

*SFY 2014 Section 319(h)
Grants for Nonpoint Source Pollution
Control*

REQUEST FOR PROPOSALS



Parking Lot Island Bioinfiltration Cell treats runoff at Subaru Headquarters, Cherry Hill, NJ
Camden County Soil Conservation District 319(h) Project
Photo by Kathleen Hitchner, October, 2011

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

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1. SUBMISSION OF PROPOSALS

PROPOSAL MUST BE SUBMITTED BY: February 21, 2014

Applicants must deliver a full-color, unbound hard copy of the project proposal, as well as an electronic copy that includes all elements of the proposal, by the application deadline. The electronic copy shall be in Microsoft Word, Adobe Reader or compatible format. All pages of hard copies must be formatted and printed on 8.5" X 11" size paper. Other larger format documents, such as maps tables and photos, may be submitted as supplemental information. Applications must be delivered to:

New Jersey Department of Environmental Protection
Water Resource Management
Division of Water Monitoring and Standards
401 East State Street
P.O. Box 420
Mail Code 401-03
Trenton, New Jersey, 08625-420
Attention: Barbara Hirst, Bureau Chief, BEARS

Electronic submission shall be submitted to Dian Smith at Dian.Smith@dep.state.nj.us or included on a CD and submitted with the hard copies of the proposal.

2. FOCUS FOR FUNDING UNDER THIS REQUEST FOR PROPOSALS

The New Jersey Department of Environmental Protection (Department) anticipates receiving federal funds under Section 319(h) of the Clean Water Act (CWA), which will be used to award pass-through grants to eligible recipients to carry out watershed restoration activities as described below. The Department must award at least 50% of the federal grant to projects that implement approved watershed based plans. The remainder of the pass-through amount can be used for other nonpoint source (NPS) related projects. The Department has also received discretionary funds that are for specific, dedicated purposes, as described below.

The Department intends to award these pass-through grants for projects which advance Comprehensive Water Resource Management (CWRM). Under CWRM, the Department will evaluate the water resources management issues of each region to ensure that identified problems are addressed comprehensively and holistically, with the most efficient and effective use of both regulatory and non-regulatory tools and partnerships, to achieve measureable environmental outcomes. The Department, along with its partners, invested significant resources in characterizing the causes of water quality impairments in several watersheds and has found that reducing NPS pollution will be key to meeting water quality objectives in those watersheds. In addition, there are also overarching issues, specifically, addressing combined sewer overflows (CSOs) and improving resiliency to storm events like Superstorm Sandy, which will be advanced by

implementing NPS reduction strategies, including green infrastructure, living shorelines and environmental education. Therefore, under this request for proposals (RfP), the Department is requesting proposals from organizations and governmental entities for the purpose of implementing: (1) approved watershed based plans or total maximum daily loads (TMDLs) in the Barnegat Bay and the non-tidal Raritan River Watersheds, (2) green infrastructure projects within drainage areas that are hydraulically connected to areas with documented CSOs and environmental education initiatives that advance these goals or (3) natural solutions, such as the creation of living shorelines, to address erosion and water quality issues as an alternative that adds diversity to other shore protection measures in tidally influenced areas. Approved watershed based plans in the Barnegat Bay and non-tidal Raritan River Watersheds are listed below in Table 1.

Table 1: Approved Watershed Based Plans*

Plan Name	Watershed	Lead Entity
Mulhockaway Creek	Non Tidal Raritan River	New Jersey Water Supply Authority
Neshanic River	Non Tidal Raritan River	North Jersey RC&D
Pleasant Run and Holland Brook	Non Tidal Raritan River	Township of Readington
Sidney Brook	Non Tidal Raritan River	Township of Union
Sourland Mountain	Non Tidal Raritan River	Township of East Amwell
Metedeconk River	Barnegat Bay	Brick Township MUA

*For more information on the approved watershed based plans listed in Table 1 please contact Dave McPartland at (609) 633-1441 or David.McPartland@dep.state.nj.us.

In addition, the Department has received discretionary 319(h) funds for two projects:

- (a) \$323,000.00 for developing a living shoreline design for the area adjacent to the Harrison Avenue Landfill at the mouth of the Cooper River in north Camden where it is determined to have the greatest beneficial impacts on water quality, habitat quality, and coastal resiliency; building support for living shorelines among community groups and local decision makers through project-related education/outreach; training and engaging the local community in freshwater mussel monitoring; and, quantifying the contribution of endemic freshwater mussel populations in water quality improvements.
- (b) \$200,000.00 to assist in the rehabilitation of Berkeley Island County Park, maintained by Ocean County Parks and Recreation. As a result of Superstorm Sandy, Berkeley Island County Park sustained severe damage and the south shore suffered an additional loss of shoreline. The funding for this project would assist the rehabilitation of this highly utilized park by using living shorelines to protect the southern shore of the park thus restoring ecological and water quality benefits of a wetland ecosystem within Barnegat Bay. The length of shoreline to be restored as a living shoreline through this project is

up to 500 feet. It also serves as a valuable opportunity to educate the public about the role and value of living shorelines in the Barnegat Bay.

