



Thames River Basin Partnership Partners in Action Quarterly Report

Summer 2019

Volume 51

The Thames River watershed includes the Five Mile, French, Moosup, Natchaug, Pachaug, Quinebaug, Shetucket, Willimantic, and Yantic Rivers and all their tributaries. We're not just the "Thames main stem."

Greetings from the [Thames River Basin Partnership](#). Once again this quarter our partners have proven their ability to work cooperatively on projects compatible with the [TRBP Plan of Work](#) and in support of our common mission statement to share organizational resources and to develop a regional approach to natural resource protection. I hope you enjoy reading about these activities as much as I enjoy sharing information about them with you. For more information on any of these updates, just click on the blue website hyperlinks in this e-publication, but be sure to come back to finish reading the rest of the report.

*Jean Pillo, Watershed Conservation Project Manager
Eastern Connecticut Conservation District
And TRBP Coordinator*

Special Presentation

If you did not attend the summer TRBP meeting, besides the great view of Long Island Sound from the CT Sea Grant Conference Room, you also missed a presentation given by Connecticut State Conservationist, Tom Morgart of the USDA Natural Resources Conservation Service (NRCS). Tom provided an overview of the changes in the Farm Bill that Congress enacted in 2018. The [Environmental Quality Incentive Program](#) (EQIP) cap remains at \$450,000 through 2023. Farmers that have met the cap under the 2014 farm bill will be reset to zero and be eligible for funding again under the 2018 Farm Bill. In the 2014 Farm Bill, producers were required to complete the entire Comprehensive Nutrient Management Plan (CNMP) under the terms of the contract. Now they can implement the CNMP progressively. Hemp has been removed from the list of controlled substances, so now legal hemp farmers are eligible to participate in NRCS programs. Connecticut passed legislation to be compatible with these provisions of the Farm Bill. In the new Farm Bill, there are special provisions for drinking water protection for agricultural land over critical aquifer recharge areas, where producers in those areas may be eligible for up to a 90% cost-share for qualified conservation practices. As a National Goal, 10% of all NRCS funds will be devoted to source water protection. For the [Conservation Stewardship Program](#) (CSP), which helps producers enhance natural resources and improve their business operation, the acreage cap has been removed. It is expected that the new rules under the 2018 Farm Bill will be fully enacted by 2020. If you have questions about the Farm Bill, contact your local District Conservationist: [William Purcell](#) in Windham County or [Garrett Timmons](#) in New London County

TRBP Updates

Next year will be the 50th anniversary of Earth Day and the 20th anniversary of the TRBP Floating Workshop. The workshop theme for next year will be tied into the Earth Day celebration.

The Thames River Basin Partnership Facebook page has finally topped 100 followers. The Facebook page is the best way to provide Partner updates and share workshop announcements. Please consider becoming a Friend or a Follower of the TRBP on [Facebook](#) and send updates to Jean.Pillo@Comcast.net to expand the number of people hearing about your good work.

Regional Conservation Partnership Program (RCPP) Project Summaries

The 2014 Farm Bill included new ways for the USDA Natural Resources Conservation Service (NRCS) to innovate, leverage additional contributions, offer impactful solutions and engage more participants. One such program was the Regional Conservation Partnership Program (RCPP). The purpose of the program is to promote coordination with partners to deliver conservation assistance to agricultural producers and landowners. This is done by providing technical assistance through agreements and direct funding for conservation practices. Through Thames River Basin Partnership meetings, partners meet to discuss ways to collaborate on projects like these. TRBP is partnering in all three of these projects by providing outreach support.

FY14/15 (State level funding) The Last Green Valley is lead partner in this \$400,000 NRCS RCPP project entitled **Improving Soil Health and Water Quality in the Thames River Watershed**. This project addresses two national priorities (soil health and water quality), and all five Connecticut state priorities (water quality degradation, soil erosion, soil quality degradation, degraded plant conditions and livestock production limitations). Utilizing the RCPP, four collaborating partners will implement soil health conservation practices through EQIP on cropland in eastern Connecticut's Thames River Watershed. The long-term objective of this project is to show a measurable improvement of edge-of-field and in-stream water quality, including a decrease in nutrient and turbidity levels, thereby improving soil health and water quality in the area.

