



Thames River Basin Partnership Partners in Action Quarterly Report

Summer 2017

Volume 43

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 Workplan](#) 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 missed the summer 2017 TRBP meeting, our guest speaker was Professor Jack Clausen of University of Connecticut (UConn). He updated the partners on his *Path to Reduce Pathogens in CT Agricultural Runoff* project. This \$669,000 NRCS Regional Conservation Partnership Program is focusing on fecal bacteria levels in Connecticut's rivers and shellfish beds in areas where the concentrations are unacceptably high. Sampling sites were selected in watersheds known to be impaired and where agricultural runoff is a suspected cause. To address soil and water quality degradation, multiple conservation partners are working together to achieve the objectives of the project: University of Connecticut (UConn), Eastern Connecticut Conservation District (ECCD), The Last Green Valley, Inc.(TLGV), 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, UConn Extension, and USDA Natural Resources Conservation Service (NRCS). Project objectives include:

1. develop conservation partnerships focused on reducing pathogens associated with agricultural activities;
2. identify and target critical areas for treatment approaches;
3. encourage adoption of conservation practices that reduce pathogen export from agricultural areas to streams and shellfish beds;
4. identify opportunities for and barriers to producers and landowners in adopting pathogen conservation practices and evaluate the success of the project.

Potential conservation practices to reduce pathogens include composting, nutrient management, residue and tillage management, cover crops, fencing, buffers and filter strips, vegetated treatment areas and wetlands. This project will incorporate cutting-edge research tools that will allow for the identification of species-specific DNA markers. This will allow the source of *E. coli* to be determined by which species contributed it, which in turn will focus remediation efforts where they are most needed.

Ten sampling locations were selected, and between 5 and 12 “first flush” stormwater samples have been collected and assessed for *E. coli* concentrations so far this year. Three samples with high results were prepared and shipped to Source Molecular, a specialty lab in Florida, which can track the source of the bacteria to the species of origin by using specific markers on the DNA of the *E. coli*. The preliminary results for Abington Brook in Pomfret were inconclusive. Peckham Brook in Woodstock and Wappaquia Brook in Pomfret both tested positive for ruminants and humans. Follow-up analysis for cattle-specific markers returned positive results. Next steps will be to send representative samples from all ten brooks for this type of analysis and test additional samples from the sites previously tested to show consistency of results. In the fall, which is a little less busy at a farm, funding assistance programs through the USDA NRCS Environmental Quality Incentives Program (EQIP) will be promoted where appropriate.

TRBP Floating Workshop XVII Report

Another successful Thames River Basin Partnership Floating Workshop was held on June 9, 2017. The workshop was sponsored in part by Millennium Power through The Last Green Valley and hosted by Roseland Park, in Woodstock, CT. Approximately 40 people participated in a two part program focused on Little River, a National Water Quality Initiative watershed located primarily in Woodstock and Putnam, CT. A morning tour of completed and ongoing conservation projects included a stop at Elm Farm, Valleyside Farm and Fairvue Farm, all in Woodstock, as well as a stop at a bioretention project completed at the Woodstock Arboretum.

After lunch, Ray Covino, Windham County District Conservationist for NRCS gave a demonstration on the significance of soil health using a rainfall simulator on a variety of soil samples influenced by different land covers.

The program continued in the barn at Roseland Park, where Jean Pillo (ECCD) overviewed an ongoing study of water quality in and upstream of Roseland Lake, followed by Dan Mullins (ECCD) who gave a presentation entitled *Little River, Big Projects*. After the indoor presentations were completed, our workshop guests took to the water of Roseland Lake, where they learned more about local land conservation strategies to protect water quality in Little River, a main drinking water source for the neighboring town of Putnam.

A slideshow overview of the 17th annual TRPB Floating Workshop is available [here](#).

