

Connecticut 2015 Annual Clean Water Act Section 319 Report

In 2015 the Connecticut Department of Energy and Environmental Protection (DEEP) continued management of the Clean Water Section 319 grant program, began implementation of the Connecticut Nonpoint Source Management Program Plan and continued to address nonpoint sources of pollution through its various programs. Additionally other Connecticut state agencies were involved with addressing nonpoint source pollution. This annual report to EPA summarizes Connecticut's 2015 efforts by highlighting the pertinent activities to address nonpoint source pollution, provides the status of active Section 319 funded projects and discusses adjustments to the program plan that were considered in 2015.

Areas of particular success and interest in implementation of the Connecticut Nonpoint Source Management Program Plan in 2015 are as Follows:

http://www.ct.gov/deep/lib/deep/water/nps/planupdate/ct_nps_plan_final.pdf

Watershed Approach and Program Coordination

The updated 303d Vision program is referred to as Integrated Water Resource Management in Connecticut. In 2015 Connecticut began working with EPA Region 1 to employ the Recovery Potential Screen (RPS) tool to identify watersheds with the highest potential for restoration. As part of the Integrated Water Resource Management approach, DEEP Nonpoint Source Program and the 303d Program collaborated to integrate the work of both programs. NPS program data such as active watershed groups and watershed based plan (WBP) information were used as indicators in the RPS tool. GIS layers were then developed and compiled based on the results of the RPS analysis to identify the initial list of basins with the highest potential of restoration.

DEEP will be seeking public input to the Integrated Water Resource Management list of basins proposed for restoration plan development in 2016. Once public input is assessed, DEEP will finalize a list of basins that will be prioritized for TMDL or WBP development and implementation. A potential outcome of the Integrated Water Resource Management approach is the use of certain WBP as alternatives to traditional TMDLs.

<http://www.ct.gov/deep/cwp/view.asp?a=2719&Q=580936>

In 2015 DEEP continued to develop WBP with partners using CWA Section 319 funding. DEEP awarded the Eastern Connecticut CT Conservation District FY15 funds to develop a healthy watershed WBP for the Upper Natchaug River; executed contracts for WBPs for the Still River (Danbury), Pomperaug, and Pequabuck basins; and continued development of WBPs for the French River, West River and Ekonk Brook.

DEEP continues to review and assess existing WBPs with partners to develop implementation projects. DEEP views the WBPs as guidance documents that may need to be revised to take advantage of implementation opportunities that may not have been recognized in the original WBP due to changing conditions and available funding. In 2015 DEEP identified potential additional implementation projects not listed in existing

WBPs. DEEP looks forward to working with EPA Region 1 to develop a process that efficiently updates WBPs to capture changes in basins so that new implementation opportunities can be identified and deemed eligible for Section 319 funding.

DEEP's Water Quality Monitoring Program collects data on impaired water bodies and visits many of longer term monitoring stations in basins with active Section 319 projects, such as the Still River (Danbury) and the Norwalk River. 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 Nonpoint Source Program. Nonpoint Program staff make annual requests to the Water Quality Monitor Program to add monitoring stations to their list of sites. Data is then reviewed and assessed in the Integrated Water Quality Report to determine if a project was successful 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 303d list in the next reporting cycle.

Connecticut's Nonpoint Program staff continuously reviews permits and planning documents developed by DEEP and other state agencies with an eye towards water quality protection and improvements. Permit 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 to WBP, Nonpoint Program staff review state planning documents such as the state Green Plan, TMDLs, and State Plan of Conservation and Development as part of their ongoing responsibilities. Nonpoint Source Program staff also review potential purchases of open space lands by DEEP and grants applications from communities requesting DEEP grants to purchase open space.

DEEP's Office of Long Island Sound Programs (OLISP) routinely incorporates relevant nonpoint source-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. OLISP also 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.

Nonpoint Source Program staff sit on numerous standing committees including The Last Green Valley, Inc, Niantic River Watershed Water Planning Council Advisory Committee, Water Planning Council Advisory Committee- Working Lands Work Group Committee, Eight Mile River Wild and Scenic Coordinating Committee, Upper and Lower Farmington River Wild and Scenic committees among others. In addition to day meetings, Nonpoint Program staff spend approximately one night per week attending night meetings with local and regional watershed groups and the public to assure that DEEP water management goals are communicated to as broad an audience as possible. Through these efforts, Nonpoint Source Program staff fostered the creation of two new

regional watershed coalitions in 2015, the Mill River watershed which is now forming, and the Still River Partnership on Danbury.

As a partner in the USEPA Long Island Sound Estuary Program (LISS) , DEEP participated in writing and approving a new Comprehensive Conservation Management Plan (CCMP) in 2015. The LISS is a federal and state partnership led by Connecticut (DEEP), New York (DEC), and the US Environmental Protection Agency (EPA). It is one of 28 National Estuaries Programs (NEP) established under the Federal Clean Water Act. 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. The new CCMP sets 20 key ecosystem targets/goals to be achieved over the next 20 years and was a culmination of a two-year effort involving DEEP staff from Bureau of Water Protection and Land Reuse's (WPLR) Planning and Standards Division and Office of Long Island Sound Programs. Consultations from other WPLR Divisions, the Bureau of Outdoor Recreation and Natural Resources, and other state agencies were also part of the process. The new plan is organized around 4 central themes: Waters and Watersheds; Thriving Habitats and Abundant Wildlife; Sustainable and Resilient Communities and; Sound Science and Inclusive Management. The Waters and Watersheds and Sustainable and Resilient themes contain the bulk of implementation actions and ecosystem targets that cover nonpoint source pollution and stormwater issues. For example reducing nutrients to the LIS watershed from nonpoint sources and reducing impervious surfaces through implementation of LID and Green Infrastructure is addressed in the Waters and Watersheds theme. The targets to reduce marine debris (litter) and reduce public beach closures (due to pathogens) can be found in the Sustainable and Resilient Communities section. A detailed copy of the CCMP is available on the LISS web site and a public summary can be found at <http://longislandsoundstudy.net/about/our-vision/> and <http://longislandsoundstudy.net/wp-content/uploads/2015/07/CCMP-Public-Summary-Brochure-with-correct-sequence-optimized.pdf>

Runoff from Developed Areas.

DEEP made significant progress toward reissuing the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 permit) in 2015. The renewal of the MS4 general permit will be the first time Connecticut's MS4 general permit has been reissued since first be issued in January 2004. The 2004 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, and pollution prevention and good housekeeping. The reissuance of this permit will build on these elements and will provide more detail and clarification on how to implement them as well as adding additional elements to help protect environmental resources. The reissued MS4 general

permit will also include eight additional municipalities as well as state and federal institutions in its coverage. Connecticut's MS4 general permit is expected to be reissued in early 2016.

