

# 2018 Water Quality Restoration Grants for Nonpoint Source Pollution

## BARNEGAT BAY WATERSHED REQUEST FOR PROPOSALS



*Westecunk Creek, Eagleswood Township, Ocean County (photo credit: NJDEP)*

**New Jersey Department of Environmental Protection  
Division of Water Monitoring and Standards  
Bureau of Environmental Analysis, Restoration and Standards**

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# 2018 Water Quality Restoration Grants Barnegat Bay Watershed RFP

## TABLE OF CONTENTS

1. PROGRAM OVERVIEW.....	2
2. FUNDING FOR 2018 WATER QUALITY RESTORATION GRANTS .....	3
3. FOCUS OF 2018 WATER QUALITY RESTORATION GRANTS .....	5
4. REQUESTS FOR PROPOSALS.....	7
5. PUBLIC INFORMATION SESSIONS AND SUBMISSION OF PROPOSALS.....	12
6. ELIGIBILITY REQUIREMENTS.....	13
7. SELECTION OF PROJECTS.....	15
8. REQUIRED ELEMENTS FOR A COMPLETE PROPOSAL.....	16
9. REPORTING REQUIREMENTS FOR PROJECTS SELECTED FOR FUNDING.....	21
10. OTHER REQUIREMENTS FOR PROJECTS SELECTED FOR FUNDING.....	23
FIGURES	
Figure 1 – <i>Barnegat Bay Watershed</i> .....	5
Figure 2 – <i>Priority Areas for Nutrient Load Reduction</i> .....	6
Figure 3 – <i>Priority Areas to Address Turbidity</i> .....	6
TABLES	
Table 1 – <i>Public Information Session</i> .....	13
Table 2 – <i>Grant Processing Schedule</i> .....	16
Table 3 – <i>Project Implementation Schedule</i> .....	18
APPENDICES	
<i>Appendix A - Cover Sheet and Format for Project Proposals</i>	
<i>Appendix B - Project Evaluation Criteria</i>	
<i>Appendix C - Quality Assurance Project Plan (QAPP) Guidance</i>	
<i>Appendix D - Quarterly Reporting Requirements</i>	
<i>Appendix E - Final Report Requirements</i>	
<i>Appendix F - Maintenance Plan Guidance</i>	

## 1. PROGRAM OVERVIEW

The Water Quality Restoration Grant Program is administered by the New Jersey Department of Environmental Protection's (Department) Bureau of Environmental Analysis, Restoration and Standards (BEARS) within the Division of Water Monitoring and Standards. The Water Quality Restoration Grant Program is part of the Statewide Nonpoint Source (NPS) Management Program, which highlights key actions that the Department and its partners use to control NPS pollution and restore water quality throughout New Jersey. NPS pollution is caused when contaminants deposited on the land surface are washed off and carried into nearby waterways by stormwater runoff or ground water. U.S. Environmental Protection Agency (USEPA) has identified NPS pollution as the nation's largest water quality problem, causing impairment of approximately 40% of surveyed rivers, lakes, and estuaries in the Country (<http://water.epa.gov/polwaste/nps/outreach/point1.cf>). The Department, in partnership with local and regional stakeholders, has invested significant resources in characterizing the causes and sources (both nonpoint and point source discharges) of water quality impairment in several priority watersheds and has found that reducing NPS pollution is key to meeting water quality objectives in those watersheds. The Department has also focused grant funds on addressing broader water quality issues, such as reducing or eliminating combined sewer overflows (CSOs) and improving resiliency to storm events like Superstorm Sandy, which are advanced by implementing pollution reduction strategies, including increasing infiltration, green infrastructure, living shorelines, and environmental education.

The State of New Jersey utilizes a variety of funds to restore, prevent, and/or mitigate NPS pollution. Funding sources include USEPA pass-through grants issued under Section 319(h) of the federal Clean Water Act (CWA) and other federal and State funds that may be available for NPS-related water quality restoration activities, including Corporate Business Tax (CBT) and Natural Resource Damages (NRD).

Through this 2018 Request for Proposals (RFP) the Department is making up to \$10M in grants available for watershed restoration, enhancement, and protection strategies that address NPS pollution from both point source and nonpoint source discharges within the Barnegat Bay Watershed. This RFP sets forth the elements and requirements for projects based on federal award criteria and state environmental priorities; identifies specific administrative, procedural, and programmatic requirements for applicants; and provides timetables and deadlines for the grant application, project evaluation criteria, and related decision-making processes. This RFP directs funding to projects and new or existing programs that meet the goal of improving water quality through the prevention or reduction of NPS pollution. The Department has identified long term and short term NPS objectives for water quality assessment, monitoring, and restoration in several documents, including the Department's Barnegat Bay Restoration, Enhancement, and Protection Strategy, the Performance Partnership Agreement with EPA ([https://www.epa.gov/ocir/national-environmental-performance-partnership-system-nepps##Per Par Agreements](https://www.epa.gov/ocir/national-environmental-performance-partnership-system-nepps##Per%20Par%20Agreements)), and the New Jersey Nonpoint Source Management Program Plan, 2015-2019, ([http://www.nj.gov/dep/wms/bears/docs/nps\\_plan\\_2015.pdf](http://www.nj.gov/dep/wms/bears/docs/nps_plan_2015.pdf)). These objectives include promoting stewardship to reduce NPS, funding NPS reduction projects that maximize the effective use of funds to achieve measurable water quality outcomes, and working with partners to leverage State resources to

increase NPS available funding. To demonstrate measurable water quality outcomes and to provide an update and explanation of the project status, all water quality restoration grantees must fulfill the USEPA Grant Reporting and Tracking System (GRTS) requirements and the USEPA pollutant load reduction estimates utilizing the USEPA Spreadsheet Tool for Estimating Pollutant Loads (STEPL) or other non-proprietary load reduction estimation model and include these load reductions in a “USEPA success story” style summary. Final reports must include a detailed summary of load reductions achieved by the project’s implementation measures.

The Department is also making additional funding available in the form of low-interest and principal-forgiveness (grant-like) loans through the New Jersey Water Bank, administered by the NJDEP in partnership with New Jersey Water Infrastructure Bank ([http://www.nj.gov/dep/dwq/mface\\_njeifp.htm](http://www.nj.gov/dep/dwq/mface_njeifp.htm)). As outlined in the Department’s Intended Use Plan (IUP) - Federal Fiscal Year 2018 and State Fiscal Year 2019, the Department has allocated funds for stormwater management and NPS pollution projects in the Barnegat Bay Watershed. The IUP can be found at <http://www.nj.gov/dep/dwq/cwpl.htm>. The Department is offering 50% principal forgiveness with a \$2M limit on principal forgiveness per applicant and awarded on a first come basis. The remaining project amount is financed 25% Department interest-free, and 25% NJ Infrastructure Bank market rate financing for stormwater and NPS projects in the Barnegat Bay Watershed. There is an opportunity to bundle Water Bank funding with the grant opportunities described in this RFP. For example, a project to repair stormwater and sanitary sewer infrastructure to eliminate an illicit connection may be eligible for a grant through this RFP and eligible for a loan through the Water Bank. Proposals submitted in response to this RFP that have matching funds and/or additional grant or Water Bank funds available for the project may receive a higher ranking in accordance with the Project Evaluation Criteria in Appendix B. In addition, because the Department receives far more proposals than it can fund with available grants, applicants whose proposals are not awarded grants, or not awarded grants for the full amount requested, are strongly encouraged to take advantage of the Water Bank low interest and principal forgiveness loans available for the Barnegat Bay Watershed.

## **2. FUNDING FOR 2018 WATER QUALITY RESTORATION GRANTS**

The Department is issuing this RFP to solicit applications for eligible projects for 2018 grant funding. Specifically, the Department is making \$2.7M available in federal funding under this year’s Section 319(h) of the CWA allotment, and an additional \$470,000 from prior years Section 319(h) funding. In addition, the Department is making \$3M in Natural Resource Damages (NRD) recoveries, \$3.56M in Corporate Business Tax (CBT), and \$270,000 from Supplemental Environmental Project (SEP) funds. Funding will be awarded as grants to eligible recipients to carry out targeted water quality restoration initiatives as outlined in this RFP.

A portion of the funds are provided under Section 319(h) of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. §§ 1251 *et seq.*, commonly referred to as the Federal Clean Water Act or CWA). Under the federal guidelines, each state may pass through a portion of 319(h) funds to applicants to reduce water quality impairment through implementation of NPS pollution control projects. For State Fiscal Year 2018, the Department anticipates receiving up to \$2.7M in available federal funding under Section 319(h) of the CWA, at least half of which, \$1.35M, the Department is required to award to

projects that implement approved watershed-based plans or address an impairment in an approved TMDL. The Barnegat Bay is the subject of pathogen TMDLs see, [http://www.nj.gov/dep/wms/bears/docs/Coastal\\_Pathogen\\_TMDLs\\_WMA13.pdf](http://www.nj.gov/dep/wms/bears/docs/Coastal_Pathogen_TMDLs_WMA13.pdf) and an approved watershed based plan for the Metedeconk River watershed see <http://www.nj.gov/dep/wms/bears/docs/MetedeconkWBPlan.pdf>. Moreover, the Barnegat Bay comprehensive water resource management approach was recognized as a priority in New Jersey's approved Nonpoint Source Management Program Plan (2015-2019) which may be found at [http://www.nj.gov/dep/wms/bears/docs/nps\\_plan\\_2015.pdf](http://www.nj.gov/dep/wms/bears/docs/nps_plan_2015.pdf) and thus eligible for 319(h) funding. The remainder of the pass-through grant can be used for any projects that address NPS pollution.

Occasionally, a 319(h) grant awarded in a previous funding cycle cannot be implemented or the project was completed for less than the grant award, resulting in a balance of unexpended funds. In these cases, the Department may make the unexpended 319(h) funds available in future RFPs, see <http://www.epa.gov/sites/production/files/2015-09/documents/319streamlining.pdf>. For this RFP, the Department identified up to \$470,000 of unexpended 319(h) federal funding from prior annual federal funding cycles and is making these funds available to help restore water quality, as further detailed below.

The Department receives a portion of its annual funding from the New Jersey Corporate Business Tax (CBT) pursuant to Article VIII, Sec. 2, para. 6 of the New Jersey Constitution. The amount of funding received is dependent on the amount of CBT receipts collected. The Department may earmark a portion of CBT funding for various environmental projects including projects to restore water quality. In addition to CBT, other Department funding is being made available for various environmental projects to restore water quality, including Supplemental Environmental Project funds. With respect to Supplemental Environmental Project funds, the Department is making available funds allocated for pollution reduction activities that were collected as part of the settlement of an enforcement matter.

The State holds the natural resources of New Jersey in trust for the benefit of its citizens. Statutory and common law provide the Department with the authority to investigate and require the restoration of injured natural resources. Money collected for natural resource injuries through settlements or awards for legal claims based on environmental contamination is known as Natural Resource Damages (NRD). NRD recoveries are used by the Department to repair, replace, or restore damaged natural resources or to preserve natural resources. NRD recoveries are deposited in the Hazardous Discharge Site Cleanup Fund established pursuant to N.J.S.A. 58:10-23.24 and are appropriated for among other things, direct and indirect costs of remediation, restoration and clean up, and grants to local governments and nonprofit organizations to further implement restoration activities of the Office of Natural Resource Restoration.

For this RFP, the Department is using the funding sources noted above to make \$10M available for this grant solicitation to help restore water quality in the Barnegat Bay Watershed, as further detailed below.

### 3. FOCUS OF 2018 WATER QUALITY RESTORATION GRANTS

The Barnegat Bay Watershed remains a priority for the Department and is the primary focus of this Request for Proposals. Grants issued under this RFP are intended to restore, enhance, and protect the Barnegat Bay Watershed, this includes addressing water quality impairments with the goal of improving the water quality and ecological health of the bay. On October 4, 2017 the Department released the “Barnegat Bay Restoration, Enhancement, and Protection Strategy” (BB REP Strategy) developed with extensive stakeholder input. The BB REP Strategy establishes an approach to move science into action and builds on the accomplishments of the Barnegat Bay Comprehensive Action Plan launched in December 2010. The BB REP Strategy is available online at <http://www.nj.gov/dep/barnegatbay/>.

The Barnegat Bay Watershed, as seen in Figure 1, has a total area of 660-square-miles, and includes portions of 37 municipalities. Barnegat Bay is a narrow brackish 42-mile long estuary, ranging from 1.2 miles to 3.7 miles wide. The Barnegat Bay is also shallow, 4 to 5 feet deep in most places. With only two natural outlets to the ocean, the residence time (the amount of time it takes for bay water to be replaced) varies significantly throughout the bay, with an average of 16 ½ days. Nearly 600,000 people populate the watershed year-round and that number nearly doubles in the summer months. The natural landscape of the watershed, coupled with human influences, make the Barnegat Bay subject to over-enrichment (*i.e.* stimulation of algal growth due excess nutrients). Because of Barnegat Bay’s popularity and use (*e.g.* fishing, swimming, boating, shellfishing, and development), both water quality and habitat are negatively impacted by human influences.

