

**ATTACHMENT 1
DRINKING WATER STATE REVOLVING LOAN FUND
INTENDED USE PLAN (IUP)**

RANKING FRAMEWORK

for

PENNVEST DRINKING WATER PROJECTS

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Prepared by
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Division of Technical and Financial Assistance



BACKGROUND

States develop and implement a project rating system to prioritize projects for Drinking Water State Revolving Fund (DWSRF) funding. The Department of Environmental Protection (DEP) and the Pennsylvania Infrastructure Investment Authority (PENNVEST) use the methodology in this document to perform that function. PENNVEST also has state-sourced funds to award in addition to the federal monies. This rating system is designed to prioritize those funds as well.

The Safe Drinking Water Act [Section 1452(b)(3)] requires that DWSRF projects be prioritized to the maximum extent practicable based on considerations of public health, compliance and affordability. DEP provides the public health and compliance portion of that rating. PENNVEST provides the affordability portion.

PROCESS FOR RATING SYSTEM REVISIONS

This ranking system is included as an attachment to the DWSRF Intended Use Plan (IUP) as part of the capitalization grant application for federal funding. As part of the IUP, this ranking system is available for public review and comment and is posted on the DEP website. Before any revisions can be made to this ranking system it must be reviewed and approved by the U. S. Environmental Protection Agency (EPA) and the PENNVEST Board before implementation to ensure consistency with federal and state requirements.

PROJECT SELECTION PROCESS

DEP ratings are developed for each project after all the permits necessary for the project have been issued. All ratings are based on the project's ability to address the problem(s) identified by the rating factors. DEP program staff meets to discuss each project and comes to a consensus on the score. Federally-funded projects are awarded based on the DEP priority points plus up to 20 points assigned by PENNVEST for affordability. State-funded projects are selected based on DEP's priority points, the PENNVEST affordability points, plus other points assigned by PENNVEST. One month before each Board meeting DEP submits a final list of recommended projects and scores to PENNVEST. The PENNVEST Board selects projects for funding.

DEP PRIORITY RATING FACTORS

- (a) The maximum points for each factor are:
 - (1) Public Health – 30 points
 - (2) Compliance – 30 points
 - (3) Community Health – 15 points
 - (4) Source Water Protection – 5 points
 - (5) Infrastructure Health – 25 points

- (b) A project's total priority points are the sum of the points assigned in each of the individual rating factors. Total possible points from DEP are 105.

DOCUMENTATION OF THE DEP RATING PROCESS

DEP Project Managers prepare tentative ratings using the PENNVEST Drinking Water Rating Form, 3800-FM-BPNPSM-0496, during application review and enter those ratings and their rationale to the PENNVEST website. Decisions on the ratings are made by the Priority Rating Review Committee (PRRC). If the final ratings are different than what was tentatively proposed, the Project Manager updates the website and the PENNVEST Rating Form. The Project Manager also places the PENNVEST Rating Form into the project file. A hard copy of the final rating form for each project is also maintained in Central Office for each Board Meeting.

In order to qualify for points under each of the following prioritization criteria the Applicant must provide written documentation that confirms the problems exist. The Project Manager will be responsible for evaluating the documentation provided by the Applicant. A statement of the problem by the Applicant in the Feasibility Report is not adequate verification. Verification must include analytical results or engineering reports where necessary.

PENNVEST AFFORDABILITY RATING

PENNVEST provides the affordability portion of the rating by comparing what the project would cost without funding to the target user rate for the applicant. That ratio is presented in the form of a percentage, resulting in up to 20 points according to the following scale:

(1)	200% and greater	20 points
(2)	176% but less than 200%	16 points
(3)	151% to 175%	12 points
(4)	126% to 150%	8 points
(5)	100% to 125%	4 points
(6)	Less than 100%	0 points

PENNVEST ADDITIONAL RATING FACTORS

To develop a final score for each project, PENNVEST adds the following points to the project scores DEP develops. The total points that can be added to DEP's rating for each project are 70 points.

