RANKING FRAMEWORK

for

PENNVEST NON-POINT SOURCE PROJECTS

Prepared by
Bureau of Clean Water
Division of Technical and Financial Assistance

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

April 1, 2016

BACKGROUND

States develop and implement a project rating system to prioritize projects for Clean Water State Revolving Fund (CWSRF) 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.

DEP generates a priority list which is ranked to reflect DEP priority points. PENNVEST adds additional points.

PROCESS FOR RATING SYSTEM REVISIONS

This ranking system is included as an attachment to the CWSRF 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

Ratings are done after all the DEP permits necessary for the project have been issued. One month before each Board meeting DEP submits a final list of recommended projects and scores to PENNVEST. The PENNVEST Board approves projects for funding.

DEP PRIORITY RATING FACTORS

(a) The maximum points for each factor are:

(1) Water Quality – 30 points
(2) Compliance – 10 points
(3) Planning – 30 points
(4) Benefit-to-Cost – 30 points
(5) Safety – 5 points

(b) A project's total priority points are the sum of the points assigned in each of the individual rating factors. The maximum point total is 105.

DOCUMENTATION OF THE DEP RATING PROCESS

DEP Project Manager completes a PENNVEST Rating Form with tentative ratings during application review. The Project Manager enters a summary of the final rating on the PENNVEST website.

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.

DEFINITIONS OF TERMS

For the purpose of this rating system, the following terms are defined as follows:

(a) Abandoned Mine Drainage (AMD) – Acid mine drainage from locations where this is no existing entity with continuing responsibility for the discharge.

(b) Best Management Practices (BMP) – Proactive, or combination of practices, which in effective and practicable (given technological, economic and institutional considerations) method to protect surface and groundwater from non-point source impacts

(c) Brownfield – A project designed to remediate water quality problems caused by the presence of hazardous substances, pollutants, or contaminants to promote expansion, redevelopment or reuse of real property.

(d) Exceptional Value Water (EV) – This highest level of protection requires that "water quality … be maintained and protected." To be compatible with the federal regulation, Pennsylvania's EV waters classification includes "Outstanding National Resource Waters." In addition, outstanding state, regional, and local waters are also protected at this level. Thus, the Pennsylvania anti-degradation regulation provides multiple routes for these waters to qualify for EV protection. At this highest level, no lowering of water quality is allowed. A water qualifies for EV if it is an HQ water which meets one or more of the following attributes: (1) it flows in a national wildlife refuge or a state game propagation and protection area; (2) it flows in a designated state park natural area, state forest natural area, national natural landmark, federal or state wild river, federal wilderness area, or national recreation area; (3) it is an outstanding national, state, regional, or local resource water as defined in regulation; (4) it is a surface water of exceptional recreational significance as defined in regulation; (5) the water achieves a biological test score of 92 percent or greater using the modified Rapid Bio-assessment Protocol; or (6) the water is designated a wilderness trout stream by Pennsylvania Fish and Boat Commission following public notice and comment. An additional pathway is available for waters that possess "exceptional ecological significance." Water quality better than the criteria set forth in DEP regulations is not needed to qualify as EV waters for surface waters of exceptional ecological significance. These waters include, but are not limited to, EV wetlands and thermal springs.

(e) High Quality Water (HQ) – DEP regulations specifying how a water body may qualify as HQ waters provide that such qualification may occur by demonstration suitable chemical or biological conditions Under the chemical test, a surface water is HQ if long-term water quality (at least one year of data) for 12 chemical parameters is better than levels necessary to support propagation of fish, shellfish, and wildlife and recreation in or on the water. Under the biological test, a water is HQ if it meets either of the following: (a) in comparison to a reference stream, the water shows a macro invertebrate community score of 83 percent or greater using a protocol based on EPA's Rapid Bio-assessment Protocol, or (b) the water is a Class A wild trout stream designated by the Pennsylvania Fish and Boat Commission following public notice and comment

(f) Non-Point Source (NPS) – A pollution source which is not a point source discharge.