3. ELIGIBILITY REQUIREMENTS

3.1 ELIGIBLE ENTITIES

Entities that are eligible to receive 319(h) funds include:

- Municipal planning departments or boards, health departments;
- County planning departments or boards, health departments;
- Designated water quality management planning agencies;
- State, regional and local government units entirely within New Jersey;
- State government agencies, 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.

3.2 ELIGIBLE ENTITY CAPABILITIES

In order for eligible entities to qualify for 319(h) grant funds, they must possess all of the following, as demonstrated through information provided in the proposal:

- Staff and resources with the capability, expertise, and environmental experience to perform the proposed work;
- The ability and authority to implement the proposed project(s);
- The ability to establish and maintain partnerships to ensure project implementation as well as long-term operation and maintenance/management.

3.3 PROJECT ELIGIBILITY REQUIREMENT

Projects must take place on land that is either publicly held or has an established maintenance agreement to protect the public investment of funds. Implementation projects shall not be located on private property, unless permanent viability is assured through a maintenance agreement. Refer to Appendix F for maintenance plan guidance.

3.4 INELIGIBLE ACTIVITIES

Section 319(h) NPS funds may not be used for any of the following purposes:

- Purchase of land or major capital improvements;
- Purchase of promotional items;
- Implementation of any permit or permit application requirements of federal, state, or local agencies, including the implementation of activities required by the NJPDES regulations, including municipal stormwater permit requirements;
- Department permit fees;
- Maintenance activities such as street sweeping, catch-basin cleaning;
- Projects which address symptoms rather than causes or sources;

- Point-source related projects;
- Dredging of lakes or ponds, except through Departmental recommendation where dredging is being proposed as a terminal solution in a watershed protection plan;
- Any other ineligible activities based on current USEPA guidelines for Section 319(h) grants.

3.5 ADDITIONAL CONSIDERATIONS FOR ELIGIBILITY

For implementation proposals, the applicant is expected to carry out sufficient preliminary investigation to provide reasonable assurance that the proposed implementation project is viable as an effective means to achieve the stated objective and can receive necessary State and local permits that may be required based on the type and location of the proposed activity. For example, if a catch basin retrofit is proposed for a particular road, the project should be reviewed with municipal/county or other appropriate professional(s) regarding conflicts with other infrastructure (i.e. sewer pipes, water supply lines, etc.) related to the size and location of the proposed device. If green infrastructure is proposed in a CSO served drainage area, the applicant must coordinate with the CSO regulated entities to ensure the proposal is consistent with any permit requirements or approved plans for addressing CSOs.

If the applicant proposes a riparian buffer restoration project, it should be designed (in terms of width and vegetation selection) to attain the maximum possible removal rates of the identified pollutant(s) while considering site conditions. If a riparian buffer project is proposed at a site where a resident goose population is the source of the pollutant of concern, goose deterrent plantings must be incorporated in the proposal. In addition, the development of a goose management plan is recommended.

Where project proposals involve installation of manufactured treatment devices (MTD), the devices shall be certified by the New Jersey Corporation for Advanced Technology (NJCAT) and verified by the Department as to removal efficiencies. Information regarding NJCAT certification can be found at <http://www.nj.gov/dep/stormwater/treatment.html>.

Successful applicants will be required to obtain written authorization from the Department prior to proceeding with purchase of the MTD(s). This written approval must be obtained in order to ensure that costs associated with purchase and construction of the MTD(s) are eligible for reimbursement under the grant contract. Failure to obtain this approval will render costs associated with the MTD(s) ineligible for reimbursement under the grant contract.

4. SELECTION OF PROJECTS

To be considered for funding, a proposal must be complete and timely in accordance with Section 1, address the funding priorities of Section 2, meet the eligibility requirements of Section 3, and adhere to the format and contain the components identified in Sections 5.

Applications compliant with Sections 1, 2, 3 and 5 will be reviewed by the Department for eligibility and technical soundness and prioritized based on degree of support of objectives articulated in Section 2.

Based on the initial screening of applications, a short list of applications will be developed for further consideration, considering the pool of projects relative to the amount of funds available. Applicants whose projects are considered to be eligible, found to be substantively technically sound and best align with funding priorities will be selected for the short list. In some cases, minor adjustments in the project may be requested to improve technical soundness and support of funding objectives.

