

**Connecticut Nonpoint Source
Management Program
Clean Water Act Section 319
Federal Fiscal Year 2025 Annual
Report**

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Connecticut
Department of Energy &
Environmental Protection

79 Elm Street
Hartford, CT 06106-5127
DEEP.Watersheds@ct.gov

CT DEEP Mission Statement

The Connecticut Department of Energy and Environmental Protection (CT DEEP) is charged with conserving, improving and protecting the natural resources and the environment of the state of Connecticut as well as making cheaper, cleaner and more reliable energy available for the people and businesses of the state. The agency is also committed to playing a positive role in rebuilding Connecticut's economy and creating jobs – and to fostering a sustainable and prosperous economic future for the state.

The **Environmental Quality Branch** is composed of the Bureaus of Air Management, Materials Management and Compliance Assurance, and Water Protection and Land Reuse. These bureaus protect the air, land and water resources of the state by regulating air emissions, wastewater discharges and solid and hazardous wastes. Tools used include the development of regulations, policies and standards; permitting and enforcement; air and water quality monitoring; and public outreach and education.

Contact Information

Watersheds Program
Water Planning and Management Division
Bureau of Water Protection and Land Resources
Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106
portal.ct.gov/DEEP/Water/NPS
DEEP.watershed@ct.gov

Contents

1. NPS Management Program Overview	5
2. Connecticut's NPS Management Program Framework	5
§319 Program Management	5
Success Story	6
NPS Conference	6
Watershed Based Plan	6
Submittal of FFY25 Application.....	7
Watershed Coordination	7
Coastal Nonpoint Pollution Control	7
Milestone Accomplishments	8
3. Watershed Prioritization in Connecticut.....	9
4. Strategies to Address Nonpoint Source Pollution	11
Major NPS Categories.....	11
Stormwater Runoff from Developed Areas	11
Agriculture.....	12
Subsurface Sewage Disposal Systems.....	14
Hydrologic and Habitat Modification.....	16
Domestic Animals and Wildlife.....	18
Boating and Marinas	19
Other NPS Categories.....	19
Landscaping and Turf Management	20
Atmospheric Deposition.....	20
Land Disposal.....	20
Brownfields and Contaminated Sites	20
Forestry	20
Material Storage.....	20
Resource Extraction	21
5. Nonpoint Source Management Program Performance	21
Program Funding.....	21
Program Progress	21
Appendix A: Clean Water Act Section 319 Nonpoint Source Grant Projects Completed in Federal Fiscal Year 2025	24

20-03 Island Brook Implementation Projects in Bridgeport.....	25
20-04 Lake Pocotopaug Water Quality Improvements Phase 3	27
20-05 Broad Brook Agricultural Waste Management Construction.....	29
21-04 Bruce Brook Watershed Based Plan.....	31
21-05 Coppermine Brook Stormwater Management Improvements.....	33
22-01 CRCCD NPS Management	35
22-01 NCCD NPS Management.....	37
22-06 Best Management Practices Manual Development for Managing Water Quality at State Park Beaches and Boat Launches in Connecticut	39
23-01 CRCCD NPS Management	41
23-01 ECCD NPS Management	43
23-01 SWCD NPS Management	45

1.NPS Management Program Overview

In federal fiscal year 2025 (FFY25) 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 take actions to implement programs that are involved with addressing NPS pollution.

The 2024 [Connecticut Nonpoint Source Management Program Plan](#) (NPSMPP) covers objectives from years 2025-2029. The document identifies specific milestones for NPS pollution management among various programs that the Department intends to achieve, and an annual summary focuses on reporting these specific milestones.

This annual report 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 FFY25. In doing so, this report fulfills annual reporting requirements to evaluate NPSMP progress (Section 319(h)(8), (10), and (11)) and federal grant rules (2 CFR part 200) to determine continued eligibility.

2.Connecticut's NPS Management Program Framework

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 manage the specific §319 funded projects, and link up complementary efforts within the basins for CT DEEP. "NPS Staff" refers primarily to Staff in the Watersheds Program within the Water Planning and Management Division directly involved in administering the Section 319 Program, but may also include Watersheds Program staff involved in the Long Island Sound Partnership, and Land Water Resources Division Staff who implement Connecticut's Coastal Nonpoint Source Pollution Control Program.

In FFY25, CT DEEP published a draft 2024 Integrated Water Quality Report (IWQR) pursuant to the federal Clean Water Act Sections 305(b) and 303(d). The IWQR identifies NPS pollution as a major contributor or cause of impairments to designated uses in streams, rivers, lakes, and estuaries statewide. The IWQR can not only indicate successes of previously funded nonpoint source management efforts, but can also inform locations that Connecticut's NPS Program should prioritize for future watershed planning and implementation using Section 319 funds.

§319 Program Management

Connecticut's approach to controlling NPS pollution includes both focused watershed projects and statewide initiatives. In FFY25, CT NPS Staff oversaw the following:

- 11 projects completed (see [Appendix A](#))

- 18 projects continued to progress
- 6 new projects were initiated
- 8 projects were selected for funding using FFY25 funding

CT DEEP completed all §319 program tasks for the FFY25 in the Performance Partnership Agreement (see [Section 5 Nonpoint Source Management Program Performance](#)).

Success Story

CT DEEP did not submit a Success Story in FFY25. NPS staff will coordinate to explore whether NPS projects contributed to delistings in the upcoming Integrated Water Quality Report (IWQR), and whether a Type 1 story could be developed to report on the results. NPS Staff will also explore potential type 4 and type 5 success stories in the next FFY.

NPS Conference

The 2025 NEIWPCC NPS Conference was held in Freeport, Maine on April 9-10, 2025. NPS staff, including a supervisor, were in attendance. The NPS Supervisor also attended the NPS Coordinator's Meeting on April 8, 2025. Two NPS staff presented at the conference, and an additional NPS staff presented at the poster session. Abstracts for each can be found on the [conference archive website](#).

Watershed Based Plan

The Bruce Brook Watershed Based Plan was submitted to EPA as CT DEEP's annual commitment of submitting one Watershed Based Plan (WBP) for approval per year, and was subsequently approved by EPA. This plan, written by the Town of Stratford, was funded in part by the Section 319 grant in FFY21 and completed in 2025. The Town of Stratford worked with a consultant, the City of Bridgeport, and other watershed stakeholders. The Plan identifies existing conditions, provides estimated pollutant loads and reductions, and contains several site-specific Best Management Practices (BMPs) to address identified nonpoint source pollutants. Further information about the Project can be found in [Appendix A](#).

The Plan was approved by DEEP and then accepted by EPA as a 9 Element Watershed Based Plan on January 6, 2026.

Additional 9 Element Watershed Based Plans are being developed, both with Section 319 funding and other funding sources. Section 319-funded WBPs include:

- Scantic River Watershed Based Plan (FFY22)
- Mad River Watershed Based Plan (FFY24)
- Mad River/Still River Watershed Based Plan (FFY25)

In addition, WBPs being developed using other funding, include:

- North Branch Park River Watershed Based Plan Update (completed, anticipated for review in 2026)
- Pootatuck River Watershed Based Plan
- Natchaug River Watershed Based Plan
- Norwalk River Watershed Based Plan Update
- Twin Lakes Watershed Based Plan

- Bolton Lakes Watershed Based Plan

Submittal of FFY25 Application

CT DEEP posted a Request for Proposals (RFP) on November 7, 2024, and it closed on February 25, 2025. CT DEEP and EPA staff reviewed applications, and selected projects. CT DEEP's application for the FFY25 319 Section Nonpoint Source Management Grant Program was submitted on July 18, 2025 via the grants.gov webpage.

Watershed Coordination

NPS Staff routinely review certain permit applications subject to CT DEEP approval, planning documents developed by CT DEEP and other state agencies, and other grant program materials, focused on promoting the objectives identified in the NPSMPP. Reviews in FFY25 included:

- Water Diversion Permit reviews
- Clean Water Act Section 401 Water Quality Certifications
- Projects subject to the Connecticut Environmental Policy Act and/or National Environmental Policy Act
- Land Acquisition Proposals for CT DEEP
- Open Space and Watershed Land Acquisition Grant Program Applications

NPS Staff participate in some watershed committees, as staff capacity allows. In FFY25, NPS Staff participated in the following: the North Branch Park River Watershed Committee, the Niantic River Nitrogen Workgroup, the Thames River Partnership, the Mystic River Watershed Alliance, the Eastern Connecticut Watershed Network, and the Natchaug Advisory Board. NPS Staff attend meetings upon request by local and regional watershed groups or other public forums to communicate CT DEEP water management goals.

Additionally, five rivers in Connecticut are federally designated Wild and Scenic Rivers: Upper Farmington River, Lower Farmington River and Salmon Brook, Eightmile River, Wood-Pawcatuck River, and Housatonic River. CT DEEP Staff are required by statute to participate in their Wild and Scenic River Committee meetings and Staff from other CT DEEP Divisions, such as the Fisheries Division, are assisting with support for that federal program.

Coastal Nonpoint Pollution Control

Long Island Sound is one of Connecticut's most important natural and economic resources, with all but a small portion of the state being within the Long Island Sound Watershed. NPS pollution contributes nutrients, bacteria and pathogens, sediments, contaminants and litter to Long Island Sound and its embayments.

Coastal Nonpoint Pollution Control

CT DEEP's Land and Water Resources Division (LWRD) oversees the Coastal Nonpoint Pollution Control Program (CNPCP). LWRD Staff participate in the review of Section 319 Applications to ensure that funding is used for projects that align with the efforts outlined in Connecticut's CNPCP, to address pollution from agriculture, urban sources,

marinas and boating, hydromodification, and wetlands and riparian areas. In collaboration with the Watersheds Program, LWRD Staff attend NEIWPCC Conferences and Workshops.

