New Jersey Department of Environmental Protection
Division of Watershed Protection and Restoration
Water Quality Restoration Grants to mitigate Nonpoint Source Pollution
2020-2022

Paulins Kill, Lafayette Township, Sussex County – April 2013/October 2020
Water Quality Restoration Grant (RP13-029)
Photo: Nathaniel Sajdak, Sussex County Municipal Utilities Authority

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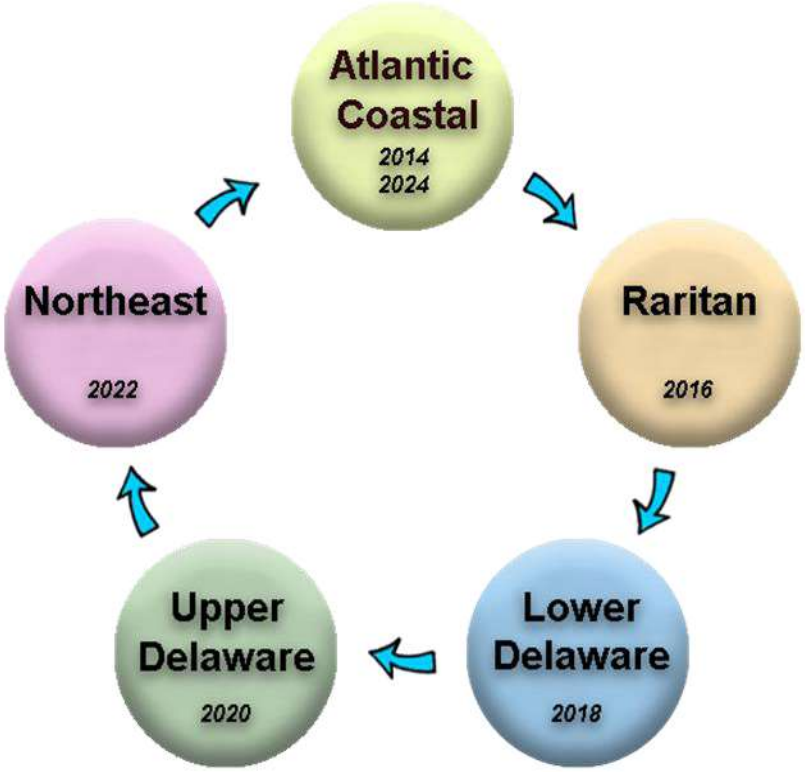
1. PROGRAM OVERVIEW

The New Jersey Department of Environmental Protection's (Department) Water Quality Restoration Grant Program is part of the Statewide Nonpoint Source (NPS) Management Program, which includes key actions that the Department and its partners use to control NPS pollution, restore, and protect 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. The best available science, as set forth in the Department's Scientific Report on Climate Change and subsequent New Jersey specific rainfall studies, the impacts of climate change to precipitation and temperature, among other things, are expected to continue to increase over the next few decades. Therefore, it is likely that NPS will also increase with climate change. Finally, the U.S. Environmental Protection Agency (USEPA) already identifies NPS pollution as the nation's largest water quality problem, causing impairment of approximately 40% of surveyed rivers, lakes, and estuaries in the Country (https://www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution).

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 resilience to climate change, which are advanced by implementing pollution reduction strategies, including increasing infiltration, green infrastructure, living shorelines, and environmental education. The funding of these initiatives will also improve the State's resilience to impacts of climate change and address disparity in achieving water quality improvement within communities that are disproportionately impacted by environmental stressors as well as the impacts of climate change.

As part of New Jersey's biennial Integrated Water Quality Assessment Report, the Department uses a rotating basin approach for New Jersey's five water regions. This approach produces a comprehensive assessment of the entire state every 10 years (see below figure) and supports development of measures to restore, maintain, and enhance water quality uses that maximize effectiveness and efficiency in achieving positive environmental outcomes that are tailored to the unique circumstances of each Region. The Department applied the enhanced assessment process in the Atlantic Coastal Water Region in the 2014 cycle, the Raritan Water Region in the 2016 cycle, and is currently addressing the Upper and Lower Delaware River Watershed and the Northeast Water Region in the 2020 - 2022 cycles as the targeted area for water quality restoration grants.

New Jersey's Water Regions Rotating Basin Approach



The State of New Jersey uses 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 or protection activities.

Through this 2020-2022 Request for Proposals (RFP), the Department is announcing the availability of up to $9.4 million dollars for watershed restoration, enhancement, and protection strategies that address NPS pollution. NPS pollution includes nutrients being carried into our waterways which leads to over-enrichment and eutrophication. Elevated nutrients along with other environmental conditions such as elevated temperatures, lead to Harmful Algal Blooms (HABs) that deplete the waters of oxygen, increase toxicity levels, and have been occurring with greater frequency in New Jersey. 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 the Performance Partnership Agreement

with EPA (https://www.epa.gov/ocir/national-environmental-performance-partnership-system-nepps##Per Par Agreements) and the New Jersey Nonpoint Source Management Program Plan 2020-2025 (https://www.nj.gov/dep/wms/bears/docs/NJFinalNPSProgramPlan2020-2025.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 improvement and working with partners to leverage State resources to increase NPS available funding.

To demonstrate measurable water quality outcomes and to provide a status update of the project, grantees who receive funding through section 319(h) grants must fulfill the USEPA Grant Reporting and Tracking System (GRTS) data requirements and provide pollutant load reduction estimates utilizing the USEPA Spreadsheet Tool for Estimating Pollutant Loads (STEPL) or other non-proprietary load reduction estimation models. These load reductions must be submitted in a "USEPA Success Story" style summary, as detailed within Appendix E of this RFP. Final reports must include a detailed summary of load reductions achieved by the project's implementation measures.

The Department also has additional funding available in the form of low-interest and principal-forgiveness (grant-like) loans through the New Jersey Water Bank, in partnership with New Jersey Water Infrastructure Bank (https://www.nj.gov/dep/dwq/mface_njeifp.htm). The Intended Use Plan (IUP) can be found at https://www.nj.gov/dep/dwq/cwpl.htm.

2. FUNDING FOR 2020-2022 WATER QUALITY RESTORATION GRANTS

The Department is issuing this RFP to solicit applications for eligible projects for the 2020-2022 grant funding cycle. Specifically, the Department is making available up to $9.4 million dollars in grant funds utilizing federal Clean Water Act section 319(h) annual allotments from 2020, 2021 and 2022, prior years Section 319(h) funds, the Corporate Business Tax (CBT) funds, and the Department of Defense Readiness and Environmental Protection Integration (REPI) funds. Funding will be awarded as grants to eligible recipients to carry out targeted water quality restoration and protection 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. Per USEPA guidance at least half of 319(h) pass through funds are required to be awarded to projects that implement approved watershed-based plans or address an impairment in an approved TMDL.