Those projects that will not be considered further either because they fail to meet the specifications of the RfP or because there is insufficient funding will be notified in writing by the Department. All applicants will be notified about the status of their submitted projects on or before April 25, 2014.

Applicants who are notified that they have passed the initial screening process will be requested to submit a revised proposal (one hard copy and in electronic form) that addresses all issues identified in the review letter, if any, and includes a revised scope of work suitable for potential contract execution, as well as formal commitments from all applicable parties. The due date for submittal of revised proposals will be specified in the review letter.

The Department will evaluate the complete and timely revised applications and rank in accordance with the Project Evaluation Criteria contained in Appendix B. All applicants will be notified in writing whether their proposal has been dismissed or recommended for funding.

Once applicants have been notified of the Department's intent to fund a specific project, they will be required to submit all contract development forms by June 20, 2014. Failure to adhere to this deadline may result in an immediate reallocation of funds to other suitable projects.

Table 2: Grant Processing Schedule

Action	Responsibility	Deadline
Full Proposal Submission	Applicant	2/21/14
Funding Recommendations	Department	On or before 4/25/14
Completion of Contract Execution Forms	Applicant	6/20/14

5. REQUIRED ELEMENTS FOR A COMPLETE PROPOSAL

The proposal must include a scope of work, maximum of ten pages, which includes a detailed description of the project, the environmental benefit that will be achieved by the project, and how effectiveness will be measured.

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

All pages of the submitted hard copy proposal must be printed and formatted for 8.5" X 11" paper. Supplemental information may be submitted in a larger format if necessary.

The following sections describe the specific elements that must be included in all proposals. For more information regarding Sections 5.1 through 5.5, see Appendix A.

5.1 COVER PAGE

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

5.2 ABSTRACT

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

5.3 APPLICANT DESCRIPTION

A description of the applicant and the applicant's ability to complete the project must be included. Indicate whether this entity or any partners have received previous CWA section 319(h) grant funding. If so, include all grant contract date(s), project title(s), expiration date(s) and grant identification number(s) in an appendix referenced in this section.

5.4 PROJECT DESCRIPTION AND IMPLEMENTATION SCHEDULE

Describe why the project is needed, the scope of the problem, and/or current condition of the targeted water body. Identify the source used to determine the condition, e.g., latest Integrated Report, TMDL, Watershed Based Plan. Define the desired result that this project will seek to achieve.

Identify the stressors/sources that cause or contribute to the environmental condition that will be addressed. Explain how and to what degree implementing this project will address the root cause stressors/sources of the problem. The proposed project shall be described in terms of the goals, objectives and tasks of the project.

Goals should be clearly presented for each type of implementation project, followed by the related project objectives. Tasks must be laid out in order to present a

clear path to achieving the objectives. 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 time frame for achieving the objective.

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

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

Provide a task schedule that lists outputs or deliverables associated with each task, the party responsible for and time duration associated with completing the tasks for the total duration of the project from commencement to completion (usually between two and five years). The schedule should include sufficient time for: administrative start-up, monitoring needs [including Quality Assurance Project Plan (QAPP) development and approval, if monitoring is found to be appropriate (see Section 7.1), considering seasonal or flow conditions that may be important to the sampling design], all required paperwork and legal review, permit acquisition if needed, project completion and evaluation of the outcome, and preparation and submission of the final report. The format for the schedule should adhere to the following:

Table 3: Project Implementation Schedule

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

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

The following supporting documentation is required to be submitted in attachments to the scope of work:

- Dated USGS topographic map with project area delineated;
- Dated Lot and Block tax map with project area delineated;
- 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.

5.5 BUDGET

Both a detailed budget describing how **costs per work task** will be broken down and a more generalized budget adhering to the following categories must be provided within the project proposal.

General Budget Categories

- Personnel Costs (Salaries and Benefits) Note: if students will be performing work, tuition is not eligible for funding;
- Consultants and Subcontractors;
- Travel @ 0.31 cents per mile;
- Administration (rent, phone, etc.) Note: may not exceed 10% of the amount requested;
- Construction (for example, to implement a BMP);
- Equipment (list must be provided). Note: Equipment acquired with grant funds must be surrendered to the Department at the completion of the project, prior to or with the submission of the Final Report, as described in Appendix E.
- Audit
- Indirect Costs

5.6 MONITORING AND EVALUATION INFORMATION

All proposals must include a description of how attainment of project objectives will be measured or demonstrated. The means to demonstrate attainment must be appropriate to the project type and environmental outcome expected. Some examples include: an improving trend in a related biological indicator/index, improving trend in water quality, a delisting of the affected waterbody, or a calculated evidence of pollutant load reductions using predictive models such as the USEPA Spreadsheet Tool for Estimating Pollutant Load (STEPL). The Department maintains a comprehensive ambient monitoring program that is used to make determinations regarding water quality impairment. Improving trends in water quality and/or indicators are most appropriately determined using that network, and not through a separate ambient monitoring design. Projects that include a BMP that includes a discrete inlet and outlet may warrant a specific monitoring plan to determine effectiveness at reducing NPS by the BMP. If water quality monitoring is proposed as the means to demonstrate effectiveness, the

Department must approve this proposal. For such projects, a QAPP will be required to be developed and approved by the Department prior to project initiation. Refer to Appendix C and EPA's website: <http://www.epa.gov/quality/> for QAPP requirements.