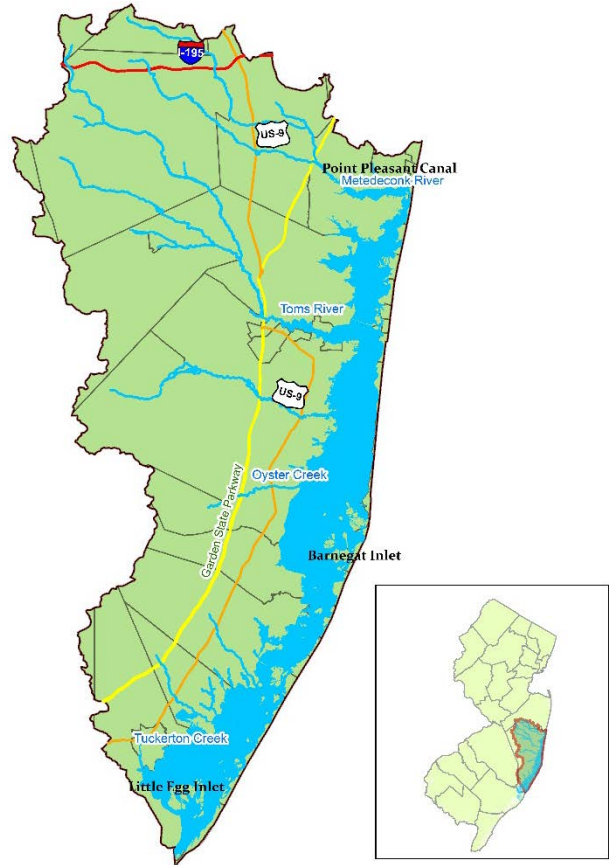


Figure 1: Barnegat Bay Watershed

A key finding of the BB REP Strategy is that while the northern third of the bay is ecologically impaired, and other areas are showing signs of stress, many parts of the bay and its resources are healthy. These findings informed the BB REP Strategy to implement appropriate measures which will help restore those impaired areas, enhance “on the edge” areas, and protect healthy areas.



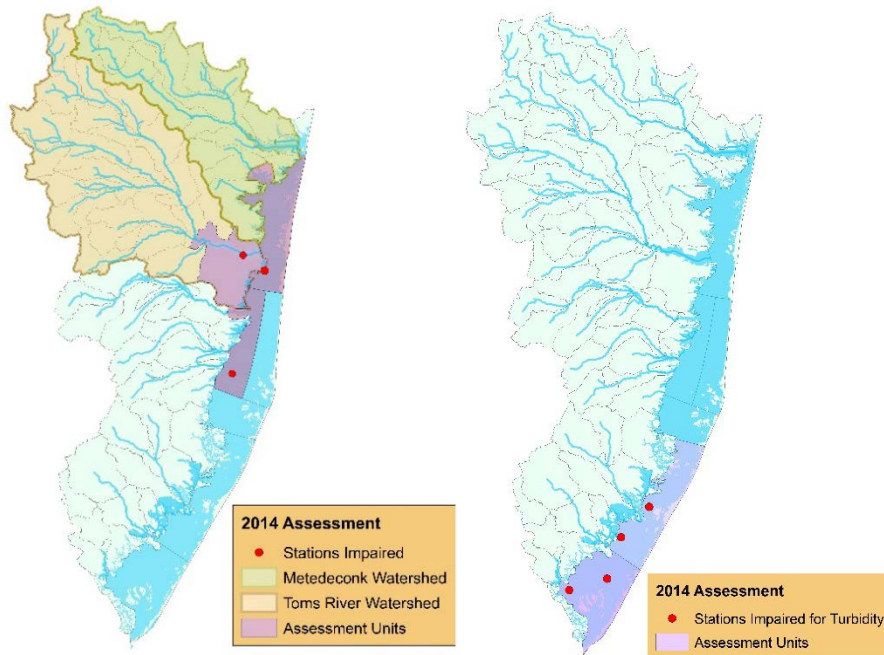


Figure 2: Priority Areas for Nutrient Load Reduction Figure 3: Priority Areas to address Turbidity

Specifically, the strategy notes that the overall health of macroinvertebrates found in sediments is good, but that the bay continues to show signs of stress from alga blooms, which degrade water quality and reduce dissolved oxygen that fish and other aquatic life need. The highest amounts of the algae-causing nutrients, nitrogen for example, are in the highly developed northern part of the bay, where there is a long

residence time (see Figure 2). The BB REP Strategy directs the Department to work with municipalities and other stakeholders in the northern portion of the bay to establish a Total Maximum Daily Load (TMDL) for nitrogen. Proposals that may effectively address nitrogen impairment in the northern portion of the bay include, but are not limited to, watershed restoration plans, source tracking, and shellfish enhancement. Studies also indicate that there is a turbidity impairment in the northern portion of Barnegat Bay that is phytoplankton driven (*i.e.* likely due to nutrient enrichment).

Another key finding of the BB REP Strategy is that the southern portion of Barnegat Bay (see Figure 3) is impaired for turbidity based on the assessment of available data which is reported out in the Department’s 2014 303(d) list and Integrated Report. The turbidity impairment in the southern portion of Barnegat Bay is sediment driven (*i.e.* likely due to loss of wetlands). Proposals that may effectively address sediment driven turbidity impairment in the southern portion of the bay include, but are not limited to, submerged aquatic vegetation restoration, shellfish enhancement, wetlands restoration, living shorelines, and upstream stream bank stabilization.

The BB REP Strategy identifies restoration, enhancement, and protection actions with the continued goal of improving the ecological health of Barnegat Bay and its watershed; through this RFP the Department will fund projects in the Barnegat Bay Watershed, with a priority for projects that address the above issues. Specifically, the Department plans to direct funding to projects in the northern portion of the bay (see Figure 2) that lessen nitrogen enrichment and projects in the southern portion of the bay (see Figure 3) that lessen turbidity.

## 4. REQUEST FOR PROPOSALS

Grants awarded from this RFP will be for projects within the Barnegat Bay Watershed; project schedules from start to finish should be no more than three (3) years. The Department's water quality restoration grant opportunities in the Barnegat Bay Watershed are detailed below:

### a. Watershed Restoration / Protection Plans (up to \$1.7M)

- 1) Implement the Metedeconk River Watershed Protection and Restoration Plan (up to \$300,000) - The Metedeconk River Watershed Protection and Restoration Plan, released in May of 2013 by Brick Township Municipal Utilities Authority, identifies strategies and projects within the watershed for restoration. Restoration projects range from retrofits of existing stormwater basins to other green infrastructure projects. These identified restoration projects target the reduction of nutrients, among other pollutants, and are one important mechanism needed to reduce the nutrient load to Barnegat Bay. The Department has funded implementation of several restoration actions already, and is now seeking additional proposals for projects which are enumerated in or consistent with the approved protection and restoration plan. The Metedeconk Watershed Protection and Restoration Plan and a list of implemented actions are available at <http://www.nj.gov/dep/wms/bears/npsrestgrants.html>.
- 2) Develop Toms River Watershed Restoration Plan (up to \$400,000) - The Department is seeking proposals to develop a Watershed Restoration Plan for the Toms River Basin. The Toms River Watershed has been identified as an important component of the Barnegat Bay Restoration, Enhancement, and Protection Strategy by both the Department and stakeholders. Monitoring and modeling indicate that the Toms River Watershed contributes a significant load of nutrients into the Barnegat Bay system. In addition, Toms River has six (6) recreational bathing beaches (Anglesea, Wildwood, Summit, East Beach, West Beach and Beachwood Beach) which routinely have advisories or closures after rain events due to elevated levels of pathogens. The development of this plan will result in a list of prioritized actionable items that address NPS pollution and are specific to the Toms River Watershed. The development of a Watershed Restoration Plan will make implementation eligible for funding through the future 319(h) grants. The Watershed Restoration Plan shall be written to satisfy the U.S. Environmental Protection Agency (EPA) recommended nine elements of a watershed based plan ([https://www.epa.gov/sites/production/files/2015-09/documents/2008\\_04\\_18\\_nps\\_watershed\\_handbook\\_handbook-2.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/2008_04_18_nps_watershed_handbook_handbook-2.pdf)).
- 3) Develop other Barnegat Bay Tributary Restoration / Protection Plan(s) (up to \$1M) - The Department is seeking proposals to develop Watershed Restoration / Protection Plans for Tuckerton Creek, Westecunk Creek, Mill Creek, Oyster Creek/Forked River, and/or Cedar Creek. The applicant(s), in coordination with local partners, will develop a Watershed Restoration / Protection Plan(s) which will identify specific actions and projects within the smaller watersheds to address pollutants of concern, specifically nutrients. These plans are a key component of the BB REP strategy and will also focus on addressing local stream water quality issues that will lead



to enhanced water quality in the Barnegat Bay. The development of a Watershed Restoration / Protection Plan(s) will make implementation eligible for funding through the future 319(h) grants. The Watershed Restoration / Protection Plan(s) shall be written to satisfy the U.S. Environmental Protection Agency (EPA) recommended nine elements of a watershed based plan ([https://www.epa.gov/sites/production/files/2015-09/documents/2008\\_04\\_18\\_nps\\_watershed\\_handbook\\_handbook-2.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/2008_04_18_nps_watershed_handbook_handbook-2.pdf)).

**b. Implement projects to restore wetlands, create living shorelines, and promote resiliency (up to \$3M)**

The Department is seeking proposals for projects that will identify appropriate and innovative techniques for stabilizing and restoring existing wetlands and preventing additional wetlands loss in the Barnegat Bay Watershed. The project(s) should identify priority areas (*i.e.* in danger of failure/loss) and design ‘green’ techniques (*e.g.* living shorelines, shellfish reefs, and other environmentally friendly methodologies) that not only preserve the marsh and associated shorelines, but also enhance habitat both on and adjacent to the wetlands. The proposal shall be consistent with the goals contained in Core Element 3, Objective 3, of New Jersey’s Wetland Program Plan ([https://www.epa.gov/sites/production/files/2015-10/documents/njdep-wpp\\_2014-2018.pdf](https://www.epa.gov/sites/production/files/2015-10/documents/njdep-wpp_2014-2018.pdf)), consistent with the Coastal Zone Management rules, N.J.A.C. 7:7 ([http://nj.gov/dep/landuse/coastal/cp\\_main.html](http://nj.gov/dep/landuse/coastal/cp_main.html)), and as appropriate, the Living Shorelines Engineering Guidelines (<http://www.nj.gov/dep/cmp/docs/living-shorelines-engineering-guidelines-final.pdf>).

Coastal wetlands provide upland flood protection during storm events and can remove, through deposition and plant growth, approximately 85% of the nitrogen and 54% of the phosphorus entering the bay from upland sources<sup>1</sup>. With more than 28% of Barnegat Bay’s salt marshes having been lost to development<sup>2</sup>, stabilizing and restoring existing wetlands and preventing the loss of any more wetlands is of significant importance.

Living shorelines are a nature-based shoreline management practice for the protection, restoration, or enhancement of vegetated shorelines, beaches, and habitat in the littoral zone through the strategic placement of plants, stone, sand, or other structural and organic materials. Living shorelines and wetlands restoration are natural solutions that allow for the growth of vegetation, and can be used to reduce shoreline erosion, restore eroded wetlands, and create habitats that are otherwise rapidly diminishing in coastal areas. Living shorelines and wetlands restoration are important strategies to protect our state and coastal municipalities from the effects of climate change, including sea-level rise, storm surges, and heavy precipitation. As such, these resiliency projects are being prioritized in this RFP,

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<sup>1</sup> Velinsky, D., Quirk, T., Piehler, M. and Smyth, A. (2016). Tidal Freshwater and Salt Marsh Wetland Studies of Changing Ecological Function and Adaptation Strategies. NJDEP Barnegat Bay Year 3 Final Report. <http://nj.gov/dep/dsr/barnegat/final-reports/tidal-reports.htm>

<sup>2</sup> Rutgers University (2017). Center for Remote Sensing and Spatial Analysis (CRSSA) [http://www.crssa.rutgers.edu/coastal\\_marine.html](http://www.crssa.rutgers.edu/coastal_marine.html)

specifically, projects that lessen the sediment driven turbidity in the southern portion of Barnegat Bay (see Figure 3) that is likely due to loss of wetlands. Proposals that may effectively address sediment driven turbidity impairment in the southern portion of the bay include SAV restoration and shellfish enhancement, wetlands restoration, living shorelines, and upstream stream bank stabilization. The Department will also evaluate and consider proposals that implement projects to restore wetlands, create living shorelines, and promote resiliency in the northern portion of the bay.

**c. Develop and Implement Education / Stewardship Programs (up to \$500,000)**

The Department is seeking proposals to develop and implement stewardship programs. All proposed projects must have defined deliverables/outputs and schedules. Three project areas have been identified for funding:

- 1) “Bay-Friendly” Stewardship Program (up to \$100,000) -The Department is seeking proposals to create a comprehensive “Bay-Friendly” stewardship program for Barnegat Bay, modeled after the suite of “River-Friendly” programs for businesses, golf courses, schools, and residents in New Jersey (<https://www.njriverfriendly.org/>). This project will inventory existing Barnegat Bay Stewardship programs and, with the cooperation and participation of the stakeholders, create a single, comprehensive, Barnegat Bay-Friendly message. In addition, the grantee will work with other educators to identify and fill any educational/stewardship related gaps. Successful proposals will include a strategy to involve educators and municipalities from around the watershed and identify innovative education, outreach strategies, along with demonstration projects and/or community assistance projects to help communities become “Bay-Friendly”. A successful project will develop consistent and comprehensive stewardship projects while developing meaningful tools to assist municipalities, businesses, schools, and the greater community with their NPS pollution objectives.
- 2) Municipal Stormwater Outreach (up to \$100,000) -The Department is seeking proposals to work with municipalities and the NJDEP’s Division of Water Quality, Bureau of Nonpoint Pollution Control to create a toolbox of materials and/or programs to meet the public education and outreach requirements contained in the Tier A Municipal Stormwater General (MSG) Permit ([http://www.nj.gov/dep/dwq/pdf/tier\\_a\\_Full\\_Permit\\_No\\_ReponsetoComments.pdf](http://www.nj.gov/dep/dwq/pdf/tier_a_Full_Permit_No_ReponsetoComments.pdf)). These materials will be designed to comply with the Point System for Public Education and Outreach Activities contained in Attachment B of the MSG Permit. Education materials will be customized for Barnegat Bay and will educate residents and visitors of the environmental challenges facing Barnegat Bay including what they can do to restore, enhance, and protect water quality in the watershed. The grantee will create templates and tools for municipalities to use, but will not pay for the cost of producing any of the materials for municipalities to distribute.

