

**COMMONWEALTH OF PENNSYLVANIA
PA INFRASTRUCTURE INVESTMENT AUTHORITY
and
PA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

CLEAN WATER STATE REVOLVING FUND

INTENDED USE PLAN

FY 2017

May 2017

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2. Project Priority List for Wastewater Projects
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**Clean Water State Revolving Fund
Intended Use Plan
FY 2017**

I. Introduction

Pennsylvania herewith submits its Intended Use Plan (IUP) for use of all Clean Water State Revolving Fund (CWSRF) monies awarded or available through September 30, 2017 under Title VI of the Water Quality Act of 1987 (Act). This consists of all awarded grant funds through the FFY 2017 appropriation, appropriate state match funds, and principal/interest/investment income. The initial FY2017 capitalization grant application is for up to \$63,510,000 from the CWSRF. State match will be \$12,702,000. This IUP describes the intended uses for all these funds. Attachment 1 was developed with these figures in mind and summarized below in Section II. The FY2017 CWSRF amount is \$63,510,000, state match is \$12,702,000. The total grant is \$63,510,000.

The State has developed a comprehensive Cash Flow Projection Model to determine the optimal annual project approval funding. This Model incorporates both state and federal loan funding, as well as state grant availability.

As part of Act 13 of 2012, a fee is now being charged for the extraction of oil and gas. These fees are being allocated to a number of different funds for different purposes. PENNVEST will receive annual amounts from the “Unconventional Gas Well Distribution fund” to use as grants to projects. Some of these funds may be used to supplement the Federal program funding.

The CWSRF program is an essential component of the Commonwealth’s efforts to protect and improve the quality of life of the citizens of Pennsylvania by helping to protect the water environment, promoting community revitalization and supporting economic development. To this end, the Pennsylvania Infrastructure Investment Authority (PENNVEST) and the Department of Environmental Protection (DEP) work closely together and with other state and federal agencies to identify opportunities for funding specific projects and to coordinate funding efforts. These efforts are instrumental in achieving the requirements of the federal Clean Water Act.

II. Fiscal Year 2017 Project Funding

Under this FY 2016 IUP, Pennsylvania intends to fund wastewater and nonpoint source projects with a total dollar value of up to \$63,510,000 (\$63,510,000 from the FY2017 CWSRF grant and \$12,702,000 from the required 20% state match.) Pennsylvania reserves the authority to decide in the future which methodology to use for Administration, though it likely will be 1/5th of the net. For this year, Pennsylvania is not taking any funds for Administration. This IUP also includes funds received from loan repayments and interest earnings. Please refer to the Sources and Uses Chart in

Attachment 1 for use by project. A minimum of \$5,292,500 has been reserved for allocation to “Green Infrastructure” projects consistent with the EPA Guidance, “2012 Clean Water and Drinking Water State Revolving Fund 10% Green Project Reserve: Guidance for Determining Project Eligibility” dated April, 2012. In addition, a minimum of \$5,292,500 and a maximum of \$15,877,500 will be provided to disadvantaged communities as defined in Section IV in the form of principal forgiveness. In addition, projects funded in FY2017 must still be consistent with program revisions established by the federal Water Resources Reform and Development Act (WRRDA) passed in June 2014. EPA provided further guidance on these program revisions in the document, “Interpretive Guidance for Certain Amendments in the Water Resources Reform and Development Act to Titles I, II, V, and VI of the Federal Water Pollution Control Act”, dated January 6, 2015 and subsequent Appendices and Question and Answer documents (WRRDA Guidance). Among these program revisions include the requirement for all Section 212 Treatment Work projects to:

1. Pay their workers the federal Davis-Bacon wage rates for their job classification.
2. Ensure that certain aspects of the project are made with American made iron and steel products as defined by the EPA Guidance, “Implementation of American Iron and Steel Provisions of P. L. 113-76, Consolidated Appropriations Act, 2014” dated March 20, 2014, and
3. Develop a Fiscal Sustainability Plan to include:
 - (a) an inventory of critical assets that are a part of the treatment works;
 - (b) an evaluation of the condition and performance of inventoried assets or asset groupings;
 - (c) a certification that the recipient has evaluated and will be implementing water and energy conservation efforts as part of the plan; and
 - (d) a plan for maintaining, repairing, and, as necessary, replacing the treatment works and a plan for funding such activities.

In the WRRDA Guidance, EPA further states that, “states should use best professional judgment to determine whether or not a project is a Section 212 treatment work...”) Attachment 7 is Pennsylvania’s definition of a Section 212 treatment work, along with a flow chart and the logic behind this definition. Attachment 7 will be used by DEP and PENNVEST to determine whether or not a project meets the definition of a Section 212 project and apply the necessary WRRDA requirements accordingly.

In FY2017, Pennsylvania expects to finance approximately nine wastewater, stormwater and nonpoint source projects with the federal cap grant and state match. These include:

- Two projects that have already been identified to receive principal forgiveness, totaling approximately \$6,365,197. These projects are in communities that could not otherwise afford financing.

- One project that has already been identified to qualify for the Green Project Reserve totaling \$7,394,000.

Additional projects are funded with recycled funds. Attachment 1 includes Pennsylvania's project funding list. These are the projects that Pennsylvania expects to fund in FY2017.

III. Short and Long Term Goals

The Mission of PENNVEST and the Program is to protect the quality of life for Pennsylvania residents by providing financing for facilities and other improvements that provide for a clean, safe and healthful environment, support economic development and community revitalization. To accomplish this, PENNVEST has established the following short and long term goals.

