

COMMONWEALTH OF PENNSYLVANIA

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

DRINKING WATER STATE REVOLVING FUND

INTENDED USE PLAN

FY 2017

May 2017

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Drinking Water State Revolving Fund
FY 2017
Intended Use Plan

I. Introduction

Pennsylvania herewith submits its Intended Use Plan (IUP) for use of all Drinking Water State Revolving Fund (DWSRF) funds awarded or available through the 2017 appropriation, under the Safe Drinking Water Act (the Act). This consists of all awarded grant funds through the FFY 2017 appropriation, appropriate state match funds, and principal/interest/investment income.

Also attached to this IUP is the FY17 proposed workplan for the use of the Set-Aside funds as provided for in the 1996 Amendments to the Federal Safe Drinking Water Act. This includes the 2% Set-Aside for Technical Assistance to Small Systems, the 10% Set-Aside for Assistance to State Programs and the 15% Set-Aside for Other Authorized Activities. This workplan captures how the state will be utilizing all the funds set-aside from these three categories in previous grants.

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.

The DWSRF 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 public health and the water environment, promoting community revitalization, and supporting economic development. To this end, 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 Safe Drinking Water Act.

II. Fiscal Year 2017 Project Funding

Under this FY 2017 IUP, Pennsylvania intends to fund drinking water projects and set-asides with a total federal dollar value of up to \$31,893,600 as shown in the Funds Chart of Attachment 4. In addition, the state intends to utilize the total allowed FY2017 set-aside amounts for the 2%, Technical Assistance to Small Systems, the 4%, Administrative, the 10%, Assistance to State Programs Fund and the 15%, Other Authorized Activities Fund. Pennsylvania continues to reserve the authority to take the

remaining 2, 4 and 10% set-asides that have been reserved in the past from future grants. A summary of the amount of funds in reserve by grant is as follows:

Grant	2% -- Technical Assistance	4% -- Administrative	10% -- Assistance to State Programs
2005	Added to FY08 application		\$1,918,100
2006	Added to FY15 Application		Added to FY15 Application
2007	\$554,380		\$2,771,900
2011	\$ 8,800	\$ 17,600	
2012	\$525,940	\$1,051,880	
2013		\$ 986,920	
2014			\$459,886

In summary, Pennsylvania proposes to set-aside the following funds from the FY2017 grant for this purpose:

- 2% Technical Assistance to Small Systems -- \$637,872
- 4% Administrative -- \$1,275,744
- 10% Assistance to State Programs -- \$3,189,360
- 15% Set-Aside for Other Authorized Activities -- \$4,784,040

While there is no minimum requirement of funding to be reserved for allocation to “Green Infrastructure” projects as defined in the FY2013 EPA Grant Guidance, Pennsylvania recognizes the importance of these types of projects and will continue to promote them. At a minimum, up to \$2,334,262 has been allocated to continue the source water protection efforts identified in the workplan for the 10%, Assistance to State Programs and 15%, Other Authorized Activities for the FY16/17 state fiscal year. In addition, a minimum of \$6,378,720 will be provided to disadvantaged communities as defined below in the form of principal forgiveness. The maximum provided to these communities will be \$15,946,800. Finally, drinking water system projects funded in FY2017 must pay their workers the federal Davis-Bacon wage rates for their job classification. Some of these projects will also have to 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, depending on when the plans and specs for the project were submitted and approved by DEP as part of the construction permit.

In FY2017, Pennsylvania expects to finance seven drinking water projects for \$28,385,304 (\$21,716,835 in federal monies and \$6,668,469 in state match). The project fundable list is included in Attachment 4. The expanded Project Priority List is included as Attachment 5. The ranking criteria are included as Attachment 1. The remaining additional projects are funded with recycled funds.

III. Short and Long Term Goals of the DWSRF Program in Pennsylvania

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. Long Term Goals

1. To have all public water systems in Pennsylvania achieve compliance with drinking water standards through coordination and integration with the state Public Water System Supervision Program. Based on the 2011 Drinking Water Needs Survey, state needs for public water systems are currently estimated at \$14.2 billion. Eligibility for DWSRF funds will allow many drinking water systems to provide improved drinking water quality and service to existing customers by correcting problems with source water quality and quantity, treatment, storage, and distribution. Emphasis will be placed on projects designed to correct deficiencies that pose a threat to public health.
2. To administer the DWSRF to issue loans, loan guarantees, or insurance to applicants, at fees commensurate with risk, such that the revolving nature of the DWSRF is assured in perpetuity.
3. To assist communities with financial difficulties in meeting required drinking water standards by providing, without replacing other funds reasonably available, the type and amount of assistance necessary to make the project affordable, consistent with the long-term health of the DWSRF.
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. To ensure the technical integrity of the DWSRF through adequate and effective program management and project planning, design, and construction management.