Project update: The EQIP funding for financial assistance for this project has been obligated, but funding for technical assistance remains so ECCD can assist producers with conservation planning and their EQIP applications. Water quality monitoring was started on selected fields during the 2019 growing season.

FY15/16 (State level funding) The University of Connecticut is the recipient and lead partner in an RCPP project entitled **Path to Reduce Pathogens in CT Agricultural Runoff**. This \$669,000 NRCS RCPP project is focused on unacceptably high bacteria levels in Connecticut's rivers and shellfish beds. This is, in part, caused by runoff from agricultural operations. To address water quality degradation, ten conservation partners are collaborating to achieve the objectives of the project: University of Connecticut, Eastern Connecticut Conservation District, The Last Green Valley, Inc., CT Department of Agriculture Bureau of Aquaculture, CT

Department of Energy and Environmental Protection, CT Sea Grant, Stonington Shellfish Commission, CUSH, Inc. (Clean Up Sound & Harbors), the Thames River Basin Partnership, and UCONN Extension.

Project update - Mike Dietz of UCONN CLEAR/CT Non-Point Education for Municipal Officials has begun scheduling quarterly meetings for the partners beginning in October 2019. The Danielson NRCS office is negotiating with CT DEEP to work cooperatively on a large scale Comprehensive Nutrient Management Plan upstream of one of the monitoring sites where cow manure bio-markers were identified in the *E. coli* samples.

FY16/17 (National level funding) The Last Green Valley (TLGV) was awarded \$6,144,000 through the NRCS RCPP program for **Accelerating the Pace of Conservation in the Southern New England Heritage Forest**. The Southern New England Heritage Forest (SNEHF) is a uniquely-positioned forest corridor stretching north along the Connecticut and Rhode Island border to the Quabbin Reservoir in Massachusetts. A remarkable partnership of non-profit organizations and regional, state and municipal agencies are offering private woodland owners a suite of NRCS tools for sound management and forestry conservation practices through the Environmental Quality Incentives Program (EQIP). Permanent protection through easements under the Healthy Forests Reserve Program is also available. This project will serve as a “conservation pipeline” of forest and bird habitat plans, EQIP practices and HFRP easements on private forestlands in order to accelerate the pace of conservation in SNEHF.

Project update – The response to the easement opportunity through the Healthy Forests Reserve Program (30 landowners representing 2500 acres of forested land) has been overwhelming and not all applicants can be included under this project. The next step for this project phase will be to close on the easements after title work, hazmat due diligence and restoration plans are drafted. Phase 2 applications for forest management plans and bird habitat surveys were accepted through January 18, 2019. Dozens of properties were selected and the Audubon organizations in the 3 states are currently conducting bird surveys and foresters are assessing the properties in preparation for developing Forest Management Plans. A second round of applications for bird surveys and forest management plans will be announced in Fall 2019.

For more information about USDA NRCS RCPP opportunities, please visit the NRCS website at <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmland/rcpp>.

Partner Reports

Connecticut Sea Grant celebrated 30 years as a Sea Grant College Program this summer. This is the highest status attainable in the National Sea Grant network. Located at the University of Connecticut’s Avery Point campus, the program is marking the anniversary and 30 years of efforts to restore and protect Long Island Sound with a special issue of [Wrack Lines](#) magazine. Sea Grant also hosted a series of on-water workshops for its partners and supporters featuring projects funded through its program. Congratulations CT Sea Grant on reaching this milestone!

CT Sea Grant offers an Advanced Master Gardener program with a special coastal certification that teaches sound gardening practices. Graduates from the course have an outreach requirement to expand the program's impact to area communities.

This year's National Association of Conservation Districts (NACD) Northeast Regional Annual Meeting was held at Foxwoods Resort Casino from August 25 – 28, 2019. The theme of the meeting was *Sound Practices: Conservation for the Future*. Since the meeting was held in the Eastern Connecticut Conservation District (ECCD) service area, ECCD staff were asked to organize two field trips featuring projects in watersheds where ECCD has been very active: [Little River](#) in Woodstock and the [Niantic River](#) on the border of East Lyme and Waterford. The Northeast Region of the NACD includes 14 states from Maine to Maryland and as far west as Pennsylvania.

