Connecticut
Nonpoint Source Management
FFY23 Annual Report

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Connecticut
Department of Energy &
Environmental Protection

Connecticut Department of
Energy & Environmental Protection

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Introduction

In federal fiscal year 2023 (FFY23) the Connecticut Department of Energy and Environmental Protection (CT DEEP), Bureau of Water Protection and Land Reuse continued management of the Clean Water Act (CWA) Section 319(h) (§319) Nonpoint Source Grant program, made progress in implementing the Connecticut Nonpoint Source Management Program Plan, and addressed nonpoint source (NPS) pollution through its various programs. Additionally, other Connecticut state agencies were involved with addressing NPS pollution.

The Connecticut Nonpoint Source Management Program Plan covers objectives from years 2020-2024. The document identifies specific milestones for NPS pollution management among various programs that the Department intends to achieve, and the annual report will focus on these specific milestones.

This annual report to the U.S. Environmental Protection Agency (EPA) summarizes CT DEEP's efforts by highlighting the pertinent activities to address NPS pollution and provides a summary of the §319 funded projects that were completed in FFY23. Areas of success and interest in implementation of the Connecticut Nonpoint Source Management Program Plan are discussed in the following sections.

1. Watershed Management

CT DEEP's §319 Nonpoint Source Program staff (NPS staff) serve a critical coordination role within each of the eight major basins in the state (Pawcatuck River, Southeast Coast, Thames River, Connecticut River, South Central Coast, Housatonic River, Southwest Coast, and Hudson River). Staff primarily manage the specific §319 funded projects, but also link up complementary efforts within the basins for CT DEEP.

§319 Program Management

NPS staff successfully closed out 11 §319 awards in FFY23. Short summaries of the completed projects are listed in Appendix A. CT DEEP completed all of the §319 program tasks for FFY23 in the Performance Partnership Agreement (see Appendix B).

Additionally, NPS staff continue coordination of projects that received a §319 NPS award. The list below shows active projects in FFY23 which DEEP has contracted. They include technical assistance to the conservation districts, projects spanning multiple years, as well as both planning and implementation projects. CT DEEP has a comprehensive process to develop a contract with a subawardee for a project, so NPS staff also directed a significant effort of their time on contracting projects in FFY23.

§319 Grant Funded Projects Active in FFY23

FFY	State Project Number	Project Title	Anticipated Completion
2019	19-08	Island Brook Implementation Projects in Bridgeport	6/30/2024
2019	19-10	French River North Grosvenordale Stormwater BMPs	9/30/2024
2020	20-01 CRCCD	Conservation Districts Technical Assistance	10/4/2023
2020	20-03	Island Brook Implementation Projects in Bridgeport	6/30/2024
2020	20-04	Lake Pocotopaug Watershed Water Quality Improvements Project Phase 3	5/31/2024
2021	21-02	NPS Outreach & Misc.	9/30/2026
2021	21-04	Bruce Brook Watershed Based Plan	8/31/2025
2021	21-05	Coppermine Brook Stormwater Management Improvements	8/31/2024
2021	21-06	New Haven Harbor Green Infrastructure Collaboration	12/31/2025
2021	21-07	Mill Brook Agricultural NPS Action Plan	8/31/2025
2022	22-01 CRCCD	Conservation Districts Technical Assistance	12/31/2024
2022	22-01 ECCD	Conservation Districts Technical Assistance	12/31/2024
2022	22-01 NCCD	Conservation Districts Technical Assistance	12/31/2024
2022	22-01 NWCD	Conservation Districts Technical Assistance	12/31/2024
2022	22-01 SWCD	Conservation Districts Technical Assistance	12/31/2024
2022	22-06	Water Quality BMPs for State Beaches and Boat Launches	8/31/2024
Multiyear	19-02 CRCCD 21-01 CRCCD	Deerfield Farms NPS Improvements Phase 2	11/30/2023
Multiyear	19-02 NCCD 20-05	Broad Brook Agricultural Waste Management Construction	8/31/2024
Multiyear	19-02 NWCD	Bethel Town Parks Stormwater BMPs	12/31/2023

This FFY, CT DEEP was committed to submit one Success Story to USEPA that demonstrates a Type 1, Type 2 or Type 3 Success Story. Before the close of the federal fiscal year, CT DEEP submitted one Success Story which is with USEPA for review at the time of this writing. The Type 1 Story was the delisting of a bacteria impairment from Allen Brook Pond.

Watershed Coordination

NPS Staff routinely review certain permit applications subject to CT DEEP approval and planning documents developed by CT DEEP and other state agencies with an eye towards water quality protection and improvements. These reviews include but are not

limited to water diversion permits, state inland wetland permits, stormwater certifications for state facilities, flood management certification, Section 401 water quality certifications, and projects subject to the Connecticut Environmental Policy Act. In addition, NPS Staff have reviewed state planning documents such as the state Comprehensive Open Space Acquisition Strategy (Green Plan), Long Island Sound Blue Plan (Blue Plan), Governor's Council on Climate Change Report (GC3), TMDLs, and State Plan of Conservation and Development (State C&D Plan). NPS staff also review potential purchases of open space lands by CT DEEP as well as grants applications from communities requesting CT DEEP grants to purchase open space to determine the potential for projects to protect and improve water quality.

NPS Staff sit on numerous standing committees including: The Last Green Valley, Inc., Eightmile River Wild and Scenic Coordinating Committee, Farmington River Coordinating Committee (for Upper Farmington River Wild & Scenic area), Lower Farmington River Wild and Scenic Committee, and Salmon Brook Wild and Scenic Study Committee, and North Branch Park River Watershed Committee the Niantic River Nitrogen Workgroup, among others. NPS staff often attend evening meetings with local and regional watershed groups and other public forums to communicate CT DEEP water management goals.

The annual NEIWPCC NPS Conference was held in-person in April 2023 in Saratoga Springs, New York with three NPS Staff members in attendance. The Conference Theme was Environmental Justice, Equity and Climate Change. CT DEEP was notified that Connecticut will host the 2024 Conference; NPS Staff will continue to collaborate with NEIWPCC throughout the planning process.

In September 2023, CT DEEP NPS Staff hosted Region 1 EPA staff members on a two-day tour of several 319-funded sites across Connecticut, including work in Environmental Justice Communities in southwest Connecticut, and agricultural NPS projects in eastern Connecticut. CT DEEP and EPA met with individuals from nonprofit organizations, staff members from the soil & water conservation districts, and farmers on the visits and discussed successes, hardships, and future opportunities for projects addressing NPS pollution.

Statewide NPS Pollutant Specific Initiatives

Nitrogen Strategy

There is an EPA-approved Total Maximum Daily Load (TMDL) for nitrogen to achieve water quality standards for dissolved oxygen in Long Island Sound. Nitrogen reduction goals for WWTPs were achieved due to a CT DEEP general permit for nitrogen for its wastewater treatment plants (WWTP) and implementation of a water quality trading program. CT DEEP's Second Generation Nitrogen Strategy enhances the TMDL by including additional nitrogen reductions at WWTPs and addressing nonpoint sources of nitrogen, as well as nitrogen loading to embayments.

