

Citizen Stream Sampling

in the Winooski River Basin



Corrina Parnapy, Winooski NRCD

Winooski Natural Resources Conservation District

corrina@winooskinrcd.org

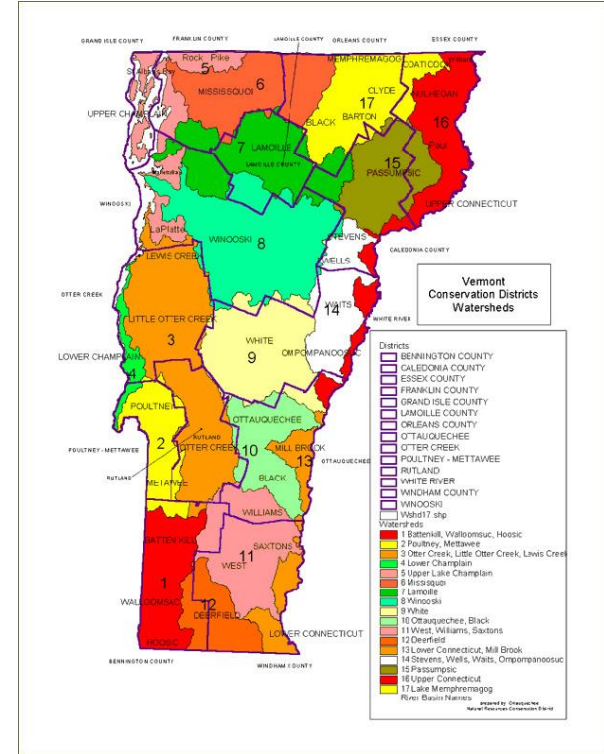
(802) 778-3178

Winooski Natural Resources Conservation District

The WNRCD covers all of Chittenden and Washington County (and parts of Orange County.)



We partner with state and federal agencies, towns, watershed groups, conservation commissions, schools, businesses, and private landowners to implement projects that protect and restore water, soil, and forest resources.



Citizen Stream Monitoring in VT



“Citizen groups ARE extremely important to continued monitoring, education, protection and restoration projects in Vermont watersheds.”

Watershed associations (aka citizen volunteers!) are presently active in approximately 26 watersheds and many lakes across the state.

Impacts to waterways

- Nutrients
- E.coli
- Sediment
- Chloride





Chittenden County Stream Team

A program to engage citizens across a nine-town area: MS4 communities within Chittenden County.

Water Quality Sampling Program

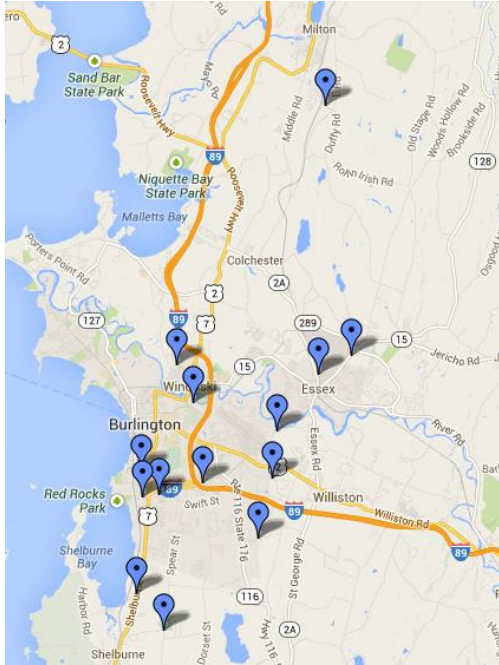
What's involved:

- Responsible for one or more stream sites

- Take grab samples and bring to UVM Lab for analysis

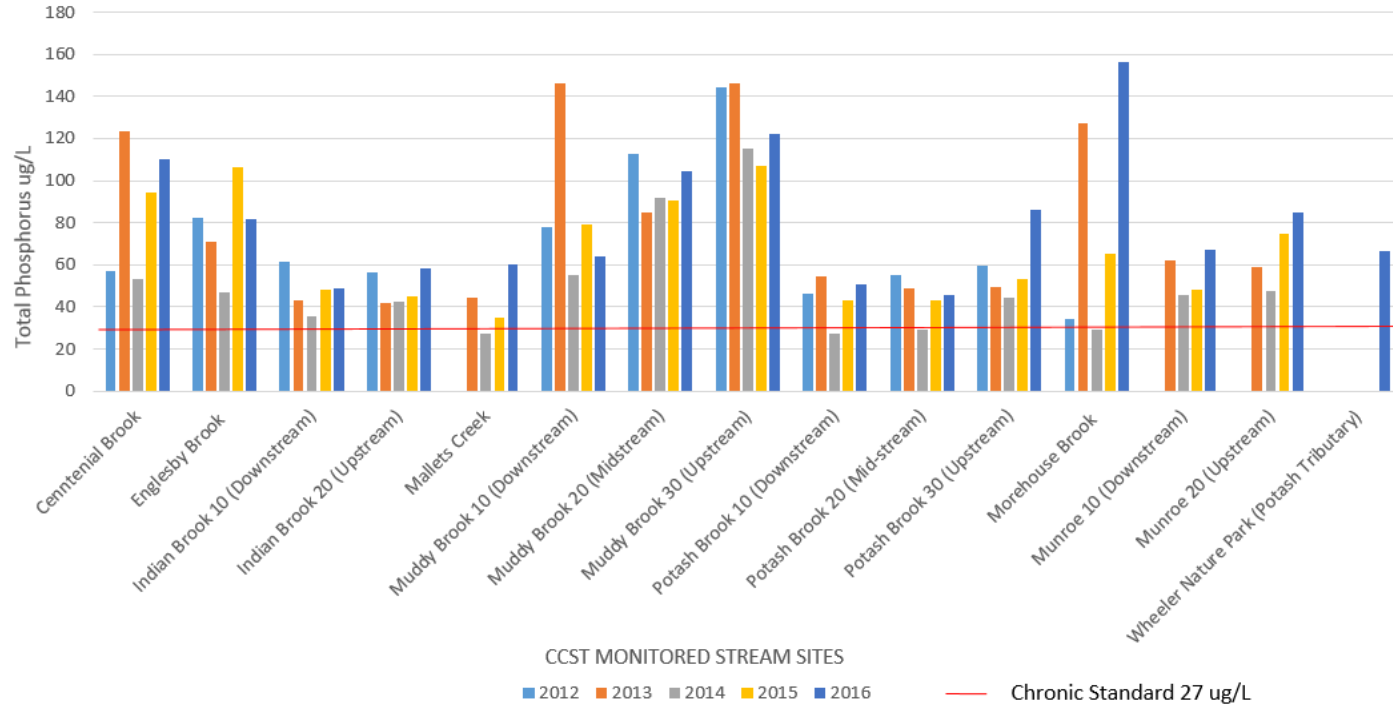
- 5 bi-weekly sampling dates from June 27th- Aug 22nd

