main	$13,300,000	$4,000,000	$4,000,000	$136,921,783	31,254						30,707
95	20	DWL1154	WX21073012	Frankfort Electric & Water Plant Board	Reservoir Replacement Project	$4,000,000	$4,000,000	$4,000,000	$140,921,783	34,980						44,731
96	20	DWL11113	WX21227044	Bowling Green Municipal Utilities	Highland Tank	$4,000,000	$4,000,000	$4,000,000	$144,921,783	29,047						54,945
97	20	DWL114	WX21227069	Bowling Green Municipal Utilities	Water Treatment Structural Repairs	$400,000	$400,000	$400,000	$145,321,783	29,047						54,945
98	15	DWL1176	WX21177011	Muhlenburg County Water District No.3	Water Meter Replacement	$360,000	$360,000	$360,000	$145,681,783	28,566			G			6,293
99	15	DWL1136	WX21151039	Madison Co. Utilities District	MCUD Radio Read Meters	$1,800,000	$1,800,000	$1,800,000	$147,481,783	32,861			G			28,871
100	15	DWL1153	WX21073016	Frankfort Electric & Water Plant Board	Motor Control Center Replacement Project	$2,000,000	$2,000,000	$2,000,000	$149,481,783	34,980			G			44,731
101	15	DWL1164	WX21111857	Louisville Water Company	Lead Service Renewals	$1,500,000	$750,000	$750,000	$150,231,783	28,843			G			730,611
102	13	DWL1142	Pending	Jessamine South Elkhorn Water District	Water Asset Management and Cost of Services Survey	$125,000	$125,000	$125,000	$150,356,783	40,096						7,621
103	10	DWL1144	WX21113016	Jessamine South Elkhorn Water District	Catnip Hill Pike 1.0 MG Elevated Storage Tank	$2,500,000	$2,500,000	$2,500,000	$152,856,783	40,096						7,621
104	10	DWL1151	Pending	City of Nicholasville	West Brown Watermain Replacement Project	$240,000	$240,000	$240,000	$153,096,783	37,462			G			20,552
105	10	DWL1160	WX21111168	Louisville Water Company	Hwy 245 Regional Water Supply	$2,500,000	$1,250,000	$1,250,000	$154,346,783	28,843						730,611
106	5	DWL1165	WX21111858	Louisville Water Company	LWC AMR/AMI Program	$3,500,000	$1,750,000	$1,750,000	$156,096,783	28,843			G			730,611
107	0	DWL11111	WX21093041	City of Elizabethtown	West Park Road Water Main Extension	$750,000	$750,000	$750,000	$156,846,783	35,823						25,325

Rank	Score	DWSRF#	WRIS#	Apply Entity	Brief Project Description	Total Project Cost	Total Requested Amount	Invited Amount	Cumulative Invited	MHI	Principal Forgiveness Amount	Cumulative Principal Forgiveness	GPR	GPR Amount	Categorically Green?	Population
108	0	DWL1149	WX21105008	City of Clinton	Clinton Water System Purchase	$2,300,000	$2,300,000	$2,300,000	$159,146,783	21,875	$805,000	$14,247,842				1,415
109	0	DWL115	WX21227070	Bowling Green Municipal Utilities	Water Treatment Plant Grading and Paving	$550,000	$550,000	$550,000	$159,696,783	29,047						54,945

*A business case will be required for all "green" projects that are not identified as being categorically green.

APPENDIX C

CALL FOR PROJECTS LETTERS

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

October 26, 2009

To Whom It May Concern:

If you have a drinking water project that will need funding during the 2011 state fiscal year (July 1, 2010 thru June 30, 2011), we want to hear from you as your project may be eligible to received funding from the Drinking Water State Revolving Fund (DWSRF). The DWSRF is a competitive program. To be qualified to apply for a low interest DWSRF loan, your project MUST be ranked and listed on the SRF Priority List developed by the Division of Water (DOW). NOTE: *FOR THE 2011 PRIORITY LIST, THERE WILL BE NO CARRY OVER FROM THE 2010 PRIORITY LIST.*