6. To ensure the administrative integrity of the DWSRF by maintaining a data management system to track and monitor all DWSRF project and program information and implementing proper accounting, audit, and fiscal procedures that conform with generally accepted government accounting standards.

B. Short Term Goals

1. Achieve a 95.6 percent fund utilization rate [cumulative loan agreements to the cumulative funds available for projects] for FY 2017.
2. To improve the coordination of DWSRF financial assistance, planning, permitting, and enforcement activities among DEP, PENNVEST and other agencies, including the Public Utility Commission.
3. To continue outreach efforts to systems across the Commonwealth. This outreach is structured to inform systems of the availability of funds, the application procedures and federal requirements.
4. Continue to ensure compliance with federal requirements related to the Disadvantaged Business Enterprise (DBE) program, Davis Bacon and American Iron and Steel.
5. Finalize revised Chapter 963 PENNVEST regulations and eliminate Chapters 961 and 965.
6. 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 CWSRF.
7. Pennsylvania is exploring options and opportunities to address potential issues with lead in water systems and how we can utilize the DWSRF to help systems and individuals mitigate any issues.

IV. Allocation of Funds

A. Criteria and Method Used 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 DWSRF assistance; and
- Development of a disbursement schedule to pay the project costs as incurred.

Loan repayments and investment earnings have been included in Funds Used.

Bypass Procedures

In the event that projects identified for funding on the IUP list are unable to proceed, these projects will be bypassed, and other projects from the comprehensive priority list will be funded, based on, among others, criteria identified in Section 10(b) of Act 16, and Section 963.9 of the PENNVEST regulations and readiness to proceed, as well as emergency needs for funding.

A project may be bypassed if PENNVEST determines that funding the project from the DWSRF will supplant other funds available to finance all, or a portion of, the total costs of a project; or only a portion of the amount requested when the applicant can, based upon its ability to pay, obtain other affordable financing for the remainder of the project.

A project may also be bypassed for funding when another project, that was ranked lower on the Project Priority List (PPL) based on preliminary information or that is added to the PPL, subsequently moves ahead of it based upon new or revised ranking information.

The current PPL may show bypassed projects. Bypassed projects are (1) those that will be funded from other sources (e.g. state funded projects), to maximize effective use of the federal funds, and (2) those that have been given a preliminary priority rating but have not yet submitted applications for funding. It should also be noted that there may be projects that have submitted applications for funding, but have not yet obtained the necessary permits and approvals, and have not yet

been given a priority rating. Projects that have not been placed on the IUP and/or PPL lists because there is not yet a cost estimate or priority rating available will be subject to the same eligibility and funding considerations as other projects that are listed.

B. Types of Projects to be Funded and Financing Rates

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 DWSRF funding is limited to those costs which meet these criteria.

Where a project includes fire hydrants, these are in all cases a cost-effective addition, which is incidental to the project purpose.

All DWSRF projects are ranked and funded based upon the rating criteria agreed upon by Pennsylvania and EPA in Attachment 1. 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 drinking water projects as well. If a project is included on the original IUP as DWSRF-eligible, and the review and ranking process concludes that it is not DWSRF-eligible, it will be bypassed and potentially funded through non-DWSRF funding sources. Other DWSRF-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 DWSRF Annual Report, DEP/PENNVEST will submit to EPA one PPL and one IUP/fundable list of all projects that have been approved for funding during the prior year for EPA's 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.

Drinking Water System Projects

To determine the drinking water projects that are included in the IUP list, the PPL was developed based upon projects currently requesting funding from the SRF. Projects that need funding within the next twelve to eighteen months were also identified.

Projects appearing on the IUP list and the FY 2017/2018 PPL were ranked in accordance with the criteria noted herein. However, some ratings have not been finalized and may be modified during further review prior to project funding.

The type and amount of financial assistance was determined for each project. The sources and spending limits have been identified and the SRF funds have been allocated accordingly.