A. Short-Term Goals

1. Achieve a 95 percent fund utilization rate (cumulative loan agreements to the cumulative funds available for projects) for FY 2017.
2. Increase the availability and quality and reliability of information available to stakeholder parties via web based and other electronic means.
3. Continue to improve coordination of CWSRF financial assistance, planning, permitting and enforcement activities as well as non-point source management activities among DEP, PENNVEST and other agencies, including the Public Utility Commission.
4. Develop markets, and coordinate technical/funding efforts for the on-lot program, brown fields, abandoned mine drainage, grey fields and other non-point source related activities.
5. Promulgate revised Chapter 963 PENNVEST regulations and eliminate Chapters 961 and 965.
6. Continue to insure compliance with federal requirements related to Disadvantaged Business Enterprise (DBE) program, Davis Bacon, American Iron and Steel, and as defined in WRRDA.
7. Continue to enhance the results of the Pennsylvania Gap Study by merging the results of this study with future Clean Water Needs Survey to further enhance the estimation of total infrastructure financing need in the Commonwealth.

8. Implement a federal trust indenture that will allow for the issuance of revenue bonds, commercial paper, and implementation of a loan/bond guarantee program. It will be cross-collateralized with the DWSRF.

B. Long-Term Goals

1. Provide funding that will enable publicly owned wastewater systems to achieve and/or maintain compliance with State and Federal water quality standards.
2. Administer the CWSRF to issue loans, loan guarantees, or insurance, at fees commensurate with risk, such that the revolving nature of the CWSRF is assured in perpetuity.
3. Ensure proper accounting, audit and fiscal procedures conforming to accepted governmental accounting standards are implemented.
4. Support and implement infrastructure sustainability initiatives to protect public health and the environment in accordance with “EPA’s Clean Water and Drinking Water Infrastructure Sustainability Policy” dated October 1, 2010.
5. Continue to develop and expand the nutrient trading and auction program in support of reductions of nutrients to the Chesapeake Bay.

IV. Allocation of Funds

Allocation of funds for eligible traditional and nonpoint source projects is based on a three-step process:

1. The type and amount of financial assistance needed for each community is determined;
2. The sources and spending limits for all Fiscal Year 2017 CWSRF funds are identified; and
3. The CWSRF funds are allocated among the projects, consistent with the amount available and the financial assistance needed.

Information pertinent to each CWSRF project is contained in the Attachment 1, Chart 1, pursuant to Section 606(c)(3) of the Act.

A. Criteria and Method for Distribution of Funds

The following approach was used to develop Pennsylvania’s proposed distribution of its funding:

- Analysis of the type of communities served and financial assistance needed;
- Identification of the sources and spending limits of Fiscal Year 2017 funds;
- Development of a payment schedule which will provide for making timely binding commitments to the projects selected for CWSRF assistance; and
- Development of a disbursement schedule to pay the project costs as incurred.

Bypass Procedures

The projects designated for funding in FY 2017 fall under the eligible need Categories. Projects on Chart 1 (See Attachment 1) satisfy all the enforceable requirements of the Act.

In the event that projects identified for funding in the IUP are unable to proceed, these delayed projects will be bypassed and other projects from the PPL will be funded based on the project priority ratings, the criteria identified in Section 10(b) of Act 16 and Section 963.8 of the PENNVEST regulations.

A project may also be bypassed if the PENNVEST determines that provision of funds from the CWSRF will be used to replace or supplant other funds reasonably available for the project. Further, the PENNVEST reserves the right to provide funding for only a portion of the total costs of a project or only a portion of the amount requested where the municipality can, based on its ability to pay, obtain other affordable financing for the remainder of the project.

A project may be bypassed if Pennsylvania determines that a different project should be funded due to an emergency condition that can only be addressed in an immediate time frame. The final IUP and PPL lists will reflect the changes caused by the emergency situation.

Bypassed projects that retain their priority rating will be subject to the same eligibility and funding considerations from future allotments as other fundable projects.

B. Types of Projects to be Funded

Project Development

Each project is reviewed by the regional DEP staff for cost-effectiveness, including the sizing of proposed facilities. Approved projects must be designed to meet only existing needs and future needs based on reasonably expected growth.

Where project cost estimates include excess capacity for service beyond normal growth, project approval is based solely on that portion of the project needed to eliminate the Public Health or Compliance concerns for the existing and reasonably expected future customers. Although the project applicant may receive a DEP permit to construct whatever size facility it deems appropriate and which meets DEP design standards, the awarding of PENNVEST CWSRF funding is limited to those costs, which meet these criteria.

All CWSRF projects are ranked and funded based upon the rating criteria agreed upon by Pennsylvania and EPA. Some projects may obtain an updated rating based upon information provided by the project sponsor at the time of application. Pennsylvania has state funds that may be used for projects as well. If a project is included on the original IUP as CWSRF-eligible, and the review and ranking process concludes that it is not CWSRF-eligible, it will be bypassed and potentially funded through non-CWSRF funding sources. Other CWSRF-eligible and ranked projects would move onto the IUP to fill any resulting gaps. A brief description of each project on the IUP list is included following the list.

IUP and PPL Amendment Process

Annually, as part of the CWSRF Annual Report, DEP/PENNVEST will submit to EPA one PPL and one IUP/fundable list for EPA's approval of all projects that have been approved for funding during the prior year for EPA review and approval. This post approval amendment process will allow for the multiple PENNVEST board meetings and amendments throughout the year and is based on the experience that has been developed over the years. Additionally, a brief description of the environmental or public health concerns and descriptions of all new projects will be included. EPA will review and approve these revisions as part of its annual review process.

Should a project be approved by PENNVEST and included on the IUP/PPL that subsequently is found to not be an eligible project, it will be removed from the fund and any funds that have been expended will be reimbursed to the fund.

Project Classification Process

With the passage of WRRDA and the development of revisions to PENNVEST regulations, it became evident that a clear process for the classification of wastewater, stormwater and nonpoint source projects was needed. This classification process will:

1. Facilitate the application of the appropriate federal requirements, including those recently established under WRRDA. This is especially important for Section 212, Treatment Works Project. Pennsylvania has determined these projects include wastewater projects only. The logic

behind this definition is described in Attachment 8, Policy Statement – Definition of Treatment Works.

2. Separate stormwater projects from nonpoint source projects for the purpose of ranking reviewing and project management.
3. Further define which projects are categorically green under the criteria for “green infrastructure” as defined by the EPA Grant Guidance, “2012 Clean Water and Drinking Water State Revolving Fund 20% Green Project Reserve: Guidance for Determining Project Eligibility” dated April, 2012.