As part of the process to reissue the MS4 permit, DEEP engaged UConn CLEAR to create a new website devoted to MS4 outreach and compliance. The website will be organized around the six minimum management measures and include tools, maps, links, publications, tutorial videos and other resources for MS4 communities and other communities interested in addressing stormwater issues. Wherever possible the site will provide a menu of options for communities on how to comply with MS4 requirements. The website will include template outreach materials, both print and electronic, for use by towns to meet public outreach requirements. Besides being promoted through the outreach associated with this project, the website will be mentioned/highlighted at other stormwater-related UCONN Cooperative Extension presentations.

In 2015 DEEP revised the Connecticut Watershed Response Plan for Impervious Cover: http://www.ct.gov/deep/lib/deep/water/ic/watershed_response_plan_for_ic/ct_ic_response_plan_document.pdf and added an outreach component to the plan by posting a Stormwater webpage: http://www.ct.gov/deep/cwp/view.asp?a=2719&Q=567336&deepNav_GID=1654 The Stormwater webpage describes concerns with stormwater, lists DEEP stormwater permits, and provides detail information regarding stormwater permitting and impervious cover in all 169 Connecticut municipalities.

In 2015 DEEP's Nonpoint Source Program began drafting the results of a non-point source (NPS) Workgroup on phosphorus. Creation of the Phosphorus NPS Workgroup was mandated by the Connecticut General Assembly under Public Act 12-155. PA 12-155 provided legislation enabling municipalities to receive additional funds from Connecticut's Clean Water Fund to remove phosphorus in sewage treatment plant discharges; regulates fertilizer use and the amount of phosphorus in fertilizers, and required DEEP to work with affected municipalities to develop a state-wide response to address phosphorus in nonpoint source pollution.

To develop this state wide phosphorus response, a NPS Workgroup made up of municipal representatives, Federal and state environmental professionals, environmental consultants, and academicians was formed to evaluate the sources of phosphorus from NPS pollution. The NPS Workgroup met thirteen times to review sources of phosphorus 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. A final report from the committee will be available in 2016.

In 2015 DEEP provided Clean Water Act Section 119 funding to UCONN NEMO to review the plans and regulations of 85 of Connecticut's 169 municipalities for LID-

related language based on a framework developed by the NEMO program. Follow-up telephone interviews were then conducted with 78 individuals involved in the land use planning in those towns. It is clear that LID has established a presence in Connecticut. Almost every interviewee (76) noted that there was at least some support for LID in their communities. All towns have integrated some form of LID (as broadly defined into their plans and regulations) although in many cases the practices found were conservation practices (tree conservation, open space preservation) that are not specifically focused on stormwater management. However, that general support has not consistently translated into more specific LID requirements.

<http://nemo.uconn.edu/publications/2016stateofLID.pdf>

Connecticut DEEP's Forestry Division has an active urban forestry program. Information on Connecticut Urban Forestry programs can be found at:

http://www.ct.gov/deep/cwp/view.asp?a=2697&q=322872&deepNav_GID=1631

DEEP's Office of Planning and Program Development has two programs dedicated to preserving open space. The Recreation and Natural Heritage Trust Program purchases open space to add properties to the state parks and forests system. The Open Space and Watershed Land Acquisition Grant Program provides grants to communities for the acquisition of open space.

The State's overall goal is to preserve or otherwise protect 673,210 acres or 21% of Connecticut's land as open space by the year 2023. The initiative includes 10% of open space to be DEEP-owned as additions to the State's system of parks, forests, and wildlife areas, and the remaining 11% owned by municipalities, private non-profit land conservation organizations, water companies, and the federal government. As of December 2015, 74.4% of this goal or 501,330 acres has been preserved through the direct purchase of open space by the State and DEEP's partners. In 2015 DEEP funded preservation of 3,231 acres of open space. More information on DEEP land acquisition programs can be found at:

http://www.ct.gov/deep/cwp/view.asp?a=2706&q=323838&deepNav_GID=1641

Transportation

In 2015 the Connecticut Academy of Scientists and Engineers published Winter Highway Maintenance operations in Connecticut:

<http://www.ctcase.org/reports/WinterHighway2015/winter-highway-2015.pdf>

Additionally, DEEP's stormwater permitting program continued to work of a draft of the MS4 permit that will cover Connecticut Department of Transportation facilities (CTDOT). The MS4 general permit, that will be reissued on in 2016 and effective July 1, 2017, covers 121 municipalities and state and federal institutions. However this permit does not cover CTDOT facilities. The proposed DOT MS4 general permit will provide coverage specifically for the DOT facilities.

Landscaping and Turf Management

In 2015 DEEP continued to work with UCONN Cooperative Extension on the “Organic Turf and No Pesticides Turf Demonstration Project for Lawns and Athletic fields” (DEEP Project #12-02). This project includes 24 plots for homeowner lawns and 24 athletic field plots each having a different combination of fertilizer and pest management regimes. As part of this project, UCONN Cooperative Extension holds field days for municipal groundskeepers where proper fertilization techniques are discussed and equipment is calibrated to deliver the proper agronomic rate.

Additionally UCONN and the Connecticut Agriculture Experiment Station (CAES) provide soil testing analyses for homeowners, farmers and industry. These soil tests recommend nutrient needs for the intended crop and if followed, will prevent over fertilization of homeowner lawns and municipal fields. Together CAES and UCONN tested approximately 8,000 soil samples in 2015.

Subsurface Disposal Systems

Through the PA 12-155 NPS Workgroup, DEEP and Connecticut Department of Public Health met to discuss issues with onsite wastewater disposal systems in Connecticut. While current regulatory requirements are quite effective, old systems, lack of maintenance, improper use, poor siting, and uneven distribution of effluent in the leach field can result in pollution to watercourses. The NPS Workgroup will recommend in its report to the Connecticut General Assembly encouraging town-wide wastewater planning, establishing a state grant or loan program to fund septic systems upgrades, and implementing a statewide septic system management program that tracks and manages data to identify areas that have the potential to have NPS pollution problems. The NPS Workgroup also recommended a point-of-sale inspection and repairs program for septic systems similar to other states.

With funding from Connecticut’s Clean Water Fund, DEEP administered planning or implementation projects in 2015 to address subsurface nonpoint pollution problems. Projects included extending sanitary sewers, developing decentralized wastewater systems, or repairing onsite septic system in Marlborough, Bolton, Old Saybrook, Old Lyme, and Clinton.

Agriculture

In 2005 DEEP funded the “Feasibility Study for Alternative Technologies and Utilization for Managing Dairy and Poultry Manure”:

http://www.ct.gov/deep/lib/deep/water_regulating_and_discharges/cafo/070618cafofeasibilitystudydec05.pdf. This study documented that the majority of the dairy and poultry populations are concentrated in four areas throughout the state. It also compared the

percent of available land required for agronomic application of nutrients produced by the

dairy and poultry industries. This study was revisited by DEEP and UCONN in 2015 as part of the NPS Workgroup formed for PA 12-155. As a result of this evaluation, the NPS Workgroup recommended that funding be provided to finance technologies, develop pilot projects, and create manure exchange programs. The goal of additional financing would be to make these technologies more available to more producers. The NPS Workgroup also recommended expanding nutrient management plans for animal feed lot operations, and incentivizing and educating farmers to adopt soil health practices.

