

Addison County Riverwatch Collaborative New Haven River - 2010 Water Quality Summary

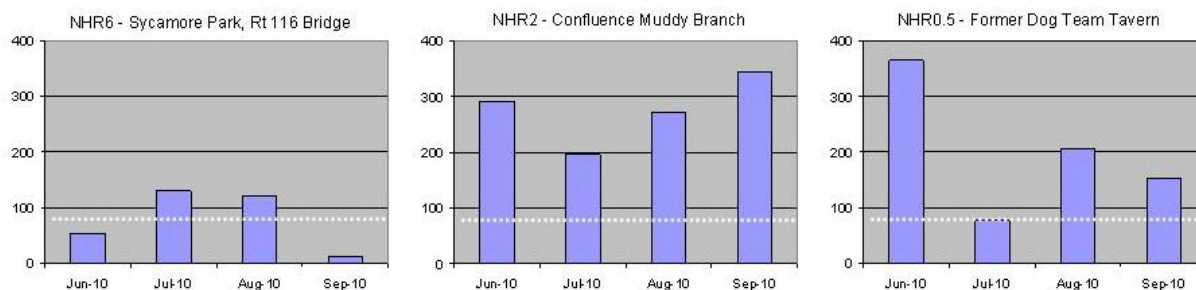
The Addison County Riverwatch Collaborative has been monitoring water quality in the New Haven River since 1993. During the Summer of 2010, six locations within the New Haven River were tested for phosphorus and turbidity on the first Wednesday in April and May (Spring sampling dates) and in June, July, August and September (Summer season). Three of these locations (NHR6, NHR2, and NHR.5) were tested on the same Summer dates for E.coli. Flow in the river during Summer sampling was relatively low, representing baseflow to small storm conditions (based on records from the USGS gage on the New Haven River at Brooksville, just upstream from NHR.5). Flows on the April and May dates were moderate, due to snow melt and spring rains.

Site	Location	Town
NHR.5	Former Dog Team Tavern	New Haven
NHR2	Muddy Branch confluence	New Haven
NHR6	Route 116 Bridge, Sycamore Park	Bristol
NHR9	South St. Bridge	Bristol
NHR11.5	Bartlett's Falls Pool	Bristol
NHR15	S. Lincoln Bridge (Gap Rd.)	Lincoln

E.coli concentrations at Sycamore Park (NHR6) were above the state standard of 77 MPN / 100 mL on two sample dates, July 7 and August 4, but below the standard on June 2 and September 1. At the downstream stations, near the Nash Farm at the confluence of Muddy Branch (NHR2) and near the former Dog Team Tavern (NHR.5), E. coli was detected at or above the standard on all four sample dates. Detected E.coli concentrations were generally consistent with historic results which have indicated an increase in levels downstream of the Munger Street bridge.

E.Coli

Vermont State Standard = 77 MPN / 100 mL



Turbidity levels in the New Haven River were generally low and below the Vermont state standard of 10 NTUs (for Class B cold-water fisheries). Values ranged from 0.2 to 5.3 NTUs, with an average level of 1.2 NTUs for the six sample dates at the six sites, including Spring sample dates, April 7 and May 4. Results indicate a slight increasing trend in turbidity with distance downstream. Based on past years' sampling results, Turbidity can increase well above the standard at times of increased flow – during a Summer thunderstorm, or during Spring runoff conditions – especially in the lower section of the river below the Bristol Flats.