(g) Point Source (PS) – Any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, Combined Animal Feedlot Operation (CAFO), landfill leachate collection system, or vessel or other floating craft, from which pollutants are or may be discharged. Projects related to achieving and/or retaining compliance with an MS4 permit are point source projects.

(h) Section 303(d) List – State water bodies outlined in the Clean Water Act that remain polluted after the application of technology-based controls.

(i) Total Maximum Daily Load (TMDL) – A calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of the load among various sources of that pollutant.

WATER QUALITY (Maximum total 30 points)

Projects will be rated in one of the following categories based on the quality of the receiving stream:

A. Receiving stream is listed as impaired on the Section 303 (d) List (30 points)

30 points will be awarded to projects where the receiving stream is listed as impaired on the PA Integrated Water Quality and Assessment Report (Section 303 (d) List) with causes that are linked to the benefits of the project.

B. Receiving stream is designated high quality (HQ) or exceptional value (EV). (20 points)

20 points will be awarded to projects where the receiving stream is identified as high quality (HQ) or exceptional value (EV) in Chapter 93.

C. Receiving stream is impaired but not listed on 303 (d) List (10 points)

10 points will be awarded to projects where the receiving stream is not listed as impaired on the PA Integrated Water Quality and Assessment Report (Section 303 (d) List), but the project will have direct and substantial benefits to waters (including groundwater), and the applicant has provided documentation (previously-conducted assessment/water quality data) which identifies water quality issues that are addressed by the project.

The impaired listing can be accessed at:

http://www.portal.state.pa.us/portal/server.pt/community/water_quality_standards/10556/integrated_water_quality_report_-_2008/554008

HQ/EV status available at:

http://www.portal.state.pa.us/portal/server.pt/community/water_quality_standards/10556/stream_redesignations/553982

COMPLIANCE (Maximum total 10 points)

10 points will be awarded if the project will improve compliance with existing laws, rules or regulations, when no compliance order, decree or agreement has been issued, and there is no deadline date specified in regulation.

5 points will be awarded if the project will comply with a compliance order, decree or agreement or a deadline specified in regulation.

PLANNING (Maximum total 30 Points)

Projects will be rated by the accumulation of up to 30 points from the following categories:

A. Capability to Manage (10 points)

0-10 points will be awarded based on the applicant's capability to manage the project. Applications which are clear on project goals, objectives, methods, and timing will receive 10 points. Reduced points will be awarded for applications that lack any information involving objectives, methods, or timing.

B Planning Coordination (20 points)

10 points will be awarded to projects where there is an approved TMDL which requires reductions in pollutant(s) to be controlled by the project

8 points will be awarded to projects that are comprised of accepted BMPs that are endorsed by the County Conservation District, a local planning office, or watershed group.

2 points will be awarded if the project is located in an environmental justice community as determined by the Office of Environmental Justice

http://www.dep.pa.gov/PublicParticipation/OfficeofEnvironmentalJustice/Pages/PA-Environmental-Justice-Areas.aspx

BENEFIT-TO-COST (Maximum total 30 points)

General Discussion:

The purpose of this factor is to encourage the funding of practices that provide the most benefit per dollar. Some practices tend to be more expensive than others. However, it would be inappropriate to arbitrarily restrict the use of any particular technology, because in a given project its use might have extraordinary benefits. Projects may also need to use an expensive type of technology to only a limited extent. Case-by-case consideration is therefore needed.

Benefit/Cost is the correct measure because NPS projects do not always have an outcome fixed by mandate. Traditional drinking water and wastewater projects usually are motivated to satisfy a predetermined requirement. A wastewater plant may for example require a reduction in the concentration of nitrogen in its effluent to 3 mg/l. In such a case the applicant does a cost-effectiveness analysis of various alternatives to accomplish that specific result. In NPS the outcome is usually less specified. Lacking a specific mandated outcome, NPS projects must nevertheless reflect best-use of taxpayer funds, and the appropriate analysis involves an assessment of relative benefits and costs.

Detailed calculations of estimated costs and benefits are not assumed to be available, which means that the outcome of the rating will rely heavily on the experience and judgment of the reviewer. *Examples* are provided below, but the wide variety of potential NPS projects makes it impossible for this guidance to offer a detailed decision methodology that can be directly applied to all projects.