3) Sea Nettle Outreach and Assistance (up to \$300,000) - The Department is seeking proposals to further sea nettle outreach and assistance to municipalities with direct waterfront access and lagoon communities in the Barnegat Bay Watershed. The grantee may develop and produce focused education and outreach materials which effectively communicate what residents can do to control sea nettle populations based on established science. The Department would consider an innovative program in which the grantee would pass through funding to reimburse or otherwise incentivize homeowners to temporarily remove floating docks during the winter or for pressure washing or scrubbing bulkheads to destroy or remove sea nettle polyps.

**d. Expanded Stormwater Mapping to Address Water Quality in the Barnegat Bay Watershed (up to \$400,000)**

The Department is seeking proposals to complete expanded municipal stormwater mapping to better inventory municipally owned and operated stormwater infrastructure and prioritize stormwater projects to improve water quality in the Barnegat Bay. Individual Barnegat Bay municipalities may submit a proposal to map their own stormwater infrastructure or another entity, such as a County or Non-Governmental Organization, may submit a proposal to assist all, or a portion of, the municipalities within the Barnegat Bay Watershed with mapping their stormwater infrastructure.

The grantee shall develop a detailed inventory and map of all municipally owned and operated stormwater facilities, which shall include the current condition (whether it functions as designed). To assist with the outfall pipe mapping, the proposal should include use of the Department's free stormwater facility mapping application (please contact the Bureau of Nonpoint Pollution Control for more information) or equivalent technology that, at a minimum, has the same attributes as the Departments' application (see page 39 of the Draft Renewal of Master General Permit No. NJ0141852 (Category Code R9) For Tier A Municipal Separate Storm Sewer Systems, [http://www.nj.gov/dep/dwq/pdf/tier\\_a\\_draft\\_permit\\_for\\_publication.pdf](http://www.nj.gov/dep/dwq/pdf/tier_a_draft_permit_for_publication.pdf)) so the data may be uploaded and used by the Department. Information captured should include data on outfall pipes, stormwater management basins, subsurface infiltration/detention systems, manufactured treatment devices, green infrastructure, and storm drain inlets. Photographs and inspection notes, such as facility condition, maintenance activity, date(s) of inspection, and evidence of flooding are also encouraged.

**e. Stormwater Basin Retrofits (up to \$3M)**

The Department is seeking proposals to retrofit municipally or privately owned stormwater basins within the Barnegat Bay Watershed to address water quality, reduce nutrient loading, and reduce flooding. For the purposes of this RFP, retrofitting is defined as expanding, modifying, or otherwise upgrading existing stormwater management measures.

To reduce flooding impacts, many construction codes required the installation of stormwater basins to retain and delay the discharge of stormwater runoff from new development and re-development. These basins are commonly seen in housing developments and at shopping centers. By retrofitting these

basins, the focus of the basin is changed from retaining and delaying stormwater runoff, to infiltration of stormwater and nutrient (pollutant) removal.

Cost associated with stormwater basin retrofits vary widely depending on the type of retrofit and size of the basin; the number of proposals that the Department can fund would be increased if applicants chose to bundle funding with Water Bank funds, as noted in Section 1.

**f. Source Tracking – Expanded Illicit Connection Identification and Elimination (up to \$600,000)**

The Department is seeking proposals to conduct source tracking work in the Barnegat Bay Watershed to identify and fix cross connections, leaks, and/or discharges from sanitary sewage systems. The discharge of sanitary sewage from aging sanitary infrastructure contributes nutrients and pathogens to the Barnegat Bay. Pathogens in the water can negatively affect shellfishing, recreation, and can result in advisories and beach closures. Consideration will be given to proposals that target source tracking work in areas identified as impaired (see Figure 2). The source tracking work goes beyond the requirements of the Tier A Municipal Separate Storm Sewer Systems (MS4) New Jersey Pollutant Discharge Elimination System (NJPDES) General Permits which require the visual inspection of municipally owned and operated outfall pipes once every five (5) years.

Individual municipalities may submit a proposal to conduct source tracking work to identify and fix problems in their own sanitary and stormwater systems or another entity, such as a County or Non-Governmental Organization, may submit a proposal to assist municipalities within the Barnegat Bay Watershed by conducting source tracking work to identify and fix problems in each of the municipalities' sanitary and stormwater systems. The source tracking proposal should incorporate a systematic approach, which includes the use of wet weather ambient water monitoring and the application of source tracking techniques to locate cross connections and breaks in a municipalities' sanitary sewer system. A proposal from an individual municipality shall include a budget for source tracking as well as a budget to fix infrastructure issues found because of tracking efforts. A County or Non-Governmental Organization's proposal shall have a budget for source tracking and a proposal to oversee mini-grants for municipalities to fix/eliminate sources.

**g. Implement Submerged Aquatic Vegetation (SAV) restoration to improve ecological health and reduce turbidity throughout the Barnegat Bay (up to \$300,000)**

The Department is seeking proposals which will identify methods and areas in the Barnegat Bay appropriate for Submerged Aquatic Vegetation (SAV) bed protection, restoration, and/or replanting for the purposes of improving water quality and creation of habitat. The proposal shall include a methodology to identify and map suitable substrate, in addition to identifying other conditions that favor healthy and maximal growth of SAV. The proposal shall include actual restoration work and monitoring at a minimum of two of the identified areas. The overall focus should be on improving SAV growth, improved techniques for protecting existing beds, and restoring/promoting SAV growth in areas that are suitable for SAV growth or where beds have previously existed.

**h. Execute Shellfish Enhancement within harvestable but nutrient-impaired portions of Barnegat Bay to facilitate nutrient reduction (up to \$300,000)**

The Department is seeking proposals to conduct shellfish enhancement within harvestable ([www.nj.gov/dep/wms/bmw](http://www.nj.gov/dep/wms/bmw)), but nutrient-impaired portions of Barnegat Bay (see Figure 2), to facilitate nutrient reduction. The grantee will identify areas appropriate for shellfish restoration, increasing existing shellfish stock for eventual harvest, thereby reducing nutrient loadings within Barnegat Bay. The grantee shall work with experts within the Department, the New Jersey Department of Agriculture, shellfish industry, academia, and environmental advocacy groups, and in consultation with the Atlantic Coast Shellfish Council. The proposed project(s) may be a pilot, but the design should be scalable. Project locations shall be selected based on the likelihood of success, such as those areas with appropriate substrate, salinity, and current velocity; adequate food supply; low threats; and likelihood of natural recruitment. At minimum, shellfish restoration will be conducted at two (2) sites and monitoring shall be conducted until shellfish reach market size (monitoring should include growth and survival rates). Projects need prior approval from the Atlantic Coast Shellfish Council and the Department's Bureau of Shellfisheries.

**i. Any other project which may have not been included above, found to be consistent with the Barnegat Bay Restoration, Enhancement, and Protection Strategy (up to \$200,000)**

The Department is seeking proposals to fund projects that are consistent with the BB REP Strategy and that address reductions in nutrient loading or otherwise restore, enhance, or protect the Barnegat Bay Watershed, <http://www.nj.gov/dep/barnegatbay/docs/BarnBay-REPS.pdf>.

## **5. PUBLIC INFORMATION SESSIONS AND SUBMISSION OF PROPOSALS**

*PROPOSAL MUST BE SUBMITTED BY: August 31, 2018*

Applicants must email an electronic copy of the project proposal that includes all elements of the proposal, by 5pm EDT on August 31, 2018 the application deadline to [NPSgrants@dep.nj.gov](mailto:NPSgrants@dep.nj.gov) in Microsoft Word, PDF or compatible format. Other larger format documents, such as maps tables and photos, may be submitted and postmarked by the application deadline to:

New Jersey Department of Environmental Protection  
Division of Water Monitoring and Standards  
Bureau of Environmental Analysis, Restoration and Standards  
401 East State Street  
P.O. Box 420 / Mail Code 401-04I  
Trenton, New Jersey, 08625-0420  
Attention: Dian Smith

The Department is holding two public information sessions. Questions on the water quality restoration grant opportunities and/or the grant application process will be addressed.

**Table 1: Public Information Session\***

Location	Date and Time
Jacques Cousteau Coastal Education Center 130 Great Bay Blvd. Tuckerton, NJ 08087	Tuesday, June 12 <sup>th</sup> 10am-2pm
Ocean County College 1 College Drive Toms River, NJ Building #10 (Conference), Conference Rooms A&B	Thursday, June 14 <sup>th</sup> 10am-2pm

\*If state offices are closed, the public information session will be canceled. Any other change or cancellation will be posted at [www.nj.gov/dep/wms/bears/npsrestgrants.html](http://www.nj.gov/dep/wms/bears/npsrestgrants.html).

## 6. ELIGIBILITY REQUIREMENTS

### Eligible Applicants

Applicants that are eligible to receive Water Quality Restoration grant funds include:

- Municipal planning departments or boards, health departments;
- County planning departments or boards, health departments;
- Designated water quality management planning agencies;
- State, regional, and local government entities within New Jersey;
- State government agencies, universities, and colleges;
- Interstate agencies of which New Jersey is a member; and
- Watershed and water resource associations and other local nonprofit organizations recognized by the Internal Revenue Service under Section 501(c)(3) of the Internal Revenue Code.

### Eligible Applicant Capabilities

In order for eligible applicants to qualify for Water Quality Restoration grant funds, they must possess all of the following, as demonstrated through information provided in the proposal:

- Staff and resources with the capability, expertise, and environmental experience to perform the proposed work;
- Applicants must demonstrate that they have all the necessary resources and ability to perform the proposed project in a well-organized, concise, and detailed project proposal. If the submitting applicant or project partners have previously received funding from the Department, past performance will be taken into consideration;
- The ability and authority to implement the proposed project(s);



- The ability to ensure project implementation as well as long-term operation and maintenance/management of a constructed project; and
- Although a match is not required for projects to be funded, monetary matches and in-kind services increase a project's scoring (see Appendix B, Project Evaluation Criteria), thereby, increasing the chances of the proposal being selected for an award. This type of support demonstrates a long-term commitment to overall project success. The percentage of matching funds to be supplied by the applicant will also be a factor. Bundling funding sources may improve overall ranking, for example, including low-interest and principal-forgiveness (grant-like) loans through the New Jersey Water Bank in a proposal will improve the overall ranking.

### **Eligible Activities**

In addition to meeting the specifics of the grant opportunities described in Section 4 above, eligible projects must be:

- Well-designed to achieve the project goal of NPS pollution reduction and presented in the proper sequence of events (goal/objective/task);
- Consistent with existing local, state, and federal requirements and can obtain permits needed to implement the project;
- Viable and readily implementable (shovel ready);
- For proposals that do not include construction (*e.g.* planning, outreach and education), the proposal must include deliverables such as schedules, reports, training/outreach products, and inventories;
- Able to be completed in a 3-year timeframe; and
- Located on public property or on private property with an executed agreement with the property owner.

### **Ineligible Activities**

Water Quality Restoration grant funds may not be used for any of the following purposes:

- Projects that do not control the input of NPS pollutants either through the construction of a Best Management Practice or through education that changes behavior or promotes stewardship;
- Purchase of land or major capital improvements;
- Purchase of promotional items, such as key chains, mugs, flying discs, etc.;
- Department permit fees;
- Maintenance activities such as street sweeping and catch-basin cleaning;
- Projects which address symptoms rather than causes or sources of NPS pollution (*e.g.* weed harvesting without BMPs to control nutrient inputs);

- Projects that are not related to stormwater discharges or NPS pollution;
- Dredging of lakes or ponds, except when dredging is needed to remove sediment after all causes or sources of NPS pollution have been addressed; and
- For 319(h) grants only, the implementation of any permit or permit application requirements of federal, state, or local agencies, including the implementation of activities required by the NJPDES regulations (*e.g.* municipal stormwater permit requirements) or the performance of any other ineligible activities based on current USEPA guidelines <https://www.epa.gov/nps/319-grant-current-guidance>.

## 7. SELECTION OF PROJECTS

To be considered for funding, a proposal must be complete and timely in accordance with Sections 1 and 5, address the funding priorities of Section 3, meet the eligibility requirements of Sections 4 and 6, and adhere to the format and contain the components identified in Section 8. Publication of this RFP does not obligate the Department to award a grant or to fund any specific project(s). The Department reserves the right to decline to award a grant if the Department determines that the proposed project(s) does not meet the grant criteria, is not consistent with the Department's priorities set forth herein, funding becomes unavailable, and/or Department priorities change. The funding amounts for each grant opportunity above are estimates. The Department may transfer funds from one grant opportunity to another if the Department does not receive sufficient applications, if the Department needs additional funding for certain projects, or has not used the funding allocated to each grant opportunity. The Department anticipates awarding a minimum of one grant for each of the grant opportunities listed above. The Department will try to maximize the number of grant awards with respect to the number of applicants, number of eligible proposals, funding amounts requested, and final rankings. The total amount of all awards will be up to \$10M.

The Department will conduct a preliminary review of all applications and will reject any ineligible or incomplete proposals. Applications compliant with specifications within this RFP will be reviewed, grouped by project or proposal type, and ranked by an evaluation team comprised of Department staff, in accordance with the Project Evaluation Criteria contained in Appendix B. In some cases, the Department may ask applicants to make minor adjustments to a project proposal to improve its understanding of the project proposal or to correct an error in the submittal. Proposals will be ranked within each individual grant opportunity (4a. through 4i.).

Based on the ranking of projects by Department staff, a condensed list of projects will be developed for further consideration based on the pool of projects relative to the amount of funds available. Grant funds will be awarded by the Department to projects that are deemed most beneficial to the state per the criteria herein. The Department reserves the right not to award a grant if, at its sole discretion, no acceptable proposal is received or changing priorities. All applicants will be notified in writing with the Department's grant award decisions in approximately 90 days from the proposal deadline.

