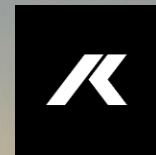




QuickDrops™



LONG ISLAND SOUND
FOUNDERS COLLABORATIVE



Save the Sound®
Action for our region's environment.





Discussion Overview

Save the Sound

QuickDrops

Next Steps



Southport Beach, CT



Our Mission

The mission of Save the Sound is to protect, improve, and understand the land, air, and water of the Long Island Sound region. We use legal and scientific expertise and bring people together to achieve results that benefit our environment for current and future generations.



QuickDrops

Project Goal

User-friendly data storage, visualization, and retrieval system for Long Island Sound community-generated data

Primary Objectives

“Quick” and tidy data uploads and downloads

Water Quality Exchange interface

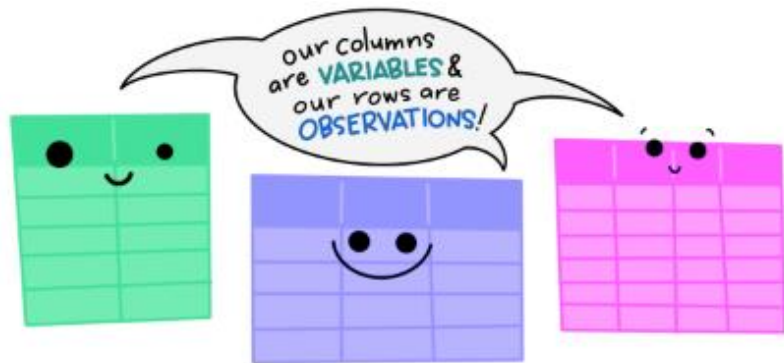
Data sharing, analyses, & visualization





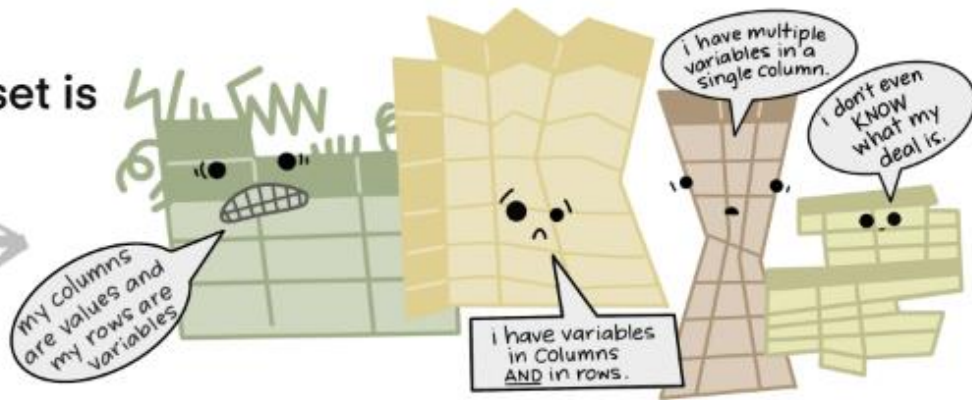
Data formatting

The standard structure of tidy data means that "tidy datasets are all alike..."



"...but every messy dataset is messy in its own way."

