



NEWRnet Annual Meeting

April 15, 2016

Data Management, Archiving and Visualization



Progress to Date...

- Data are being collected and archived in Aquarius databases in each of the NEWNet States.
- Sensor data are also being collected by UD from each site in the NEWNet Network at 3-hour intervals. These data are being added to a “project” Aquarius database on a UD server.
- Data are undergoing a basic level-0 QA/QC procedure. Final site specific QA/QC is being performed by the lead PI’s for each site.



Progress to Date (cont.)

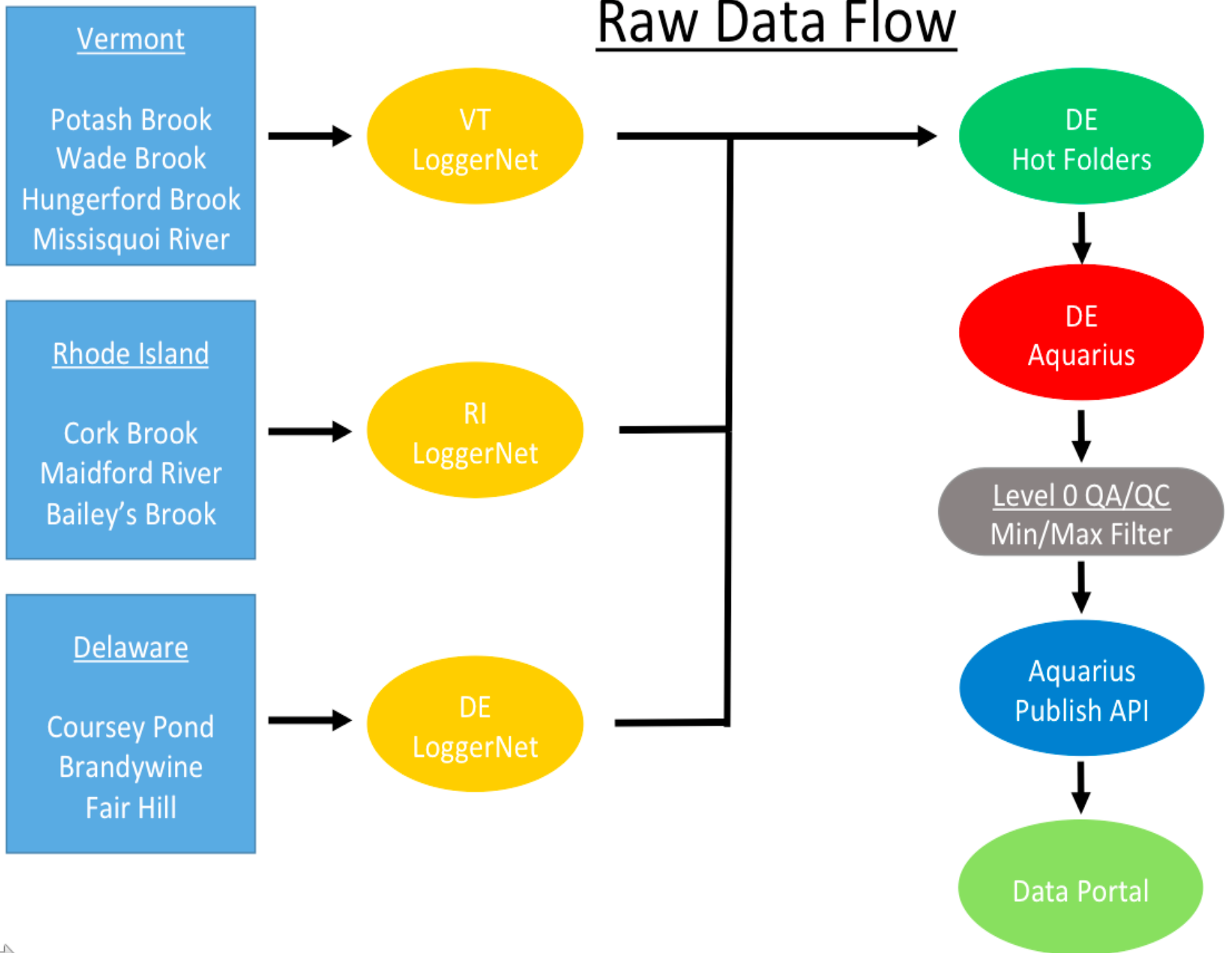
- Site specific metadata and near real-time level-0 sensor data are available on the NEWNet Project Data Portal.

<http://npws01.deos.udel.edu/hughes/newrNet/index.php>

This URL will change once testing is complete.



