UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Mr. Mark Klotz
Director, Division of Water
New York State Department of
Environmental Conservation
625 Broadway
Albany NY, 12233-3500

Re: EPA Region 2 Approval of 2020-2025 New York Nonpoint Source Management Program

Dear Mr. Klotz:

Thank you for your March 5, 2020 submittal of the final 2020-2025 New York Nonpoint Source Management Program. The EPA has reviewed this document in accordance with the April 12, 2013 *Nonpoint Source Program and Grants Guidelines for States and Territories*, which specifies that revised Nonpoint Source Management Programs be submitted to the EPA for review and approval by regional Water Division Directors.

EPA Region 2 has determined that the 2020-2025 New York Nonpoint Source Management Program contains the required elements described in the November 2012 guidance document *Key Components of an Effective State Nonpoint Source Management Program*, and therefore approves this document. The EPA looks forward to working with New York State's Nonpoint Source Program staff to ensure that annual Section 319 workplans are developed in accordance with the goals and objectives identified in the revised document.

Along with approving this update, I would like to commend the New York State Department of Conservation for its commitment to provide significant state funding to implement its Nonpoint Source Program through the Performance Partnership Grant and as documented in the EPA's Nonpoint Source Program's Grants Reporting and Tracking System (GRTS). I would also like to highlight the New York State Department of Conservation's approach to manage nitrogen and phosphorus based water quality impacts and the identification of the following as priorities: the Susquehanna-Chemung Basins Tributary to the Chesapeake Bay, Lake Champlain, Lake Ontario-Genesee River, Long Island Coastal Waters, New York City Water Supply Watershed, and the Finger Lakes.

We appreciate the ongoing efforts of you and your staff to address nonpoint source concerns in our Nation's waterways. If you have any questions on this matter please feel free to contact me at 212-637-4125, or your staff may contact Ms. Aimee Boucher at 212-637-3837.

Sincerely,

Javier E. Laureano
8/11/2020 5:11pm NY, NY

Javier E. Laureano, Ph.D.
Director
Water Division

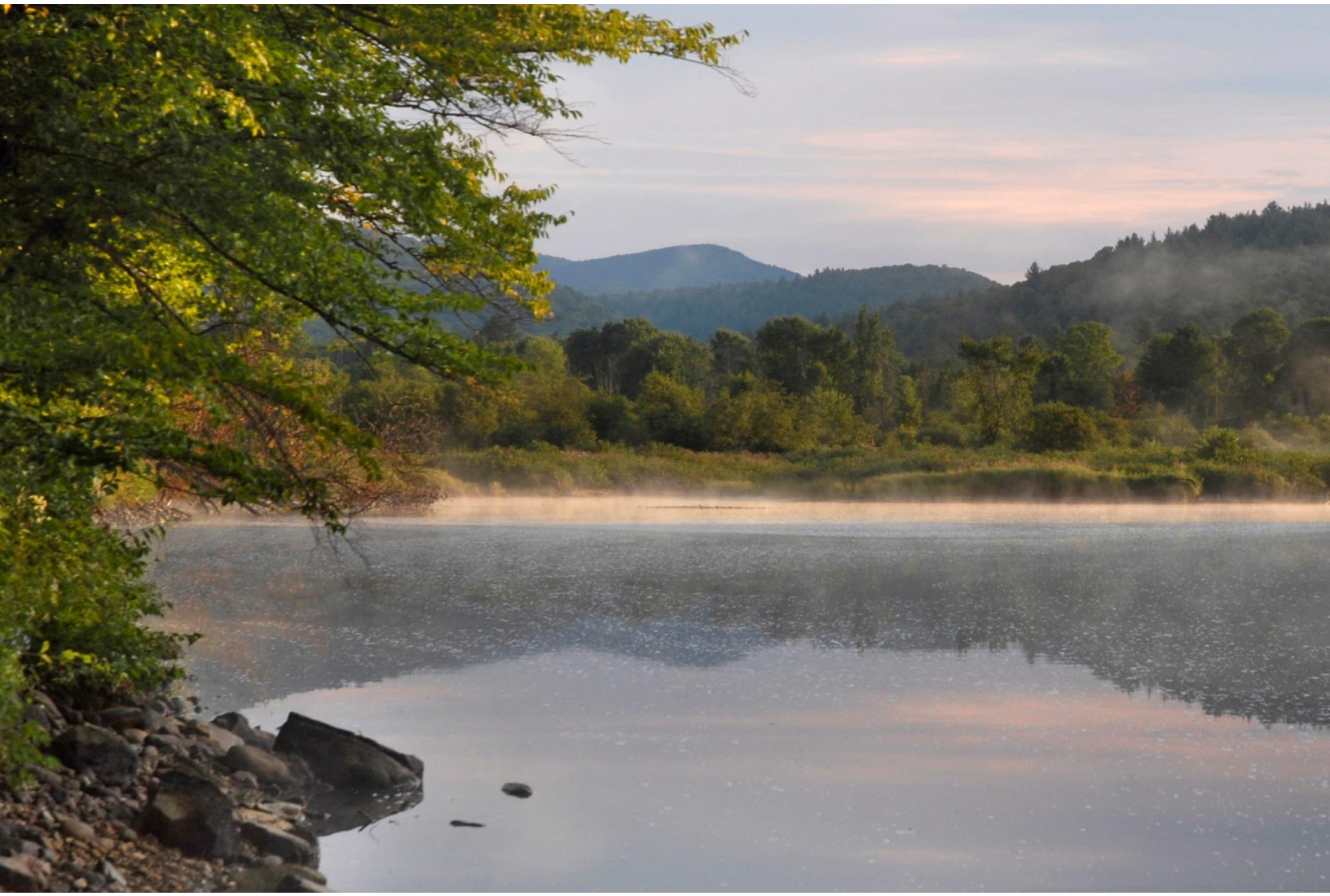
cc: Thomas Cullen, NYSDEC BWRM
Koon Tang, NYSDEC BWRM-NPSS

NEW YORK STATE OF OPPORTUNITY.

Department of Environmental Conservation

Nonpoint Source Management Program

FEDERAL FISCAL YEAR 2020 - 2025



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PREFACE

The New York Nonpoint Source Management Program (NPS Program) was originally adopted in 1990. It was updated in 2000 in accordance with criteria established by EPA in the 1997 guidance for Section 319 of the Federal Water Pollution Control Act (Section 319). On April 12, 2013, EPA issued the "Nonpoint Source Program and Grants Guidelines for States and Territories" (Guidelines) to assist states in updating their NPS Programs. On August 28, 2014, NYS submitted to EPA its updated 2014 NPS Program. EPA issued a letter of approval on September 22, 2014.

This report describes the 2020 - 2025 New York Nonpoint Source Management Program. Since 2002, New York State has committed approximately $271M from the Environmental Protection Fund to addressing nonpoint source pollution. New York has a long history of robust partnerships among agencies that participate in the state's Nonpoint Source Program. Primarily, these agencies include Department of State, Department of Agriculture and Markets, the Department of Health, and the New York State Department of Environmental Conservation (DEC).

The fundamental goal of New York's NPS Program is the same as in the 2014 Nonpoint Source Management Plan: comprehensive management of nonpoint pollutant sources in order to protect and conserve all waters of the state for beneficial uses. This goal is consistent with the primary goal for nonpoint source management programs established by Section 319.The focus of the 2020 Management Program's enhancement are:

- Increased Watershed plan coverage meeting EPA 9-element plan and TMDL criteria
- Effective best management practice (BMP) project implementation
- Restoration/delisting of impaired waterbodies;
- Improved BMP tracking and reporting to EPA

This NPS Program report is organized based on the eight key components of state NPS Programs identified by EPA in the November 2012 Guidelines, with each section corresponding to a separate Guidelines key component. Each section includes the key component statement from the Guidelines and describes New York's NPS Program elements related to the key component.

EXECUTIVE SUMMARY:

New York's Nonpoint Source (NPS) Management Program was updated to reflect the recommendations in EPA's 2013 Nonpoint Source Program and Grants Guidelines for States in 2014.

The program was established under the leadership of the New York State Department of Environmental Conservation, as the state lead agency for the Federal Clean Water Act Section 319 Program and many other closely related programs. Significant state agency partnerships and program roles are shared with

the New York State Department of Agriculture and Markets, the State Soil and Water Conservation Committee, the Department of State, the Department of Health, the Environmental Facilities Corporation, and the Department of Transportation. These state agency partnerships are complemented by regional and local partnerships, with special emphasis on county Soil and Water Conservation Districts, county health agencies, county and regional planning agencies, and watershed coalitions. Key federal agency partnerships include the Environmental Protection Agency, the Department of Agriculture, and the Department of the Interior.

New York's NPS Program goal is to control pollution from nonpoint sources to protect, maintain and restore all waters for all public beneficial uses, consistent with New York Environmental Conservation Law. New York's NPS program places highest priority on the management of sources of nutrients in the landscape, with significant priorities also assigned to management of pathogen and sediment sources. Toward this goal, New York has established a series of NPS Program objectives:

- **Develop Watershed Plans:** Develop watershed management plans, and other comprehensive and strategic plans to improve the management of nonpoint pollution sources on a watershed basis.
- **Implement Watershed Projects:** Implement nonpoint source watershed projects, including best management practices (BMPs) and other actions which serve to control or reduce the impact of nonpoint source pollution or pollutants on waters of the state.
- **Monitor Water Quality:** Assess the quality of waters of the state related to nonpoint source pollution.
- **Protect and Restore Waters:** Protect and maintain unimpaired waters of the state from additional nonpoint source pollution and restore or prevent further degradation of waters of the state impaired by nonpoint source pollution.
- **Integrate NPS Management into Other Programs:** Integrate management of nonpoint pollution sources into applicable state and local agency programs (including both regulatory and non-regulatory programs), and provide overall policy coordination among state, local and federal agencies.
- **Provide Guidance and Technical Assistance:** Develop and maintain the capacity of state, regional and local agencies and organizations to provide nonpoint source management assistance to communities and landowners through assessment, planning, technical support and education.

New York's comprehensive approach to nonpoint source management, through the contributions of all state and local agency partners, has made significant progress since the initial establishment of the program. A diverse range of watershed management plans have been developed for watersheds of priority waters throughout most regions of the state. A major Agricultural Environmental Management Framework has been established to develop strategies and implement field practices to reduce nonpoint source pollution from agriculture. State funding programs have also been established to aid municipalities for non-agricultural NPS management practice and green innovation projects.