-HADLEY WICKHAM

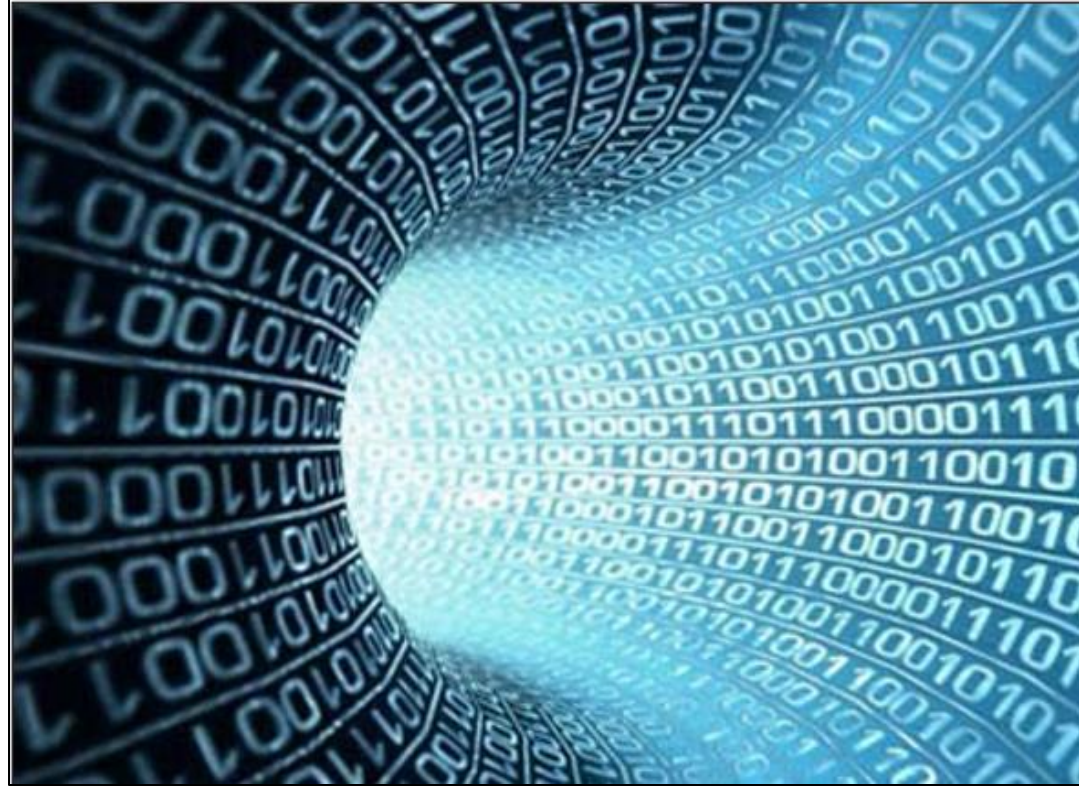


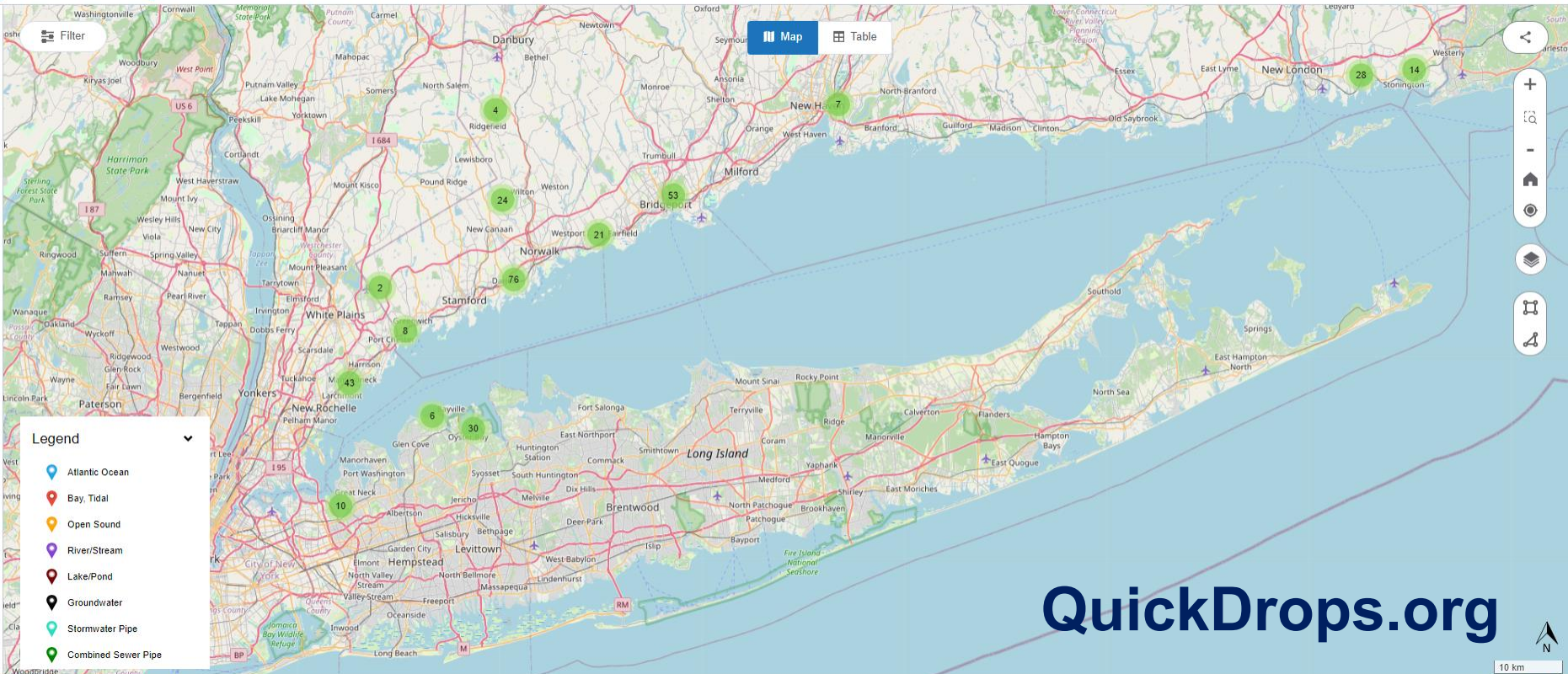


Water Quality Exchange Upload

Requirement for federal funding

Complex system not for all skill levels of users