As a condition of grant award, all grantees must fulfill the USEPA Grant Reporting and Tracking System (GRTS) requirements and conform to the USEPA STEPL requirements to determine load reductions (Appendix E). The STEPL model and documentation may be found at <http://it.tetrattech-ffx.com/stepweb/>. Time for performing this required element must be factored into the schedule and budget.

5.7 OTHER ELEMENTS OF A 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 (time, money, effort) or it will not be considered as a letter of resource commitment. 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 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 from the landowner agreeing to execution of the project on their property will be required before any contract is executed with the State.

Ownership/Proprietary Rights, Data and Geographical Information System (GIS) Requirements

All information generated during the course of each 319(h) project, or materials purchased through 319(h) funds, must be provided to the Department in an acceptable format at the conclusion of the project. This includes data collected, maps generated, and all equipment (such as computers and GPS units) purchased with these grant funds.

Depending on data type, the Department may require entry of the data in a web-based system or via populated spreadsheets. All projects involving activities using a GIS data or mapping component must follow the Department's 2013 *Mapping and Digital Data Standards* www.state.nj.us/dep/gis/standard.htm

Coordination of Project Permitting

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

Maintenance Agreement

In order to ensure the success of any NPS implementation project funded by a 319(h) grant, a Maintenance Agreement must be submitted prior to in-the-ground installation of any BMPs. The agreement must identify the entity or entities 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.

6. REPORTING REQUIREMENTS FOR PROJECTS SELECTED FOR FUNDING

6.1 QUARTERLY PERFORMANCE AND FINANCIAL REPORTS

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

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

6.2 FINAL REPORTS

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

7. OTHER REQUIREMENTS FOR ALL PROJECTS SELECTED FOR FUNDING

7.1 QUALITY ASSURANCE PROJECT PLAN (QAPP)

If the Department approves water quality monitoring as the means to demonstrate effectiveness of the project, a 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 a 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. 319(h) funds cannot be used to pay for these certifications.

7.2 REIMBURSEMENT FOR SERVICES

319(h) funds are provided in reimbursement for services rendered. Exceptions to this policy will be made only in extenuating circumstances and with prior Department approval.

7.3 NATIVE SPECIES

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

7.4 FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA)

The Federal Funding Accountability and Transparency Act (FFATA) requires information on federal awards be made available to the public via a single, searchable website, which is www.USASpending.gov. The intent of the Act 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, NJDEP can assist the Prime Awardee (grant recipient) with this reporting as needed.

B) _____
Status:

C) _____
Status:

D) _____
Status:

(Add additional Waterbodies with status as appropriate.)

Implementation Proposals

14) Implementation Project Name: _____

15) Name of Watershed Plan Project is Implementing: _____

16) Primary Waterbody Affected: _____

17) Type of NPS Implementation Project: _____

18) Primary Pollutant(s) Targeted: _____

19) Additional Pollutants Addressed: _____

Project Information

20) Grant Amount Requested: \$ _____

21) Project Duration in Months: _____

22) Local Match (+) \$ _____

23) Project Total (=) \$ _____

24) Legislative District Number(s): _____

- **Please do not include the following pages (3 & 4) of Appendix A with submitted proposal.**

Description of Elements found on Cover Sheets

Applicant Organization (Lines 1-3) - is the eligible entity applying for 319(h) funding. Fill in the organization's name, address, fax, and phone number.

Applicant Contact Person (Lines 4-6) is the person in that eligible entity that can be contacted for additional information. The contact person may not be an independent contractor. On the lines provided, include the contact's name, title, phone number, and e-mail address.

Consultant Contact Person (Lines 7-10) – is the independent contractor providing professional services regarding the grant application. This information should be provided if the applicant prefers that the Department work directly with the consultant regarding the grant application. Please provide contact name, address, phone, and email information.

WMA (Line 11) - is the watershed management area that contains the proposed implementation project or planning watershed. Both the WMA number and name should be included.

HUC 14(s) (Line 12) - is the 14-digit hydrologic unit code(s) of the subwatershed(s) contained in the proposed project area. Both the HUC 14 number and name should be included.

