KENTUCKY
Priority System Guidance Document

For Drinking Water Projects
Eligible To Be Funded By The

KENTUCKY DRINKING WATER STATE REVOLVING FUND

2020 Funding Cycle

ENERGY AND ENVIRONMENT CABINET
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INTRODUCTION

PURPOSE

The Drinking Water State Revolving Fund (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 Public Water System (PWS) to obtain and maintain financial, managerial and technical capabilities for compliance with the Safe Drinking Water Act (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 scores derived from a comprehensive review of each project using the DWSRF ranking criteria.

PRIORITY FORMULA

Violations of drinking water standards occur for a variety of reasons. A proactive approach has been developed to determine priority based on infrastructure needs to address the goals of the SDWA.

APPLYING THE PRIORITY SYSTEM TO PROJECTS

The Division of Water (DOW) assigns points in each of nine categories: Regionalization, Public Health Criteria-Treatment, Public Health Criteria-Distribution, Extension of Service, Security, Compliance and Enforcement, Public Water System Financial Need, Asset Management, Sustainable Infrastructure, and Project Readiness (see Table 1, DWSRF Ranking Criteria). Points are based on information provided by PWSs and/or their consultants, and submitted by local area development districts through the Water Resources Information System (WRIS). The total score is of the sum of all points assigned in each of the nine categories.

TIE BREAKER

It is possible the points assignment process could result in two or more projects having the same total score. A tie breaker has been developed for this situation considering the following 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.

Those PWSs serving a population of 10,000 people or less are prioritized over those serving populations over 10,000. Consideration is then given to those projects with existing enforcement actions (i.e. Agreed Orders). Lastly, the financial need as evidenced by the median household income (American Community Survey 5-Year Estimates 2011-2015) of the applicant is taken into consideration.

I. REGIONALIZATION

This category 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)

Under this category, points will be provided to projects promoting regionalization. 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 identities 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.)

Points Received: 50

B. Elimination of a water treatment plant as a result of an interconnection

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.)

Points Received: 25

C. Acquisition of a supplemental potable water supply

Points Received: 15

D. Replacement or supplemental raw water supply

Points Received: 15

E. Acquisition of an emergency potable water supply

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

Points Received: 15

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 (where one does not presently exist) or expansion of an existing plant

New water treatment facilities or water treatment plant expansions are limited to 20 points 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 B, C, or D for such cases.

Examples include but are not limited to, the construction of a new water treatment plant or an expansion of an existing water works facility where it is unfeasible to purchase a supplemental supply from another PWS; construction of a new intake structure; or upgrade of intake pumps or any other treatment processes resulting in an increase in the production capacity of the plant, etc.

Points Received: 20

ii) Rehabilitation and/or upgrade of the water treatment plant

Water treatment plant rehabilitation projects are limited to 10 points unless the proposed project is needed to acquire or maintain compliance with the National Drinking Water Standards of the SDWA. In such cases, additional points may be applied under B, C, or D.

Examples may include, but are not limited to the functional replacement of treatment processes due to age/condition, the upgrade of any treatment process to meet drinking water standards with no increase in treatment capacity, etc.

Points Received: 10

iii) Redundant processes/emergency power generators

Redundant processes and/or emergency power generators at the treatment facilities.

Points received: 10 for each unit

B. Treatment – Acute Public Health Risk

i) Infrastructure options to meet Cryptosporidium removal/inactivation requirements

Examples of treatment projects 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.

Points Received: 25

ii) Modifications to meet CT inactivation requirement

Disinfection techniques need to comply with CT inactivation requirements of the Surface Water Treatment Rule and the Groundwater Rule. Examples of treatment projects include, but are not limited to, alternate disinfection feed points, baffling of clearwells, etc.

Points Received: 20

C. Treatment – Chronic Public Health Risk

i) Modifications to address disinfection byproducts requirements

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

Points Received: 25

ii) Modifications to address VOC, IOC, SOC, radionuclide requirements
Examples of treatment projects include, but are not limited to, aeration, improved coagulation, non-conventional treatments, air stripping, new chemical feed, etc.
Points Received: 15

D. Treatment- Infrastructure to address Secondary Contaminants
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.
Points Received: 10

RESTRICTIONS:
Points will be assigned to project components under 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
Examples of projects under this category include waterline replacements, new water storage tanks or pump stations, and rehabilitation of existing storage tanks or pump stations. The applicant must be prepared to demonstrate the need for the project whether it be loss of pressure, inadequate storage, or significant water loss to support the need for the project. For waterline replacement projects, scores are applied based upon the number of roads that are affected. ***It is imperative*** road names be provided in the Project Profile to receive all applicable points.

i) Replacement of inadequately sized waterlines, lines with leaks, breaks, or restrictive flows due to age, or lead or asbestos-cement pipe
Points Received: 10 for each road

RESTRICTIONS:
Identify the primary reason for the replacement in the Project Profile. A waterline may in fact, need to be replaced because it is both undersized and made up of asbestos-cement. However, points can only be applied under one category (see example below). 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.