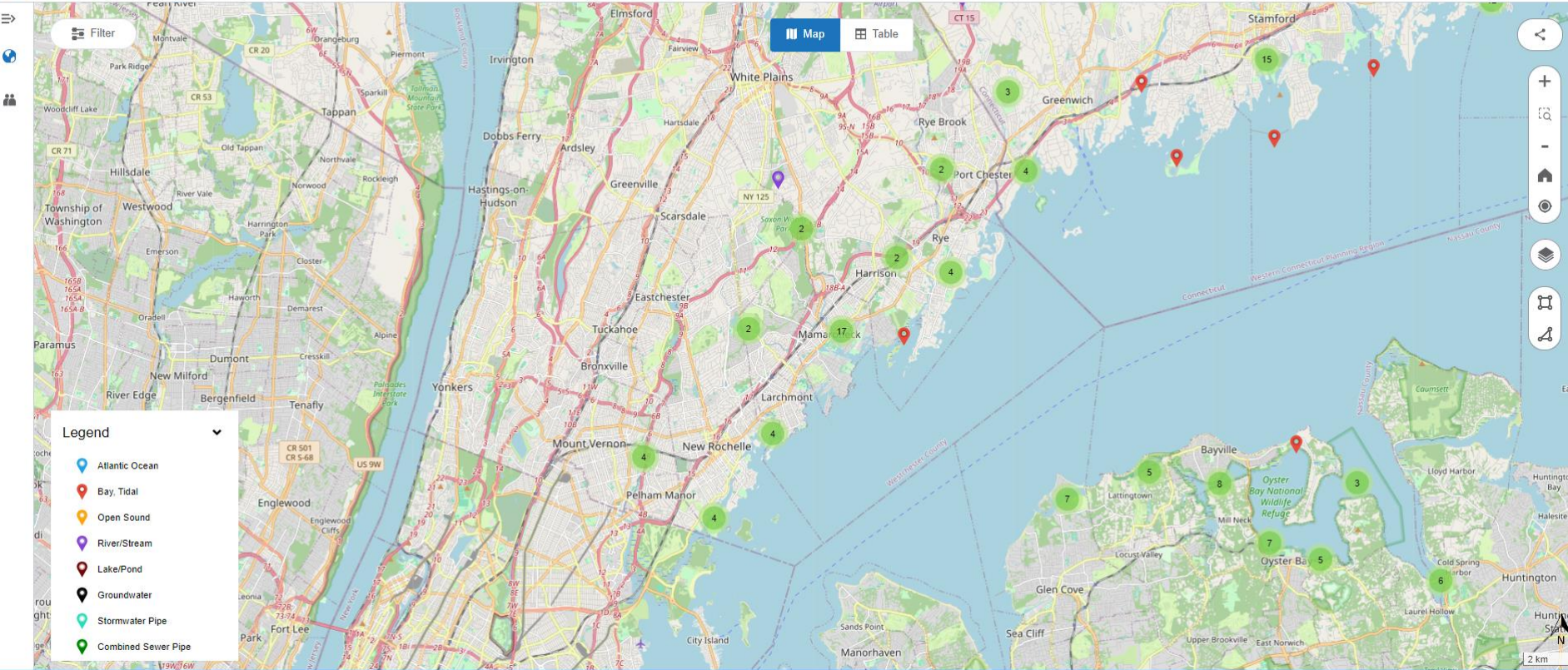


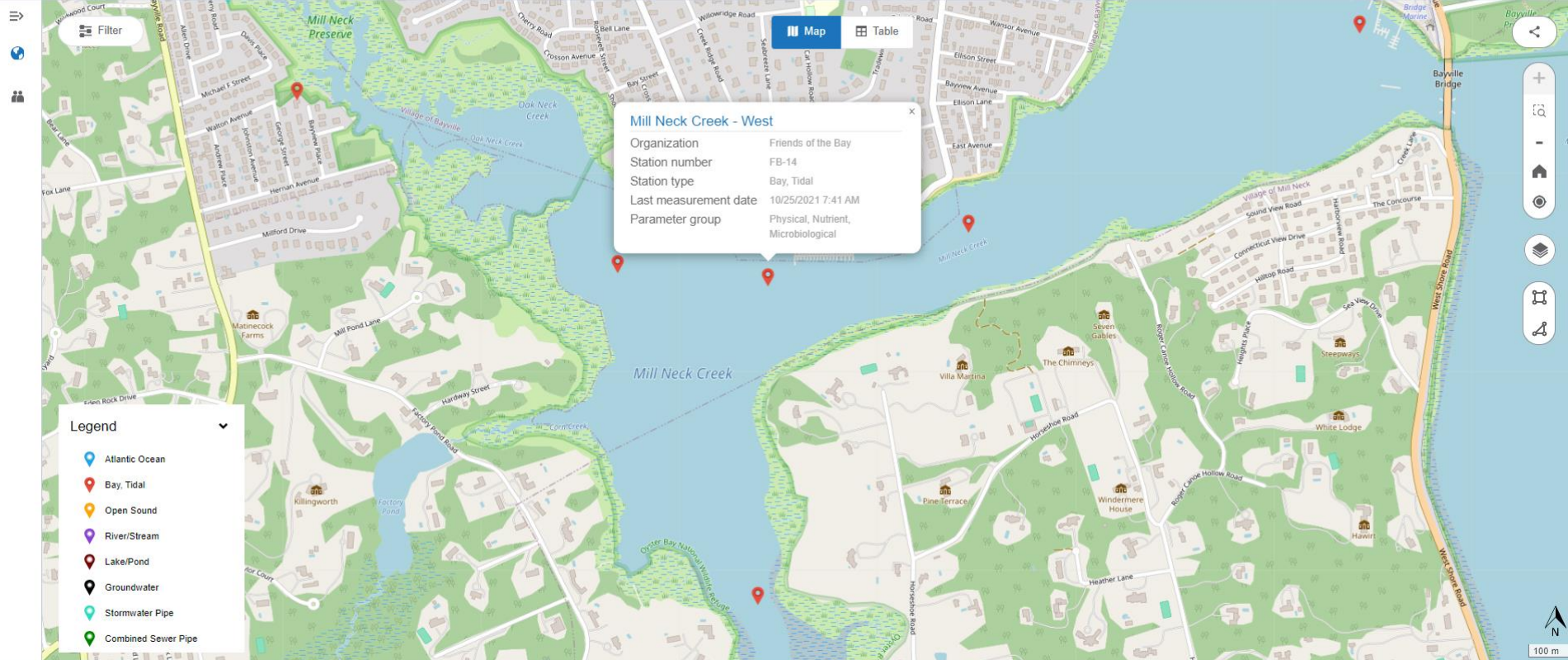
Legend

- Atlantic Ocean
- Bay, Tidal
- Open Sound
- River/Stream
- Lake/Pond
- Groundwater
- Stormwater Pipe
- Combined Sewer Pipe