It is easy to submit your project for inclusion on the SRF Priority list. All potential recipients must complete a Project Questionnaire and send it to DOW. The DOW has made some revisions to the Project Questionnaire and ranking criteria since last year in order to direct future SRF allocations to projects that assist public water systems comply with the ever tightening health protection objectives of the Safe Drinking Water Act Amendments of 1996. Previous versions of the questionnaire WILL NOT be accepted. The questionnaire, an Excel document, can be downloaded from the Kentucky Infrastructure Authority (KIA) website (www.kia.ky.gov) or the Division of Water (DOW) website (www.water.ky.gov/publicassistance/funding/dwsrf/iup).

DOW strongly encourages you to read the Priority System Guidance Document before you begin completing the questionnaire form as you might acquire some useful ideas for improving your project's overall score. **Additionally, only those projects that can start construction by December 31, 2011 will be considered for funding.**

Completed Project Questionnaires must be received by the DOW no later than 4:30 PM eastern time, on **January 6, 2010**. All hardcopies may be mailed to: DWSRF COORDINATOR, AMANDA YEARY, DIVISION OF WATER, WATER INFRASTRUCTURE BRANCH, 200 FAIR OAKS, 4th FLOOR, FRANKFORT, KENTUCKY 40601. If submitting a hardcopy only, please allow additional time for mailing before the deadline. **AGAIN, PLEASE NOTE: THERE WILL BE NO CARRY OVER FROM THE 2010 INTENDED USE PLAN. All interested projects must complete the revised Project Questionnaire form which may be obtained from KIA's or DOW's website.**

If selected, your project may be eligible for a low interest loan to partially or even fully fund your next drinking water project. DWSRF loans can be used to match grants from Community Development Block Grant (CDBG), Appalachian Regional Commission (ARC) and the Environmental Protection

Agency (EPA). We also partner on projects that have U.S. Rural Development (RD) funds and state appropriation line items.

Projected interest rates for the program will be identified in the 2011 DWSRF Intended Use Plan (IUP) which will be available late spring, 2010. Rates identified in the IUP are subject to change by approval of the KIA Board. Currently, KIA offers three interest rates for the DWSRF program. The standard rate of 3% is available for borrowers with a median household income (MHI) at or above $33,672, the MHI of the Commonwealth from the 2000 Census. A 2% rate is offered to borrowers whose MHI is between $33,672 and $26,937 (80% of the Commonwealth MHI). The 2% 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 1% rate, the borrower must have a MHI less than $26,937.

Attached to this mailing is a brochure highlighting the Sustainable Infrastructure (SI) initiative launched last year by EPA and the Kentucky Division of Water. 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 DWSRF Project Priority List. The DOW encourages you to contact them with any questions or feedback regarding the SI initiative.

If you have questions about completing the questionnaire or project eligibility for priority list inclusion, please contact Amanda Yeary or Shafiq Amawi of the Water Infrastructure Branch at amanda.yeary@ky.gov or shafiq.amawi@ky.gov or at (502) 564-3410. For more information on loan requirements, terms or eligibility contact Kasi White or Sandy Williams of KIA at kasi.white@ky.gov or sandy.williams@ky.gov or at (502) 573-0260.

Sincerely,

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

Sandra L. Gruzesky, Director
Division of Water

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

February 25, 2010

To Whom It May Concern:

The Drinking Water State Revolving Fund (DWSRF) Call for Projects for the 2011 funding cycle has been extended to March 12, 2010, due to program changes initiated by Congress relating to Green Projects and Additional Subsidization. KIA estimates funding availability between $20 million and $25 million for the 2011 state fiscal year. At least $3,918,400 must be used for green projects and at least $5,877,600 must be provided as Additional Subsidization that will likely be principal forgiveness for qualifying projects. Additionally, Davis/Bacon federal wage rate requirements will apply to all SRF funded projects.