Efforts made by CT DEEP to implement the Second Generation Nitrogen Strategy in this FFY include:

- Continuation of the nitrogen trading program for wastewater treatment plants (WWTP).
- Old Saybrook continued to monitor groundwater conditions at the High School to assess hydraulic capacity of the site to accept treated wastewater flows from the remaining high priority wastewater management need areas. The CT DEEP Clean Water Fund program expects to continue to support this project with additional planning funding as the town prepares to perform confirmatory pilot dispersal tests at the school.
- Nitrogen removal upgrades continued at WWTPs in Ridgefield, Torrington, Vernon, Wallingford, and East Hartford. Upgrades at Ridgefield, Torrington, Vernon, and Wallingford will meet low level phosphorus limits.
- Participated in the Niantic River Nitrogen Work Group, including one staff that chairs the meetings. Provided technical guidance and review of deliverables on a data synthesis and nitrogen effects project.
- Continued progress on the Pawcatuck River estuary model. Held collaboration meetings with the modelers.
- Continued to work with a modeling contractor on the development of the statewide HSPF model (also known as CTWM). Statewide water quality monitoring for modeling support was ongoing and a technical team regularly met with the contractor.
- Data collection in CT's priority embayments was conducted with technical advisement from CT DEEP regarding model specific data needs (i.e. parameters, site locations, sampling frequency).
- The General Permit for Concentrated Animal Feeding Operations (CAFO GP) became effective January 1, 2023 and will expire December 31, 2027. Facilities that qualify for this general permit are defined under **40 CFR Part 122.23**. In addition to submission of a registration, a CAFO-specific Comprehensive Nutrient Management Plan (CNMP) must be developed and submitted for the facility that is the subject of the registration for the general permit. The permit authorizes discharges from a CAFO under catastrophic and chronic rainfall conditions and all other discharges to surface water in accordance with the approved CNMP.
- A LISS project to ascertain nitrogen loading from Onsite Wastewater Treatment Systems located in Southern CT was completed.

Phosphorus Strategy

CT DEEP and municipalities mandated by EPA are required to construct facilities and treat wastewater for advanced phosphorus removal, to collaboratively evaluate and make recommendations regarding a state-wide strategy to reduce phosphorus loading to inland non-tidal waters (CGS § 22a-428a). This also enables municipalities to receive additional funds from Connecticut's Clean Water Fund to remove phosphorus in WWTP plant

discharges, regulates fertilizer use and the amount of phosphorus in fertilizers, and requires CT DEEP to work with affected municipalities to develop a state-wide response to address phosphorus in NPS pollution.

For a statewide phosphorus response, a NPS Workgroup (municipal representatives, federal and state environmental professionals, environmental consultants, and academicians) had been formed by CT DEEP to evaluate the sources of phosphorus from NPS pollution in stormwater, agricultural runoff, septic system leachate, and soil erosion. The NPS Workgroup also reviewed existing programs that address NPS pollution, studied the status and trends of phosphorus in NPS pollution, and identified and assessed methods and strategies to reduce phosphorus in NPS runoff. The NPS Workgroup concluded their report by making recommendations to expand or add programs to address phosphorus in NPS pollution in their final report. Further information on how CT DEEP has worked to implement the strategy can be found in the sections on Agriculture and Subsurface Disposal Systems.

The CAFO GP (see the Nitrogen Strategy subsection) also addresses phosphorus as it pertains to permittees.

Hydrologic and Habitat Modification

Streamflow

The Stream Flow Standards and Regulations were adopted in 2011 to protect Connecticut's river and stream systems by establishing stream flow standards, which apply to all river and stream systems in the state through a classification process and require minimum releases from dams (RCSA 26-141b-1 through 26-141b-8 inclusive). These standards are required to balance river and stream ecology, wildlife and recreation needs while providing for public health, flood control, industry, public utilities, water supply, public safety, agriculture, and other lawful uses of water. Classifications for all streams across the state have been completed. The streamflow classifications indicate release requirements for dams to maintain a minimum stream flow, in addition to being one of the criteria used by CT DEEP to identify Priority Waters for protection (Class 1) or restoration (Class 3 or 4). Requirements to begin making releases from dams to support flow downstream will begin in the Thames, Pawcatuck, and Southeast Coastal Basins in 2024. Additional information, including a map of Final Adopted Stream Flow Classifications, can be found on the CT DEEP Stream Flow Standards and Regulations website.

Dam Removals

Many of Connecticut's rivers are blocked by dams from the state's industrial past. Most of these dams are no longer used for their original industrial purpose, may cause flooding, prevent fish migration, increase eutrophication, and degrade habitat in the watercourse.

These dams though hydromodification represent a nonpoint source pollution issue in Connecticut.

This FFY, CT DEEP and its conservation partners were involved with planning or implementation of removal projects for the following dams:

- Strong Pond Dam (Norwalk River, Wilton). Also known as Dana Dam, it was removed by contractors in Summer 2023 in collaboration with Save the Sound, CT DEEP, USEPA, the Town of Wilton, and many additional project partners. Funding included §319 and Long Island Sound Study (LISS) funds for planning and design phases, and LISS and BIL funds for Implementation, for a project totaling over $3 million in CT DEEP-managed funds. Full removal of the dam aimed to: mitigate hydromodifications by restoring natural stream flow, improve water quality downstream, restore naturally vegetated riparian buffer areas, reconnect approximately 10 upstream miles of aquatic habitat to Long Island Sound, and eliminate dam-related hazards and risks.
- Harrington Apartments Pond Dam (Beaver Brook, Sprague). This dam is a barrier to fish passage to spawning habitat for migratory species. Funded through a Long Island Sound Study Futures Fund Grant, the partners are working to finalize all permits, remove the dam, and provide outreach and education to the community. FFY23 §319 funding has also been allocated for the removal. An individual permit application was submitted and is currently under review.
- Highland Pond Dam in Middletown – The dam acts as a barrier to spawning and nursery habitat on a migratory corridor. Partners have submitted permit applications, to remove sediment behind the dam, install stone weirs for fish passage, and return the water flow to the main channel and tributary. An individual permit application was submitted and is under technical review.
- Bristol Brass Dam (Pequabuck River, Bristol). CT DEEP is in the planning stage to fully remove the Bristol Brass Dam (also known as Middle Street Pond dam). The dam is currently owned by the CT Department of Transportation, but it serves no useful purpose. The project will plan the removal of the dam and any necessary modifications to the stream bottom to ensure conditions needed for fish passage exist, connecting an additional 8.5 miles of stream habitat. The project will use LISS FY22 BIL funding for the planning phase of the removal and the dam is projected to be removed by 2025.
- Winchell-Smith Dam (Farmington River in Farmington). Also known as Gristmill Dam, it is a timber crib dam owned by a private school. The Farmington River at this location is a federally designated Wild & Scenic River, and the Lower Farmington River and Salmon Brook Management Plan (2011) characterizes this dam as an obstacle to fish passage which also identifies the removal of the dam remnants as a priority action for the Outstanding Remarkable Value (ORV) in Biological Diversity. The dam removal is fully funded by State Pier Mitigation Funds and sponsored by the Farmington River Watershed Association. Engineering has been completed for the project and permitting is in progress. The dam is scheduled to be removed by summer 2024.