This classification process is illustrated in the flow chart in Attachment 7. It is based on the problem being solved and the type of practices being constructed by the project to solve the problem. DEP will use this flow chart to define each project as part of the application review process before the project is ranked and recommended for funding.

Wastewater Projects

To determine which wastewater treatment facility projects should be funded by the CWSRF; the Fiscal Year 2017/2018 Project Priority List (PPL), Attachment 2, was revised and the projects expected to need CWSRF funds within the next twelve to eighteen months identified. Projects included on the IUP project list are selected from the PPL using Attachment 4, EPA approved project ranking criteria, the criteria identified in Section 10(b) of Act 16 of 1988 and in Title 25, Section 963.8 of the PENNVEST regulations. This ranking framework for the selection of wastewater projects was revised and approved by the PENNVEST Board on April 22, 2014 after review and approval by EPA. The ranking of projects using the Chapter 103 regulations has been discontinued.

Green Infrastructure Projects

In this application Pennsylvania proposes to utilize at least 10% (\$5,292,500) of this capitalization grant to fund green infrastructure projects as defined by EPA to include the following categories:

1. Water efficiency
2. Energy efficiency
3. Green Infrastructure (Nonpoint Source Projects)
4. Environmentally innovative

Procedures for determining which projects are categorically green and which projects require a business case will be implemented consistent with the EPA Grant Guidance, “2012 Clean Water and Drinking Water State Revolving Fund 20% Green Project Reserve: Guidance for Determining Project Eligibility” dated April, 2012. The Project Priority List will identify which projects are “green,”

which category the project addresses and whether or not a business case is required. This will be posted on the DEP website on the Bureau of Clean Water Infrastructure Finance page.

Nonpoint Source Projects

The 1994 CWSRF Grant Application included funding for the Pennsylvania On-Lot Program to fund repair and replacement of individual on-lot systems. Under this IUP, Pennsylvania will continue to implement its On-Lot Sewage Disposal System Loan Program with funds from the FY17 capitalization grant equal to the amount expected to be utilized during the year. The intention is to continue to include an annual allocation in each cap grant. The loans are used to repair or replace malfunctioning on-lot sewage disposal systems or install/replace private laterals and the necessary connections into an existing wastewater treatment system, eliminating related groundwater and stream contamination problems. This program is a cooperative effort among the PENNVEST, the Pennsylvania Housing Finance Agency (PHFA), the DEP, and local financial institutions to provide funding to address the public health and environmental needs which result from malfunctioning on-lot systems in areas where public collection and treatment facilities are not practical in the immediate future. Eligible costs include all testing, design, permits, and construction costs associated with the repair, rehabilitation, improvement, expansion or replacement of an existing individual on-lot sewage disposal system or all costs associated with the installation of all necessary pipes and appurtenances outside of the home to convey the individual homeowners sewage to an existing wastewater treatment system. This program will complement other state sourced efforts to aid in non-point source pollution reduction. As of January 31, 2017 a total of \$7,371,336 has been set aside for the on-lot loan program. As of January 31, 2017, \$6,586,770 in on-lot loans has been settled, in cooperation with Pennsylvania Housing Finance Agency.

In this application Pennsylvania proposes to use a portion of the CWSRF capitalization grant to fund the Nonpoint Source Program that was created in 2010. This program will be implemented in accordance with Attachment 7, the Nonpoint Source program preliminary design manual dated June 2016. Now that the changes to PENNVEST's authorizing legislation have passed to: (1) expand the list of eligible applicants for this program to include private entities and non-profit organizations and (2) eliminate the requirement as eligibility criteria for Act 167, Stormwater Management Planning, this manual can be finalized. This is one of the short term goals for the program. Projects designed to address the three top sources of nonpoint source pollution, as identified in the Commonwealth's approved Section 319 Nonpoint Source Management Program Plan; resource extraction, agriculture and urban runoff, will be implemented through this program. Attachment 5 is the proposed revised framework to be used for the prioritization of these projects.

Pennsylvania also plans to use a portion of the CWSRF funds for 2017 to assist with groundwater cleanup and site remediation efforts under the Commonwealth's Land Recycling Program, commonly referred to as the "brownfields" program. The DEP Bureau of Land Recycling and Waste Management oversee the implementation of the Land Recycling Program. The Bureau currently maintains an inventory of more than 1,000 sites in the Commonwealth, which serves as the basis for prioritizing and scheduling site assessments and cleanups. Brownfield projects funded with these funds are consistent with Pennsylvania's approved Section 319 Nonpoint Source Management Program as defined in the Nonpoint Source Management Plan.

Stormwater Projects

In 1992, the PENNVEST began to utilize state funds to provide low interest loans to construct, improve or rehabilitate public storm water facilities to address urban runoff. Facilities eligible for this funding are: (1) new or updated storm sewer systems to reduce storm water flooding or to separate storm water from sanitary sewers and (2) detention basins to control storm water runoff. Consistent with PENNVEST statute, Pennsylvania's stormwater management regulations, and the addition under WRRDA of eligible activities for CWSRF funding to "manage, reduce, treat, or recapture stormwater or subsurface drainage water", investment in the construction of the more traditional "bricks and mortar" type projects may be necessary. Attachment 6 is a draft ranking framework for these projects. Once approved by the PENNVEST Board and EPA, these projects will be reviewed and selected in accordance with that framework. These projects will continue to be added to the Nonpoint Source Project Priority List and managed in accordance with the program procedures described in Attachment 7, the program manual for the nonpoint source program. Until such time as a separate ranking framework is finalized, these projects are being reviewed and selected for funding in accordance with the ranking framework described in Attachments 5, the ranking criteria for the nonpoint source program.