DEEP entered into a contract in 2015 with the Connecticut Resource Conservation and Development Area to provide outreach, education, and technical assistance to farms and agriculturally focused small businesses seeking to implement alternative and renewable energy projects to improve environmental quality. This project included coordinating with producers and consultants to determine the process, funding, and regulations needed to get an anaerobic digester approved and installed on a dairy farm.

In 2015 DEEP began working with the Connecticut Council on Soil and Water to help implement the Long Island Sound Resource Conservation Partnership Program (RCPP). The three components of this RCPP from USDA Natural Resources Conservation Service (NRCS) are: resiliency, forest protection, and soil health/nutrient management. A product of this RCPP is to train conservation districts to develop comprehensive nutrient management plans (CNMP) for more farms. An outcome of this RCPP efforts will also be to initiate a pilot certainty program for farmers who agree to participate and implement CNMPs.

CT DEEP participates as a member of the Connecticut NRCS State Technical Committee. EQUIP Programs are discussed and suggested priorities are provided to NRCS about farms that could benefit from NRCS assistance and funding. As an extension of the State Technical Committee, a nutrient management subcommittee was formed to examine existing nutrient distribution in Connecticut, the importation of nutrients coming into the state in the form of feed and fertilizer, and the potential to export excess nutrients to states with greater agronomic need. Meanwhile DEEP continues to work with NRCS to develop projects as part of the National Water Quality Initiative. The two basins with this designation in Connecticut are the Little River in Woodstock and Broad Brook in Ellington.

DEEP also worked toward drafting a general permit to regulate concentrated animal feed lot operations (CAFO) in 2015. EPA supplied comments in October 2014 and DEEP reviewed EPA's comments during 2015.

In 2015 the Eastern Connecticut Conservation District (ECCD) completed the Section 319 funded project "Small Farm Manure BMP Assistance". The Small Farm BMP Assistance project helped many small farms identify resource concerns on their property, provided technical assistance, and recommended and implemented best management practices. This work was accomplished by conducting field surveys and obtaining town record surveys to identify and develop a small farm database. ECCD then coordinated an outreach campaign by attending targeted events to recruit project participants. ECCD

also reached out to small farm owners through a local newspaper and multiple direct mailings using a brochure, postcards and ECCD's bi-yearly newsletter. ECCD also conducted research on acid resistant tarps and purchased and distributed acid resistant tarps to small farmers to cover manure piles.

DEEP staff worked with Connecticut Department of Agriculture, Bureau of Aquaculture (DABA) in 2015 to develop the statewide bacteria TMDL regarding shellfish impairments. The collaborative effort centered on sharing DABA collected monitoring data, municipal shellfish triennial reviews, and planning documents. DABA staff also provided input to DEEP's selection of coastal waters for focused water quality restoration efforts. These intra agency communications enhanced collaboration on the Integrated Water Resource Management approach that DEEP is developing.

In 2015, DEEP reviewed and supported a UCONN NRCS RCPP project to address closures of shellfish beds due to high bacteria levels. This project proposes to use three tiers of bacterial source tracking to identify and target areas for conservation practices. This RCPP project will develop conservation partnerships focused on reducing pathogens associated with agriculture, use multi-tiered bacterial source tracking to identify and target critical areas for treatment approaches, determine the opportunities for producers and landowners to adopt conservation practices to address pathogens.

Potential conservation practices to reduce pathogens will include: composting, nutrient management, residue and tillage management, cover crops, fencing, buffers and filter strips, vegetated treatment areas, and wetlands. This project will be focused in Eastern Connecticut where bacteria water quality standards are not being met. This area encompasses 36 towns, in three counties, and includes the Little River Watershed, a National Water Quality Initiative (NWQI) watershed as well as watersheds draining directly into the Stonington Estuary. Seven conservation partners will collaborate to achieve project objectives.

Hydrologic and Habitat Modification

In 2005 the Connecticut General Assembly passed Public Act 05-142 (CGS Section 26-141a and b) which required the DEEP to work with the Department of Public Health and stakeholders to update standards for maintaining minimum flows in rivers and streams. This act required these standards 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.

Extensive effort by DEEP and numerous stakeholder work groups culminated in adoption of the Stream Flow Standards and Regulations on December 12, 2011. The process of classifying the streams and rivers of the State began with the Southeast Coastal, Pawcatuck and Thames Major basins. Stream flow classifications were finalized for these basins on October 7, 2014. Stream flow classifications for the South Central Coastal River Basin were drafted in 2015 and went out for public review.

The Connecticut Coastal Management Act allows towns to consider in their planning processes the “potential impact of a rise in sea level, coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and minimize the necessity of public expenditure and shoreline armoring to protect future new development from such hazards” [CGS section 22a-92(a)(5), as amended]. This act also defines living shorelines as feasible, less environmentally damaging alternatives to seawalls and other shoreline flood and erosion control structures but they must have the primary purpose or effect of restoring or enhancing tidal wetlands, beaches, dunes, or intertidal flats

http://www.ct.gov/deep/cwp/view.asp?a=2705&pm=1&Q=512226&depNAV_GID=1622

Boating and Marinas

Information regarding Connecticut’s Clean Boater Program, Clean Marina Program, and Clean Vessel Act Program can be found at:

http://www.ct.gov/deep/cwp/view.asp?a=2686&Q=326440&deepNav_GID=1620

Nitrogen Strategy,

In December 2015, EPA presented DEEP with a strategy to aggressively continue nitrogen reductions, in parallel with the state’s continued implementation of the 2000 TMDL to achieve water quality standards throughout Long Island Sound and its embayments and near shore coastal waters. Soon after receiving the nitrogen strategy, DEEP began internal discussion of how Connecticut’s Nonpoint Source Program can assist in meeting strategy goals. DEEP looks forward to working with EPA in 2016 to integrate the it’s Section 319 Program into the Nitrogen Strategy by focusing projects and planning efforts to address nitrogen nonpoint source pollution in basins draining to Long Island Sound embayments.

2016 Annual Nonpoint Source Conference in Connecticut

Also in 2015 DEEP began working with New England Interstate Water Pollution Control Commission to plan the 27th annual Nonpoint Source Conference which Connecticut was scheduled to host in 2015 but declined due to staffing limitations. DEEP looks forward to hosting the nonpoint conference in April 2016.

As described above, Connecticut made significant progress in implementing the Connecticut Nonpoint Source Management Program Plan in 2015. Progress is expected to continue at a similar pace in 2016. This Annual Section 319 report is meant to provide a summary of activities of various DEEP programs and sister state agencies and institutions involved in nonpoint source pollution control. More detail can be found on each program by viewing DEEP’s website.