Long Island Sound Partnership (National Estuary Program)

EPA, CT DEEP, and the New York Department of Environmental Conservation are members of the Long Island Sound Partnership (LISP), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to restoring and protecting the Sound. The [LISP Comprehensive Conservation and Management Plan](#) (CCMP), describes the Sound's water quality problem and a series of actions to address and solve these problems.

The LISP continues to allocate funding to CT DEEP for projects that directly implement portions of the NPSMPP, including for dam removal projects, stormwater BMPs, and continued study of Subsurface Sewer Disposal Systems. Additional funding opportunities for projects, including NPS projects, in the Long Island Sound Watershed are available through other partners.

Milestone Accomplishments

Objective 1: Program Administration

Milestone: Achieve satisfactory Progress Determination (SPD) for Connecticut's program annually.

CT DEEP received an SPD for work performed in FFY24 on June 10, 2025. CT DEEP has completed or is on track to complete each of the tasks outlined in the Performance Partnership Agreement (PPA) for FFY25, which include the following:

- Submitting a 9 Element WBP to EPA for review
- Working with USDA through participation in the State Technical Committee and to support the National Water Quality Initiative
- Entering all state-mandatory data elements into the Grants Reporting Tracking System (GRTS)
- Submitting an annual work plan and schedule for Section 319 grant-funded work
- Attendance at national and regional NPS and GRTS training workshops
- Submitting an Annual Report

Objective 2: Partnerships: Build and strengthen partnerships of the lead agencies to coordinate efforts and effectively implement the CT NPS Management Program Plan.

Milestone: Number of NPS projects initiated with joint funding from multiple NPS programs.

In FFY25, CT DEEP contracted and initiated four FFY24 CWA Section 319- funded projects, all of which include non-federal match from the project contractor to supplement the Section 319 funding. One project which leverages various funding sources, including Long Island Sound Futures Fund and a Congressionally directed spending award is being contracted.

Milestone: NPS Technical Assistance provided by partners

NPS Technical Assistance was provided by the five Connecticut Conservation Districts, including through their Section 319-funded NPS Management grants. Additional examples of assistance provided can be found in the summaries of completed projects in [Appendix A](#).

Objective 3: Pollutant Reduction Tracking: Development of a statewide NPS management tracking system to quantify NPS pollution reductions and credits.

Milestone: Statewide Decision Support Tool completed

No milestones were scheduled for FFY25.

Milestone: Finalize Development of the statewide model (CTWM)

Development of the Connecticut Watershed Model was completed by the contractor in FFY25, final products are under CT DEEP review; review will be completed in FFY26.

Milestone: Develop pollutant reduction or protection targets for priority embayments.

No milestones were scheduled for FFY25.

Objective 4: Funding: State Clean Water Funds (CWF) for municipalities with eligible green infrastructure and SSDS projects

Milestone: Green infrastructure and SSDS projects budgeted in the CWF.

No milestones were scheduled for FFY25.

Objective 5: Plan Update: Update NPS Management Program Plan

Milestone: Update NPS Management Program Plan for the next cycle (including milestones for 2030-2034) to be approved by October 1, 2029.

No milestones were scheduled for FFY25.

3. Watershed Prioritization in Connecticut

CT DEEP's [Integrated Water Planning Management \(IWPM\)](#) is the guiding framework that identifies waterbodies for Water Quality Action Plan (WQAP) development, focused on state specific water quality priorities and using the right tools to restore or protect surface waters. Updates to watershed priorities are provided every 2 years in the Integrated Water Quality Report.

Milestone Accomplishments

Objective 1: Prioritization: Evaluate NPS priority lists as new information on individual watersheds becomes available

Milestone: Identify NPS priority watershed list in the IWPM strategy

No milestones were scheduled for FFY25. The 2024 draft Integrated Water Quality report was published September 2025, which includes priority waters for action plan development both 2024-2026. There are seven estuaries and embayments listed for potential Action Plan Development in the future.

Milestone: List of priority hydromodification and migratory corridor enhancement projects updated

CT DEEP's Land and Water Resources Division updated the list of priority projects in a July 2025 workplan, with the assistance of local partners and stakeholders.

Objective 2: Planning: Approve nine-element watershed based plans (WBP), alternative plans, or significant updates to existing plans.

Milestone: Number of new nine element WBPs, updated WBPs, or alternative WBPs submitted for approval

CT DEEP submitted the Bruce Brook Watershed Based Plan to EPA for approval. The Plan was approved by EPA Region 1. Several other WBPs are being progressed and will be reported on upon submittal to EPA.

Objective 3: Implementation: Act on WBP projects to restore and protect waters

Milestone: Percent of Section 319 funding (minimum) directed to implementation projects

84% of the non-PPG FFY25 Section 319 funding was directed to implementation projects; exceeding the schedule of 50%.

Milestone: Percent of Section 319 funding (minimum) directed to projects in EJC's

There is no further action on this milestones for compliance with federal Executive Orders.

Objective 4: Monitoring: Targeted monitoring of water quality improvements

Milestone: Number of waterbodies where targeted water quality monitoring occurs

CT DEEP's Water Monitoring Program conducts targeted water quality monitoring, including based on input provided from NPS Staff. Targeted monitoring includes several locations where NPS Best Management Practices have been installed, including Chatfield Hollow Brook, Roseland Lake, and West River. The Monitoring Program also collects samples at 17 sites in the Long Island Sound, per guidance of the Long Island Sound Comprehensive Conservation Management Plan.

Milestone: NWQI Watersheds Monitored

1 NWQI Watershed, the Broad Brook watershed, was monitored by USGS and CT DEEP's Water Monitoring Program in FFY25. Monitoring will continue into FFY26, including downstream of a Section 319-funded implementation project.

Objective 5: Restoration: Fully or partially restore, or progress toward restoration of, NPS impaired waterbodies; document successes of improvement to water resources

Milestone: Number of waters for which active restoration is occurring

In FFY25, there were 10 active Section 319-funded implementation projects, across 10 different watersheds, all of which have goals of active restoration. Three of those projects were completed in FFY25, meeting the schedule of three waters in which active restoration is occurring.

Milestone: Number of Type 1 Success Stories Submitted to EPA

No milestones were scheduled for FFY25. No Success Stories were submitted to EPA in 2025. CT DEEP is exploring the potential of several Type 4 and 5 Success Stories.

4. Strategies to Address Nonpoint Source Pollution

Major NPS Categories

Stormwater Runoff from Developed Areas

Stormwater runoff from developed areas is continuously identified in the CT IWQR as the major contributor for NPS pollution affecting the State's inland water resources and Long Island Sound. CT DEEP continues to prioritize projects that address stormwater runoff through Section 319 funded implementation projects.

NPS Staff provide support in reviewing scoping notices for new development and redevelopment subject to Connecticut and National Environmental Policy Acts, encouraging effective site planning and design techniques such as Green Infrastructure (GI) or Low Impact Development (LID) to reduce or eliminate the negative effects of stormwater runoff to the receiving waterbody.

CT DEEP has updated its [Salt Impacts and our Environment webpage](#) and promoted its educational information during the winter. CT DEEP shares tips for residents, municipalities and private applicators about salt application best management practices. Additional coordination is planned between NPS Staff and Remediation Division Staff who oversee this program. CT DEEP continues to encourage municipalities and private entities to register for [Green Snow Pro](#) through the University of Connecticut's Training and Technical Assistance Center.

The New London Stormwater Authority was established in 2018 under a state-funded pilot program, and has successfully operated with reasonable rates. CT DEEP continues to explore the option of establishing additional Stormwater Authorities to fund municipal stormwater programs. [Public Act 21-115](#) gives the authority for any Connecticut municipality to implement a Stormwater Authority.

Milestone Accomplishments

Objective 1: Municipal GI/LID: Enhance municipal outreach for GI and LID

Milestone: Provide training workshops for coastal site plan review offered for municipal and zoning officials.

No milestones were scheduled for FFY25. One training workshop was completed on September 29, 2025. The training, titled "Updates to Coastal Site Plan Review Requirement Changes in SB-9" addressed changes from the past legislative session, "An Act Concerning the Environment, Climate, and Sustainable Municipal and State Planning" to outline new municipal review requirements with the CT Coastal Management Act that local planners, land use attorneys, floodplain managers, local

builders and developers need to know for projects within the flood zone within Connecticut's statutorily defined Coastal Boundary. Completion of this workshop puts CT DEEP ahead of schedule on the four workshops that should be completed by 2029.

Milestone: Conservation Districts offer guidance on use of the Stormwater Quality Manual and Erosion and Sedimentation Guidelines

Each of the five Connecticut Conservation Districts provided guidance on the Stormwater Quality Manual and Erosion and Sedimentation Guidelines upon request as part of their NPS Management Technical Assistance projects. A summary of work toward progressing this milestone is in each of the final reports for Conservation District NPS Management, and in the project summaries in [Appendix A](#).

Milestone: Percentage of Coastal Site Plan reviews to ensure management of NPS from new development and existing sources.

CT DEEP's Land and Water Resources Division completed 100% of the Coastal Site Plan Reviews that were submitted. The Division estimated over 180 reviews in FFY25, which are tracked and submitted to NOAA on a biannual basis.

Objective 2: Municipal GI/LID Implementation: Enhance municipal implementation of GI and LID.

Milestone: Number of municipal GI/LID projects in communities with CSOs

No milestones were scheduled for FFY25. 319-funded projects in communities with CSOs are ongoing and will be reported on upon completion.

Objective 3: CT DOT Roadway Anti-icing and road salt application Program: Continue to enhance state roadway deicing programs to address water quality.

Milestone: Credit hours of Green Snow Pro classes offered by UCONN CLEAR to municipal staff and private companies.