To be eligible to apply for a low interest DWSRF loan with the possibility of principal forgiveness, your project MUST be ranked and listed on the SRF Priority List developed by the Division of Water (DOW). No projects will be carried over from previous Priority Lists ***If you submitted a new 2011 Project Questionnaire form after October 1, 2009, you do not have to submit another form to receive CWSRF consideration for your project.***

It is easy to submit your project for inclusion on the SRF Priority list. All potential recipients must complete a Project Questionnaire and send it to DOW. The DOW has made some revisions to the Project Questionnaire and ranking criteria since last year in order to direct future SRF allocations to projects that assist public water systems comply with the ever tightening health protection objectives of the Safe Drinking Water Act Amendments of 1996. Previous versions of the questionnaire WILL NOT be accepted. The questionnaire, an Excel document, can be downloaded from the Kentucky Infrastructure Authority (KIA) website (www.kia.ky.gov) or the Division of Water (DOW) website (www.water.ky.gov/publicassistance/funding/dwsrf/iup).

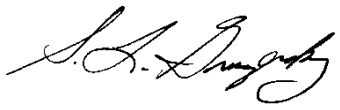
DOW strongly encourages you to read the Priority System Guidance Document before completing the questionnaire form as you might acquire some useful ideas for improving your project's overall score. **Please note: only those projects that can start construction by December 31, 2011 will be considered for funding.**

Completed Project Questionnaires must be received by the DOW no later than 4:30 PM eastern time, on March 12, 2010. All hardcopies may be mailed to: DWSRF COORDINATOR, AMANDA YEARY, DIVISION OF WATER, WATER INFRASTRUCTURE BRANCH, 200 FAIR OAKS, 4th FLOOR, FRANKFORT, KENTUCKY 40601. If submitting a hardcopy only, please allow additional time for mailing before the deadline. **AGAIN, PLEASE NOTE: THERE WILL BE NO CARRY OVER FROM THE 2010 INTENDED USE PLAN. All interested projects must complete the revised Project Questionnaire form which may be obtained from KIA's or DOW's website.**
Projected interest rates for the program will be identified in the 2011 DWSRF Intended Use Plan (IUP) which will be available late spring, 2010. Rates identified in the IUP are subject to change by approval of the KIA Board. Currently, KIA offers three interest rates for the DWSRF program. The standard rate of 3% is available for borrowers with a median household income (MHI) at or above $33,672, the MHI of the Commonwealth from the

2000 Census. A 2% rate is offered to borrowers whose MHI is between $33,672 and $26,937 (80% of the Commonwealth MHI). The 2% 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 1% rate, the borrower must have a MHI less than $26,937.

If you have questions about completing the questionnaire or project eligibility for priority list inclusion, please contact Amanda Yeary or Shafiq Amawi of the Water Infrastructure Branch at amanda.yeary@ky.gov or shafiq.amawi@ky.gov or at (502) 564-3410. For more information on loan requirements, terms or eligibility contact Sandy Williams or Kasi White of KIA at sandy.williams@ky.gov or kasi.white@ky.gov or at (502) 573-0260.

Sincerely,



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

Sandra L. Gruzesky, Director
Division of Water

APPENDIX D

DWSRF PROJECT DEFINITIONS AND

EXAMPLES FOR GREEN INFRASTRUCTURE RESERVE

2010 Clean Water and Drinking Water State Revolving Fund
20% Green Project Reserve:
Guidance for Determining Project Eligibility

April 21, 2010

I. Introduction: The Fiscal Year (FY) 2010 Appropriation Law (P.L. 111-88) included additional requirements affecting both the Clean Water and the Drinking Water State Revolving Fund (SRF) programs. This attachment is included in the *Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2010 Appropriation Affecting the Clean Water and Drinking Water State Revolving Fund Programs* dated April 21, 2010. Because of differences in project eligibility for each program, the Clean and Drinking Water SRFs have separate guidance documents that identify specific goals and eligibilities for green infrastructure, water and energy efficient improvements, and environmentally innovative activities. Part A includes the details for the Clean Water SRF program, and Part B the Drinking Water SRF program.