Section 319 FY 2010 Projects

Project Title	Primary Functional Category	Total 319h Funds	Has Pollutant Data		Category Of Pollution
NPS Watershed Management - PLACEHOLDER FOR CONSERVATION DISTRICT PROJECTS (See 10-01a, 10-01c, 10-01d, 10-01e and 10-01f)	-	\$0.00	No		-
NPS Outreach/Misc. and Implementation of Approved WBP - PLACEHOLDER FOR OTHER PROJECTS (See 10-02b, 10-02c, 10-02d-1, 10-02d-2, 10-02e, 10-02f and 10-02g)	-	\$0.00	No		-
Water-quality Monitoring in the Coginchaug River in Support of a Watershed Based Plan	Assessments for Compliance with Water Quality Standards	\$8,176.00	No		Agriculture Urban Runoff/Stormwater Other NPS Pollution Turf Management
Tankerhoosen Watershed Management Plan Implementation	BMP/Implementation	\$50,000.00	yes	TBD	Urban Runoff/Stormwater
Bigelow Brook Stormwater Retrofit	BMP Design/Implementation	\$120,000.00	Yes	N = 579 lbs/yr P = 108 lbs/yr Sed = 18 tons/yr	Urban Runoff/Stormwater Hydromodification
Quinnipiac River Completion of Watershed Based Plan	Other Restoration/Protection/Prevention	\$49,898.00	No		Urban Runoff/Stormwater
River Monitoring	Water Quality Monitoring	\$15,000.00	No		-
Amos Lake Water Quality Improvement	Water Quality Problem Identification	\$54,000.00	No		Agriculture Urban Runoff/Stormwater
WSBP Impl. Niantic River Coordinator	Nonpoint Source Program Overall Coordination/	\$25,000.00	No		Urban Runoff/Stormwater Marinas and Recreational
Nutrient, Bacteria, and Streamflow Monitoring in the Niantic River Watershed - Year 3	Water Quality Trend Assessment	\$54,000.00	No		Agriculture Urban Runoff/Stormwater Other NPS Pollution Turf Management
Converting Dairy Manure Fiber into Plant Growing Media as a Nutrient Removal Strategy	Other Planning	\$70,000.00	No		Agriculture
Hatch Pond Watershed Based Plan Phase 2	Watershed Management Planning	\$60,000.00	Yes	see note	Agriculture Turf Management
Baker Cove Stormwater Tree Filter Project	BMP Design/Implementation	\$125,800.00	Yes	P = 0.1 lbs/yr N = 0.8 lbs/yr Seds/Silt = 1.0 tons/yr	Urban Runoff/Stormwater
Norwalk Tree Filters	BMP Implementation	\$16,200.00	yes	N = 64lbs/yr P = 3.2lbs/yr Sed = 3.8tons/yr	Urban Runoff/Stormwater
Great Hollow WQ Improvement (Town of Monroe)	BMP Implementation	\$40,522.00	Yes	P = 3.2 lbs/yr N = 6.4 lbs/yr Seds/Silt = 3.8 tons/yr	Urban Runoff/Stormwater Hydromodification
North Branch Park River Implementation Project	BMP Implementation	\$50,150.00	Yes	N = 1.0 lbs/yr Seds/Silt = 0.8 tons/yr	Urban Runoff/Stormwater Other NPS Pollution
Coginchaug River WBP Implementation Project (CRCCD)	BMP Implementation	\$100,000.00	Yes	N = 1,162 lbs/yr Seds/Silt = 118.5 tons/yr P = 394.5 lbs/yr	Agriculture Animal Feeding Operations Other NPS Pollution
Coginchaug River WBP Coordinator	-	\$22,000.00	No		-
NCD/Torrington LID Parking Lot	Stormwater Discharge Design/ Control	\$50,000.00	No		Urban Runoff/Stormwater
NPS Management/Mattabeset-Coginchaug Implementation	BMP Implementation	\$50,000.00	Yes	N = 515lbs/yr p = 160lbs/yr	Agriculture Urban Runoff/Stormwater

Due to the changing in land use in the Hatch Pond watershed, loads will be determined after consultation with EPA.

Summaries of FY2010 CWA Section grant funded projects

The time period for CWA Section 319 projects is five years. The FY10 grant period closed on September 31, 2015. Below is a list of FY10 projects that were accomplished with the FY10 Section 319 grant.

Project 10-01d

ECCD NPS Management: Flat Brook Trackdown

Flat Brook (CT 3000-08_01) is a second order stream located in the Gales Ferry section of Ledyard, CT (Figure 1). Flat Brook flows northerly from its headwaters at a small pond in Groton, CT 1.09 miles to Long Cove and the Thames River. Flat Brook has a water quality classification of A, and its designated uses include potential drinking water supplies, habitat for fish and other aquatic life and wildlife, recreation, navigation, and industrial and agricultural water supply.

Flat Brook has been listed in several cycles of the DEEP's Integrated Water Quality Report 303d list, most recently in 2012, as impaired for recreation due to periodic high levels of *Escherichia coli* (*E. coli*) from sources that may include permitted and non-permitted stormwater, illicit discharges, insufficient septic systems, nuisance wildlife and/or pets.

The Eastern Connecticut Conservation District (ECCD) was awarded Section 319 funding to conduct a track down survey of Flat Brook in order to identify potential sources of nonpoint source pollution that have degraded water quality. As part of the track down survey, ECCD staff and local volunteers collected water samples for bacteria analysis from seven locations along Flat Brook and its tributaries for an eight week period in the summer of 2012. ECCD also reviewed water quality data from DEEP Ambient Water Quality Probabilistic Bacteria Monitoring program and the Town of Ledyard MS-4 program, and DEEP's 2012 Statewide Total Maximum Daily Load Analysis for Bacteria Impaired Waters. ECCD staff and volunteers also conducted stream walk surveys of Flat Brook and four unnamed perennial tributaries. The stream walks were conducted following the protocol established by the USDA Natural Resource Conservation Service (NRCS) and were used to identify and document areas of concern such as stormwater outfalls, impacted riparian buffers, eroded stream banks, and excessive algae which might indicate conditions contributing to degraded water quality. ECCD staff interviewed local officials, area business owners and residents to identify other potential causes of the observed degradation to Flat Brook.

Based on the information gathered, an abbreviated nine-element watershed based plan was prepared. The plan identifies possible bacterial and non-point source (NPS) pollutant sources, provides bacteria and NPS pollutant load reductions, and recommends specific management measures necessary to improve water quality, enabling Flat Brook to meet the standards for its designated use.