12 credit hours of courses were offered by the Connecticut Transportation Institute through UConn for Parking Lots and Sidewalks, and Roadways, exceeding the milestone of 11.5 hours.

Agriculture

In FFY25, CT DEEP and partners, including the Natural Resources Conservation Service (NRCS) and the Connecticut's Soil and Water Conservation Districts (Conservation Districts) continued to work on projects that address agricultural NPS pollution, through both outreach and the implementation of projects, to advance the objectives of the NPSMPP.

Each year, the USDA 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 Health and Water Quality in the Thames River Watershed RCPP, and UConn's Path to Reduce Pathogens in Connecticut Agricultural Runoff RCPP.

CT DEEP participates as a member of the Connecticut NRCS State Technical Advisory Committee, and continues to work with NRCS to develop projects as part of the National Water Quality Initiative (NWQI). Connecticut has three NWQI designations, Broad Brook in Ellington, Farm River in Branford/North Branford/East Haven, and Little River in Woodstock/ Putnam.

In addition to CT DEEP, other NPS Program partners, including the Conservation Districts and the University of Connecticut Nonpoint Education for Municipal Officials (NEMO) program, provide technical assistance and outreach on NPS management issues in Connecticut.

CT DEEP's Water Permitting and Enforcement Division continues to oversee Concentrated Animal Feeding Operations (CAFOs) subject to the NPDES program under the [General Permit for Concentrated Animal Feeding Operations](#) (CAFO GP).

Milestone Accomplishments

Objective 1: Assistance to Farmers: Provide outreach and technical and financial assistance to farmers regarding agricultural NPS pollution and control measures.

Milestone: Number of completed projects to improve water quality associated with agricultural practices.

NRCS advanced and completed over 10 projects to improve water quality associated with agricultural practices across Connecticut. This includes completion of the Broad Brook Agricultural Waste Management Project, which included funding from Section 319, NRCS EQIP, and other funding sources. A summary of the project can be found in [Appendix A](#).

Objective 2: NWQI: Implement National Water Quality Initiative Program with NRCS (Water Quality Monitoring)

Milestone: Participate in the NRCS NWQI

CT DEEP NPS staff attend meetings and coordinate with the NRCS on NWQI efforts.

Milestone: Number of water quality projects in NWQI watersheds with Section 319 funds
One Section 319-funded project in the Broad Brook NWQI watershed was completed in FFY25. Another 319-funded project in the Farm River NWQI Watershed is ongoing.

Milestone: Monitoring projects to collect water quality data in NWQI watersheds.

USGS and CT DEEP's Water Monitoring Program continued to collect water quality data in the Broad Brook NWQI Watershed, including at one station on Roaring Brook.

Objective 3: Nutrient Management: Promote and improve nutrient management practices at Connecticut farms.

Milestone: Sites reviewed for permits to ensure nutrient management.

No milestones were scheduled for FFY25. CT DEEP's Water Permitting and Enforcement Division reviews sites for permits as they are submitted.

Milestone: Percentage of CNMPs reviewed for permitted sites.

No milestones were scheduled for FFY25. CT DEEP's Water Permitting and Enforcement Division reviews all CNMPs submitted.

Objective 4: Soil Health: Promote “Soil Health” as an agricultural BMP.

Milestone: Develop an action plan for the soil health initiatives

No milestones were scheduled for FFY25. NPS staff attend regular meetings of the CT Council on Soil & Water Conservation, where the Soil Health Committee is developing an Action Plan. Progress will be reported on as the information is made available.

Subsurface Sewage Disposal Systems

In Connecticut, SSDS are regulated by local health departments or districts and the Connecticut Department of Public Health (CT DPH) or by CT DEEP, depending on the design flow capacity and the type of treatment and disposal system. Jurisdiction over conventional, non-community SSDS for site and individual or multi-system flows design flows of 7,500 gallons per day (GPD) and less lies with DPH and local health department. The CT DEEP Underwater Injection Control (UIC) Permitting and Compliance Program regulates conventional systems with design flows greater than 7,500 GPD; community sewerage systems; or any system utilizing alternative or advanced treatment.

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. The Municipal Wastewater Program coordinates with respective municipalities.

Additional coordination with CT DPH has been done by CT DEEP staff in FFY25, following up on work related to the updating of the NPSMPP. CT DEEP has shared information learned at the National NPS Workshop in Louisiana about other states’ SSDS programs. CT DEEP has engaged in work regarding onsite wastewater treatment systems (OWTS) in Connecticut, contracting with the Connecticut Academy of Science and Engineering (CASE) to: (1) scientifically evaluate the existing information regarding OWTS as sources of nutrient impacts to waterbodies, (2) identify potential mitigation strategies; and (3) identify potential implementation actions including alternative treatment systems, policy changes, regulatory changes, and funding strategies.

Milestone Accomplishments

Objective 1: Regulatory, Planning and Funding Framework: Improve effectiveness of existing regulatory, planning and funding framework for wastewater treatment and disposal in unsewered areas.

Milestone: Continued coordination between CT DPH and CT DEEP through the joint agency Advisory Committee meetings, including inquiring about funding.

CT DEEP has continued to coordinate with CT DPH through the joint agency Advisory Committee, with NPS staff attending those meetings.

Milestone: Conduct a joint meeting with the CT DPH Subsurface Sewage Disposal System Code Advisory Committee to facilitate an agency and stakeholder review of the permitting process to ensure consistency with current climate resiliency measures.

No milestones were scheduled for FFY25.

Objective 2: Homeowner Education: Educate homeowners and homebuyers about proper use and maintenance of SSDS.

Milestone: Conduct annual SepticSmart Week in September.

CT DPH held their annual SepticSmart Week. CT DPH collaborated with a SepticSmart working group composed of EPA and other state regulatory agencies to develop some of the outreach materials and communications, including involvement in a subgroup that was working on developing materials and activity sheets intended to teach school-age children about topics like, "Think at the Sink" and other septic-related best practices. SepticSmart materials were sent to local health officials/sanitaricians for distribution to homeowners in their jurisdiction.

Objective 3: Municipal Assistance: Provide funding to municipalities to address water quality impairments due to community pollution from SSDS

Milestone: Number of municipal planning, design, or construction projects completed with Clean Water Funds to address water quality impairments associated with substandard or failed SSDS

One completed project was scheduled for FFY25. One planning report was completed in FFY25, while two other efforts continued to significantly progress.

The Town of Madison completed a facility planning report looking at their wastewater management needs. The Study evaluated the condition of existing septic systems, evaluating different alternatives for addressing identified needs and recommending a corrective action or combination of corrective actions based on the conditions and needs assessment.

As part of continued efforts in the Town of Old Saybrook, performing load testing and groundwater recharge modeling at the high school were completed to confirm the hydraulic capacity of the soils to accept treated wastewater flows from the remaining high priority areas of Town. An estimated that about 600 homes will be connected to a community wastewater system via a low pressure sewer system, treated at a nearby plant.

Additionally, the Town of Old Lyme Chartered Beach Associations projects were rebid. Construction to install sanitary sewers and abandon the substandard septic systems for the communities of Old Lyme Shores, Old Colony Beach Club Association and Miami Beach Association is anticipated in the near future.

Objective 4: Prioritization: Assess the impact of SSDS on water quality in coastal embayments

Milestone: Refined model loading estimates for SSDS.

Refined model loading estimates for SSDS were completed in FFY25.

Milestone: SSDS load reduction development for embayments

No milestones were scheduled for FFY25. CT DEEP programs continue to work on development of SSDS load reductions for four embayments: Norwalk Harbor, Saugatuck River, Southport Harbor, and Mystic River.

Hydrologic and Habitat Modification

The CT IWQR and impaired waters list identify waters that are impaired due to hydrologic and habitat modification. Types of hydrologic and habitat modifications include: channelization and channel modification, streambank and shoreline erosion, loss of riparian habitat and vegetation, and dams and diversions.

The Connecticut Coastal NPS Program emphasizes wetlands, riparian areas, and vegetated treatment areas as valuable resources to filter NPS contaminants. As such, they prioritize living shoreline, riparian buffer, and tidal wetland restoration projects.

NPS Staff supported projects that address hydrologic and habitat modification through Section 319 funding; several projects include planting or maintenance of riparian buffers. NPS Staff are involved in the review of water diversion permit applications to mitigate or minimize the impacts from any associated hydrologic modifications. CT DEEP has continued efforts on stream habitat restoration through dam removal and modification with federal partners including NOAA and USFWS, municipalities, private land owners, and conservation groups. Dam removal projects continue to be considered for Section 319 funding where there are NPS considerations.

Milestone Accomplishments

Objective 1: Ecosystem-Based Restoration: Protect and restore water quality using streamflow-based protection and restoration.

Milestone: Projects implemented that utilize ecosystem-based approaches through cooperation with Migratory Corridor and Diadromous Fish Restoration Plan, and CT Green Plan.

No milestones were scheduled for FFY25. CT DEEP continues to progress at minimum five projects by 2029.

Milestone: Review Streamflow Release Plans and approve streamflow releases

Streamflow releases are currently being made from 4 dams throughout the Thames, Pawcatuck, and Southeast Coastal Basins, 1 dam in the South Central Basin, and 1 dam in the Connecticut River Basin. CT DEEP has reviewed and approved the Streamflow Release Plans for each of those dams, and is in the process of reviewing

Streamflow Release Plans for 11 additional dams in the Central Coastal Basin to begin by September 6, 2026. This exceeds the schedule identified in the NPSMPP for 8 Streamflow Release Plans to be reviewed in FFY25.