QuickDrops.org

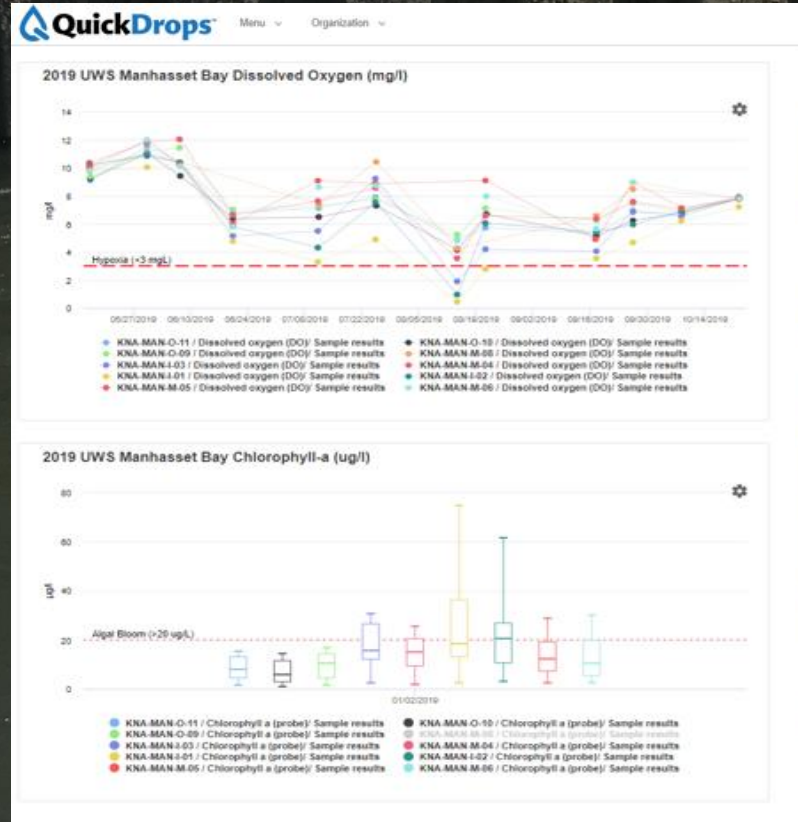
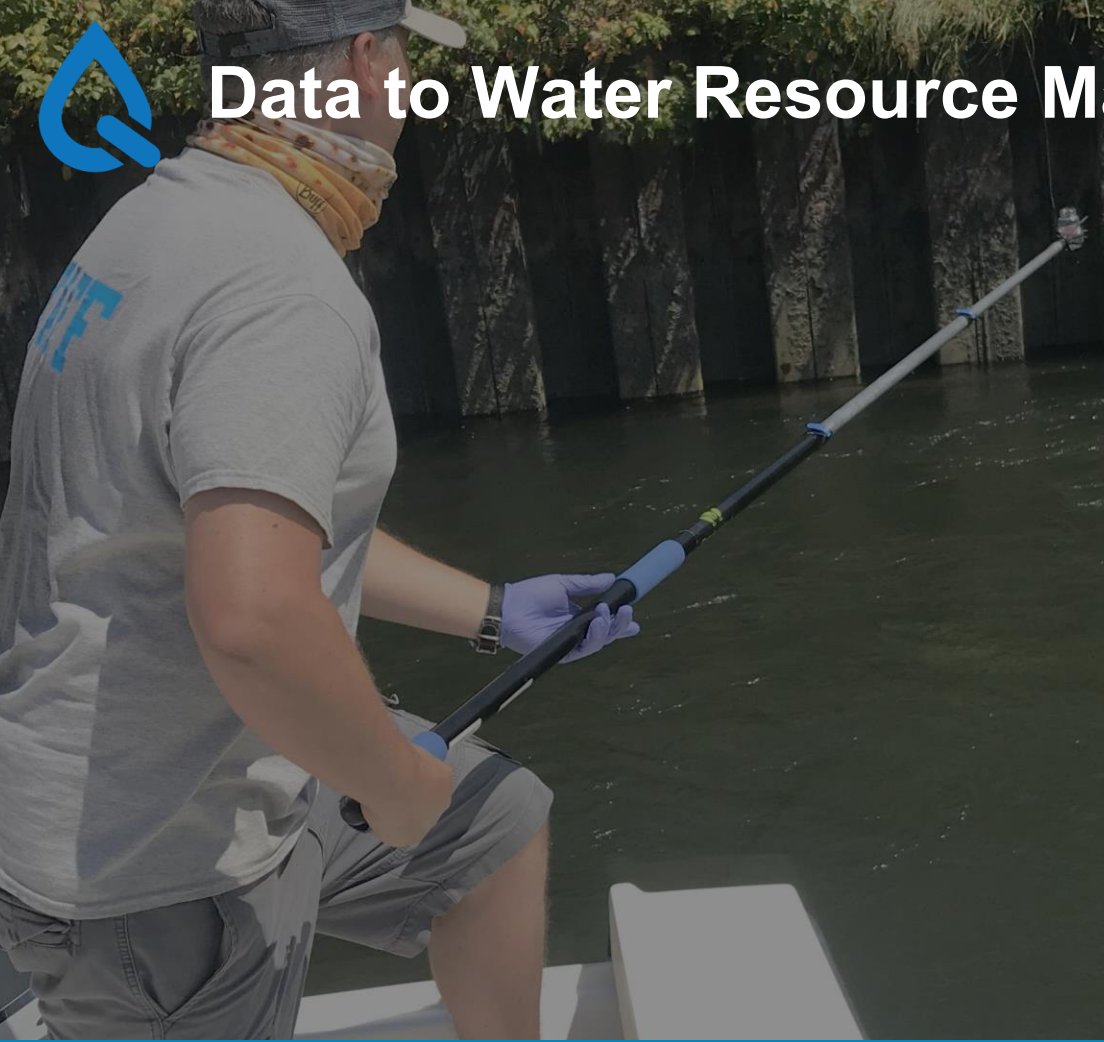
10 km