Public Law 111-88 included the language "Provided, that for fiscal year 2010, to the extent there are sufficient eligible project applications, not less than 20 percent of the funds made available under this title to each State for Clean Water State Revolving Fund capitalization grants and not less than 20 percent of the funds made available under this title to each State for Drinking Water State Revolving Fund capitalization grants shall be used by the State for projects to address green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities." These four categories of projects are the components of the Green Project Reserve (GPR).

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

III. Background: 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 2010 SRF GPR Guidance provides States with information needed to determine which projects count toward the GPR requirement. The intent of the GPR Guidance is to describe projects and activities that fit within the four specific categories listed in the 2010 Appropriations Act. This guidance defines each category of GPR projects and lists projects that are clearly eligible for GPR, heretofore known as categorically eligible projects. For projects that do not appear on the list of categorically projects, they may be evaluated for their eligibility within one of the four targeted types of GPR eligible projects based upon a business case that provides clear documentation (see the *Business Case Development* sections in Parts A & B below).

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

The Green Project Reserve sets a new precedent for the SRFs by targeting funding towards projects that States may not have funded in prior years. Water quality benefits from GPR projects rely on proper operation and maintenance to achieve the intended benefits of the projects and to achieve optimal performance of the project. EPA encourages states and funding recipients to thoroughly plan for proper operation and maintenance of the projects funded by the SRFs, including training in proper operation of the project. It is noted, however, that the SRFs cannot provide funding for operation and maintenance costs, including training, in the SRF assistance agreements. 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
- 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.[2]

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

[2] 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[3], bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.
- 1.2-2 Wet weather management systems for parking areas including: permeable pavement2, bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.
- 1.2-3 Implementation of comprehensive street tree or urban forestry programs, including expansion of tree boxes to manage additional stormwater and enhance tree health.
- 1.2-4 Stormwater harvesting and reuse projects, such as cisterns and the systems that allow for utilization of harvested stormwater, including pipes to distribute stormwater for reuse.
- 1.2-5 Downspout disconnection to remove stormwater from sanitary, combined sewers and separate storm sewers and manage runoff onsite.

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

1.2-6 Comprehensive retrofit programs designed to keep wet weather discharges out of all types of sewer systems using green infrastructure technologies and approaches such as green roofs, green walls, trees and urban reforestation, permeable pavements and bioretention cells, and turf removal and replacement with native vegetation or trees that improve permeability.

1.2-7 Establishment or restoration of permanent riparian buffers, floodplains, wetlands and other natural features, including vegetated buffers or soft bioengineered stream banks. 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).[4]

1.2-8a Includes constructed wetlands.

1.2-8b May include natural or restored wetlands if the wetland and its multiple functions are not degraded and all permit requirements are met.

1.2-9 The water quality portion of projects that employ development and redevelopment practices that preserve or restore site hydrologic processes through sustainable landscaping and site design.

1.2-10 Fee simple purchase of land or easements on land that has a direct benefit to water quality, such as riparian and wetland protection or restoration.

1.3 Projects That Do Not Meet the Definition of Green Infrastructure

1.3-1 Stormwater controls that have impervious or semi-impervious liners and provide no compensatory evapotranspirative or harvesting function for stormwater retention.

1.3-2 Stormwater ponds that serve an extended detention function and/or extended filtration. This includes dirt lined detention basins.

1.3-3 In-line and end-of-pipe treatment systems that only filter or detain stormwater.

1.3-4 Underground stormwater control and treatment devices such as swirl concentrators, hydrodynamic separators, baffle systems for grit, trash removal/floatables, oil and grease, inflatable booms and dams for in-line underground storage and diversion of flows.

1.3-5 Stormwater conveyance systems that are not soil/vegetation based (swales) such as pipes and concrete channels. Green infrastructure projects that include pipes to collect stormwater may be justified as innovative environmental projects pursuant to Section 4.4 of this guidance.

1.3-6 Hardening, channelizing or straightening streams and/or stream banks.

1.3-7 Street sweepers, sewer cleaners, and vactor trucks unless they support green infrastructure projects.

1.4 Decision Criteria for Business Cases

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

1.4-1 Green infrastructure projects are designed to mimic the natural hydrologic conditions of the site or watershed.