New York State financial assistance to implement watershed projects, including both agricultural and non-agricultural nonpoint source management practices, has supported over 1,200 grant projects since 1994, with over $215 million of state funds. Through these efforts, a network of state, regional and county agencies throughout the state has developed the expertise and technical capacity to assist landowners and municipalities in reducing pollution from nonpoint sources.

These efforts, in combination with other environmental quality efforts, have accomplished the continued protection of public water supply sources and groundwater aquifers serving over 20 million New York residents. They have served to maintain the water supplies of New York City and Syracuse without requiring further filtration, potentially saving their citizens many billions of dollars. EPA's Section 319 Nonpoint Source Success Stories website has documented nine case studies demonstrating successful restoration of New York waters impaired by nonpoint source pollution, resulting from the combined efforts of New York State agencies, local agencies, and landowners. With continued support and widespread adoption of improved management practices, the pollution entering New York's waters from residual nutrients in soils and other nonpoint sources is expected to diminish, leading to gradual improvements in water quality across most watersheds.

New York's updated NPS Program places special emphasis on several initiatives:

- **Enhance Watershed Planning:** New York is committed to further enhancement of watershed-based plans, consistent with the elements described in the 2013 EPA Guidelines. The New York Department of Environmental Conservation will address these elements in plans completed under its direct control and will assist independent local and regional planning entities toward this goal.
- **Add New Tools for Reduction**: New York is committed to supporting new tools for NPS reductions, including tools set forth in "Diet for a Small Lake" (NYS Federation of Lake Associations, 2009) and "Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems" (EPA, 2005), and developing innovative septic system with increased nitrogen removal technology.
- **Continue Support of Watershed Project Implementation:** New York is committed to the support of improved field practices to reduce NPS pollution of waters, including those field practices contributing to the achievement of Watershed Implementation Plan objectives for important interstate waters (e.g., Chesapeake Bay, Great Lakes, Lake Champlain, Long Island Sound), Finger Lakes, and New York's Nutrient Framework. New York is also committed to improving the tracking of implementation of these field practices.
- **Enhance Federal State, Regional and Local Partnerships:** New York is committed to further develop and coordinate the local capacity of regional and county agencies and organizations to address nonpoint source management on a watershed basis, with special emphasis on county Soil and Water Conservation Districts, watershed coalitions (typically multi-county), and regional planning agencies. New York is also committed to enhance the partnerships with key federal agencies which support NPS management within New York State, including the USDA-Natural

Resources Conservation Service's National Water Quality Initiative. New York will work closely with EPA to ensure that satisfactory progress is achieved in meeting the goals of the Clean Water Act and this state NPS Program.

The eight sections of this New York State Nonpoint Source Management Program update correspond with the eight key components of a state NPS Program described by EPA in the 2013 Nonpoint Source Program and Grants Guidelines for States. Each section describes New York's activities which satisfy the recommendations of those guidelines to meet the requirements of Section 319 of the Clean Water Act.

SECTION 1 - KEY COMPONENT 1 - PROGRAM GOALS AND OBJECTIVES

EPA NPS Guidelines Key Component 1: The state program contains explicit short- and long-term goals, objectives and strategies to restore and protect surface water and ground water, as appropriate.

The NPS Program goals and objectives terms described in this section are consistent with the following description included in EPA's 2013 Guidelines: "The state's long-term goals reflect a strategically focused state NPS management program designed to achieve and maintain water quality standards and to maximize water quality benefits. The shorter-term objectives consist of activities, with annual milestones, designed to demonstrate reasonable progress toward accomplishing long-term goals as expeditiously as possible. Since the NPS management program is a longer-term planning document, the annual milestones may be more general than are expected in an annual section 319 grant work plan but are specific enough for the state to track progress and for EPA to determine satisfactory progress in accordance with section 319(h)(8). Annual milestones in a state's NPS management program describe outcomes and key actions expected each year."

Program Goals

New York's NPS Program has established two overarching longer-term goals which form the foundation for establishing shorter-term objectives and annual milestones for the NPS Program. These goals directly correspond to the nonpoint source management program purpose stated in Section 319(b)(1) of the federal Clean Water Act. The program goals support New York's NPS Program vision: "Nonpoint source pollution caused by natural and human activities no longer impairs New York State's waters." The statement of each program goal below is followed by a "15 Year Timeframe" description to further define the goal in an extended timeframe.

Program Goal No.1: Control pollution from nonpoint sources to the waters of the state.

15 Year Timeframe: *Address priority nonpoint pollution sources through a combination of regulatory and voluntary programs to reduce sources, maximize the utilization of nutrients applied to the landscape, and install and maintain watershed projects and best management practice systems to reduce pollution of waters in all regions of the state.*

Program Goal No.2: Protect, maintain and restore waters of the state which are vulnerable to, or which are impaired by nonpoint source pollution.

15 Year Timeframe: *All sources of public water supply are maintained without requiring upgraded treatment or closure due to nonpoint source pollution. Filtration avoidance is maintained for New York City and Syracuse public water supplies. Additional impairments (new PWL or 303(d) listings) caused by nonpoint sources are minimized. Programs are in place to restore waters listed as impaired by nonpoint sources.*

New York's NPS Program goals apply to all "waters of the state" and are not limited to the "waters of the United States" addressed by Section 319. The "waters of the state", as defined in New York's

Environmental Conservation Law (ECL) Section 17-0105, include all groundwater, and numerous wetlands and water bodies not identified as "waters of the United States". The assessments of impairments to "waters of the state" also include consideration of water quality criteria not addressed by Section 319. The applicable New York water quality standards, identified in both 6NYCRR Parts 700-703 (ambient water quality standards for surface and groundwater) and in Public Health Law Part 5 (drinking water standards), provide standards and establish many guidance values for pollutants which are not included within the federal criteria. The principal priority nonpoint pollution sources are those which contribute nutrients to waters of the state (including nutrients in sediments), with the other high priority sources comprising pathogen and sediment sources.

Program Objectives and Milestones

New York's NPS Program has set short term objectives that are activity-based and contribute to accomplishing the program's long-term goals. The objectives are directly associated with action-based "annual milestones". The activities associated with each objective and annual milestone may include those of multiple state and local agencies which are partners in the NPS Program.

The annual milestones, together with associated "reporting measures", provide a framework for Section 319 annual NPS Program reporting to EPA, and the EPA determination of satisfactory progress for the state NPS Program, as required by Section 319. The Section 319 Nonpoint Source Program Annual Report to EPA will include narrative descriptions of program implementation progress, water quality trends, water restoration successes, program coordination and other activities, along with the associated numeric reporting measures. These annual milestones also serve as the basis of NPS Program work plan development for federal Section 319 funds provided to New York through the Performance Partnership Grant (PPG) Agreement between DEC and EPA.

In the following descriptions, an overarching milestone description is provided for each program objective, followed by several specific milestone descriptions applicable to activities supporting the objective and overarching milestone.

Program Objective No. 1: Develop watershed management plans, and other comprehensive and strategic plans to improve the management of nonpoint pollution sources on a watershed basis.

Annual Milestone 1.0:

Watershed management plans and other comprehensive and strategic plans addressing nonpoint pollution sources are developed, through actions including:

1.1: By reviewing plans, providing technical assistance, and other actions, DEC seeks to ensure that new or revised NPS watershed based plans which are specifically developed or funded by DEC (e.g., within the Susquehanna, Chemung, and Lake Champlain watersheds) include the requisites set forth in the Section 319 NPS Program and Grant Guidelines, and that such DEC-developed plans should be consistent with

established Watershed Implementation Plan (WIP) targets, TMDL allocations, local TMDLs, and local planning efforts, where applicable.

1.2: By continuing education, outreach, technical assistance, and other actions (including the development of nonpoint source pollutant load reduction goals to support watershed plan development and the Nutrient Framework), DEC encourages the enhancement of watershed planning undertaken by local watershed coalitions and other planning entities to be consistent with the Section 319 NPS Program and Grant Guidelines.

1.3: By participating in watershed plan development by local watershed coalitions and other planning entities, and other actions, DEC provides coordination to enhance: (a) the integration of TMDL and watershed plan development, and (b) TMDL utility in facilitating the implementation of NPS BMP projects.

Reporting Measures (quantified for the reporting period):

- *Watershed area (cumulative statewide) covered by watershed plans which are consistent with the Section 319 NPS Program and Grant Guidelines.*
- *Watershed area (cumulative statewide) covered by watershed plans completed by watershed coalitions and other planning entities.*
- *Number of updated County Water Quality Strategies*
- *Number of Agricultural Environmental Management (AEM) Strategic Plans updated or revised through the AEM Framework.*
- *Watershed area (cumulative statewide) addressed by TMDLs, Nine Element Plans, or other specific NPS pollutant load reduction goals.*

Program Objective No. 2: Implement watershed projects to reduce nonpoint source pollution of waters of the state.

Annual Milestone 2.0:

Watershed projects are implemented through a combination of state, local or federal assistance and landowner support and project information (including pollutant load reduction estimates) is entered in the Grant Reporting Tracking System (GRTS) for agricultural and non-agricultural NPS state-funded watershed projects, through actions including:

2.1: By conducting competitive state assistance funding programs, participating in project evaluation and ranking procedures, and other actions, DEC supports the implementation of watershed projects under the NYS Environmental Protection Fund (EPF) and Clean Water State Revolving Fund (CWSRF), including the Green Innovation Grant Program (GIGP), consistent with final EPF, CWSRF and GIGP priority rankings and the requirements of the Office of the State Comptroller.

2.2: By maintaining technical staff capacity, participation with stakeholder groups, providing coordination and technical assistance, and other actions, DEC supports the implementation of watershed projects funded by other federal, interstate, state and local agency programs.

2.3: By providing technical assistance and coordination to Soil and Water Conservation Districts (SWCDs), the Upper Susquehanna Coalition of Conservation Districts, the State Soil and Water Conservation Committee and the NRCS, and other actions, DEC supports the implementation of watershed projects that contribute to achievement of Chesapeake Bay Phase III WIP objectives, in addition to other appropriate goals for reducing local nonpoint source pollution (such as implementation of enhanced nutrient management, precision feeding, pasture management, riparian buffers, and barnyard runoff controls).

2.4: By providing coordination with state and local agency partners, and other actions, DEC seeks to improve tracking of watershed project implementation, through GRTS data entries (pollutant load reductions and associated data) and New York's Non-point Source BMPs' and projects' tracking database for state-funded cost-shared watershed projects, and other watershed project information as available through SWCDs, watershed coalitions, the State Soil and Water Conservation Committee, and the NRCS.