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

i.	*Replacement of 2,000 LF of undersized waterline along **Riley Road***	*10 pts.*
ii.	*Replacement of 3,000 LF of undersized waterline along **Fair Road***	*10 pts.*
iii.	*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.

ii) Rehabilitation or replacement of a water storage tank
Points Received: 30 for each tank

iii) New water storage tank
Points Received: 20 for each tank

iv) New or rehabilitated pump station (not associated with a new tank)
Points Received: 10 for each pump station

B. Finished Water Quality

i) Infrastructure to address inadequate turnover and disinfection byproducts (DBPs)
Examples include the installation of a water storage tank mixing system to address a DBP issue, or looping of waterlines to improve service. If unable to comply with the DBP Rule then information should be provided in the project profile to support the need.
Points Received: 20

ii) Redundant equipment/emergency power generators
Provide redundancy or emergency power within the distribution system
Points Received: 10 for each unit

C. Extension of Service

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 potable water supplies such as wells or cisterns are contaminated or where there is insufficient financial and technical capability to maintain a compliant water supply system. 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.

Points Received: 20 up to 10 existing homes and
2 for every additional 10 existing homes thereafter

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.

IV. SECURITY

A. Measures taken at the water treatment plant facilities or within the distribution system

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.

Points Received: 5 for each component

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

V. COMPLIANCE AND ENFORCEMENT

A. Entities with executed Court Orders or Agreed Orders
Project must achieve full or partial compliance with an Order or other enforcement action by addressing terms of the Order.
Points Received: 50

B. Primary system has not received any SWDA Notices of Violation within the previous state fiscal year-July through June, i.e. July 2015 – June 2016)
Points Received: 25

VI. PUBLIC WATER SYSTEM FINANCIAL NEED

A. Borrowers with a median household income (MHI) below 80 percent of the Commonwealth's MHI
As determined by the current American Community Survey (ACS) 5-Year Estimate
Points Received: 20

B. Borrowers with a MHI between 80 and 100 percent of the Commonwealth's MHI
As determined by the current American Community Survey (ACS) 5-Year Estimate
Points Received: 10

VII. ASSET MANAGEMENT

A. System has an Asset Management Program or similar planning document
Points will be given if the system has a documented inventory of its treatment and distribution system assets and has analyzed the condition of each asset, including risks of failure. Also included must be anticipated dates of rehabilitation and ultimate replacements and the amount of revenues needed for rehabilitation or replacement of each asset.
Points Received: 20

To obtain points under this category, supporting documents, such as an asset inventory along with a capital improvement plan based off the inventory, must be uploaded into the WRIS. If WRIS is used as an inventory tool, indicate in the textbox.

B. System's monthly wastewater bill, based on 4.000 gallons, as a percentage of Median Household Income is:

Greater than or equal to 2%	**Points Received: 10**
Between 1 and 1.99%	**Points Received: 5**
Below 1%	**Points Received: 0**

C. System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure (The funds allocated to the current sinking fund account should not be a requirement of an existing loan, but a good business practice)
Points Received: 10

To obtain points under this category, supporting documents must be uploaded into the WRIS.

VIII. SUSTAINABLE INFRASTRUCTURE

A. Green Infrastructure

Green stormwater infrastructure includes a wide array of practices at multiple scales managing wet weather and maintaining and restoring natural hydrology by infiltration, evapotranspiration, and harvesting and reuse. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains, and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale, green infrastructure consists of site- and neighborhood-specific practices, such as bioretention, trees, green roofs, permeable pavement, and cisterns.

Points Received: 5 each with a maximum of 10

Examples:

- *Pervious or porous pavement*
- *Biorentention*
- *Green roofs*
- *Rainwater harvesting/cisterns*
- *Gray water use*
- *Xeriscape*
- *Landscape conversion programs*
- *Retrofitting or replacing existing irrigation systems with moisture and rain sensing equipment*

Projects That Do Not Meet the Definition of Green Infrastructure:

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

B. Water Efficiency

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

Points Received: 15 each with no maximum

Examples:

- *Installing or retrofitting water efficient devices such as plumbing fixtures and appliances, for example: showerheads, toilets, urinals, and other plumbing devices*
- *Implementation of incentive programs to conserve water such as rebates*
- *Installing WaterSense labeled products (https://www.epa.gov/watersense)*