Green Infrastructure Projects

There is no minimum requirement of funding to be reserved for allocation to “Green Infrastructure” projects, as defined by EPA to include the following categories:

1. Water efficiency
2. Energy efficiency
3. Site-specific practices that mitigate stormwater at drinking water facilities
4. Environmentally innovative

However, Pennsylvania recognizes the importance of these types of projects and will continue to promote them. At a minimum, up to \$2,334,262 has been allocated to continue the source water protection efforts identified in the workplan for the 10%, Assistance to State Programs and 15%, Other Authorized Activities.

Procedures for determining which projects are categorically green and which projects require a business case will be implemented consistent with FY2012 EPA Grant Guidance. The Project Priority List will identify which projects are “green,” which category the project primarily 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. Projects that are “green” will be further identified in the PBR.

Additional Subsidies

In the FY2017 appropriation, Congress required states to provide additional subsidies to disadvantaged communities, plus an extra allowance in 2017 for

additional subsidy funds to any type of project. Based on a total allocation of \$31,893,600 Pennsylvania is required to provide a minimum of \$6,378,720 in additional subsidy and a maximum of \$15,946,800 additional subsidy.

Pennsylvania has a very large number of very small systems that may not have the necessary resources upfront to go through the application requirements necessary to apply for financial assistance from the DWSRF. Recognizing the importance of this funding to these small systems, Pennsylvania will continue the following outreach activities to further market the DWSRF program and to assist small systems with the application requirements for DWSRF funding:

1. The Capability Enhancement Facilitators will continue to implement the Professional Engineering Services Program funded by the 2% Technical Assistance to Small Systems DWSRF set-aside to provide small systems with the necessary engineering, project design, permitting and PENNVEST application development expertise needed to address infrastructure improvements needed at the system. See Attachment 3.
2. The Capability Enhancement Facilitators will attend the PENNVEST planning consultation meetings for DWSRF funding. These meetings are the first step in the development of a project for DWSRF funding. Using the Technical, Managerial, and Financial (TMF) Assessment protocols in Attachment 2, these facilitators can provide assistance to the small systems by determining whether systems meet the eligibility requirements for TMF capability prior to the system applying for DWSRF funding. They will also assist systems with addressing their capability weaknesses so that they may become eligible for DWSRF funding. However, the water system will need to obtain the services of a consulting engineer or DEP's Professional Engineering Services program to assist with the development of the application. The Capability Enhancement Facilitator's attendance at the planning consultation meeting is not mandatory when the Capability Enhancement Facilitator can establish that the water system meets the eligibility requirements for TMF capability in advance of the planning consultation meeting. In this situation, the Capability Enhancement Facilitator will evaluate the water system, complete the PENNVEST Capability Approval Sheet and provide it to the DEP and PENNVEST staff involved with the proposed PENNVEST project in advance of the planning consultation meeting. See Attachment 3.
3. DEP's Outreach Assistance Provider Program will provide assistance to small water systems in addressing their capability weaknesses so they can meet the federal requirements and meet eligibility criteria to apply for DWSRF funding. See Attachment 3.

4. Collaborate with water industry associations to inform the regulated community about funding criteria on disadvantaged communities and green projects through the development of workshops, newsletter articles, fact sheets, and webinars.

To the extent that demand for principal forgiveness is influenced by the roll-out schedule for new regulations, DEP would expect an increase in demand for small water system infrastructure funding as these systems are required to comply with new Groundwater Rule requirements for 4-log treatment of viruses, Long Term 2 Enhanced Surface Water Treatment Rule, Stage 2 Disinfectants/Disinfection Byproducts Rule, Revised Total Coliform Rule requirements, and the proposed Disinfection Requirements Rule. The additional subsidies that can be used by these small systems from the DWSRF will be critical in meeting these compliance requirements.

Financing Rates

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

C. EPA Sustainability Policy

Pennsylvania is committed to promoting the long-term sustainability of the state's drinking water 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 DWSRF 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.
 - Repairing or replacing existing drinking water systems or individual household water systems (generally wells).¹
 - Creating cluster systems to address localized individual home drinking water needs, thus avoiding the alternative of running service lines through undeveloped land.
 - Replacing antiquated and ineffective technology with more efficient technology that improves water quantity and quality.

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

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.

- Extending service to an unserved or undeveloped area
 - Upsizing existing infrastructure capacity to accommodate connection of currently unserved or undeveloped areas.
 - Upsizing or extending service of a capable water system to eliminate a distressed water system.
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 drinking water system project.
 3. Project Ranking Criteria – Attachment 1, Drinking Water Project Ranking Framework promotes the implementation of sustainability principles.