Reporting Measures (quantified for the reporting period for state-funded watershed projects):

- *Number of cost-shared watershed projects initiated (watershed projects may include more than one BMP practice)*
- *Number of cost-shared watershed projects completed (may include projects initiated in prior period)*
- *Number of specific cost-shared BMP practices initiated*
- *Number of specific cost-shared BMP practices completed (includes those initiated in prior period)*
- *Number of Grant Reporting Tracking System (GRTS) project entries for agricultural and non-agricultural NPS state-funded watershed projects.*
- *Pollutant load reductions associated with agricultural and non-agricultural watershed projects entered in GRTS.*
- *Funding provided to support cost-shared watershed projects*

Program Objective No. 3: Assess the quality of waters of the state related to nonpoint source pollution.
Annual Milestone 3.0:

Water quality assessments address the evaluation of nonpoint source contributions and are conducted consistent with the state water quality management and assessment priorities and resources, through actions including:

3.1: By providing coordination, technical assistance, and other actions, DEC supports NPS-related water quality assessment activities undertaken by county, municipal, watershed coalition, and citizen volunteer programs (such as the Citizen Statewide Lake Assessment Program or CSLAP and Water Assessments by Volunteer Evaluators or WAVE).

3.2: By implementing the Statewide Waters Monitoring and Assessment Program (SWMP), DEC conducts water quality assessments for waters associated with NRCS National Water Quality Initiative (NWQI) projects consistent with the resources and program priorities of the SWMP and the schedule of the NYS Rotating Integrated Basin Studies Program (RIBS).

3.3: By maintaining DEC's Waterbody Inventory Priority Waterbodies List database in order to identify waterbodies that support their best use(s), require additional water quality monitoring to further evaluate best use attainment or identify waterbodies that do not support their best uses and require a Total Maximum Daily Load (TMDL), or identify waterbodies that do not support their best use and require implementation of other restoration measures in lieu of a TMDL.

Reporting Measures (quantified for the reporting period):

- *Percentage of waterbodies assessed.*

Program Objective No. 4: Protect unimpaired waters of the state from additional nonpoint source pollution and restore waters of the state impaired by nonpoint source pollution.

Annual Milestone 4.0:

Waters of the state are protected and restored from nonpoint source pollution through actions including:

4.1: By controlling and abating new and existing sources of nonpoint source pollution, DEC protects from nonpoint source pollution all waters of the state, including surface and ground waters, for all public beneficial uses, consistent with the NYS Environmental Conservation Law (Articles 15 and 17) and Title 6 of the New York Codes Rules and Regulations Part 701.

4.2: By supporting the strategic implementation of watershed projects selected through project development and priority ranking procedures established in Environmental Protection Fund and Clean Water State Revolving Fund protocols, impaired waters, are restored and/or partially restored.

Reporting Measures (quantified for the reporting period):

- *Percent of waters identified as having a significant nonpoint source contribution to an impairment, based on the NYS Waterbody Inventory/Priority Waterbodies List (WI/PWL), including temporal changes from prior years.*
- *Number of waters newly identified as "Impaired" and added to the final Section 303(d) list of impaired waters due to nonpoint sources, including temporal changes from prior years.*
- *Percentage of waters assessed as having "No Known Impact" (fully supporting), and thus needing protection, including temporal changes from prior years.*

Program Objective No. 5: Integrate management of nonpoint pollution sources into applicable state and local agency programs (including both regulatory and non-regulatory programs), and provide overall policy coordination among state, local and federal agencies.

Annual Milestone 5.0:

Management of nonpoint sources is coordinated and integrated into applicable state and local agency programs:

5.1: By participating in NPS partner agency technical and advisory committees (e.g., NYS Soil and Water Conservation Committee, USDA-NRCS State Technical Advisory Committee, County Water Quality Coordinating Committees), and other actions, DEC promotes integration of NPS Program priorities into other applicable state, local and federal programs.

5.2: By implementing the New York State Dishwasher Detergent and Nutrient Runoff Law, coordinating NPS elements of State Pollutant Discharge Elimination System (SPDES) general permits and Watershed Rules and Regulations, DEC integrates NPS Program priorities into applicable regulatory programs.

5.3: By providing technical input, DEC promotes integration of NPS Program priorities in support of the goals, objectives and strategic planning of other federal, state and local agency programs which address NPS, including:

- *DEC Division of Water programs: (1) Watershed Management, including planning, Total Maximum Daily Load (TMDL) and Section 303(d) activities; and (2) Watershed Assessment, including Waterbody Inventory/Priority Waterbodies List (WI/PWL) and Section 305(b) activities.*
- *DEC Divisions of Lands and Forests; Fish, Wildlife and Marine Resources; Materials Management; Air Resources.*
- *USDA-NRCS National Water Quality Initiative (NWQI)*
- *New York State Soil and Water Conservation Committee (SWCC) Strategic Plan, the Agricultural Environmental Management Framework, and the Agricultural Nonpoint Source Control and Abatement Program (Ag-NPS Program);*
- *NYS Coastal Nonpoint Pollution Control Program (CNPCP);*
- *NYS Water Supply Protection Program, including Source Water Protection;*
- *Clean Water State Revolving Fund (CWSRF) Program; and*

- *Estuary Programs in New York, including National Estuary Program (NEP) waters (Long Island Sound Study, Peconic Estuary Program, and New York-New Jersey Harbor Estuary Program) and New York State funded Estuary Programs (Hudson River Estuary Program and Long Island South Shore Estuary Reserve); and*
- *Chesapeake Bay Program.*

Reporting Measures (quantified for the reporting period):

- *Nonpoint source and watershed management related agreements or understandings established with state, federal, regional and local agencies, watershed coalitions, or partnerships.*

Program Objective No. 6: Develop and maintain the capacity of state, regional and local agencies and organizations to provide nonpoint source management assistance to communities and landowners through assessment, planning, technical support and education.

Annual Milestone 6.0:

State, regional and local agencies and organizations are provided tools and resources to support nonpoint source management assistance to communities and landowners, through actions including:

6.1:, DEC supports the NPS related training, outreach and technical guidance activities of other federal, state and local agency programs, including:

- *NYS Annual Water Quality Symposium NYS Department of State's Coastal Nonpoint Pollution Control Program, Local Waterfront Revitalization Program, and Local Government Services Program (which provides grants for development of watershed plans); and*
- *Landowner outreach and education through coordination with Soil and Water Conservation Districts, the State Soil and Water Conservation Committee, Cornell Cooperative Extension, and the Natural Resources Conservation Service (NRCS).*

6.2: By providing technical assistance, review, DEC supports appropriate revisions to the "Management Practices Catalog for Nonpoint Source Pollution Prevention and Water Quality Protection in New York State" (Catalog), development of nonpoint source related standards and guidance by the USDA-NRCS, and other NPS-related guidance.

Reporting Measures (quantified for the reporting period):

- *Number of NPS-related guidance or standards revised during the reporting period.*

SECTION 2 - KEY COMPONENT 2 - PROGRAM PARTNERSHIPS

EPA NPS Program Key Component 2: The State strengthens its working partnerships and linkages to appropriate state, interstate, tribal, regional, and local entities (including conservation districts), private sector groups, citizens groups, and federal agencies.

Agency and Institutional Partnerships

Significant nonpoint source management partnerships include (but are not limited to) the following agencies and institutions, with a description of their principal NPS Program related responsibilities:

- *DEC*: Overall NPS Program coordination, (water resource management and protection, watershed management, watershed assessment; administration of the Water Quality Improvement Program); Hudson River Estuary Program (HREP); Lands and Forests (including "Trees for Tributaries" Program); Fish and Wildlife (including invasive species management); Materials Management (including pesticides, household hazardous wastes); Air Resources (including atmospheric NPS);
- *Department of Agriculture and Markets (DAM):* Coordination of agricultural issues related to nonpoint source management; farmland protection; provide administrative support to the NYS Soil and Water Conservation Committee.
- *NYS Soil and Water Committee (State Committee)*: Coordination of the Agricultural Environmental Management (AEM) Framework; soil and water conservation management; administration of the Agricultural Nonpoint Source Control and Abatement Program (Ag-NPS Program); County Soil and Water Conservation District (SWCD) coordination and support.
- *Department of Health (DOH)*: Protection of human health; assessment and management of human exposure to pollutants from nonpoint sources through drinking water and other pathways; water supply and source water protection; watershed rules and regulations; coordination with County Health Departments.
- *Department of State (DOS)*: Overall management of NYS Coastal Management Program, and the joint DOS-DEC Coastal Nonpoint Pollution Control Program; local government services; watershed planning and implementation; education and financial and technical assistance.
- *Department of Transportation (DOT)*: Management of nonpoint sources associated with state-level transportation system; outreach to local government transportation agencies.
- *Environmental Facilities Corporation (EFC)*: Overall management of Clean Water State Revolving Fund (CWSRF); the Green Innovation Grant Program (GIGP) and the East of Hudson Septic System Rehabilitation Program; technical advisory services; and management of Clean Water Needs Survey.
- *Cornell University, including Cornell Cooperative Extension (CCE), NYS Water Resources Institute (WRI), and Cornell PRO DAIRY*: Research, outreach and education assistance to local governments, communities and citizens.

- *New York State Association of Regional Councils (NYSARC)*: Regional and watershed planning; education and training; coordination and support of regional planning agencies.
- *United States Environmental Protection Agency (EPA):* Overall management of Section 319 grants to states; financial and technical assistance for management of nonpoint sources; review and evaluation of NPS Program implementation; Healthy Watershed Initiative.
- *United States Geological Survey (USGS):* Water quality assessment and water resource evaluation and information.
- *United States Department of Agriculture - Natural Resources Conservation Service (NRCS):* Financial and technical assistance for management of agricultural nonpoint sources; soil resource management and information; NPS management practices development and evaluation; National Water Quality Initiative (NWQI); Environmental Quality Incentives Program (EQIP).

Non-Agency Partnerships

- *Environment Management Councils (EMC)*
- *Local Watershed Groups*

Partnership Coordination

Coordination with Indian Nations in New York is achieved through DEC's Indian Nations' Affairs Coordinator.

The Nonpoint Source Program coordination's objectives include:

- Facilitate communications among federal, state, regional and local agencies and organizations involved in nonpoint source and water management, and provide an opportunity to raise regional and interagency issues;
- Identify cooperative activities that can assist each partner toward achieving nonpoint source and water management goals;
- Evaluate and promote guidance to agencies involved with nonpoint source management implementation (e.g., nonpoint source and water management priorities; watershed project implementation);
- Coordinate programs of federal, state, regional and local agencies and organizations to better utilize existing resources; and
- Assist state, regional and local water quality and watershed committees through participation in forums and other local meetings (e.g., evaluate consistency with state agency programs and policies, provide technical assistance or guidance).