Milestone: Number of dam removal projects

No milestones were scheduled for FFY25. However, CT DEEP was involved in the completion of two dam removals in FFY25, ahead of the schedule identified in the NPSMPP:

- Winchell-Smith Dam (Farmington River in Farmington). The dam was removed in 2025, fully funded by State Pier Mitigation Funds and sponsored by the Farmington River Watershed Association. The Farmington River at this location is a federally designated Wild & Scenic River, and the Lower Farmington River and Salmon Brook Management Plan (2011) characterized this dam as an obstacle to fish passage and identified the removal of the dam remnants as a priority action for the Outstanding Remarkable Value (ORV) in Biological Diversity.
- Highland Pond Dam (Highland Pond, Middletown). The dam was removed in September 2025. The dam acted as a barrier to spawning and nursery habitat on a migratory corridor. Sediment behind the dam was removed, stone weirs were installed for fish passage, and water flow to the main channel and tributary were returned.

Several additional dam removals or modifications are underway. These will be reported on upon completion in subsequent reports.

- Bristol Brass Dam (Pequabuck River, Bristol)
- Lower Collinsville Dam (Farmington River in Avon/Burlington)
- Barber Pond Dam (Mill Brook, Bloomfield)
- Bridge Street Dam (Willimantic River, Willimantic)
- Asylum Reservoir Dam #1 (Middletown)

Milestone: Conduct projects that include riparian planting

Two Section 319-funded projects that include riparian planting are currently progressing: 22-02 Farm River East Haven Green Infrastructure, and 22-05 Bantam Lake Watershed BMP Implementation. Additional projects involving riparian planting are being progressed by other grants and through other programs.

Milestone: Living Shorelines Projects implemented

The Long Island Sound Partnership, as part of the Thriving Habitats and Abundant Wildlife goal, advances Living Shorelines projects. In Connecticut, the Mystic River Boathouse park Living Shoreline project is in progress, with an additional \$1.2 million grant awarded through the National Fish and Wildlife Foundation's Long Island Sound Futures Fund to the Town of Stonington in FFY25. The Project will enhance ecological resilience, and protect from erosion and sea level rise.

Milestone: Acres of tidal wetlands restored

No milestones were scheduled for FFY25. However, 0.35 acres of tidal wetland in Connecticut were restored through the Long Island Sound Partnership Tidal Wetlands and Riverine Migratory Corridors Restoration Teams. Additional efforts include Restoration of 14.85 acres of coastal habitat, 27.2 stream miles restored, and 33.65 acres of coastal habitat acquired or protected.

Domestic Animals and Wildlife

CT DEEP continues to be involved in creating and sharing educational resources on NPS pollution from pet and wildlife waste. A completed Section 319-funded project that developed a *Best Management Practices Manual Development for Managing Water Quality at State Park Beaches and Boat Launches in Connecticut* strengthened the relationship between NPS Staff and CT DEEP's State Parks and Public Outreach Division, to implement Best Management Practices at beaches and boat launches that could reduce closures of state swimming areas, which are often due to runoff from animal waste. Additional opportunities to educate the public are anticipated.

Milestone Accomplishments

Objective 1: Provide information on nuisance wildlife and pet waste management to enhance protection of water quality.

Milestone: Conduct outreach and education events at State Parks

Outreach and education events were conducted at State Parks by various programs. NPS Staff were involved in workshops for high school students at Chatfield Hollow State Park, focused on nonpoint source pollution prevention, including education on dog waste stations located throughout the park. NPS Staff also participated in Dinosaur State Park Day, held annually in August. DEEP Staff provide educational materials at Hammonasset State Park, including at its 53rd anniversary in June and Fall Festival. CT DEEP hosts several [No Child Left Inside](#) family day programs. A full schedule of upcoming No Child Left Inside and other events are on the webpage. NPS Staff attend some events as capacity allows, and share educational resources with other CT DEEP programs.

Milestone: Materials available as fact sheets, signage, preventive measures, resources on the [DEEP website](#)

Materials continue to be made available and are updated on an as-needed basis.

Objective 2: Implement wildlife BMPs and pet waste management

Milestone: Number of state parks with wildlife deterrent BMPs

No milestones were scheduled for FFY25.

Milestone: Number of state parks where dog waste stations are maintained by CT DEEP

No milestones were scheduled for FFY25.

Boating and Marinas

All Connecticut coastal waters are designated as No Discharge Areas (NDAs). The CT DEEP Boating Division continues to educate boaters about the need to keep boat sewage out of the water and for instructing boaters about the use of waste containment and disposal systems on boats and pumpout facilities. The Boating Division promotes the use of pumpout facilities and clean water along the coastline by distributing brochures and promotional items.

In March 2025, CT DEEP announced that 39 pumpout facilities will receive \$1,034,987 in funding under DEEP's annual Federal Clean Vessel Act (CVA) program for the upcoming 2025 boating season. The funding is used to improve water quality in Connecticut's navigable waterways by providing federally-funded matching grants for qualifying projects that provide pumpouts.

CT DEEP's Coastal Nonpoint Source Program coordinates the state's Harbor Masters program, which includes those harbors with a Harbor Management Plan. CT DEEP's Boating Division continues to encourage inland and coastal marina operators to minimize pollution through the Connecticut's Clean Marina Program; applications are submitted to the Connecticut Marine Trades Association.

Milestone Accomplishments

Objective 1: Administration of the Clean Marina Program

Milestone: Provide reviews for Certified Clean Marinas applications

All Clean Marina applications submitted in FFY25 were reviewed.

Milestone: CT DEEP/ US Coast Guard may provide inspections if necessary

Inspections were completed on an as-needed basis.

Objective 2: Continue to promote use of marina pumpout facilities

Milestone: Remove over 1 million (1m) gallons of wastewater annually from recreational vessels

In FFY25, CT DEEP's Boating Division continued the oversight of the removal of over 1 million gallons of wastewater from recreational vessels continued across its pumpout boats and facilities across the Long Island Sound and inland locations.

Other NPS Categories

Connecticut has additional Objectives and Actions for other NPS Categories, though they do not have associated milestones.

Landscaping and Turf Management

CT DEEP and partners continue to offer guidance for the care and maintenance of landscaped areas that minimize the use of excessive nutrients to reduce water quality impacts. The Conservation Districts provide feedback to inquiring homeowners on selection of native plants through their NPS Management programs.

Atmospheric Deposition

Connecticut continued to implement its mercury reduction program. NPS Staff continue to explore additional opportunities to address NPS pollution from atmospheric deposition.

Land Disposal

CT DEEP continued to implement its [Solid Waste Management Program](#) and [Solid Waste Management Plan](#).

Brownfields and Contaminated Sites

CT DEEP's Remediation Division continued investigation and remediation work, with coordination to be consistent with the state's Water Quality Standards Program. Several projects to redevelop brownfields were evaluated, and NPS Staff provided feedback on those proposals for which Scoping Notices were made available.

Forestry

CT DEEP continued to implement the CT Forest Action Plan, provided education and outreach to landowners and municipal officials, and promoted preservation of forests and open space through grants and purchases of land. This includes promoting urban forestry as a key component of effective municipal green infrastructure programs. One ongoing Section 319-funded project is anticipating working in tandem with an Urban Forestry Grant.

CT DEEP is currently in the process of updating the Green Plan, which implements a goal in statute to acquire 21% of land by the state and land conservation partners via various grant and funding programs. The update is currently in development, in the data collection phase. An updated final report is anticipated for completion by the end of 2026, following several public input opportunities. NPS Staff review of Land Acquisition Proposals to support the goals laid out in the Green Plan, from the perspective of watershed protection. NPS staff are continuing to look into land preservation as a watershed protection measure where applicable.

Material Storage

NPS Staff are pursuing additional opportunities to work with CT DEEP's Underground Storage Tank Program. CT DEEP continued regulatory programs for materials and hazardous waste management.

Resource Extraction

In Connecticut, sand and gravel mining and rock quarries are the most common resource extraction activities that contribute to NPS pollution. CT DEEP continues to work to strengthen regulatory controls on resource extraction activities to protect water quality.

5. Nonpoint Source Management Program Performance

Program Funding

NPS Staff continued to oversee projects funded through the Section 319 Grant. However, as Section 319 funds support only a portion of NPS activities in Connecticut, NPS Staff have also been involved in other state and federal funding opportunities to advance the milestones in the NPSMPP, including: the CWA Section 604(b) Water Quality Planning grant, EPA's Long Island Sound Partnership funding and grants from the US Fish and Wildlife Service such as the Long Island Sound Futures Fund, Coastal Zone Management Act funds awarded by the National Oceanic and Atmospheric Administration, NRCS EQIP funds that go directly to agricultural producers; and other funding sources from other federal, state agencies, and private foundations as available.

In FFY25, Section 319 Grant funds continued to be used for Staff Funds through its EPA Performance Partnership Grant (PPG) to support staff in the Watersheds and Water Quality Programs to promote the goals of the NPSMPP.

An Annual Request for Proposals was published for FFY25. Five proposals were selected for funding, with remaining funds being allocated to other projects that support the NPSMPP.

Program Progress

The following measures evaluate the performance and progress of the Connecticut NPS Management Program (dates are subject to change):

National Guidelines

Use the Nonpoint Source Program and Grants Guidelines for States and Territories dated May 4, 2024, to identify eligible activities, program priorities, programmatic conditions, and reporting requirements. At least 50% of 319 funding will be used for implementing watershed-based plans (WBP) to protect or restore priority water bodies. One nine-element WBP per state will be submitted annually to the Region for review; alternative watershed-based plan(s) will be submitted to the Region for review and approval. Continue to work with USDA through participation on the State Technical Committee and to support the National Water Quality Initiative, including monitoring. State agency will enter all state-mandatory GRTS data elements within 90 days of a new categorical grant or PPG award and before the national deadline (currently March 31); add GRTS data as projects are implemented per grant term and condition; and

promptly assist EPA (HQ or Region) with data reconciliation and quality checks when requested. Submit an annual work plan and schedule that describes proposed 319-funded work, outputs, staffing, environmental outcomes, and budget, consistent with management plan milestones.