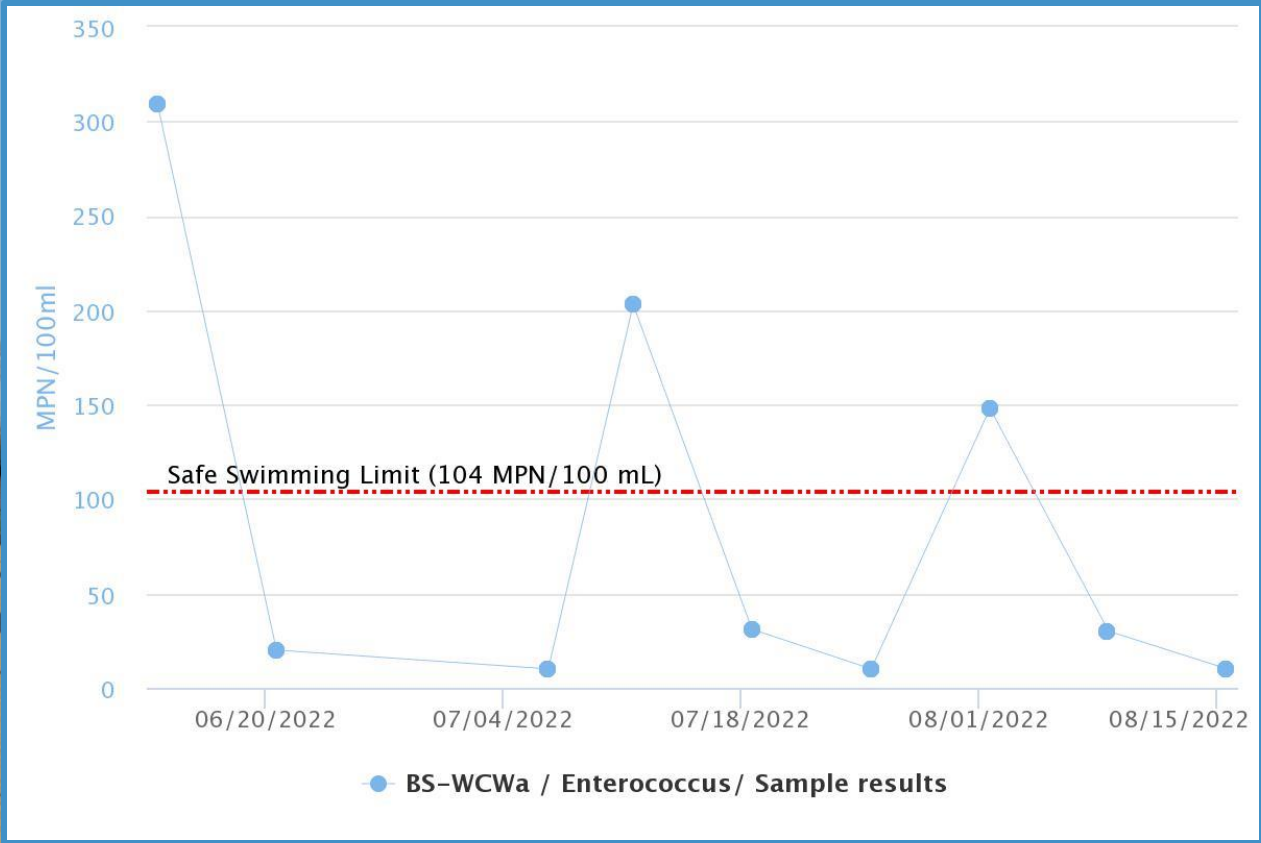


Data to Water Resource Management



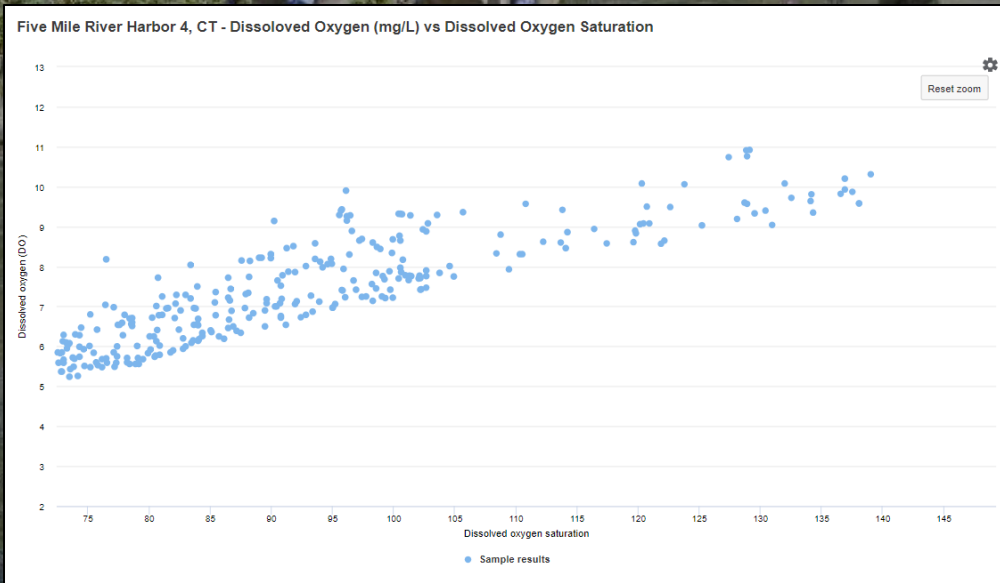
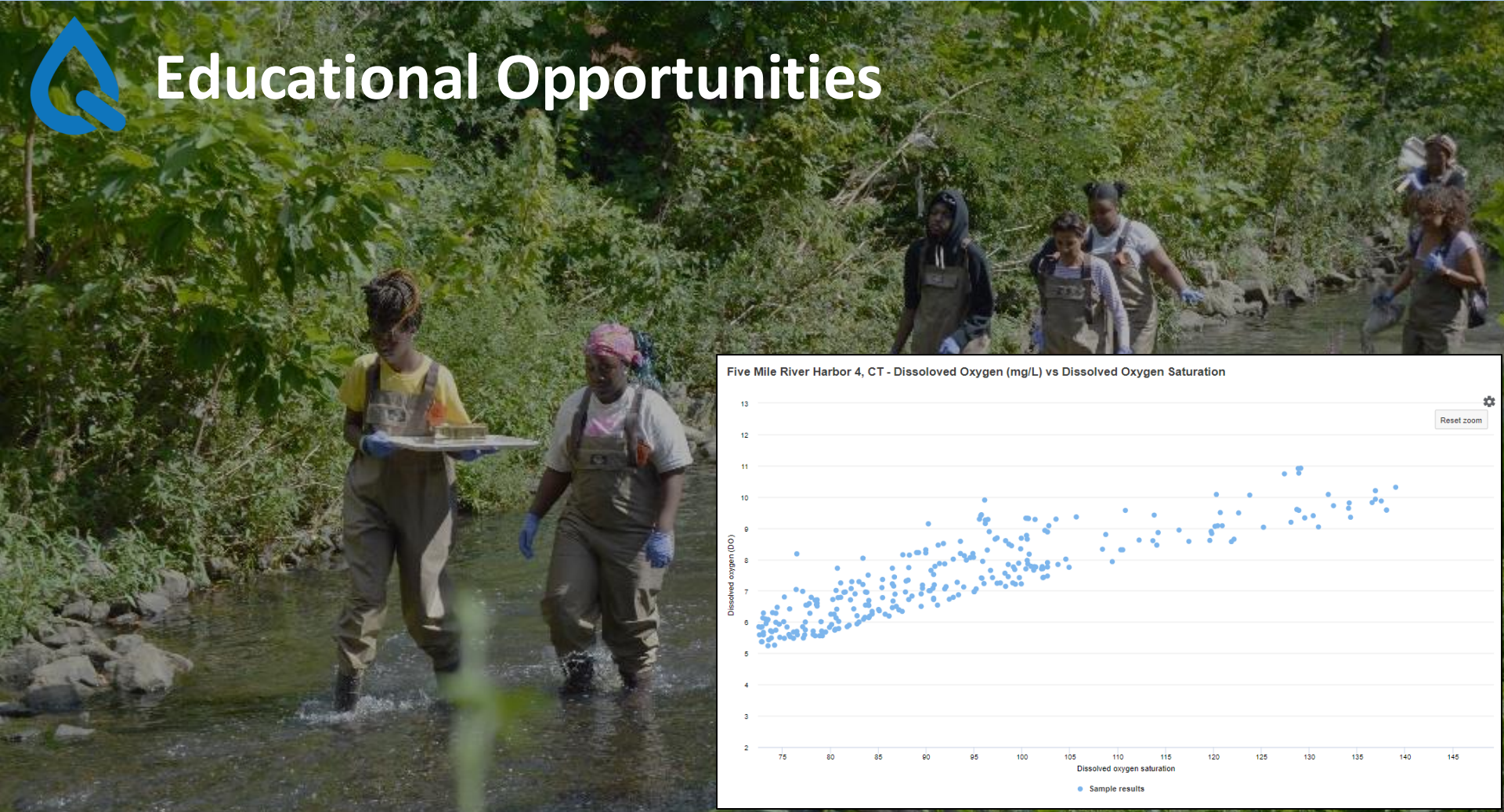