Anguilla Brook is the main inland drainage source to Wequetequock Cove in Stonington, CT. The brook is not meeting CT Water Quality Standards for exceeding acceptable pathogens levels. The elevated level of pathogens in the cove causes the shellfish beds to be closed for direct consumption. ECCD was awarded funds from a US EPA Clean Water Act § 319 grant by the CT DEEP to trackdown the sources of pathogens impacting water quality in Anguilla Brook which drains into this cove. The water quality data will be used to develop a Watershed Based Plan to address those pathogen sources. The ten weekly water samples from eleven sites were collected and evaluated for *E. coli* concentrations. Visual stream assessments, called Stream Walks, were also conducted this fall.

ECCD is continuing to lead the Little River Healthy Watershed Collaborative involving officials and other stakeholders in Woodstock and Putnam CT. A Roseland Lake volunteer monitoring team has been collecting data on a biweekly schedule this summer, supported by The Last Green Valley Volunteer Water Quality Monitoring program. The Town of Putnam sponsored monthly nutrient sample analysis. In mid-September, the team completed their summer bi-sampling that began in mid-April. Water quality results were interpreted by ECCD staff and have been shared with local officials and residents, and posted for the public to access on the Roseland Lake Facebook page. Roseland Lake experienced a prolonged cyanobacteria bloom this summer despite having been treated with Copper sulfate twice during the growing season. The next meeting of this group will take place on November 13, 2019. Contact [Jean Pillo](#) for more information.

ECCD completed a year of monitoring water samples from inlet and outlet sampling wells associated with a denitrifying woodchip bioreactor that intercepts the drainage from a tile drainage system installed at a Woodstock Farm. The results from nitrate nitrogen removal was 94% removal overall, and consistently reliable throughout the sampling period. Results for ortho-Phosphate and *E. coli* removal were not consistent. The system shed ortho-phosphate in summer, but it was intermittent due to the lack of flow going through the bioreactor chamber in much of the summer. The *E. coli* results were inconsistent. The concentration of *E. coli* in the inlet monitoring well increased in summer without new pathogen sources applied to the field above the tile drainage system. Removal was generally good except for following a locally heavy rain event, where the inlet sample was diluted and the outlet sample contained a high amount of *E. coli*. ECCD produced a summary brochure overviewing the project and coordinated two farm

tours in Woodstock that featured the woodchip bioreactor. The final report will be posted to the ECCD website once it has been accepted by CT DEEP.

ECCD was awarded funds from the Community Foundation of Eastern Connecticut for a second year to coordinate and expand the [Southeastern Connecticut Stormwater Collaborative](#) into northeast Connecticut. With this second year of funding, towns from northeastern Connecticut will be added to the Collaborative. A special website is under development to act as a resource for Collaborative communities.

With funding from the Long Island Sound Futures Fund, ECCD is moving forward with the design of a fishway over the Shewville Dam in Ledyard. This site is upstream of previous stream passage restoration work completed by ECCD in Preston. ECCD produced a Request for Proposals for the design phase of this project, accepted and reviewed proposals and selected Milone & MacBroom to design the fishway.

ECCD completed its project, *Rain Gardens and Rain Barrels for Eastern Connecticut*, funded by a grant from the Long Island Sound Futures Fund. In all, ECCD and its many partners installed 45 rain gardens and distributed more than 140 rain barrels. Educational rain garden signs were installed in six locations. ECCD thanks the Boy Scouts, Coca-cola, The River Network and all of the volunteers and organizations that made the project a great success.

In a 2011 trackdown survey, which resulted in the development of a Watershed Based Plan for Baker Cove in Groton, Canada geese were identified as one suspected source of fecal coliform in the cove, causing closure of the shellfish beds for human consumption. Working with many stakeholders, ECCD managed volunteer goose surveys, held an educational workshop, created and disseminated educational materials, and developed a matrix of non-migratory Canada goose management recommendations at identified problem sites. One of the recommendations was to develop a watershed group to cooperatively implement actions in the Watershed Based Plan. The group has already met once and will continue to meet quarterly after the close out of the grant.