Nutrient Credit Trading Program

PENNVEST, in cooperation with DEP, is acting as an exchange in the Pennsylvania nutrient trading market. The purpose of this effort is to facilitate the development of a viable market for the trading of nitrogen and phosphorous credits in the Chesapeake Bay watershed, in support of Pennsylvania's meeting its nutrient limits to the Bay. In its capacity as an exchange for the Pennsylvania nutrient trading market, PENNVEST is entering into contracts to:

- buy certified nutrient credits created in the Bay watershed (e.g. by the implementation of agricultural BMP's), and
- sell credits to permitted sources in the Bay watershed (e.g. POTWs and developers).

There will be two mechanisms through which PENNVEST will enter into these contracts. First, PENNVEST will conduct periodic “double auctions” wherein certified credits will be exchanged. These will be contracts to buy and sell certified credits for, at least initially, a five year period following the auction. Certified credits are nutrient reduction credits that have been or will be generated by a proposed or implemented pollutant reduction activity that has been certified by DEP to generate credits. PENNVEST will simultaneously solicit bids from both credit sellers and credit buyers, wherein they will specify the types of credits that they want to exchange (nitrogen or phosphorous), the amounts (lbs/yr) that they want to trade and the prices at which they are offering credits for sale (sellers) or which they are willing to pay (buyers). They will also specify the year(s) in which they want to either sell or buy credits. At the conclusion of the auction, PENNVEST will analyze both groups of bids to determine where “matches” can be made. For example, as long as PENNVEST can find an offer to sell a certain amount of credits at a price at or below some offer to buy that amount of credits, a “match” will be made and PENNVEST will subsequently enter into contracts with the sellers and buyers involved in that “match”. This process will continue until no more matches can be gleaned from that auction, i.e. the next lowest offer to sell is at a price higher than the next highest bid to buy. It is important to note that the buyers and sellers will not be entering into contracts with each other, but rather all will be entering into contracts with PENNVEST. PENNVEST will be guaranteeing performance on both sides of the market.

The other mechanism for creating countervailing certified credit contracts will be through “bilateral agreements”. Under this approach, particular buyers and sellers who want to deal with each other through PENNVEST can propose countervailing contracts to PENNVEST, which PENNVEST could agree to in the same manner as with successful sellers and buyers in the auction. This mechanism can occur independent of the auction process. If PENNVEST decides that it finds the prospective seller and buyer to be good financial credit risks and also that the proposed credit exchange prices are reasonable, then PENNVEST will enter into countervailing contracts with them just as if they had gone through the auction process.

The one other mechanism for trading credits will be an annual auction for registered credits that will take place at the end of each compliance year. The mechanism for establishing exchanges of verified credits will be the same as described above in the auction for certified credits. In this auction, all contracts will be in verified credits that permitted sources (e.g. publicly owned treatment works) can use to meet their annual permit requirements. This auction will be held during the “true-up period” identified in the NPDES permit.

PENNVEST’s intention in participating in the Pennsylvania nutrient trading market as an exchange is to bring certainty of contract performance to both the buy and sell sides of the market, thus fostering the market’s development. The greatest perceived risk seems to be on the credit supply side of the market and

PENNVEST will be able to mitigate this risk in ways that any individual credit buyer could not do. That is the benefit that PENNVEST brings to the market that will allow this market to become more robust. In the event that some certified credit sellers do not fulfill their contracts with PENNVEST, there will be some security in obtaining substitute credits from the following two sources:

- DEP’s reserve pool of credits that it creates through the credit certification process, and
- PENNVEST’s ownership of credits that it obtains when it funds credit generating projects in its normal funding process.

Finally, PENNVEST and DEP have coordinated and will continue to organize the state funding that is available to maximize the opportunities to blend with CWSRF loan funding, if and when it is appropriate.

PA State-Level Riparian Buffer Program

DCNR and a broad partnership of public and nonprofit partners are developing a state-level riparian buffer program as an additional tool to encourage landowners to voluntarily install buffers along creeks to improve water quality. The program will encourage broader participation than is currently active in the state through wider landowner eligibility, greater design flexibility, and – most importantly – added incentives for participating landowners to generate income from their buffer plantings beyond a 15-foot minimum “natural buffer” zone. DCNR’s goal is to help the state meet its Chesapeake Bay goal of 95,000 acres of new riparian forested buffers by 2025. PENNVEST grant funding at first, and investment funds later, would be used to cover the cost of plant materials, installation, and three (3) years of maintenance. The purpose of the grant funding is to support the set up the platform, and development of a business plan in support the program as a future investment. A portion of the annual income produced by the buffers would be used to pay back the capital portion of the funds over a set period of time. DCNR would contract these funds to third-party conservation groups to do the outreach, installations and maintenance, with DCNR’s forestry staff providing technical assistance. Landowner agreements would establish the minimum establishment period for the buffers, the pay-back mechanisms, and DEP would oversee acreage reporting and verification.

Support of the Development and Construction of Mussel Hatchery

PENNVEST is working with the Partnership for the Delaware Estuary, and several other regional partners in the development of a production-scale mussel hatchery aimed at restoring populations of common species of native mussel beds in the Susquehanna and Delaware watersheds. Currently exploring the benefits of direct funding, or support through an investment vehicle.

C. **Determination of Financing Rates**

Pennsylvania uses a financial capability analysis to determine the funding amount, loan interest rate, repayment period and/or any principal forgiveness. A further description of this analysis is below.

All of the projects are new; therefore, we do not anticipate using refinancing provisions under the CWSRF this year.

Affordability Criteria

The following is a description of PENNVEST’s “affordability” methodology that is currently used to determine where to place available principle forgiveness, or state sourced grant funding in order to make otherwise prohibitively expensive projects affordable to their users. This same approach also determines the interest rates that we charge on our loans, the loan repayment period and, in some cases, the amount of funding that PENNVEST offers to applicants.

The general philosophy that lies behind the affordability methodology is that the ultimate determinant of a community’s ability to pay for a project hinges on the ability of the project’s users to pay for the services they receive, i.e. the drinking water, wastewater or storm water services provided by a PENNVEST-funded project. PENNVEST adjusts the financial assistance that is offered to a community to make the project affordable for its users. Adjustments can take the form of reduced interest rates on the loans, extended loan payback periods, principle forgiveness or grants (or some combination of the options). In order to decide if any adjustments are necessary, the first step is to define what we mean by “affordable”.