TRBP Updates

A benefit of participating in the Thames River Basin Partnership includes the opportunity to collaborate with other conservation organizations in order to achieve greater success of our

shared conservation goals. In recent years, this has been evidenced by interagency cooperation through opportunities for programs funded through the USDA Natural Resources Conservation Service [Regional Conservation Partnership Program](#) (RCPP). The RCPP encourages partners to join in efforts with agricultural producers to increase the restoration and sustainable use of soil, water, wildlife and related natural resources on regional or watershed scales through locally-led initiatives.

- The Last Green Valley (TLGV) [Improving Soil Health and Water Quality in the Thames River Watershed](#). The long-term objective of this project is to implement soil health conservation practices through the Environmental Quality Incentives Program on 500 acres of cropland and show a measurable improvement of edge-of-field and in-stream water quality, including a decrease in nutrient and turbidity levels.
- The University of Connecticut (UConn) *PATH to Reduce Pathogens in CT Agricultural Runoff* project is described above.
- The Last Green Valley (TLGV) [Accelerating the Pace of Conservation in the Southern New England Heritage Forest](#). This program will start up after the contract is signed, which is expected to take place in late August.

The TRBP website www.TRBP.org is unfortunately still static. A small grant request to support the setup of a new website was not funded. Alternate funding sources are still being sought. A volunteer has offered to copy the content of all the current webpages into an e-document format that can be cut and pasted onto a new platform. If you have website skills and are interested in assisting with helping the TRBP set up a new website, please contact us at TRBP@Comcast.net.

The number of [TRBP Facebook](#) followers is growing. If your organization is looking for help with publicity regarding an upcoming event, or a special announcement, please send the information in a ready to cut and paste form to TRBP@Comcast.net and it will be posted. Photos are encouraged.

The [TRBP Plan of Work](#) is set to expire in 2018. TRBP requests that all Partners review the current Plan of Work and be prepared to discuss updates at the next meeting.

The next TRBP quarterly meeting will be on October 17, 2017 (location TBD).

Partner Reports

Connecticut Sea Grant, and all Sea Grant programs throughout the United States, were threatened with defunding under the new administration in Washington DC, but funding has been restored to the FY 2017 budget and they can continue their mission. Ongoing projects include:

- Working with Avalonia Land Conservancy on a living shoreline project at Dodge Paddock/Beal Preserve in Stonington. Click [here](#) for more information.
- Working with the East Lyme Community Group on strategies to keep the sand on the beach and dune grass plantings in four locations.

- Providing training to homeowners is part of the Advance Master Gardener Program
- Participating on multiple committees involved with the Long Island Sound Comprehensive Conservation and Management Plan

Founding TRBP member, Howard “Mickey” Weiss, PhD of Project Oceanology has published *Keys to the Decapod Crustacean Larvae of Long Island Sound*. This illustrated 48-page key will help you identify decapod crustacean larvae quickly and easily. Click [here](#) to download this free guide published by CT Sea Grant.

The USGS reports at this time, there are no planned cuts to monitoring efforts in the Thames watershed basin. They maintain 18 gages and 9 water quality monitoring stations in the watershed.

USGS has compiled two reports regarding nutrient loading to Long Island Sound that are available to download from their website. Both were prepared in cooperation with the CT DEEP and include several monitoring stations in the Thames watershed.

- [Nitrogen Loads from Selected Rivers in the Long Island Sound Basin, 2005–13, Connecticut and Massachusetts](#)
- [Nutrient, Organic Carbon, and Chloride Concentrations and Loads in Selected Long Island Sound Tributaries: Four Decades of Change Following the Passage of the Federal Clean Water Act](#)

In cooperation with the Connecticut Department of Public Health, the USGS prepared a report summary on [Arsenic and Uranium in Private Wells in Connecticut, 2013–15](#)

The ECCD is in the second year of their *Monitoring Edge-of-Field Monitoring* project, funded through an NRCS Conservation Innovation Grant. This project will compare the results of formal edge-of-field monitoring using NRCS protocols and a modified edge-of-field monitoring protocol developed by ECCD. Very limited data was collected last season due to the drought, but this season is off to a wetter start with weekly 1” plus rainfall events this spring.