Project 10-01f
Torrington Low Impact Development Parking Lot

The City of Torrington designed and permitted a porous paver parking lot, which is located at the intersection of Main Street and Route 4 along the banks of the East Branch of the Naugatuck River. The parking lot was previously the site of a small, vacant dirt lot that regularly eroded and shed pollutants and sediment-laden stormwater into the adjacent river. This section of the East Branch downstream of this parking area has been classified as impaired for aquatic life due to unknown causes. Using a porous paver system to construct a parking lot at this location employed many of the principals of Low Impact Development (LID). DEEP provided Section 319 funds to the Northwest Conservation District (NCD) to assist the City with finalizing the design and constructing the LID Parking Lot. NCD selected an appropriate contractor to construct and landscape the LID parking lot. Reinforced, porous paving blocks over a specially prepared base will now filter and clean stormwater before it flows through the ground to the river, thus helping to improve water quality in the East Branch of the Naugatuck River. More specifically improvements of this parking area is anticipated to reduce sediment and other pollutants and thermal impacts to the East Branch. Interpretive signage was added to explain the specialized stormwater management features on site including the porous paver system and rain garden.

Project 10-02b
WMP Implementation Baker Cove Stormwater Tree Filters

In September 2015, the Eastern Connecticut Conservation District (ECCD) and project partner the City of Groton installed seven tree filter units to treat stormwater run-off at the City of Groton municipal complex and Washington Park. Stormwater from these areas discharges to Birch Plain Creek, a primary tributary to Baker Cove. Baker Cove has been listed on several cycles of Impaired Waterbodies for the direct consumption of shellfish due to elevated levels of fecal coliform bacteria. The impairment has been attributed to multiple possible sources, including waterfowl, unspecified urban stormwater, marina/boating on-vessel sanitary discharges and unspecified contributions from residential districts.

The Baker Cove Abbreviated Watershed-Based Plan (2011) recommended retrofits to existing storm sewer systems in order to reduce bacteria loading from urban/suburban run-off and stormwater outfalls to Baker Cove. Based on these recommendations, ECCD applied for Section 319 funding to conduct a stormwater retrofit project in the Baker Cove watershed. ECCD selected tree filters as the most suitable stormwater best management practice (BMP) for this project. Tree filters are coupled to existing storm drainage systems to treat the first one inch of stormwater run-off. They are relatively easy

to retrofit into existing infrastructure, and they have been proven to have very high pollutant removal rates.

ECCD and both the City and Town of Groton evaluated numerous potential installation sites, and ultimately chose the City of Groton municipal complex in order to target Birch Plain Creek, a tributary to Baker Cove. The municipal complex was selected as the most suitable location based on specific criteria including proximity to Birch Plain Creek, suitable soils, the sizes of the individual storm drain catchment areas, and the location of underground utilities. Additionally, both the municipal complex and Washington Park are well-visited and provide good opportunities for outreach via informational signage installed nearby the tree filter units.

In September of 2015, seven tree filter units were installed at the City of Groton municipal complex and Washington Park. The tree filters were provided by Green Street Systems LLC of Hanover, Massachusetts and installed by Norman Wood General Contractor, Inc. of New London, CT. The tree filter units will improve the water quality of Birch Plain Creek, a tributary to Baker Cove, and will serve as a model for other similar stormwater BMP projects in the region. This stormwater retrofit, recommended in the is an important first step toward improving water quality in Birch Plain Creek, and ultimately restoring and delisting of Baker Cove.

Project 08-09 & 10-02c Hatch Pond Watershed Based Plan, Phase 2

Hatch Pond is an approximately 70-acre lake located in the Town of Kent, Connecticut. The lake has an approximately 2,009-acre rural watershed located in Kent and New Milford and is fed by two streams, Womenshenuk Brook at the north end of the lake and another unnamed tributary at the south end of the lake. The outlet of Hatch Pond at the south end of the lake continues as Womenshenuk Brook, a tributary of the Housatonic River.

Hatch Pond is a popular summer and ice fishing area and offers a variety of wildlife and aquatic habitats. A state owned public boat launch is located at the pond outlet, and several other docks exist around the pond, owned by South Kent School and private residential landowners. Since baseline water quality data was collected in the 1970's Hatch Pond has experienced a severe decline in water quality and highly eutrophic conditions, which include infestation of aquatic plants, excessive algal growth, poor water clarity, sedimentation, and depleted oxygen in deeper parts of the lake. Hatch Pond is listed in the 2012 State of Connecticut Integrated Water Quality Report as "Not Supporting" for fish habitat, other aquatic life and wildlife, recreation, and non-native aquatic plants.

Stakeholder groups and DEEP have been studying the poor conditions in Hatch Pond and the underlying causes of the problems for a number of years. DEEP originally classified the lake as impaired when water quality studies conducted by Northeast Aquatic

Research (NEAR) in 2004 and 2005 (NEAR, 2006) showed Hatch Pond had deteriorated from moderate to very poor conditions in a 15-year period. These studies identified a dairy farm on the north shore of the lake as the primary source of excessive nutrient inputs at Hatch Pond.

Additional water quality monitoring and aquatic vegetation surveys were conducted in 2010 by NEAR with Section 319 funding following the sale of the dairy farm. The subsequent study (NEAR, 2012) found that Hatch Pond remains a highly eutrophic water body, although the decline in water quality conditions and active sedimentation may be stabilizing due to the removal of the dairy farm. The study also found that Bull's Bridge Golf Club and South Kent School campus are sources of nutrients to the lake's southern tributary stream. Infestation of the lake by non-native aquatic plants (Eurasian milfoil) remained a significant problem.

To further evaluate and address the water quality problems that were previously documented at Hatch Pond, South Kent School received Section 319 funding to coordinate a more detailed limnology study and develop a watershed base plan. The limnology study took place in summer of 2014 and included data collected on pond bathymetry, sediment depths, aquatic plant surveys, and water quality samples. The study findings indicate that the water quality of Hatch Pond has been improving steadily since the 2010 when the dairy farm ceased operating. The internal phosphorus load from bottom sediments was estimated at less than 10 percent of the total load to the lake, which points to the watershed as a significant source of phosphorus to Hatch Pond and the importance of watershed management measures to further reduce the phosphorus loads to achieve desired water quality conditions in the lake.

Rooted plant problems are also expected to continue or intensify in the coming years as water quality continues to improve, highlighting the importance of in-lake management measures to control rooted aquatic plants. Further monitoring was recommended to determine what the new equilibrium condition will be before any substantial expenditure on water quality improvement or algae control are made.

Project 10-02d-2

Laurelbrook Farm, North Canaan, Nutrient Removal System Electrical system Replacement

A decanter centrifuge nutrient removal system was installed at Laurelbrook Farm located on 390 Norfolk Road, North Canaan, CT under a prior Section 319. The primary purpose and benefit of this system was to address the nutrient surplus on the farm and reduce the possibility of over fertilizing fields which can be a potential source of nonpoint pollution in the Housatonic River watershed. However, high concentrations of corrosive gases compromised the electrical components of the centrifuge nutrient removal system and needed to be replaced and installed in a less corrosive environment. The purpose of this project was to fund a portion of the costs associated with the parts and labor needed to replace the compromised electrical system and build a new structure to house the new

electrical system in a less corrosive environment. This project included: building a new structure; preparing for installation of new and/or relocating equipment control cabinets and main panel boards, and extending feeders to the new location; and installing a new automated, drive and control system. This project illustrates the learning adaptation and improvement process associated with introducing new technology to resolve NPS issues.