Raw Data Flow





NEWRnet Project Data Portal



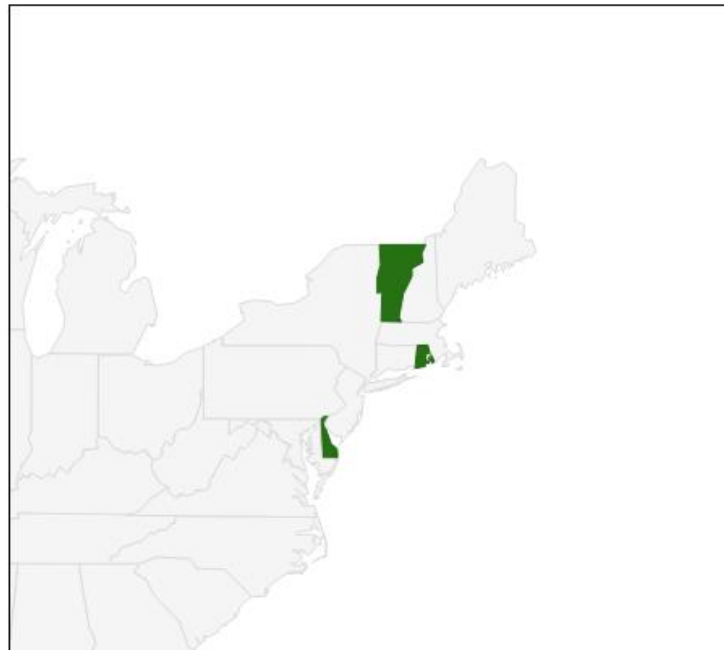


NEWRnet Data Portal

About Us

The North East Water Resources Network is a collaborative research effort across Vermont, Rhode Island, and Delaware. The purpose of this project is to develop an integrated network of advanced water sensors to acquire real-time, high-frequency water quality data that will advance our understanding of the drivers of local and regional water quality, and in concert use the fields of experimental economics and agent-based modeling to determine how stakeholders as individuals and groups respond to this new technology. This project is funded by the EPSCoR NEWRnet Grant.

Regional View of NEWRnet Locations



Select a station to view data

Vermont

- Potash Brook
- Wade Brook
- Hungerford Brook
- Missisquoi River

Rhode Island

- Cork Brook
- Maidford River
- Bailey's Brook

Delaware

- Coursey Pond
- Brandywine
- Fair Hill

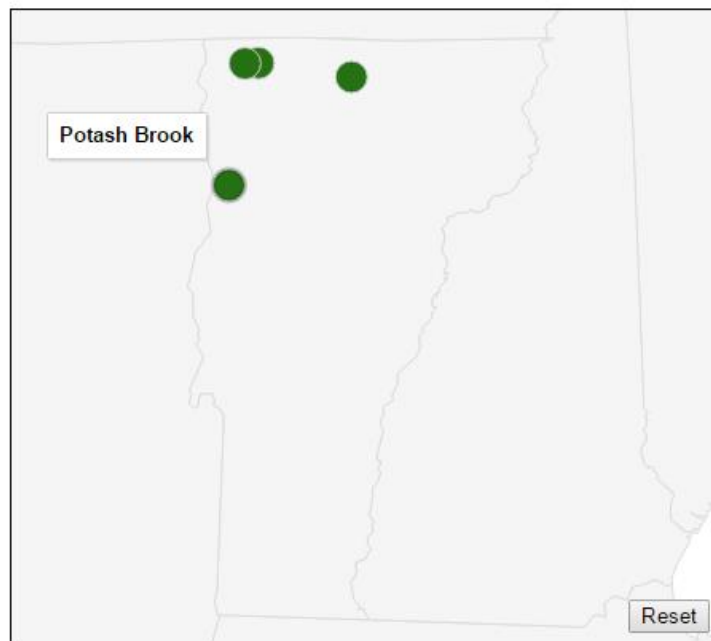


NEWRnet Data Portal

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NEWNet Data Portal



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- **Delaware**
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 - Brandywine
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Water Temperature

A physical measurement of the average kinetic energy within the sample.

and parameter to view recent data.



NEWRnet Data Portal



- **Station ID:**
- **Principal Investigator:**
- **Location:**
- **Elevation:**
- **Start of Record:**
- **Primary Land Use:**

Select a station and parameter to view re

Exosonde

Water Temperature

- Specific Conductance
- Conductivity
- Depth
- pH
- Turbidity (Exo)
- Fluorescent Dissolved Organic Matter
- Dissolved Oxygen (% saturation)
- Dissolved Oxygen (concentration)

Spectrolyser

- Turbidity (Spect)
- Nitrate Concentration
- Total Organic Carbon
- Dissolved Organic Carbon
- UV254 Absorbance

Votage

- Cable
- Battery

kinetic

NEWRnet Data Portal



Potash Brook

- **Station ID:** VPTB
- **Principal Investigator:** Andrew Schroth
- **Location:** 44.4443,-73.2145
- **Elevation:** 46 meters
- **Start of Record:** June 2014
- **Primary Land Use:** Urban

Water Temperature

A physical measurement of the average kinetic energy within the sample.