NPS meetings/training

A representative of the State's NPS program is expected to attend national and regional NPS and GRTs training workshops, conferences and meetings convened by EPA unless prevented by state-wide travel bans. Annual state work plans should include adequate 319 funds to cover travel expenses for NPS program staff to participate unless state funds are available for this purpose.

Success Stories

Submit success stories for impairments eliminated in previous years (Type 1 stories) and/or that show improvement in water quality (Type 2 stories) or demonstrate ecological restoration (Type 3 stories). To do this, identify impairments eliminated or waterbodies with demonstrated water quality or habitat improvements, and investigate whether local, state, federal or private NPS mitigation occurred that might make these waterbodies a candidate for a NPS Success Story. In addition, beginning in FFY25, submit success stories for sustained prevention of water quality degradation in healthy waters (Type 4 stories) and/or success stories that feature interim metrics/measures (Type 5 stories). Using [EPA's guidance](#), prepare and submit to EPA candidate success stories (via the Grants Reporting Tracking System portal) by August 15th. See this [link](#) for examples of success stories and other information.

Annual Report

In accordance with the CWA and following the current Nonpoint Source Program and Grants Guidelines, report annually on progress made in implementing the State's NPS Management Program, including a summary of major accomplishments and completed milestones, a description of 319-funded statewide programs and completed 319-funded watershed projects, a list of active 319-funded 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 March 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.

Satisfactory Progress 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.

Appendix A: Clean Water Act Section 319 Nonpoint Source Grant Projects Completed in Federal Fiscal Year 2025

20-03 Island Brook Implementation Projects in Bridgeport

Contractor: The Nature Conservancy, Inc.

Location: Pequonnock River Watershed (Bridgeport)

\$319 Funding: \$121,232

Project Duration: June 2022-September 2025

Objectives: The Island Brook subwatershed was identified as a priority area for stormwater management practices in the Pequonnock River Watershed Based Plan. The Project, conducted in collaboration with the City of Bridgeport, focused on reducing stormwater runoff into Island Brook, a tributary of the Pequonnock River.

Summary: Best Management Practices, including a drainage basin and bioretention system, were implemented at two adjacent sites: Svihra Park and Read School, to capture and filter stormwater runoff from an adjacent parking lot, to stabilize soil to prevent erosion, and to enhance nutrient absorption. This Project also received funding in 2019; the total project cost from Section 319 funding was \$181,232.

Methods: At Svihra Park, a bioretention system was constructed to capture runoff from the southern portion of the adjacent roadway in a basin, allowing water to infiltrate and overflow at a reduced velocity down the slope into the Park. At Read School, a rain garden was constructed to capture runoff from a portion of the school parking lot, and a curb cut was used to convey runoff to a bioretention basin in the traffic island of the parking lot.



Figure 1 Bioretention system at the entrance to Svihra Park. Image courtesy of The Nature Conservancy.

Environmental Benefits: The two BMPs will capture runoff from impermeable surfaces and help prevent flooding and erosion. Between the two installations, estimated reductions are of 1.6 lbs/year of nitrogen and 0.5 lbs/year of phosphorus, which will contribute to the goals of the Watershed Based Plan. Additionally, the publicly visible location and partnership with the school and the City may help promote additional efforts in the watershed.

Lessons Learned: The rain garden's installation at an elementary school required the contractor to be cognizant of the school's academic calendar, and restricted the construction window. Additionally, permitting from the City took longer than anticipated, indicating that projects should consider their partners' schedules when establishing timelines for their projects.



Figure 2 Bioretention system at Read School with curb inlet to divert stormwater from the adjacent parking lot and stone apron to dissipate energy as stormwater enters the area. Image courtesy of The Nature Conservancy.

20-04 Lake Pocotopaug Water Quality Improvements Phase 3

Contractor: Town of East Hampton

Location: Lake Pocotopaug Watershed (East Hampton)

\$319 Funding: \$148,300

Project Duration: May 2022 - November 2024

Summary: Lake Pocotopaug, a 900-acre lake in East Hampton has experienced seasonal algal blooms and a general decline in overall health that the BMPs recommended in the WBP aim to address. The Town of East Hampton conducted a third phase to mitigate water quality issues in Lake Pocotopaug as outlined in the Lake Pocotopaug Watershed Based Plan, as a continuation of previous 319-funded efforts (Project #17-07). This project included installation of BMPs to address stormwater runoff, soil erosion, and nutrient pollution through engineered solutions including stormwater detention basins, erosion control berms, and native wetland plantings across five sites within the watershed.

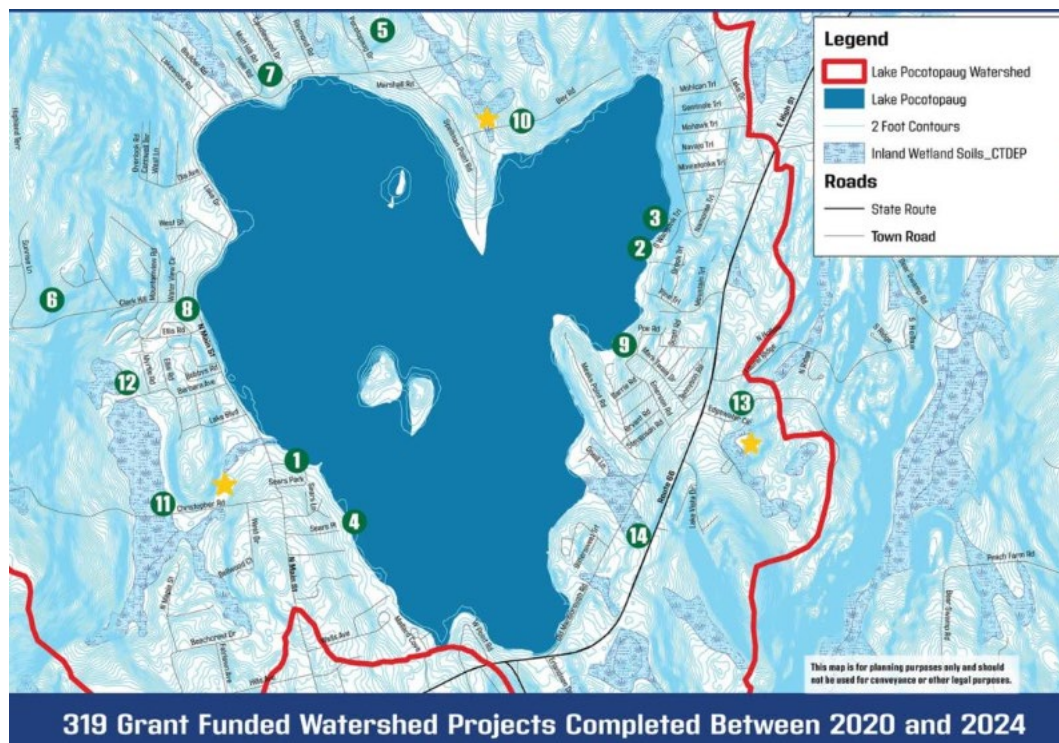


Figure 3 Locations of 319-funded implementation efforts in the Lake Pocotopaug Watershed. Sites 10, 11, 12, 13, 14 were installed as part of this project. Image courtesy of The Town of East Hampton.

Project Overview: At the Town Hall, a pond was altered to increase storage capacity for stormwater runoff. At Fawn Brook, there are historically high levels of phosphorus and nitrogen due to runoff from a nearby housing development. The addition of native wetland plantings slow runoff and absorb soluble nutrients, while also stabilizing soil and improving habitat without restricting water flow. Christopher Brook at the Edgemere

Pump House experienced frequent erosion due to increased runoff from a nearby subdivision. Erosion control measures such as biodegradable berms and coir longs



Figure 4: Impermeable berm installed across the bypass channel, directing flow into Christopher Pond. Image courtesy of The Town of East Hampton

were implemented, along with native wetland plants to further stabilize the area and filter runoff. Christopher Brook Pond receives water from the aforementioned Christopher Brook. An installed bypass channel diverted some flow, allowing the pond to function more as a wetland to trap pollutants and promote nutrient absorption. Additionally, an impermeable clay berm was installed across the bypass channel, and wetland plants were added. At O'Neill's Brook, three biodegradable berms were installed to slow runoff and stabilize the banks. Native wetland plants were also added to filter nutrients.

Project Stakeholders: The Town of East Hampton worked with subcontractors to install the BMPs. The Town of East Hampton Public Works Department, Parks and Recreation Department, Town Council, and Conservation and Lake Commission, as local land trust, condominium associations, and local businesses were also engaged in the project.

Environmental Benefits:

Beyond water quality benefits, native plantings create habitat and stabilize banks preventing erosion.

Lessons learned: High levels of rainfall in 2024 showed that even BMPs identified in a relatively recent WBP may need to be adjusted and made more conservative, as berms were washed out. The Town had good momentum between creating the WBP and the two implementation project phases, and expressed interest in continuing with additional BMPs in the near future.

20-05 Broad Brook Agricultural Waste Management Construction

Contractor: North Central Conservation District

Location: Broad Brook Watershed (Ellington)

\$319 Funding: \$450,000

Project Duration: July 2022 – August 2025

Summary: Roaring Brook Farm was identified in the Broad Brook Watershed Based Plan as contributing agricultural NPS pollution within the watershed. The project supports ongoing efforts to address water quality concerns in the Broad Brook Watershed, a subregional basin that is also designated as an NRCS NWQI watershed. The project was preceded by a 319-funded design phase under a separate contract.