- Rainy day sampler for 2 rain events



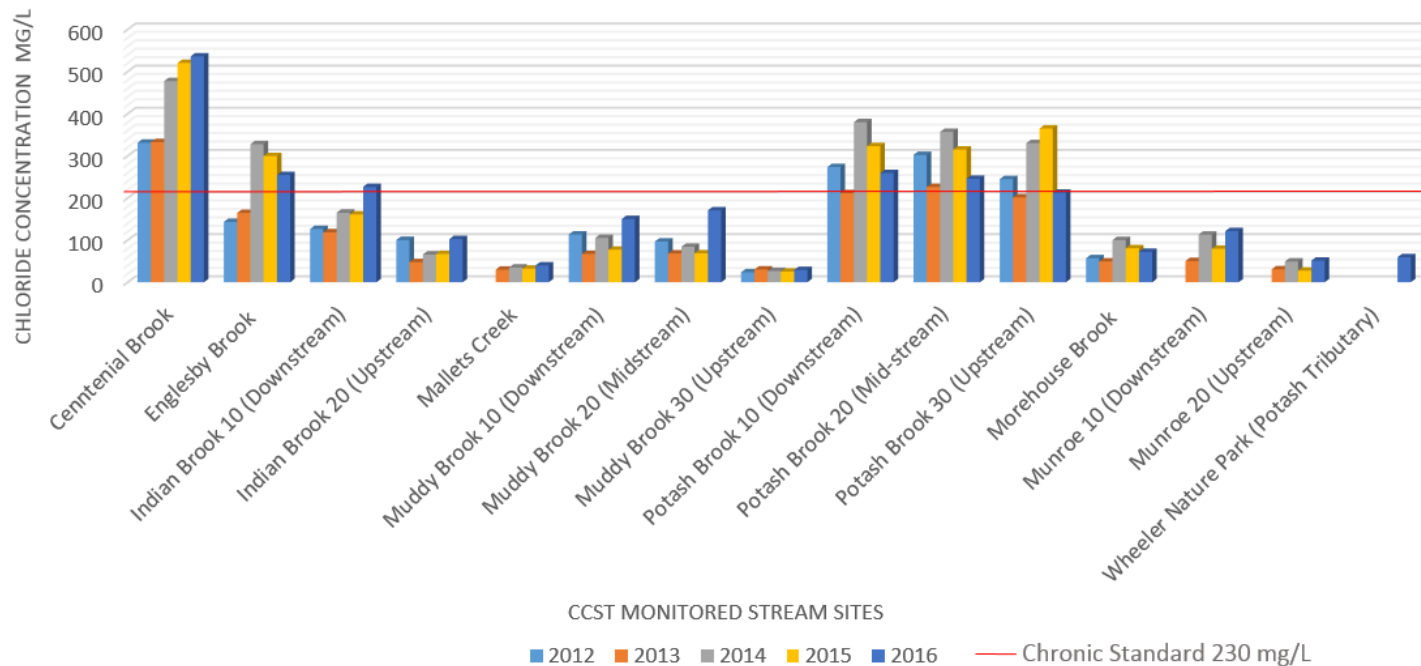
CCST stream results 2012 - 2016

Average Total Phosphorus in CCST monitored streams
from 2012-2016



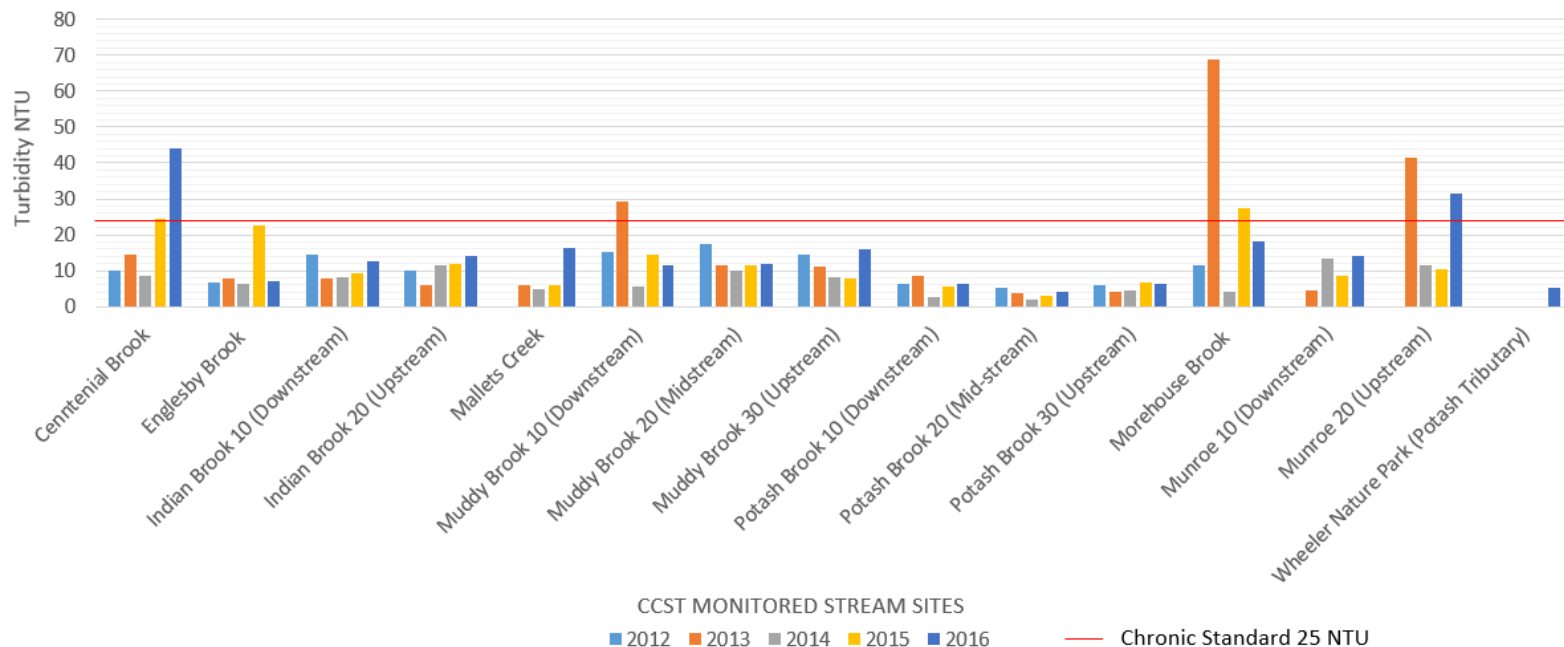
CCST stream results 2012 - 2016

Average Chloride in CCST monitored streams
from 2012-2016



CCST stream results 2012 - 2016

Average Turbidity in CCST monitored streams
from 2012-2016

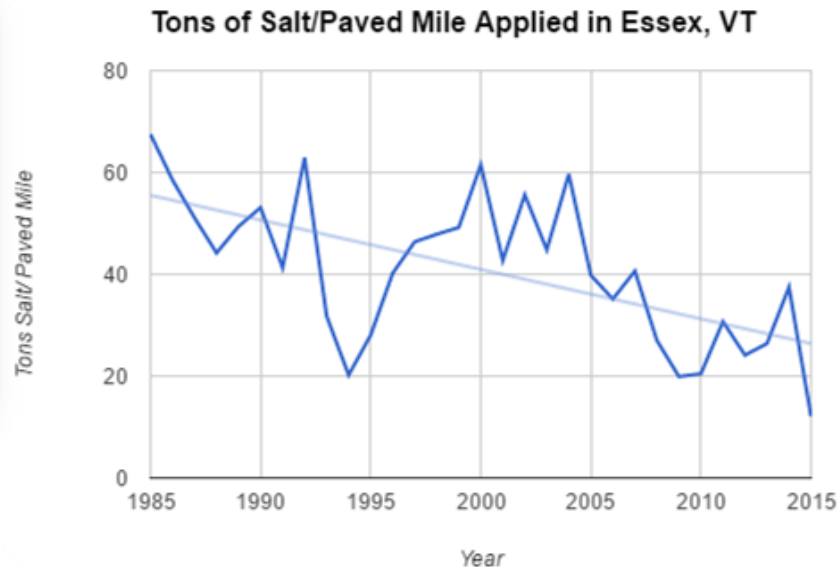


WNRCD's new sampling program!

Monitoring the Effectiveness of Road Salt Reduction in Three Major Watersheds of Essex, VT



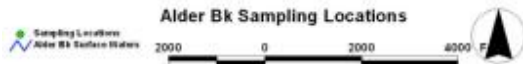
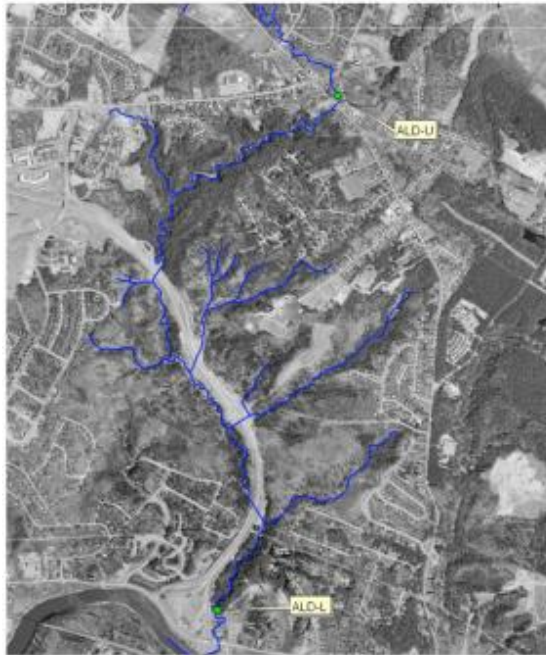
Excessive sodium chloride harms both the aquatic and terrestrial ecosystem, encourages establishment of invasive species, and can shift species dominance from green algae to blue-green algae, which could increase toxic algal blooms.



Town of Essex has foreseen this impending issue and has taken steps to reduce the amount of road salt applied to town roads over the last decade

WNRCD's new sampling program!

Monitoring the Effectiveness of Road Salt Reduction in Three Major Watersheds of Essex, VT



Goal: Re-sample sites monitoring by Essex Waterways Ass. in 2006 to determine if the legacy effect of sodium chloride has reduced in response to road salt reduction

Streams: Sunderland Brook (impaired), Indian Brook, Alder Brook and Sunnyside Brook (impaired)

What's Involved:

Sampling every Sunday from **June 4th - October 15th**
Sign up for portion of time - e.g. 1 ½ months; 6 sampling dates

Attend required sampling training in May
Take grab samples and bring to UVM Lab for analysis

Other sampling opportunities in the basin

Friends of the Winooski River - larry@winooskiriver.org

Friends of the Mad River - friends@madriver.com

Williston Conservation Commission - mscott@willistonvt.org

South Chittenden River Watch - ahoadley@comcast.net

Huntintong River Conservation Partnership- info@huntingtonriver.org



Thank you!