To enhance and expand coordination and improve efficiency, DEC participates in established committees which address particular aspects of nonpoint source or water management, such as (1) the New York State Soil and Water Committee; and (2) the NRCS State Technical Advisory Committee. Additionally, special

meetings which include wider participation by additional NPS, and watershed management partners are conducted when warranted for specific priority nonpoint source topics.

These broad-based coordination activities are supplemented by individual meetings between the DEC and NPS partners on specific interagency nonpoint source and water management topics (e.g., watershed planning and watershed project implementation). These activities are further augmented by DEC participation in forums for nonpoint source management and watershed management planning when called for in established agendas (e.g., the Annual Water Quality Symposium, NYS Association of Towns meetings).

Specific workgroups related to nonpoint sources are also established to address special priority needs (e.g., the Concentrated Animal Feeding Operation (CAFO) Workgroup, the Long Island Pathogen TMDL Coordination Group, or the Suffolk County Sub-watershed Wastewater Plan Workgroup). These workgroups enhance the partnership coordination for specific NPS related issues.

NPS Program partnerships with other EPA initiatives, such as the Healthy Watershed Initiative, are facilitated through direct interactions between the DEC programs with related responsibilities (e.g., Water; Fish, Wildlife and Marine Resources; Lands and Forests; Hudson River Estuary Program). In association with the Healthy Watershed Initiative and New York partners, The Green Infrastructure Center Inc. published "Evaluating and Conserving Green Infrastructure Across the Landscape: A Practitioner's Guide for New York State" (2013). This guide emphasizes the value of identifying, evaluating and prioritizing natural assets as part of a green infrastructure plan, and identifies approaches for using spatial data to create local maps of natural assets.

County Water Quality Coordinating Committees (WQCCs) provide for additional communication between local NPS Program partners. The WQCCs typically include county Soil and Water Conservation Districts (SWCD), county health and planning departments, county Cornell Cooperative Extension, state agency representatives (including DEC), academic institutions, lake associations, watershed coalitions, and other watershed, citizen, environmental and business groups. Across most counties of New York, the county SWCD typically is the lead agency for local NPS management issues, with strong input from county planning and health agencies.

Additional coordination with the United States Geological Survey (USGS) is achieved through regular DEC-USGS meetings on the DEC-USGS Cooperative Agreement. This agreement addresses water resource evaluation and water quality assessment activities of the USGS.

Program Linkages

The NPS Program includes special linkages with other established federal, state and local agency programs or non-governmental organizations. Coordination with these programs is achieved through the mechanisms described above. The majority of these are under the direct responsibility of the Department of Environmental Conservation (see Section 3 of this NPS Program report). Several key linked programs which are not the direct responsibility of the DEC are described below:

- The New York State Coastal Nonpoint Pollution Control Program (Coastal NPS Program), jointly prepared by DOS and DEC pursuant to the Federal Coastal Zone Act Reauthorization Amendment, Section 6217, was fully approved by NOAA and EPA in December 2006. The activities of the Coastal NPS Program have been included in Section 319 NPS Program Annual Reports to EPA. The DOS has provided significant local watershed planning training and outreach support, and technical and financial assistance to communities to develop watershed plans for coastal waterbodies and designated inland waterways listed in Executive Law Article 42 Local Waterfront Revitalization Program. The program was evaluated again in 2017 and was found to be in compliance with Section 6217.

- The New York State Agricultural Environmental Management (AEM) Framework is managed by the New York State Soil and Water Committee. The program provides for farm planning and strategic planning to reduce the impacts of agriculture on water quality. It utilizes the statewide network of county Soil and Water Conservation Districts to address agricultural nonpoint sources on a watershed basis.

- The New York State Agricultural Nonpoint Source Control and Abatement Program (Ag-NPS Program) is managed by the New York State Soil and Water Committee. The program provides substantial funding to implement watershed projects, including on-the-ground management practices to reduce nonpoint source pollution from agriculture, as identified through the AEM Framework. Linkages are facilitated by participation of NPS Program partner agencies (DEC, DOS, DOH, DAM, NRCS, CCE) in project evaluation and ranking through the Ag-NPS Technical Committee and the State Soil and Water Committee. In addition, Memorandum of Understanding (MOU) was established in 2014 [MOU AM08174] (and renewed again in 2018 [MOU AM11060]) to guide coordination and participation between DEC and the State Soil and Water Committee on water quality management issues.

- The Clean Water State Revolving Fund (CWSRF) is managed by the Environmental Facilities Corporation (EFC). In 2009, CWSRF funding for NPS management priorities was enhanced through the creation of the Green Innovation Grant Program (GIGP). CWSRF and GIGP funding addresses a wide range of nonpoint source watershed projects identified each year in the updated CWSRF Intended Use Plan

- The New York State Water Supply Protection Program is managed by the New York State Department of Health. It includes source water assessment and protection, watershed rules and regulations, and other water supply protection and management activities. To enhance linkages, DEC's Division of Water and DOH Bureau of Water Supply Protection conduct routine interagency coordination meetings on current topics, including NPS and other water protection issues.

- The New York State Department of Transportation (DOT) Environmental Analysis Program addresses a wide range of NPS issues related to transportation. Linkages to that program are strengthened through DOT's "The Environmental Manual" (formerly known as the Environmental Procedures Manual) and close coordination between DOT and New York's Coastal NPS Program (DOS) and Stormwater Management Program (DEC).

- The Environmental Quality Incentives Program (EQIP), the National Water Quality Initiative (NWQI), and the American Great Outdoors Program (AGO) are managed by the federal Natural Resources Conservation Service (NRCS). Program linkages are strengthened by the state NPS Program participation in the New York NRCS State Technical Committee. This NRCS committee is a forum for addressing NPS Program components that concern the identification of approved BMPs, watershed planning and targeting of watershed implementation projects, and for state-federal cooperation on the USDA National Water Quality Initiative (NWQI). New York State has also established regular coordination meetings on NWQI activities with key state agencies and NRCS. The activities of NRCS in the NWQI program and other NPS management components are consistent with New York's NPS Program priorities.

- Estuary programs, including National Estuary Program (NEP) waters in New York (Long Island Sound Study, Peconic Estuary Program, New York-New Jersey Harbor and Estuary Program, Lake Champlain Basin Program, and Great Lake Restoration Initiative (GLRI)) and the New York State-funded estuary programs (Hudson River Estuary Program and the Long Island South Shore Estuary Reserve), are cooperative efforts involving researchers, regulators, user groups and other concerned organizations and individuals, and include interstate coordination where applicable. Estuary programs focus on the overall ecosystem and are dedicated to both habitat restoration and water quality restoration and protection. They also emphasize public involvement and education, watershed management planning and water quality monitoring, and research of water-related topics. These programs address the management of nitrogen, phosphorus, pathogens, sediments and toxics from both point and nonpoint sources, including groundwater contributions to surface waters.

NY contributes to the Chesapeake Bay Estuary primarily by implementing the Chesapeake Bay TMDL's Watershed Implementation Plans to improve water quality. However, some ecosystem-based activities such as improvement of habitat for aquatic life support and creation of wetlands are also conducted for this system. NY continues its implementation of the plan by issuing the final version of the 3rd Watershed Implementation Plan for the Chesapeake Bay in 2019.

Watershed coalitions typically include associations of Soil and Water Conservation Districts (which play a lead role) within a major watershed or basin and may include other concerned agencies. The watershed coalitions serve to assist in developing watershed plans and guiding the implementation of management practices. Watershed coalitions are further discussed in Section 5 of this NPS Program report.

SECTION 3 - KEY COMPONENT 3 - PROGRAM INTEGRATION

EPA NPS Program Key Component 3: The state uses a combination of statewide programs and on-the-ground projects to achieve water quality benefits; efforts are well-integrated with other relevant state and federal programs.

New York's NPS Program includes both statewide and targeted NPS management approaches. Management of NPS pollution sources is integrated and coordinated with other relevant state and federal programs. Statewide approaches include both statewide regulatory controls and education (training, guidance, technical assistance). Targeted approaches include both local regulatory controls (e.g. county ordinances or watershed rules and regulations) and watershed project implementation to restore and protect priority waters. These "watershed projects" include "on the ground" best management practices (BMPs) and other actions which serve to control or reduce the impact of nonpoint source pollution or pollutants on waters of the state.

Program integration and New York's balanced statewide and targeted NPS management approaches are described below. Statewide NPS education activities are further discussed in Section 6 of this NPS Program report. Priority setting approaches are further discussed in Sections 4 and 5 of this NPS Program report.

Statewide Program Integration

New York has integrated the management of nonpoint sources of pollution into other relevant programs to protect and restore water quality. This integration is achieved through priority setting approaches, unified administration for many key relevant programs, and through coordination and interagency partnerships.

The priority setting approach places emphasis on a common set of priority nonpoint source pollutants (nutrients, sediments, pathogens) and on the statewide policies established in the New York State Environmental Conservation Law to protect and conserve all waters of the state for all public beneficial uses as defined in New York's comprehensive water classifications. All programs employ water quality goals for both protection and restoration activities based on a unified set of water quality standards and criteria. In addition, all relevant programs establish priorities to restore waters on the New York State Waterbody Inventory/Priority Waterbodies List (WI/PWL), which includes the federal Section 303(d) list of impaired waters. These policies and priority setting approaches are further discussed in Section 4 of this NPS Program report, with additional discussion related to watershed planning in Section 5 of this NPS Program Plan.

Administratively, many of the key relevant programs in New York are integrated in the DEC Division of Water, including overall management of the Section 319 NPS Program, the Total Maximum Daily Load (TMDL) Program, the Watershed Management Program, the Watershed Assessment Program, the State

Pollutant Discharge Elimination System (SPDES) Permit Program, the Groundwater Management Program, and the Water Quality Improvement Project (WQIP) Program. Coordination between these water quality programs is routinely conducted through joint participation in NPS Program development and implementation, joint participation in relevant advisory and technical committees and workgroups, and established water program management procedures.