3. FOCUS OF 2020-2022 WATER QUALITY RESTORATION GRANTS

The focus of the 2020-2022 grant funding opportunities includes specific watershed management area and statewide initiatives. Funding made available through this RFP will support water

quality/watershed planning, implementation of water quality improvement measures associated with approved Watershed Plans and total maximum daily loads (TMDL's), implementation of green infrastructure to reduce stormwater input into combined sewer systems, and implementation of measures that provide in light of climate change impacts, such as increased intensity of precipitation and sea-level rise. The specific funding priorities listed in Section 4 below will be considered equally.

4. REQUEST FOR PROPOSALS FUNDING PRIORITIES

Details regarding the Department's water quality restoration grant opportunities are shown below:

Funding Priorities:

a. **Development of Watershed Plans** including updates to existing approved plans in the Northeast, Upper and Lower Delaware River Watershed Management Areas (see Appendix G for Watershed Plan requirements and guidance).

b. **Development and implementation of Lake Protection Plans and/or Watershed Plans** including updates to existing approved plans statewide to address nutrient inputs which contribute to HABs (see Appendix G for Watershed Plan requirements and guidance).

c. **Development and implementation of a Lake Protection Plan and/or Watershed Plan for Duhernal Lake and subwatersheds** that drain to the lake, located in the Raritan Water Region, in support of Departmental TMDL initiatives.

d. **Implementation of approved Watershed Based Plans** addressing current designated use Impairments and TMDL allocations (including Phosphorus impairments related to HABs) within the Northeast, Upper and Lower Delaware River Watershed Management Areas.

Table 1. Water Regions Approved EPA Nine Element Watershed Based Plans

Plan Name	Water Region Approved Watershed Based Plans
Assiscunk Creek	Lower Delaware
Upper Salem River	Lower Delaware
Upper Cohansey River	Lower Delaware
Musconetcong River	Upper Delaware
Alexauken Creek	Upper Delaware
Clove Acres Brook	Upper Delaware
Papakating Creek	Upper Delaware
Musquapsink Brook	Northeast
Tenakill Brook	Northeast

e. **Restoration projects in the Northeast, Upper and Lower Delaware River Water Regions** that must be located within targeted watersheds from the list of Hydrologic Unit Codes (HUCs) presented in Appendix H. The Department is soliciting water quality restoration projects that address one or more of the identified impairments in these HUC 14 watersheds. This list was developed using EPA's Recovery Potential Screening Tool which compares watershed conditions, their restorability, and determines where the implementation of best management practices is likely to produce successful results.

f. **Rancocas Creek Stormwater Management Project**, using funding from the Department of Defense Readiness and Environmental Protection Integration (REPI) Program, to help remove or avoid land-use conflicts near installations and addressing regulatory restrictions that inhibit military activities (AEGIS facility in Moorestown, Burlington County). Total: $150,000: FY20/21 - $20,000; FY21/22 - $130,000

   For FY20/22, federal funding ($150,000) will be utilized to improve stormwater management including infiltration in the Rancocas Creek watershed. For FY20/21, $20,000 will be utilized to contract and initiate a design and plan for a stormwater management and watershed plan project to involve stream bank restoration, reduce impervious surfaces and/or increase storage capacity of stormwater retention ponds to reduce erosion, overland flow to the Rancocas Creek and flooding of our valuable resources and community. For FY21/22, the stormwater management project will be completed, including full design, specifications, permitting and construction.

g. **Continued implementation and administration of a Statewide Community Water Monitoring Program** for an additional three (3) year period. The applicant must have the capacity to oversee the coordination of existing, and creation of new, community-based water quality monitoring programs and initiatives in New Jersey that address both volunteer monitoring and citizen scientist components.

h. **Green Infrastructure (GI) Projects in Environmental Justice Communities** these projects include green roofs, blue roofs, rain gardens, porous pavement, and other activities that maintain and restore natural hydrology by infiltration, evapotranspiration, and harvesting of stormwater and that are designed to reduce stormwater runoff. Priority will be given within drainage areas that are hydraulically connected to systems with combined sewers (CSOs). Information about GI can be found at https://www.nj.gov/dep/gi/. Information about EJ can be found at https://www.nj.gov/dep/ej/. The Environmental Justice Mapping Tool can be found at:
   https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=34e507ead25b4aa5a5051dbb85e55055

i. **Climate change resilience projects** including nature-based solutions, such as living shorelines and implementation of green infrastructure projects, that reduce the impact of climate

change and promote climate resilience given increasing storm intensity, temperature, and sea-level rise.

j. **Animal Waste Management Plans (AWMP)** development and installation of approved BMPs. Applicants must have the capacity to provide farmers with technical assistance to develop AWMPs, and the ability to engineer and install BMPs identified in those AWMPs.

Project Type	Funding Source	Total Funding Available (up to)	Project Scope Duration
Planning			
• Development of Watershed Plans including updates to existing approved plans in the Northeast, Upper and Lower Delaware River Watershed Management Areas;	319(h)/CBT	$1,000,000	3 years
• Development and implementation of Lake Protection Plans and/or Watershed Plans including updates to existing approved plans statewide to address nutrient inputs which contribute to HABs; and	319(h)/CBT	$500,000	3 years
• Development and implementation of a Lake Protection Plan and/or Watershed Plan for Durhernal Lake in support of Departmental TMDL initiatives.	319(h)/CBT	$300,000	3 years
Implementation			
• Implementation of approved Watershed Plans, shown in Table 1, addressing current designated use Impairments and TMDL allocations (including Phosphorus impairments related to HABs) within the Northeast, Upper and Lower Delaware River Watershed Management Areas;	319(h)	$1,000,000	3 years
• Restoration projects in the Upper and Lower Delaware River Water Regions must be located within watersheds from the list of Hydrologic Unit Codes (HUCs) presented in Appendix H.	319(h)	$1,000,000	3 years
• Rancocas Creek Stormwater Management Project	REPI	$150,000	2 years
• Continued implementation and administration of a Statewide Community Water Monitoring Program	CBT	$300,000	3 years
• Green Infrastructure Projects in Environmental Justice Communities	319(h)	$3,250,000	3 years

• Climate change resilience projects	319(h)	$1,500,000	3 years
• Animal Waste Management Plans (AWMP) develop and installation of approved BMPs.	319(h)	$400,000	3 years
Total Available Grant Funding		$9.4 M	

5. PROJECT SCHEDULES

Project schedules from start to finish should not exceed three (3) years, although in some cases, depending on the duration of the grant funds, the project schedule may need to be shorter. In accordance with USEPA Guidance for 319(h) grants (see https://www.epa.gov/nps/319-grant-current-guidance) the total project period of new grants awarded for continuing state environmental programs, including any no-cost extensions or supplemental amendments, may not exceed 5 years. The Department's preference is for project schedules, from start to finish, to be no more than three (3) years. The Department may consider requests to extend the project schedule another two (2) years, resulting in a total of five (5) years with sufficient justification. Please note that funding of projects and/or extension of projects beyond five 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. Projects must be completed within the grant period. Expenditures by the grantee outside the grant period may not be eligible for reimbursement.

