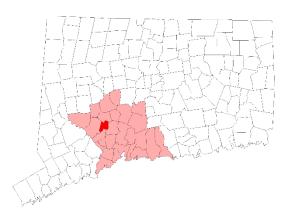


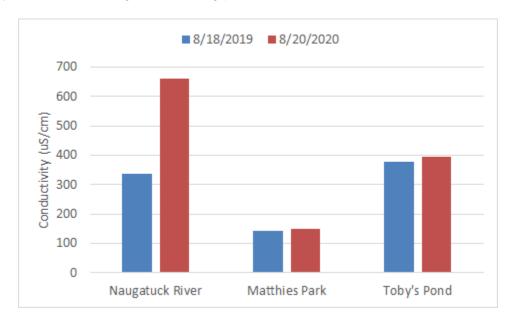
Natural Resources Conservation Academy 2019-2020 CTP participants Matthew Murdock, Hezekiah Melendez and Ruth Burritt, with additional help from Kristen Jabanoski, measured water quality at multiple locations in Beacon Falls, CT

An overview of their project is below

This team began their project in summer of 2019 and after a period of "drought" picked it back up for another round of data collection at almost the exact same time of year in 2020. They measured water quality in the Naugatuck River and two additional nearby sites: Matthies Park and Toby's Pond in Beacon Falls.



Based on the Conductivity and Total Dissolved Solids, all three sites appear to be relatively "clean" or "healthy" waterbodies. Though, the Naugatuck River site in 2020 is on the higher end for both of those measurements. Matthies Park has the "best" conditions, which was great to find out since sometimes park waterbodies can have all sorts of problems due to heavy activity in the surrounding area causing pollution, etc.



There is not much difference between the 2019 and 2020 data for Matthies Park and Toby Pond, however, there's a very large difference between the two years at the Naugatuck River site. It is suspected that the 2020 data reflects "normal" values, whereas the lower values in 2019 were due to a rainfall event essentially "diluting" the river during the time point it was measured. This can be seen when comparing the <u>discharge</u> (volume of water moving downstream per unit of time) between the two dates, 2019 having a much higher discharge than 2020. This was verified with historical precipitation data from the <u>Community Collaborative Rain, Hail & Snow</u> network - there was 0.63 inches of rain on 8/18/2019 versus 0.06 inches on 8/20/20.