- Lower Collinsville Dam (Farmington River in Avon/Burlington). The dam is being removed by CT DEEP in collaboration with NOAA to enhance the new fish passage system constructed on the Upper Collinsville Dam. The removal is a major component of the restoration of the Farmington River. The Lower Farmington River federal Wild & Scenic River designation begins 0.2 miles below the tailrace of this dam.
- Barber Pond Dam (Mill Brook, Bloomfield). This is a state-owned dam which is in disrepair, but serves no purpose. CT DEEP has engaged a consultant to design removal of this dam. Work is being coordinated with CTDOT to compliment redesign of a state road that passes over the stream which conveys flows downstream of the dam.

State Water Plan

Connecticut's State Water Plan (CGS § 22a-352) seeks to preserve Connecticut's valuable water resources while balancing the need for fair and effective water use, driven by the threat of droughts becoming more common and a concern about severe water shortages in other parts of the country. The Plan serves as a compilation of state water resources, water use data, and consensus-based principles that will help to frame future water management policies, laws, and regulations in the state. The Plan sets out recommendations for next steps, including additional data needs, outreach suggestions, and other initiatives that can help achieve progress on current and future water issues. The State Water Plan seeks to:

- Provide a consistent platform for decision making around water usage based on sound science, consensus-based guiding principles, and clear roadmaps;
- Reinforce Connecticut's long-standing practice of maintaining the highest quality drinking water;
- Balance the use of water to meet all needs (instream and out-of-stream);
- Emphasize the need to focus on improved water conservation by all stakeholders, including water companies, individuals, corporations, agriculture, recreation, and government, among others; and,
- Reinforce the importance of maintaining and centralizing scientific data to inform future water use plans.

More information on Connecticut's State Water Plan can be found at https://portal.ct.gov/Water.

Land Use Planning

The changes in land cover that have occurred in Connecticut over the past several decades through conversion of undeveloped land to higher-intensity uses, often in close proximity to surface waters, have impacted water quality as a result of increased NPS pollution. In turn, conservation and preservation of lands can help protect water quality.

Connecticut CT DEEP's Forestry Division has an active urban forestry program. CT DEEP's urban forestry program works closely with municipalities throughout the state, helping to educate regarding the benefits and importance of urban trees and also assists in the development of healthy, diverse urban forest canopies. Among the benefits of urban trees that are often cited are the work these trees do in encouraging infiltration of water into soils, leading to cleaner ground water, increased water storage and the reduction of storm water runoff. Within Connecticut, the number of green stormwater infrastructure projects are on the rise with recent examples in New Haven with Yale University's Urban Resource Institute, due in many cases to partnerships with groups whose primary focus is urban forestry.

The Forest Legacy Program helps to identify and conserve environmentally important forests. The program protects working forests, those forests that protect water quality and provide habitat, forest products, opportunities for recreation and other public benefits. This program encourages and supports acquisition of conservation easements. In FFY23, no Forest Legacy conservation easements were completed, but an additional 1,304 acres are in progress using $5,070,000 in federal Forest Legacy Program funding.

CT DEEP's Office of Planning and Program Development has two programs dedicated to preserving public open space. The Recreation and Natural Heritage Trust Program purchases properties to add land to the state's system of Parks, Forests, Wildlife management areas, and water access areas. The Open Space and Watershed Land Acquisition Grant Program provides grants to communities for the acquisition of open space. This initiative includes the direct purchase of open space by the State and its conservation partners or by donations from landowners whereby 10% of open space would be held by CT DEEP and 11% would be held by municipalities, private non-profit land conservation organizations, and water companies.

The Connecticut General Assembly established a goal of having 673,210 acres (21%) of the State's land area preserved as open space for 2023 (CGS § 23-8). The goal calls for 352,634 acres (11%) of the State's land area to be acquired by DEEP's partners, including municipalities, nonprofit land conservation organizations and water companies and for 320,576 acres (10%) of the State's land area to held by DEEP as part of the State's system of parks, forests, fisheries, and natural resource management areas. As of September 2023, it is estimated that DEEP partners held approximately 254,111 acres or 72.06 % of the State's goal and that DEEP held approximately 263,032 acres or 82.05% of the State's goal. In total, as of September 2023, 517,143 acres have been preserved (76.82% of the total goal), leaving an additional 156,067 acres remaining to meet the 21% goal.

2. Water Quality Planning and Management

CT DEEP's Water Quality Monitoring Program collects data to assess water bodies and visits many long-term monitoring stations in basins with active §319 projects. An objective of the Water Quality Monitoring program is to evaluate the effectiveness of current water quality programs and policies and communicate monitoring information to the public and resource agencies including the NPS Program. Staff from the NPS

Program make annual requests to the Water Quality Monitoring Program to include waterbodies for monitoring to support §319 water quality projects. Data is then reviewed and assessed in the Integrated Water Quality Report to determine if a project supported a success in improving water quality to a level that meets Connecticut Water Quality Standards. If the monitoring data proves that the impairment no longer exists, the water body is then removed from the CWA Section 303(d) list of impaired waterbodies in the next reporting cycle. CT DEEP Water Quality Monitoring Program staff also provide technical assistance to the NPS Program by reviewing and approving Quality Assurance Project Plans for §319 funded projects that include a water monitoring component.

CT DEEP developed a program for Integrated Water Resource Management (IWRM). The IWRM approach is consistent with the EPA Long-Term Vision for Assessment, Restoration and Protection under the CWA Section 303(d) Program. Through this process, CT DEEP identified priority waters for action plan development. This year CT DEEP continued work on action plans for priority waters. The 2022 IWQR identified waters where Action Plans are currently in development to be completed by 2024, including: a statewide Impervious Cover Response Plan, Natchaug Protection Plan, Interim Phosphorus Strategy, TMDL for Pawtucket Embayment, TMDL for Bradley Airport, Alternative Remediation Plans, Marine Water bacteria TMDL, and Freshwater Bacteria TMDL. CT DEEP secured funding for nutrient monitoring in the embayments of Farm River estuary and Saugatuck River estuary. This monitoring will be used for modeling nutrients loads and ultimately to develop a nutrient action plan for the embayments. The process used will serve as a model for future embayment studies.