Project 10-02e

North Park River Enhancements: Implementation of the North Branch Park River Watershed Management Plan Bioretention Basin #2 east of 110 Sherman Street

The North Branch of the Park River is listed as impaired under the Connecticut 305b Assessment Results and included in the 2014 Integrated Water Quality Report (IWQR). One of two impaired segments (CT4404-00_02) flows 5.39 miles from Farmington Avenue to Wash Brook, just downstream of its confluence with Beamans Brook, between residential neighborhoods and institutional properties in Bloomfield, West Hartford and Hartford. The other segment (CT4404-00_01) travels 0.51 miles underground to its confluence with the South Branch of the Park River. Both of these segments of the Park River are impaired for recreation as well as habitat for fish.

The purpose of this Section 319 project was to implement two principle objectives outlined under the key goals of the 2010 North Branch Park River Watershed Management Plan: Specifically: B) Water Quality; and D) Sustainable Growth and Land Use. These goals were by achieved by completing the construction of a bio-retention basin to treat stormwater runoff from a parking lots associated with the offices of Connecticut Attorney General on the UCONN School of Law campus at 110 Sherman Street in Hartford. This bio-retention basin, known as basin #2, is one of basins that were designed by Fuss & O'Neill in 2013. Drainage from two of three parking lots converges and discharges into this bioretention basin. The bioretention basin captures and infiltrates stormwater runoff from parking lots that had previously flowed into an eroded, intermittent stream channel that emptied into the Park River, several hundred feet from the site. Construction of Basin # 2 completes the plans to install three bioretention basins at this site to capture stormwater runoff from three parking lots. Construction of the other two bio-retention basins was completed in August of 2014.

Project 10-02d

Great Hollow Lake Water Quality Improvements, Phase One

This project includes water quality improvements to the Great Hollow Lake recreational facility in an effort to address deficiencies associated with the Pequonnock River, as referenced by the Pequonnock River Watershed Plan, and Baseline Watershed Assessment Pequonnock River Watershed, by Fuss & O'Neill, in cooperation with the Pequonnock River Initiative, dated 2011. The project stabilized river embankments and adjacent buffer areas in order to minimize erosion, improvement water quality, increase public awareness, minimize future maintenance disturbance, and re-establish native

riparian buffers. The completed work represents the first phase of improvements as highlighted on the preliminary Master Concept Plan developed by Fuss & O'Neill. Additional phases address re-establishment and expansion of native riparian buffers, sedimentation reduction, bio-filtration, reduction of bacterial loads, and public education and awareness.

Project 10-02F Coginchaug River Watershed-based Plan Implementation

In 2015, the Connecticut River Coastal Conservation District (CRCCD) coordinated with multiple partners to conduct four water quality improvement projects in the Cuginchaug River watershed. The projects include: exclusionary fencing and stream crossing improvements for Town of Guilford land leased to Stoneridge Farm for animals paths and grazing areas; a covered heavy use area (HUA) and waste storage facility (WSF) for Half Mile Acres Farm in Guilford; stormwater management improvements at Greenbacker Farm in Durham in the area of the manure storage pit; and a demonstration vegetated buffer along Laurel Brook at Wadsworth Falls State Park in Middletown in the area adjacent to the main parking lot. The projects were completed as part of ongoing efforts to improve water quality in the Cuginchaug River Watershed.

Practices were planned, designed and implemented that addressed several known NPS impacts in the watershed. Projects were planned, designed and conducted in collaboration with property owners; all necessary permits/permissions were sought and natural resource reviews completed (e.g. NDDB review); consultants were contracted to complete designs/construction work; needed materials, supplies and equipment were acquired, and on-the-ground work was completed with appropriate construction oversight/inspection.

Project 09-07F, 10-02G & 10-03 Coginchaug Watershed Coordinator

The Connecticut River Coastal Conservation District (CRCCD) continued to support efforts to prioritize and implement recommendations in the Cuginchaug River Watershed-based Plan. The District provided staff support through a Watershed Coordinator; convened the local Implementation Committee to guide implementation of the plan and coordinated activities of the committee; worked with the committee to develop an activities work plan for the Watershed Coordinator; and planned and held education and outreach events, including workshops, river cleanups, community-based river monitoring activities, student projects, and an on-river trip. The CRCCD also worked with the committee to identify and initiate an appropriate on-the-ground pollution reduction measure to address bacteria sources from an agricultural operation in the upper part of the watershed.

Project 10-04

Water Quality Monitoring in the Coginchaug River in Support of a Watershed Base Plan, Water years 2009-2011.

The USGS has been collecting water quality samples at a stream station on the Coginchaug River in Rockfall, Connecticut. This project covers the first year of a 3 year study. Samples were collected beginning in October 2008 for the following constituents: nutrients, E. coli bacteria, field measurements, major ions, and trace elements. This data collection was conducted in support of the watershed based plan recently developed by NRCS for the Coginchaug River Basin. This data will be used to calculate nutrient loads and trace metal concentrations in the watershed and also to help identify other impairments. Beginning in October 2010, the USGS modified the sampling program to include an upstream site for E. coli concentrations as requested by DEEP. Due to the funding constraints, sampling at both sites was limited to monthly sampling and trace elements and major ions sampling at the USGS gage site was discontinued.

Project 10-05

Tankerhoosen Watershed Plan Implementation at Lake Street School

The lower reach of the Tankerhoosen River is listed as an impaired water body under Section 303d impaired waters list for Connecticut. A 1.51 miles segment is impaired for habitat for fish and aquatic life. Both the cause and potential source are unknown.

In 2009 Fuss & O'Neill prepared the "Tankerhoosen River Watershed Management Plan" for the Friends of the Hockanum Linear Park of Vernon, Inc. The North Central Conservation District (NCCD) served on the technical advisory committee for the watershed plan. The plan identified ten site specific stormwater retrofits opportunities. The Lake Street School in Vernon was one of those sites identified and a conceptual plan for the site prepared by Fuss and O'Neill involved removing a center traffic island and replacing it with a bio retention basin.

The implementation project completed by NCCD in 2012 was consistent with the conceptual design for the Lake Street School bio retention basin. Construction involved replacing existing urban soils with high organic soil-content topsoil to a depth of 1-1.5 feet, and installing a new outlet structure to increase retention and plantings. This bio retention basin reduced pollutants from a school parking lot and surrounding drainage area.

Project 0-06 & 10-01e
Bigelow Brook Stormwater Retrofit

The North Central Conservation District worked with the Town of Manchester to modify and expand an existing detention basin into a functional stormwater pond. The goals of the project were to eliminate scour conditions, decrease erosion and sedimentation into Bigelow Brook, increase sediment storage in the basin, and provide water quality treatment. The project was successfully completed, and is maintained by the Town of Manchester.