1.4-2 Projects that capture, treat, infiltrate, or evapotranspire water on the parcels where it falls and does not result in interbasin transfers of water.

1.4-3 GPR project is in lieu of or to supplement municipal hard/gray infrastructure.

1.4-4 Projects considering both landscape and site scale will be most successful at protecting water quality.

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

1.5 Examples of Projects Requiring A Business Case

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

2.0 **WATER EFFICIENCY**

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

2.2 Categorical Projects

2.2-1 Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances

2.2-1a For example -- shower heads, toilets, urinals and other plumbing devices

2.2-1b Where specifications exist, WaterSense labeled products should be the preferred choice (http://www.epa.gov/watersense/index.html).

2.2-1c Implementation of incentive programs to conserve water such as rebates.

2.2-2 Installing any type of water meter in previously unmetered areas

2.2-2a If rate structures are based on metered use

2.2-2b Can include backflow prevention devices if installed in conjunction with water meter

2.2-3 Replacing existing broken/malfunctioning water meters, or upgrading existing meters, with:

2.2-3a Automatic meter reading systems (AMR), for example:

2.2-3.a(i) Advanced metering infrastructure (AMI)

2.2-3.a(ii) Smart meters

2.2-3b Meters with built in leak detection

2.2-3c Can include backflow prevention devices if installed in conjunction with water meter replacement

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

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

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

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

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

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

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

2.3 Projects That Do Not Meet the Definition of Water Efficiency

2.3-1 Agricultural flood irrigation.

2.3-2 Lining of canals to reduce water loss.

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

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

2.4 Decision Criteria for Business Cases

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

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

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

2.5 Examples of Projects Requiring a Business Case.

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

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

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

2.5-4 New water efficient landscape irrigation system.

2.5-5 New water efficient agricultural irrigation system.

3.0 ENERGY EFFICIENCY

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

3.2 Categorical Projects

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

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

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

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

3.2-2 Projects that achieve a 20% reduction in energy consumption are categorically eligible for GPR[5]. Retrofit projects should compare energy used by the existing system or unit process[6] to the proposed project. The energy used by the existing system should be based on name plate data when the system was first installed, recognizing that the old system is currently operating at a lower overall efficiency than at the time of installation. New POTW projects or capacity expansion projects should be designed to maximize energy efficiency and should select high efficiency premium motors and equipment where cost effective. Estimation of the energy efficiency is necessary for the project to be counted toward GPR. If a project achieves less than a 20% reduction in energy efficiency, then it may be justified using a business case.

3.2-3 Collection system Infiltration/Inflow (I/I) detection equipment

3.2-4 POTW energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas, which are reasonably expected to result in a capital project are eligible. Guidance to help POTWs develop energy management programs, including assessments and audits is available at http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymanagement.pdf.

3.3 Projects That Do Not Meet the Definition of Energy Efficiency

3.3-1 Renewable energy generation that is *privately* owned or the portion of a publicly owned renewable energy facility that does not provide power to a POTW, either through a connection to the grid that the utility draws from and/or a direct connection to the POTW.

3.3-2 Simply replacing a pump, or other piece of equipment, because it is at the end of its useful life, with something of average efficiency.

3.3-3 Facultative lagoons, even if integral to an innovative treatment process.

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

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

3.3-4 Hydroelectric facilities, except micro-hydroelectric projects. Micro-hydroelectric projects involve capturing the energy from pipe flow.

3.4 Decision Criteria for Business Cases

3.4-1 Project must be cost effective. An evaluation must identify energy savings and payback on capital and operation and maintenance costs that does not exceed the useful life of the asset. http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_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_portfoliomanan ager) 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" s SRF sustainability policy.

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

4.2-3a 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=10 WCAP2&Action=LONG&subsystem=ORD%3cbr).