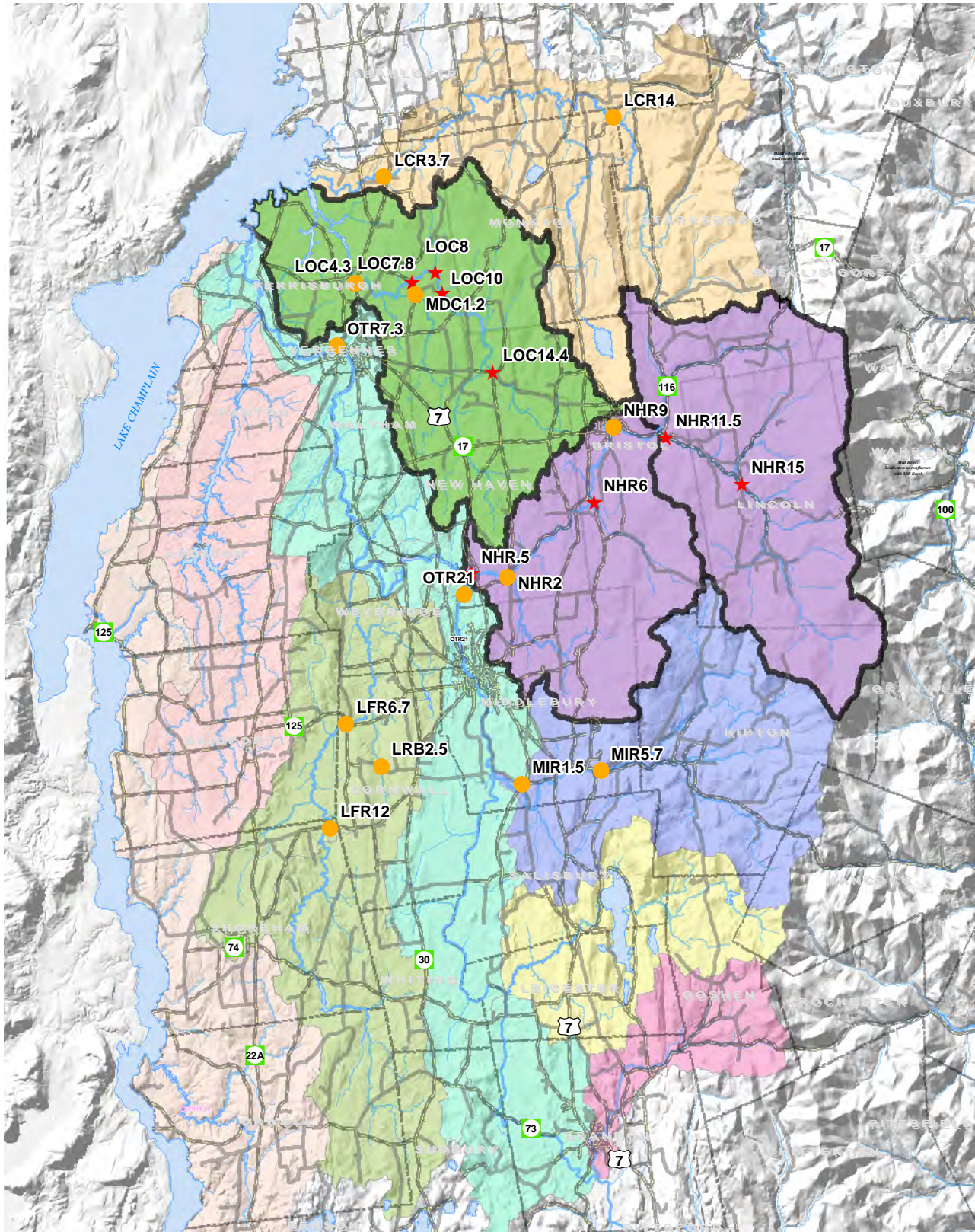
Phosphorus was detected at relatively low concentrations during the Spring and Summer sampling dates. Concentrations ranged from 6 to 32 ug/L, with an average of 13 ug/L. Moderately high concentrations of Total Phosphorus have been detected at times of high flow and runoff in past years. Historically, Total Phosphorus concentrations have increased between the Munger Street bridge in New Haven (NHR 5) and the confluence of Muddy Branch (NHR 2).

2011: The Addison County Riverwatch Collaborative plans to work cooperatively with the New Haven River Anglers to increase assessments in the Muddy Branch tributary which drains the northern portion of Middlebury and joins the New Haven River at the Nash Farm (near NHR2). The Muddy Branch drains a 17 square mile area (14.6% of the total watershed), and contains 27% agricultural land use. Also, the Town of Bristol (Conservation Commission) has received a Clean & Clear Grant to develop restoration and conservation projects and update geomorphic assessments in the watershed. The focus of this study will be the New Haven River main stem in Bristol and New Haven, as well as the lower reaches of Baldwin Creek.

For more information, contact the New Haven River sampling coordinator:
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Addison County Riverwatch Collaborative

Water Quality Monitoring Sites by Watershed, 2010



- ★ Rotation Basin Site 2010
- Sentinel Site
- Little Otter Creek
- New Haven River
- Lake Champlain direct
- Lewis Creek
- Lemon Fair River
- Little Otter Creek
- Otter Creek
- New Haven River
- Dead Creek
- Leicester River
- Middlebury River
- Neshobe River
- Roads**
- Pavement
- Gravel

The Addison County Riverwatch Collaborative is a citizen organization whose mission is to collect and assess the water quality of Vermont surface waters, and to facilitate water quality and stream corridor improvement measures on a watershed scale.

