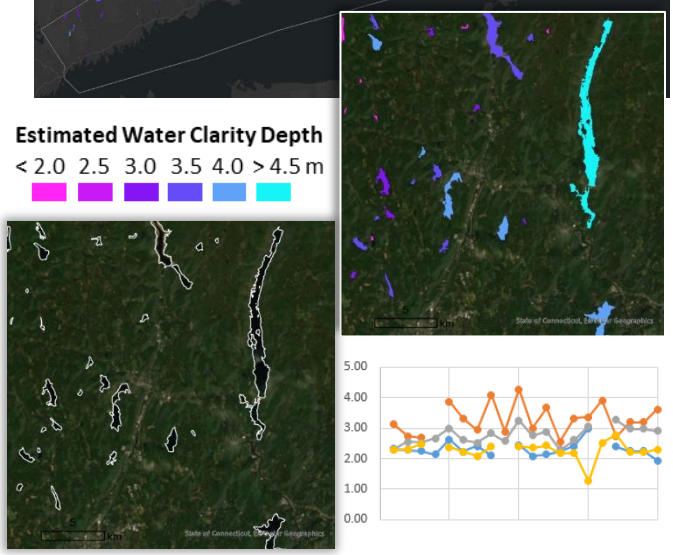
CONNECTICUTVIEW 2020 - 2021

CONNECTICUTVIEW 2020 - 2021 ACTIVITIES

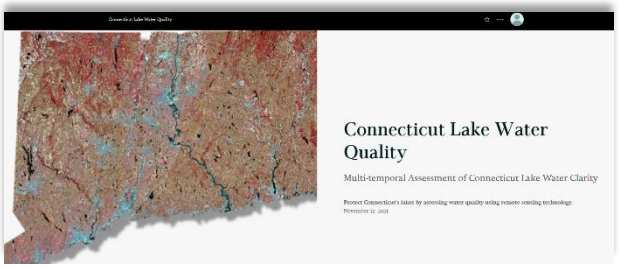
The goals of ConnecticutView are to further the awareness and promote the use of remote sensing technology, from space borne sensors to ground based systems, within the state of Connecticut. To meet these goals, ConnecticutView engages in various academic and outreach activities targeted at the education of K - 12 students, undergraduate students, graduate students, and the public. In addition, remote sensing technology is used to develop data and information that address specific issues within Connecticut.

Water Clarity Estimation: During the project year of 2020-2021, ConnecticutView has further focused on the development of multi-temporal (2015 – 2020) water clarity estimates based on Landsat satellite imagery reflectance characteristics of surface waters in the state. In addition to water clarify analysis, we have involved in developing a Story Map for sharing and visualizing our findings. Water clarity is a measure of how far light can penetrate through the water column of a body of water, and is indicative of poor water *quality*. The causes of poor water quality are numerous, but generally related to high population density and associated development and other anthropogenic activities adjacent to water bodies.

Connecticut is a water rich state with over 5,000 lakes, ponds and reservoirs with surface areas over five acres in size. Although Connecticut governmental agencies, non-profit organizations, and citizens monitoring groups regularly measure water clarity on select lakes, most lakes and ponds remain unmonitored resulting in the inability of these agencies and groups to identify potential problems and act on them. Analysis of satellite imagery in multi-temporal fashion afford the ability to systematically estimate water clarity of all sizable surface water bodies throughout the state to provide a means to track changes in water quality over time and identify potential problems that can become the focus of remediation efforts. Results of the multi-temporal analysis is now shared via an ESRI Story Map.



Example of water clarity estimate for Connecticut from September 2019. This image is part of a multi-temporal dataset of water clarity estimates for the state analyzing surface waters for the summer months of June – September over the years 2015-2019. These data will allow for the monitoring of changes in water clarity and highlight lakes and ponds that might require further investigation.



Connecticut Lake Water Quality Story Map.

ConnecticutView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.

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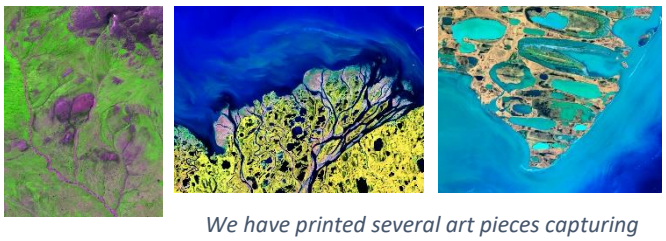
BENEFITS TO CONNECTICUT

While small in area, Connecticut is a diverse state. Connecticut has an abundance of forest, numerous water bodies, and the state borders the Long Island Sound, an ecologically important estuary into which a majority of Connecticut watersheds drain. Connecticut also has a high population density with its associated urban and suburban development, road networks, and golf courses. As such, remote sensing technology can serve as a valuable tool to assist in the monitoring and management of the diverse Connecticut landscape and help educate the citizens on the impacts of human activities on the earth, both locally and globally. Imagery can also serve to highlight the beauty of the planet on which we live.

- Provide remote sensing based informational and data products that address issues specific to Connecticut to improve monitoring and management of the landscape.
- Expose K-12 students to remote sensing technology and provide educational outreach programs and materials.
- Provide quality imagery through "Our Earth Revealed" satellite image exhibit to expose the public to local and global landscapes.

*Display of **Our Earth Revealed** satellite image exhibit at the Connecticut GIS Day Conference on November2 17, 2021.*



We have printed several art pieces capturing Arctic tundra landscapes

CONNECTICUTVIEW CONSORTIUM MEMBERSHIP

ConnecticutView collaborates with various partners on a per-project basis. Current partners include:

UCONN Natural Resources and the Environment

CLEAR Center for Land Use Education & Research

UCONN UNIVERSITY LIBRARIES HARTFORD

Yale

CTIWR Institute of Water Resources

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