6. SUBMISSION OF PROPOSALS AND PUBLIC INFORMATION SESSIONS

SUBMISSION DEADLINE: February 28, 2022

PROPOSALS FOR WATER QUALITY RESTORATION GRANTS MUST BE SUBMITTED ELECTRONICALLY USING NJDEP's SYSTEM FOR ADMINISTERING GRANTS ELECTRONICALLY (NJDEP SAGE). First time applicants must **first register** via NJDEP SAGE at **https://njdepsage.intelligrants.com**. Existing users will log on and the listing for this RFP will be under, "My Opportunities". Information on how to register and use NJDEP SAGE will be provided at the public information sessions listed in Table 2 below.

NJDEP SAGE registered users can submit grant applications, monitor applications under consideration, as well as request changes and manage grants. All submissions must include completed grant proposal application forms and all supporting documentation. Please see Appendix A for information on how to submit a proposal via NJDEP SAGE.

The Department has scheduled a virtual public information session. Questions on SAGE, the water quality restoration grant opportunities and/or the grant application process will be addressed during this session.

Table 2: Public Information Session*

Location	Date and Time
Click here to join the meeting Call in +1 856-338-7074, Phone Conference ID: 226 751 526#	January 24, 2022 at 10:00 am

*The meeting link as well as any other change or cancelation will be posted at www.nj.gov/dep/wms/bears/npsrestgrants.html.

7. REQUIREMENTS FOR APPLICANT ELIGIBILITY

Applicants eligible to apply for funding under this RFP include:

- State, regional and local government units within New Jersey, including State government agencies, municipal planning departments or boards, health departments; County planning departments or boards, health departments;
- Designated water quality management planning agencies;
- State universities, and colleges;
- Interstate agencies of which New Jersey is a member;
- 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 authorized to operate in the State of New Jersey.

Eligible applicants shall, in their application, demonstrate that they possess the following:

- Sufficient staffing and other resources with the capability, expertise, and environmental experience to perform the proposed project directly or through contracting services.
- The ability to establish and maintain partnerships to ensure project implementation as well as long-term operation and maintenance/management.
- Authority to implement the proposed project(s) and property or other access rights to construct the project. Although a monetary match is not required for projects to be funded, the percentage of monetary contributions and in-kind services will increase a project's scoring (see Appendix B, Project Evaluation Criteria), and can increase the proposal's ranking for award selection. This type of support demonstrates a long-term commitment to overall project success.
- 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.
- Located on public property or on private property with an executed agreement with the property owner sufficient to allow for the project to be completed as proposed, including the required monitoring and evaluation element.

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 to change behavior and promote 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 and those projects that include 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.

8. 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 4, meet the eligibility requirements of Sections 6 and 7, and adhere to the format and contain the components identified in Section 9.

The Department may award grant funds to Eligible Applicants for Eligible Projects that it deems, in its sole discretion, to be most beneficial to the state per the criteria herein. The Department reserves the right not to award a grant if, in its sole discretion, no acceptable proposal is received, funding is no longer available or for any other reason. All applicants will be notified in writing with the Department's grant award decisions in approximately sixty (60) days through NJDEP SAGE.

The funding amounts for each grant opportunity above are approximations. The Department may, in its sole discretion, transfer funds from one grant opportunity to another if the Department does not receive sufficient applications, needs additional funding for certain projects, or has not used the funding allocated to each grant opportunity. 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 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 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.

Once applicants have been notified of the Department's intent to fund a specific project, they will be required to complete all grant agreement forms in NJDEP SAGE.

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

Table 3: Grant Processing Schedule

Action	Responsibility	Deadline
Full Proposal Submission	Applicant	February 28, 2022
Funding Recommendations and Notifications	DEP	June 30, 2022
Return of Completed Grant Agreement Forms	Applicant	Within 30 days of receipt*

*Return of completed grant agreement forms does not guarantee immediate release of funding.

PROJECT AWARD – FORM OF AGREEMENT

By accepting funds awarded under this RFP, all Grantees agree to be bound by and execute the grant agreement without modification. Completion of the project and expenditure of grant funds shall be in accordance with the terms set forth therein, and the same are, as applicable, incorporated by reference into this RFP. The grant award date shall be the start date on the executed contract. Any work performed in accordance with the submitted scope of work and budget shall be eligible for reimbursement upon the final execution of the contract. Any work performed outside of the tasks enumerated in the submitted scope of work and budget shall not be reimbursable.

9.REQUIRED ELEMENTS FOR A COMPLETE PROPOSAL

The project proposal must include 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/quantifiable 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. For more information and details, see Appendix A.

Project Background Summary Information

The project background must include a brief abstract of the project that includes a summary of the major elements of the project, the objectives to be achieved, and the spatial extent of the work. In addition, the project background should describe why the applicant believes the proposed project is needed, the scope of the problem, and/or current condition of the targeted water body. Please identify the NPS pollution stressors/sources that cause or contribute to the environmental condition that will be addressed and the source used to determine the condition, such as the 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). Explain how and to what degree implementing this project will address the root cause stressors/sources of the problem and define the desired result that this project will seek to achieve.

Project Description

The project description shall detail 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.

Applicant Description

A description of the applicant, how the applicant meets the eligibility requirements, 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.

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.

If performing 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 a quality assurance project plan (QAPP) for this proposal and must 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 who receive funding, with limited exceptions, 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 https://www.epa.gov/nps/spreadsheet-tool-estimating-pollutant-loads-stepl. Time for performing this required element must be factored into the schedule and budget.

Implementation Schedule and Budget

Proposals shall contain a task schedule that lists outputs or deliverables associated with each task, the party responsible for the tasks, the time duration associated with completing each task for the total length of the project, and the budget for each task. Project schedules from start to finish should be no more than three (3) years. Applicants will be notified of the specific project duration and expected completion dates in the award letter. 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 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.

Budget Details

- Personnel Costs (Salaries and Benefits):

  Note: if students will be performing work, tuition is not eligible for funding. The salary details should include the name, number of hours dedicated to the project, and hourly rate, for each employee;

- Consultants and Subcontractors:

  Please provide a description of the work that will be performed and the budget amount for each consultant/subcontractor;

- Supplies:

  Must detail each type of supplies, quantity, and costs associated with it;

- Monitoring;
- Training;
- Travel:

  State allotted amount is 0.35 cents per mile;

- Audit;
- Indirect Costs:

This covers costs that are associated with employees that are being paid salary expenses as part of the agreement, that cannot be directly attributed to the work of the agreement. Some possible indirect expenses are general overhead costs such as electricity and other building costs associated with that employee's work location, among others;

- Match and additional funding provided by other sources;

In Kind Match is defined as volunteer time only. Please list out number of volunteers and estimated volunteer hourly rate. All other match contributions are considered in the Cash Match category. If the cash match includes salary/fringe, please detail number of employees, hours, and hourly rate. Consultants and subcontractor details should include the total amount of match for each task and the type of work that will be performed. If the match falls in another category, please indicate the category and the amount.

Supplemental Information

The following supporting documentation is required to be submitted as attachments to the project proposal:

- 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;

- 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.

10. REPORTING REQUIREMENTS FOR PROJECTS SELECTED FOR FUNDING

Quarterly Progress and Financial Reports

Progress 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 complete and submitted on time for payments to be made under the grant agreement. Failure to submit timely and complete reports may result in non-payment. The reports will be submitted via NJDEP SAGE and must follow the format found in Appendix D. 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 Progress Report.