ECCD is expecting to install a woodchip bioreactor on a farm in Woodstock in early August. The [woodchip bioreactor](#) will intercept the sub-surface tile drain runoff and run it through a woodchip filled trench. Through the natural process of denitrification, the bioreactor is expected to remove significant concentrations of nitrate from the runoff. Nitrate is a major pollutant that leads to anoxic conditions in Long Island Sound. This technology, commonly used in the Mississippi watershed, has been reported in some cases to also reduce the amount of pathogens in the tile drain runoff. This project is funded in part by an EPA CWA § 319 grant through the CT DEEP.

On another Woodstock farm, an ECCD ground-breaking has taken place to install subsurface drainage under silage bunkers to keep clean water separate from contaminated silage leachate. The project also includes the construction of a silage leachate collection system and conveyance system, which will drain into custom-built receiving tanks that will also be used for milk house

waste and manure. This project is funded in part by an EPA CWA § 319 grant through the CT DEEP.

ECCD is spear-heading an Urban Agriculture Conservation Initiative with many partners. This project is being funded by the NRCS through the National Association of Conservation Districts. Recently, water conservation practices have been implemented at the Community Garden at Lauter Park in Willimantic. These practices include constructing a woodchip filled trench along the edge of the garden as a water treatment system and a berm along the downslope side of the trench which has been stabilized with elderberry and raspberry plants. These practices have been installed between the garden and the Natchaug River.

In cooperation with NRCS, ECCD is contacting urban/community farm managers in eastern Connecticut to let them know about an opportunity to get their soil tested for certain heavy metals. If you manage an urban farm, community garden, or maybe even a school garden, and are interested in getting the soil tested for free, contact [Michael Soares](#) at 860-319-8809.

With the heavy rains this year, the beach area of Mashamoquet Brook State Park has been closed several times due to unacceptable amounts of *E. coli* bacteria in the water. ECCD is still reaching out to Pomfret residents in targeted areas upstream of the park to offer rebates to offset the cost of updating failed and/or non-compliant septic systems. For more information about this project, click [here](#). This project is funded in part by an EPA CWA § 319 grant through the CT DEEP.

The final sections of the French River Watershed Based Plan (Thompson) are being drafted and the report is expected to be completed by ECCD soon. Funded in part by an EPA CWA § 319 grant, this project includes an implementation requirement. The implementation selected will address stormwater runoff from the Thompson Library property to demonstrate various stormwater treatment systems. ECCD also sponsored a “build your own rain barrel” workshop using syrup barrels donated by Coca-Cola and hardware obtained through The River Network. For more about the French River Watershed Based Plan, click [here](#).

Working under a soil health agreement with the NRCS, ECCD staff visited a farm in Thompson to grid out corn fields and collect soil for testing in early June, and will be returning in September for more samples.

ECCD will be working on two new projects under recently signed contracts. One project is to address the excessive resident Canada goose population in Baker Cove (Groton), identified in the Baker Cove Watershed Based Plan as a potential source of the fecal bacteria that forced the closure of the shellfish beds there. Not only are these geese a threat to water quality and human health, but also a nuisance to navigation at the Groton/New London Airport. Multiple partners will be collaborating on means to discourage the geese from taking up residence in this area. This project is funded in part by an EPA CWA § 319 grant through the CT DEEP.

In the neighboring Niantic River watershed, ECCD will be working with the Town of East Lyme on a stormwater retrofit project on Grand Street.

An informative webinar on CT DEEP's new strategy for addressing nitrogen pollution is now available for viewing through the archived recording on TRBP partner [Connecticut Land Education and Research \(CLEAR\)](#)'s site. A series of public information meetings are scheduled, with one at Waterford Town Hall on August 8th from 2:00-4:00pm. Registration is required, though there is no charge.