Project 10-07
Quinnipiac River Watershed Base Plan Update.

The Quinnipiac River Watershed Association hired a consultant and successfully created a watershed based plan to address impairments for recreational uses. (E. coli)
http://www.ct.gov/deep/lib/deep/water/watershed_management/wm_plans/quinnipiac/quinnipiac_river_finalwbp.pdf

Project 10-08
Five Mile River Monitoring

Harbor Watch/ River Watch (HWRW) conducted a one year study, including ambient water quality monitoring at 13 sites on the Five Mile River in New Canaan, Norwalk, and Darien, CT. HWRW produced an approved QAPP, and collected and analyzed water samples for E. coli, dissolved oxygen, conductivity, and water temperature every two weeks from May 1 – September 30, 2011.

Project 10-09
Amos Lake Water Quality Improvement

Amos Lake, located in Preston, CT, has not been meeting water quality standards due to nonpoint source nutrient enrichment. The Eastern Connecticut Conservation District (ECCD) investigated the watershed and conducted a water quality monitoring project that involved sampling the lake and the tributaries that flow into the lake to determine origin of the nutrients.

The data collected was reviewed by a professional limnologist whose evaluation supported the theory that external loading from tributaries and other upland sources was a significant source of nutrient pollution in Amos Lake. Septic system leachate from nearby cottages located on sandy soils surrounding the lake was also implicated, although not quantified. As part of this project ECCD developed an abbreviated watershed based plan which outlined a suite of recommended best management practices for homeowners, agricultural producers, municipalities, and state public works departments.

Project 10-10
Niantic River Coordinator

Previously watershed based plan was developed for the Niantic River through a project facilitated by DEEP Protection Office of Long Island Sound Programs (OLISP) and funded by the National Oceanic and Atmospheric Administration (NOAA). This plan, “The Niantic River Watershed Protection Plan”, recommended that a Coordinator position be created to move the plan forward and implement its nonpoint source pollution abatement recommendations.

The Eastern Connecticut Conservation District applied for Section 319 funding to create the watershed coordinator position for a three year period. During this time, the Niantic River Coordinator provided staff support to the Niantic River Watershed Committee and assisted with the implementation of the recommendations of the Niantic River Watershed Protection Plan.

Project #10-11
Niantic River Watershed Monitoring – Nutrients, Bacteria, and Stream flow, USGS

This is a multi-year project. This report presents information on data from the first third year of data collection. The USGS installed 3 streamflow gaging stations on the 3 largest tributaries of the Niantic River Estuary. The goal of the project was to implement monitoring as part of the [Niantic River Watershed Based Plan](#).

More specifically the project objectives were to: collect baseline nutrient data (whole water and filtered forms of nitrogen and phosphorous) and indicator bacteria (E-Coli) at Latimer Brook, Oil Mill Brook, and Stony Brook, all tributaries to the Niantic River. Samples were collected monthly from July 2008 through September 2011, with an additional 3 samples collected during high flow events. The project also included installing and operating a real-time, streamflow-gaging station on Latimer Brook, and installing partial-record streamflow gages on Oil Mill Brook and Stony Brook for calculation of discharges.

Project 10-12
Converting Dairy Manure Fiber into Plant Growing Media as a Nutrient Removal Strategy

The Connecticut Resource Conservation and Development area received a Section 319 grant to determine the viability of using dairy manure fiber, a byproduct of anaerobic digestion, as a growing media for commercial plant production. Fibers and associated nutrients were removed from dairy farms and used by plant growers as a sustainable

alternative to peat in potting mixes. Building on research done at Washington State University, researchers from the University of Connecticut conducted trials of digestate fiber based potting mixes to grow annuals, perennials and woody plants at commercial greenhouse and nursery. Trial samples were tested periodically to assess variation in nutrient, pathogen, weeds and pH characteristics.

Project objectives were to plan trial protocols, develop a quality assurance project plan, develop potting mix 'recipes' for various plants using dairy manure fibers, write a report of the findings and to provide outreach to dairy producers and nursery growers on the viability of using dairy manure fiber as a growing media for commercial plant production.

Section 319 FY 2011 Projects

Project #	FY 2011 Project Title	Primary Functional Category	Total 319h Funds	Has Pollutant Data	Load Reduction	Current Status	Category Of Pollution
1	NPS Watershed Management/WBP Implementation	Technical Assistance to State/Local	\$220,000.00	No		Never Initiated	Construction Urban Runoff/Stormwater
2	Watershed Based Plan Implementation	-	\$362,779.00	No		Not Initiated	-
3	Coginchaug River Monitoring	-	\$9,310.00	No		Not Initiated	-
4	Pequonnock Implementation Pocket Park w/BMPs	-	\$75,000.00	No		Not Initiated	-
5	Niantic River Watershed Based Plan Implementation Tree Filter Two Zone Project	BMP Design/Implementation	\$130,500.00	Yes	N = 90 lbs/yr	On Schedule	Urban Runoff/Stormwater
6	Small Farm Manure BMP Assistance	Animal Manure/Litter Management Projects	\$45,000.00	Yes		On Schedule	Agriculture
7	UConn/Multi-faceted Support IC-TMDL Implementation	BMP Design/Implementation	\$90,000.00	Yes	N = 5.23 lbs/yr P = 0.66 lbs/yr Seds/Silt = 0.34 tons/yr	Completed	Urban Runoff/Stormwater
8	NPS Outreach/Miscellaneous	-	\$3,000.00	No		Not Initiated	-
9	Mashamoquet WBP Implementation Septic Systems Upgrade - PROJECT SHIFTED TO FY 2014 FUNDS	-	\$95,000.00	Yes		Never Initiated	-
10	Mashamoquet WBP Implementation Project-Woodchip Bioreactor - PROJECT SHIFTED TO FY 2014 FUNDS	-	\$55,000.00	Yes		Never Initiated	-
11	UConn Eagleville Brook WBP Implementation Project Water Harvesting/Reuse	-	\$80,737.00	Yes	N = 0.80 lbs/yr P = 0.13/yr	On Schedule	-
12	Keeler Brook/Five Mile bacteria assessment	-	\$15,000.00	No		Not Initiated	-
15	NCD/Torrington LID Parking Lot	Stormwater Discharge Design/ Control	\$25,000.00	Yes	N = 3 lbs/yr Seds/Silt = 0.3	Completed	Urban Runoff/Stormwater
16	NCCD/North Branch Park River Watershed Management Plan	BMP Design/Implementation	\$25,000.00	Yes	N = 1 lbs/yr Seds/Silt = 0.25	Completed	Urban Runoff/Stormwater
17	FRWA/Still River Bioswale	-	\$19,000.00	Yes		On Schedule	-