Beach Water Quality Information





Educational Opportunities





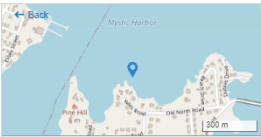
Research Opportunities

QuickDrops Menu Organization plinderoth@savethesound.org

Mystic Harbor R4

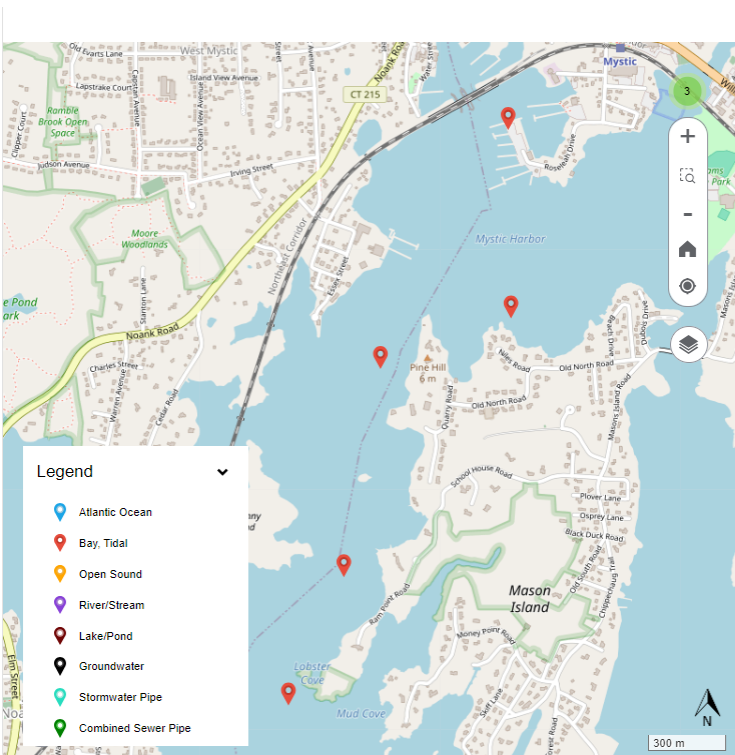
Organization name	Station number	Station name	Date	Time	Parameter name	Sign	Value	Unit symbol	Sample type	Sample depth
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	05/31/2017	06:45	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.36	mg/l	Sample-Routine	0.40
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	06/17/2017	06:45	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.42	mg/l	Sample-Routine	0.40
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	07/15/2017	06:42	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.41	mg/l	Sample-Routine	0.50
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	08/26/2017	06:40	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.4	mg/l	Sample-Routine	0.60
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	09/28/2017	07:20	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.34	mg/l	Sample-Routine	0.30
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	10/14/2017	07:32	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.3	mg/l	Sample-Routine	0.67
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	05/20/2018	07:15	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.34	mg/l	Sample-Routine	0.50
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	05/20/2018	07:15	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.33	mg/l	Sample-Routine	1.50
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	06/09/2018	07:49	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.42	mg/l	Sample-Routine	1.22
Clean Up Sound & Harbor, Inc. (CUSH)	WW628	Mystic Harbor R4	06/09/2018	07:49	Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N)	---	0.44	mg/l	Sample-Routine	0.50