CT DEEP and partners continued to develop Watershed Based Plans (WBP) using §319 Grants and other funding sources. The following WBPs documents were completed or are under review by DEEP for the fiscal year:

- Farm River Watershed Management Plan (submitted to EPA for approval in FFY23)
- Bolton Lakes Watershed Management Plan (under review)

Further, CT DEEP has also awarded §319 Grants to partners to development additional WBPs. The following are WBP projects that will be under development:

- Deep Brook/Pootatuck River Watershed Based Plan (partially funded draft in FFY18, being finalized with other federal funding)
- Scantic River Watershed Based Plan (FFY22)
- Bruce Brook Watershed Based Plan (FFY21)

3. Coastal Nonpoint Source Control

CT DEEP Coastal Nonpoint Pollution Control Program

Connecticut's Coastal Nonpoint Pollution Control Program (CNPCP), established pursuant to Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA), addresses several major categories of NPS pollution including agriculture,

urban sources, marinas, and recreational boating, hydromodifications, and wetlands and riparian areas. The CNPCP is a networked program that relies on several well-established and effective programs to reduce or eliminate NPS pollution affecting coastal waters, and several of them are administered or overseen by CT DEEP.

Connecticut's CNPCP is based primarily on the Connecticut Coastal Management Act, the §319 NPS Grant Program, and the state's broad Water Pollution Control Authority. In addition to these foundation programs, there are several networked programs and authorities at the state and municipal levels that are used to implement each CNPCP program component.

The CT DEEP Land and Water Resources Division (LWRD) is responsible for administering the CNPCP in conjunction with the Water Planning and Management Division. LWRD also is responsible for administering statutes related to coastal NPS problems, including the state's Inland Wetlands and Watercourses Act, Tidal Wetlands Act and Structures, Dredging, and Fill Act.

Implementation of Connecticut's CNPCP is focused on:

- Controlling nitrogen and pathogens, especially from new development, existing urban sources, and runoff from marinas that are proximate to Long Island Sound and its major tributaries.
- Addressing NPS pollution control needs on both a case-by-case and a watershed basis through various methods including coastal site plan review, state regulatory authority (e.g., tidal wetlands and structures, dredging, and fill regulatory programs), §319 funded implementation projects, and broader watershed planning initiatives.
- Continuing technical assistance to municipalities to address NPS impacts from new and existing development encouraging use of Low Impact Development and Green Infrastructure techniques.
- Protecting tidal wetlands and riparian areas and promoting the use of Living Shorelines where appropriate.
- Improving the monitoring and tracking of septic system performance in areas impacting coastal waters.

Long Island Sound Study

CT DEEP continues to routinely incorporate relevant NPS-related management measures as permit conditions for coastal regulatory programs (structures and dredging 22a-359 to 22a-363h and tidal wetlands 22a-28 to 22a-35a). In addition, relevant nonpoint source-related management measures are regularly incorporated into coastal site plan reviews. CT DEEP's Land and Water Resources Division comments on zoning regulation amendments that affect the coastal boundary and revisions to plans of conservation and development and/or municipal coastal programs in coastal municipalities as necessary.

CT DEEP is a partner in the EPA Long Island Sound Study (LISS), one of 28 National Estuaries Programs (NEP) established under the Federal Clean Water Act. The LISS is a federal and state partnership led by CT DEEP, New York State Department of Environmental Conservation (NYSDEC), and EPA. For this reporting year, CT DEEP continued implementation of the LIS Comprehensive Conservation and Management Plan Update (CCMP). The CCMP contains Implementation Actions for the 2020-2024 cycle. Each NEP develops and implements a CCMP that recommends priority actions to restore and maintain the chemical, physical, and biological integrity of the estuary including water quality, a balanced indigenous population of shellfish, fish, and wildlife, critical lands and habitat, and recreation and public access. As for updating the CCMP for 2025-2029, the LISS partners anticipate workgroups revising the plan, to provide a public feedback forum, and complete a final document by early 2025. Information on the LISS is on the website.

Boating and Marinas

During the boating season, CT DEEP pumpout facilities and pumpout vessel programs remove more than 1 million gallons of sewage from recreational vessels in Long Island Sound and Candlewood Lake anually. Funding for the program comes from the Sport Fishing and Boating Trust fund, which is supported by excise taxes on certain fishing and boating equipment and boat fuels. CT DEEP partners with the U.S. Fish and Wildlife Service and issues grants to marinas to establish pumpout facilities that a free to boaters. Information regarding Connecticut's Clean Boater Program and Clean Vessel Act Program can be found on the program website.

The University of Connecticut continued work on the §319-funded the project, Water Quality BMPs for State Beaches and Boat Launches Project. The purpose of the Project is to develop a Best Management Practice (BMP) guidance document and supplemental materials to be used at Connecticut state parks to improve water quality and provide specific recommendations for water quality improvements at two selected state parks with designated swim and/or boat launch areas in Connecticut.

CT DEEP continues to work on preventing the spread of damaging aquatic species invading the waters of Connecticut. CT DEEP encourages a Clean, Drain, Dry technique for boaters as a BMP. Inspection of vessels for vegetation and aquatic nuisance species and proper removal and disposal of all vegetation and nuisance species before transportation of vessels is required; failure to do so will result in a fine (CGA 15-180). State agencies, municipalities, and not-for-profit agencies may access funds from the Connecticut Lakes, Rivers and Ponds Preservation Account through a competitive grant program.

4. Pollution Prevention

Pollution prevention emphasizes preventing or minimizing pollution, rather than controlling it once it is generated. Pollution prevention is the most effective NPS

pollution control strategy and therefore plays a central role in the state's NPS Management Program, which is consistent with CT DEEP's commitment to pollution prevention. Pollution prevention is essential to restoring impaired waters and protecting high quality waters. Numerous pollution prevention practices are available for a variety of land uses and NPS pollution source categories, many of which are emphasized throughout the recommendations contained in this plan. The CT DEEP Pollution Prevention Program coordinates pollution prevention activities in cooperation with the NPS Program.

5. Stormwater Program: Runoff from Developed Areas.

Connecticut issued a General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4). The MS4 permit covers municipal separate storm sewer systems and how a municipality manages its stormwater infrastructure. Each municipality in the program developed a stormwater management plan that addresses six areas of responsibility: public education and outreach, public participation, illicit discharge detection and elimination, construction stormwater management, post-construction stormwater management, pollution prevention and good housekeeping. The permit builds on six areas of responsibility and provides more detail and clarification on how to implement these measures as well as adding additional elements to help protect environmental resources. Connecticut also issued a Department of Transportation (DOT) MS4 general permit, modeled after the MS4 general permit. Connecticut also has in effect a Commercial Stormwater general permit that covers developments with five or more acres of impervious cover.

The UConn Center for Land Use Education and Research (CLEAR) developed a website devoted to MS4 outreach and compliance. The website is organized around the six minimum management measures and included tools, maps, links, publications, tutorial videos and other resources for MS4 municipalities and communities interested in addressing stormwater issues.