- (a) Economic Development – The Department of Community and Economic Development (DCED) provides this ranking based on:
- (1) High (20 points) – The project has a direct link to job creation or preservation and private investment.
 - (2) Medium (15 points) – An indirect link to job creation or preservation and private investment exists.
 - (3) Low (5 points) – Project implementation.

- (b) Distressed Community – DCED evaluates communities across the Commonwealth for financial well-being. Communities on the Distressed Communities list are identified in order to have access for consideration for assistance from various state agencies in order to get the communities back to normal status. If the project is in a community that is considered distressed, 10 points are added to the project.
- (c) Infill – PENNVEST adds 10 points to those projects that serve a city, borough or township of the first class. Redevelopment of existing population centers is a priority.
- (d) Brownfield – PENNVEST adds 15 points to those projects that serve a designated Brownfield site as identified by DEP.
- (e) Community Action Team (CAT) Projects – DCED adds 10 points to those projects that are in a CAT community. The CAT community system is an effort to focus financial and technical resources to specific communities identified by the CAT Team. Members of the CAT Team include DCED, DEP, the Pennsylvania Department of Transportation, the Public Utility Commission and other local and state agencies.
- (f) Comprehensive Planning – DCED adds 5 points to those projects that are within communities with a comprehensive plan, where the community plan is consistent with the adopted county comprehensive plan.

PUBLIC HEALTH (Maximum total rating 30 points)

For projects that propose to remedy a contamination problem, the level of contamination must be determined in the same manner as compliance with an MCL (e.g., average of the original and a check sample when monitoring annually or less frequently, or annual average of quarterly samples).

Criteria which involve private wells rely on a sample. A representative sample is defined as:

<u>Number of Wells in Service Area</u>	<u>Percent Sampling Required</u>
Up to 50	50 percent
51 to 100	35 percent
101 to 500	25 percent
501 to 1000	20 percent

1. **30 points** is awarded to projects that propose to eliminate a problem that poses a critical hazard.

Examples:

- (a) A violation of a primary MCL or maximum unregulated contaminant concentration at a level that exceeds the One-Day or Ten-Day Health Advisory (HA)¹.
- (b) Fecal coliform or E. coli contamination where 50 percent or more of the representative sample is positive. (Projects qualifying for 25 or 30 points will normally be waterline extension projects that propose to eliminate the use of individual wells or unpermitted community systems operating without disinfection.)
- (c) A critical water outage. Past occurrences during which no water was available at the tap from the system’s permitted sources or for unpermitted sources normally used, including private wells in a proposed service area. A past outage event in the existing or proposed service area, i.e., the service area applicable to the proposed project, must have affected 10 percent or more of the service connections for 3 days or more. For existing service connections the extent of the outage must be documented by the Applicant with a letter or narrative that provides the applicable information including the cause, dates and length of the outage(s), and the number of service connections affected. For new distribution systems and extensions, the past outages exceeding 10 percent and 72 hours must be documented by a representative sample.
- (d) Surface water or groundwater systems under the direct influence of surface water (GUDI) without filtration.
- (e) The system has been assigned an LT2 bin classification of 4. The classification is the result of monitoring data (not a default classification of 4 resulting from a lack of monitoring), and the project will provide the additional treatment shown below for bin 4.

¹ <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-76811/383-2129-005.pdf>

Bin Classification and Additional Treatment Requirements for Filtered Systems ¹ If your <i>Cryptosporidium</i> concentration (oocysts/L) is...	Your bin classification is...	And if you use the following filtration treatment in full compliance with existing regulations, then your <i>additional</i> treatment requirements are...				PUBLIC HEALTH POINTS
		Conventional Filtration	Direct Filtration	Slow Sand or Diatomaceous Earth Filtration	Alternative Filtration Technologies	
< 0.075	1	No additional treatment	No additional treatment	No additional treatment	No additional treatment	
> 0.075 and < 1.0	2	1-log treatment 2	1.5-log treatment 2	1-log treatment 2	As determined by the State	20 points
> 1.0 and < 3.0	3	2-log treatment 3	2.5-log treatment 3	2-log treatment 3	As determined by the State	25 points
> 3.0	4	2.5-log treatment 3	3-log treatment 3	2.5-log treatment 3	As determined by the State	30 points

2. **25 points** will be awarded to projects that propose to eliminate a problem that poses a chronic health hazard.