List of All Named Waterbodies in Project Area (Line 13) - is a complete list of all named waterbodies in the proposed project area. This section must be supplemented with an appendix that includes the complete report on the condition of each waterbody listed in the most recent *New Jersey Integrated Water Quality Monitoring and Assessment Report*.

Implementation Project Name (Line 14) - is a concise statement of the particular nonpoint source implementation project proposed. The name should not include “A Proposal for” or “An Application for” in the title.

Watershed Plan Project is Implementing (Line 15) - is the name and approval date of the New Jersey Department of Environmental Protection-approved watershed-based plan that specifically describes the need for the proposed project.

Primary Waterbody Affected (Line 16) - is the waterbody that is the target of the nonpoint source implementation project. Water quality improvement will be achieved in this waterbody through the implementation of the proposed project.

Type of NPS Implementation Project (Line 17) is a general category by which the proposed implementation project(s) can be described, (i.e. stormwater BMP, streambank restoration etc.).

Primary Pollutant(s) Targeted (Line 18) - is the reason the nonpoint source implementation project is being proposed. List them. The abatement of this pollutant(s) is the main focus of the project.

Additional Pollutants Addressed (Line 19) - are pollutants that will be addressed by the nonpoint source implementation project that are secondary to the primary targeted pollutant(s).

Grant Amount Requested (Line 20) - is the amount of funding sought from the 319(h) Grant Program.

Project Duration in Months (Line 21) - 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.

Local Match (Line 22) - is the amount of local funding dedicated to the project.

Project Total (Line 23) - should equal the total amount necessary to complete the proposed project.

Legislative District Number(s) (Line 24) - is a list of state legislative districts found within the proposed planning or implementation area.

Standard Format for Project Proposals

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

1. **Application cover sheet** – Pages 1 and 2 above;
2. **Brief project background summary information;**
3. **Brief summary of the overall project goals and objectives;**
4. **Applicant description** – must demonstrate experience and expertise with completing and/or project management oversight for the type of project(s) proposed, including a description, estimated amount and type of in-kind contributions proposed by applicant. This section must also include a list of project partners, including estimated amount and type of in-kind contributions proposed by the project partners. In-kind contributions are not required, however projects with in-kind contributions and partner support could receive a higher priority;
5. **Project Goal, objectives, tasks (under each objective), and corresponding task deliverables** (required for each task);
6. **Implementation schedule by objective** - required table format:

Project Objective 1: Completion Month #:					
Task	Responsible Party	Timeframe	Project Deliverable	Anticipated Start Month	Anticipated Completion Month
#1					
#2:					
#3:					
#4:					

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

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

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

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

Appendix B
Division of Water Monitoring and Standards
Bureau of Environmental Analysis, Restoration and
Standards
SFY 2014 319(h) Grant Project Evaluation Criteria

1. Eligible Projects

The Department intends to award pass-through grants for projects which advance Comprehensive Water Resource Management (CWRM). Under CWRM, the Department will evaluate the water resources management issues of each region to ensure that identified problems are addressed comprehensively and holistically, with the most efficient and effective use of both regulatory and non-regulatory tools and partnerships, to achieve measureable environmental outcomes. The Department, along with its partners, invested significant resources in characterizing the causes of water quality impairments in several watersheds and has found that reducing nonpoint source (NPS) pollution will be key to meeting water quality objectives in those watersheds. In addition, there are also overarching issues, specifically, addressing combined sewer overflows (CSOs) and improving resiliency to storm events like Superstorm Sandy, which will be advanced by implementing NPS pollution reduction strategies, including green infrastructure, living shorelines and environmental education. Therefore, under this request for proposals (RfP), the Department is requesting proposals from eligible entities for the purpose of implementing:

A) Approved Watershed-Based Plans and TMDLs in the Barnegat Bay and the Non-tidal Raritan River Watersheds

Projects that are identified in a Department approved watershed-based plan or adopted TMDL in the Barnegat Bay and the Non-tidal Raritan River Watersheds will fit this category. Funding priority will be given to projects that are identified and detailed in Department approved watershed-based plans and that meet the following criteria:

Implement in whole or in part an approved Watershed-Based Plan or TMDL in the Barnegat Bay and the Non-tidal Raritan River Watersheds. Higher priority will be given to those proposals that, upon implementation, are expected to result in achieving the Surface Water Quality Standards for all impairments (excluding PCBs and metals) that were listed in the *New Jersey 2002 Integrated Water Quality and Assessment Report* for the subject waterbody.

Additional funding priority will be given to projects that are identified and detailed in Department approved watershed-based plans in the Barnegat Bay and the Non-tidal Raritan River Watersheds that address impairment(s) found on Sublists 4 or 5 of the *New Jersey 2002 Integrated Water Quality Monitoring and Assessment Report* that are currently still listed as impaired (Sublist 4 or Sublist 5) on the most recent *New Jersey Integrated Water Quality and Assessment Report*.