Once applicants have been notified of the Department’s intent to fund a specific project, they will be required to submit all contract development forms within 30 days from notification. Failure to adhere to this deadline may result in an immediate reallocation of funds to other suitable projects.

The following table contains information on the schedule for the proposal submission, funding, and completion of contracts.

**Table 2: Grant Processing Schedule**

Action	Responsibility	Deadline
Full Proposal Submission	Applicant	5pm, EDT, August 31, 2018
Funding Recommendations and Notifications	Department	On or about November 30, 2018
Completion of Contract Execution Forms	Applicant	30 days from notification

## 8. REQUIRED ELEMENTS FOR A COMPLETE PROPOSAL

The proposal must include a Scope of Work, maximum of 10 pages, which includes a detailed description of the project implementation strategy, milestones, outputs and schedule, the environmental benefit that will be achieved by the project, and how effectiveness will be measured including a description of the expected measurable environmental results (*e.g.* miles of stream restored, pounds of sediment reduced). Water quality monitoring will be funded only to fill information/data gaps or for specific assessment of project success and will follow Department approved sampling protocols.

Any documents such as reports, reference photos, maps, and data should be added as supplemental information and are not to be included in the 10-page Scope of Work.

Supplemental information (*e.g.* site plans, maps, blueprints) may be submitted in a larger format if necessary and mailed to Dian Smith at the address previously mentioned on page 12.

The following sections describe the specific elements that must be included in all proposals. For more information, see Appendix A.

### Cover Page

The format for the required cover page for the proposal is provided in Appendix A.

## Abstract

The proposal must include a brief abstract of the project that includes a summary of the key information contained in the Scope of Work, in sufficient detail so that the category applied for, the major elements of the project, the objectives to be achieved, and the spatial extent of the work are clear.

## Project Summary

The proposal must include a brief project summary that includes background, location, and goal(s) of the project.

## Applicant Description

A description of the applicant and the applicant's ability to complete the project must be included. Indicate whether this applicant or any partners have received previous CWA section 319(h), corporate business tax (CBT) funded grants, matching funds, and/or additional grants or Water Bank funds. If so, include all grant contract date(s), project title(s), expiration date(s), and grant identification number(s) as an appendix.

## Project Description and Implementation Schedule

Describe why the applicant believes the proposed project is needed, the scope of the problem, and/or current condition of the targeted water body. Identify the source used to determine the condition, *e.g.*, the Barnegat Bay Restoration, Enhancement, and Protection Strategy (<http://www.nj.gov/dep/barnegatbay/>), latest Integrated Report (<http://www.nj.gov/dep/wms/bears/assessment.htm>), an approved TMDL (<http://www.nj.gov/dep/dwq/msrp-tmdl-rh.htm>), or an approved Watershed Based Plan (<http://www.nj.gov/dep/wms/bears/npsrestgrants.html>). Define the desired result that this project will seek to achieve.

Identify the NPS pollution stressors/sources that cause or contribute to the environmental condition that will be addressed. Explain how and to what degree implementing this project will address the root cause stressors/sources of the problem.

The proposed project shall be described in terms of the goals, objectives, and tasks of the project.

**Goals** should be clearly presented for each type of implementation project. The goal statement(s) must identify the desired outcome(s) related to the identified problem or need and be stated in terms of results to be accomplished.

**Objectives** describe the outcomes in a measurable way, specify the results to be achieved or criteria by which results will be measured (*e.g.*, 25% reduction in phosphorous loading to the Muddy River), and the timeframe for achieving the objective.

**Tasks** are concise statements of activities that need to take place to achieve the stated objectives.

Tasks should:

- Describe the specific action that will be taken to achieve the project goals and objectives;
- Have a designated responsible party; and
- Have a specified timeframe to accomplish the action.

Proposals shall contain a task schedule that lists outputs or deliverables associated with each task, the party responsible for the tasks, and the time duration associated with completing each task for the total length of the project (see Table 3). Project schedules from start to finish should be no more than three (3) years. Please note that funding of projects and/or extension of projects beyond three (3) years will only be made in extenuating circumstances related to factors beyond the control of the applicant. The inability of the applicant to complete the project in a timely manner is not an extenuating circumstance. The schedule should include sufficient time for: administrative start-up, monitoring [including QAPP development and approval, if monitoring is found to be appropriate (see Section 10), considering seasonal or flow conditions that may be important to the sampling design], all required paperwork and legal review, permit acquisition if needed, project completion and evaluation of the outcome, and preparation and submission of the final report. The format for the schedule should adhere to the following:

**Table 3: Project Implementation Schedule**

<b>Project Objective:</b>					
<b>Completion Month #</b>					
<b>Task</b>	<b>Responsible Party</b>	<b>Timeframe</b>	<b>*Anticipated Start Month</b>	<b>Project Deliverable</b>	<b>*Anticipated Completion Month</b>
Task 1	<i>e.g.</i> , Lead Agency	Months	M1, M2, etc.	<i>e.g.</i> , A, B, and C design documents	M4, M5, etc.
Task 2	<i>e.g.</i> , Partner's Name	Months	M1, M2, etc.	<i>e.g.</i> , D, E, and F BMP installation	M4, M5, etc.

\*Start and Completion Months should be described in terms of months from initial month in which work begins, with M1 designating that month.

### Supporting Documentation

The following supporting documentation is required to be submitted in attachments to the Scope of Work:

- Dated USGS topographic map with project area delineated;
- Dated Lot and Block tax map with project area delineated (including property ownership);

- Sketch/site plan or dated large-scale map showing project area in detail, as well as any regulated features such as flood hazard areas, riparian buffers, wetlands, etc., that would be impacted by any proposed construction;
- Photos of the site; and
- List of required local and state permits expected to be needed for project implementation.

## **Budget**

The applicant shall submit for the project proposal both a detailed budget describing how costs per work task will be broken down and a more generalized budget adhering to the following categories.

### **General Budget Categories**

- Personnel Costs (Salaries and Benefits) Note: if students will be performing work, tuition is not eligible for funding;
- Consultants and Subcontractors;
- Travel, at the state allotted 0.31 cents per mile;
- Administration (workshops, printing, postage, etc.) Note: may not exceed 10% of the amount requested;
- Construction (for example, to implement a BMP, [http://www.njstormwater.org/bmp\\_manual2.htm](http://www.njstormwater.org/bmp_manual2.htm));
- Equipment (list must be provided). Note: Equipment acquired with grant funds must be surrendered to the Department at the completion of the project, prior to or with the submission of the Final Report, as described in Appendix E;
- Match and additional funding provided by other sources;
- Audit; and
- Indirect Costs.

### **Monitoring and Evaluation Information**

All proposals must include a description of how attainment of project objectives will be measured and/or demonstrated. The means to demonstrate attainment must be appropriate to the project type and environmental outcome expected. Describe the evaluation techniques and targets and why those approaches are an appropriate measure of success. Examples include improving trends in a related biological indicator/index, improving trends in water quality, a delisting of the affected waterbody/assessment unit, or a calculated evidence of pollutant load reductions using predictive models such as the USEPA Spreadsheet Tool for Estimating Pollutant Load (STEPL) or the Unit Area Load method (UAL) established in Chapters 3 and 4 of the Department's Best Management Practices (BMP) Manual [http://www.njstormwater.org/bmp\\_manual2.htm](http://www.njstormwater.org/bmp_manual2.htm).

If monitoring for biological, chemical, habitat, and/or physical monitoring the applicant should include information on sampling procedure, monitoring parameters, locations of sampling sites, frequency of



collection, data usage, data format, and costs. The Department maintains a comprehensive ambient monitoring program that is used to make determinations regarding water quality impairments. Improving trends in water quality and/or indicators are most appropriately determined using the Department's network, and not through a separate ambient monitoring design. Water quality monitoring will be funded only to fill information/data gaps or for specific assessment of project success and follow Department approved sampling protocols.

If water quality monitoring is proposed as the means to demonstrate effectiveness, the Department must approve this proposal. For such projects, a quality assurance project plan (QAPP) will be required to be developed and approved by the Department prior to project initiation. Refer to Appendix C and EPA's website: <http://www.epa.gov/quality/> for QAPP requirements.

All applicants must fulfill the USEPA Grant Reporting and Tracking System (GRTS) requirements and conform to the USEPA STEPL or NJDEP's BMP Manual requirements to determine load reductions (Appendix E). The STEPL model and documentation may be found at <http://it.tetrattech-ffx.com/steplweb/>. Time for performing this required element must be factored into the schedule and budget.

## **Other Elements of a Proposal**

### **Completion of a Project**

Projects must be completed within the grant period, including the Final Report (see Appendix E). Expenditures by the grantee outside the grant period may not be eligible for reimbursement. If the project cannot be implemented or the project was completed for less than the grant award, resulting unexpended funds will remain with the Department. The Department will make any unexpended 319(h) funds from prior years available to applicants in future RFPs, see <http://www.epa.gov/sites/production/files/2015-09/documents/319streamlining.pdf>.

### **Letter(s) of Resource Commitment**

Any party committing resources to the project must submit a letter of resource commitment and is then considered a project partner. The letter, submitted with the project proposal, must describe the partner's commitment to the project (*e.g.* time, money, and/or effort) or it will not be considered as a letter of resource commitment. In-kind services may be used as match and demonstrates the applicants and/or partner's commitment to carrying out the project in a timely manner. Letters of resource commitment must be included with the original proposal to ensure consideration of the proposal.

Letters of resource commitment from county and local governmental agencies must be signed by person(s) with the financial authority to commit time, money, and/or effort to the project.

A letter of resource commitment must be provided from the landowner of the site of an implementation project if the landowner is a party other than the applicant. A formal resolution or written consent from the landowner agreeing to execution of the project on their property will be required before any contract is executed with the State.

### **Ownership/Proprietary Rights; Data and Geographical Information System (GIS) Requirements**

All information generated during each Water Quality Restoration project, or materials purchased through Water Quality Restoration funds, must be provided to the Department in an electronically pre-determined standardized format at the conclusion of the project, please refer to Appendix E. This includes all data collection related to sites and results, maps generated, photos, and all equipment (such as computers and GPS units) purchased with these grant funds.

Where applicable, the Department may require entry of the data into a web-based system or spreadsheet. All projects involving activities using a GIS data or mapping component must follow the Department's 2013 *Mapping and Digital Data Standards*  
[http://www.nj.gov/dep/gis/assets/NJDEP\\_GIS\\_Spatial\\_Data\\_Standards\\_2013.pdf](http://www.nj.gov/dep/gis/assets/NJDEP_GIS_Spatial_Data_Standards_2013.pdf).

### **Coordination of Project Permitting**

For implementation projects funded through this RFP, all grantees must coordinate all permit pre-application meetings, applications, and application meetings with the Department's Division of Water Monitoring and Standards. The Division of Water Monitoring and Standards should be listed as a co-applicant for any Department permit sought.

### **Maintenance Agreement**

In order to ensure the success of any implementation project funded by a NPS grant, a Maintenance Agreement must be submitted to the Department prior to in-the-ground installation of any Best Management Practices. The agreement must identify the applicant or applicants responsible for maintenance, describe timetables by which these functions will be carried out, and detail tasks performed to ensure the continuing functionality of the implementation project. See Appendix F for more information.

## **9. REPORTING REQUIREMENTS FOR PROJECTS SELECTED FOR FUNDING**

### **Quarterly Performance and Financial Reports**

Performance and financial reports are required to be submitted to the Department on a quarterly basis to provide an update and explanation of the project status. These reports are vital to the success of the project and must be submitted complete and on time in order for payments to be made under the grant

agreement. Failure to submit timely and complete reports may result in non-payment. The reports must follow the format found in Appendix D.

Quarterly Performance Reports are required to be submitted in both digital and hard copy formats. All interim work products, deliverables, as well as the Quarterly Financial Reports with documentation (*e.g.* receipts, vouchers, etc.) are required to be submitted with the appropriate Quarterly Performance Report.

### **Grants Reporting and Tracking System (GRTS)**

All water quality restoration grantees must fulfill the USEPA Grant Reporting and Tracking System (GRTS) requirements; the grantee's timely and accurate reporting on a quarterly basis is essential. GRTS provides USEPA management with an electronic means of accessing information on the use and leveraging of Section 319(h) funds by state agencies. States input data into GRTS in an on-going manner. The information extracted from GRTS is used to respond to congressional and other inquiries; support the USEPA's non-point source budget request; and provide a feedback loop on states' compliance with USEPA guidance and policy. GRTS also provides USEPA and other stakeholders greater and more efficient access to data, information, and program accomplishments than would otherwise be available. States are responsible for the validity of the data. States are required to submit reports on grant funded activities on either a semi-annual or annual basis, depending upon the particular region.

### **Spreadsheet Tool for Estimating Pollutant Loads**

As stated in Section 8, as a condition of the grant award, all grantees must fulfill the USEPA pollutant load reduction estimates utilizing the USEPA Spreadsheet Tool for Estimating Pollutant Loads (STEPL) or other non-proprietary load reduction estimation model, such as the Unit Area Load method established in Chapters 3 and 4 of the Departments Best Management Practices Manual [http://www.njstormwater.org/bmp\\_manual2.htm](http://www.njstormwater.org/bmp_manual2.htm), and include these load reductions in a "USEPA success story" style summary. This information must be provided within 90 calendar days of completion for each implementation measure. Use of models other than STEPL must be approved by the Water Quality Restoration Program. All Final Reports must include a detailed summary of load reductions achieved by individual implementation measures supported through a grant contract.

### **Water Quality Data**

All monitoring measurements, or data generation must have a quality assurance project plan (QAPP) approved by the Department before any monitoring, measurements, or data generation is initiated. If the grantee generates data without a Department-approved QAPP, the costs for producing that data will not be eligible for funding.