Grants Reporting and Tracking System (GRTS)

All water quality restoration grantees (with the exception noted below) must fulfill the USEPA Grant Reporting and Tracking System (GRTS) requirements, therefore, 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 nonpoint 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. Grantees preparing wastewater management plans and/or their components are not required to report in GRTS as these projects support planning initiatives which although promote water quality improvement are not associated with measurable load reductions.

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 models, such as the Unit Area Load method established in Chapters 3 and 4 of the Department's Best Management Practices Manual https://www.njstormwater.org/bmp_manual2.htm, and include these load reductions in a "USEPA success story", style summary. Load reductions must be provided upon implementation /completion for each individual BMP project. The 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 the 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 and must be entered into EPA's Water Quality Exchange (WQX) database or other database as approved by the Department. Information regarding the use of WQX is located at: https://www.epa.gov/waterdata/water-quality-data-upload-wqx.

Completion of a Project

Projects must be completed within the grant period, including the Final Report (see below and 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.

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 predetermined 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.

Coordination of Project Permitting

For implementation projects funded through this RFP, all grantees must coordinate all permit preapplication meetings, applications, and application meetings with the Department's Division of Watershed Protection and Restoration. The Division of Watershed Protection and Restoration 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 an 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.

Final Reports

The Final Report must be submitted via NJDEP SAGE upon the completion of the project. The Department must deem the report acceptable prior to the release of final payment of grant funds to the applicant. The format for the Final Report can be found in Appendix E.

11. 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. A reference to native New Jersey species can be found at https://universalfqa.org/. Plant species used for mitigation plantings should not be species identified on the State Endangered Plant list or otherwise considered to be rare by the New Jersey Natural Heritage Program (www.nj.gov/dep/parksandforests/natural/heritage/countylist.html). 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 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 Watershed Protection and Restoration
Bureau of Watershed Management

2020-2022 Water Quality Restoration Grants
NJDEP SAGE Application Guidance for Project Proposals

Appendix A

The NJDEP's System for Administering Grants Electronically (SAGE) is a web-based application used by the Bureau of Watershed Management to accept and approve Water Quality Restoration Grant applications and manage executed grants. Eligible grant applicants will need to submit their grant application and manage it using the SAGE system located at https://njdepsage.intelligrants.com

My Organization(s)

Organization Name - is the eligible entity applying for the Water Quality Restoration grant funding.

Short Name – is an abbreviated name for your organization.

Vendor ID Number – a Vendor ID number is obtained through the Department of the Treasury's NJSTART eProcurement System (https://www.njstart.gov/bso).

DUNS Number – is required only for federally-funded awards. If you need to find or register for a DUNS Number it is through Dun & Bradstreet (https://www.dnb.com/duns-number/lookup.html).

Organization Members - There are two roles for an organization, Authorized Official(s) and Viewer(s). The Authorized Official(s) can edit, save and submit a document in the system. The viewer(s) can only view the documents. The Contact Person, Fiscal Officer, and Project Manager must be added as Organization Members.

Profile Information

Contact Person Name - The list is derived from the members you input in My Organization(s). This is the person that will be responsible for the grant throughout the duration of the grant. Responsibilities include being the primary contact for execution of the grant agreement and payment transactions; ensures that the resolution to accept the grant award is passed by the governing body; ensures that the grant agreement is signed by the proper officials; ensures that the signed grant agreement is submitted to the Water Quality Restoration Grant Program;

supplies copies of invoices for the grant project work and proof of payment documents; and, timely submission of any other related material required for submission to the Water Quality Restoration Grant Program. The contact person may not be an independent contractor.

Fiscal Officer Name: The list is derived from the members you input in My Organization(s). This is the person in the organization that can be contacted for financial information and will be responsible for submitting the financial reports.

Project Manager - The list is derived from the members you input in My Organization(s). This is the person that will be the primary contact for the Water Quality Restoration Grant Program regarding project work, responsible for managing the grant and providing timely progress reports on implementation and performance.

Partner Information – This is an organization(s) that will partner with the grantee to complete the project.

Project Details

Project (RFP) Category –Each year's RFP priorities are different so please select the category that is applicable. You may select more than one.

Climate Change Resilience - Projects that promote climate change resilience including implementation of green infrastructure and living shoreline projects that provide and promote resilience against future storm events, address sea level rise.

Development of Watershed Plan(s) - The Development of Watershed Plans including updates to existing approved plans.

Green Infrastructure - Green infrastructure projects (green practices such as green roofs, blue roofs, rain gardens, porous pavement, and other activities that maintain and restore natural hydrology by infiltrating, evapotranspiring, and harvesting stormwater) designed to reduce stormwater runoff.

Lake(s) - Lake Projects or Lake Protection Plans.

Living Shoreline - Implementation of a living shoreline project.

Priority Watershed WBP/TMDL - Implementation of approved Watershed Plans addressing current designated use Impairments and TMDL allocations.

Urban Ed Program/Volunteer Monitoring - Programs to promote water education and citizen science.

Other - A project that is not listed.

Project Title – is the title of the proposed project.

Estimated Project Duration in Months - 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 - is the amount of funding sought from the Water Quality Restoration Grant Program.

Match - is the amount of local funding dedicated to the project. In-Kind Match is defined as volunteer time only. All other match is defined as Cash Match.

Other Funding – is the amount of funding that is not a match which is dedicated to the project.

Project Location

Select the County and Municipality where the proposed implementation project or planning watershed will be located. If the project is statewide, click the statewide box.

Include the Block/Lot number, when appropriate.

Based on the County/Municipality selected, a list of Watershed Management Areas (WMAs) will populate. Select the WMA that will contain the proposed implementation project or planning watershed.

Legislative/Congressional Districts

This will automatically populate based on the county/municipality selected for the Project Location.

Waterbody Information

Assessment Unit Number(s) and 303(d) Listing Pollutant – This is automatically populated and for information use only. You do not need to select anything.

Name of Water Quality Management Plan(s) Project is Implementing - 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 - is the primary waterbody that is the target of the implementation project. Water quality improvement will be achieved in this waterbody through the implementation of the proposed project, if applicable.

Other Waterbody(s) – is any other waterbody that will benefit from the implementation project.

Status of TMDL for Primary Waterbody – select if known. Otherwise select NA.

Best Management Practices Information

Work Categories – is a means of expressing in broad terms the type of activity of the project.

Sources of Non-Point Source Pollution (NPS) – a means to identify where the primary pollutant(s) are coming from and what the project is attempting to correct.

Type of NPS Implementation Project - 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 - 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 Pollutant(s) Addressed - list any pollutants that will be addressed by the NPS implementation project that are secondary to the primary targeted pollutant(s).

Project Proposal

Project Background Summary Information – A description of the problem as it relates to the priorities in the RFP.

Project Description – Explain the project and how it will address the problem and priorities in the RFP. Must contain your goals, objectives, and tasks to complete the project.