The nature of the practices applied in the different types of NPS projects (stormwater, brownfields, acid mine drainage and agriculture) are vastly different. It is for that reason that the examples below are separated by type.

Some projects will include a mix of different BMPs. If that is the case the reviewer will make a judgment on the overall benefits and costs of the project.

Reviewers should consider not only the construction cost of the project but also the operations & maintenance (O&M) costs over the design life of the project.

The Benefit-to-Cost rating is a function of the project's water quality benefit relative to total cost:

A. High water quality benefit relative to cost (21-30 points)

B. Medium water quality benefit relative to cost (11-20 points)

C. Low water quality benefit relative to cost (1-10 points)

Benefit-to-cost points will be awarded based on the following tables:

	High Cost	**Medium Cost**	**Low Cost**
High Benefit	Medium Rating	High Rating	High Rating
Medium Benefit	Low Rating	Medium Rating	High Rating
Low Benefit	Low Rating	Low Rating	Medium Rating

Benefit/Cost Indicators:

Stormwater Examples:

Benefit Range	Benefit
High	High hydrologic performance; captures high percentage of stormwater runoff in the project area
Medium	Good hydrologic performance; captures substantial percentage of stormwater runoff in the project area
Low	Low hydrologic performance captures low percentage of stormwater runoff in the project area

Cost Range	Cost
High	New structural construction; or large trees (>2 1/2" diameter); or green roofs
Medium	Major retrofit of structural BMP; pervious pavement; limited piping; medium-sized trees (1-2½"); rain barrels; or French drains
Low	Minor retrofit of structural BMP; roof downspout disconnection; small trees (<1"); or vegetated swale

Brownfields Examples:

Benefit Range	Benefit
High	High hydrologic performance; captures high percentage of stormwater runoff in the project area; the majority of stormwater is reused or the practice eliminates a pollutant source
Medium	Good hydrologic performance; captures substantial percentage of stormwater runoff in the project area and some stormwater reused or reduces pollutant source
Low	Low hydrologic performance; captures low percentage of stormwater runoff in the project area; project includes capping the whole site, Monitored Natural Attenuation or does not reduce pollutant source

Cost Range	Cost
High	Rain cisterns, Rain storage tanks, Leaking tank removal, Permeable pavement over uncontaminated areas Permeable Reactive Barriers or Contaminated soil removal
Medium	In-situ or ex-situ treatment of contaminated soil and groundwater, bio-remediation, oxidation; or vegetated retention basins
Low	Groundwater monitoring wells or phytoremediation

AMD Examples:

Benefit Range	Benefit
High	>5 miles of stream restored; high reduction in pollutant discharge; large stream acidity improvement
Medium	1-5 miles of stream restored; substantial pollutant reduction; medium acidity improvement
Low	<1 mile of stream restored; low pollutant reduction; low stream acidity improvement

Cost Range	Cost
High	Reclamation, structural construction or long-term chemical feed.
Medium	Passive Treatment (where analysis shows this is feasible for the discharge and less costly than active treatment)
Low	Limestone trenches, limestone sand, other low-cost limestone applications

Agricultural Examples:

Benefit Range	Benefit
High	Large reduction in nitrogen or phosphorus runoff
Medium	Substantial reduction in nitrogen or phosphorus runoff
Low	Low reduction in nitrogen or phosphorus runoff

Cost Range	Cost
High	Cost >$500,000
Medium	Cost $200,000-$499,999
Low	Cost <$200,000

SAFETY (Maximum total 5 points)

Projects which provide public health and safety benefits will be rated in one of the following categories:

A. Projects that eliminate a critical ongoing safety or health hazard (5 points)

   5 points will be awarded to projects that eliminate an acute problem that currently poses an imminent hazard to life, health, or safety

B. Projects that eliminate a chronic safety or health hazard (3 points)

   3 points will be awarded to projects that eliminate problem which poses a frequently recurring hazard to safety, health or property with a potential threat to life.

C. Projects that eliminate a potential safety or health hazard (1 point)

   1 point will be awarded to projects that eliminate a recurring problem having low potential of threat to life safety and health