A new interactive Connecticut Coastal Access Guide Map has been released. Since October of 2004, the digital version of Connecticut Coastal Access Guide--originally published in paper format in 1999--has helped the public "explore the shore" and find a place to swim, fish, launch a boat, and otherwise enjoy Connecticut's coast. However, like an old but reliable vessel, the Guide was beginning to show its age and needed a major overhaul. Thanks to new Internet mapping technology, that overhaul was recently completed, and [Version 2.0 of the Connecticut Coastal Access Guide](#) is out of dry dock and can now be boarded! The Guide has been updated to use the latest interactive mapping tools to help you find more than 300 sites where the public can access Connecticut's coast. Guide Version 2.0 uses a map-based user-interface to navigate and search for coastal access sites.

The fish ladder at the Scotland Dam, required as a condition of the Federal Energy Regulatory Commission (FERC) license approval, will be under construction soon. The hydroelectric plant is now a run-of-the-river operation. Downstream monitoring is ongoing, looking for any changes to the in-stream habitats in the Shetucket River.

Southeast Connecticut Council of Governments (SCCOG) announced that the 2017 Regional Plan of Conservation and Development has been finalized, and is now available online [2017 Regional Plan of Conservation and Development](#).

As of June 15, 2017, CTDOT has opened the public comment period for the Statewide Transportation Improvement Program and for the Public Involvement Procedures document. The documents are available for review at the SCCOG office and here: [SCCOG Documents](#).

Upcoming SCCOG projects include assessing the impact of the coastal floodplain point system on insurance premiums of people that live within the floodplains and reviewing ways to protect fire stations located in flood plains from flood damage.

The Atlantic States Rural Water and Wastewater Association is considering assisting the Town of Lebanon to address potential ground water quality issues after Professor Meredith Metcalf of Eastern Connecticut State University sampled drinking water from private wells in town and revealed elevated arsenic levels in the water samples.

Soil health enthusiasts, and those who wanted to learn more about soil health and find out what all the excitement is about, attended a *Planning For Soil Health "Growing More With Less"* workshop on July 21, 2017. The workshop was cosponsored by Connecticut Resource Conservation & Development, USDA Natural Resources Conservation Service and Northeast SARE.

The [Draft State Water Plan](#) is now available for a 120-day public review and comment period. See the Featured Links column and State Water Plan Document Repository for more

information. [View the press release](#). Members of the public may submit written comments on the plan. Comments must be filed no later than 4:00 p.m. on Monday, November 20, 2017.

In time for the summer recreational fishing enthusiast and fish consumers in general, an updated 2017 Fish Consumption Advisory Pamphlet, including freshwater, saltwater and some specific waterbody guidelines, is available to all [here](#).

CIRCA Coastal community resiliency grant is now open for applicants. A recent program featured information about CIRCA-funded green infrastructure projects and included presentations from the Metropolitan Council of Governments, the Eastern Connecticut Conservation District, and the University of Connecticut Center for Land Use Education and Research (CLEAR). Through group discussions and activities, workshop participants learned what they can do to support green infrastructure implementation in their coastal communities. CIRCA has also announced another round of available funding through their [Municipal Resilience Grant Program](#). Municipal governments and regional Councils of Government are eligible to submit grant proposals that advance resilience. Projects can include the creation of conceptual designs, construction of structures, or the design of practices and policies that increase resilience to climate change and severe weather. Proposals are due to CIRCA by September 1, 2017.

Connecticut Magazine recently published an article *Connecticut's Rising Seas: Are Towns and Cities Ready?* Link to it [here](#).