Total 57 | 10/page | 1 2 3 4 5 6 | Go to 1

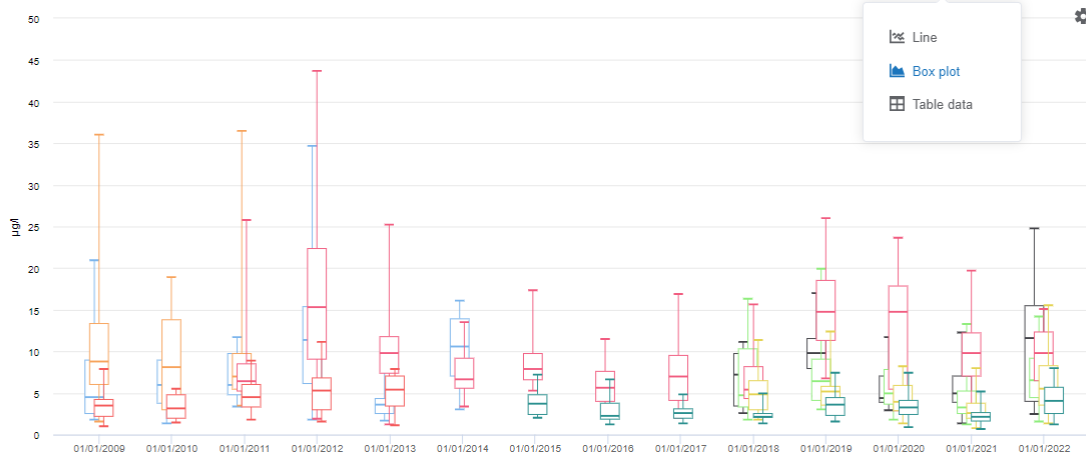


- Station info**
- Biological
 - Microbiological
 - Nutrient
 - Organic phosphorus, Unfiltered (as P) / APHA 4500-P F
 - Total Phosphorus, mixed forms, Unfiltered (as P) / APHA 4500-P F
 - Ammonia, Filtered, lab (as N) / APHA 4500-NH3 F
 - Nitrate + Nitrite, Filtered, lab (as N) / APHA 4500-NO3 E
 - Total Nitrogen, mixed forms (NH3), (NH4), organic, (NO2) and (NO3), Unfiltered (as N) / APHA 4500-N(ORG) C
 - Physical
 - Reset selected parameter

Mystic Harbor, CT Stations



Chlorophyll a, 2009-2022



- WW472 / Chlorophyll a, corrected for pheophytin, Filtered, field/ Sample results
- WW628 / Chlorophyll a, corrected for pheophytin, Filtered, field/ Sample results
- WW627 / Chlorophyll a, corrected for pheophytin, Filtered, field/ Sample results
- WW474 / Chlorophyll a, corrected for pheophytin, Filtered, field/ Sample results
- WW499A / No Data
- WW499 / Chlorophyll a, corrected for pheophytin, Filtered, field/ Sample results
- WW626 / Chlorophyll a, corrected for pheophytin, Filtered, field/ Sample results
- WW579 / Chlorophyll a, corrected for pheophytin, Filtered, field/ Sample results
- WW471 / Chlorophyll a, corrected for pheophytin, Filtered, field/ Sample results



Benefits We Already Have Seen:

- **Immediate Data Access:** Able to compare data instantly rather than sifting through spiral-bound yearly reports
- **Comprehensive Data View:** View microbiological data, nutrient data, and physical data for one station all together
- **Targeted Insights:** Pinpoint specific problem locations and view data consistency over time
- **Advocacy Support:** Long-term data visualization substantiates our advocacy efforts for specific areas
- **Engaging Volunteers:** Volunteers can now see the data they have worked hard to help us collect
- **Collaboration with local groups:** Compare data from other local organizations to identify similarities and differences



Friends OF THE **Bay**
PROTECTING OYSTER BAY & COLD SPRING HARBOR





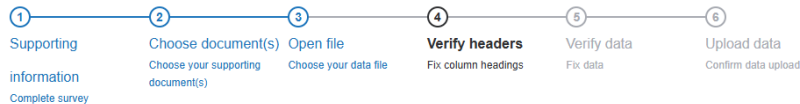
Federal-funding Data Requirements (WQX)



HARBOR WATCH at Earthplace















Upload data



Ⓞ At least one parameter column is required

Ⓞ The following headers need to be corrected: Water Temp (°C), Dissolved Oxygen (mg/L), Fecal Coliform (/100 mL) SM9222D, E, coli (/100 mL) SM9222G... (8 more)

Load header map Save header map
Manage header maps

	Station number*  	Date*  	Time*  	Water Temp (°C)  	Dissolved Oxy...  	Fecal Coliform...  
	Station Number	Date	Time	Water Temp (°C)	Dissolved Oxygen (mg/L)	Fecal Coliform (/100 m...
1	Bruce-0.5	9/14/20	10:30:00 AM			
2	Bruce-0.5	9/19/19	9:47:00 AM			
3	Bruce-0.5	11/11/21	10:15:00 AM			
4	Bruce-0.5	5/10/21	9:51:00 AM	12.4	8.4	
5	Bruce-0.5	5/18/21	9:56:00 AM	16.2	7.1	
6	Bruce-0.5	6/10/21	9:45:00 AM	20.4	8.58	
7	Bruce-0.5	6/21/21	9:59:00 AM	21.5	5.52	
8	Bruce-0.5	7/1/21	9:48:00 AM	23.8	4.22	
9	Bruce-0.5	7/21/21	9:59:00 AM	24.3	4.91	
10	Bruce-0.5	8/12/21	9:48:00 AM	23.4	4.77	