Examples:

- (a) A violation of a primary MCL or maximum unregulated contaminant concentration but less than the associated HA level.
- (b) A violation of a treatment technique requirement.
- (c) Total coliform contamination where 50 percent of the representative sample from private wells is positive.
- (d) A chronic water outage. Past occurrences during which no water was available at the tap from the system's permitted sources or for unpermitted sources normally used, including private wells in a proposed service area. A past outage event in the existing or proposed service area, i.e., the service area applicable to the proposed project, that affected 10 percent or more of the service connections for 12 hours to 72 hours, or less than 10 percent of service connections for 72 hours or more. For existing service connections the extent of the outages must be documented by the applicant with a letter or narrative that provides the applicable information including the cause, dates and length of the outage(s), and the number of service connections affected. For new distribution systems and extensions, the past outages exceeding 10 percent or 72 hours must be documented by a representative sample.
- (e) The system has been assigned an LT2 bin classification of 3. The classification is the result of monitoring data (not a default classification of 3 resulting from a lack of monitoring), and the project will provide the additional treatment shown above for bin 3.

3. **20 points** will be awarded if the project proposed is to eliminate a documented health hazard that has occurred periodically, or if there is documented evidence (written correspondence, order, etc.) of the potential for the problem to occur.

Examples:

- (a) A periodic water outage. A past occurrence during which no water was available at the tap from the system's permitted sources or for unpermitted sources normally used, including private wells in a proposed service area. A past outage event in the existing or proposed service area, i.e., the service area applicable to the proposed project, that affected less than 10 percent of the service connections for 12 hours to 72 hours, or a high potential for a water outage that would affect 10 percent or more of the service connections for periods longer than 72 hours. For existing service connections the extent of the past outage must be documented by the applicant with a letter or narrative that provides the applicable information including the actual or potential cause, and length of the outage(s), and the number of service connections affected. For new distribution systems and extensions, the past outages must be documented by a representative sample.
- (b) Groundwater source with no or inadequate disinfection (4 log virus inactivation due to inadequate disinfection equipment or structural needs). Projects that propose to provide public water supply for individual homeowners will not receive points for adding disinfection.
- (c) A Stage 3 Drought Emergency Declaration.
- (d) Fecal coliform, E. coli or primary MCL contamination where 25 to 49 percent of the representative sample from private wells is positive for the contaminant.
- (e) The system has been assigned an LT2 bin classification of 2. The classification is the result of monitoring data (not a default classification of 2 resulting from a lack of monitoring), and the project will provide the additional treatment shown above for bin 2.
- (f) A Filter Plant Performance Evaluation of "Needs Improvement" related to a potential public health hazard that must be addressed through structural improvements.

4. **15 points** will be awarded to projects that propose the following:

- (a) Cover a finished water reservoir.
- (b) Groundwater source with adequate disinfection (4 log virus inactivation) but with documented periods where turbidity > 5 NTU.
- (c) Total coliform or secondary MCL contamination where 25 to 49 percent of the representative sample is positive for the contaminant.
- (d) A potential water outage. A potential occurrence during which no water would be available at the tap from the system's permitted sources or for unpermitted sources normally used, including private wells in a proposed service area. A potential for a water outage that would affect 10 percent or less of the service connections for periods less than 72 hours in length. For existing service connections, the extent of the potential outage must be documented by the applicant with a letter or narrative that provides the

applicable information including the potential cause and projected length of the outage(s), and the number of service connections that would be affected.

5. **10 points** will be awarded to projects that propose other improvements that are relevant to public health risk.