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

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

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

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

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

Business Case Development

This guidance is intended to be comprehensive: however, EPA understands our examples projects requiring a business case may not be all inclusive. A business case is a due diligence document. For those projects, or portions of projects, which are not included in the categorical projects lists provided above, a business case will be required to demonstrate that an assistance recipient has thoroughly researched anticipated 'green' benefits of a project. Business cases will be approved by the State (see section III.A. in the Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2010 Appropriation Affecting the Clean Water and Drinking Water State Revolving Fund Programs). An approved business case must be included in the State's project files and contain clear documentation that the project achieves identifiable and substantial benefits. The following sections provide guidelines for business case development.

5.0 Length of a Business Case

- 5.0-1 Business cases must address the decision criteria for the category of project
- 5.0-2 Business cases should be adequate, but not exhaustive.
  - 5.0-2a There are many formats and approaches. EPA does not require any specific one.
  - 5.0-2b Some projects will require detailed analysis and calculations, while others many not require more than one page.
  - 5.0-2c Limit the information contained in the business case to only the pertinent „green“ information needed to justify the project.
- 5.0-3 A business case can simply summarize results from, and then cite, existing documentation – such as engineering reports, water or energy audits, results of water system tests, etc.

5.1 Content of a Business Case

- 5.1-1 Quantifiable water and/or energy savings or water loss reduction for water and energy efficiency projects should be included.
- 5.1-2 The cost and financial benefit of the project should be included, along with the payback time period where applicable. (NOTE: Clean Water SRF requires energy efficiency projects to be cost effective.)

5.2 Items Which Strengthen Business Case, but Are Not Required

- 5.2-1 Showing that the project was designed to enable equipment to operate most efficiently.
- 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/.

PART B – DWSRF GPR SPECIFIC GUIDANCE

DWSRF 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 and activities must otherwise be eligible for DWSRF funding. The GPR requirement does not create new funding authority beyond that described in Section 1452 of the SDWA.

0.2 GPR projects and activities must meet the definition of one of the four GPR categories. The individual GPR categories do not create new eligibility for the DWSRF. The projects that count toward GPR must otherwise be eligible for DWSRF funding.

0.3 GPR projects and activities must further the goals stated in Section 1452 of the Safe Drinking Water Act.

0.4 Projects and activities that utilize the DWSRF set-asides can also be eligible for GPR. Planning and assessment activities, such as conducting water or energy audits, are eligible, as well as green-oriented capacity development, source water protection, and total/integrated water resources management planning activities. Where applicable, the pertinent set-asides that can be used are noted in the next section.

DWSRF Technical Guidance

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

1.0 GREEN INFRASTRUCTURE

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

1.2 Categorical Projects The following types of projects, done at a utility-owned facility or as part of a water infrastructure project, can be counted toward the GPR if they are a part of an eligible DWSRF project:

1.2-1 Pervious or porous pavement

1.2-2 Biorentention

1.2-3 Green roofs

1.2-4 Rainwater harvesting/cisterns
1.2-5 Gray water use
1.2-6 Xeriscape
1.2-7 Landscape conversion programs
1.2-8 Moisture and rain sensing irrigation equipment

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.

1.4 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 capture, treat, infiltrate, or evapotranspire stormwater on the parcels where it falls and does not include inter basin 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 is available at http://cfpub.epa.gov/npdes/greeninfrastructure/munichandbook.cfm and http://cfpub.epa.gov/npdes/greeninfrastructure/technology.cfm

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 – showerheads, toilets, urinals, and other plumbing devices
2.2-1b Implementation of incentive programs to conserve water such as rebates

2.2-1c WaterSense labeled products (http://www.epa.gov/watersense/index.html)

2.2-2 Installing any type of water meter in previously unmetered areas: 2.2-2a If rate structures are based on metered use,

2.2-2a Can include backflow prevention devices if installed in conjunction with water meter.

2.2-3 Replacing existing broken/malfunctioning water 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 equipment to existing meters (not replacing the meter itself).

2.2-5 Conducting water utility audits, leak detection studies, and water use efficiency baseline studies, which are reasonably expected to result in a capital project or in a reduction in demand to alleviate the need for additional capital investment.