Each applicant is evaluated with a number of demographic factors to measure the local economic circumstances of the community. Most of these factors are derived from the most recent U.S. Census available on a Census Tract or Block Level basis from the Pennsylvania State University Data Center. The specific data used includes:

- Median Household Income – for this factor, the most recent Census data is updated by changes in the Consumer Price Index in order to get an estimate of the current income level
- the percentage of the population over age 64
- the percentage of the population below the poverty line
- the rate of population change in the community between census data collection

A measure of local economic well-being constructed by the Department of Community and Economic Development (DCED) and used in its Financially Distressed Municipalities Matching Assistance Program is also used. The Early

Warning System measure is constructed from nineteen variables that measure the financial condition of each municipality in the Commonwealth.

All of these measures are used together to construct a “target percentage” for an applicant community. This is the percentage of annual income that the users of a project are reasonably expected to be able to pay for either drinking water, wastewater or storm water service. This percentage is constrained to be between one and two percent of the adjusted median household income. The relationships between each of the above factors and an applicant’s target percentage are:

- Median household income – direct relationship (the lower is median household income, the lower is the target percentage)
- The percentage of the population over age 64 – inverse relationship (the higher is the percentage of the population over age 64, the lower is the target percentage)
- The percentage of the population below the poverty level – inverse relationship (the higher is the percentage of the population below the poverty line, the lower is the target percentage)
- The rate of population change between the most recent census – direct relationship (if population declined the target percentage is reduced)
- Early Warning System measure of economic distress – inverse relationship (the more distressed a community is, the lower is the target percentage)

Once calculated, the target percentage is then used to derive the target user rate for an applicant community. This target rate is simply the product derived from multiplying the target percentage by median household income. It is this target rate that PENNVEST tries to achieve by manipulating the terms of the financial assistance offered to applicants. In doing this the target user rate is compared with the actual rate that project customers will have to pay after the project being funded by PENNVEST is completed. This estimate takes into account all costs borne by these users, not just those associated with the project PENNVEST is funding.

If the actual resulting user rate exceeds the target rate, there are a number of options:

1. Reduce the interest rate on the loan, down to a minimum of 1.0 percent.
2. Substitute grant or Principle Forgiveness Loan funds for loan funds. Typically, this is constrained in the following ways:
 - No grant or Principle Forgiveness Loan funds will be invested into a project if the resulting user rate reduction is less than \$15 on an annual basis.
 - Grants or Principle Forgiveness Loans are prorated over eligible recipients. That is, once the projects to be funded and the amount of available grant/principle forgiveness funds are identified for a particular

meeting, the available grant/principle forgiveness loan funds is pro-rated to the eligible projects in proportion to the unconstrained amounts that the affordability analysis determines for each recipient.

3. Extend the term (i.e. repayment period) of the loan to more than twenty years. The loan term will not be extended:
 - Beyond 30 years.
 - If the user rate reduction is less than \$15 on an annual basis.

In some cases PENNVEST may offer only part of the funding that an applicant requests, particularly if there is a much greater demand for funding than we can meet. This can occur when the actual user rate that will result from a project is below the affordable rate, even assuming that the maximum interest rates for a twenty-year loan are charged. In such cases, typically 50 percent of the needed funding is offered and the borrower is expected to obtain the other 50 percent from some other source (e.g. a bank or a bond issue). The resulting user rate that is calculated and compared with the affordable rate includes the debt service on this other borrowing.

The latest tool available to applicants is Loan Guaranty. In cases where the program can only offer partial direct loan funding, or due to fund capacity, no direct loan funding, PENNVEST now has the option to provide a loan guaranty for those projects in order to mitigate the costs associated with project implementation. In these cases, the community/system would be able to take advantage of private sector borrowing to complete their funding package, using PENNVEST and its bond rating as security, reducing their overall cost of borrowing.

Non-Point Source (NPS) projects are evaluated based upon the land owner/project benefactor's capacity to cover debt service. Public or private entities may directly apply for non-point source water quality projects.

The capacity of the benefactor is evaluated with a review of audited financial statements, personal financial statements, tax returns and/or other information depending upon how they are structured.

For **Private for Profit** projects PENNVEST utilizes tax returns and personal financial statements of the land owner, typically a farmer, but could also be a developer or farm service related industry, to evaluate availability of operating revenue and cash flow analysis to cover debt service on a loan. A four prong approach to this review is used:

1. If the average gross revenues for the most recent three years are equal to or greater than \$1 Million the funding is offered as a loan.
2. If the average gross revenues for the most recent three years is less than \$1 Million, but the average cash flow before taxes is greater than \$100,000 and

this average net cash flow exceeds the projected PENNVEST debt service; the funding is offered as a loan.

3. When average gross revenues for the most recent three years is less than \$1 Million and the average cash flow before taxes is less than \$100,000 but the PENNVEST debt service is less than 15% of the consolidated personal cash flow of entities' owners, the funding offered is loan.
4. Should the entity not meet any of the above criteria – funding offer is grant or Principal Forgiveness Loan.

For **Municipal or Not for Profit** sponsored projects PENNVEST evaluates the capacity of the entity as follows:

- Not for Profit – Tax returns, financial statements or other information as necessary. The intent is to reach through to owners/benefactors to evaluate capacity to cover debt service.
- Public – Audited financial statements, DCED reports or other information such as related to the General fund or Sewer fund revenues, as may be necessary to evaluate ability to handle debt. When a county or regional governmental unit is sponsoring a funding request, the capacity evaluation is based upon the municipality where the facilities/improvements are being constructed. Both cash flow and cash available are evaluated.

Test 1: if the unrestricted cash and investments are equal to or exceed last year's cash operating expenses (including cash paid for debt service) plus the amount of the requested PENNVEST funding.