In East Lyme, ECCD, aided by many partners, installed drywells under the parking lot of East Lyme High School to manage stormwater and prevent a million gallons of stormwater per year from flowing directly into Latimer Brook.

A multiphase project at a large dairy farm in Woodstock, CT has also been completed. Construction began in spring 2017 with the installation of sub-surface drainage beneath the farm's silage bunkers, followed by the installation of a silage leachate collection system. Contractors also installed an agriculture waste transfer system to move waste from both the milk house and barn to two custom concrete receiving tanks for agricultural waste. This project will reduce nutrients and pathogens from discharging into Little River, which provides drinking water to the Town of Putnam and is a priority in NRCS's National Water Quality Initiative.

ECCD will be installing stormwater best management practices (BMPs) at an apartment complex in Ashford, CT. The BMPs will include the installation of dumpster pads for 6 dumpsters at three locations at the complex. With each dumpster pad, a rain garden will also be installed to collect and infiltrate any leachate that may escape from the dumpster. At the bottom of the sloped

driveway, storm drain filters will be installed into two catch basins that discharge directly into Basset Brook. In 2013, ECCD conducted an *E. coli* trackdown survey in the Mount Hope River watershed and determined that the level of *E. coli* in Basset Brook downstream of the apartment complex exceeded the allowable threshold for water quality. This project will also include an education and outreach component that will focus on living with a septic system and other topics for residents at the apartment complex.

ECCD executed a contract with CT DEEP to begin the upper Natchaug River Healthy Watershed Implementation Plan. The first stakeholder meeting was held on August 29, 2019 and involved a recap of the Natchaug River Conservation Action Plan (CAP) and the process that led to an intermunicipal agreement for 8 towns to focus on watershed conservation. Holly Drinkuth, of The Nature Conservancy, presented the Natchaug CAP recap. ECCD solicited ideas from the stakeholders present at the meeting as what a healthy watershed means. A follow up meeting will be scheduled and will feature current watershed conditions. Contact [Jean Pillo](#) for more information or to become involved with this project.

Congratulations to Bill Purcell, promoted to be the USDA Natural Resources Conservation Service District Conservationist for Windham County. Bill's office is located at the USDA NRCS Danielson Field Office on Wescott Road. Call Bill at 860-412-5258 to discuss your conservation project idea and he will let you know how NRCS can help you.

The Norwich office of the USDA Natural Resource Conservation Service (NRCS) processed about 30 contracts with farm producers through mid-summer 2019. The programs were varied and included habitat restoration and erosion control. They also finalized three Comprehensive Nutrient Management Plans including one in Preston and another in Lebanon. The office is also expanding its cover crops for soil health program. New farmer producers that have not been involved with NRCS are now approaching the agency for conservation program funds.

The Mashantucket Pequot Tribal Nation (MPTN) has a grant for their staff to utilize NRCS programs. The short term goal is to use the NRCS system and practices for conservation planning. Tribal staff will be training with NRCS in the Norwich field office. The Tribe's long term plan is for the MPTN to develop into its own Conservation District.

The Last Green Valley (TLGV) continues to offer clean-up fund grants for up to \$500. Contact [Lyann](#) at TLGV to see if any funding is still available for your town or non-profit sponsored river clean-up project.

TLGV presented funding support for Historic and Cultural Resources (up to \$4,000) and Heritage Transaction Grant (up to \$10,000). The deadline has passed for these grants. Stay tuned to learn which projects were selected!

TLGV led Southern New England Heritage Regional Conservation Partnership Project update: Phase 1, forest conservation through conservation easements is still ongoing. Phase 2, Forest Habitat Plans with bird assessments, Audubon groups from the three-state project area will be conducting bird habitat inventories. Two dozen properties are being assessed. A second round of applications will be advertised in fall 2019.

The TLGV Volunteer Water Quality Monitoring Program continues to support citizen science water quality studies. This summer, volunteers will be collected data from 7 boat launches in the Willimantic River. These samples were assessed for *E. coli* concentration. *E. coli* is an indicator species that shows if the river has been contaminated with fecal material. Volunteers will also assisted with the collection of water temperature data in the Mount Hope River watershed, looking for impacts of nearby land use or documenting streams that meet cold water habitat criteria. A new team has been assembled to focus on water quality in Woodstock's Roseland Lake. Cyanobacteria monitoring has been initiated in Black Pond (Woodstock) and Ashford Lake (Ashford).