All data collected through the course of the project must be submitted in the format requested by the Department. All data must be entered into the Department's Water Quality Data Exchange online

database or other database as approved by the Department. Information regarding the use of the Department's Water Quality Data Exchange online database is located at:

[http://www.nj.gov/dep/wms/data\\_submittal\\_wqde.html](http://www.nj.gov/dep/wms/data_submittal_wqde.html).

## **Final Reports**

One hard copy and one electronic copy of the Final Report must be submitted to the project manager upon the completion of the project. If the Final Report is a completed Department-approved Watershed Restoration and Protection Plan, then three (3) hard copies and one (1) electronic copy of the Final Report must be submitted. The Department must deem the report acceptable prior to the release of final payment of grant funds to the applicant. The required format for the Final Report can be found in Appendix E.

## **10. OTHER REQUIREMENTS FOR PROJECTS SELECTED FOR FUNDING**

### **Quality Assurance Project Plan (QAPP)**

If the Department approves water quality monitoring as the means to demonstrate effectiveness of the project, a Quality Assurance Project Plan (QAPP) will be required. If required, the QAPP must be approved by the Department before any monitoring, measurements, or data generation is initiated. A QAPP includes the purpose, the design to achieve the purpose, collection and analysis procedures, certified lab to be used, and other quality assurance measures. A template for a QAPP is provided in Appendix C.

Note: QA/QC certifications for field collection, field parameters, and/or lab analyses are required for an approvable QAPP. Water Quality Restoration funds cannot be used to pay for these certifications.

### **Reimbursement for Services**

Water Quality Restoration funds are provided in reimbursement for services rendered. Exceptions to this policy will be made only in extenuating circumstances and only with prior Department approval.

### **Native Species**

All implementation projects that involve the selection and planting of vegetation are required to use only species of plants native to that particular region of New Jersey, whenever possible. In some circumstances, non-invasive, non-native plant species could be considered if the need is demonstrated. Successful applicants are advised that the Department must approve the final species list indicating quantities and a planting plan with location and procedures prior to purchase and installation of any plant material.

## **Federal Funding Accountability and Transparency Act (FFATA); 319(h) funds only**

The Federal Funding Accountability and Transparency Act (FFATA) requires information on federal awards be made available to the public via a single, searchable website, which is [www.USASpending.gov](http://www.USASpending.gov). The intent of the FFATA is to increase government accountability. To comply with this legislation, the FFATA Sub-Award Reporting System (FSRS) is the reporting tool Federal prime awardees (*i.e.* grant recipients) must use to capture and report sub-award (*i.e.* subcontractor) and executive compensation data regarding their first-tier sub-awards (*i.e.* subcontracts) to meet the FFATA reporting requirements.

In accordance with 2 CFR Chapter 1, Part 170 REPORTING SUB-AWARD AND EXECUTIVE COMPENSATION INFORMATION, Prime Awardees (grant recipients) awarded a federal grant are required to file a FFATA sub-award (subcontractor) report by the end of the month following the month in which the prime awardee (grant recipient) awards any sub-grant (subcontract) equal to or greater than \$25,000. User guides, FAQs, and an on-line demonstration are currently available at the FSRS website at <https://www.fsrs.gov/>. Although it is the Prime Awardee (grant recipient) that must file the report, the Department can assist the Prime Awardee (grant recipient) with this reporting as needed.

All grants receiving 319(h) funds shall comply with all applicable requirements of 2 CFR 200 governing administrative requirements, cost principles and audit requirements for federal awards. If a project has received any federal funds associated with it, then the Department will notify the water quality restoration grant recipient at the time of the grant award.

## **Federal Funded Agreement Provisions of Grant Contract; 319(h) funds only**

Federal 319(h) grant contracts are required to contain certain specific provisions regarding debarment and suspension, restrictions on lobbying, compliance with the Civil Rights Act of 1964 among other things. If a project has received any federal funds associated with it, then the Department will notify the water quality restoration grant recipient at the time of the grant award.

**Division of Water Monitoring and Standards**  
**Bureau of Environmental Analysis, Restoration and Standards**

**2018 Water Quality Restoration Grants**  
**Cover Sheet and Format for Project Proposals**

**Appendix A**

The following three (3) pages are to be included as the Cover Sheet for each complete grant application package. A basic explanation of terms used is provided at the end of this Appendix.

Organization Information

1) Applicant Organization Name: \_\_\_\_\_

2) Organization Address: (street name and #): \_\_\_\_\_

(City, state, zip code) \_\_\_\_\_

3) Organization Numbers: Phone #: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Fax #: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

4) Vendor ID #: \_\_\_\_\_

5) Federal DUN #: \_\_\_\_\_

6) Contact Person: \_\_\_\_\_, \_\_\_\_\_

(Name) (Title)

7) Contact's Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Secondary Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

8) Contact's Email: \_\_\_\_\_

9) Financial Officer: \_\_\_\_\_, \_\_\_\_\_

(Name) (Title)

10) Financial Officer's Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Secondary Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

11) Financial Officer's Email: \_\_\_\_\_



**Consultant Information**

- 12) Contact Person: \_\_\_\_\_, \_\_\_\_\_
- 13) Address: \_\_\_\_\_
- 14) Contact's Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_      Secondary Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_
- 15) Contact's Email: \_\_\_\_\_

**Project Information**

- 16) Project Name: \_\_\_\_\_
- 17) RFP Category: \_\_\_\_\_
- 18) Project Duration in Months: \_\_\_\_\_
- 19) Grant Amount Requested: \$ \_\_\_\_\_
- 20) Local Match (+) \$ \_\_\_\_\_
- 21) Project Total (=) \$ \_\_\_\_\_
- 22) Legislative District Number(s): \_\_\_\_\_

**Watershed Information**

- 23) WMA (# and name): \_\_\_\_\_
- 24) HUC(s) 14 (# and name as per the most recent New Jersey Integrated List):

\_\_\_\_\_

\_\_\_\_\_

25) List of All Waterbodies Affected by Project and Their Impairment Status:

A) \_\_\_\_\_

Status: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

B) \_\_\_\_\_

Status: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

C) \_\_\_\_\_

Status: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

D) \_\_\_\_\_

Status: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Add additional Waterbodies with status as appropriate.)

**Implementation Proposals**

26) Name of Watershed Plan Project is Implementing: \_\_\_\_\_

\_\_\_\_\_

27) Primary Waterbody Affected: \_\_\_\_\_

\_\_\_\_\_

28) Type of NPS Implementation Project: \_\_\_\_\_

\_\_\_\_\_

29) Primary Pollutant(s) Targeted: \_\_\_\_\_

\_\_\_\_\_

30) Additional Pollutant(s) Addressed: \_\_\_\_\_

\_\_\_\_\_

**\*\*Please do not include the following pages (4- 7) of Appendix A with submitted proposal.\*\***

**Description of Elements found on Cover Sheets**

*Applicant Organization (Lines 1-3)* - is the eligible entity applying for Water Quality Restoration grant funding. Fill in the organization's name, address, fax, and phone number.

*Vendor ID # (Line 4)* – can obtain a Vendor ID # through the Department of the Treasury's NJSTART eProcurement System (<https://www.njstart.gov/bsol/>).

*Federal DUNS # (Line 5)* – is required only for Federally-funded awards.

*Applicant Contact Person (Lines 6-8)* - is the person in that eligible entity that can be contacted for additional information. The contact person may not be an independent contractor. On the lines provided, include the contact's name, title, address, phone number(s), and email address.

*Financial Officer (Lines 9-11)* – is the person in that eligible entity that can be contacted for financial information. On the lines provided, include the officer's name, title, address, phone number(s), and email address.

*Consultant Contact Person (Lines 12-15)* – is the independent contractor providing professional services regarding the grant application. This information should be provided if the applicant prefers that the Department work directly with the consultant regarding the grant application. On the lines provided, include the contact's name, title, address, phone number(s), and email address.

*Project Name (Line 16)* - is the name that refers to the proposed project.

*RFP Category (Line 17)* – is the grant opportunity sought from the RFP.

*Project Duration in Months (Line 18)* - is an estimate of the time needed to complete the project, in months. Estimations should factor in administrative start up time and anticipated delays. There is no penalty for completion of a project ahead of schedule, while “no cost time extensions” will only be granted in extenuating circumstances.

*Grant Amount Requested (Line 19)* - is the amount of funding sought from the Water Quality Restoration Grant Program.

*Local Match (Line 20)* - is the amount of local funding dedicated to the project.

*Project Total (Line 21)* - should equal the total amount necessary to complete the proposed project.

*Legislative District Number(s) (Line 22)* - is a list of state legislative districts found within the proposed planning or implementation area.

**WMA (Line 23)** - is the Watershed Management Area (WMA) that contains the proposed implementation project or planning watershed. Both the WMA number and name should be included.

**HUC (Line 24)** - is the 14-digit hydrologic unit code(s) of the subwatershed(s) contained in the proposed project area. Both the HUC14 number and name should be included.

**List of All Named Waterbodies in Project Area (Line 25)** - is a complete list of all named waterbodies in the proposed project area. This section must be supplemented with an appendix that includes the complete report on the condition of each waterbody listed in the most recent *New Jersey Integrated Water Quality Monitoring and Assessment Report*.

**Watershed Plan Project is Implementing (Line 26)** - is the name and approval date of the New Jersey Department of Environmental Protection approved watershed-based plan that specifically describes the need for the proposed project.

**Primary Waterbody Affected (Line 27)** - is the waterbody that is the target of the NPS implementation project. Water quality improvement will be achieved in this waterbody through the implementation of the proposed project, if applicable.

**Type of NPS Implementation Project (Line 28)** - is a general category by which the proposed implementation project(s) can be described (e.g. stormwater BMP, streambank restoration etc.).

**Primary Pollutant(s) Targeted (Line 29)** - is the reason the NPS implementation project is being proposed. List the primary pollutant(s) targeted. The abatement of this pollutant(s) is the main focus of the project.

**Additional Pollutants Addressed (Line 30)** – list any pollutants that will be addressed by the NPS implementation project that are secondary to the primary targeted pollutant(s).

### Standard Format for Project Proposals

All project proposals must include the following components and be organized accordingly:

1. **Application cover sheet** – Pages 1 -3 above;
2. **Brief project background summary information;**
3. **Brief summary of the overall project goals and objectives** - The proposal must include a brief abstract of the project that includes a summary of the key information contained in the Scope of Work, in sufficient detail so that the category applied for, the major elements of the project, the objectives to be achieved, and the spatial extent of the work are clear.
4. **Applicant description** – must demonstrate experience and expertise with completing and/or project management oversight for the type of project(s) proposed, including a description, estimated amount and type of in-kind contributions proposed by applicant. This section must also include a list of project partners, including estimated amount and type of in-kind contributions proposed by the project partners. In-kind contributions are not required, however projects with in-kind contributions and partner support could receive a higher priority;
5. **Project Goals, objectives, tasks** (under each objective), **and corresponding task deliverables** (required for each task);
6. **Implementation schedule by objective** - required table format:

<b>Project Objective:</b>					
<b>Completion Month #</b>					
<b>Task</b>	<b>Responsible Party</b>	<b>Timeframe</b>	<b>*Anticipated Start Month</b>	<b>Project Deliverable</b>	<b>*Anticipated Completion Month</b>
Task 1	<i>e.g.</i> , Lead Agency	Months	M1, M2, etc.	<i>e.g.</i> , A, B, and C design documents	M4, M5, etc.
Task 2	<i>e.g.</i> , Partner's Name	Months	M1, M2, etc.	<i>e.g.</i> , D, E, and F BMP installation	M4, M5, etc.

\*Start and Completion Months should be described in terms of months from initial month in which work begins, with M1

7. **Monitoring and Evaluation Information** - All proposals must include a description of how attainment of project objectives will be measured or demonstrated.

8. **Budget tables** – two (2) required in the following format:

Task Breakdown of Contractual Services			
Objective/Task	Task Description	Responsible Party	Budget
Obj. 1 Task 1			
Obj. 1 Task 2, etc.			
Total Contractual Budget			

Project Title	
General Project Budget	
(Examples of categories)	
Salaries	\$
Fringe	\$
Travel	\$
Training	\$
Supplies	\$
Implementation Projects Costs	\$
Contractual	\$
Sampling	\$
Subtotal	\$
Administration/Indirect 10%	\$
<b>Requested Grant Total</b>	<b>\$</b>
	\$
	\$

9. **Budget Justification** – a brief summary and explanation of each of the general project budget items as listed in the above table.

10. **Supplemental Information** - Letters of Resource Commitment, site plans, maps, blueprints, etc. This will be attachments to the proposal.