B) Green infrastructure/ CSO Abatement, Environmental Education

Projects that will implement green infrastructure BMPs in watersheds with documented CSOs will be given funding priority. Environmental education initiatives that advance these goals will also be given priority for funding.

C) Living Shorelines

Natural solutions, such as the creation of living shorelines, to address soil erosion and water quality issues as an alternative BMP that adds diversity to other shore protection measures in tidally-influenced areas.

2. Project Design

A) Nature, Extent, and Understanding of the NPS Problem

Consideration will be given to the description of, as well as the actual nature and extent of, the NPS pollutant(s) to be addressed, and the applicant's description of how the project will address the NPS impairment(s).

B) Project Viability

Projects will be evaluated for their ability to achieve high levels of pollutant load reduction, as well as the long-term sustainability of high removal levels and overall likelihood of project success. Projects should be well-designed to achieve the project goal, presented in the proper sequence of events (goal/objective/task) and have well thought-out, long-term commitment to maintenance and monitoring. Permitting considerations and environmental constraints will also be considered under this subheading. Those proposals that have greater background investigation regarding the viability of a project will receive priority over projects that have not conducted such preliminary background verification on-site.

C) Cost Effectiveness

Overall project costs will be evaluated based on the maximum expected load reduction per dollar spent as well as average costs for products and services proposed.

3. Applicant Resources, Ability, Past Performance, and Presentation

Applicants must demonstrate that they have all the necessary resources and ability to perform the proposed project in a well-organized, concise, detailed project proposal. If the applicant or the submitting entity or project partners have previously received funding from the Department, past performance will be taken into consideration. Timeliness, cooperation with Department staff and partners, and goal achievement will be considered.

4. Project Partners

All applications shall be evaluated based on the degree to which they have developed the partnerships necessary to achieve the goals and objectives of the proposal.

5. Evaluation and Management

Proposals must describe the ability to measure and document effectiveness of the project and the long-term management of the environmental improvement achieved. EPA's STEPL load reduction

model is the tool of choice for this analysis, but may be supplemented by other means of estimating effectiveness. Details on STEPL can be found at: <http://it.tetrattech-ffx.com/steplweb/>

6. Other Funding/ In-Kind Services

Although a match is not required for projects to be funded, in-kind services weigh greatly in the Department's evaluation of each project. This type of support demonstrates a long-term commitment to overall project success. The percentage of matching funds to be supplied by the applicant will also be a factor. The BMPs to be implemented for all implementation projects should be determined based on maximum pollutant removal with consideration of the maintenance requirements of the particular BMPs.

Appendix C
Division of Water Monitoring and Standards
Bureau of Environmental Analysis, Restoration and
Standards

Quality Assurance Project Plan (QAPP)
Guidance for SFY 2014 319(h) Nonpoint Source
Projects

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 task 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 319(h) 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 319(h) 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 319(h) Project Manager to make those arrangements.

The 319(h) 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/>.

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 319(h) 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: _____

319(h) Grantee

Reviewed by: _____ Date: _____

NJDEP Staff, 319(h) Project Manager

Division of Water Quality, BEARS

Reviewed by: _____ Date: _____

Bureau QAPP Reviewer

Division of Water Quality, BEARS

Reviewed by: _____ Date: _____

Section Supervisor

Division of Water Quality, BEARS

Approved by: _____ Date: _____

Marc Ferko, NJDEP Quality Assurance Officer

Office of Quality Assurance

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

Section 2: Distribution List

The Distribution List includes individuals and their organizations that need copies of the approved QAPP and any subsequent revisions. See Table 3.1 below.

Table 2.1: Distribution List for QAPP and QAPP Revisions

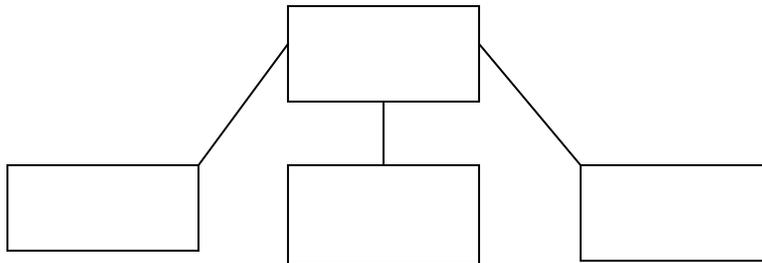
Name	Organization	Address	e-mail
Project Manager			
QA Officer			
Laboratory			
Grantee			
319(h) Project Manager	NJDEP – Division of Water Monitoring and Standards, BEARS	401 E. State Street P.O. Box 420 Mail Code 401-03 Trenton, NJ 08625-0420	Fname.Lname@dep.state.nj.us
Bureau QAPP Reviewer	NJDEP – Division of Water Monitoring and Standards, BEARS	401 E. State Street, P.O. Box 420, Mail Code 401-037D, Trenton, NJ 08625-0420	
Section Supervisor	NJDEP – Division of Water Monitoring and Standards, BEARS	401 E. State Street, P.O. Box 420, Mail Code 401-037D, Trenton, NJ 08625-0420	
Marc Ferko	NJDEP – Office of Quality Assurance	PO Box 424 9 Ewing Street, 2nd Flr. Trenton, NJ 08625-0424	marc.ferko@dep.state.nj.us