Section 319 FY 2012 Projects

Project #	FY2012 Project Title	Primary Functional Category	Total 319h Funds	Has Pollutant Data	Current Status	Category Of Pollution
1	NPS Watershed Management CRCCD	Other Technical Assistance Activity	\$50,000.00	No	On Schedule	Agriculture Urban Runoff/Stormwater
2	NPS Watershed Management - SWCD	BMP Design/Implementation	\$50,000.00	No	Completed	-
3	NPS Watershed Management - NCCD	BMP Design/Implementation	\$50,000.00	No	Completed	-
4	NPS Watershed Management - NCD	BMP Design/Implementation	\$50,000.00	No	Completed	-
5	NPS Watershed Management - ECCD	Other Technical Assistance Activity	\$50,000.00	No	-	Agriculture Urban
6	Organic turf and no pesticide turf demonstration project	Water Quality Problem Identification	\$145,667.00	Yes	Not Initiated	-
7	NPS Outreach	Nonpoint Source Program Overall Coordination/Management	\$53,000.00	No	Not Initiated	-
8	Watershed Based Plan Implementation	-	\$517,822.00	Yes	Not Initiated	-

Section 319 FY 2013 Projects

Project #	FY2013 Project Title	Primary Functional Category	Total 319h Funds	Has Pollutant Data	Current Status	Category Of Pollution
1	NPS Management (CRCCD)	-	\$20,000.00	No	-	-
2	NPS Implementation (CRCCD)	-	\$75,000.00	Yes	Not Initiated	-
3	NPS Management (NWCD)	-	\$20,000.00	No	-	-
4	NPS Implementation (NWCD)	-	\$75,000.00	Yes	Not Initiated	-
5	NPS Management (NCCD)	-	\$20,000.00	No	-	-
6	NPS Implementation (NCCD)	-	\$75,000.00	Yes	Not Initiated	-
7	NPS Management (SWCD)	-	\$20,000.00	No	-	-
8	NPS Implementation Project (SWCD)	-	\$75,000.00	Yes	Not Initiated	-
9	NPS Management (ECCD)	-	\$20,000.00	No	-	-
10	Roseland Lake Nutrient Loads Modeling Project	-	\$75,000.00	No	-	-
11	NPS Outreach and Miscellaneous (DEEP)	-	\$3,000.00	No	-	-
12	River Edge Restoration - Old Mine Park (Town of Troy)	-	\$40,833.00	Yes	Not Initiated	-
13	West River Green Infrastructure Implementation Project and Watershed Management Plan (CFE)	Watershed Planning	\$93,338.00	Yes	Completed	Urban Runoff/Stormwater
14	9 Element, WBP Upgrade for Pomperaug Watershed with Emphasis on 303(d) Listed	-	\$52,072.00	No	On Schedule	-
15	Blackham School LID Retrofit (SWCD)	-	\$57,980.00	Yes	Not Initiated	-
16	Globe Hollow - Hop Brook Implementation Project Hockanum WBP (NCCD)	-	\$153,378.00	Yes	Not Initiated	-
17	Microbial Source Tracking Analyses in Sasco Brook, Lower Farm River and Goodwives River Watersheds (Westport Weston Health District)	-	\$50,888.00	No	-	-

Section 319 FY 2014 Projects

Project #	FY2014 Project Title	Primary Functional Category	Total 319h Funds	Has Pollutant Data	Current Status	Category Of Pollution
1	CRCCD - NPS Management	-	\$20,000.00	No	Not Initiated	-
2	CRCCD - Implementation	-	\$30,000.00	Yes	Not Initiated	-
3	NWCD - NPS Management	-	\$20,000.00	No	-	-
4	NWCD - Implementation	-	\$30,000.00	Yes	-	-
5	NCCD - NPS Management	-	\$20,000.00	No	-	-
6	NCCD - Implementation	-	\$30,000.00	Yes	-	-
7	SWCD - NPS Management	-	\$20,000.00	No	-	-
8	SWCD - Implementation	-	\$30,000.00	Yes	-	-
9	ECCD - NPS Management	-	\$20,000.00	No	-	-
10	ECCD - Implementation	-	\$30,000.00	Yes	-	-
11	NPS Outreach and Miscellaneous (DEEP)	-	\$10,000.00	No	-	-
12	Little River Watershed Water Quality Improvement - Mayhill Farm (ECCD)	-	\$183,000.00	Yes	Not Initiated	-
13	Second Year Study - E. coli Levels in Keller Brook (Five Mile River Trib) Trackdown of Sources (Earthplace/Harbor Watch)	-	\$15,000.00	No	-	-
14	Watershed Assistance Small Grants Program - Round 7 (Rivers Alliance of Connecticut)	-	\$75,000.00	Yes	-	-
15	PLACEHOLDER (1) (Hold for WASG p/i split)	-	\$0.00	No	-	-
16	Baker Cove Abbreviated WBP Implementation - Non-migratory Canada Geese Outreach and Education (ECCD)	-	\$36,000.00	Yes	Not Initiated	-
17	Pequabuck River WBP (FRWA)	Watershed Planning	\$39,000.00	No	On Schedule	Urban Runoff/Stormwater
18	Still River Watershed Action Plan for NPS Pollution Reduction (HVA)	Watershed Planning	\$103,868.00	No	On Schedule	-
19	Broad Brook Watershed Trackdown (ECCD)	-	\$42,000.00	Yes	Not Initiated	-
20	Planning and Implementation to Address Impairment of the Still River (FRWA)	-	\$25,000.00	Yes	Not Initiated	-
21	PLACEHOLDER (2) (Hold for Still-FRWA p/i split)	-	\$0.00	No	-	-
22	Mashamoquet Brook NPS Implementation Project - Woodchip Bioreactor (ECCD)	-	\$95,000.00	Yes	-	-
23	Mashamoquet NPS Implementation Septic System Upgrades (ECCD)	-	\$62,068.00	Yes	-	-

Section 319 FY 2015 Approved Projects

PROJECT NAME	PROGRAM	Implementation	Total
Organic turf&no-pesticide demo project, lawns & fields	39,100	39,223	\$78,323
Track Down Monitoring, Sasco, Mill & Noroton watersheds			\$0
Watershed monitoring/implement for Eagleville TMDL		110,000	\$110,000
Silage Leachate Collection at Fairvue Farm		129,300	\$129,300
State Parks Pet Waste Mgmt Plan			\$0
Latimer Brook SW Infiltration project		40,500	\$40,500
NPS WSMgmt Suprt, CT SCD's ea. Dist. \$50K	50,000	200,000	\$250,000
Coginchaug River WBP Implementation			\$0
Bicentennial Pond trackdown & abbrev. WBP			\$0
Silvermine River Watershed WaterWise Project			\$0
Green Infrastructure Retrofits, NPS runoff West R.		100,000	\$100,000
LID demo Trumbull Long Hill Green		60,000	\$60,000
Crandall Park Watershed Improvements	2,000	50,000	\$52,000
Hatch Pond WBP - Implement & monitor			\$0
Lower Quinnipiac Clean Water Campaign			\$0
Outreach & Misc.	10,000		
Total Categorical Proposed	156,100	729,023	\$820,123