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 match contributions proposed by applicant. This section must also include a list of project partners, including estimated amount and type of match contributions proposed by the project partners. Match contributions are not required, however projects with match contributions and partner support could receive a higher priority.

Monitoring and Evaluation Information - a description of how attainment of project objectives will be measured or demonstrated.

Implementation Schedule and Budget

The implementation schedule and budget by objective and task that includes project deliverables and the responsible party.

Budget Details

- Personnel Costs (Salaries and Benefits):

  Note: if students will be performing work, tuition is not eligible for funding; The salary details should include for each employee, name, number of hours dedicated to the project, and hourly rate;

- Consultants and Subcontractors:

  Please provide a description of the work that will be performed and the budget amount for each consultant/subcontractor;

- Supplies:

  Must detail each type of supplies, number needed and costs associated with it;

- Monitoring;
- Training;
- Travel:

  State allotted amount is 0.35 cents per mile;

- Audit;
- Indirect Costs:

  This covers costs that are associated with employees that are being paid salary expenses as part of the agreement, that cannot be directly attributed to the work of the agreement. Some possible indirect expenses are general overhead costs such as electricity and other building costs associated with that employee's work location, among others, and;

- Match and additional funding provided by other sources.

In Kind Match is defined as volunteer time only. All others fall in the Cash Match category. If the cash match includes salary/fringe please detail number of employees, hours and hourly rate; Consultants/subcontractors details should include the total amount of match for each and the type

of work that will be performed; If the match falls in another category(s), please list out what it is and the amount.

Supplemental Information

Upload any letters of resource commitment with the amount of match funds listed, site plans, maps, blueprints, etc.

Division of Watershed Protection and Restoration
Bureau of Watershed Management

2020-2022 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 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 including Executive Order No. 23 (https://nj.gov/infobank/eo/056murphy/pdf/EO-23.pdf); 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 Watershed Protection and Restoration
Bureau of Watershed Management

2020-2022 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 __
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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)

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

Reviewed by: _____ Date: _____

NJDEP QAPP Reviewer

Reviewed by: _____ Date: _____

NJDEP Section Supervisor

Approved by: _____ Date: _____

Melissa Hornsby, 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

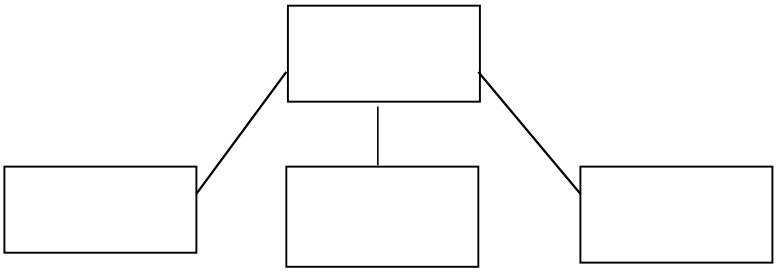
Name	Organization	Address	email
Project Manager			
QA Officer			
Laboratory			
Grantee			
NJDEP Project Manager			Fname.Lname@dep.nj.gov
QAPP Reviewer			
Section Supervisor			
Melissa Hornsby	NJDEP – Office of Quality Assurance	401 E. State Street P.O. Box 420 Mail Code 401-02D, Trenton, NJ, 08625-0420	melissa.hornsby@dep.nj.gov

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.***

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

Table: Sample Locations and Rationale

Location I.D.	*Name*	*Justification*

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

Type	*Baseline*	*Wet Weather*	*Dry Weather*	*Bacteria*	*Biological*
Frequency					
Parameters					
Sample Location					
SW-1					
SW-2					
SW-3					

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, 20th 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

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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 Watershed Protection and Restoration
Bureau of Watershed Management

2020-2022 Water Quality Restoration Grants Quarterly Reporting Requirements

Appendix D

Grantee must submit a progress and financial report through the SAGE system quarterly.

Summary of Progress for this Quarter: Must include a Status, Next Steps, and Timeframe (start date and end date) for each Objective and Task as outlined in your Scope of Work. 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.

Itemization of Salary Expenditures for this Quarter: Must detail the work performed for each employee per objective as reported in the financial report for the quarter.

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) Deliverables/Work Product;

2) Photos: All pictures should be saved with names that are indicative of the picture and purpose (i.e. file # post-imp stormwater);

3) Surveys;

4) Attendance sheets (meetings, outreach events, etc.…); and

5) Approved QAPP.

BMP Information: If a Best Management Practice (BMP) has been implemented, the BMP Information Page must be completed. The grantee must supply information about the project such as completed date, location, waterbody improving, contributing drainage area, BMP size, BMP type, load reductions, and cost.

All Progress Reports Must Include a Financial Report

A financial report 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/invoices, receipts for expenditures related to the project and documentation that bills/invoices/receipts have been paid.

Division of Watershed Protection and Restoration
Bureau of Watershed Management

2020-2022 Water Quality Restoration Grants
Final Report Requirements

Appendix E

The final report must include the following information:

1) 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

2) 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

3) 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

4) Appendices

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

- ☑ A list of all equipment purchased (with associated specification) under the grant and the date in which they were returned to the Department
- ☑ Additional Photos: 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)
- ☑ Educational Materials: 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
- ☑ Monitoring Data: An electronic copy with all raw data in usage format. 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 it should be copied/pasted here as well)

Nonpoint Source Success Story

Format and Content for Success Stories

Each story should run 1-2 pages in length, addressing all 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, and revegetation in riparian zones.

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 (include reported load reductions reported to the Department if applicable)**?
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 (biorecon) 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 303(d) list in 2004.

Example 2:

The Bass Lake restoration project achieved TMDL targets by reducing the average phosphorus concentrations from 490 μg/L to 10 μg/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.

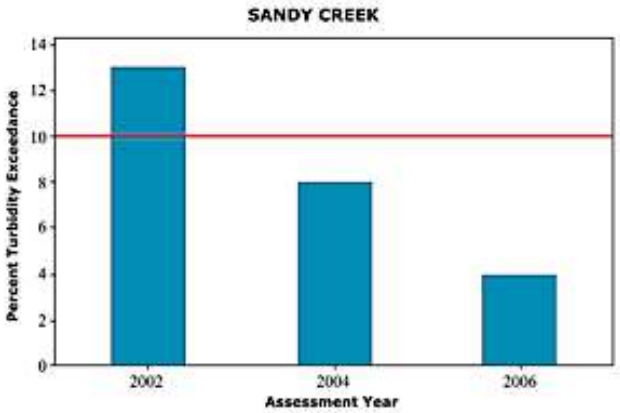
Example 1:

Chase Brook Biomonitoring Results

Sampling site	Date	Assessment rating	EPT	Density (individuals/m^2)	Individuals from *Oligochaeta* (%)
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

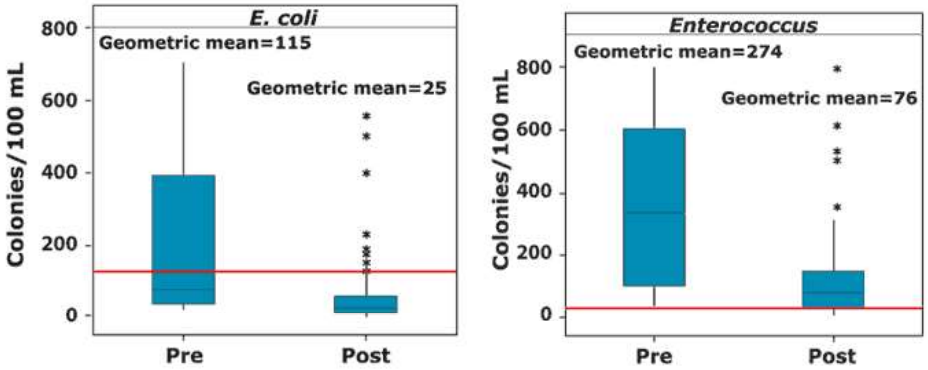
* Vermont Class B Guideline for EPT was 18.0 until the state changed it to 16.0 in 2002.