## Division of Water Monitoring and Standards

### Bureau of Environmental Analysis, Restoration and Standards

## 2018 Water Quality Restoration Grants

### Project Evaluation Criteria

#### Appendix B

The primary criteria for evaluation of proposals which are deemed eligible and complete are:

1. Project Applicability (up to 25 points)
  - The degree to which the proposal addresses one or more of the watershed areas or project types identified in the Request for Proposal;
  - The degree to which the proposal would potentially reduce a known impairment;
  - The degree to which the proposal would result in a positive environmental outcome;
  - The degree to which the project would leverage other positive environmental outcomes such as open space, recreational benefits, access to water, living shoreline creation and habitat enhancement.;
  - Integration of project with federal, state and local programs, plans and policies; and
  - Magnitude of water quality, public health, and environmental benefits associated with the proposal.
2. Project Readiness (up to 25 points)
  - Project feasibility;
  - Proposed design completion date;
  - The degree to which the project is readily implementable (shovel ready);
  - Consistency with existing local, state and federal requirements and ability to attain permits needed to implement the project; and
  - The degree of public engagement and/or support for the proposed concept.
3. Likelihood of Success (up to 30 points)
  - Technical merit (water quality improvement, reduction of pollutants);
  - Past performance of the applicant and/or applicant's partners (as identified in the project proposal), if applicable;
  - Ability of the applicant to complete the project or contract, or work with another entity to complete the project;
  - Qualifications of the proposed personnel (in-house and contracted) to ensure grant agreement compliance as well as completing project design and construction;
  - Letter of resource commitment;
  - Ability of the grantee to garner approval of property owners and secure long-term maintenance agreements; and

- Ability to deliver measurable outcomes and long term sustainable benefits.
4. Cost Share/Matching Funds/Leveraging of other Funding Sources (up to 10 points)
- Level of matching funds (in-kind or other funding);
  - Leverage funding by combining with other funding sources (e.g. Farm Bill, Penn Foundation, Hazardous Discharge Remediation Fund, State Revolving Funds);
  - Budget detail (funding source allocation per project component); and
  - Cost effectiveness.
5. Monitoring and Evaluation Information (up to 10 points)
- How attainment of project objectives will be measured or demonstrated

**Division of Water Monitoring and Standards**  
**Bureau of Environmental Analysis, Restoration and Standards**

**2018 Water Quality Restoration Grants**  
**Quality Assurance Project Plan (QAPP) Guidance**

**Appendix C**

A QAPP is a written document that describes the quality assurance procedures, quality control specifications, and other technical activities that must be implemented to ensure that the results of the project or task to be performed will meet project specifications. If the application is chosen for funding, and if a QAPP is required to achieve the tasks outlined in the scope of work, a QAPP must be submitted by the Grantee and approved by the Department prior to any water quality sampling through a NPS grant.

***No water quality monitoring shall begin until the QAPP has been approved by the Department. Any sampling done prior to securing an approved QAPP will not be considered within the project's scope of work and the Grantee will not receive financial reimbursement for such sampling.*** Once the Grantee has received comments from the Department, the Grantee shall revise the QAPP to address said comments and submit the final QAPP to the Project Manager. The response to comments should be bolded in the body of the document and numbered to correlate with the comment number.

For Grantees unfamiliar with QAPP procedures and protocol, a meeting with Department QAPP staff will be coordinated in order to facilitate this process. Please contact your Project Manager to make those arrangements.

The QAPP guidance was developed based upon USEPA's document entitled "EPA Requirements for Quality Assurance Project Plans, EPA QA/R-5" (EPA/240/B-01/003). This document, as well as additional information regarding QAPPs, can be found at <http://www.epa.gov/quality/>.

***Upon completion and acceptance of collected monitoring data, the grantee is required to submit the data in electronic form either through WQDE or WQX web per guidance provided by the Project Manager.***

The guidance on the following pages outlines the required elements of a QAPP Document.

**QAPP DOCUMENT TABLE OF CONTENTS**

Section 1: Title and Approval Sheet	Page 1
Section 2: Distribution List	Page ___
Section 3: Project / Task Organization	Page ___
Section 4: Problem Definition / Background	Page ___
Section 5: Project / Task Description	Page ___
Section 6: Sampling Procedures	Page ___
Section 7: Training Requirements and Certification	Page ___
Section 8: Sample Handling and Custody Procedures	Page ___
Section 9: Sampling Method Requirements	Page ___
Section 10: Analytical Methods Requirements	Page ___
Section 11: Calibration Procedures and Preventative Maintenance	Page ___
Section 12: Quality Assurance and Quality Control	Page ___
Section 13: Documentation and Records	Page ___
<b><i>List of Figures</i></b>	<b><i>Page ___</i></b>
<b><i>List of Tables</i></b>	<b><i>Page ___</i></b>
<b><i>List of References</i></b>	<b><i>Page ___</i></b>
<b><i>List of Appendices</i></b>	
Appendix A – Scope of Work from executed Contract (Attachment D)	
Appendix B – Map(s) with monitoring locations identified in Section 5	
Appendix C – Quality Assurance/Quality Control (QA/QC)	

**Section 1: Title and Approval Sheet**

**QUALITY ASSURANCE PROJECT PLAN (QAPP)**

**Name of Water Quality Restoration Grant**

**Contract WM #: WMXX-XXX**

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

QAPP Preparer  
Affiliation

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Preparer’s Organization QA/QC Officer (if there is one)  
Affiliation

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

NPS Grantee

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

NJDEP Staff, Project Manager  
Division of Water Monitoring and Standards, BEARS

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Bureau QAPP Reviewer  
Division of Water Monitoring and Standards, BEARS

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Section Supervisor  
Division of Water Monitoring and Standards, BEARS

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Marc Ferko, NJDEP Quality Assurance Officer  
Office of Quality Assurance

Names of other organizations involved in project (such as field operations manager, laboratory managers, State, and Federal agency officials, etc.) should be included on this cover sheet as well as the Distribution List.

**Section 2: Distribution List**

The Distribution List includes individuals and their organizations that need copies of the approved QAPP and any subsequent revisions. See Table below.

**Table: Distribution List for QAPP and QAPP Revisions**

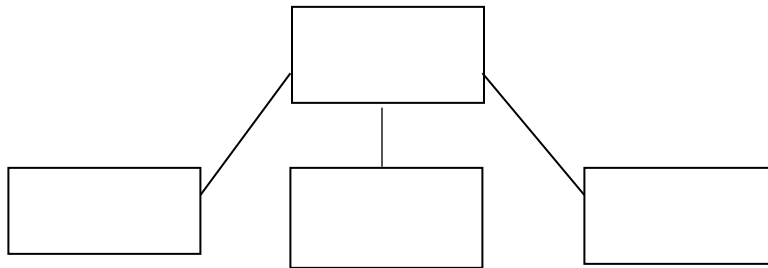
Name	Organization	Address	email
Project Manager			
QA Officer			
Laboratory			
Grantee			
Project Manager	NJDEP – Division of Water Monitoring and Standards, BEARS	401 E. State Street P.O. Box 420 Mail Code 401-04I Trenton, NJ 08625-0420	Fname.Lname@dep.nj.gov
Bureau QAPP Reviewer	NJDEP – Division of Water Monitoring and Standards, BEARS	401 E. State Street P.O. Box 420 Mail Code 401-04I, Trenton, NJ 08625-0420	
Section Supervisor	NJDEP – Division of Water Monitoring and Standards, BEARS	401 E. State Street P.O. Box 420 Mail Code 401-04I, Trenton, NJ 08625-0420	
Marc Ferko	NJDEP – Office of Quality Assurance	401 E. State Street P.O. Box 420 Mail Code 401-02D, Trenton, NJ,08625-0420	<a href="mailto:marc.ferko@dep.nj.gov">marc.ferko@dep.nj.gov</a>

### **Section 3: Project/Task Organization**

Identify individuals or organizations involved in the project and discuss their specific roles and responsibilities. Include the principal data users, the decision makers, the project QA manager, and all persons responsible for implementation. Provide a concise organization chart showing the relationships and the lines of communication among all project participants.

#### **Figure: Organization Chart**

Insert organization chart per Section 3 above.



### **Section 4: Problem Identification/ Background**

State the specific problem to be solved, decision to be made, and/or outcome to be achieved. Include the sources and causes of impairments [from 303(d) List], known problems, Total Maximum Daily Loads (TMDLs), other threats to water quality (from experience or other studies), conflicts and known efforts to address these issues (from experience or other studies). Describe land use, Category 1 designation, and identify any previous efforts and/or studies and conclusions.

**In Appendix A of the QAPP Document, include the project Scope of Work, which is Attachment D in the executed Contract.**

### **Section 5: Project / Task Description**

Describe all work to be performed, products to be produced and the schedule for implementation needed to resolve the problem described in Section 4. **Maps and tables that show and state the geographic locations of field tasks must be provided.**

Sample Locations and Rationale: Justification for each location. Mark sample locations in the field with stakes and surveying tape for possible field visit.

**Table: Sample Locations and Rationale**

<i>Location I.D.</i>	<i>Name</i>	<i>Justification</i>

**Temporal and Spatial Aspects:**

Frequency: for example, bacteria samples should be collected five times per location within a 30-day period between Memorial Day and Labor Day. Other parameters may be collected eight times per location within a two-year period on a quarterly basis. This represents the optimum sampling regime but may be modified based on project goals with Department approval.

Conditions: include baseline, baseflow, wet weather and first flush. Define the condition and explain the rationale.

**Parameters:**

Describe the selected parameters and rationale for the specific parameter at each location. For example: In-situ water quality parameters (temperature, pH, DO, conductivity, flow, discharge, diurnal DO, etc.), chemical water quality parameters (nitrate, nitrite, TKN, TP, TSS, TDS, etc.), bacterial parameters, physical parameters (flow, bathymetric data, etc.), benthic macroinvertebrates.

**Table: Summary of Monitoring Design**

<i>Type</i>	<i>Baseline</i>	<i>Wet Weather</i>	<i>Dry Weather</i>	<i>Bacteria</i>	<i>Biological</i>
<i>Frequency</i>					
<i>Parameters</i>					
<i>Sample Location</i>					
<i>SW-1</i>					
<i>SW-2</i>					
<i>SW-3</i>					



Schedule:

Insert and populate a table below (Table 5.3) with the proposed schedule of sampling for collecting data to be analyzed.

**Table: Field Sampling Schedule for Data Collection**


**Section 6: Sampling Procedures**

All samples should be collected in conformance with the NJDEP Field Sampling Procedures Manual and applicable USEPA guidance. All instrumentation for the collection of field data will be properly calibrated in conformance with the manufacturer’s instructions and the NJDEP Field Sampling Procedures Manual.

**Section 7: Training Requirements and Certification**

Identify and describe any specialized training/certifications needed by personnel in order to successfully complete the project. Discuss the training that will be provided and how the necessary skills will be assured and documented. Include any required certification information, such as the laboratory certification or the NJDEP field sampling certification numbers.

**Section 8: Sample Handling and Custody Procedures**

Describe how samples should be handled, transported, and then received in the laboratory or office. Include how handling and custody is documented (through field notebooks or forms, etc.) and identify responsible personnel. For parameters measured in this project, provide information on container, volume, initial preservation, and holding times in the table below. Identify chain of custody procedure. Separate form may be attached.

**Table: Sample Handling and Custody**

Parameter	Container	Volume	Initial Preservation	Holding Time

**Section 9: Sampling Method Requirements**

**Table: Sampling Locations and Sampling Methods**

Sampling Location	Location ID Number	Matrix	Depth (units)	Analytical Parameter	Samples (include field duplicates)	Sampling SOP #	Sample Volume	Container #, size, type	Preservation (chemical, temperature, light protected)	Maximum Holding Time: Preparation/ analysis

**Section 10: Analytical Methods Requirements**

Provide reference to the analytical procedures, including field measurements and laboratory that will be used in the study.

**Table: Field and Laboratory Analytical Methods**

Analyte	Laboratory / Organization	Project Action Limit (units, wet or dry weight)	Project Quantitation Limit (units, wet or dry weight)	Analytical Method		Achievable Laboratory Limits	
				Analytical Method/ SOP	Modified for Method yes/no	MDLs	Method
e.g. pH	Field: monitoring by field staff	6 - 9 pH units	NA	Standard Methods (*) 4500H+B FDCC Field SOP 1	None		
e.g. Total coliform and E. coli	Lab: In-house laboratory	< 20 MPN/100mL for E. coliforms	2 MPN/100mL	Standard Methods 9223B Enzyme substrate method	None	Not applicable	2 MPN/100 mL

(\*) Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> edition.

**Section 11: Calibration Procedures and Preventative Maintenance****Table: Instrument Calibration Table**

Equipment / Instrument	SOP reference	Calibration Description and Criteria	Frequency of Calibration	Responsible Person

List equipment and provide testing, inspection and maintenance information in narrative form or in the Table below. Information such as availability/location of spare parts or corrective action should be identified only if these items are not addressed in the SOP.

**Table: Testing, inspection, maintenance of sampling equipment and analytical instruments**

Equipment / Instrument	Maintenance Activity, Testing Activity or Inspection Activity	Responsible Person	Frequency	SOP Reference

**Section 12: Quality Assurance and Quality Control**

N.J.A.C. 7:18 and 40 CFR Part 136 should be followed for all quality assurance and quality control (QA/QC) practices including detection limits, quantitation limits, precision and accuracy and documentation attached as Appendix C.

**Section 13: Documentation and Records**

Submit a CD with the approved QAPP, all monitoring data in Excel, including explanations of anomalies and Summary Report. Describe the process and responsibilities for ensuring the appropriate project

personnel have the most current approved version of the QAPP, including version control, updates, distribution and disposition.

Itemize the information and records which must be included in the data report package and specify the reporting format for hard copy and any electronic forms. Records can include raw data, data from other sources such as databases or literature, field logs, sample preparation and analysis logs, instrument printouts, model input and output files, and results of calibration and QC checks.

Identify any other records and documents applicable to the project that will be produced, such as audit reports, interim progress reports, and final reports. Specify the level of detail of the field sampling, laboratory analysis, literature or database collection, or modeling documents or records needed to provide a complete description of any difficulties encountered.

Specify or reference all applicable requirements for the final disposition of records and documents, including location and length of retention period.

***List of Figures***

***List of Tables***

***List of References***

***List of Appendices:***

***Appendix A*** – Scope of Work from executed Contract (Attachment D)

***Appendix B*** – Map(s) with monitoring locations identified in Section 5

***Appendix C*** – Quality Assurance/Quality Control (QA/QC)

**Division of Water Monitoring and Standards**  
**Bureau of Environmental Analysis, Restoration and Standards**

**2018 Water Quality Restoration Grants**  
**Quarterly Reporting Requirements**

**Appendix D**

*Grantee must submit an original, signed hard copy of expenditure reports to contract administrator on a quarterly basis. Grantee must submit hard copy and electronic copy of progress and expenditure reports (pdf file) to project manager on a quarterly basis.*

**Title Page or Cover**

*Title of Project*

*Grant Project WM Number*

*Contact person or project manager/address/telephone number/email address of grantee*

*Report Period and Quarter Number*

**Summary of Progress to Date:** Must include major project activities implemented, number of sites addressed, progress in attainment of the project objective, timelines, percentage of tasks complete, etc. If a work product has been developed, this should be included in the Quarterly Report, for example an educational brochure.