2.2-5a Funded through set-asides: Small Systems Technical Assistance, State Program Management – Capacity Development, or Local Assistance & Other State Programs – Capacity Development; where consistent with the state capacity development strategy

2.2-5b For standard practices, see AWWA M36 *Water Audits and Loss Control Programs.*

2.2-5c Free Water Audit Software, Version 4.1 (2010) (http://www.awwa.org/Resources/WaterLossControl.cfm?ItemNumber=47846&navItemNumber=48155)

2.2-6 Developing conservation plans/programs reasonably expected to result in a water conserving capital project or in a reduction in demand to alleviate the need for additional capital investment.

2.2-6a Funded through set-asides: Small Systems Technical Assistance, State Program Management – Capacity Development, or Local Assistance & Other State Programs – Capacity Development; where consistent with the state capacity development strategy

2.2-6b For standard practices, see AWWA M52 *Water Conservation Programs – A Planning Manual*

2.2-7 Recycling and water reuse projects that replace potable sources with non-potable sources,

2.2-7a Gray water, condensate, and wastewater effluent reuse systems (where local codes allow the practice).

2.2-7b Extra treatment costs and distribution pipes associated with water reuse.

2.2-8 Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems, including moisture and rain sensing controllers.

2.2-9 Projects that result from a water efficiency related assessments (such as water audits, leak detection studies, conservation plans, etc) as long as the assessments adhered to the standard industry practices referenced above.

2.2-10 Distribution system leak detection equipment, portable or permanent.

2.2-11 Automatic flushing systems (portable or permanent).
2.2-12 Pressure reducing valves (PRVs).
2.2-13 Internal plant water reuse (such as backwash water recycling).

2.3 Projects That Do Not Meet the Definition of Water Efficiency
2.3-1 Covering open finished water reservoirs – Federally mandated, so not considered "above and beyond."

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 drinking water system, since less water would need to be treated and transported; therefore, there are also energy and financial savings.
2.4-4 Proper water infrastructure management should address where water losses could be occurring in the system and fix or avert them. This could be achieved, for example, by making operational changes or replacing aging infrastructure.

2.5 Example 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 Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks (see AWWA M28 Rehabilitation of Water Mains).
2.5-3 Storage tank replacement/rehabilitation to reduce water loss.
2.5-4 New water efficient landscape irrigation system.

3.0 **ENERGY EFFICIENCY**

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

3.2 Categorical Projects[7]
3.2-1 Renewable energy projects, which are part of a larger public health project, such as wind, solar, geothermal, and micro-hydroelectric that provide power to a utility (http:///www.epa.gov/cleanenergy). Micro-hydroelectric projects involve capturing the energy from pipe flow.
3.2-1a Utility-owned renewable energy projects can be located on-site or off-site.

[7] EPA has concluded that existing literature does not support a 20% energy efficiency improvement threshold for drinking water systems; therefore, there is no categorical 20% threshold for pumping/treatment systems for the DWSRF. A business case is required.

3.2-1b Includes the portion of a publicly owned renewable energy project that serves the utility‟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 Utility 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 energy efficiency capital projects or in a reduction in demand to alleviate the need for additional capital investment.

3.2-2a Funded through set-asides: Small Systems Technical Assistance, State Program Management – Capacity Development, or Local Assistance & Other State Programs – Capacity Development; where consistent with the state capacity development strategy

3.2-2b For standard energy management practices, see *Ensuring a Sustainable Future: An Energy Management Guidebook for Wastewater and Water Utilities*, located at http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymanagement.pdf

3.2-2c Energy Efficiency Step-By-Step Guide: http://www.epa.gov/region09/waterinfrastructure/howto.html

3.2-3 National Electric Manufacturers Association (NEMA) Premium energy efficiency motors (http://www.nema.org/gov/energy/efficiency/premium/)

3.3 Projects That Do Not Meet the Definition of Energy Efficiency

3.3-1 Simply replacing a pump, or other piece of equipment, because it is at the end of its useful life, with something of average efficiency. (Note: replacing it with higher efficiency equipment requires a business case)

3.3-2 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 Projects should include products and practices which will decrease environmental impacts, such as reducing greenhouse gas emissions, and provide financial savings.