TLGV water quality monitoring Coordinators Report

- The 9 TLGV HOBO temperature data loggers have been deployed again in the Natchaug River watershed. Six of the loggers will record a second year of data at the same locations. One logger was moved to a new location in the same stream. Two loggers are in new locations this year, as requested by DEEP fisheries.
- The Shetucket River was sampled in 7 locations this season. For a second season, four stations in Lebanon were also being monitored for E. coli.
- TLGV volunteers are assisting with the UCONN PATH RCPP project. Fourteen volunteers were trained to collect samples and have contributed about 100 hours to the project so far. The Ten Mile River in Lebanon, one of the sampling stations for routine bacteria monitoring, is overlapping with the UCONN RCPP PATH project.
- The French River Connection, Charlton Lakes and Ponds group and Webster Lake Association are involved in monitoring in Massachusetts.
- Amos Lake Association has mid-summer monitoring scheduled for August.
- Water was the featured topic in TLGV's [In Touch Magazine](#)/annual report, with many photos of volunteers in action featured throughout its pages.
- EPA Region 1 will provide a half day training workshop for lake groups interested in monitoring for cyanobacteria. TLGV Water Advisory Committee will feature a presentation on the HAB program, followed by training on how to conduct HAB monitoring. This meeting is on August 8, 2017 and is open to anyone interested. The meeting will take place at Roseland Park in Woodstock.

The Council on Environmental Quality (CEQ) updated four of its annual environmental indicators. To download a copy of the *Environmental Quality in Connecticut*, updated in June 2017, click [here](#). Updated information includes:

- Connecticut's woodland birds declined steeply in 2016. These birds -- 13 carefully-selected species of warblers, thrushes, woodpeckers and other "indicator species" -- have been declining for 15 years, but the trend accelerated in 2016.
- Cave-dwelling bats, which declined catastrophically ten years ago, showed no sign of recovering during the census taken in early 2017.
- The number of inspections and enforcement actions conducted by the Pesticides Division of the Department of Energy and Environmental Protection (DEEP), first reported in CEQ's April report, continued their slide through the current month.
- The average resident drove about the same number of miles -- about 24 per day -- in 2016 as in 2015. Combined with data on fuel consumption, this statistic does not bode well for attaining the state's goals for local air quality and reducing the pollution that contributes to global warming.

Norwich Public Utilities CSO Separation Update/Water System Update: The Norwich City Council Wednesday approved a \$19.9 million Norwich Public Utilities bond for water system improvements and a \$3.2 million sewer bond to design the separation of a combined sewer and storm water system on the East Side. The sewer bond will cover the design for a plan to separate combined sewers and storm drains along several streets in the East Side, including Smith Avenue, Mowry Avenue and Donahue Drive. This is one of 14 sections of the city that still have combined sewers and storm drains. During heavy rain, the system becomes overwhelmed and releases raw sewage into the Shetucket River at the Eighth Street Bridge. The city is under state mandate to separate the combined systems, and the state Department of Energy and Environmental Protection will allow Norwich to delay action on future separation projects to allow NPU to review the effectiveness of the East Side project first. (Source: New London Day)

Upcoming Workshops and Conferences

[Celebrating Agriculture Day](#) will take place on September 23, 2017 from 9 AM – 3 PM at the Woodstock Fairgrounds. Many of the TRBP organizations will be participating again this year. This event is free.

NEIWPC (New England Interstate Water Pollution Control Commission) has arranged a three-part webinar series to continue an ongoing dialogue regarding the use of buffers to improve water quality.

- **Part 1: Restoration** Two local programs will share example projects and programs that are improving buffers. Brian Hotz of Merrimack Conservation Partnership will discuss their Land Protection Grants and Alex Krofta of Merrimack River Watershed Council will present his team's Expanding Riparian Buffers project. **July 25, 2017** 2:00 pm –3:30 pm [Register here for Part 1](#).
- **Part 2: Education** Todd Menees of Vermont DEC will share how the Vermont Rivers & Roads trainings are communicating the importance of buffers to municipalities and DOT workers. **August 22, 2017** 2:00 pm –3:00 pm [Register here for Part 2](#)

- **Part 3: Legal Challenges** Professor John Echeverria of Vermont Law School will discuss how takings complaints can effect buffer jurisdiction and the potential pushback from a legal perspective. **September 15, 2017** 10:00 am –11:00 am [Register here for Part 3](#).