Methods: The Project involved construction of a waste storage facility, free-stall barn, and associated structures and measures, as well as procurement of equipment necessary to responsibly manage manure on-site. The free-stall barn allows containment of the milking herd, excluding them from adjacent waterbodies. The waste storage facility provides sufficient storage of waste from the entire herd, allowing manure to be contained, stored, and used as needed, eliminating the practice of daily spreading.



Figure 5: Herd grazing in and around Kimball's Brook, south of the project site. This access is discontinued following construction of the project. Image courtesy of NCCD.

Section 319 funding for this project was also provided in FFY18 and FFY19, totaling \$495,773. Additional funding sources for this project included a LISFF grant, NRCS EQIP funding, a Farm Transition Grant through the CT Department of Agriculture, a

Northeast Dairy Business Innovation Center Grant, and from the Aborn Family who operate Roaring Brook Farm. The total of the entire project was over \$3 million.

Environmental Benefits: Kimballs Brook, a tributary to Broad Brook, runs through the Roaring Brook Farm property; prior to the project the herd waded in the water. Additionally, due to a lack of waste storage facility, manure either ran off from heavy use areas into the brook or was scraped and spread on agricultural fields even when nutrients were not needed and during unsuitable weather conditions. The resulting reduction of pollutant loads to Broad Brook and its tributaries is significant.

Lessons Learned: This project had many delays, between requirements of various funding sources, concerns related to cold weather, and design plans that required revisions. This project showed that while leveraging funding sources is a valuable tool for the NPS program, each grant comes with differing requirements, restrictions and procedures, and strong project management is needed to figure out how to piece everything together. A good relationship between NRCS, NCCD, and the farm operator was necessary for this project's success. Future plans include an additional project to address silage storage and treatment of leachate.



Figure 6 Drone footage of the newly constructed free-stall barn and waste storage structure. Image courtesy of NCCD.

21-04 Bruce Brook Watershed Based Plan

Contractor: Town of Stratford

Location: Bruce Brook Watershed (Stratford, Bridgeport)

\$319 Funding: \$115,000

Project Duration: June 2022 – September 2025

Objectives: To create a plan to address NPS pollution and to identify locations within the watershed where projects may be implemented to improve water quality to resolve impairments.

Summary: A Watershed Based Plan was developed for Bruce Brook, a 2,200 acre highly developed watershed in southwest Connecticut. The WBP includes an existing conditions assessment, pollutant load estimation, proposed watershed-scale strategies to reduce NPS pollution, and proposed site-based projects to reduce impairments. Both towns have MS4 programs; this WBP goes beyond those requirements for additional load reductions.

Methods: For plan development, existing conditions were characterized through desktop analysis, field assessment, and pollutant load estimation using the Watershed Treatment Model (WTM). Several waterbodies in the Bruce Brook Watershed were identified in the IWQR as not supporting for their designated use due to elevated levels of bacteria.

Pollutant load reductions were modeled at the subwatershed level, for various Best Management Practices. Location-specific strategies were identified for most efficient water quality improvements. Funding opportunities for these management measures were also identified.

Public outreach was conducted, including the launch of an ArcGIS Story Map that made information on the watershed publicly available. Several public meetings were held to present the plan and inform the project, accompanied by a survey to provide feedback.

The Town of Stratford worked with various partners, among them the City of Bridgeport, Harborwatch at Earthplace, the Southwest Conservation District, and MetroCOG. These partners, along with the public, provided input on existing conditions, and what measures should be pursued for the watershed. The plan will be evaluated annually to progress on management measures, and additional water sampling and outreach activities have been recommended.

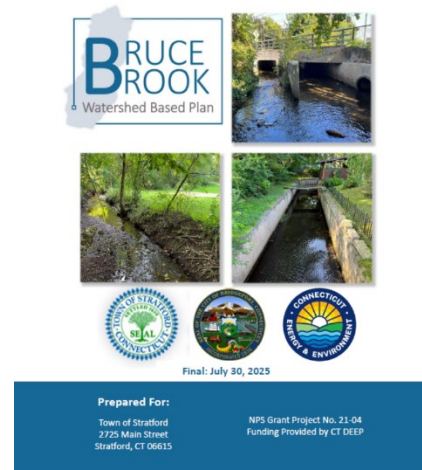


Figure 7: Cover Photo of completed Bruce Brook Watershed Based Plan.

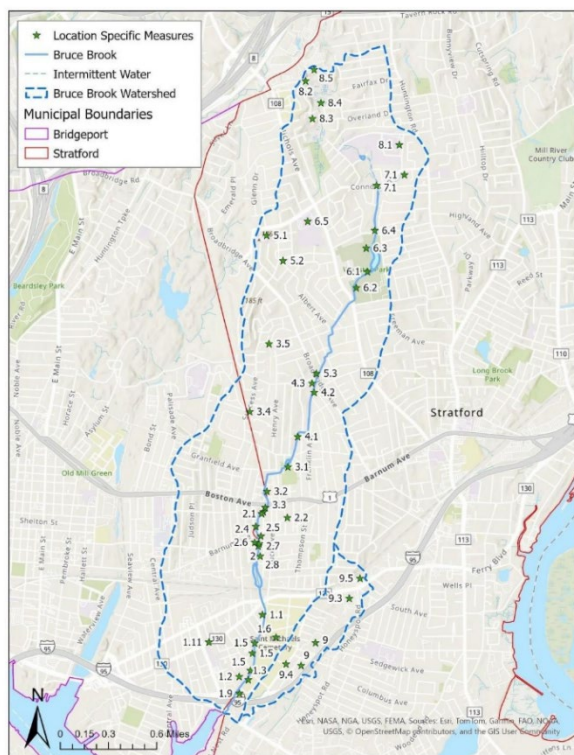


Figure 8: Map of Bruce Brook Watershed with identified locations for implementation project sites.

Environmental Benefits: Upon approval as a Nine Element Watershed Based Plan by CT DEEP and the US EPA, implementation projects specified in the WBP will be eligible for further Section 319 funding. As outlined in the WBP, next steps are to continue the required work of their MS4 permits, while also pursuing NPS projects that will improve water quality and conditions in the watershed. The implementation efforts identified in the plan vary in load reduction potential, cost, and when they could be implemented and by whom. Examples of the most effective projects that will simultaneously reduce runoff, minimize exposure of floodwaters to developed properties, and undo the channelization of Bruce Brook, include full stream channel restoration at Clover Park, streambank restoration at Stony Brook Park, and partial stream restoration along Bruce Boulevard in Bridgeport.

Lessons Learned: Plan implementation is the next step for this project, and the Town was awarded a grant to conduct a vegetation restoration project and keep the momentum from this Plan development going. While the Bruce Brook watershed faces many issues due to its developed nature that won't be resolved easily with implementation of BMPs, the towns and willing partners are hopeful that a combination of regulatory measures and implementing recommendations identified in the plan will lead to improvements. The Town identified that pet waste is likely a substantial culprit for elevated bacteria loading, and plans to increase waste bag stations and outreach on the topic.

21-05 Coppermine Brook Stormwater Management Improvements

Contractor: Farmington River Watershed Association

Location: Pequabuck River Watershed (Bristol)

\$319 Funding: \$179,000

Project Duration: June 2022 – September 2025

Summary: Per the IWQR, Coppermine Brook, a tributary to the Pequabuck River, is listed as “not supporting” for recreational use due to elevated levels of indicator bacteria. A downstream segment of Coppermine Brook is also “not supporting” for aquatic life due to various sources. The Pequabuck River Watershed Based Plan (2019) was developed to address these watershed impairments, and included twelve recommended BMP Sites throughout the Pequabuck River Watershed. Per modeling, the majority of bacteria was identified as coming from stormwater runoff, and the local drainage basin where Edgewood School is located is ranked #1 for cumulative pollutant loading in the WBP. The Edgewood School site was identified in the WBP for structural BMPs, which were implemented within this project alongside an educational component.

Methods: The project consisted of three components:

- 1) conversion of an existing 300-foot conveyance swale to a bioswale planted entirely with native plants. The bioswale is intended to collect stormwater from 2 acres of parking lot and 1 acre from the school’s roof.

- 2) Installation of infiltrating tree wells with overflows to the south school parking lot, to collect runoff from the 0.8 acre paved area.

- 3) Development of a learning guide incorporating project cameras for monitoring stream/floodplain/wetland areas, as a tool for integrating watershed learning in the existing outdoor education program at the Edgewood School. *A Guide to the Ecological and Stormwater Improvements at Edgewood School in Bristol, CT* is a 30-page guidebook that aims to educate about the importance of stormwater BMPs. Three days of educational programming were hosted in relation to the guide and the BMPs.



Figure 9: 300-foot bioswale with native plants. Image courtesy of FRWA.

Environmental Benefits: Combined, the bioswale and four tree wells have been modeled to provide the following reductions:

- Phosphorus: 33.2 lbs/year
- Nitrogen: 7.93 lbs/year
- Sediment: 1.28 tons/year
- Bacteria: 2.285E+10

Additionally, native vegetation in both the bioswale and tree filters, including River Birch and Serviceberry provides pollen and habitat for native pollinators.

Lessons Learned: The Contractor expressed that changes in staffing at the City made the project more difficult than anticipated, and an extension of the project helped placate that. The project was intended to be used as part of the Edgewood School's curriculum, but due to changes at the school, that did not happen.



Figure 10: Tree filter installed in school parking lot. Image courtesy of FRWA.

22-01 CRCCD NPS Management

Contractor: Connecticut River Coastal Conservation District (CRCCD)

Location: CRCCD Service Area: 26 municipalities in the lower Connecticut River Watershed and adjacent Long Island Sound coastal areas.