Test 2: if the average cash flow before debt service for the last three years is equal to or greater than 2 times the total projected debt service (existing + new PENNVEST loan)

If they pass both tests, the funding is offered as a loan.

If they pass one test but fail the other the funding offer is ½ loan, ½ grant or Principle Forgiveness loan.

If they fail both tests the funding offer is all grant or Principle Forgiveness loan.

Disadvantaged Communities

PENNVEST utilizes a financial capability analysis that compares various community specific demographic data to similarly situated communities across the Commonwealth to determine a percent of the community's adjusted Median Household Income (MHI) that should be available to pay for water service. The amount that should be available to pay for water service by residential customers will range from one to two percent of the community's adjusted MHI dependent

upon the specific socio-economic factors that are provided by the Pennsylvania Department of Community and Economic Development. This process aids in an equitable distribution of residential user rates.

PENNVEST will offer a term extension from the normal 20 years up to but not to exceed 30 years repayment of principal and interest if necessary for “disadvantaged” systems. These extended term projects are funded with a Bond Purchase Agreement with the funding recipient; whereas, our projects with a term of less than 20 years are Loan Agreements.

Systems qualifying for term extensions must exceed the user rate(s) found in similar systems according to the PENNVEST financial capability model. The terms will be extended to a point that will allow the residential user rate to fall to a level equal to similar system’s cost of water service, as determined by the demographic analysis and financial capability analysis.

In considering projects where there are no immediate users, such as many storm water and nonpoint projects, the above-described methodology will be modified. In such cases PENNVEST will look to the applicant’s financial capability to repay a loan. If there is no reasonable expectation that this capability will be present, then PENNVEST could determine that the applicant fits the definition of a disadvantaged system.

Financing Rates

The Pennsylvania CWSRF loan program is required by state law to make loans with a minimum interest rate of one percent. This requirement insures the growth of the CWSRF fund in future years.

C. EPA Sustainability Policy

Pennsylvania is committed to promoting the long-term sustainability of the state’s wastewater treatment systems while protecting public health, water quality and the environment. In order to further promote elements of EPA’s Policy, PENNVEST has incorporated the following elements into the CWSRF Program:

1. Fix it first projects. “Fix it First” concepts are an important feature of the SRF programs. These concepts include:
 - Replacing existing infrastructure.
 - Augmenting infrastructure capacity to meet the needs of currently served areas.

- Repair or replacement of existing on-lot wastewater systems (generally septic) or individual household water systems (generally wells).¹
- Creating cluster systems to address localized individual home drinking water or wastewater needs, thus avoiding the alternative of running service lines through undeveloped land.

Examples that would run contrary to a fix-it-first approach:

- Extending service to an un-served or undeveloped area
- Upsizing existing infrastructure capacity to accommodate connection of currently un-served or undeveloped areas.

2. Asset Management – To promote the development and implementation of an asset management plan to ensure the long-term operation and maintenance of infrastructure constructed using PENNVEST funds, PENNVEST will pay up to \$25,000 for the development of an asset management plan as part of any wastewater treatment system project.
3. Project Ranking Criteria – Attachment 4, Wastewater Project Ranking Framework was revised to promote the implementation of sustainability principles for asset management and energy efficiency in 2008. These criteria were revised further to clarify how these concepts should be considered. This revised ranking criteria was reviewed and approved by the PENNVEST Board and EPA in April, 2014.

V. Financial Management

A. Source of State Match

State Match will come from the State Fund loan repayments, GO Bond proceeds, or State Match Revenue bonds.

B. Fee Income

PENNVEST does charge a fee for the NCT trades that are held outside the CWSRF. We will be charging fees for the guarantee program and are considering charging fees on traditional projects in the future.

C. Program Administration

Pennsylvania reserves the authority to decide in the future what methodology to use to determine the amount of Administrative funds in the future, as no funds are being requested from the 2017 cap grant.

¹ Note that individual wells are not DWSRF or CWSRF eligible but that should not impact the selection of whatever is the most cost-effective solution for a community.

D. Anticipated Cash Draw Ratio

PENNVEST is anticipating drawing all of the State Match funds first before drawing the Federal Funds.

E. Transfer of Funds

Pennsylvania continues to reserve the authority to transfer additional funds as appropriate at some time in the future, up to the maximum of 33% of the capitalization grants, respectively, between the DWSRF and the CWSRF. This transfer, in addition to the transfer of the maximum amount between the CWSRF and the DWSRF for all prior grants and any future transfers between funds, will assist in meeting the demand for CW and DWSRF funding. The effect of these transfers on the fund will be minimal.

F. Sources and Spending Limits of Federal Fiscal Year 2017 Funds

Total Sources and Uses identify Pennsylvania's total funding sources. The 2017 EPA Capitalization Grant Guidance established certain amounts of CWSRF funds must be used to meet particular requirements. These source/requirement limits were calculated before any allocations to projects are made.

The Sources and Uses table is in Attachment 1. This table identifies the sources and the uses of all the available funds in FY2017, including the federal capitalization grant, the state matching funds, bond proceeds and repayments.

G. Financial Management Strategies

PENNVEST is establishing a Federal Trust Indenture to cover the CWSRF disbursements to the funding recipients more quickly than going through Treasury. Included in the indenture will be authority to issue commercial paper (CP), revenue bonds, and guarantees. The intent of the CP program when fully implemented is to pay down the CP balance with a draw on the CWSRF program funds and state match when the cap grants are awarded, as well as the use of recycled loan repayments and issuance of revenue bonds. PENNVEST may opt to use State Match revenue bonds for the State Match portion. If PENNVEST decides to do this, documents will be provided to EPA for review as they are drafted.