News from the Municipalities

The Woodstock Conservation Commission will be presenting suggested regulation changes to the Planning and Zoning Commission designed to better protect a significant sand and gravel aquifer in the southeastern part of town. The Conservation Commission worked with the Atlantic Rural States Water and Wastewater Association on this effort.

Land Trust Updates

The [Eastern Forest Landowners Association/Wolf Den Land Trust](#) recently accepted a conservation restriction on a 35 acre forested lot on Smith Road in Woodstock, CT. A Twilight tour on the Tim Dodge and family 35 acre forest in Woodstock is scheduled for Wednesday, August 23rd, 6:00 p.m. Learn about this recent Conservation Easement and long-range property stewardship practices on the Dodge family property. RSVP to [Bill Reid](#) by calling 774-262-3284.

Wyndham Land Trust was the recipient of a 20 acre forested parcel in Eastford, CT. The land abuts the land trust's 22.5 acre MacFarlaine Preserve on Abington Road and a portion of the 13,000 acre Natchaug Forest.

Wyndham Land Trust was also the recipient of two parcels in Woodstock in the Bungee Lake area. The properties were donated by Joe Campert. The 37 and 31 acre parcels have frontage on Route 171, Pine Grove Road, Bungee Hill Road and Crooked Trail Ext.

The Wyndham Land Trust also purchased a 250-acre tract of land in Thompson, along the Woodstock border. This land purchased is along the ridge top of Bull Hill. It protects an impressive viewshed and a variety of important wildlife habitat types, and offers scenic vistas from the top of the ridge.

As Avalonia Land Conservancy nears its 50th year anniversary, they are in the planning stages to purchase thousands of more acres to preserve in southeastern Connecticut. Read the article published in the New London Day [here](#).

Other News

Massachusetts' Environmental Agencies launched the first phase of an innovative Online Data Information and Public Access System. It includes transformative environmental data and public information access system. The new system will deliver online permitting, greater data accessibility, and provide increased transparency in state government operations for businesses and stakeholder groups across the Commonwealth and the public at-large. The Energy and Environmental Information and Public Access System (EIPAS) will provide the Executive Office of Energy and Environmental Affairs (EEA) and its agencies with a modern, digital

platform to more efficiently and effectively execute its mission of protecting the Commonwealth's environmental and energy resources. The first phase establishes online permitting for 30 permits, which includes many for air quality, hazardous waste, solid waste, Toxic Use Reduction, water supply, special use permits and pesticides. The ePermitting "ePLACE" portal can be found [here](#).

The MA Water Resources Research Center at the University of Massachusetts Amherst announced that the final report for the Acid Rain Monitoring Project 2017 is now available! You can click [here](#) to open a PDF of the ARM 2017 Final Report:

EPA has produced a guide to encourage partnerships between park agencies and stormwater agencies to promote the use of green infrastructure on park lands. Green infrastructure can help to maximize the environmental, economic, and social benefits of parks. By building strong partnerships, agencies can improve park lands and access to parks, better manage stormwater, increase community resiliency to shifting weather patterns, and provide funding to implement and maintain park enhancements that benefit the community. Click [here](#) to learn more.

Citing ongoing litigation, the US Environmental Protection Agency has delayed new MS4 stormwater regulations intended to strengthen clean water protections in Massachusetts. The impact of the regulations, which are delayed one year, would affect 260 Massachusetts communities.

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.

The next TRBP meeting is scheduled for Tuesday, October 17, 2017. The meeting location and guest presentation has not been determined at this time. Suggestions can be sent to TRBP@Comcast.net.

If you are not already on the e-distribution list for this publication, contact [Jean Pillo](#) by email and request to be added, or you can download the previous versions of this quarterly publication from the [TRBP website](#) (Summer 2006 – Spring 2015) or more current editions from more recent editions at <http://thelastgreenvalley.org/learn-protect/watershed-protection/thames-river-basin-partnership>.

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 17 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.