**Slippage Report:** Must describe any slippage in project timeline or budget along with an explanation and revised timetable, budget, and new completion schedule. Please note that project no-cost time extensions must be applied for through the project manager and will only be granted when the grantee has demonstrated unforeseeable project setbacks. No project will be granted more than one no-cost time extension unless an exception is given from the Director of the Division.

**Problems/Issues:** Must describe any problems encountered in project implementation, such as unanticipated events and their consequences, along with a description of the solutions applied (should cross-reference the slippage report if applicable).

**Additional Information:**

- 1) Summary of Activities Planned in Next Project Period;
- 2) Attachments (as appropriate);
- 3) Surveys;
- 4) Monitoring data and/or results; and
- 5) Attendance sheets (meetings, outreach events, etc....)

**All Quarterly Reports Must Include an Expenditure Report**

An expenditure report, including an original, signed Attachment C in the executed grant agreement, and any supporting documentation, is required to be submitted with every quarterly report. If there are no expenditures for the work period, the expenditure report must still be submitted indicating \$0 in the total. Fiscal Information should include: time sheets, phone logs, mileage logs, bills, and receipts for expenditures related to the project.

**Division of Water Monitoring and Standards  
Bureau of Environmental Analysis, Restoration and Standards  
2018 Water Quality Restoration Grants  
Final Report Requirements**

**Appendix E**

**The final report must include the following information:**

**1) Front Cover /Title Page**

- Project Title
- Project Identification Number
- Identify the number(s) and name(s) of the HUC 14 watershed(s) in which the project is located
- Grantee's name, address, and phone number
- Name/address/telephone number of organization completing the project
- Project Partners names and addresses
- Date of the Report
- Date of Project Completion

**2) Executive Summary**

A brief abstract of the project that can also serve as a stand-alone document and includes the following information:

- Description of project area
- Summary of the existing conditions addressed
- A brief summary of the overall project (e.g., its goals, methodology, affected locations, and time frame)
- Highlight major results or outcomes of the project
- Project implications and recommendations

**3) Evaluation Approach and Methodology**

Presents a brief background on the method for evaluating project success, possible applications of results, and includes the following:

- List of major questions answered by the evaluation
- Description of the overall evaluation design and schedule of data collection
- Description of the evaluation techniques and targets and why those approaches are an appropriate measure of success.

**4) Results of Project and Evaluation**

The project evaluation shall include, at a minimum, the following information:

- A summary of results
- A detailed evaluation of findings, including relevant tables, graphs, charts
- A breakdown of findings by relevant variables
- An integration of results from multiple qualitative and quantitative data sources

- ☑ A statement of implications of the project
- ☑ Specific recommendations for future action
- ☑ Suggested means for disseminating project results, including technology transfer
- ☑ A description of strategies for assuring utilization of project results
- ☑ Submission of as-built plans for implementation projects

## 5) Appendices

The following items, at a minimum, shall be included in the final report

- ☑ One hard copy – complete
- ☑ One electronic copy, or similar as appropriate, with the final report and any appendices, in a pdf format if possible, but all maps and tables should be included in one report. A separate Word document on this electronic copy, or similar as appropriate, will also be necessary to allow for editing prior to posting on websites or other acknowledgments.
- ☑ One electronic copy, or similar as appropriate, with all GIS projects including all associated files used to create the projects and the metadata. This should not be a pdf. The map should be saved as “store relative path names”. Please include with this all associated files necessary to open and view the map. This electronic copy, or similar as appropriate, should also include a narrative explaining what the individual maps are showing. Metadata is required with the mapping.
- ☑ A list of all equipment purchased (with associated specification) under the grant and the date in which they were returned to the Department.
- ☑ One electronic copy, or similar as appropriate, with all digital pictures related to the grant with some key to decipher each picture both spatially and temporally. You should include the photographer’s name and WM# so that credit may be given. This electronic copy, or similar as appropriate, is required even though pictures have been submitted in Quarterly Reports, as it provides one digital library of the project. All pictures should be saved with names that are indicative of the picture and purpose (i.e. WM15-XXX post-imp stormwater)
- ☑ Any and all material developed as part of the grant. For example, if an educational brochure was created or a sampling manual or maintenance manual was developed these should be submitted with all other like materials on a separate electronic copy, or similar as appropriate, titled Deliverables.
- ☑ On a separate electronic copy, or similar as appropriate, titled Implementation (if appropriate), please provide all installation information, including: site plans; plants; pictures; monitoring data; pollutant removal estimates based on both theoretical and monitoring data; and any issues that were encountered (for example the road does not have sufficient space with the infrastructure already in the road), the decisions that were made, problems encountered, solutions and how these solutions changed the project, permit issues, and the water quality improvement achieved based on both modeling (such as STEPL or UAL) and monitoring data. Specific projects will have varying information to include. Please include any other information that would be important to understand from beginning to end what occurred during the implementation of the project.
- ☑ A separate electronic copy, or similar as appropriate, with all raw data in usage format. A copy of the approved Quality Assurance Project Plan (QAPP) should be included on this electronic copy, or similar as appropriate. Any comments or considerations should also be included on this electronic copy, or similar as appropriate, (data point for site b on 8/2/2015 was considered an outlier because ...) and a brief summary of data (this will probably be contained in your final report and should just be copied/pasted here also).



- ☑ Success Story in approved EPA format (Section 6 of this appendix). This should be submitted digitally on the Final Report electronic copy, or similar as appropriate, along with the hard copy.
- ☑ Load reduction calculations should be submitted as a spreadsheet for all implementation projects on the electronic copy, or similar as appropriate. Any decisions should be clarified within the spreadsheet. STEPL is a relatively low technology model endorsed by USEPA for the determination of loads and potential load reductions within a watershed. Information regarding this model may be found at <http://it.tetrattech-ffx.com/steplweb/>. Detailed information will be provided upon award of a grant contract.

## 6) EPA Success Stories:

### Format and Content for Success Stories

Each story should run 1-2 pages in length, addressing all of the information identified in each category below to the extent possible (aim for a maximum of 950 words). The story should provide a clear, succinct summary in plain language so that the general public will be able to understand. Use a non-technical, plain language description or definition (or photo) that demonstrates the meaning. Please note that all examples below are excerpted from published Success Stories.

#### I. TITLE

Create a brief title that uses a verb.

##### Example:

Stream Restoration Efforts Reduce Impacts of Acid Mine Drainage

#### II. WATERBODY IMPROVED (*one paragraph*)

1. What was the water quality problem?
2. What was done to address the problem?
3. Did the waterbody improve or was it removed from the state's 303(d) list?

##### Example:

The North Fork of the South Branch of the Potomac River is a scenic trout stream in the headwaters of the Potomac River in northeastern West Virginia. Water in the North Fork had high levels of fecal coliform bacteria, primarily from agricultural runoff from beef and poultry farms. Over 85 percent of farmers in the watershed worked together to construct animal waste storage facilities, establish riparian buffers, and implement a range of other best management practices (BMPs) at the farms. As a result, the stream now meets its designated use and is no longer impaired by fecal coliform bacteria.

#### III. PROBLEM (*generally two paragraphs*)

1. Specify the location of the waterbody, and, if relevant, geographic connection with other streams/rivers.

2. (a) What year was the waterbody put on the 303(d) list? (b) What beneficial use was not met? (c) Which parameter was the cause of the listing, if known? (d) If not identified in the listing, what pollutant(s) is believed to have been responsible for the impairment?
3. What specific segment (and/or length) of the waterbody was listed?
4. Describe the source(s) of the problem and specify category and subcategory (e.g., agriculture, cattle with access to streams).
5. If desired, list any major study that may have documented the problem. If data is available, include monitoring results that showed the water quality problem.
6. Was a TMDL done? If so, please provide information (e.g., the waterbody was listed for [*insert parameter here*], and the TMDL said it was necessary to meet a target of [*insert concentration or loading*] to achieve water quality standards).
7. What is the water quality goal or water quality standard that needed to be achieved to address the problem (e.g. rolling 7-day maximum average of 64°F)?

**Example 1:**

Cobbossee Lake (short for Cobbosseecontee), a large 5238-acre lake in central Maine, is valued by people for fishing, swimming, boating, and wildlife. One of Maine's premier bass fishing lakes, Cobbossee Lake is also a secondary source of drinking water for Maine's capital—Augusta.

In the 1960s water quality in Cobbossee Lake began to deteriorate. Elevated nutrient (i.e., phosphorus) levels spurred the growth of noxious blue-green algae, which reduced water clarity, formed green surface scums, and depleted oxygen in the bottom waters of the lake. The excess phosphorus in Cobbossee Lake's watershed was caused by soil erosion and runoff from agricultural, residential, and commercial lands, and the gradual conversion of forested land into developed land. The other significant source of phosphorus came from Annabessacook Lake, immediately upstream of Cobbossee. At one time, Annabessacook received sewage discharges from the town of Winthrop, and this nutrient-rich sewage caused algae blooms. Although sewage discharges to Annabessacook Lake were eliminated by 1977, the phosphorus in the lake's sediments continued to recycle and flow into Cobbossee Lake.

The Total Maximum Daily Load (TMDL) assessment developed for Cobbossee Lake in 1995 estimated that two-thirds of the external phosphorus load came from the lake's direct 32-square-mile watershed, and one-third came from the indirect upstream watershed. Agriculture accounted for about 60 percent of the phosphorus and developed lands accounted for about 40 percent of the phosphorus load. The TMDL showed that in-lake phosphorus needed to be reduced to 15 parts per billion (ppb), or 5,904 kg P/yr, for Cobbossee to attain Maine's water quality criterion for water clarity (more than 2 meters of Secchi Disc Transparency).

**Example 2:**

Furlong Creek flows through Mackinac County in Michigan's Upper Peninsula. Surveys conducted in 1989 found diverse fish and macroinvertebrate communities in the creek. By 1999, however, cattle grazing on private property had unrestricted access to the creek. The animals walked in the creek and trampled riparian vegetation, causing excessive instream habitat disturbance and sedimentation.

Subsequent creek monitoring revealed low fish and macroinvertebrate diversity. Pollution-sensitive insect families (e.g., caddisflies, stoneflies, and mayflies) and fish species (e.g., rainbow trout) were absent or very rare. These aquatic life support impairments led Michigan to place a 4-mile segment of Furlong Creek on its 303(d) list in 1996.

**IV. PROJECT HIGHLIGHTS (*generally two paragraphs*)**

1. What major BMPs /activities addressed causes of pollution and demonstrated in-stream improvements?
2. Who were major partners in the effort?
3. During what timeframe did the activities occur?
4. Was there a larger context of a watershed / comprehensive plan?
5. Are there ongoing plans to continue improvement?

**Example 1:**

In August 2001 EPA approved a TMDL for siltation that called for a 50 percent reduction in sediment delivery to the lake. To accomplish this goal, the Decatur County Conservation Board and the Decatur Soil and Water Conservation District proposed the construction of two large basins to slow sediment delivery originating from gully erosion. The Iowa Department of Natural Resources' (IDNR) Nonpoint Source Pollution Program provided further suggestions to address the problem using a watershed approach. As a result, the plan was expanded to include seven smaller sediment basins throughout the watershed. To further stabilize the shoreline of Slip Bluff Lake, the Iowa Department of Transportation and the Iowa Department of Agriculture and Land Stewardship, Division of Soil Conservation (IDALS-DSC), provided funds to riprap portions of the shoreline.

To ensure the continued success of this project, the Decatur County Conservation Board maintained the project by planting additional seedings in exposed soil on the constructed sediment basins.

**Example 2:**

An educational effort on reducing fertilizer and chemical usage targeted landowners and highlighted the benefits of potential cost savings. One-on-one meetings and public sessions were held to teach peanut and alfalfa growers integrated pest management techniques including proper weed and insect scouting, determining pest thresholds, interpreting soil test reports and proper fungicide use. Demonstration BMPs illustrated techniques to manage vegetation; exclude cattle from riparian zones; and reduce nutrient, pesticide, and sediment loading. BMPs implemented from 1995 to 2002 included reduced tillage planting in peanut fields, riparian fencing, alternative livestock water source construction, grade stabilization structures, diversion terraces, deferred grazing, rotational grazing,

## V. RESULTS

1. What water quality goals were achieved?
2. Was the waterbody delisted? If so, which year was it delisted, or when does the state expect to delist the waterbody?

*Note: EPA may count this waterbody as being “partially or fully restored” for Strategic Plan purposes (Category 1 story) even if the waterbody has not officially been removed from the 303(d) list, as long as the story demonstrates that actual restoration has occurred and the state has nominated that the waterbody be delisted in the next 303(d) cycle. It is not sufficient to merely believe by the next 303(d) list cycle, that restoration will have occurred.*

3. Were there load reductions in other pollutants that indicate progress?
4. Were any new ordinances or laws put into place as a result of the actions?