Examples:

- (a) Although no MCL violation or health hazard has been observed, replacing an old, undersized, or malfunctioning chlorinator or replacing leaking waterlines would fall into this category.
- (b) Correcting fecal, E. coli, total coliform or primary MCL contamination where less than 25 percent of the representative sample from private wells is positive for the contaminant.

COMPLIANCE (Maximum total rating 30 points)

Note: Non-PWS systems do not receive compliance points because they are not subject to compliance action.

30 points are awarded if the project provides:

- (1) Compliance with an Order issued by the Department under the Pennsylvania Safe Drinking Water Act or by the federal government. The PENNVEST project must resolve the primary issue(s) which generated the Order, or
- (2) Compliance with Consent Order and Agreements negotiated and executed by the Department and affected party(ies), and Consent Order and Adjudications executed by the Department, the affected party(ies) and the appropriate court of jurisdiction. The PENNVEST project must resolve the primary issue(s) which generated the Order.

25 points are awarded if:

- (1) An Order has not been issued but the Department has evaluated drinking water problems in the system and gathered sufficient data to support the issuance of an Order for corrective action. The PENNVEST project must resolve the primary issue(s) which generated the Order, or
- (2) The Department has implemented new drinking water rules which cannot be met with the existing infrastructure; or
- (3) An Order has been issued by any other government agency. The PENNVEST project must resolve the primary issue(s) which generated the Order.

15 points are awarded to projects that improve compliance with secondary MCLs or a Notice of Violation.

10 points are awarded to projects that propose to provide protection without an order or consent order and agreement to ensure continued compliance with existing statutory requirements or regulations as follows:

- (1) Projects that continue treatment adequate to assure that the public health is protected.
- (2) Projects that preclude a violation of the safe yield of the PWS permit.
- (3) Projects that take whatever investigative or corrective action is necessary to assure that safe and potable water is continuously supplied.

COMMUNITY HEALTH (Maximum total rating 15 points)

General Guidelines

(A) Consolidation (Maximum total 5 points)

5 points - Project implementation will result in consolidated ownership and management (administrative and technical) of what were previously two separate drinking water systems; or

3 points - Projects that propose to increase available water, provide water conservation, improve aesthetic water quality and improve the Applicant's ability to operate and maintain the facility or increase the reliability of service by means other than water system consolidation.

(B) Green Infrastructure (Maximum total 10 points)

10 points - Project implementation is EPA-defined "Green" for energy savings *and* water savings.

5 points - Project implementation is EPA-defined "Green" for energy savings *or* water savings.

2 points – The project saves energy and/or water but neither has been documented as satisfying EPA criteria.

SOURCE WATER PROTECTION (5 points)

Points are awarded to systems which address specific needs identified in the State Water Plan and to systems which practice Source Water Protection.

A maximum of 5 points is provided for Source Water Protection:

3 points are awarded if the source water is protected by a DEP-Approved SWPP, /or

5 points is awarded if the applicant can demonstrate implementation of a DEP-Approved SWPP.

INFRASTRUCTURE HEALTH (Maximum total rating 25 points)

The Infrastructure Health rating is a function of scores provided for the following categories:

- A. Drinking Water System Adequacy (maximum 15 points)
- B. Proactive Management (maximum 10 points)

General Guidelines:

- A. Drinking Water System Adequacy and Safety (maximum 15 points)

Points are earned based on the criticality of problems associated with existing infrastructure that will be fixed by the project.

Problems caused by inadequate operation may not contribute to a rating. Problems that contribute to the rating can only be those that are solved through construction.

Acceptable methods for evaluating and documenting unaccounted-for-water (UAFW) include AWWA Audits, leak detection surveys, a study done as part of the PRWA leak detection program, an analysis by the project consultant or other existing engineering studies.

Some projects serve to correct more than one problem. The rating must reflect the relative criticality of those problems and approximately how much of the eligible cost is associated with each problem. See the table below.