CT DEEP updated the Connecticut Stormwater Quality Manual which provides guidance on the measures necessary to protect the waters of the State of Connecticut from the adverse impacts of post-construction stormwater runoff. This manual focuses on site planning, source control, and stormwater treatment practices and is intended for use as a planning tool and design guidance document by the regulated and regulatory communities involved in stormwater quality management.

CT DEEP also updated the Connecticut Guidelines for Soil Erosion & Sediment Control, which provides information to government agencies and the public as a reference for projects that require erosion and sediment control planning, design, and implementation, for minimization of impacts based on best currently available technology.

Both the Stormwater Quality Manual and the Soil Erosion & Sediment Control Guidelines were published September 30, 2023, and will be effective March 30, 2024. The revisions to these documents were developed in partnership with the Connecticut

Council on Soil and Water Conservation, with funding from the Long Island Sound Study. Both documents support efforts to maintain and improve water quality by addressing NPS pollution for land use development and post-development conditions.

6. Subsurface Disposal Systems

With funding from Connecticut's Clean Water Fund, CT DEEP administers planning, design and construction projects that specifically target and correct community pollution problems arising from inadequate onsite sewage treatment and disposal systems. CT DEEP's Municipal Wastewater Section, in coordination with the respective municipalities, made progress on the following projects:

- Old Saybrook: The Town of Old Saybrook continued to evaluate community system alternatives for the 5 remaining areas within the district whereby the Town would collect wastewater and take it to an offsite location for treatment and disposal. The hydraulic capacity assessment report of the Old Saybrook High School is completed. It is under review by the Town and expected to be submitted to DEEP soon. The Town expects to do hydraulic load tests at the high school to verify the capacity estimated in the hydrogeologic model. The high school capacity will help determine the number of homes located in low lying areas that could potentially be connected for offsite wastewater treatment and subsurface disposal.
- Clinton: The Town of Clinton performed a Preliminary Site Wastewater Hydraulic Capacity Assessment for the two "downtown center" sites located at 7-27 East Main Street and 16 West Main Street. These two sites would be used to serve properties located in the vicinity of these two sites. The project is currently on hold as the initial cost estimate was substantial.
- Old Lyme: The private beach associations completed the design of the pump station and force main that will take wastewater flows to East Lyme, as well as completed the design of the collector sewers within each private association. The project was sent to bid twice in 2021 but on both occasions, the bid proposals came in higher than the authorized bond fund amounts by the associations. The associations are looking for additional funding sources to address project affordability limitations. The associations continue to monitor the construction market for signs of moderation in the cost of construction materials and labor.
- Goshen: The negotiations to send Woodridge Lake Sewer District wastewater to Torrington or Litchfield have stalled. Woodridge Lake Sewer District is looking at other options and is in contact with DEEP regarding all options.

7. Agriculture

Each year, the USDA Natural Resource Conservation Service (NRCS) continues to fund several Resource Conservation Partnership Program (RCPP) projects in Connecticut. These include projects with a NPS management focus: the Connecticut Council on Soil and Water's Long Island Sound Watershed RCPP, The Last Green Valley's Soil Heath

and Water Quality in the Thames River Watershed RCPP, and UConn's Path to Reduce Pathogens in Connecticut Agricultural Runoff RCPP. The Long Island Sound RCPP is funding land easements, working with producers on soil health, and implementing resiliency projects in areas that are vulnerable to soil erosion. The long-term objective of The Last Green Valley's RCCP is to implement soil health conservation practices through the NRCS Environmental Quality Incentives Program (EQIP) on 1,000 acres of cropland. UCONN's RCPP prioritizes dairy farm production areas within watersheds containing recreation impaired freshwaters covered under a Bacteria TMDL where monitoring continues to document high bacteria concentrations. The project team will hold direct conversations with willing dairy farmers about current practices and seek opportunities to reduce barriers to producers in adopting pathogen practices.

CT DEEP participates as a member of the Connecticut NRCS State Technical Advisory Committee. EQIP Programs are discussed and suggested priorities are provided to NRCS about farms that could benefit from NRCS assistance and funding. Meanwhile CT DEEP continues to work with NRCS to develop projects as part of the National Water Quality Initiative (NWQI). Connecticut has two NWQI designations, Broad Brook in Ellington, and Farm River in Branford/North Branford/East Haven. The Farm River received the NWQI designation from NRCS in 2022. A third watershed, Little River in Woodstock/Putnam, has a comprehensive plan under development before it can achieve the designation.

CT DEEP has continued discussions internally, with our partners, and farmers promoting anaerobic digesters to address the surplus of livestock nutrients produced in state.

In FFY23 CT DEEP used §319 funds to support and manage the following agriculture nutrient reduction projects:

- Coginchaug River, Deerfield Farm Agricultural Stormwater Runoff Management
- Broad Brook Agricultural Waste Management Design (Completed)
- Broad Brook Agricultural Waste Management Construction
- Mill Brook Agricultural NPS Action Plan

8. Technical Assistance and Outreach

In addition to CT DEEP, Connecticut's Soil and Water Conservation Districts (Conservation Districts) and the University of Connecticut Nonpoint Education for Municipal Officials (NEMO) program, among other NPS Program partners, play a lead role in providing technical assistance and outreach on NPS management issues in Connecticut.

Conservation Districts

Conservation Districts deliver technical assistance and outreach to municipalities and landowners. Technical and educational services provided include erosion and

sedimentation control, management and control of NPS pollution, management of stormwater runoff, and promotion of watershed management with recommendations for best management practices. Districts partner with various public and private stakeholders to develop and implement watershed management plans and local initiatives focused on protecting and restoring watershed health. Among others, partners include CT DEEP, NRCS, municipalities, regional planning entities, and natural resource and land preservation groups.

Connecticut NEMO Program

The NEMO program began in 1991 at the University of Connecticut, as a collaboration of the Cooperative Extension System, the Connecticut Sea Grant College Program and the Natural Resources Management and Engineering Department. The fundamental premise of the program is that education – not regulation – is the most efficient and cost-effective means of influencing land use decisions. Today, NEMO is a part of CLEAR within the University of Connecticut College of Agriculture, Health and Natural Resources. The NEMO program provides information, education and assistance to local land use officials and other community groups on how they can accommodate growth while protecting their natural resources and community character. NPS management issues addressed by the NEMO program and CLEAR include low impact development (LID) and green infrastructure, riparian buffers, and municipal plans and regulations that protect water quality. The NEMO program also developed the MS4 Guide for Connecticut's municipalities through funding from CT DEEP. The NEMO program staff are providing broad outreach for MS4 communities and institutions through guidance, training, and tools to comply with the requirements of the renewed MS4 general permit. MS4 materials and support will be provided throughout the 5-year permit timeline.