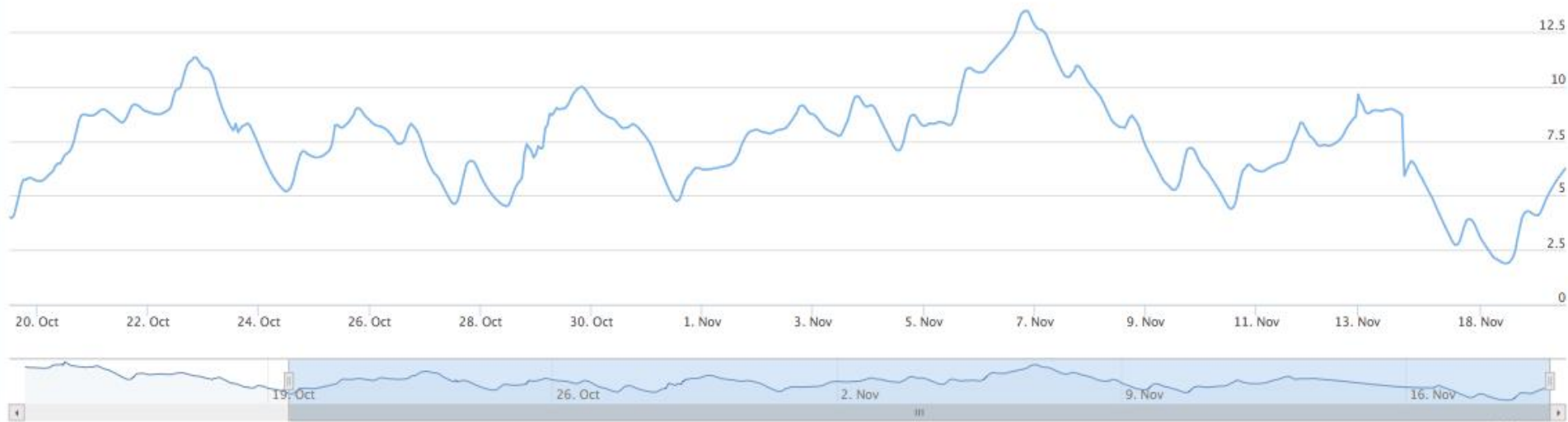
Raw Final

Potash Brook, VT

Water Temperature (°C)

Zoom Day Week Month

From 2015-10-19 To 2015-11-19



Data Disclaimer

There are two types of data that are displayed on this website. Raw data has only gone through a minimal level of quality control which reduced extremely high and low values from being displayed. These data are susceptible to problems associated with the instrumentation. Finalized data have been intensively quality controlled by the researchers in charge of that station. These values are subject to future changes if additional problems are found or new quality control methods are developed. Each institution



Contact Information

The North East Water Resources Network (NEWNet) is a collaborative research effort across Vermont, Rhode Island, and Delaware to develop an integrated network of real-time, high-frequency data to better understand influences on local and regional water quality. For more information about NEWNet project and collaborators, please visit our site (newnet.org). Below is a list of the primary contacts for each NEWNet sensor group organized by state.

Delaware Sensor Locations



Scott Andres

Stations: Coursey Pond
 Title: Senior Scientist
 Email: asandres@udel.edu
 Phone: (302) 831-0599



Shreeram Inamdar

Stations: Fair Hill, Brandywine
 Title: Professor, Plant & Soil Science
 Email: inamdar@udel.edu
 Phone: (302) 831-8677



Rhode Island Sensor Locations



Kelly Addy

Stations: Cork Brook, Maitford River,
 Bailey's Brook
 Title: Research Associate IV
 Email: kaddy@uri.edu
 Phone: (401) 874-7532



Vermont Sensor Locations



Andrew Schroth

Stations: Potash Brook, Waite Brook,
 Hungerford Brook, Missisquoi River
 Title: Assistant Research Professor
 Email: Andrew.Schroth@uvm.edu



Links

[Home](#)
[Data](#)
[Contact](#)

Partners



Constituents

University of Vermont
 University of Rhode Island
 University of Delaware

Future Work...

- Setup data transfer mechanism from individual PIs to UD for inclusion of QA/QC'd data in the NEWNet Data Portal.
- Long-term archiving and visualization of level-0 and “final” QA/QC data will be provided by the EPSCoR funded Delaware Environmental Monitoring and Analysis Center (DEMAC).