Drinking Water System Adequacy	Points		
	Percent Project Cost ²		
	1-30%	31-70%	71-100%
<ul style="list-style-type: none"> • Structure under threat of collapse, or • Treatment plant and/or entire treatment unit in poor condition, or • Greater than 40% UAFW³ 	5	10	15
<ul style="list-style-type: none"> • Low flow or low pressure⁴, or • Treatment unit components in poor condition, or • Pumping station components in poor condition, or • Leaking tankage, or • Storage in poor condition, or • Between 20% and 40% UAFW³ 	2	5	10
<ul style="list-style-type: none"> • Inoperative valves or hydrants, or • Tank maintenance , or • Lack of reliable emergency power, or • Less than 1 day of storage, or • Less than 20% UAFW³ • Other infrastructure upgrades 	1	2	5

² Projects which involve more than one category must be rated on each. Their overall point value is calculated as a proportion of the total project cost. See the Multiple Project Purposes Methodology section for further explanation.

³ UAFW projects can include waterline and/or water meter replacement projects.

⁴ Low pressure means less than 20 PSI. Low flow means less than 500GPM at 20 psi residual pressure.

Multiple Project Purposes Methodology

- Independent of the actual % project cost being rated, the % cost for rating purposes will be the upper limits of either 30, 70 or 100%. For example:
 - a) 75% of the cost commits 100% of the cost.
 - b) 5% of the cost commits 30% of the cost.
- If points are assigned under the 71 - 100% cost column, no other needs may be awarded points since 100% of the cost is committed for rating purposes.

Example:

The applicant is served by a treatment facility which is in poor condition. The project will fix that problem using 60% of the project cost. In addition, a section of old lines which are contributing to a system-wide UAFW of 25% would be funded with the remaining 40%.

Method #1: Use the 31-70% Column (representing 60% of the cost) and assign 10 points for the plant work. Use the 1-30% column (representing 40% of the cost) and assign zero points for the pipe repair. The final total points using this method are 10.

Method #2: Use the 1-30% column (representing 60% of the cost) and assign 5 points for the plant work. Use the 31-70% column (representing 40% of the cost) and assign 2 points for the pipe repair. The final total allowable points using this method are 7.

The correct point assignment would be 10 because it provides the greatest number of points.

B. Proactive Infrastructure Management (maximum 10 points, see charts below)

1. Assessment Tool (AT) (maximum 5 points)

The DEP Capability Enhancement Program (CEP) uses a questionnaire (called the Assessment Tool, or AT) to assess the technical, financial and managerial (TFM) capability of drinking water systems.

Pennsylvania uses a Priority Rating Score (PRS) to evaluate all public water systems based on various compliance, enforcement and certified operator information. Information is gathered from Pennsylvania's Drinking Water Information System (PADWIS), Environment, Facility, Application, Compliance Tracking System (eFACTS), and EPA's Enforcement Tracking Tool (ETT). If the system has a Priority Rating Score (PRS) score less than 200, the project automatically gets the 5 points.

For those systems with a PRS score greater than or equal to 200, the system will complete the AT. Points for the AT will be assigned as follows:

Points	Percent Overall AT Score
4	<40%
2	<60%
1	<80%

2. Asset Management (maximum 5 points)

Two points are awarded if the Applicant has in place a system which accomplishes the first five elements⁵ of Asset Management listed below:

- a) A public education or outreach program designed to highlight the services provided by the Applicant
- b) A maintenance management system that prompts needed maintenance activities, records the completion of those activities and records their cost
- c) Location, age and condition of all major assets known and recorded
- d) A process to determine the probability of asset failures, redundancy and consequence of those failures
- e) An estimated date for the renewal of all major assets and an estimated cost for each
- f) A long-term budget (ten-year plus) that describes how much money will be needed to pay for needed infrastructure replacement
- g) System plan for obtaining the revenues it will need over the next ten years consistent with its asset management system
- h) Generate a periodic report (Asset Management Plan)

An additional three points are awarded if the Applicant's system includes all the elements of Asset Management listed above.

Points	Asset Management Elements
2	1 - 5
5	1 - 8

⁵ Different terminology can be used if the activity is the same.