Additional DEC programs with NPS pollution control elements are integrated within the DEC. Coordination among these programs is conducted at both the executive and program staff levels, where applicable nonpoint source issues are identified. These DEC programs may support activities and watershed projects which reduce NPS pollution of waters of the state, including actions under the Divisions of Lands and Forests (e.g., "Trees for Tribs" projects), Materials Management (e.g., household hazardous waste collection); Fish, Wildlife and Marine Resources (e.g., shellfishery management); and the Hudson River Estuary Program (e.g., planning and estuary management and protection). Atmospheric deposition comprises a significant portion of nonpoint source pollution loads. New York's Air Resources Program employs a full suite of programs that protect air quality and, by extension, reduce the atmospheric deposition component of nonpoint source pollution.

Integration and coordination with other relevant state and federal programs, including the NRCS National Water Quality Initiative and the Clean Water State Revolving Fund, are further described in Section 2 of this NPS Program report.

Statewide Regulatory Controls

Statewide regulatory controls include restrictions, prohibitions, and permit requirements to address nonpoint source pollution sources and the migration of nonpoint source pollution to waters of the state.

An important recent statewide regulatory control addressing nonpoint source pollution is the New York Dishwasher Detergent and Nutrient Runoff Law (Chapter 205 of the Laws of 2010). The amendments to this law restrict or prohibit the use of phosphorus lawn fertilizers throughout the year, and prohibit the application of lawn fertilizer containing nitrogen, phosphorus, or potassium from December 1 to April 1. In addition, New York State Pollutant Discharge Elimination System (SPDES) general permits for stormwater discharges address nonpoint sources through application to waters of the state (a wider range than "Waters of the United States") or other specific permit requirements and thresholds.

Targeted Regulatory Controls

New York's NPS Program also includes targeted regulatory controls for nonpoint sources which may be based on watershed designations or county, town or municipal jurisdictions rather than a statewide basis. County sanitary codes (e.g., Suffolk County) or other local regulations may address such nonpoint sources as fertilizer use, septic tank management, and use and storage of chemicals. Town-level ordinances, including zoning, building codes and site plan review, may control density (e.g., onsite wastewater

systems) and stormwater runoff. Watershed Rules and Regulations for both surface and ground water sources of public water supply (e.g., New York City and Syracuse water supply watersheds), provide regulatory controls of a wide range of nonpoint pollution sources which are tailored to specific watersheds and applicable only to those watersheds.

Targeted Implementation of Watershed Projects

New York has established state-funded grant programs to support on the ground watershed project implementation to reduce nonpoint source pollution in priority waters. New York State financial assistance to implement agricultural and non-agricultural nonpoint source management practices has supported grants for over 1,310 watershed projects since 1994, with over $215 million of state funds. These state-funded local watershed projects have served to increase public awareness and additional voluntary implementation of successful approaches to reduce nonpoint source pollution. Through these efforts, a network of regional and county agencies throughout the state has developed the expertise and technical capacity to assist landowners and municipalities in reducing pollution from nonpoint sources.

The policies for setting priorities for protection and restoration of waters of the state (including ground waters) to support watershed project implementation are further described in Section 4 of this NPS Program report. The watershed project selection process is further discussed in Section 5 of this NPS Program report.

New York's continued commitment to leverage state funds to support NPS Program objectives has included the following:

- Agricultural Nonpoint Source Control and Abatement Program (Ag-NPS Program), providing support from the NYS Environmental Protection Fund (EPF) for implementation of agricultural NPS watershed projects.
- Water Quality Improvement Project (WQIP) Program, providing support from the NYS Environmental Protection Fund (EPF) for implementation of non-agricultural NPS watershed projects.
- Clean Water State Revolving Fund (CWSRF) and the Green Innovation Grant Program (GIGP), providing support for implementation of NPS stormwater projects.
- Local Waterfront Revitalization Program (LWRP) providing support to municipalities from the NYS Environmental Protection Fund (EPF) for specific projects across the state affecting coastal waterbodies and designated waterways, including the Great Lakes Basin, Long Island's South Shore Estuary, the Long Island Sound, the Lake George Watershed, the Finger Lakes Watershed, and the Hudson River and Mohawk River watersheds.
- New York State Water Supply Protection Program (including the Source Water Protection Program and Filtration Avoidance Programs for the New York City and Syracuse public water supplies) providing local funds for the implementation of watershed projects for source water protection.

- Estuary Programs, including New York State funded programs (Hudson River Estuary Program and the Long Island South Shore Estuary Reserve) and National Estuary Program waters in New York (Long Island Sound Study, Peconic Estuary Program, New York-New Jersey Harbor and Estuary Program, and Lake Champlain Basin Program) provide funds for implementation of NPS watershed projects and habitat improvement projects.
- NY's Chesapeake Bay TMDL Watershed Implementation Plan Phase 3 Program..

SECTION 4 - KEY COMPONENT 4 - PROTECTION AND RESTORATION OF WATERS

EPA NPS Program Key Component 4: The state program describes how resources will be allocated between (a) abating known water quality impairments from NPS pollution and (b) protecting threatened and high-quality waters from significant threats caused by present and future NPS impacts.

The public policy of the State of New York, stated in the Environmental Conservation Law (ECL) Article 15 (Section 15-0105) and Article 17 (Sections 17-0101, 17-0103, and 17-1401), includes the following:

- The waters of the state shall be protected and conserved for all public beneficial uses (15-0105)
- Use all known available and reasonable methods to prevent and control the pollution of the waters of the state of New York (17-0101)
- Safeguard the waters of the state from pollution by preventing any new pollution and abating existing pollution (17-0103)
- Safeguard the waters of the state from nonpoint source pollution by controlling and abating new and existing sources of nonpoint source pollution (17-1401)

On this basis, the fundamental priority of New York's NPS Program is to protect and conserve all waters of the state, including both surface and ground waters, for beneficial uses.

This policy applies to all forms of pollution and pollutants, including emerging contaminants. This policy also applies to all "waters of New York", including all ground waters and surface waters (including wetlands). These include waters which may not be included within the "waters of the United States". The beneficial uses for these waters are defined by New York's system of water classifications and associated water quality standards.

The New York State Environmental Conservation Law policy places equal emphasis on both protection and restoration of waters of the state. The overall policy for New York's NPS Program does not apportion the distribution of management or implementation activities (by percentage ratios or other quotas) between those designed to protect or conserve waters or to prevent new pollution or abate existing pollution. Individual components of the overall NPS Program, such as state funding of watershed project implementation, may place priority on restoration of impaired waters, but the apportionment between restoration and protection is not fixed and will depend on current water quality needs, watershed management priorities, and on the specific characteristics of the proposed watershed projects.

Nonpoint source categories include the following:

- Agriculture
- Atmospheric deposition
- Construction activities

- Contaminated sediment
- Fertilizer applications to turf by landowners and municipalities
- Hydrologic and habitat modification
- Land disposal
- Leaks, spills, and accidents
- Marinas and recreational boating
- Onsite wastewater treatment systems
- Resource extraction, exploration and development
- Road bank erosion, and storage and application of deicing agents
- Silviculture
- Streambank and coastal erosion
- Urban runoff

Implementation Priorities

The principal priority nonpoint pollution sources are those which contribute nutrients to waters of the state, with the other high priority sources comprising pathogen and sediment sources.

Where restoration of impaired waters is identified as an objective, the priority setting approach for watershed project implementation or other NPS Program activities is based on the New York State Waterbody Inventory/Priority Waterbodies List (WI/PWL). The WI/PWL identifies New York waters with threatened, impacted or impaired designated uses, and includes those New York waters identified on the federal Section 303(d) list of impaired waters. These lists and related assessment activities are further discussed in Section 8 of this NPS Program report.

Where protection of unimpaired waters is identified as an objective, the priority setting approach for watershed project implementation or other NPS Program activities is based on the assigned water classifications as described in regulation 6 NYCRR Part 701 and determined (for specific waterbodies) in regulation 6 NYCRR Chapter X (Parts 800 - 941).

These classifications apply to all waters of the state, including saline waters and ground waters. All waters in New York State are assigned a letter classification that denotes their best uses. Letter classes such as A, B, C, and D are assigned to fresh surface waters, and SA, SB, SC, I, and SD to saline (marine) surface waters. Best uses include: source of drinking water, swimming, boating, fishing, and shell fishing. The best use of Class GA groundwater and Class A, A-Special, AA, and AA-Special surface waters is a source of potable water supply.

For each general category of waters of the state (fresh surface waters, saline surface waters, fresh ground waters, and saline ground waters), the highest priority for protection-based BMP implementation or other NPS Program activities is assigned to waters with an “A-level” or drinking water designation, or above

(such as A, AA, A-special, AA-special; SA, and GA waters). Within the A designation, the highest priorities are AA, A special, and AA special. A second general priority tier is assigned to "B-level" surface waters. Within any designation, trout spawning (TS) and trout (T) designated waters are afforded a higher priority. A final general priority tier is assigned to all other waters. These priorities serve to guide program development and watershed project implementation and other NPS Program activities.

New York's Nutrient Framework, as described in the "Recommended Elements of a State Framework for Managing Nitrogen and Phosphorus Pollution" (March 16, 2011), illustrates an integrated approach to priority setting for watershed planning and management. New York sets watershed management priorities on a statewide basis for nitrogen and phosphorus loading reductions. These priority Hydrologic Unit Code (HUC) 8 watersheds are assembled into larger basins and overall priorities are set based on nutrient loadings, local and downstream receiving water problems, potential impacts on drinking water sources or other high value waters, and where there is a stronger restoration potential resulting from a central basin focus towards a watershed-wide solution.

Priority basins (further discussed in Section 5 of this NPS Program report) derived from the Nutrient Framework approach include:

- Finger Lakes basins
- Lake Champlain basin; and
- Lake Ontario-Genesee River basins
- Long Island coastal waters
- New York City water supply watershed;
- Susquehanna-Chemung basins tributary to Chesapeake Bay;

EPA's final document "A Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program" (December 11, 2013), also referred to as "the TMDL Vision", provides an additional basis for setting watershed implementation priorities. DEC builds upon the WI/PWL listing process (which encompasses the 303(d) and 305(b) listings) through incorporating local stakeholder input into priorities for TMDL development and watershed planning for restoration or protection. Consideration is given to the restoration potential of impaired waters adjacent to healthy watersheds, potentially realizing more effective results than isolated, individual protection or restoration activities.

New York's NPS Program components which support these policies are further described in other sections of this NPS Program Plan. A more specific statement of NPS Program goals and objectives is presented in Section 1. Nonpoint source regulatory controls and targeted watershed project implementation are discussed in Section 3. Watershed planning and the procedures for selecting watershed projects for financial assistance are discussed in Section 5. The identification of approved BMPs as components of watershed projects and the development of guidance for these BMPs are discussed in Section 6.