9. Climate Change and Greenhouse Gases (GHG)

Within the current CT NPS Management Program Plan, CT DEEP has set two objectives related to Climate Change:

1) Update State stormwater design manuals to reflect observed increased in frequency and intensity of large storms
2) incorporate climate change and flood resiliency into watershed planning.

Additionally, predicted sea level rise must be considered in "flood proofing" evaluations for state projects or publicly funded projects, plans for municipal evaluation and hazard mitigation plans, civil preparedness plans, and plans of conservation and development (CGS §25-68o).

Stormwater Management Design Guidance

Water resources in Connecticut are affected by climate stressors, including increasing temperatures, changing precipitation patterns, extreme events (storms, floods, and drought), and rising sea levels. These changing conditions have implications for

stormwater management as local and state decision makers look to implement appropriate maintenance plans, improve existing infrastructure, and build new stormwater systems that are more resilient to changes in Connecticut.

The updated Connecticut Stormwater Quality Manual and Soil Erosion & Sediment Control Guidelines include provisions for CT DEEP to prepare for challenges resulting from climate change.

The Stormwater Quality Manual incorporates climate change and resilience considerations for design and implementation in the following ways:

- Preserving pre-development site hydrology using LID site planning and design strategies and structural stormwater BMPs
- Discussion of updated design storm precipitation for stormwater quantity and quality control
- Sea level rise and other considerations for stormwater BMP siting and design in coastal areas
- Design considerations for mitigating the potential negative impacts of climate change on stream temperatures and nutrient loads

In addition, the manual emphasizes the importance of considering future conditions when designing and implementing stormwater BMPs, including long-term maintenance, to ensure longevity.

The Soil Erosion & Sediment Control Guidelines incorporate climate change and resilience considerations for in the following ways:

- Preserving pre-development site hydrology through the use of LID site planning and design strategies and erosion and sedimentation control measures
- Updating design storm precipitation for design of erosion and sedimentation controls and post-construction stormwater measures
- Managing coastal erosion as communities seek methods of adapting to sea level rise and increased coastal erosion and inundation driven by climate change
- The University of Connecticut through the Connecticut Institute for Resilience & Climate Adaptation (CIRCA) is conducting ongoing research on design storm precipitation estimates to account for projected future increases in extreme rainfall.to better inform climate resilient design for the State of Connecticut
- Consider the use of greater design storm rainfall depths to account for projected future increases in extreme precipitation for post-construction based on the latest climate change projections for Connecticut and a planning horizon corresponding to a minimum 50-year service life for the proposed infrastructure.

Resiliency and Adaptation

The second milestone in the Connecticut Nonpoint Source Management Program Plan as part of the Climate Change Five-Year Objectives was to have a pilot study for a watershed based plan with flood resiliency assessment completed.

The Wood-Pawcatuck Flood Resiliency Management Plan (2017) was developed in conjunction with the Rhode Island Department of Environmental Management and CT DEEP, as the watershed stretches both states, and projects that will be eligible for §319 funding both in Rhode Island and Connecticut. Funding for the Plan came from the Hurricane Sandy Coastal Resiliency Grant Program, through the National Fish and Wildlife Foundation. The Plan addresses the elements required by EPA for a watershed plan, while prioritizing projects that address flood resiliency.

Additionally, the Niantic Watershed Based Plan (2020) addresses Climate Change and Coastal Resiliency, recognizing that portions of the watershed are located in areas vulnerable to coastal flooding resulting from sea level rise and storm surge associated with climate change projections. As a result, climate change adaptation strategies for coastal areas within the Niantic Watershed are addressed in Section 3.3 of the watershed plan.

The draft Pootatuck River Watershed Management Plan completed in FFY23 with §319 funds includes considerations for floodplain management and climate resiliency. Water Quality goals in the plan related to climate resiliency include monitoring of streams to understand areas that are most vulnerable or resilient, green infrastructure and LID to reduce the impacts of climate change, identifying flood infrastructure improvements in the watershed, educating the watershed residence regarding resiliency, and ensuring watershed conservation measures are adaptable in changing climate.

Greenhouse Gas Emissions

In addition to adapting to the changing climate, the CT DEEP Air Bureau is taking action to reduce greenhouse gas emissions. However, beyond the considerations for atmospheric deposition, greenhouse gas emissions are not under the purview of CT DEEP's NPS programs.

10. Environmental Justice (EJ) and Environmental Equity

The CWA §319 program is considered a program covered under Justice40. The NPS program strives to increase §319 investments to benefit disadvantaged communities to 40% nationally, by prioritizing projects that will benefit those communities. CT DEEP continues to apply EPA's guidance regarding EJ in its administration of the §319 Program.

In Connecticut, an Environmental Justice Community (EJC) means a United States census block group, as determined in accordance with the most recent United States census, for which thirty per cent or more of the population consists of low-income persons who are not institutionalized and have an income below two hundred per cent of the federal poverty level; or (B) a distressed municipality, as defined in subsection (CGS §22a-20a). A distressed municipality, as designated by the Connecticut Department of Economic and Community Development, includes municipalities that no longer meet the

threshold requirements but are still in a 5-year grace period (CGS Sec. 32-9p(b).) Fitting into that grace period, eight towns continue to be eligible for distressed municipality benefits because they dropped off the list within the last five years.

CT DEEP and the §319 Grant Program are committed to efforts and awareness of NPS environmental problems in EJCs. CT DEEP has always welcomed applications for proposed work within EJCs and several projects have been conducted in the past. Projects completed in FFY23 in EJCs include the Broad Brook Agricultural Waste Management Design in Ellington. The draft Watershed Based Plan for Deep Brook/Pootatuck River, the product of the project Action Plan for Nonpoint Source Pollution Reduction in the Pootatuck River Watershed (18-06), includes considerations and funding opportunities for implementation work with EJCs. While Hamden Town Center Park is not within an EJ community, there are several EJCs north and south of the park within the Town of Hamden. Those EJCs may use the park and/or benefit from the Hamden Town Center Park Stormwater BMP Implementation (18-08) project, especially those located downstream. Additionally, in the NPS Management awards the five Connecticut Conservation Districts receive, they provide program support to municipalities, which may include those defined in state statute as EJCs.

In FFY23, CT DEEP considered additional opportunities and initiatives from the agency's efforts to expand support for EJCs, including setting a priority for EJCs during the competitive review process for the §319 Grant. Projects that were selected from the FFY23 RFP cycle that benefit EJCs communities include: MRWA Mill River Bioswales Hamden and Beardsley Park Green Infrastructure and Community Outreach.

A few projects may have indirect benefits to EJCs. The §319-funded project Water Quality BMPs for State Beaches and Boat Launches Project (22-06) provides guidance for State Beaches to improve water quality, to enhance a valuable resource for all Connecticut residents. CT DEEP has several programs that aim to make access to state parks more equitable. The Passport to the Parks program eliminated parking fees at CT State Parks for vehicles registered in Connecticut, while the Park ConneCT program provides free public transit to several state parks. Additionally, several museums overseen by CT DEEP eased the financial cost to visitors as part of the Connecticut Summer at the Museum program that allows Connecticut children to receive free admission at more than 90 museums across Connecticut during the summer months.