Market Loan Rate

Based on Pennsylvania's financial assistance policy as noted above and an analysis of communities' ability to repay loans, PENNVEST will charge interest on all CWSRF loans in accordance with the following:

1. The minimum interest rate allowable for any loan is 1%. Maximum interest rates are determined by comparing the unemployment rate of the county in which the project is located to the statewide average unemployment rate. The figures used for unemployment rate comparison are the rates from the previous calendar year as reported by the Pennsylvania Department of Labor and Industry. For projects that serve multiple counties, the highest unemployment rate of the counties involved shall be used. For projects located within municipalities for which unemployment rates exist which would qualify the project for lower interest rates than if the relevant county unemployment rate were used, the unemployment rate of that municipality may be used in determining the interest rate of the loan. If the county unemployment rate exceeds the statewide average unemployment rate by 40% or more, the maximum interest rate allowable for projects in that county is 1% for the first five years of the term, and 25% of the interest rate the Commonwealth must pay for the bonds it has issued to finance the program for the remainder of the term.
2. For projects in counties where the unemployment rate exceeds the statewide average rate, but by less than 40%, the maximum interest rate is 30% of the state bond issue rate for the first five years of the term, and 60% of the state bond issue rate for the remainder of the term. Projects in counties whose unemployment rate is equal to or below the statewide average rate receive maximum interest rates of 60% of the bond issue rate and 75% of the bond issue rate for the first five years and the remainder of the term, respectively.
3. Interest rates may be set lower than the maximum if the PENNVEST Board determines that the community is so financially distressed that repayment of the loan is unlikely if the project were financed at the interest rate caps. If the Board determines that the community may not be able to repay the loan even if it were offered at 1%, the Board may offer the community a supplemental grant from a totally state funded account managed by the Board.
4. These reduced interest rates will allow many communities to undertake badly needed sewerage improvement projects that may not be financially feasible otherwise. These projects will ultimately benefit the health and safety of the residents while allowing for continued economic growth in the community.

The Brownfield funded projects interest rates will be at County Cap rates, with a maximum 20 year term.

Automated Clearinghouse (ACH)

Pennsylvania utilizes a state ACH program to electronically debit borrowers for debt service on their loans. The participation in the ACH program is a loan requirement. The ACH program insures the receipt of loan repayments on a timely basis. Additionally, PENNVEST offers the option to use the ACH program to electronically deposit disbursements to a loan recipient's account.

Leveraging of Funds

PENNVEST does not currently leverage funds. However, it is expected that this practice may be started during the life cycle of this grant. If so, the following approach will be used:

1. The monies to be used for security will primarily consist of all loan repayments, including principal and interest, as well as any debt service reserve funds, to the extent funded. The Clean Water and Drinking Water cash flows will be calculated separately for both debt service sufficiency and coverage (perpetuity), however the bonds will be issued on a combined basis.
2. As described above, the primary source of payment for Clean Water and Drinking Water portions of the revenue bonds will be from the revenues related to the respective programs, and in the event of loan defaults, the debt service coverage available in each respective program will be the first monies used to pay debt service. In the event that the applicable program's revenues are insufficient, the excess revenues (coverage) of the other program will be used to assure debt service sufficiency.
3. The bond documents will provide that, in the event, monies of one program (i.e., Clean Water) are used to pay debt service on the revenue bonds related to the other program (i.e., Drinking Water), the first available excess funds, either from recovered loan defaults or future revenue coverage on the Drinking Water program, will be used to "repay" the Clean Water fund. Thereafter, recovered loan defaults or excess coverage will be used to replenish the Drinking Water program's equity. In this manner, it is unlikely that the funding capacity of either program will be affected by defaults in the other, cross-collateralized program.
4. Revenue Bonds may be issued to repay a portion of any outstanding commercial paper that is issued under the indenture and outstanding.

Loan Portfolio Management

Pennsylvania uses a comprehensive Loan Monitoring Program (LMP) for loan portfolio management. The LMP includes risk definition, monthly and annual payment review, annual financial statement review and ongoing management analysis. The LMP is a pro-active management tool to protect the integrity of the loan portfolio.

Small Community Focus for Repayment of Funds

Pennsylvania intends to utilize money from the State Program and the CWSRF repayment funds to focus on providing relief to as many federal requirements as possible, i.e. Single Audit while still meeting the cumulative Equivalency requirement. By focusing the repayment funds to these communities, we expect that we may be able to help those communities better meet their funding needs and contribute to a better overall financial package that will lower soft costs and reduce the impact on the residential user rate of having to finance these project costs. Pennsylvania's tracking system will adequately document the flow of funds to eligible communities.

Management of Unliquidated Obligation of Federal Funds

PENNVEST intends to either disburse the federal and state match to payment requests beginning as soon as the award is made until all program funds are disbursed; or, if we have issued commercial paper in the Federal program, pay down the commercial paper balance with federal and state funds upon award. There are sufficient 4% Administrative set-aside funds to cover costs. However, Pennsylvania reserves the authority to decide in the future what methodology to use to determine the amount of Administrative funds in the future, as no funds are being requested from the 2017 cap grant.

Use of Investment Funds to Further Water Quality

PENNVEST has partnered with PA Treasury to re-launch what is known as the KeystoneHELP program to aid homeowners in the purchase of energy efficient appliances, reducing energy usage, having a positive impact on reduced atmospheric pollution falling into the waterways and improving overall water quality. Investing capital to reinvigorate this program in a series of public – private partnerships providing low cost financing. PENNVEST will be investing approximately \$3.6 million annually over a seven year period, at which point, given expected loan repayments, our participation will be self-sustaining. For 2017-18 fiscal year we will be investing \$3.6 million.

Staff continues to explore opportunities to use investments to benefit water quality.

VI. Program Management

A. Assurances and Specific Proposals

The PENNVEST will provide the necessary assurances and certifications as part of the OA. The OA was amended and submitted with the FY 1997 Drinking Water State Revolving Fund capitalization grant application. One of the short term goals identified above is to update this OA to ensure consistency with current policy and procedures. The OA includes, and will continue to include, as it relates to this capitalization grant application, the requirements of the following sections of the law:

1. 602(a) - Environmental Reviews

DEP will conduct environmental reviews as specified in Attachment 7 (Project Review Procedures) of the OA and Appendix D (Criteria for Structuring a State Environmental Review Process) in EPA's SRF Initial Guidance. A new template has been designed to facilitate these reviews per EPA's FY2007 Program Evaluation.