Project Oceanology, in partnership with the National Oceanic and Atmospheric Administration, will be hosting a Bay and Water Education Program. The program will involve teachers and their students and focus on climate change actions the teachers and students can and will adopt. The program will involve a stewardship action project by program participants within local communities.

The Southeastern Connecticut Council of Governments adopted a [Regional Wastewater Management Plan](#) in July 2019. The plan creates an understanding of the current condition of the centralized wastewater systems in the region, contains projections for demand and facility capacity, identifies infrastructure at-risk to natural hazards, and establishes recommendations for local and regional solutions to meet projected wastewater demand.

The Final Draft of the 2019 Southeastern Connecticut Regional Bike and Pedestrian Plan is available for review and comment at www.bikewalksect.com. The 2019 Southeastern Connecticut Regional Bike and Pedestrian Plan inventories regional programs and assets, identifies a regional network for cyclists, analyzes pedestrian environments, and culminates in recommendations that will lead to a more bicycle- and pedestrian-friendly region. A Public Meeting was held on October 10th, 5:30pm, at the Groton Senior Center.

The 2018 draft biannual [Integrated Water Quality Report](#) was released by the Connecticut Department of Energy and Environmental Protection (DEEP) in May 2019. The open comment period has passed.

CT DEEP, the USGS and the RI Department of Environmental Management (DEM) are working together on a large scale nutrient modeling project for the Pawcatuck River on the CT/RI border.

On September 24, 2019, CT DEEP sponsored a half day watershed fair at Goodwin College. The workshop featured the [Integrated Water Resource Management](#) (IWRM) approach. This approach is based on six key elements: Prioritization, Assessment, Protection, Alternatives, Engagement and Integration. This process allows Connecticut to identify areas for action plan development based on state-specific concerns and provides sufficient time to develop plans using flexible approaches under existing TMDL authority and doesn't create new regulations. As part of this process, they are working with the Bantam Lake Authority to develop a model for lakes with nutrient management issues. They are working with ECCD on the development of a

Healthy Watershed Implementation Plan for the upper Natchaug River watershed and Save the Sound on a Unified Water Study of coastal embayments.

UConn Center for Land Use Education and Research (CLEAR) was established in 2002 and provides engagement-oriented programs centered around: stormwater management; land use planning and climate adaptation; geospatial technology; and STEM education as it relates to conservation. Its principal target audience is local land use decision-makers and municipal staff. While decades of research has verified the effectiveness of green stormwater infrastructure in achieving water quality improvements, widespread implementation by local government stakeholders in Connecticut has been challenging. However, recently approved regulations require 121 communities covered by the MS4 permit to modify their land use regulations to remove barriers and require green stormwater infrastructure use where possible. As such, municipalities are concerned that there are insufficient numbers of contractors and public works employees who are adequately experienced in green stormwater infrastructure installation and maintenance. With \$47,000 in funding provided through the Long Island Sound Stewardship Fund, CLEAR will develop a green stormwater infrastructure installation and maintenance certification program. This project will:

- Assess the needs of target audiences to determine relevant components for a Green Infrastructure (GI) training and certification program (i.e. subjects, format, length, etc.);
- Partner with The Nature Conservancy to evaluate existing GI certification programs in other states to determine if they meet identified needs;
- Develop the certification program framework and process (i.e. certification, recertification requirements, administration, tracking, etc.) tailored to CT and potentially other states in the Long Island Sound watershed; and
- Develop curriculum and training materials that will be shared regionally.

CLEAR maintains an [online library](#) of its past webinars.

Thames Valley Trout Unlimited (TVTU) is looking to the Delaware River success story for the river cleanup projects. This model includes river monitors/citizen scientists that report on river conditions.

The TVTU education programs include:

- [Trout in the Classroom](#). TVTU organized a trout release event at Mashamoquet Brook State Park. This was a day-long conservation-themed program.
- Volunteers from TVTU provided fishing lessons to summer day campers at the Connecticut Audubon Society at the Hampton Reservoir.