- *Installing any type of water meter in previously unmetered areas if rate structures are based on metered use or includes backflow prevention devices if installed in conjunction with water meter.*
- *Replacing existing broken/malfunctioning water meters with Automatic Meter Reading systems (AMR), meters with built in leak detection, or backflow prevention devices if installed in conjunction with water meter replacement.*
- *Retrofitting/adding AMR capabilities or leak equipment to existing meters (not replacing the meter itself).*
- *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.*
- *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.*
- *Recycling and water reuse projects that replace potable sources with non-potable sources such as gray water, condensate, and wastewater effluent reuse systems (where local codes allow the practice) and extra treatment costs and distribution pipes associated with water reuse.*
- *Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems, including moisture and rain sensing controllers.*
- *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.*
- *Distribution system leak detection equipment, portable or permanent.*
- *Automatic flushing systems (portable or permanent).*
- *Pressure reducing valves (PRVs).*
- *Internal plant water reuse (such as backwash water recycling).*
- *Water meter replacement with traditional water meters**
- *Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks**
- *Storage tank replacement/rehabilitation to reduce water loss**
- *New water efficient landscape irrigation system (where there currently is not one).**

Projects That Do Not Meet the Definition of Water Efficiency:

- Covering open, finished water reservoirs

C. Energy Efficiency

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

Points Received: 15 each with no maximum

Examples:

- *Renewable energy projects, which are part of a 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.*
- *Utility-owned renewable energy projects can be located on-site or off-site, includes the portion of a publicly owned renewable energy project that serves the utility's energy needs, and must feed into the grid that the utility draws from and/or there is a direct connection.*
- *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.*

- *Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)).**
- *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.).**
- *Projects that result from an energy efficiency related assessments (such as energy audits, energy assessment studies, etc).**
- *Projects that cost effectively eliminate pumps or pumping stations. **
- *Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.**
- *Upgrade of lighting to energy efficient sources (such as metal halide pulse start technologies, compact fluorescent, light emitting diode, etc).**
- *Automated and remote control systems (SCADA) that achieve substantial energy savings (see AWWA M2 Instrumentation and Control).**

**Denotes that a business case may be required*

Projects That Do Not Meet the Definition of Energy Efficiency:

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

D. Environmentally Innovative

Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way.
Points Received: 5 each with a maximum of 10

Examples:

- *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.*
- *Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.*
- *Eligible source water protection planning, including periodic, updated, or more detailed source water delineation or assessment as part of a more comprehensive source water*
  protection program; or source water monitoring (not compliance monitoring) and modeling as part of a more comprehensive source water protection program.
- *Planning activities by a utility to prepare for adaptation to the long-term effects of climate change and/or extreme weather.*
- *Utility Sustainability Plan consistent with EPA's SRF sustainability policy.*
- *Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry), as long as it is being done for a facility which is eligible for DWSRF assistance.*
- *Source Water Protection Implementation Projects such as voluntary, incentive based source water protection measures, where the state primacy agency has determined that the use of such measures will reduce or preclude the need for treatment.*
- *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. 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. Any level of certification (Platinum, Gold, Silver, Certified) is eligible.*

- *Projects, or components of projects, that result from total/integrated water resources management planning (including climate change) that are DWSRF eligible.**
- *Projects that significantly reduce or eliminate the use of chemicals in water treatment.**
- *Treatment technologies or approaches that significantly reduce the volume of residuals, minimize the generation of residuals, or lower the amount of chemicals in the residuals.**
- *Trenchless or low impact construction technology.**
- *Using recycled materials or re-using materials on-site.**
- *Educational activities and demonstration projects for water or energy efficiency (such as rain gardens). **
- *Projects that achieve the goals/objectives of utility asset management plans.**

**Denotes that a business case may be required*

Projects That Do Not Meet the Definition of Environmentally Innovative:

- Higher sea walls to protect water infrastructure facilities from sea level rise.
- Reflective roofs at water infrastructure facilities to combat heat island effect.

IX. PROJECT READINESS

To be considered "project ready", the borrower must have completed a majority of the planning phase and be ready to bid the project. All three of the criteria under this category must be met in order to receive the full 30 points.