2. 602(b)(3) - Binding Commitments

The PENNVEST will enter into binding commitments for 120% of each quarterly payment within 1 year of receipt of that payment.

3. 602(b)(4) - Expeditious and Timely Expenditures

The PENNVEST will expend all funds in the CWSRF in a timely and expeditious manner, as outlined in the CWSRF financial plan.

B. Federal Requirements

Many federal requirements apply in an amount equal to the capitalization grant. These requirements are:

- Single Audit Act (OMB-A-133)
- Disadvantaged Business Enterprise Compliance (DBE)
- Federal environmental crosscutters
- Federal Funding Accountability and Transparency Act (FFATA) reporting.

A complete listing of current projects selected for compliance with these requirements is indicated in the Sources and Uses charts in Attachment 1

Compliance with these requirements will be maintained in the project files as the projects are implemented.

Now that WRRDA requires federal procurement procedures to be followed for all architectural and engineering contracts issued or amended after October 1, 2014, these costs will be covered by state or local funds, where possible. If these costs cannot be separated for a specific project and a new contract is issued for these services, DEP will review the procurement process followed by the applicant to ensure compliance with the federal procurement requirements.

Financial Status

Pennsylvania agrees to submit to EPA a Federal Financial Status Report - Standard Form 425 within 90 days after the end of each state fiscal year during the term of the capitalization grant agreement.

C. Davis Bacon Prevailing Wage Rates

WRRDA requires the application of Davis Bacon prevailing wage rates to all Section 212 treatment work projects funded as part of the CWSRF program. Attachment 8 is a policy statement defining what Pennsylvania considers to be a Section 212 Treatment Work Project. To ensure compliance with these requirements, DEP will review and approve the wage rates defined by the grant or loan recipient's project engineer. PENNVEST, as part of the oversight and auditing procedures, will ensure compliance with the remaining Davis Bacon requirements including the submittal of certified wage payroll forms on a weekly basis by the project contractors, the conducting of random interviews of workers on-site by the grant or loan recipient and the posting of the Davis Bacon wage rates to be paid in a prominent location at the job site.

D. American Iron and Steel

WRRDA requires CWSRF assistance recipients of funding for Section 212 Treatment Works Projects (See Attachment 8 for Pennsylvania's definition) to use iron and steel products made in the United States for drinking water projects where the project has approved plans and specs dated after January 17, 2014. A waiver was provided for projects if the plans and specs were submitted before January 17, 2014 and approved by April 15, 2014. To ensure these projects are constructed with American made iron and steel products as defined by the EPA Guidance, "Implementation of American Iron and Steel Provisions of P. L. 113-76, Consolidated Appropriations Act, 2014" dated March 20, 2014 the following steps will be taken:

1. PENNVEST will include language requiring implementation of this requirement in the Loan Agreement at settlement.

2. Using the EPA guidelines as an example, standard language for the manufacturer or contractor certification that the materials used in the project are made in the United States and a template for the documentation of “de minimis” materials will be developed and posted on the DEP website for use by project recipients.
3. Signoff by the licensed professional engineer for the project will be required with each payment that the project is in compliance with these requirements. The applicant will be responsible for keeping all documentation.
4. PENNVEST will include review of this requirement in the random project audits they perform.
5. DEP will review all waiver requests to ensure compliance with the EPA guidelines and submit them to EPA Headquarters for review and approval. DEP will serve as the point of contact for questions regarding waivers and the waiver process.

E. Fiscal Sustainability Plans

In accordance with provisions in WRRDA, recipients of loan funding for the construction of a Section 212 Treatment Works Project (See Attachment 7 for Pennsylvania’s definition) will be required to develop a fiscal sustainability plan for the project. This plan will include provisions for the following:

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

DEP will work with the recipient to ensure this plan is completed before project close-out. An example template for a plan is under development. Once finalized, this example template and informational document with instructions will be available on DEP’s website, as well as a checklist for DEP program staff to use in the review and approval of these plans.

F. Audits and Reporting

Pennsylvania is committed to transparency and accountability. All program information including the intended use plans, annual reports and other program materials are posted on either the DEP or PENNVEST websites.

An independent audit is conducted annually by an Independent Auditing firm under contract to PENNVEST.

Project milestones and information are reported through EPA's Clean Water Benefits Reporting (CBR) database. Pennsylvania commits to entering benefits information on all projects into CBR by the end of the quarter in which the assistance agreement is signed.

An Annual Report will be done that includes information regarding key project characteristics, milestones, and environmental/public health protection results. Content of the Annual Report will include a description of progress made in the achievement of short and long-term goals established in the Intended Use Plan and compliance with the Green Project Reserve and additional subsidization requirement.

G. EPA Signage Policy

PENNVEST will ensure compliance with the EPA Signage policy through the press release after each PENNVEST Board meeting. The projects approved by the PENNVEST Board at the meeting funded with CWSRF funds will be highlighted in this press release.

VII. Public Review and Comment

The PENNVEST Board schedules four project review and approval meetings each state fiscal year. The Board meets in January, April, July, and October to review and approve funding for projects. These projects are subject to the provisions included in the public comment periods for the IUP and PPL.

On June 10, 2017, a notice will be published in the Pennsylvania Bulletin regarding a public meeting scheduled for June 28, 2017 in Harrisburg, PA on the FY 2017 CWSRF and DWSRF IUPs. The IUP list of projects is attached.

Copies of the IUP and the PPL are available upon request from the DEP, Division of Municipal Facilities or through the DEP website, at <http://www.dep.pa.gov/Business/Water/CleanWater/InfrastructureFinance/Pages/State-Revolving-Fund.aspx>. The link to these documents is on the right hand side of the page under "State Revolving Fund Intended Use Plan".

Written comments will be accepted until close of business on July 10, 2017.

A summary of the public participation activities for the FY 2017 IUP and capitalization grant application will be submitted to EPA along with the summary of comments

solicited from the county planning agencies in accordance with Executive Order 12372 no later than July 17, 2017.