\$319 Funding: \$40,000

Project Duration: July 2023 - August 2024

Summary: As part of ongoing NPS management and pollution prevention efforts, CRCCD completes site plan reviews, participates in Environmental Review Team assessments, provides on-site technical assistance, and provides NPS technical assistance, planning, and outreach services. CRCCD provided recommendations and guidance based on the updated *Connecticut Stormwater Quality Manual* and *Connecticut Guidelines for Soil Erosion and Sediment Control*.

Methods: Notable components of this cycle of technical assistance include the following:

- On-site Assessments: CRCCD staff conducted several on-site assessments for landowners to evaluate natural resource concerns and recommend follow-up actions, on topics such as pond health, flooding issues related to poorly maintained culverts, and erosion issues.
- Conifer Revetment: CRCCD provided technical assistance to Trout Unlimited and a consultant on a conifer revetment project to address an eroded section of the Coginchaug River at Wadsworth Falls State Park (also a state freshwater bathing beach).
- Follow-up on implementation project: CRCCD provided information about a recently completed 319 project that addressed agricultural NPS at a locally owned and operated farm in the service area. Outreach included an article in the organization's Conservation Newsletter.



Figure 11: Site for Conifer Revetment at Wadsworth Falls State Park. Image courtesy of CRCCD.

- **Watershed Based Plan Implementation:** CRCCD staff have created a storymap to document NPS pollution surveys in the watershed, and provided input for possible implementation projects in the Coginchaug WBP.

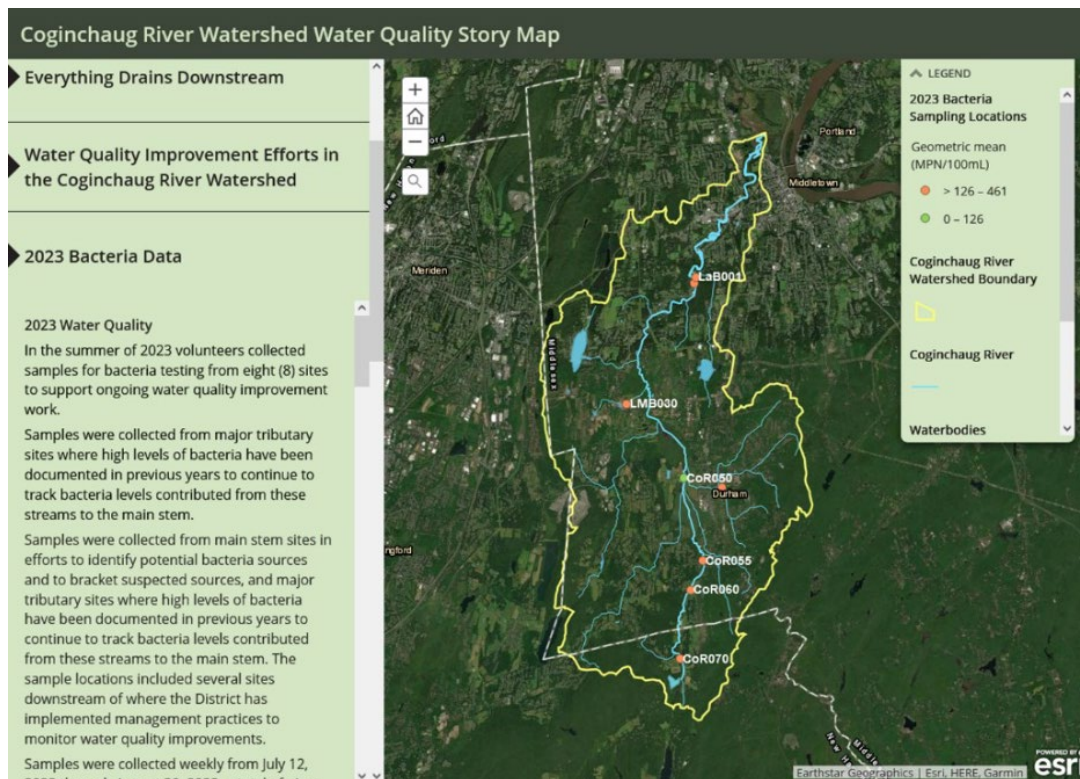


Figure 12: Coginchaug River Watershed Storymap.

Environmental Benefits: CRCCD's services provide on-the-ground NPS support for the statewide program. CRCCD has provided support to inquiries sent to CT DEEP when those concerns take place within their service area, and they continue to provide valuable outreach at NPS-related events to address water quality issues in their area.

Lessons Learned: Over this cycle, CRCCD saw an increase in requests for assistance from private landowners; and they express that they are pleased to see a growing interest in NPS issues and topics. Some of this assistance will span over a longer period of time, starting with a conversation with the homeowner, conducting a site visit, and offering guidance on how to address the issues being faced.

22-01 NCCD NPS Management

Contractor: North Central Conservation District

Location: NCCD Service Area: 30 municipalities in Northern Connecticut on both sides of the Connecticut River, roughly comprising Hartford and Tolland counties.

\$319 Funding: \$40,000

Match Contributed: \$26,667

Project Duration: June 2023 – December 2024

Summary: As part of ongoing NPS management and pollution prevention efforts, NCCD completes site plan reviews, participates in Environmental Review Team assessments, provides on-site technical assistance, and provides NPS technical assistance, planning, and outreach services. NCCD provided recommendations and guidance based on the updated *Connecticut Stormwater Quality Manual* and *Connecticut Guidelines for Soil Erosion and Sediment Control*.

Methods: Notable components of this cycle of technical assistance include the following:

- Erosion and sedimentation controls review at the former Collins Axe Factory in Canton on the Farmington River.
- Increased watershed planning efforts in the Bolton Lakes Watershed.
- Undertaking an Edible Riparian Buffer project in the Tankherhoosen River Watershed.
- 37 instances of municipal/landowner natural resource technical assistance provided.

Environmental

Benefits: NCCD's services provide on-the-ground NPS support for the statewide program. NCCD has provided support to inquiries sent to CT DEEP when those concerns take place within their service area, and they continue to provide valuable outreach at NPS-related events to address water quality issues in their area.



Figure 13 Images of the Collinsville Axe Factory in Canton from a site visit to determine whether the factory should be removed, set directly adjacent to a tributary to the Farmington River. Image courtesy of NCCD.

Lessons Learned: Over this cycle, NCCD saw an increase in requests about green infrastructure, stormwater management, and native landscaping assistance. Based on this, in future cycles NCCD hopes to broaden future work to include additional watershed initiatives, including building on a recent planning effort on the North Branch Park River watershed, for which a WBP was updated with a Long Island Sound Futures Fund Grant.

22-06 Best Management Practices Manual Development for Managing Water Quality at State Park Beaches and Boat Launches in Connecticut

Contractor: UConn Center for Land Use Education and Research (CLEAR)

Location: Statewide

\$319 Funding: \$55,155

Project Duration: April 2023 – February 2025

Summary: Connecticut tests surface water at 17 freshwater beaches and 4 saltwater beaches on a weekly basis, between Memorial Day and Labor Day. Excess bacteria above a threshold result in beach closures, impacting beachgoers. Additionally, CT DEEP owns and/or operates over 110 boat launches statewide. Poor quality at these state beaches and boat launches are a top concern for CT DEEP, prompting an effort to introduce measures to help improve conditions. The UConn CLEAR developed the manual, *Best Management Practices for Waterfront Connecticut State Parks*, to increase and promote the use of low impact development and green stormwater infrastructure practices at state parks with beaches at boat launches, focusing on retrofits at four sites to serve as a model for other sites in the state. LID/GSI practices outlined in the Manual include rain gardens, bioretention, pervious pavers, green roofs, and vegetated filters, to mimic natural flow, using infiltration to reduce runoff and filter some pollutants, while also reducing flooding.



Figure 14: Cover page of the *Best Management Practices for Waterfront Connecticut State Parks* manual

Project Overview: The Manual developed for this project provides information on: (1) the problems stormwater runoff poses to beaches and boat launches; (2) an overview of the low impact development approach; (3) suggestions for integrating considerations of these approaches into project planning; (4) a checklist of site design and BMP selection considerations; (5) suggestions for source control practices for things like pet waste, fertilizer, and waterfowl; and (6) links to additional training materials and other resources. The state parks assessed as part of this project were used as case studies in the guide to demonstrate how LID/GSI approaches can be used in different settings to address challenges.

Site visits were conducted at Squantz Pond (New Fairfield) and Gardner Lake (Salem), two frequently visited freshwater bathing beaches with histories of closures due to elevated bacteria

levels. Recommendations were also made for Hammonasset Beach State Park, a saltwater state bathing beach. At the same time, CT DEEP learned of an upcoming repaving project at Chatfield Hollow State Park, another freshwater bathing beach, where BMPs could be introduced into the existing project plan.

Environmental Benefits: As a follow up to this project, retrofits were installed as part of a paving improvement project at Chatfield Hollow State Park. The bathing beach at Chatfield Hollow experiences closures during the beach bathing season due to elevated levels of *E. coli*, coming from upland areas and being carried across the parking area. As part of that project, several bioswales were installed between the paved area and the beach. Additionally, during the repaving process, additional considerations were taken such as location of speed bumps, to divert stormwater flow towards the swales. Educational signage has been installed explaining the project, and pet waste bags are available throughout the park to better manage waste.

CT DEEP is pursuing other locations where this manual can be applied, and that use of the manual will lead to decision-making that will decrease beach closures due to elevated bacteria levels in the future.

Lessons Learned: Frequent communication between CT DEEP's Beach Bacteria Monitoring Program staff and Chatfield Hollow's Park Manager created the connection between the upcoming repaving project and the development of this manual, and allowed for the inclusion of BMPs at the park as part of a larger improvement project. On the opposite hand, recommendations for other sites have not been considered or implemented at this time, highlighting a need to reframe LID/GSI for its co-benefits of decreasing beach closures and preventing erosion/flooding in a cost-effective way, rather than focusing on topics of water quality that may not be the greatest issues that park management faces.