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

A. Borrower has submitted complete technical plans to the Division of Water; and,

B. Borrower has conducted a full environmental review for all components of the project or has completed the cross-cutter scoping process (including eClearinghouse, US Fish and Wildlife Service, National Resources Conservation Service, U. S. Fish and Wildlife, and U. S. Army Corps of Engineers); and,

C. Borrower has received funding commitments from other funding sources; or the DWSRF is the sole source of funding.
Points Received: 30

Note: **Projects will *not be accepted* after the call for projects is closed.**

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 (where one does not presently exist) 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	 25 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, lines with leaks, breaks, or restrictive flows due to age, or lead or asbestos-cement pipe (ii) Rehabilitation or replacement of a water storage tank (iii) New water storage tank (iv) New or rehabilitated pump station (not an appurtenance to a new tank)	 10 30 20 10
B	Finished Water Quality (i) Infrastructure to address inadequate turnover and disinfection byproducts (ii) Redundant equipment/emergency power generators	 20 10
C	Extension of Service Waterline extensions to serve existing households with inadequate domestic water supplies such as contaminated wells or cisterns (Up to 10 existing homes)	20
	Two additional points for every additional 10 households thereafter	2

IV	Security	Possible Points
	Measures taken at the water treatment plant facilities or within the distribution system	5

V	Compliance and Enforcement	Possible Points

A	Entities with executed Court Orders or Agreed Orders (*Project must address the terms of the Order*)	50
B	System has not received any Notices of Violation within the previous state fiscal year – July 2015-June 2016	25

VI	Public Water System Financial Need	Possible Points
A	Borrowers with a median household income (MHI) below 80 percent of the Commonwealth's MHI as determined by the current American Community Survey (ACS) 5-Year Estimate	20
B	Borrowers with a MHI between 80 and 100 percent of the Commonwealth's MHI as determined by the current ACS 5-Year Estimate	10

VII	Asset Management	Possible Points
A	System has an Asset Management Program or similar planning document	20
B	System's monthly water bill, based on 4,000 gallons, as a percentage of Median Household Income is:	
	Greater than or equal to 2.0%	10
	Between 1 and 1.99%	5
	Below 1%	0
C	System has specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure	10

VIII	Green Projects (See Green Project Reserve Guidance Document)	Possible Points
A	Green Infrastructure : Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintains and restores natural hydrology by infiltrating, evapotranspiring and harvesting and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains, and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale, green infrastructure consists of site- and neighborhood-specific practices, such as: • Bioretention • Green streets • Green roofs • Permeable pavement • Cisterns	5 each/10 maximum

B	Water Efficiency: The use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future. Examples include: • Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals) • Installing any type of water meter in previously unmetered areas (can include backflow prevention if in conjunction with meter replacement) • Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention • Retrofitting/adding AMR capabilities or leak equipment to existing meters • 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 • Developing conservation plans/programs reasonable expected to result in a water conserving capital project or in a reduction in demand to alleviate the need for capital investment • Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate, and wastewater effluent reuse systems, extra treatment or distribution costs associated with water reuse) • Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems • Water meter replacement with traditional water meters * • Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks* • Storage tank replacement/rehabilitation to reduce water loss* • New water efficient landscape irrigation system, where there currently is not one*	15 each with no maximum
C	Energy Efficiency: Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water projects, use energy in a more efficient way, and/or produce/utilize renewable energy. Examples include: • Renewable energy projects, which are part of a public health project, such as wind, solar, geothermal, and micro-hydroelectric that provides power to a utility • Utility-owned or publically-owned renewable energy projects • Utility energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas • Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)* • Pump refurbishment to optimize pump efficiency* • Projects that result from an energy efficient related assessment* • Projects that cost effectively eliminate pumps or pumping stations* • Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient* • Upgrade of lighting to energy efficient sources* • Automated and remote control systems (SCADA) that achieve substantial energy savings*	15 each with no maximum

D	Environmentally Innovative: Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way. Examples include: • Total integrated water resources management planning, or other planning framework where project life cycle costs are minimized, which enables communities to adopt more efficient and cost-effective infrastructure solutions • Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity • Source water protection planning (delineation, monitoring, modeling) • Planning activities to prepare for adaptation to the long-term affects of climate change and/or extreme weather • Utility sustainability plan consistent with EPA's sustainability policy • Greenhouse gas inventory or mitigation plan and submission of a GHG inventory to a registry as long as it is being done for an SRF eligible facility • Construction of US Building Council LEED certified buildings, or renovation of an existing building • Projects that significantly reduce or eliminate the use of chemicals in water treatment* • Treatment technologies or approaches that significantly reduce the volume of residuals, minimize the generation of residuals, or lower the amount of chemicals in the residuals* • Trenchless or low impact construction technology* • Using recycled materials or re-using materials on-site* • Educational activities and demonstration projects for water or energy efficiency (such as rain gardens)* • Projects that achieve the goals/objectives of utility asset management plans*	5 each/10 maximum

*Denotes that a business case may be required.

IX	Project Readiness	Possible Points
	A. Borrower has submitted complete technical plans and specifications to the Division of Water; and, B. Borrower has conducted a full environmental review for all components of the project or has completed the cross-cutter scoping process (including eClearinghouse, USFWS, NRCS, and USACoE); and, C. Borrower has received funding commitments from other funding sources, or the DWSRF is the sole source of funding	30