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).

See EPA approved Success Stories as an example

Division of Watershed Protection and Restoration
Bureau of Watershed Management

2020-2022 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 Department's Project Manager for the project file and any other entity deemed necessary by the Department's 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.

Division of Watershed Restoration and Protection
Bureau of Watershed Management

2020-2022 Water Quality Restoration Grants Watershed Based Plan Requirements

Appendix G

Required Nine (9) Elements of an Approvable Watershed-Based Plan

All Watershed Plans must address and include the nine minimum components of a watershed plan set forth in the Environmental Protection Agency's "Handbook for Developing Watershed Plans to Restore and Protect Our Waters" (USEPA, 2005) in order to be considered for implementation funds through 319(h). The completed plan must include a section detailing how the plan satisfies each element. The basic components of a Watershed-Based Plan are identified as:

Element 1: Causes and Sources

Clearly define the causes and sources of impairment (physical, chemical, and biological).

Element 2: Expected Load Reductions

An estimate of the load reductions expected for each of the management measures or best management practices to be implemented (recognizing the natural variability and the difficulty in precisely predicting the performance of management measures over time).

Element 3: Management Measures

A description of the management measures or best management practices and associated costs that will need to be implemented to achieve the load reductions estimated in this plan and an identification (using a map or a description) of the critical areas where those measures are needed.

Element 4: Technical and Financial Assistance

An estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon, to implement this plan.

Element 5: Information/Education Component

An information/education component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing management measures.

Element 6: Schedule

A schedule for implementing management measures identified in this plan that is reasonably expeditious.

Element 7: Measurable Milestones

A schedule of interim, measurable milestones for determining whether the management measures, best management practices, or other control actions are being implemented.

Element 8: Evaluation of Progress

A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made towards attaining water quality standards and, if not, the criteria for determining whether the plan needs to be revised or, if a TMDL has been established, whether the TMDL needs to be revised.

Element 9: Effectiveness Monitoring

A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established in the Evaluation of Progress element.

a. An identification of the causes and sources or groups of similar sources that will need to be controlled to achieve the load reductions estimated in this watershed-based plan (and to achieve any other watershed goals identified in the watershed-based plan), as discussed in item (b) immediately below. Sources that need to be controlled should be identified at the significant subcategory level with estimates of the extent to which they are present in the watershed (e.g., X number of dairy cattle feedlots needing upgrading, including a rough estimate of the number of cattle per facility; Y acres of row crops needing improved nutrient management or sediment control; or Z linear miles of eroded streambank needing remediation).

b. An estimate of the load reductions expected for the management measures described under paragraph (c) below (recognizing the natural variability and the difficulty in precisely predicting the performance of management measures over time). Estimates should be provided at the same level as in item (a) above (e.g., the total load reduction expected for dairy cattle feedlots; row crops; or eroded streambanks).

c. A description of the NPS management measures that will need to be implemented to achieve the load reductions estimated under paragraph (b) above (as well as to achieve other watershed goals identified in this watershed-based plan), and an identification (using a map or a description) of the critical areas in which those measures will be needed to implement this plan.

d. An estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon, to implement this plan. As sources of funding, states should consider the use of their Section 319 programs, State Revolving Funds, USDA's Environmental Quality Incentives Program and Conservation Reserve Program, and other relevant federal, state, local and private funds that may be available to assist in implementing this plan.

e. An information/education component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the NPS management measures that will be implemented.

f. A schedule for implementing the NPS management measures identified in this plan that is reasonably expeditious.

g. A description of interim, measurable milestones for determining whether NPS management measures or other control actions are being implemented.

h. A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made towards attaining water quality standards and, if not, the criteria for determining whether this watershed-based plan needs to be revised or, if a NPS TMDL has been established, whether the NPS TMDL needs to be revised.

i. A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under item (h) immediately above.

Additional information and guidance can be found in the EPA's "Handbook for Developing Watershed Plans to Restore an Protect Our Waters" located here : (https://www.epa.gov/sites/production/files/2015-12/documents/watershed_mgmnt_quick_guide.pdf)

Division of Watershed Protection and Restoration
Bureau of Watershed Management

2020-2022 Water Quality Restoration Grants Upper and Lower Delaware River Water Region Priority HUC 14 Watersheds

Appendix H

Restoration Priorities

The Department has initiated actions that helps identify and prioritize future nonpoint restoration efforts at a regional level. The goal of this effort is to maximize the utilization of restoration funding by identifying assessment units (AU) that show the best potential of improving water quality and prioritizing these efforts. The prioritization is a two-step process that utilizes the EPA Recovery Potential Screening (RPS) tool and an assessment protocol used during the Integrated Report analysis that incorporates water quality data along with GIS information.

The RPS tool offers flexible, user friendly, technical based, and rapid watershed assessments to identify and prioritize watersheds for restoration and protection. The RPS is an Excel-based tool that provides an approach for comparing watersheds, their conditions and how well they may respond to management actions. RPS incorporates ecological, stressor, and social indicators to calculate index values at the AU level which can be used to identify watersheds that show the best potential for restoration and protection success. The Department uses RPS indicators specifically customized to the state's 958 AUs that represent the scale at which waters of the state are grouped for assessment purposes. Additional information on RPS is located at the EPA website https://www.epa.gov/rps/overview-recovery-potential-screening-rps.

In addition to the RPS results, the Department incorporates the results from the Integrated Report assessment process to characterize water quality data and GIS information to identify AUs that show the best potential for restoration. Water quality and biological data are reviewed to identify AUs "on the bubble" which are waterbodies that are close to be fully attaining its water quality criteria by verifying improving trends, determining the magnitude and frequency of exceedances of the criteria, identifying nearby waters that are fully supporting, and analyzing habitat conditions. These results along with GIS information were used for analyzing land use, identifying possible sources and causes, highlighting C1 waters or other waters with special protections, as well as locating restoration actions to select AUs that show where nonpoint source projects could in a reasonable time, at a reasonable cost and addressing a reasonable number of sources and causes could achieve water quality improvements at the AU level.

The result is the following restoration prioritization list for the Upper and Lower Delaware Regions which include 22 AUs in the Upper Delaware and 35 AUs in the Lower Delaware. These AUs will receive higher priority for nonpoint source funding.