Figure 15: BMP and signage installed at Chatfield Hollow State Park.

23-01 CRCCD NPS Management

Contractor: Connecticut River Coastal Conservation District (CRCCD)

Location: CRCCD Service Area: 26 municipalities in the lower Connecticut River Watershed and adjacent Long Island Sound coastal areas.

\$319 Funding: \$20,000

Match Contributed: \$13,333

Project Duration: September 2024 - February 2025

Summary: As part of ongoing NPS management and pollution prevention efforts, CRCCD completes site plan reviews, participates in Environmental Review Team assessments, provides on-site technical assistance, and provides NPS technical assistance, planning, and outreach services. CRCCD provided recommendations and guidance based on the updated *Connecticut Stormwater Quality Manual* and *Connecticut Guidelines for Soil Erosion and Sediment Control*.

Methods: Notable components of this cycle of technical assistance include the following:

- **On-site Assessments:** CRCCD staff conducted several on-site assessments for landowners to evaluate natural resource concerns and recommend follow-up actions, on topics such as development of a living shoreline, aquatic invasives due to sea level rise, native riparian plantings, and erosion issues.
- **Watershed Based Plan Implementation:** CRCCD staff have created a storymap to document NPS pollution surveys in the watershed, and provided input for possible implementation projects in the Coginchaug WBP.
- **Conifer Revetment:** CRCCD provided technical assistance to Trout Unlimited and a consultant on a conifer revetment project to address an eroded section of the Coginchaug River at Wadsworth Falls State Park (also a state freshwater bathing beach).
- **Technical assistance provided for a volunteer Coginchaug River cleanup as part of a Source to Sea Cleanup.**
- **Sawmill Brook Stream Assessment** in partnership with students at Wesleyan University, to document stream conditions prior to an upcoming dam removal.



Figure 16: Sawmill Brook Stream Assessment. Image courtesy of CRCCD.

Environmental Benefits: CRCCD's services provide on-the-ground NPS support for the statewide program. CRCCD has provided support to inquiries sent to CT DEEP when those concerns take place within their service area, and they continue to provide valuable outreach at NPS-related events to address water quality issues in their area.



Lessons Learned: Over this cycle, CRCCD saw a decrease in site development review requests, likely due to an increase in professional staff at the municipal levels or slowed land development in the service area. However, requests for assistance from private landowners have remained consistent, and demonstrate that the NPS technical assistance, planning and outreach services continue to be productive components of the NPS management program.

Figure 17: Property of homeowner interested in living shoreline project. Image courtesy of CRCCD.

23-01 ECCD NPS Management

Contractor: Eastern Connecticut Conservation District (ECCD)

Location: ECCD Service Area, 33 municipalities in Eastern Connecticut in the Thames River Watershed, the Eastern Coastal Complex Watersheds, and the Connecticut portion of the Wood and Pawcatuck Rivers

\$319 Funding: \$50,000

Match Contributed: \$36,083

Project Duration: March 2024 - November 2024

Summary: As part of ongoing NPS management and pollution prevention efforts, ECCD completes site plan reviews, participates in Environmental Review Team assessments, provides on-site technical assistance, and provides NPS technical assistance, planning, and outreach services. ECCD provided recommendations and guidance based on the updated *Connecticut Stormwater Quality Manual* and *Connecticut Guidelines for Soil Erosion and Sediment Control*.



Figure 18: ECCD Staff at outreach event. Image courtesy of ECCD.

Methods: Notable components of this cycle of technical assistance include the following:

- Watershed Committees: ECCD participated in the Baker Cove Watershed Committee, the Wequetequock Clean Water Coalition, and the Niantic River Watershed Committee.
- ECCD assisted a dairy farmer in Baltic, CT with submitting a grant proposal for the farm to manage agricultural nonpoint source pollution.
- Attended 11 NPS outreach events, including Earthfest, Celebrating Agriculture, and the Long Island Sound Coastal Watershed Network roundtable.
- Pursued finalization of the Little River Watershed Based Plan update, which was submitted to EPA for review. This Plan is also an NWQI Plan; many projects have

been completed from its previous iteration, including a suite of BMPs at dairy farm producers to manage agricultural NPS pollution.

- Providing municipal, local and homeowner technical assistance, including for invasive plants, soil erosion along the lakeside of a property, streambank stabilization at a golf course, dam registration assistance, and goose fecal matter mitigation.

Environmental Benefits: ECCD's services provide on-the-ground NPS support for the statewide program. ECCD has provided support to inquiries sent to CT DEEP when those concerns take place within their service area, and they continue to provide valuable outreach at NPS-related events to address water quality issues in their area.

Lessons Learned: Over this cycle, ECCD saw that their participation in watershed committees and the technical assistance they offer local entities leads to measurable projects. A 319-funded project was awarded in the Wequetequock Cove Watershed based on work that has been done by the committee, and an agricultural NPS project is underway with LISFF, thanks to the support provided by ECCD. Additionally, technical assistance provided to municipalities and landowners remained consistent, especially with projects involving erosion and sedimentation.



Figure 19: Image of streambank erosion from site visit at Norwich Golf Course. Image courtesy of ECCD.

23-01 SWCD NPS Management

Contractor: Southwest Connecticut Conservation District (SWCD)

Location: SWCD Service Area: 43 municipalities in the Housatonic, South Central Coastal, and Southwest Coastal Major watersheds.

\$319 Funding: \$50,000

Match Contributed: \$56,496

Project Duration: February 2024 - September 2025

Summary: As part of ongoing NPS management and pollution prevention efforts, SWCD provided site plan reviews, participated in land use commission meetings, and visited residential, commercial, and agricultural sites to provide guidance and recommendations to address stormwater management, sediment and erosion control, and other water quality issues. SWCD provided recommendations and guidance based on the updated *Connecticut Stormwater Quality Manual* and *Connecticut Guidelines for Soil Erosion and Sediment Control*.

Methods: Notable components of this cycle of technical assistance include the following:

- Municipal site plan review and recommendations for the towns of Trumbull, Westport, Southington, Seymour, and Ridgefield.
- In Trumbull, municipal staff sought recommendations for a residential development proposal, whose site had heavily wetland soils and featured an intermittent waterbody, which would likely lead to stormwater pollution and risk the onsite aquatic resources. SWCD provided written documents and a presentation detailing improvements to stormwater treatments.
- In Woodbridge, SWCD worked with the local conservation commission and land trust to make recommendations for riparian buffer restoration for stream bank stabilization.
- Conducted site walks and provided on-site recommendations for residents in the towns of East Haven, Ansonia, Cheshire, Wilton, Woodbridge, and Naugatuck.
- Provided recommendations to agricultural producers in Oxford, Orange, New Haven, and East Haven.
- Provided general outreach at events, including at meetings for the Mill River Watershed Association, the West River Watershed Council, and the Farm River Watershed.
- Acted as host for the Norwalk River Watershed Initiative, including pursuing a WBP and implementing residential rain gardens in the city of Norwalk through a different grant.
- Partnering with the drinking water organizations within the SWCD Service Area.

- Collaborated with environmental science students in Wallingford to reclaim riparian areas on Wharton Brook.

Environmental Benefits: SWCD's services provide on-the-ground NPS support for the statewide program. SWCD has provided support to inquiries sent to CT DEEP when those concerns take place within their service area, and they continue to provide valuable outreach at NPS-related events to address water quality issues in their area.

Lessons Learned: Over this cycle, SWCD has reconnected with more municipalities than in the past, and will continue to try to connect with those that they haven't interacted with in recent years. Private citizens have been enthusiastic about the resources SWCD provides, and they anticipate inquiries from the public will continue. Most importantly, it has been apparent that there is a need to provide guidance on stormwater issues, watershed planning, and other NPS pollution issues.



Figure 20: Extracted aerial image of stream channel with restoration recommendation.

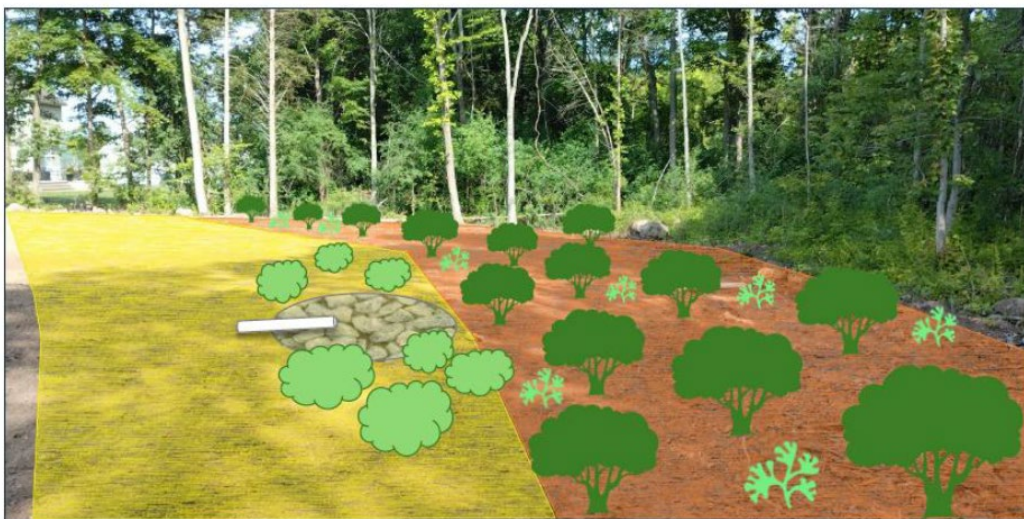


Figure 21: Conceptual design for replating of wetland area.