11. Summary

As described above, Connecticut made significant progress in implementing the Connecticut Nonpoint Source Management Program Plan in FFY23. This Annual Report is meant to provide a summary of activities of various CT DEEP programs involved in NPS pollution control. More detail can be found on each program by viewing CT DEEP's website.

Appendix A

Summaries of CWA §319 grant funded projects completed in FFY23

FFY	State Project Number	Project Title
Multiyear*	18-01a NCCD	Conservation Districts Implementation Block Grant – Broad Brook Agricultural Waste Management Construction
The North Central Conservation District oversaw the implementation of the project "Broad Brook Agricultural Waste Management Construction". Roaring Brook Farm was previously identified in the Broad Brook Watershed-Based Plan Phase 2 (2017) as a contributing agricultural nonpoint source of pollution within the watershed. This project supports ongoing efforts to address water quality concerns in the Broad Brook Watershed, a subregional basin within the Scantic River Regional Bain, and further the implementation of the Broad Brook Watershed-Based Plan, which was approved in 2010 by the CT DEEP. This project at Roaring Brook Farm completed a design project of measures and structures to be implemented on the farm, including design of a waste storage facility, free-stall barn, and associated structures and measures, to move toward construction as part of a multi-year project. The FY18 portion of the project was completed in FFY23, and the remainder of the project is underway.		
Multiyear*	18-01 NWCD	Conservation Districts Implementation Block Grant – Bethel Town Parks Stormwater BMPs
The Northwest Conservation District is conducting a project to improve water quality for the Still River watershed by addressing NPS pollution from stormwater runoff, including stormwater BMPs to manage runoff from the Bethel Dog Park and the Bennett Memorial Park in Bethel, CT. Stormwater BMPs include bioretention structures, riparian buffers, rain gardens, and retaining wall structures. The work also aims to reduce NPS stormwater pollution loads by managing runoff with two bioretention structures and a riparian buffer at the Bethel Dog Park, and managing pavilion runoff with a rain garden and a retaining wall structure at Bennett Memorial Park. The FY18 portion of the project was completed in FFY23, and the remainder of the project is underway.		
Multiyear*	18-01 CRCCD	Conservation Districts Implementation Block Grant – Deerfield Farms NPS Improvements Phase 2
The Connecticut River Coastal Conservation District (Conservation District) worked on the project with the Town of Durham and Deerfield Farm to conduct a nonpoint source management project at the farm as part of ongoing efforts to improve water quality in the Coginchaug River Watershed. The objective of the project is to address stormwater runoff concerns around the dairy barn and two areas in the pasture. Deerfield Farm is a Town-owned property located at the corner of Parmelee Hill Road and Pent Road. The property and barn are leased to Deerfield Farm owners to operate a small dairy. Stormwater improvement practices planned and designed as part of the project include gutters and downspouts on the barn to direct clean water roof runoff away from the livestock paddock/heavy use area and discharge to a stable outlet; reshaping of the driveway and parking lot to direct stormwater away from the barn and eroding pasture; a stormwater catch basin and pipe to collect driveway and parking lot runoff and direct it to a stable outlet; a vegetated swale with a velocity dissipation structure, check dam, water bar and level spreader to infiltrate and dissipate stormwater collected from the roof and parking lot; and erosion control measures for an eroded gully at the cattle path, including water bars and a velocity dissipation structure. The FY18 portion of the project was completed in FFY23, and the remainder of the project is underway.		
2018	18-03	NPS Outreach & Misc
Funding was used for travel costs for NPS Staff to conferences.		

2018	18-06	Action Plan for Nonpoint Source Pollution Reduction in the Pootatuck River Watershed
The Housatonic Valley Association (HVA) developed an Action Plan for Nonpoint Source Pollution Reduction in the Pootatuck River Watershed that addresses water quality impairments (E. coli) in the Deep Brook Watershed, within the larger Pootatuck River Watershed in Fairfield County. The Action Plan is an EPA 9 element watershed-based plan, and also includes other watershed concerns and interests identified by local stakeholder groups. This project produced a multitude of construction projects and non-construction programs, including conceptual designs for Rams Pasture, Connecticut Department of Transportation (CT DOT) Highway Garage, and Head O'Meadow Elementary School. This Draft Watershed Plan focused on Deep Brook, and a final plan will be produced under a grant from Long Island Sound Futures Fund for the entirety of the Pootatuck River Watershed. The final plan will be a roadmap for restoring and protecting the entire Pootatuck watershed.		
2018	18-08	Hamden Town Park Center Park Stormwater BMP Implementation
Save the Sound worked with the Town of Hamden partnered to install a rain garden to manage more than 96 million gallons of stormwater discharging into Hamden Town Center Park, The rain garden has 4 basins, which infiltrate and hold stormwater even during exceptionally large rain events (100+ year storms). The project addresses nonpoint source pollution and quantity of runoff, and created habitat and enhanced the ecological value of the park. The project is also intended to serve as an educational resource for both the Hamden Middle School and the public who use the park. Prior to the project, stormwater runoff from the urban watershed flowed from impervious surfaces in upstream neighborhoods into storm drains and discharged through a pipe directly into Town Center Park. During moderate, 1-inch rainfalls, the system would become inundated and offered little or no treatment of sediment or pollutants. During heavy rainfall events, runoff would sheet flow onto the lawn and directly into the Pardee Brook diversion channel.		
2019	19-06	Still River Stormwater Retrofit Project Development
The Housatonic Valley Association (HVA) designed and developed at stormwater retrofit projects in the Still River Watershed to reduce pollutant loads contributing to ongoing water quality impairments in the Still River and several of its tributaries. This project produced three permit-ready design packages, including existing and proposed conditions, detailed drawings, BMP operation/maintenance guidelines, pollution reduction estimates, and estimated costs for construction, for Stormwater Retrofits at locations prioritized during the development of the Still River Watershed Management Plan (2019). Project sites addressed through this work include the Town of Brookfield Department of Public Works Highway Garage, Town of Bethel Department of Public Works Highway Garage, and Prince of Peace Lutheran Church. When built, these projects will significantly reduce the amount of pollutants entering the Still River Watershed from each site.		
2020	20-01 NCCD	Conservation Districts Technical Assistance
The North Central Conservation District provided baseline technical service to municipalities and landowners to assist these constituents with natural resource protection and preservation. Services to municipalities typically include identification of wetlands; review of sediment and erosion control plans; and review of stormwater management plans. The District may also provide more generalized natural resource assessment services related to a broad range of project needs and goals. Assistance to private landowners may include similar issues, but often are related to the management and storage of farm waste; farm nutrient management and soil health; invasive plants, vegetation, and ponds. Most of these issues impact water quality to varying degrees.		
2020	2020-01 NWCD	Conservation Districts Technical Assistance
The Northwest Conservation District provided baseline technical service to municipalities and landowners to assist these constituents with natural resource protection and preservation. Services to municipalities typically include identification of wetlands; review of sediment and erosion control		