The wide distribution of waters of the state, particularly ground waters, supports the statewide adoption and implementation of nonpoint source BMPs to be consistent with this policy and the goals described in Section 1 of this NPS Program report.

In all cases for final selection of watershed projects, the final funding decision considers other criteria in addition to the water restoration or protection priority, such as cost effectiveness, expected benefits of the project, and local support.

Clean Water State Revolving Funding projects must be consistent with the BMPs and control measures as set forth in Appendix A.

SECTION 5 - KEY COMPONENT 5 - WATERSHED PLANNING AND MANAGEMENT

EPA NPS Program Key Component 5: The state program identifies waters and watersheds impaired by NPS pollution as well as priority unimpaired waters for protection. The state establishes a process to assign priority and to progressively address identified watersheds by conducting more detailed watershed assessments, developing watershed-based plans and implementing the plans.

New York's Watershed Assessment Program identifies, in the New York State Waterbody Inventory/Priority Waterbodies List (WI/PWL), waters of the state impaired by nonpoint source pollution and the primary pollutant and source categories causing water quality impairments. The process to assign water restoration and protection priorities and watershed assessment procedures are further discussed in Sections 4 and 8 of this NPS Program report and is coordinated between the DEC Division of Water's Nonpoint Source Management, Watershed Management and Watershed Assessment programs. These priorities are applied across all relevant water management programs, and promoted in relevant programs of key federal, state and local agencies through the Nonpoint Source Committee, participation in other NPS partner agency advisory and technical committees, and other mechanisms.

This section focuses on activities by principal NPS program partners and the Department of Environmental Conservation related to watershed planning and the implementation of nonpoint source management practices.

Watershed Planning Partnerships

Watershed planning in New York is not controlled under the exclusive authority of a single state agency. New York has supported the development of watershed management plans across many state and local government programs. Watershed management planning has been conducted directly by, or through the support and guidance of, several principal NPS state agency partners, including the Department of Environmental Conservation, the Department of Health, the Department of State, and the Department of Agriculture and Markets/State Soil and Water Committee. Partnerships for watershed planning have also been established through the state's estuary programs (such as the Hudson River Estuary Program and the Peconic Estuary Program). Watershed planning is conducted at different geographic levels, defined by hydrologic unit codes (HUC).

New York's diverse water resources also include many significant interstate and international waters, and watershed plan development has continued through partnerships with the various regional basin planning commissions and other states for these waters (e.g., Great Lakes, Lake Champlain, Long Island Sound, Hudson River and New York Harbor, Susquehanna River/Chemung River, Delaware River).

At the regional and county level, watershed planning is also conducted by regional planning agencies, basin commissions, watershed coalitions, Soil and Water Conservation Districts, and other county

agencies. These regional, county, and intermunicipal partnerships are further discussed later in this section.

New York does not require a uniform format or fixed approach to watershed planning and does not require centralized state approval of all watershed plans. This is based on the long history of watershed planning in New York by diverse agencies at different levels. Recognition of the diversity of watershed plans which have been developed is important to build upon the numerous planning efforts that continue to be conducted through many planning partnerships. The 9 Element (9E) Plan approach as promoted by EPA in 2013 in their update of the 319 Nonpoint Source program has become the preferred approach for watershed planning in New York. Though the 9E Plan approach is not a one size fits all method for nonpoint source watershed planning, it is an effective way to watershed plan, able to qualify for Federal funding opportunities for implementation.

DEC will partner with local agencies in watersheds with significant nonpoint source inputs through providing load reduction estimates needed for water restoration and protection. These load reduction estimates provide the basis for local partner planning for implementation of watershed projects. The priorities described in Section 4 of this NPS Program Plan, based on the Nutrient Framework and the Draft Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program, serve to guide these state and local government watershed partnerships. Through this partnership process, DEC will facilitate and encourage the completion of more locally developed watershed plans which address the requisites set forth in Appendix C of the Section 319 NPS Program and Grant Guidelines for those plans, or their alternatives.

State Agency Partnerships

New York's early development of watershed planning and protection extends to the establishment of a program of Watershed Rules and Regulations for municipal public water suppliers under the New York Public Health Law in 1893. Watershed Rules and Regulations address nonpoint pollution sources and are based on assessments for specific watersheds to protect watersheds that serve as sources of public water supply (both surface and ground waters). They are based on partnerships with local water suppliers and other state and local agencies. Over 200 sets of Watershed Rules and Regulations have been adopted by the NYS Department of Health for watersheds across the state. These Watershed Rules and Regulations provide a basis for guiding the implementation of watershed projects for protection of public water supplies.

The Filtration Avoidance Determination (FAD) for the drinking water supply of New York City as well as the one for the City of Syracuse require Watershed Rules and Regulations (WRR) for the protection of their water supply sources. The WRR is a tool for NYS public water supplies to protect their source waters that has existed since before the Clean Water and Safe Drinking Water Acts. The WRR are in Title 10 of

the New York Code of Rules and Regulations. Key components of the WRR are that they define the geographic boundaries of the watersheds and they also authorize watershed inspectors. The WRR have reduced both point and nonpoint source pollution through a multi-faceted management system combining state-level and local regulatory approaches with incentives, and financial assistance to promote voluntary implementation of watershed projects.

In December 2017, the United States Environmental Protection Agency (EPA), in consultation with the New York State Department of Health (NYSDOH), made a determination that New York City ("the City") has a long-term watershed protection program for its Catskill/Delaware water supply that adequately meets the requirements of the Surface Water Treatment Rule (SWTR) and the Interim Enhanced Surface Water Treatment Rule (IESWTR) for unfiltered water supply systems. The resulting 2017 Filtration Avoidance Determination (FAD) covered a watershed protection program to be undertaken by the City over the next ten years, broken into two five-year periods:

(i) 2017-2022, and
(ii) 2022-2027.

The City continues to implement numerous water quality protection programs including:

(i) Septic and sewer
    1. Sewer extensions to address inadequate septic systems
    2. New community wastewater program to provide wastewater treatment and disposal systems for unsewered areas.
    3. Septic system upgrades/replacement
(ii) Stormwater
(iii) Agricultural
(iv) Forestry
(v) Stream management
(vi) Riparian buffers

The NYSDOH Watershed Rules and Regulations apply to the use of Skaneateles Lake and control activities in the watershed that might affect the water quality. The WRR are comprehensive and provide stringent requirements for repairing failed septic tanks and for protecting Skaneateles Lake from erosion and sediment-laden runoff from construction sites. The City employs watershed inspectors to monitor activities and report violations of the rules. City inspectors check septic systems and remove and dispose of dead animals that might pollute watercourses. The City works closely with village, town, and state officials to minimize or eliminate the potential for water pollution within the watershed.

Complementing the Watershed Rules and Regulations Program, the New York State Department of Health (DOH) also supports watershed planning through the Source Water Assessment and Protection Program (SWAP), to further identify priority areas and pollution sources.

Watershed protection programs are closely associated with Filtration Avoidance Determinations (FAD) and Watershed Rules and Regulations for two principal watersheds in New York State. The New York City Watershed Protection Program and the Skaneateles Lake Watershed Protection Program (for Syracuse water supply) were established through Watershed Rules and Regulations. These Watershed Rules and Regulations based programs have reduced nonpoint source pollution through a multi-faceted management system combining state-level and local regulatory approaches with incentives and financial assistance to promote voluntary implementation of watershed projects.

Watershed management plan development and adoption by local governments has been supported through the New York Coastal Nonpoint Pollution Control Program by DOS. DOS provides direct technical and financial assistance through the Local Waterfront Revitalization Program (Title 11 of NYS Environmental Protection Fund) in the development of watershed management plans. Since 2014, DOS has initiated the development or update of **11** watershed plans, **six** of which follow the EPA 9-element framework for watershed planning. These planning efforts total over $2.5 million in State Environmental Protection Fund grant award. In addition, DOS has funded 6 implementation grants totaling over $2.6 million for project to improve, protect, and/or restore water quality. In total, the over *44* watershed management plans covering over *500* municipalities and over *16,500* square miles representing 30% of the state. Each local watershed plan is guided by an inter-municipal committee (often including local Soil and Water Conservation Districts), facilitated by DOS, which shares resources and cooperates on projects to reduce water pollution. DEC and other state and local agencies and organizations are also represented on a watershed advisory committee for plan development through this program.

DOS, in partnership with the DEC, also developed a watershed planning multimedia informational package to meet the growing demand for assistance in watershed planning. An updated companion guidebook, *Watershed Plans: Protecting and Restoring Water Quality,* was published in 2009. The guidebook builds on a shared and flexible approach to watershed management planning to reduce nonpoint source pollution and protect water resources. Following this outreach effort, The DOS continues to provide training and presentations related to watershed planning throughout the state.

The New York State Soil and Water Committee, in association with the Department of Agriculture and Markets, has also implemented a watershed planning process in partnership with county-based Soil and Water Conservation Districts (SWCD) and other state agencies. This watershed planning process provides a foundation for the identification and selection of agricultural nonpoint source watershed projects for state financial assistance through the New York State Environmental Protection Fund's Agricultural Nonpoint Source Control and Abatement (Ag-NPS) Program. The initial stage of this process is the SWCD

establishment of a County Water Quality Strategy that identifies priority waters and watersheds within the county for nonpoint source management. Coordination with adjacent counties within priority watersheds is included. The second stage includes development of a County Agricultural Environmental Management (AEM) Strategic Plan to identify agricultural nonpoint source concerns and priorities within "planning units" (e.g., a HUC12 watershed). The third stage includes development of a County AEM Annual Action Plan to identify potential farms for watershed project implementation, planning and evaluation. Specific detailed planning elements, such as costs, schedules, and milestones, are addressed in specific watershed project proposals which are evaluated and assigned priority rankings by an interdisciplinary, interagency team.

Regional Partnerships

The key regional partnerships for watershed planning include New York's regional planning commissions, basin commissions (e.g., Susquehanna River Basin Commission), and watershed coalitions. New York has provided additional financial support, most recently in 2018, to nine regional planning commissions to assist local governments with watershed management and planning. Collectively, the nine commissions are known as the New York State Association of Regional Councils (NYSARC). These planning commissions are county-based (including several counties), although they roughly correspond (with some exceptions) to the state's major watersheds.