*required header

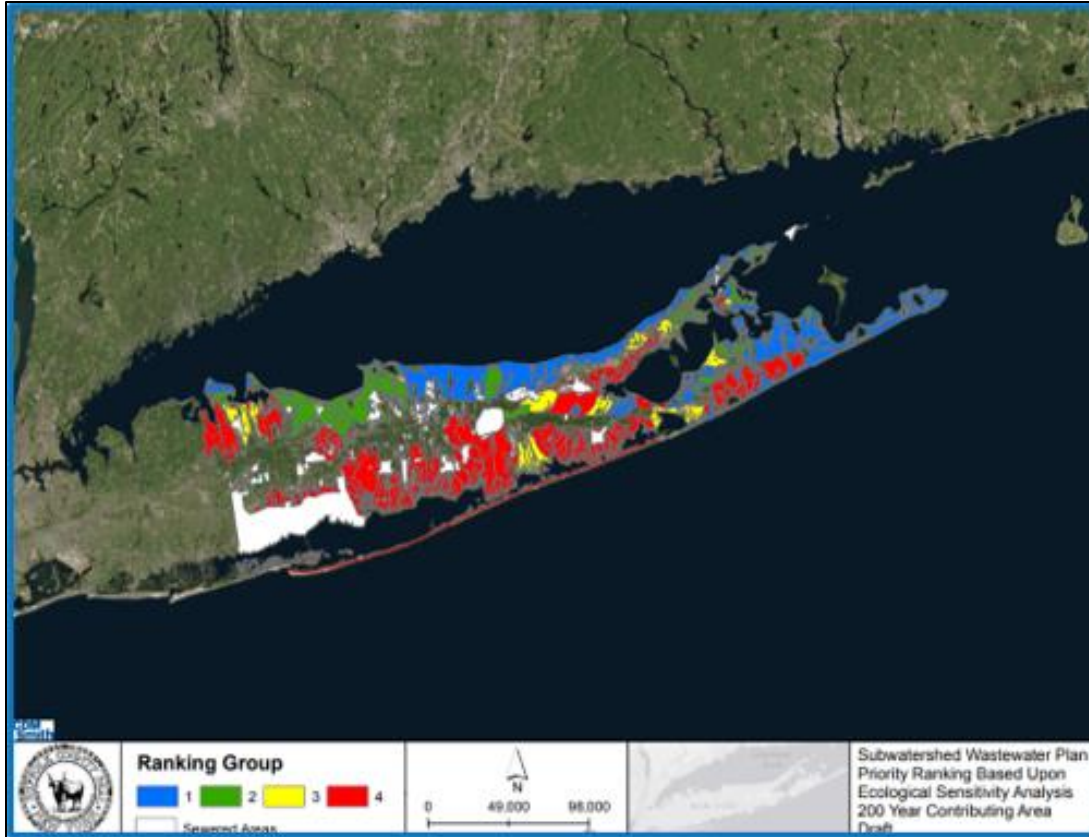
< 1 2 3 4 5 6 ... 49 > Go to 1

Previous

Continue



Subwatershed Analyses

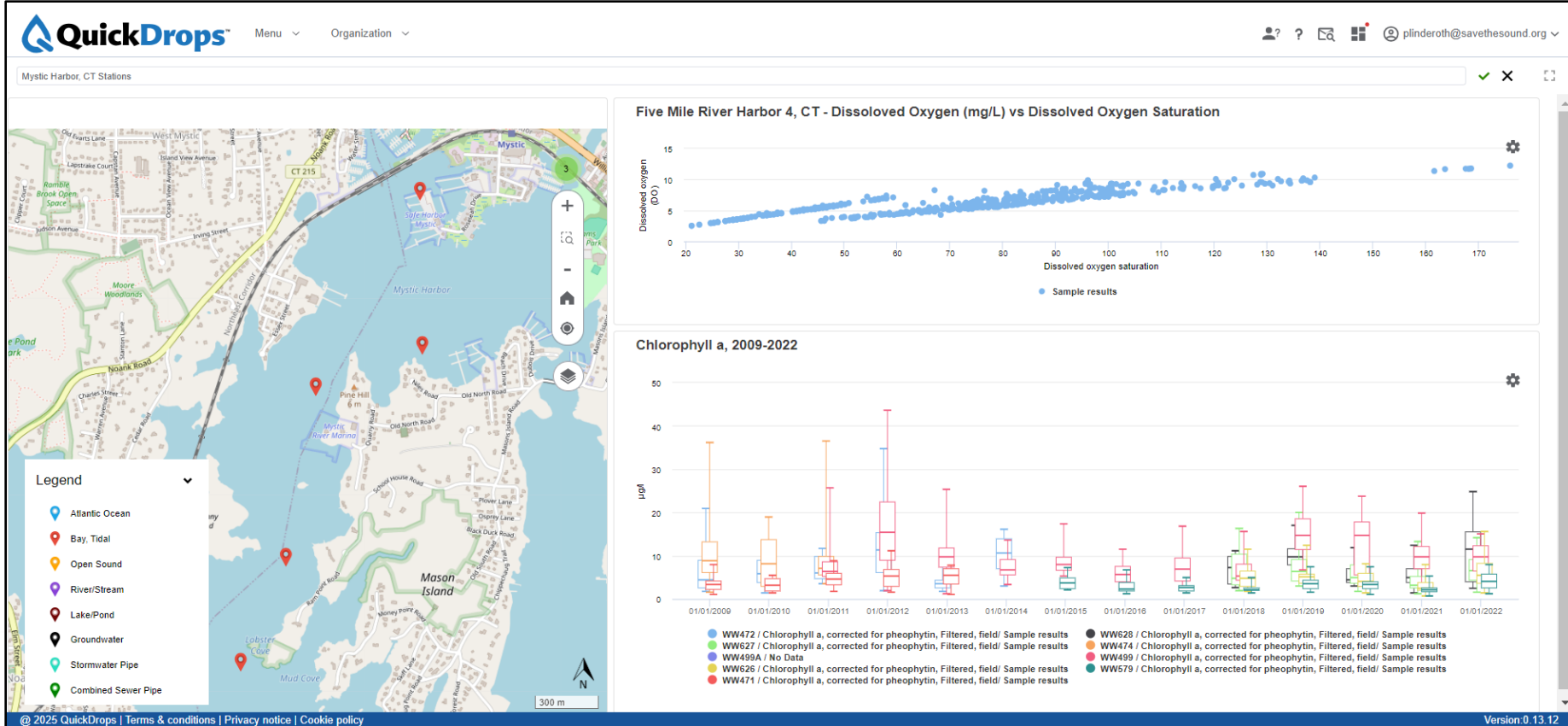


**QuickDrops dashboard
applied to over 200
subwatersheds**

**Tracking baseline and
future conditions**



Subwatershed Analyses





Current Steps

Expand the user area
Storytelling opportunities
New Save the Sound staff





Questions/Comments



Can I help you?



AQUA
LIFE