V. Financial Management

A. Source of State Match

State Match will come from the State Fund loan repayments, General Obligation (GO) bond proceeds or State Match Revenue bonds.

B. Fee Income

PENNVEST does not charge fees at this time.

C. Program Administration

Pennsylvania intends to use four percent of the FY2017 federal capitalization grant for program administration, totaling \$1,275,720.

DEP Program Support

Section II of this IUP identifies the set-aside amounts to be utilized for DEP program support. This includes use of the FY2017 2% Technical Assistance to Small Systems, the 10% Support for State Programs and the 15% Other Authorized Activities program support functions.

D. Anticipated Cash Draw Ratio

The anticipated cash draw ratio is 69% federal and 31% state match.

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 2017

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 CWSRF and DWSRF funding. The effect of these transfers on the fund will be minimal.

F. Estimated Sources and Uses

Total Sources and Uses identify Pennsylvania’s total funding sources. The 1996 Amendments to the Federal Safe Drinking Water Act, in setting project requirements, established that certain amounts of DWSRF funds must be used to meet particular requirements. These source/requirement limits were calculated before any allocations to projects were made.

The Sources and Uses table is in Attachment 4. 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 continuing to work towards establishing a Federal Trust Indenture to cover the DWSRF 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 when the CP program is fully implemented is to pay down the CP balance with a draw on the DWSRF 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.

Rationale for Providing Different Types of Assistance and Terms

Pennsylvania’s financial assistance policy is based upon the communities’ ability to repay loans. PENNVEST will charge interest on all DWSRF loans in accordance with Section 963.15 of the PENNVEST regulations described in the following:

1. The minimum interest rate allowable for any loan is one percent. The 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. Projects that serve multiple counties use the highest county unemployment rate in the calculations. Projects that are located within an area that has a separate

unemployment rate monitored and reported by the Pennsylvania Department of Labor use the unemployment rate for that area (municipality) in the calculations to determine financial assistance. If the county unemployment rate exceeds the statewide average by 40 percent or more, the maximum interest rate allowable is one percent for the first five years of the term and 25 percent of the interest rate the Commonwealth must pay for bonds it has issued to finance the program for the remainder of the term.

2. For projects located in counties where the unemployment rate exceeds the statewide average rate by less than 40 percent, the maximum interest rate is 30 percent of the state bond issue rate for the first five years of the term, and 60 percent of the state bond issue rate for the remainder of the term. Projects in counties that have an unemployment rate below the statewide average receive maximum interest rates equal to 60 percent of the bond issue rate and 75 percent 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 county interest rate maximums. If the Board determines that the community may not be able to repay the loan even if it were offered at one percent for the entire term, the Board may offer the system a supplemental grant, using Commonwealth funds.
4. Reduced interest rates and limited supplemental grants allow many systems to undertake needed water facility improvements/construction that would not be feasible otherwise. These projects protect the public health and safety of residents and allow system viability while utilizing SRF support.
5. The financial planning undertaken for the fund includes the use of the PENNVEST affordability analysis to determine loan terms and repayments. In addition to a review of individual loans, a complex cash-flow model encompassing the entire portfolio will be used to project future fund capacity. This model will allow PENNVEST to determine the availability of future funding based on individual loan repayments, as well as additional fund inputs (i.e. future grant allocations). An annual budget is calculated, projecting funding levels within the DWSRF.

Priority and Allocation of Assistance

The criteria used to prioritize projects are described in the “Priority Ranking Criteria Framework” (Attachment 1). This scale was developed from the existing criteria used to rank projects under the PENNVEST program and modified to incorporate the requirements and limitations of the DWSRF program. The existing ranking criteria were derived from the PENNVEST Act (35 P.S. Sections 751.1 et seq., specifically Section 10 (a) and (b)) and the PENNVEST regulations (25 PA Code Section 963.9). The affordability component of the Priority Ranking Scale was removed from DEP review and placed with PENNVEST in 2001 with the approval of EPA Region 3. These ranking criteria were revised significantly to more effectively ensure long-term water quality benefits while promoting the long-term sustainability of the Commonwealth’s water and wastewater systems and approved by the PENNVEST Board and EPA in April, 2014.

Pennsylvania applies the criteria described above to develop the technical ranking of each project. The project is then evaluated considering the debt service and operation and maintenance costs and how they impact the resulting residential user rate. This financial analysis (Affordability) will determine the amount of SRF assistance and the loan component interest rate(s).