3.4-2 Projects should include approaches to integrate energy efficient practices into daily management and long-term planning (http://www.epa.gov/waterinfrastructure/bettermanagement_energy.html).

3.4-3 Operator training in conjunction with any energy savings project is strongly encouraged in order to maximize the energy savings potential.

3.4-4 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.gov/cupss/) to document current energy usage and track anticipated savings.

3.5 Example Projects Requiring a Business Case

3.5-1 Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)).

3.5-2 Pump refurbishment to optimize pump efficiency (such as replacing or trimming impellers if pumps have too much capacity, replacing damaged or worn wearing rings/seals/bearings, etc.).

3.5-3 Projects that result from an energy efficiency related assessments (such as energy audits, energy assessment studies, etc), that are not otherwise designated as categorical.

3.5-4 Projects that cost effectively eliminate pumps or pumping stations. 3.5-5 Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.

3.5-5 Upgrade of lighting to energy efficient sources (such as metal halide pulse start technologies, compact fluorescent, light emitting diode, etc).

3.5-6 Automated and remote control systems (SCADA) that achieve substantial energy savings (see AWWA M2 *Instrumentation and Control*).

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, or other planning framework where project life cycle costs (including infrastructure, energy consumption, and other operational costs) are minimized, which enables communities to adopt more efficient and cost-effective infrastructure solutions.

4.2-1a Funded through set-asides: Small Systems Technical Assistance, State Program Management, or Local Assistance & Other State Programs.

4.2-1b Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.

4.2-1c Eligible source water protection planning.

4.2-1c(i) Periodic, updated, or more detailed source water delineation or assessment as part of a more comprehensive source water protection program.

4.2-1c(ii) Source water monitoring (not compliance monitoring) and modeling as part of a more comprehensive source water protection program.

4.2-1c(iii) http://www.epa.gov/safewater/dwsrf/pdfs/source.pdf

4.2-1d Planning activities by a utility to prepare for adaptation to the long-term affects of climate change and/or extreme weather.

4.2-1d(i) Office of Water – Climate Change and Water website: http://www.epa.gov/water/climatechange/

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

4.2-3 Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry), as long as it is being done for a facility which is eligible for DWSRF assistance.

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

4.2-3b Climate Registry – http://www.theclimateregistry.org/

4.2-4 Source Water Protection Implementation Projects

4.2-4a Voluntary, incentive based source water protection measures pursuant to Section 1452(k)(1)(A)(ii), where the state primacy agency has determined that the use of such measures will reduce or preclude the need for treatment. Under the FY 2010 appropriation, additional subsidization for these measures may be provided in the form of principal forgiveness or negative interest rate loans.

4.2-5 Construction of US Building Council LEED certified buildings, or renovation of an existing building, owned by the utility, which is part of an eligible DWSRF project.

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 http://www.usgbc.org/DisplayPage.aspx?CategoryID=19

4.3 Projects That Do Not Meet the Definition of Environmentally Innovative

4.3-1 Higher sea walls to protect water infrastructure facilities from sea level rise.

4.3-2 Reflective roofs at water infrastructure facilities 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 and 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; or

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 Example Projects Requiring A Business Case

4.5-1 Projects, or components of projects, that result from total/integrated water resources management planning (including climate change) consistent with the Decision Criteria for environmentally innovative projects and that are DWSRF eligible, for example:

4.5-2 Application of innovative treatment technologies or systems that improve environmental conditions and are consistent with the Decision Criteria for

environmentally innovative projects, such as: [add alleviate demand comment from American Rivers]

4.5-2a Projects that significantly reduce or eliminate the use of chemicals in water treatment.

4.5-2b 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 (Cornwell, 2009; *Water Treatment Residuals Engineering*; Water Research Foundation).

4.5-2c Trenchless or low impact construction technology.

4.5-2d Using recycled materials or re-using materials on-site.

4.5-3 Educational activities and demonstration projects for water or energy efficiency (such as rain gardens).

4.5-4 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).

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