Watershed coalitions (sometimes referred to as alliances or partnerships) bring together the resources of multiple counties which share a major watershed to address both planning and management practice implementation activities. The coalitions, typically led by the Soil and Water Conservation Districts, may include contributions from multiple agencies. These coalitions provide important leadership and coordination for watershed planning in many areas. Examples of these coalitions include, but are not limited to:

- Champlain Watershed Improvement Coalition of New York (CWICNY)
- Finger Lakes - Lake Ontario Watershed Protection Alliance (FLOWPA)
- Lake Erie Watershed Protection Alliance (LEPWALEWPA)
- Lower Hudson Coalition of Conservation Districts
- Mohawk River Watershed Coalition of Conservation Districts
- St. Lawrence River Watershed Partnership (SLRWP)
- Upper Hudson Coalition of Conservation Districts
- Upper Susquehanna Coalition of Conservation Districts

Department of Environmental Conservation Watershed Management Program

A key element of the DEC's Watershed Management Program is the development of specific watershed management plans for priority watersheds in New York State. These plans are designed to coordinate the actions of the DEC Division of Water, other DEC divisions and state agencies, along with federal and local partners to restore and protect the designated use of New York's waters. The primary objective of the DEC Watershed Management Program is to analyze the assimilative capacity of all water bodies to maintain their designated uses and quantify loads from point and nonpoint sources through a watershed-based plan or, where warranted, a more formal Total Maximum Daily Load (TMDL). The intent is to establish the need for action and set priorities, so that individual actions can be assessed in the context of their importance to water quality.

Consistent with EPA's Draft Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program (2012), DEC will identify and coordinate implementation of key point source and nonpoint source control actions that foster effective integration across Clean Water Act and other statutory programs. Because TMDLs are not self-implementing, effective integration of programs has been a cornerstone of the New York approach. Integration is particularly important for effectively addressing nonpoint source impairments, especially in watersheds crossing multiple jurisdictions.

In addition to TMDLs, DEC also intends to use alternative approaches that incorporate adaptive management. These alternatives are tailored to specific circumstances where such approaches are better suited to implement priority watershed actions that achieve the state's water quality goals and reduction of nonpoint sources of pollution. DEC has identified other factors, such as stream corridor condition, that also contribute to biological integrity and overall stream health. Thus, enhancement and biological restoration of riparian corridors is an important component of the DEC Nutrient Framework which guides planning and implementation priorities.

DEC is committed to addressing climate change and its impacts in a variety of ways throughout its programs. For the Nonpoint Source Program, that involves considering the impact of climate change by using a management approach and strategy that is adaptive. This adaptive component entails increasing long term sustainability and cost effectiveness of the Nonpoint Source Program by designing management practices that take into account the impacts of climate change, such as increased precipitation, precipitation anomalies, and flooding impacts that are addressed via climate resiliency.

Where adequate funding is available, New York is committed to furthering the development of watershed plans consistent with the nine-element concepts recommended by EPA in the Section 319 Guidelines, as well as updating existing plans to address load reduction goals and watershed projects. New York will encourage this approach through the planning partnerships described above. When practicable, DEC will provide guidance or technical assistance to achieve the intent of nine element watershed plans where EPA-recommended elements may not be addressed in watershed plans developed in association with DEC's partners, regional planning agencies, or watershed coalitions.

Watershed Project Implementation Programs

New York supports watershed project implementation to protect and restore waters of the state primarily through two state funding sources: the New York Environmental Protection Fund (EPF) and the Clean Water State Revolving Fund (CWSRF). These watershed projects include best management practices (BMPs), land acquisition and other actions which serve to control or reduce the impact of nonpoint source pollution or pollutants on waters of the state. These state funds support five principal nonpoint source watershed project implementation programs including:

- Agricultural Nonpoint Source Grants Program (Ag-NPS; from the EPF)
- Clean Water State Revolving Fund (CWSRF) base program and Green Innovation Grant Program (GIGP) (from the CWSRF)
- Local Waterfront Revitalization Program (LWRP; from the EPF)
- Septic Replacement Grants Program
- Water Quality Improvement Project Program - Non-Agricultural NPS (WQIP; from the EPF)

The EPF also supports the State Appropriation to Soil and Water Conservation Districts (State Aid to Districts). The direct state appropriation to Conservation Districts through the EPF supports District operations that are pivotal for the continuation and growth of watershed project implementation and progress toward meeting NPS Program goals.

In addition, other state and local government funding programs (such as the Hudson River Estuary Program and Municipal Source Water Protection Programs) support watershed projects to protect and restore waters impaired by nonpoint source pollution.

As described in Section 3 of this NPS Program report, in addition to meeting the NPS pollution reduction and water protection and restoration goals of Section 319, a principal objective of these watershed project implementation programs is to develop and maintain the capacity of counties to provide nonpoint source management assistance to communities to address all priority waters and to increase awareness and acceptance of these practices within these communities. The wide distribution of priority waters across all areas of the state, in combination with the need to build local capacity in all areas of the state, supports New York's approach to consider watershed project funding eligibility for all priority waters across the state and not limit eligibility to one or a small subset of watersheds in one portion of the state. This is also consistent with the state policy for water management in New York's Environmental Conservation Law, described in Section 4 of this NPS Program report.

In watersheds where nine element watershed-based plans have been completed, watershed project consistent with those plans will be considered within the overall proposal ranking and grant award procedures established by these programs under the oversight of the Office of the State Comptroller. In other areas, where nine element watershed-based plans are in progress or where alternative planning

approaches have been utilized, the proposal ranking process guides project selection and grant awards to meet the pollution reduction and water protection and restoration goals of the state NPS Program.

New York has established a watershed project proposal ranking process to complement the wide range of New York's watershed plans and guide the selection of priority watershed projects for implementation under state funding programs. These state funding programs employ interdisciplinary watershed project proposal review teams, and follow the priority setting policies described in Sections 3 and 4 of this NPS Program report. The watershed project proposal reviews conduct a comparative analysis of all eligible watershed project proposals to select those projects for funding that are most cost-effective and most likely to contribute toward achieving water restoration and water protection consistent with the NPS Management Program objectives.

The watershed project proposal ranking process enables strong third-party/landowner buy-in agreements (required within specific watershed project proposals) that are essential to ensure successful BMP implementation. Consideration of specific watershed project proposals ensures up-to-date cost calculations, availability of local technical assistance, and project readiness. The watershed project proposal ranking process is updated for each funding round, providing responsiveness to current state and local water quality priority needs and emerging nonpoint source pollution concerns. Finally, the watershed project proposal ranking process enables consideration of both restoration-based projects and protection-based projects, including those addressing ground water. Through a combination of eligibility criteria and uniform procedures for review and ranking by an expert panel and Office of the State Comptroller oversight, the proposal ranking process provides a clear method of guiding project selection that will effectively target project funding to address high priority water quality management needs.

Significant funding of nonpoint source watershed project implementation has also been provided by municipal water supply protection programs consistent with the priorities established by Filtration Avoidance Determinations and Watershed Rules and Regulations Programs for the New York City Watershed Protection Program and the Skaneateles Lake Watershed Protection Program.

SECTION 6 - KEY COMPONENT 6 - NONPOINT SOURCE MANAGEMENT PRACTICES AND CONTROL MEASURES

EPA NPS Program Key Component 6: The state implements all program components required by section 319(b) of the Clean Water Act and establishes strategic approaches and adaptive management to achieve and maintain water quality standards as expeditiously as practicable. The state reviews and upgrades program components as appropriate. The state program includes a mix of regulatory, non-regulatory, financial and technical assistance, as needed.

New York has implemented the requirements of Section 319 and has established strategic management approaches to meet the stated purpose in Section 319: "controlling pollution added from nonpoint sources to the navigable waters within the State and improving the quality of such waters". New York's NPS Program extends this Section 319 goal through the policies of New York's Environmental Conservation Law to protect and conserve all "waters of the state" (not limited to navigable waters) for beneficial uses, as discussed in Section 4 of this NPS Program report.

A principal requirement of Section 319 addresses the identification of best management practices (BMPs) and measures to reduce pollution from nonpoint sources. Additional requirements address identification of programs to achieve practicable BMP implementation as part of watershed projects on a watershed basis, and sources of financial assistance and schedules.

This section places emphasis on the identification of BMPs and other NPS management measures, as follows:

- Watershed project implementation programs, including BMPs (Section 3)
- Program coordination and integration, including state and federal (Sections 2 & 3)
- Watershed management (Section 5)
- Implementation schedule and legal authority (Section 1)
- Funding sources (Section 7)
- Program tracking and evaluation (Section 8)

BMP and Control Measure Identification and Guidance

In 1989, New York developed a list of management practices for nonpoint source controls through a state and federal agency task force. In 1990, this list was expanded to the Catalog, covering nine categories of nonpoint sources. The most recent update of the Catalog was completed in 2013.

The Catalog provides an overview of BMPs and nonpoint source control measures. Updates to the Catalog will continue to be made, when appropriate, for NPS categories where program needs exist, such as agricultural management practices.

Since the initial development of the Catalog, there have been major developments in programs that address priority nonpoint source categories. Associated with these programs, significant new detailed guidance documents for BMPs and control measures have been developed which exceed the scope and level of detail of the original Catalog. These more recent BMP-related guidance documents have been developed through substantial public and private sector peer review, interagency coordination and public participation processes. DEC plans to update the Catalog to address the emerging issue of climate change.

Appendix A identifies those BMPs and control measures approved by the New York Nonpoint Source Program to supplement the Catalog.

Training and Education

Training and education activities to communicate information on BMPs and other NPS management topics are conducted through both symposiums and workshops. Training is conducted through partnerships between state and local agencies (typically Soil and Water Conservation Districts, planning and health agencies).

The principal forum for nonpoint source training and education is the Annual Water Quality Symposium and New York State Conservation District Employees Association (NYSCDEA) Annual Training Session, held in the spring of each year. This symposium is attended by Soil and Water Conservation District staff responsible for NPS implementation activities in all counties and includes participation by key federal and state agency NPS Program partners.

DEC has also established partnerships with county Soil and Water Conservation Districts to train interested parties in stormwater management concepts, which extend beyond federally-regulated activities. A four-hour training course titled “Erosion and Sediment Control (E&SC)” has been developed for both live and on-line formats. DEC has also partnered with independent training professionals to offer an annual “Stormwater Management Training Series” at various locations across the state. DEC is also working with the New York State Soil and Water Conservation Committee and Soil and Water Conservation District coalitions on an Emergency Stream Intervention curriculum and training program. This program targets local highway superintendents and operators with the goal of protecting water quality when human intervention in streams is necessary after flooding events.