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
- Percentage of the population over age 64
- Percentage of the population below the poverty line
- 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)
- Percentage of the population over age 64 – inverse relationship (the higher value is the percentage of the population over age 64, the lower value is the target percentage)
- Percentage of the population below the poverty level – inverse relationship (the higher value is the percentage of the population below the poverty line, the lower value is the target percentage)
- 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 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, these 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 can be met. 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.

Systems without a residential user fee structure to determine a target rate.

These projects are evaluated based upon the project benefactor's capacity to cover debt service. Public or private entities may directly apply for this type of financing for projects and they are subject to the same ranking and review criteria as other DWSRF 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 tax returns and personal financial statements of the system owner are utilized 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 principle 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.

Pennsylvania also recognizes and intends to comply with the 15 percent funding requirement for small systems as described in Section 1452(a)(2) of the Act. Pennsylvania expects to be able to make use of the available funding in areas where it has the most impact and promote an equitable distribution of user rates utilizing this approach.

Description of How Pennsylvania Will Define a Disadvantaged System

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.

Should the estimated resulting residential user rates be higher than similar systems, even after PENNVEST has provided the most favorable funding package available, based upon criteria set forth in the PENNVEST act and regulations and further described in this document under the section "Priority and Allocation of Assistance," these systems would be considered "disadvantaged" for the purpose of term extension from the normal 20 years to a term of up to, but not to exceed, 30 years repayment of principal and interest. 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 systems' 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 green infrastructure, storm water and non-point source 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.

Cash Flow Model

Pennsylvania uses a complex cash flow model that will allow for optimal funding decisions to be made. The cash flow model will provide loan portfolio activity analysis for the multiple funding scenarios. The model has recently been completely redone to accommodate changes in software and program requirements.

Loan Repayment

Pennsylvania requires repayment to commence shortly after final inspection following construction completion. Generally, repayment is done on a monthly basis. The Board may defer principal payment for up to five years in certain financially or economically distressed communities in order to maintain the fund. This procedure ensures available cash flow for continuous use of the fund. It would not, however, result in no payments being made within one year of completion of construction since some payment would always be required, even in the most extreme circumstances.

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 ensures 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 possible 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 (CW) and Drinking Water (DW) 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 CW and DW 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.

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. The person primarily responsible for the LMP retired effective May 22, 2015 and the work will be covered by other individuals in the interim until a new person is hired.

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 commercial paper has been issued in the Federal program, pay down the commercial paper balance with federal and state funds upon award. For the second year in a row, all cap grant and state match funds have been fully disbursed from the Project Fund within the year of award. The set-aside funds will be disbursed as quickly and reasonably as possible to achieve EPA’s two-year expenditure policy.

Small Community Focus for Repayment of Funds

Pennsylvania intends to utilize money from the State Program and the DWSRF 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, Pennsylvania expects to 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.

H. The Impact of Funding Decisions

Set-Asides

Sections 1452(g) and 1452(k) of the Act provide that certain percentages of Pennsylvania's allotment under Section 1452 may be set aside for various uses other than project funding. Attached to this IUP is the FY2017 workplan for the use of these Set-Aside funds. This workplan captures how DEP will be utilizing all the funds set aside from these three categories. The 4% Administrative Set-Aside is used by PENNVEST for the administration of the DWSRF and is not included in the EPA workplan for set-asides.

Disadvantaged Communities

Based on the definition of Pennsylvania's intended use of this program (see Section VIII), the financial impact to the fund corpus will be a delay in receiving loan principal and interest repayments. This program use does not diminish nor reduce the corpus of the fund. The actual federal investment will remain the same over the long term of the DWSRF program.

VI. Program Management

A. Assurances and Specific Proposals

PENNVEST will provide the necessary assurances and certifications as part of the Operating Agreement (OA). The OA was amended February 2016 and submitted for EPA approval. One of the short term goals identified above is to finalize the updated 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

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

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

PENNVEST will expend all funds in the DWSRF in a timely and expeditious manner, as outlined in the DWSRF 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 4. Compliance with these requirements will be maintained in the project files as the projects are implemented.

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.

Pennsylvania's use of the disadvantaged community assistance will consist of principal forgiveness, reduced interest rates and/or extended terms of the loan. Pennsylvania reserves the right to review and adjust all program activities.