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 3.1: 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.**

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

Table 5.1 Sample Locations and Rationale

Location I.D.	Name	Justification

5.2 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 DEP approval.

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

5.3 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 5.2 Summary of Monitoring Design

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

5.4 Schedule:

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

Table 5.3: 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 8.1 Sample Handling and Custody

Parameter	Container	Volume	Initial Preservation	Holding Time

Section 9: Sampling Method Requirements

Table 9.1 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 10.1 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 11.1 Instrument Calibration Table

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

List equipment and provide testing, inspection and maintenance information in narrative form or in Table 11.2 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 11.2 Testing, inspection, maintenance of sampling equipment and analytical instruments

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

Section 12: Quality Assurance and Quality Control

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

Section 13: Documentation and Records

Submit a CD with the approved QAPP, all monitoring data in Excel, including explanations of anomalies and Summary Report. Describe the process and responsibilities for ensuring the appropriate project personnel have the most current approved version of the QAPP, including version control, updates, distribution and disposition.

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

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

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

List of Figures

List of Tables

List of References

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)

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

SFY 2014 319(h) Quarterly Reporting Requirements

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

Title Page or Cover

Title of Project

Grant Project WM Number

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

Report Period and Quarter Number

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

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

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

Additional Information:

- Summary of Activities Planned in Next Project Period
- Attachments (as appropriate)
- Surveys
- Monitoring data and/or results
- Attendance sheets

All Quarterly Reports Must Include an Expenditure Report

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

Appendix E
Division of
Water Monitoring and Standards
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Standards

SFY 2014 319(h) Final Report Requirements

The final report must include the following information:

1) Front Cover /Title Page

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

2) Executive Summary

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

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

3) Evaluation Approach and Methodology

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

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

4) Results of Project and Evaluation

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

- A summary of results
- A detailed evaluation of findings, including relevant tables, graphs, charts
- A breakdown of findings by relevant variables
- An integration of results from multiple qualitative and quantitative data sources
- A statement of implications of the project
- Specific recommendations for future action
- Suggested means for disseminating project results, including technology transfer
- A description of strategies for assuring utilization of project results
- Submission of as-built plans for implementation projects

5) Appendices

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

- One hard copy – complete
- One CD with the final report and any appendices, in a pdf format if possible, but all maps and tables should be included in one report. A separate Word document on this CD will also be necessary to allow for editing prior to posting on websites or other acknowledgments.
- One CD with all GIS projects including all associated files used to create the projects and the metadata. This should not be a pdf. The map should be saved as “store relative path names”. Please include with this all associated files necessary to open and view the map. This CD should also include a narrative explaining what the individual maps are showing. Metadata is required with the mapping.
- A list of all equipment purchased (with associated specification) under the grant and the date in which they were returned to the Department.
- One CD with all digital pictures related to the grant with some key to decipher each picture both spatially and temporally. You should include the photographer’s name and WM# so that credit may be given. This CD 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. WM14-XXX post-imp stormwater)
- Any and all material developed as part of the grant. For example, if an educational brochure was created or a sampling manual or maintenance manual was developed these should be submitted with all other like materials on a separate CD titled Deliverables.
- On a separate CD titled Implementation (if appropriate), please provide all installation information, including: site plans; plants; pictures; monitoring data; pollutant removal estimates based on both theoretical and monitoring data; and any issues that were encountered (for example the road does not have sufficient space with the infrastructure already in the road), the decisions that were made, problems encountered, solutions and how these solutions changed the project, permit issues, and the water quality improvement achieved based on both STEPL and monitoring data. Specific projects will have varying information to include. Please include any other information that

would be important to understand from beginning to end what occurred during the implementation of the project.