TVTU prepared an application for funding through the Long Island Sound Futures Funds to design a fishway over the Papermill Dam that crosses the Little River at in Sprague.

The French River Connection, Inc. (FRC), a non-profit organization focused on improving the French River, was awarded a Commonwealth of Massachusetts Watershed Group Monitoring Grant. The grants are designed to support watershed groups working with MassDEP to more comprehensively assess the health and safety of Massachusetts' surface waters. For many years the French River Connection has been monitoring several sites in the southern section of the French River Watershed under a quality assurance plan developed by the Last Green Valley and approved by MassDEP. These findings are available on the FRC website: www.frenchriverconnection.org. This new grant will cover the cost of equipment that will allow the FRC to conduct bacteria monitoring and provide the results for entry into the State data portal. The FRC will collect and analyze for *E. coli* in 10 sites along the French River in Oxford and Webster. The Project Manager is Ed Bazinet, QA Officer is Jack Josti and Monitoring Program Coordinator is Devon Avery. The interesting part of this research is that they will be able to tell you what the bacteria count is along the river where you fall out of your kayak!

News from Municipalities

The Town of Putnam is making plans to connect the River Trail along the Quinebaug River to the Airline Trail, a multi-use, multi-town trail system. The Putnam Board of Selectmen voted to approve a resolution to authorize the mayor to enter into a contract with the Connecticut Department of Energy and Environmental Protection to accept a \$64,200 state grant to fund a plan to build a link between the two trails, which has to be handicapped accessible. More information is available in this [Norwich Bulletin article](#).

Land Trust Updates

Wyndham Land Trust got a boost thanks to a grant from the Community Foundation of Eastern Connecticut. The Wyndham Land Trust will use the \$20,000 funding to add to the protected property on Bull Hill in Thompson--part of a rare landscape of 3000 acres of unbroken forest. The 975 acres on Bull Hill owned by the Wyndham Land Trust offers sweeping views of Woodstock from an overlook, which is accessible from a trail managed by the land trust. The protected forested lands provide important wildlife habitat as well as play a central role in helping to reduce area flooding and enhance local water quality. Bull Hill contains the headwaters of the Little River which provides drinking water to the town of Putnam. The Wyndham Land Trust has been working with local families which have donated land to the project to help conserve their family history and the history of the town. Some landowners, however, find they need to sell their lands and would rather sell it to a land trust for conservation than see it developed. The Wyndham Land Trust is reliant on local donations and the generosity of businesses and grants to purchase lands, such as the \$20,000 gift received from the Community Foundation of Eastern Connecticut. The foundation strives to preserve and protect environmentally significant land, waterways, and wildlife habitats for the benefit of the ecosystem and for the well-being, health, livelihood, and enjoyment of residents of Eastern Connecticut.

The Wyndham Land Trust was formed in 1975 and now protects over 4,300 acres in northeastern Connecticut. To learn more about the Wyndham Land Trust visit wyndhamlandtrust.org. You can also follow them on Facebook and Instagram.

If you would like your organization's efforts included in the next edition of the TRBP Partners in Action Report, consider attending one of our quarterly meetings. It includes a [TRBP Plan of Work](#) activity reporting session, which is an informal "round the table" discussion of Partner activities. It is a great time to network with like-focused organizations. All meetings begin at 9:30 AM. Generally, the TRBP meets quarterly on the 3rd Tuesday of the month.

Next meeting will be on October 15. Meeting location TBD.

If you are not already on the e-distribution list for this publication, sign on to our TRBP Distribution list <http://thamesriverbasinpartnership.org/subscribe>, or you can download previous versions of this quarterly publication from the TRBP website <http://thamesriverbasinpartnership.org/newsletters>.

The Thames River Basin Partnership is a voluntary, cooperative effort to share resources, and strives to develop a regional approach to resource protection. The Partnership is made up of a variety of agencies, organizations, municipalities, educational institutions, companies, and individuals interested in the environmental health of the greater Thames River basin. Partial funding support for FY 19 for TRBP Coordinator time has been provided by The Last Green Valley. Additional sources of funding are being sought to continue the TRBP Coordinator position. Please consider making a donation to the Eastern Connecticut Conservation District and designate it to support the Thames River Basin Partnership Coordinator position.