plans; and review of stormwater management plans. The District may also provide more generalized natural resource assessment services related to a broad range of project needs and goals. Assistance to private landowners may include similar issues, but often are related to the management and storage of farm waste; farm nutrient management and soil health; invasive plants, vegetation, and ponds. Most of these issues impact water quality to varying degrees.		
2019	19-07	Pomperaug WBP
The purpose of this grant project was to lay additional groundwork necessary for implementation of the Pomperaug River Watershed Based Plan (2018). The necessary groundwork included the collection of ambient water quality monitoring and streamwalk assessment survey data, review stormwater outfall monitoring data, and any other newly available datasets to that would better define the scope of the water quality impairments listed in the Pomperaug Watershed. Based on the updated existing conditions, PRWC identified the best investment opportunities for implementation of best management practices to mitigate non-point source pollutants of concern (bacteria). The groundwork also included building relationships with agricultural stakeholders. The Watershed Based Plan identified agricultural lands as high priority areas for mitigating bacteria pollution through the implementation of best management practices and this cohort of stakeholders were not well represented in the development of the Watershed Based Plan		
2021	21-01 SWCD	Conservation Districts Technical Assistance
The Southwest Conservation District provided baseline technical service to municipalities and landowners to assist these constituents with natural resource protection and preservation. Services to municipalities typically include identification of wetlands; review of sediment and erosion control plans; and review of stormwater management plans. The District may also provide more generalized natural resource assessment services related to a broad range of project needs and goals. Assistance to private landowners may include similar issues, but often are related to the management and storage of farm waste; farm nutrient management and soil health; invasive plants, vegetation, and ponds. Most of these issues impact water quality to varying degrees.		
*Multiyear projects have been awarded funding across more than one fiscal year. When funds are expended on older awards, the award is closed but the project can still be ongoing with other fiscal year grants.		

Appendix B

CT DEEP Accomplishments for PPA Milestones in FFY23

PPG Commitment	CT DEEP Accomplishments
National Guidelines: Use the Nonpoint Source Program and Grants Guidelines for States and Territories released on April 12, 2013, to identify eligible activities, program priorities, programmatic conditions, and reporting requirements. At least 50% of §319 funding will be used for watershed-based plan (WBP) implementation. One nine-element WBP will be submitted annually to Region 1 for review; all alternative watershed-based plans will be submitted to the Region for review and approval. Target §319 funding toward restoration of priority segments, waters bodies or watersheds, and protection of documented high priority healthy and threatened waters consistent with the Integrated Water Resources Management (303d Vision).	**Completed**. §319 Funds were obligated to 6 awards. At least 50% of the funds were for WBP implementation. The WBP for the Farm River Watershed was submitted to EPA in FFY23. CT DEEP has the Integrated Water Resources Management Plan that targets high priority impaired or healthy waters.
Attendance at NPS meetings/training: Attend NPS and GRTS national and regional meetings convened by EPA unless prevented by state-wide travel bans. Use §319 funds to cover travel expenses for NPS staff to participate in regional and national GRTS training meetings, national NPS conferences, and regional meetings and conferences. Ensure that adequate §319 funding is set aside annually for this purpose.	**Completed**. The annual NEIWPCC NPS Conference was held in April 2023 in Saratoga Springs, New York and three CT DEEP NPS Staff members attended.
Working with USDA and other agencies: Continue to work with USDA and other agencies through participation on the State Technical Committee to look for opportunities to leverage Farm Bill funds for high priority water restoration projects, including §319-related projects. In FY19 participate in the NRCS Water Quality Initiative. Collaborate on planning for monitoring one small NRCS WQI watershed (contingent upon NRCS providing adequate information to develop a targeted monitoring plan). Coordinate with partners to implement the NWQI monitoring plan contingent on the continued participation and support of NRCS in this initiative.	**Completed**. DEEP participated in State Technical Committee meetings involving Farm Bill rules and modified cost share programs to provide new financial assistance to eligible agricultural operators in the CT NWQI watersheds (Broad Brook and Farm River). The Farm River watershed plan approved and was designated a NWQI. NRCS in conjunction with the Eastern CT Conservation District is developing the necessary planning documents to establish one more NWQI watershed – Little River. Monitoring continues in the existing NWQI watershed of Broad Brook.
§319 NPS Success Stories: By June 1st, submit success stories for waterbodies that have been fully or partially delisted in previous years (i.e., measure WQ-10) and/or that show improvement in water quality or demonstrate ecological restoration.	**Completed.** CT DEEP submitted one Success Story to EPA for review.

PPG Commitment	CT DEEP Accomplishments
GRTS: Within 90 days of receipt of a categorical grant or receipt of final §319 funding under a PPG award, enter into the Grants Reporting Tracking System (GRTS) all §319 grant mandatory data elements except for best management practices data and load reduction model and data. By February 15th, complete annual GRTS reporting by entering all remaining mandatory BMP and load reduction data (if applicable). Provide timely review of national GRTs reports prepared for the state.	**Completed**. Mandatory data elements for all new projects were entered into GRTS. For all the projects that were completed in this fiscal year, CT DEEP ensured that their GRTS records were up-to-date and complete.
Annual Report: Report annually on progress made in implementing the state's NPS Management Program, including a summary of major accomplishments and completed projects, a list of active §319 projects with expected completion dates, a brief summary of water quality improvements (e.g., restoration of impaired waters or other notable environmental results) and NPS pollutant load reductions (total phosphorus, nitrogen, and sediment reductions for the state, from the previous February's GRTS reporting). Where information is not yet available on load reductions and water quality improvement where implementation is underway, surrogate measures of environmental progress should be used.	**Completed**. CT DEEP completed an annual report that summarizes this fiscal year activities for all elements in the Connecticut Nonpoint Source Management Plan.
Annual Workplan: Submit an annual workplan that is responsive to National guidance and that describes §319-related work funded from both the Performance Partnership Grant (PPG) and Categorical grant, including how the state is organized to implement the NPS management plan and achieve its broad goals (e.g. staffing, training, technology transfer, financial assistance, public outreach, etc.) as well as proposed projects and activities for the year consistent with management plan priorities and milestones.	**Completed**. CT DEEP submitted an annual workplan that identifies this fiscal year activities for the grant award, §319-funded projects and programmatic activities.
Progress and Performance Review: EPA will use information provided by the state (annual report, workplan, GRTS entry, success stories) to determine whether the State has made satisfactory progress in implementing its NPS Management Program in accordance with CWA Section 319(h)(8). If appropriate, EPA will request additional information to assist with the determination. EPA will complete an annual checklist on Progress and Performance and document its findings.	DEEP met the satisfactory progress determination for the NPS Management Program, conveyed via email.