### **Example 1:**

By 2003 biological integrity and habitat at Blue Spring Creek had improved, as measured by the higher diversity and types of macroinvertebrates such as insects, crayfish, snails, and clams—indicators of good water quality. Almost twice as many EPT families (a category of insects used to measure water quality) were present in 2003 (11 EPT) than in 1999 (6 EPT), and 25 different taxa were collected in 2003 as compared to 15 different taxa found in 1999. Eight of these families are intolerant of pollution. These metric values represent the highest score possible (15) out of a family-level biological reconnaissance (bioecon) index that considers scores from 11 to 15 indicative of a non-impaired biological community. The habitat assessment score had improved from 114 in 1999, which is considered inadequate in the ecoregion, to a score of 136—well above the target habitat score of 123, which indicates a healthy biological population in the ecoregion. As a result, Blue Spring Creek was removed from Tennessee’s

### **Example 2:**

The Bass Lake restoration project achieved TMDL targets by reducing the average phosphorus concentrations from 490  $\mu\text{g/L}$  to 10  $\mu\text{g/L}$ , and the lake will be removed from the state's 303(d) list in the next listing cycle. Farmers' participation in nutrient management planning should reduce nutrient delivery from cropped areas in the watershed even further.

The alum treatment dramatically reduced total phosphorus in Bass Lake. Without the high concentration of phosphorus to feed on, heavy blue-green algae blooms no longer cover the lake and water clarity continues to improve. Secchi disk readings have improved from less than 10 feet before the project to up to 20 feet during July 2004 after the alum treatment. No fish kills have been noted since the project, and the fish population appears healthy.

**Example 3:**

Between March and October of both 2003 and 2005, ADEM collected dissolved oxygen data at three sites on the impaired segment of the Flint River. The agency also collected continuous dissolved oxygen data at two of the sites during July 2005.

As shown in the following table, only two monthly measurements (4.6 mg/L and 4.97 mg/L) fell below the state minimum criterion of 5.0 mg/L for the public water supply and fish and wildlife designated water use classifications. Furthermore, none of the continuous dissolved oxygen measurements were below the minimum criterion.

ADEM's assessment methodology stipulates that conventional water quality parameters, including dissolved oxygen, may not exceed water quality standards more than 10 percent of the time in waterbodies designated as public water supply and fish and wildlife resources. The data demonstrate that this 28-mile segment of the river now meets this requirement. As a result, ADEM has proposed that the segment be removed from the state's 2006 303(d) list of impaired waters. The next scheduled monitoring year for the segment is 2008.

**Example 4:**

The accompanying table compares key Whetstone Brook biomonitoring results with Class B water guidelines. Data highlighted in bold indicate the waterbody's failure to meet aquatic life support biocriteria for Vermont Class B waters. These data led to Whetstone Brook being added to Vermont's 303(d) list in 1998.

The monitoring team reassessed the segment in 2002 and found significant biological improvement. However, before 2004 (when Vermont revised its listing methodology for impaired waters), a waterbody could not be removed from the state's impaired list until 2 years of biological monitoring data showed compliance with water quality standards. Such compliance was confirmed in 2003. The EPT richness, BI values, and other biological indicators for both years remained well within the Class B guideline. In addition, the team found no evidence of oil sheens either year.

Because of these findings, VT DEC concluded that oil/grease no longer impaired Whetstone Brook's aesthetic and aquatic life uses. As a result, Vermont removed the waterbody from its 303(d) list in 2004. Whetstone Brook is scheduled to be monitored again in 2008.

**VI. PARTNERS and FUNDING**

1. List specific partners who contributed to the improvements in the waterbody.
2. List specific amounts of NPS dollars dedicated to the project (mention total amount over the lifetime of the project).
3. What did the NPS dollars support?
4. If NPS grant money was not used for the project, please describe the involvement in this project by any staff member who works in the states' NPS program, if applicable. Additionally, was the

project patterned after any other projects that have been funded by NPS. The objective here is to try and link NPS grant elements to the success of the project.

5. Identify other matching sources of funding (e.g., state agricultural funds, USDA/EQIP, Water Bank Funds, and local/private if such information is available).
6. Please provide GRTS numbers (9-digit grant number) if applicable. GRTS numbers are for internal tracking purposes only and will not be included in the story. If the Region or State is unable to provide this information, HQ will attempt to match up project with GRTS numbers. In this case, please provide project name.
7. BONUS question: What Congressional District does the waterbody reside in? This is for the purposes of tailored mailings to congressional members, which are frequently requested by Office of Water management or by the Office of Congressional and International Relations (OCIR). If the state cannot provide this information, Headquarters staff will attempt to determine the District number.

***Example 1:***

The cooperation of 28 members of the LVWCC, representing local, state, and federal agencies, local environmental groups, businesses, and interested citizens, was essential in the creation of a comprehensive management plan for the Las Vegas Wash. Volunteers also played an important role in the project, providing the needed labor for wetland and riparian plantings and invasive vegetation removal. The overall cost to implement the CAMP is projected to be approximately \$127 million through 2013.

As of 2006, \$33 million has been spent on CAMP implementation. Approximately \$600,000 of section 319 funds was used to support construction of erosion control structures, bank revegetation, and public outreach efforts. Participating agencies contributed \$1.8 million during the 2005–2006 fiscal year.

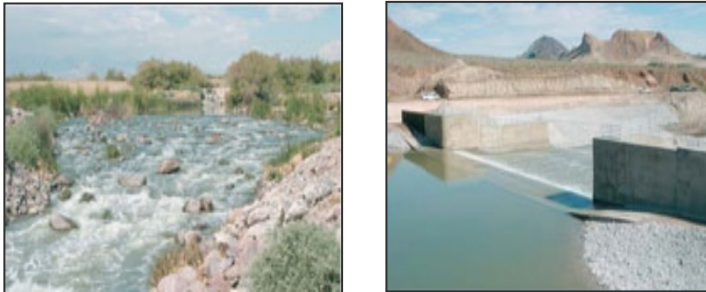
***Example 2:***

Partners involved in the effort were North Carolina Division of Water Quality, Soil and Water Conservation Districts, North Carolina Division of Soil and Water Conservation, North Carolina Cooperative Extension, U.S. Department of Agriculture's Natural Resources Conservation Service, North Carolina Department of Agriculture, North Carolina Farm Bureau, North Carolina State University, and agricultural community and commodity groups. The North Carolina Environment Management Commission brought together stakeholder groups of affected parties and provided the participants with a chance to express differing viewpoints. Stakeholders involved in the process included environmental groups, municipalities, developers, businesses, and the public. The North Carolina Agriculture Cost Share Program, administered by the Division of Soil and Water Conservation (DSWC), contributed \$12.5 million between 1992 and 2003. Another DSWC-administered program, the federal Conservation Reserve Enhancement Program, has obligated approximately \$33.1 million in the Tar-Pamlico River Basin since 1998. Between 1995 and 2003, approximately \$2.67 million in Clean Water Act section 319 expenditures supported a variety of NPS projects in the Tar-Pamlico Basin, including BMP demonstration and implementation, technical assistance and education, GIS mapping, development and dissemination of accounting tools, and monitoring. As part of the Phase I Agreement, the area's Point Source Association both contributed funds and acquired a section 104(b)(3) grant for agricultural BMP implementation. The combined total of their contributions was \$850,000 in nutrient-reducing BMPs in the basin.

**VII. Photos:**

Provide 1-2 photos of BMPs that illustrate the project actions. Photos should be of a type that helps illustrate the problem and/or the solution. Please provide a brief caption that explains and provides the context of the illustration. Photos should be 300 dpi resolution when printed at 3" X 3". Occasionally, the contractor can utilize photos with less resolution, but if that is not possible, the story will have to be published without a photo

**Example:**



Weirs are low dams designed to reduce streambed erosion by flattening the slope of the channel and slowing flows. Many weirs are constructed of confined rock riprap, providing a somewhat natural look (top). Other structures are built with concrete, resulting in a more engineered look (bottom). Weirs, wetland restoration, and invasive vegetation removal helped reduce total suspended solids (TSS) concentrations in lower Las Vegas Wash and led to its removal from the Nevada 303(d) list in 2004.

**VIII. Table/Graph/Chart:**

If data is provided that documents improvements in water quality, please label axes, indicate water quality target/endpoints, and provide brief caption that explains the data. Please attach graphs as separate files, if possible.

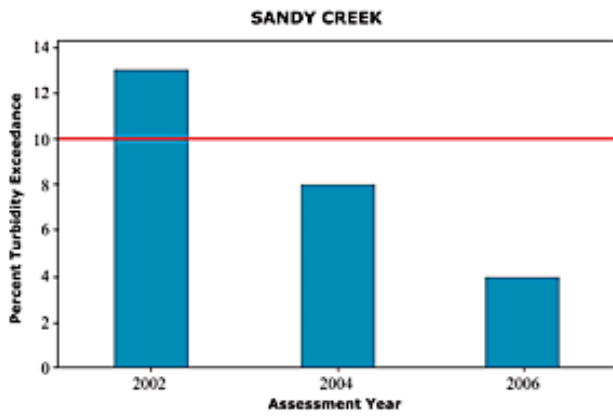
**Example 1:**

**Chase Brook Biomonitoring Results**

Sampling site	Date	Assessment rating	EPT	Density (individuals/m <sup>2</sup> )	Individuals from <i>Oligochaeta</i> (%)
1.2	9/14/1993	Fair	15.0	357	10.6
1.2	9/20/1994	Fair	22.5	584	23.8
1.2	10/6/1998	Fair	19.0	493	11.7
1.2	9/18/2000	Very good	19.0	673	2.4
1.2	9/2/2002	Good	16.7	1253	1.4
Class B Guideline			> 16.0*	> 300	< 12.0

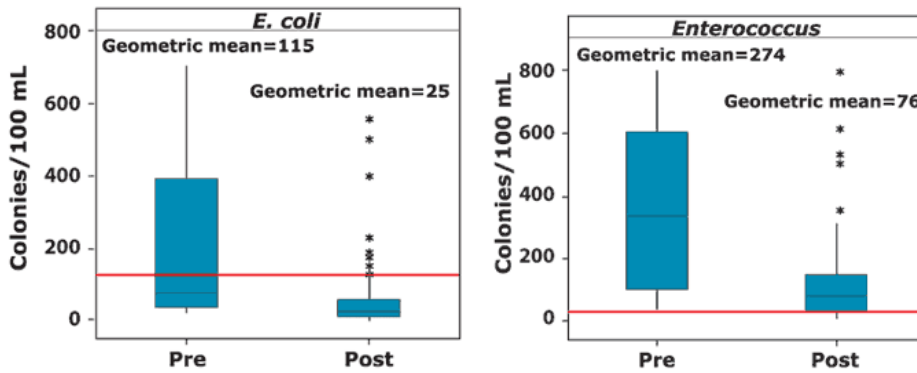
\* Vermont Class B Guideline for EPT was 18.0 until the state changed it to 16.0 in 2002.

**Example 2:**



A stream is considered impaired due to turbidity if 10 percent or more of the seasonal base flow water samples exceed 50 NTUs (based on five years of data proceeding the assessment year). The FWP designation is now fully attained.

**Example 3:**



Boxplots indicate the interquartile range (25th-75th percentile) and median of the data in each of two periods: "Pre" contains data from August 1999 to January 2001; "Post" includes data from July 2001 to May 2005. The red line indicates the geometric mean above which the beneficial use is not achieved. There were significant reductions in mean levels of both *E. coli* and *Enterococcus* bacteria.

**IX. Contact Information:**

Provide a contact name, agency, phone, email address. Use your discretion on including a Regional, State, and/or local project contact(s).



**Division of Water Monitoring and Standards  
Bureau of Environmental Analysis, Restoration and Standards  
2018 Water Quality Restoration Grants  
Maintenance Plan Guidance**

**Appendix F**

**MAINTENANCE PLAN CONTENTS**

All maintenance plans for Water Quality Restoration projects must include the following:

1. The name, address, and telephone number of the person or persons responsible for the preventative and corrective maintenance of each BMP. If the plan identifies a party other than the owner as having responsibility for maintenance, that is, a public entity or homeowners' association, then the plan must include a copy of the other party's written agreement to assume this responsibility.
2. Specific preventative and corrective maintenance tasks such as removal of sediment, trash, and debris; mowing, pruning, and restoration of vegetation; restoration of eroded areas; elimination of mosquito breeding habitats; control of aquatic vegetation; and repair or replacement of damaged or deteriorated components.
3. A schedule of recommended regular inspections and tasks.
4. Cost estimates of maintenance tasks, including sediment, trash, and debris removal.
5. A written record of all preventative and corrective maintenance performed.

In addition, it would be useful if the following items were also included in the maintenance plan:

1. Maintenance equipment, tools, and supplies necessary to perform the various preventative and corrective maintenance tasks specified in the plan.
2. Maintenance, repair, and replacement instructions for specialized, proprietary, and nonstandard measure components, if any, including manufacturers' product instructions and user manuals.
3. Procedures and equipment required to protect the safety of inspection and maintenance personnel.
4. Approved disposal and recycling sites and procedures for sediment, trash, debris, and other material removed from the BMPs during maintenance operations.

## **MAINTENANCE PLAN CONSIDERATIONS**

In addition to the plan contents described above, a maintenance plan should address the following aspects of BMP maintenance:

### ***Access***

All BMP components must be readily and safely accessible for inspection and maintenance.

### ***Training of Maintenance Personnel***

Include a basic description of the purpose and function of the BMP and its major components. Outline what tasks need to be done by what personnel, how and when (*i.e.* what time of year, etc.). Training should also be provided in the need for and use of all required safety equipment and procedures.

### ***Aesthetics***

The impacts of the aesthetics on the surrounding community should be included in maintenance considerations.

## **MAINTENANCE PLAN PRODECURES**

Once the maintenance plan is approved by the Project Manager, the following procedures should be followed:

1. Copies of the maintenance plan must be provided to the owner of the BMP, who must commit to keeping the BMP in place, and keeping the land devoted to the BMP function. Copies must also be provided to the NJDEP Project Manager for the project file and any other entity deemed necessary by the NJDEP Project Manager and/or the Grantee (*e.g.* township, mosquito control commission, etc.).
2. Any change in the name, address, and telephone number of the person or persons responsible for maintenance must be updated in the maintenance plan and requisite copies distributed per Procedure #1 above.