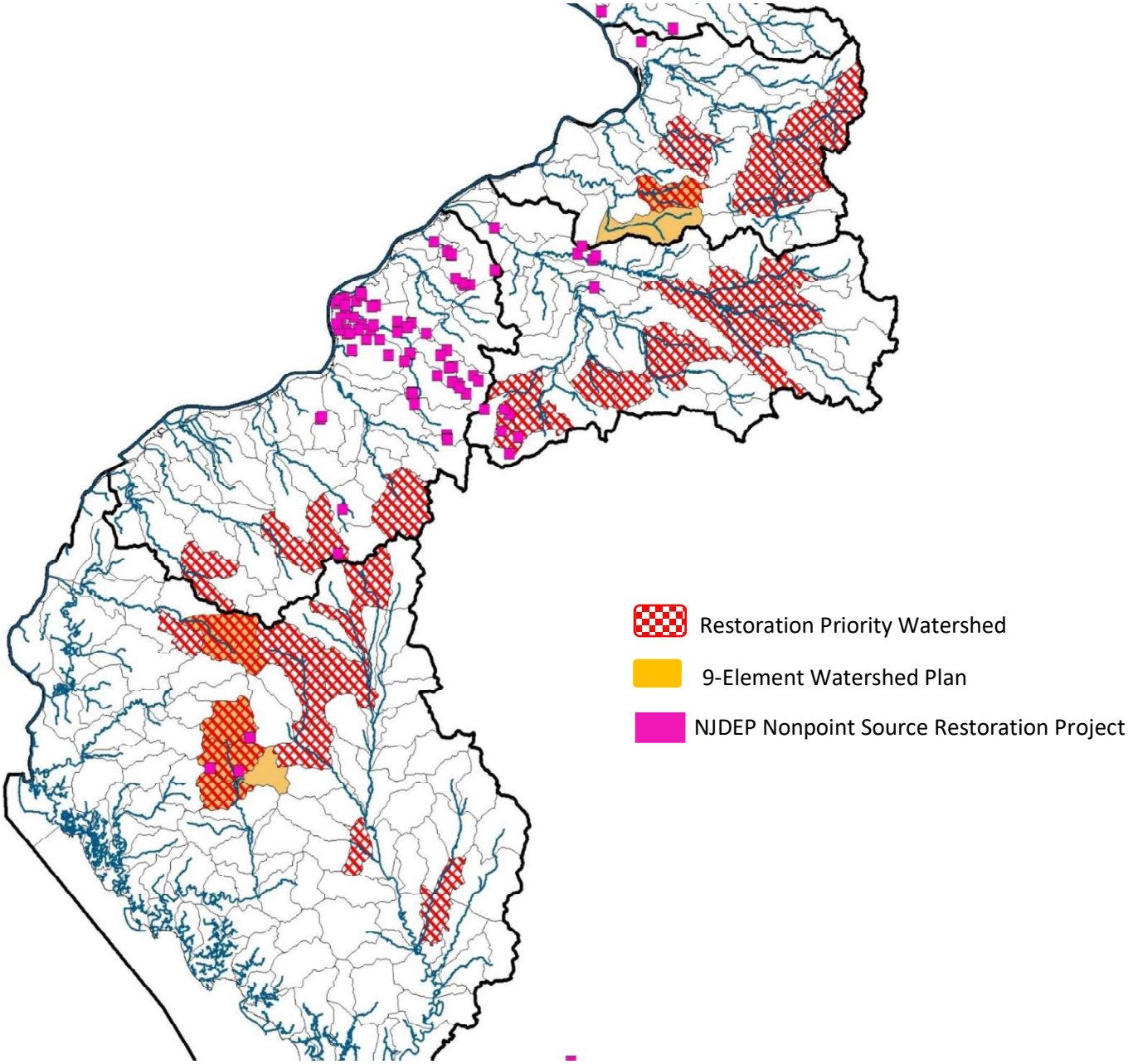
Lower Delaware Region Priority HUCs Table.

NJDEP Priority	Watershed ID	Watershed Name	Impairments
High	HUC02040202030080	Bisphams Mill Creek (below McDonalds Br)	TP
High	HUC02040202030090	Greenwood Br (below CountryLk & MM confl)	pH, TP
High	**HUC02040206030010**	**Salem R (above Woodstown gage)**	**Biology, DO, pH, TP, TSS, Turbidity, E.coli**
High	**HUC02040201100010**	**Assiscunk Ck (above Rt 206)**	**TP, E.coli**
High	HUC02040201050030	Crosswicks Ck (Lahaway Ck to New Egypt)	TP
High	HUC02040201080020	Blacks Creek (Bacons Run to 40d06m10s)	Biology, TP, E.coli
High	HUC02040206120010	Little Ease Run (above Academy Rd)	Biology, pH
High	HUC02040201040070	Crosswicks Ck (NewEgypt to/incl NorthRun)	TP, E.coli
High	HUC02040202020040	Rancocas Ck NB (NL dam to Mirror Lk)	Biology, pH, Copper, Lead
High	HUC02040206150020	Muddy Run (incl Palatine Lk to Elmer Lk)	Biology
High	HUC02040202160030	Oldmans Creek (Kings Hwy to Rt 45)	Biology, pH, TP, E.coli
High	HUC02040206150010	Muddy Run (above/incl Elmer Lake)	Biology
Med	HUC02040202060050	Barton Run (below Kettle Run Road)	Biology, DO, pH, TP
Med	HUC02040202030060	Pole Bridge Br (CountryLk dam - Co line)	DO, TP
Med	HUC02040206030020	Nichomus Run	Biology, DO, E.coli
Med	HUC02040201050010	Lahaway Ck (above Prospertown)	TP
Med	HUC02040202060060	Bear Swamp River	Biology
Med	HUC02040202040010	Rancocas Ck NB (Pemberton br to NL dam)	pH, TP, E.coli, Copper, Lead
Med	HUC02040202060070	Little Creek (above Bear Swamp River)	pH, E.coli
Med	HUC02040206160040	Mill Creek (lower)	E.coli
Med	HUC02040206180050	Menantico Creek (below Rt 552)	TP, E.coli, Total Coliform
Med	HUC02040202050050	Friendship Creek (below/incl Burrs Mill Bk)	Biology, TP, E.coli
Med	HUC02040202050060	Rancocas Ck SB (above Friendship Ck)	TP, E.coli

Med	HUC02040202020030	Rancocas Ck NB (incl Mirror Lk-GauntsBk)	pH, Copper, Lead
Med	HUC02040202060020	Lake Pine / Centennial Lake & tribs	Biology, pH
Med	HUC02040206150050	Muddy Run (incl ParvinLk to Palatine Lk)	pH, TP
Med	HUC02040201040050	South Run (North Run to Jumping Brook)	pH, E.coli
Med	HUC02040206120050	Still Run (WillowGroveLk - SilverLakeRd)	Biology
Med	HUC02040201050020	Lahaway Ck (Allentwn/NE Road-Prospertown)	TP, E.coli
Med	**HUC02040206080010**	**Cohansey R (above Beals Mill)**	**Biology, TP**
Med	**HUC02040206080040**	**Cohansey R (incl Beebe Run to HandsPond)**	**Biology, TP**
Med	**HUC02040206080020**	**Cohansey R (incl HandsPond - Beals Mill)**	**Biology, TP**
Med	HUC02040202150020	Raccoon Ck (Rt 45 to/incl Clems Run)	Biology, pH, TP
Med	HUC02040202130030	Chestnut Branch (above Sewell)	TP, E.coli
Med	HUC02040202120030	Big Timber Creek SB (above Lakeland Rd)	DO, TP, E.coli

