



Little River Healthy Watershed Collaborative Fall Meeting Notes

November 13, 2019
Woodstock Town Hall

Meeting Attendees: Jean Pillo, Dan Mullins, ECCD; Maureen Marcoux, NDDH; Eric McPhee, Abbie Davis, CT DPH; Laura Miller, Jonathan Gradie, TLGV Water Quality Monitoring Program volunteers; Ruby Senkowski, Woodstock Conservation Commission. Putnam WPCA – Brian Lynch, Superintendent of the Putnam WPCA was unable to attend the meeting due to a schedule conflict.

August 7, 2019 meeting notes were reviewed and approved by consensus.

Little River/Roseland Lake updates since the May 24, 2018 meeting

A PowerPoint presentation on the results of the 2019 Roseland Lake monitoring was given by Jean Pillo

- The lake was treated June 13 and August 5, 2019 with SeClear, a copper sulfate formula that the manufacturer claims also reduces phosphorus. The product label does not specify how this is done.
- Secchi depth ranged from 1 M to 2.2 meters. Most readings were in the eutrophic range.
- The lake bottom became anoxic by June 21 and remained anoxic through at least mid-September
- Lake surface temperature > 25 C by July 9 through at least Aug 5.
- Phycocyanin spiked 7/19 and peaked on 8/5.
- Total phosphorus at the surface spiked at the hypereutrophic level on August 5 at 91 ug/ml
- The data indicated an increase of secchi depth and a decrease of phycocyanin following the August 5 treatment. There was also a decrease in the surface water temperature below 25 C, so it is inconclusive that the SeClear treatment was the cause of the water quality improvements.
- The combined factors of anoxic conditions on the bottom of Roseland Lake and a surface water temperature >25 C are likely the best prediction of cyanobacteria blooms in Roseland Lake.

Follow up discussion:

At the previous meeting, attendees formulated a list of questions for Pillo to ask Mr. Lynch after the meeting. Pillo reported on the answers made available through a phone conversation.

How much area of the lake was treated with copper sulfate on August 5, 2019? 40 acres

ECCD Report

ECCD is collaborating with CT DEEP and the USDA Natural Resources Conservation Service to complete a very large project in the May Brook watershed. May Brook is a tributary to Muddy Brook and sampling as part of the Roseland Lake Management Plan project indicated the small stream contained high nutrient concentrations.

A contract is under development with CT DEEP to acquire manure injection equipment and precision planting equipment for upstream farms.

The outcome of the Woodchip Bioreactor Project was summarized. Overall, the system was 94% effective at removing nitrate nitrogen from tile drain effluent, but the system exported phosphorus

Little River Healthy Watershed Collaborative Fall Meeting Notes

during the summer. The effectiveness for pathogen reduction was inconclusive. Most samples demonstrated a reduction in E. coli at the bioreactor outlet pipe except for one sample following a heavy rain event. The data from the bioreactor inlet pipe indicated that pathogen concentrations increased significantly in tile drain effluent following a manure treatment, dropped to near zero during cold weather and increased to a higher background level in the 100 to 240 MPN range in late summer without any additional sources of pathogens applied to the field. A project brochure was shared.

A tile drain survey funded by a National Association of Conservation Districts Technical Assistance Grant is currently underway.

The Fairvue Farm multiphase agricultural waste management practices project is completed and a project summary presented, along with a project brochure.

A farm tour for local farmers and NRCS and DEEP staff to highlight agriculture BMPs in Little River watershed took place on August 22, 2019. The tour featured ECCD projects at Fairvue Farm and Valleyside Farm, as well as an overview of the 2018 farm bill.

A second farm tour on August 26 featured ECCD projects at Fairvue Farm, Valleyside Farm and Elm Farm. Additionally, the Roseland Lake Management Plan was presented as part of the National Conservation District Northeast Regional Meeting.

CT DPH report

CT DPH required the Putnam WPCA to conduct toxin testing on water samples after the August 5 algae bloom was documented. The results given their staff over the phone indicated the microcystin levels were non-detect in the sample. It was unknown what the date of the sampling was, what the minimum detection limit was for the test used or where the water sample was taken.

CT DPH supports continued monitoring of the lake including water temperature and dissolved oxygen levels in order to forecast high risk of cyanobacteria blooms.

CT DPH responded to question on PFAS monitoring in the Quinebaug River. The Quinebaug River in Putnam was identified as an elevated risk for PFAS contamination due to past industrial activities in the area. The results of those tests were not available at the meeting.

CT DPH responded to a question on whether Putnam could choose to abandon the Little River as a source of drinking water. There are several policies in place that they would require to follow and at this time, they do not have the capacity at their well field to support the demand for their town.

Public Outreach and support - Roseland Lake Website <http://www.roselandlake.org> and the Roseland Lake Facebook page are being maintained and updated.

A short discussion followed about whether to put together a presentation for area state representatives and municipal leaders on Roseland Lake issues, to look to the state water plan to search for possible funding sources for in-lake treatment and possibly surveying the consumers of Putnam water to see if the water quality has impacted their business. It was decided that developing a fact sheet for educating the public about efforts to protect water quality in the Little River would be an effective first step.

Next steps

Little River Healthy Watershed Collaborative Fall Meeting Notes

Update the Muddy Brook/Little River Watershed Based Plan to be compliant with the USDA NRCS criteria to maintain National Water Quality Initiative level for project funding – ECCD would be the lead on the project but it will depend on whether adequate funding is available.

The next meeting will be in spring and will be scheduled in coordination with the Putnam WPCA at a time when a representative from WPCA is available to participate.

These meeting notes were compiled by Jean Pillo, Watershed Conservation Project Manager for ECCD. They are to be considered draft until approved at the next meeting.