- ☑ A separate CD (Data CD) with all raw data in usage format. A copy of the approved Quality Assurance Project Plan (QAPP) should be included on this CD. Any comments or considerations should also be included on this CD (data point for site b on 8/2/2014 was considered an outlier because ...) and a brief summary of data (this will probably be contained in your final report and should just be copied/pasted here also).
- ☑ Success Story in approved EPA format (Section 6 of this appendix). This should be submitted digitally on the Final Report CD, along with the hard copy.
- ☑ STEPL load and load reduction calculations should be submitted as a spreadsheet for all implementation projects on the Data CD. Any decisions should be clarified within the spreadsheet. STEPL is a relatively low technology model endorsed by USEPA for the determination of loads and potential load reductions within a watershed. Information regarding this model may be found at <http://it.tetrattech-ffx.com/steplweb/>. Detailed information will be provided upon award of a grant contract.

6) EPA Success Stories: Format and Content for Section 319 Success Stories

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

I. TITLE

- (1) 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:

Cobboossee Lake (short for Cobboosseecontee), 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, Cobboossee Lake is also a secondary source of drinking water for Maine's capital—Augusta.

In the 1960s water quality in Cobboossee 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 Cobboossee 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 Cobboossee. 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 Cobboossee Lake.

The Total Maximum Daily Load (TMDL) assessment developed for Cobboossee 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 Cobboossee 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?
- (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 $\mu\text{g/L}$ to 10 $\mu\text{g/L}$, and the lake will be removed from the state's 303(d) list in the next listing cycle. Farmers' participation in nutrient management planning should reduce nutrient delivery from cropped areas in the watershed even further.

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

Example 3:

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

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

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

Example 4:

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

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

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

VI. PARTNERS and FUNDING

- (1) List specific partners who contributed to the improvements in the waterbody.
- (2) List specific amounts of section 319 dollars dedicated to the project (mention total amount over the lifetime of the project).
- (3) What did the section 319 dollars support?
- (4) If section 319 grant money was not used for the project, please describe the involvement in this project by any staff member who works in the states' nonpoint source program, if applicable. Additionally, was the project patterned after any other projects that have been funded by section 319(h) The objective here is to try and link 319 program elements to the success of the project.
- (5) Identify other matching sources of funding (e.g., state agricultural funds, USDA/EQIP, SRF, 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 nonpoint source 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.

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.

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.

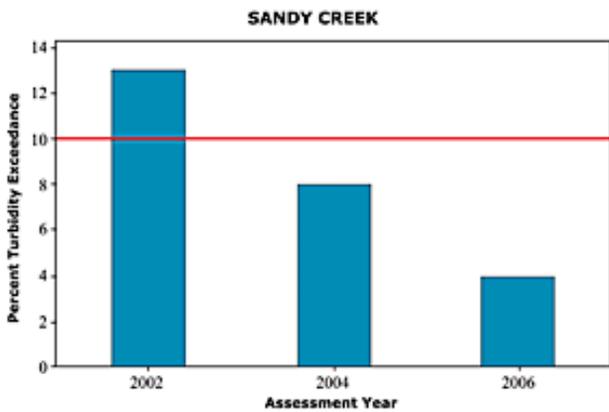
Example 1:

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

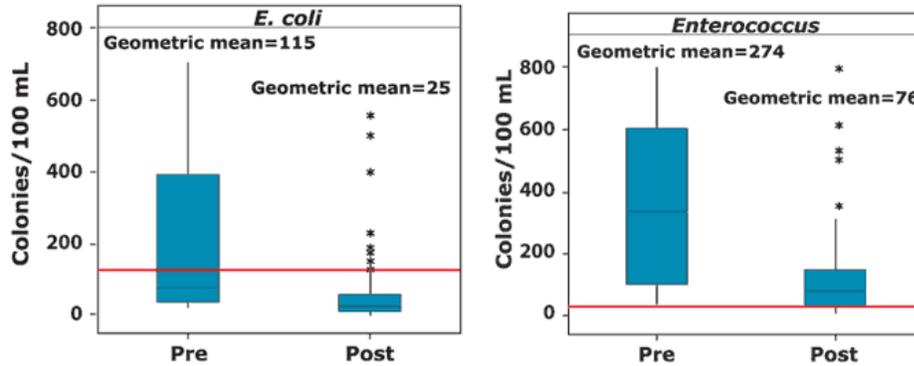
* Vermont Class B Guideline for EPT was 18.0 until the state changed it to 16.0 in 2002.

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 preceding 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.

CONTACT INFORMATION:

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

Appendix F
Division of
Water Monitoring and Standards
Bureau of Environmental Analysis, Restoration
and Standards
319(h) Project Maintenance Plan Guidance

Maintenance Plan Contents

All maintenance plans for 319 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 the BMP. If the plan identifies a party other than the owner as having responsibility for maintenance, i.e., a public entity or homeowners' association, 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 BMP 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, 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 Procedures

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 should also be provided to the NJDEP Project Manager for the project file and any other entity deemed necessary by the NJDEP Project Manager and/or the Grantee (i.e. - 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.