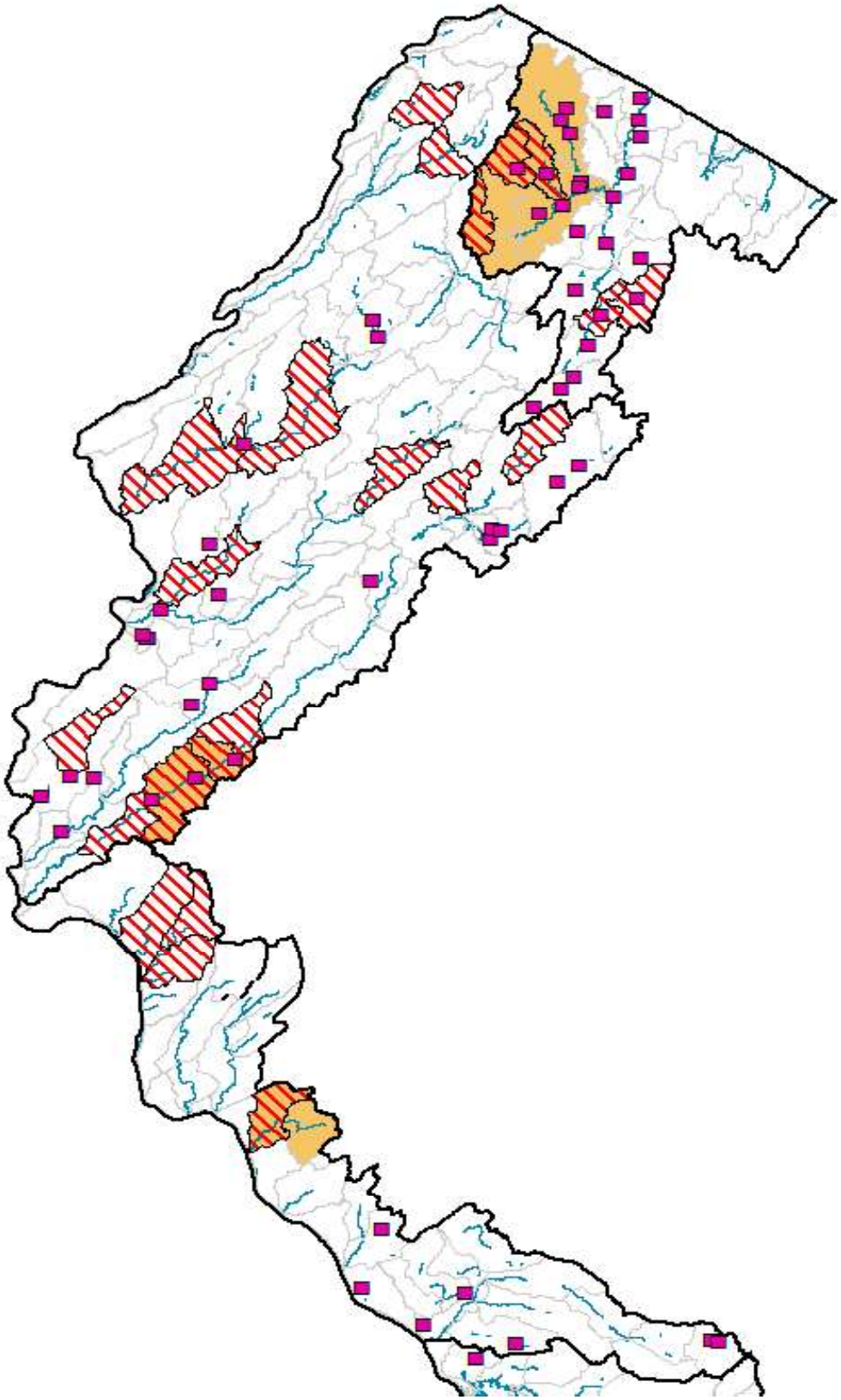
Bold: 9-Element Watershed Plan approved

Lower Delaware Restoration Priority HUCs Map



Upper Delaware Restoration Priorities Table

NJDEP Priority	Watershed ID	Watershed Name	Impairments
High	**HUC02040105160040**	**Musconetcong R (75d 00m to Rt 31)**	**E. coli, Arsenic**
High	HUC02020007010030	Franklin Pond Creek	pH, DO, Temperature (Trout)
High	HUC02040105070040	Pequest R (Trout Brook to Brighton)	Biological, pH, E. coli
High	HUC02020007010080	Wallkill R (Franklin Pond to Ogdensburg)	Biological, E. coli, Arsenic
High	HUC02040105170030	Harihokake Creek (and to Hakihokake Ck)	TP, E. coli
High	HUC02040105050010	Paulins Kill (Blairstown to Stillwater)	Temperature (Trout), PCB, Mercury
High	HUC02040105050050	Paulins Kill (below Blairstown gage)	Biological, Temperature (Trout), PCB, Mercury
High	**HUC02040105210020**	**Alexauken Ck (below 74d 55m to 11BA06)**	**E. coli, pH, Arsenic, Temperature (Trout)**
Med	**HUC02040105160040**	**Musconetcong R (I-78 to 75d 00m)**	**E. coli**
Med	HUC02040104140030	Big Flat Brook (Kittle Rd to Forked Bk)	Temperature (Trout), Arsenic, Mercury
Med	HUC02040105160060	Musconetcong R (Warren Glen to I-78)	E. coli, Arsenic
Med	HUC02040104130010	Little Flat Brook (Beerskill and above)	Temperature (Trout), Mercury
Med	**HUC02020007020010**	**Papakating Ck (above Frankford Plains)**	**E. coli**
Med	HUC02040105170040	Nishisakawick Creek (above 40d 33m)	E. coli
Med	HUC02040105150060	Cranberry Lake / Jefferson Lake & tribs	TP, Temperature (Trout), PCB, Mercury
Med	HUC02040105170050	Nishisakawick Creek (below 40d 33m)	E. coli
Med	HUC02040105100040	Beaver Brook (below Hope Village)	E. coli
Med	HUC02040105120010	Lopatcong Creek (above Rt 57)	TP, E. coli
Med	HUC02040105150040	Lubbers Run (above/incl Dallis Pond)	Temperature (Trout)
Med	**HUC02020007020040**	**Papakating Ck WB(abv 74d39m30s side rd)**	**E. coli**
Med	**HUC02020007020050**	**Papakating Ck WB(blw 74d39m30s side rd)**	**E. coli**

Bold: 9-Element Watershed Plan approved

Upper Delaware Restoration Priorities Map