Workshops and training seminars on other NPS management topics are held on an ad hoc basis, when funding is available and adequate participation is registered. Sponsors of such workshops and seminars

include the NPS partners described in Section 2 of this NPS Program plan but may also include private businesses that provide new BMP technologies. These partners in NPS training and education include SWCDs, planning agencies (including the NYS Association of Regional Councils), Cornell Cooperative Extension, and public water suppliers.

SECTION 7 - KEY COMPONENT 7 - PROGRAM ADMINISTRATION

EPA NPS Program Key Component 7: The state manages and implements its NPS management program efficiently and effectively, including necessary financial management.

The diverse nature of nonpoint sources of pollution and the wide range of state and local partnerships and responsibilities for managing these sources indicate the need for a coordinated and integrated NPS Program. New York's NPS partnerships and emphasis on building and maintaining local capacity are discussed in Section 2 of this NPS Program plan. The integration of NPS management into core clean water programs, further described in Section 3 of this NPS Program plan, is also illustrated through the following:

- Including groundwater as a protected "water of the state"
- Implementing the CAFO General Permit program for medium CAFOs
- Implementing MS4 and Construction Stormwater General Permit programs which control urban nonpoint runoff, in part, through design manual guidance which incorporates Green Infrastructure practices
- Implementing subsurface discharge permits
- Including NPS source factors in 303(d) and 305(b) assessments and in the State's Waterbody Inventory/Priority Waterbodies List descriptions

The financial management of New York's NPS Program includes two principal components: the federal Clean Water Act Section 319 grant (nonpoint source pollution control) and the New York State Environmental Protection Fund awards to localities for the implementation of nonpoint source watershed projects.

New York manages and implements the Section 319 grant through a Performance Partnership Grant (PPG) Agreement under the National Environmental Performance Partnership System (NEPPS), a performance-based system of environmental protection designed to improve the efficiency and effectiveness of state-EPA partnerships. New York's PPG Agreement with EPA is consistent with the NEPPS Guidance (developed for each federal fiscal year by EPA), and with EPA's Best Practices Guide for Performance Partnership Grants. The financial management and NPS Program management elements of the PPG Agreement satisfy the requirements of Section 319.

The requirements of Section 319 addressed through New York's PPG Agreement are further discussed in other sections of this NPS Program plan, as follows:

- Program goals, objectives, annual milestones and reporting measures (Section 1)
- Identification of water quality problems (Sections 5 and 8)
- Priority setting process and critical area targeting (Sections 4 and 5)

- Resource allocation and state fund leveraging to implement watershed projects (Section 5)

The financial management of contracts to implement watershed projects under state funding programs is consistent with the requirements of the New York State Finance Law. All requests for proposals and applications are consistent with current New York State Procurement Guidelines. The contract award process and contract management are under the oversight and approval of the Office of the State Comptroller.

These state funded NPS watershed projects fall under one of three programs. Two of these programs are funded mainly through New York's Environmental Protection Fund (EPF): the Water Quality Improvement Project (WQIP) Program and the Agricultural Nonpoint Source Control and Abatement Program (Ag-NPS). A third is under New York's Clean Water State Revolving Fund (CWSRF) which includes the Green Innovation Grant Program (GIGP) and other NPS watershed projects. Together, these three programs provide funds for NPS watershed projects which significantly exceed NY's Section 319 allocation for implementation included as part of New York's PPG Agreement with EPA.

SECTION 8 - KEY COMPONENT 8 - PROGRAM REVIEW AND EVALUATION

EPA NPS Program Key Component 8: The state reviews and evaluates its NPS management program using environmental and functional measures of success and revises its NPS management program at least every five years.

New York's NPS Program review and evaluation includes both functional measures, which address program management and compliance with the requirements of Section 319 and New York's PPG Agreement with EPA, and environmental measures, which address water quality assessment.

Program Management Tracking and Revision

The milestones and measures of progress associated with each of the NPS Program objectives are presented in Section 1 of this NPS Program report.

New York has implemented the Grant Reporting and Tracking System (GRTS). New York is maintaining GRTS elements related to NPS core program activities and NPS implementation projects, including those supported by state funding sources. Data entered in GRTS include: watershed project description and BMPs, fiscal information, pollutant load reduction estimates, geographical information, and other required elements.

Many key components of New York's NPS Program are continuously updated. An important example is the process for selecting watershed projects for state financial assistance. The Request for Proposals (RFP) for each category of watershed projects is typically revised for each funding cycle. The revisions may include updates for eligibility of new BMP types, priority categories for watershed projects, and the project selection and ranking criteria. New watershed projects are funded each year through this process. Another important example of continuous updating is the development of BMP and control measure guidance (discussed in Section 6 of this NPS Program plan).

Finally, the overall administration of the NPS Program within New York's Performance Partnership Grant (PPG) agreement with EPA is evaluated and updated where necessary in each annual PPG agreement. This annual PPG agreement allows for appropriate revision of NPS Program milestones and reporting measures. The requirements of the annual PPG Agreement, including specified reporting and submittals to EPA, are satisfied. Progress in achieving the NPS work tasks in the PPG is reviewed with EPA semi-annually by the EPA/DEC Grant Reporting and Oversight Group (GROG).

These continuous and annual program review and evaluation activities will be complemented by an overall NPS Program update every five years, as necessary based upon future revisions to the EPA Section 319 Guidelines and future PPG Agreements with EPA.

Water Quality Assessment

New York's Watershed Assessment Program evaluates water quality issues related to nonpoint sources within the context of its Statewide Waters Monitoring and Assessment Program (SWMP). The Watershed Assessment Program is coordinated with EPA and is evaluated and revised to ensure consistency with overall federal goals and objectives. Water quality assessment procedures are consistent with those in the monitoring data Quality Assurance Project Plan (QAPP). The components of this monitoring program include:

- Rotating Integrated Basin Studies (RIBS) Program for rivers, streams and lakes;
- Citizens Statewide Lake Assessment Program (CSLAP), a volunteer-based program;
- Stream Biomonitoring Program and Toxicity Testing Program; and
- Monitoring activities by other DEC Programs and other state and local agencies.

The primary goals of the SWMP are to provide a comprehensive assessment of water quality of all waters of the state (including the documentation of *good* quality waters), and an analysis of long-term water quality trends. These include the objective to assess the quality of waters of the state related to nonpoint source pollution and other objectives, including integrated multi-media sampling, characterization of naturally occurring or background conditions, and the establishment of baseline conditions for measuring the effectiveness of site-specific restoration and protection activities.

Where resources allow, another objective is to conduct water quality assessments associated with watershed projects funded through the State EPF, the CWSRF, or the NRCS-NWQI. Resource limitations may preclude intensive monitoring associated with the large number of New York's watershed projects. Where targeted efforts identify partial or full restoration of waters in association with NPS watershed projects, Section 319 Nonpoint Source Success Stories will be prepared.

The SWMP includes three types of monitoring activities. Water quality screening is conducted to provide a qualitative assessment of water quality at a large number of sampling sites (e.g., on-site biological sampling and visual lake surveys). Intensive basin monitoring employs more frequent, comprehensive and integrated multi-media sampling to provide more detailed water quality information for a smaller number of targeted waterbodies in selected drainage basins. Routine trend monitoring provides continuous (annual) sampling at fixed sites across the state to monitor basic water quality characteristics, establish baseline conditions and evaluate long-term trends.

New York's Comprehensive Assessment Strategy emphasizes a continuous water quality assessment process. A public participation and outreach effort are made to ensure consideration of all available information. The strategy employs a rotating schedule, covering all basins in the state within a five-year cycle. For each basin, a multi-year monitoring and assessment process is implemented.

The first year focuses on identification of water quality issues and water quality screening, with a goal to identify waters that support uses and waters that require further study. The second year develops more

intensive basin monitoring plans for selected waters in the target watersheds. The Intensive/Chemical Network monitoring component incorporates a wide range of water quality monitoring, including chemical analyses of contaminants in water, bottom sediment, whole organisms (benthic macro-invertebrates) and fish flesh samples, as well as more detailed biological assessments and ambient toxicity.

In the third year, the water quality evaluation and assessment culminate in an update for the basin study area of the Waterbody Inventory/Priority Waterbodies List (WI/PWL), the state's inventory of water quality information for all waterbodies. The methodology for evaluating monitoring data and information against specific indicators, to determine the level of use support and an assessment of water quality, is integral to Section 303(d) List updates, including proposed additions and removals from the Section 303(d) List.

All monitoring activities, from many sources, are linked with the WI/PWL. The WI/PWL incorporates input from the public, along with state and local agencies, through County Water Quality Coordinating Committees, citizen advisory committees for Remedial Action Plans and Lake Management Plans, and other means. The WI/PWL also serves as a basis for setting NPS management priorities to guide the selection of watershed projects for state financial assistance.

New York has continued to update both the WI/PWL and the Section 303(d) List, which include waters impaired or threatened by nonpoint sources. Updates to the Section 303(d) list have been published biennially since 2000. The WI/PWL is updated continually on a rotating basis, covering the entire state every five years and identifies the primary categories and subcategories (including nonpoint sources) causing the water quality impairments, threats, and risks.

Appendix A

Approved Best Management Practice and Control Measures

Appendix A identifies those Best Management Practices (BMPs) and control measures approved by the New York Nonpoint Source Program (NPS Program) as consistent with Section 319 and the NPS Program to supplement the most recent updates to the Catalog . The Catalog, including updated components of that catalog (such as for Agricultural Best Management Practice Systems), is also approved as consistent with Section 319. These BMPs and control measures which supplement the Catalog include the following:

- New York NRCS Field Office Technical Guide - Conservation Practices (2012)
- New York Standards and Specifications for Erosion and Sediment Controls (2016)
- New York State Stormwater Management Design Manual (2015)
- Municipal Pollution Prevention and Good Housekeeping Program Assistance (2006)
- Design Standards for Intermediate Sized Wastewater Treatment Systems (2014)
- Post-Flood Emergency Stream Intervention Training Manual (2013)
- Dam Removal and Barrier Mitigation In New York State (2012)
- Diet for a Small Lake – Guide to New York State Lake and Watershed Management (2nd Edition, 2009)
- Guide to Ecologically-Based Stream Restoration in New York's Coastal Watersheds (2006)
- The Environmental Manual (formerly known as the New York State Department of Transportation Environmental Procedures Manual) (2010)
- Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems (EPA-December2005)
- Watershed Assessment of River Stability & Sediment Supply (WARSSS) (Rosgen Method)
- Additional BMPs and control measures which address nonpoint sources of pollution to waters of the state as approved by the Director of the DEC Division of Water as consistent with Section 319.

Updates to Appendix A will be made, when appropriate, on approval by the New York Nonpoint Source Program.