Assurance of Recipient Capability

All DWSRF applicants will be evaluated for compliance with technical, managerial, and financial capability requirements. Applicants considered to lack capability will be evaluated for anticipated capability as a result of DWSRF assistance. Before a project is recommended for funding, one of three DEP Capability Enhancement Facilitators (CEFs) will complete an assessment of the system's technical and managerial capability using the forms in Attachment 2 and PENNVEST will complete an analysis of the system's financial capability as part of the PACNIF financial assessment process. The TMF Capability Assessment Process has the following steps:

1. The CEF will review the system's Capability Enhancement Program Priority Ranking Score (PRS) and EPA Enforcement Tracking Tool (ETT) scores to determine if an onsite evaluation is needed. Those systems with a PRS score ≥ 200 or an ETT score ≥ 11 will require an onsite TMF

assessment. If the onsite evaluation is not required, the CEF can complete the **PENNVEST Capability Approval Sheet** in Attachment 2 and the Technical and Managerial Capability Assessment is completed for the system. The approval is valid for a period of 12 months from the date it was signed. PENNVEST can then move forward with the Financial Capability Assessment as part of the usual PACNIF financial assessment process.

2. Some of the systems will have a PRS score ≥ 200 or an ETT score ≥ 11 and will require an onsite TMF assessment. The following two documents will be needed in order to complete the onsite capability assessment. These two documents are also included in Attachment 2.
 - a. **TMF Self-Assessment Tool** - The applicant will complete this multiple choice TMF Self-Assessment and return the results to the CEF. The TMF Self-Assessment Tool is not a complete evaluation of all capability needs and is not a substitute for a complete onsite TMF assessment. It does provide the CEF with information to help prepare them for the onsite TMF assessment. The CEF will schedule the onsite TMF Assessment after the water supplier returns the results of the self-assessment.
 - b. **PENNVEST Capability Checklist** - The CEF will use this checklist to document the system's technical and managerial capability weaknesses during the onsite assessment. If no technical or managerial capability weaknesses are found, the CEF will complete the PENNVEST Capability Approval Sheet in Attachment 2 and the Technical and Managerial Capability Assessment is completed for the system. The approval is valid for a period of 12 months from the date it was signed. PENNVEST can then move forward with the Financial Capability Assessment as part of the usual PACNIF financial assessment process.
3. If technical or managerial capability weaknesses are identified, the water supplier will be notified by email of the capability weakness with a copy to appropriate DEP and PENNVEST program staff. The PENNVEST Capability Checklist will include a narrative with details about the weakness and will also be attached to the email. The email will also offer assistance through DEP's Operator Outreach Assistance Program, Professional Engineering Assistance Program, or the Capability Enhancement Program to resolve the identified weakness. The CEF will follow-up with the water supplier by phone to verify receipt of the email and discuss the system's next steps and how the system would like to proceed in order to resolve the weakness in a timely manner so that the project can move forward. If the PENNVEST funded project is expected to address the capability weakness, the CEF will complete and sign the PENNVEST Capability Approval Sheet so the project can move forward.

A project will not be recommended for funding to the PENNVEST Board until this assessment is completed and approved. In addition, on loan closing for any project using SRF funding, the status of the system's certified operator (s) will be re-assessed to ensure the original TMF capability assessment of the system is current.

Determination of compliance subsequent to DWSRF assistance will be accomplished through currently established procedures for routine evaluation of system performance (routine monitoring and sanitary surveys) in accordance with EPA guidance.

C. Davis Bacon Prevailing Wage Rates

In the EPA budget for 2015, Congress required the application of Davis Bacon prevailing wage rates to all drinking water projects funded as part of the DWSRF program. 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

In the EPA budget for 2014, Congress required DWSRF assistance recipients 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. For 2015, these provisions apply to those projects where plans and specs were approved after December 16, 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 -includes 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 has been 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. DEP project manager will verify AIS compliance during interim and final inspection/site visits.
5. PENNVEST will include review of this requirement in the random project audits they perform.
6. 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. 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 Public Water Benefits Reporting (PBR) database. Pennsylvania commits to entering benefits information on all projects into PBR 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 in the following areas: 1) achievement of the outputs and outcomes established in the Intended Use Plan; 2) the reasons for delays if established outputs or outcomes were not met; 3) any additional pertinent information on environmental results; 4) funding devoted to the promotion of green infrastructure projects; and 5) compliance with the additional subsidization requirement.

F. 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 DWSRF 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 Finance or through the DEP website, <http://www.dep.pa.gov/Business/Water/CleanWater/InfrastructureFinance/Pages/State-Revolving-Fund.aspx>. Document links are 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.