Synthesizing monitoring and research data to assist local and regional decision makers

Abstract

- Water quality and environmental monitoring data is collected by many organizations
- Data is provided in **different formats**
- **Test names can differ** across agencies and years
- Reliability codes in data can make **understanding difficult**
- **Difficult to access** for citizens and community leaders
- **No centralized location** for water quality and land use information together
- Created 'Land Use and Water Quality Data Within the GTM NERR' website (storymap) to provide **publicly accessible** information
- **Dynamic** page with input from the Oyster and Water Quality Task Force
- **Contains** locations of water supply, stormwater treatment and outfalls, wastewater treatment and outfalls, points of interests such as schools, hospitals and parks, locations of research projects, areas of potential sea level rise, and records of the GTM NERR's SWMP monitoring data

Present Data

- SWMP data from all 4 monitoring stations
- Land use (DOR use codes and FLUCCS)
- Sewer/Septic service
- Soil drainage classifications
- Public Water Supply Tanks, Plants, and Wells, Wastewater Treatment Facilities and Sites, Stormwater Facilities and Activities
- Reclaimed (Reuse) Water Supply Lines within SJRWMD
- Schools, parks and hospitals
- Studies oyster reefs
- Area Waterbodies, including Impaired
- Clean Marinas
- Greenways and Paddling Trails
- Aquatic Preserves
- Outstanding Florida Waters
- Wastewater Systems (by parcel)
- Potential Sea Level Rise (SLR) (1-, 2- and 3-foot)
- WIN (FDEP) Monitoring Locations
- Florida Aquatic Preserves and Outstanding Florida Waters

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Many thanks to The Oyster and Water **Quality Task Force**

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Goals and Objectives

Goal: Make available to the public a synthesis of water quality, land use and related information

Force for information useful to achieving their mission **Objective 2:** Synthesize multiple data sources to one publicly accessible site

Land Use and Water Quality Data within the GTM NERR 👘 📑 💓

Land Use and Water Quality Data within the GTM NERR

Waters of the GTM NERR

This page contains layers that display data for:

- WIN (FDEP) Monitoring Locations
- Florida Aquatic Preserves
- Outstanding Florida Waters
- Verified Impaired WBIDs
- The Northern Coastal Boundary and It's Contributing Waters

In the upper right corner of the screen are buttons to see the Legend, list of layers (where you can turn layers on or off), change the basemap type, or print the page.

Clicking on one of the markers will bring up a pop-up box with information about that item. Click on the up arrow at the bottom center of to page to see a table for each layer.

Water Quality Summary Stats

This page provides a table of summary statistics for each of the four monitoring stations within the GTM NERR for six parameters:

- Total Nitrogen
- Total Phosphorus
- Fecal Coliform
- Dissolved Oxygen
- Salinity
- Water Temperature (in Celsius)

Click on any pin to see the summary statistics for that location. On the pop-up box, click the left and right arrows at the top of the box to move between the different water quality parameters.

Click the up arrow at the bottom center of the page to see the table of all parameters at all locations. Summary statistics

and Use and Water Quality Data within the GTM NERR 👘 📳 🎔 Land Use and Water Quality Data within the GTM NERR

Land Use Data

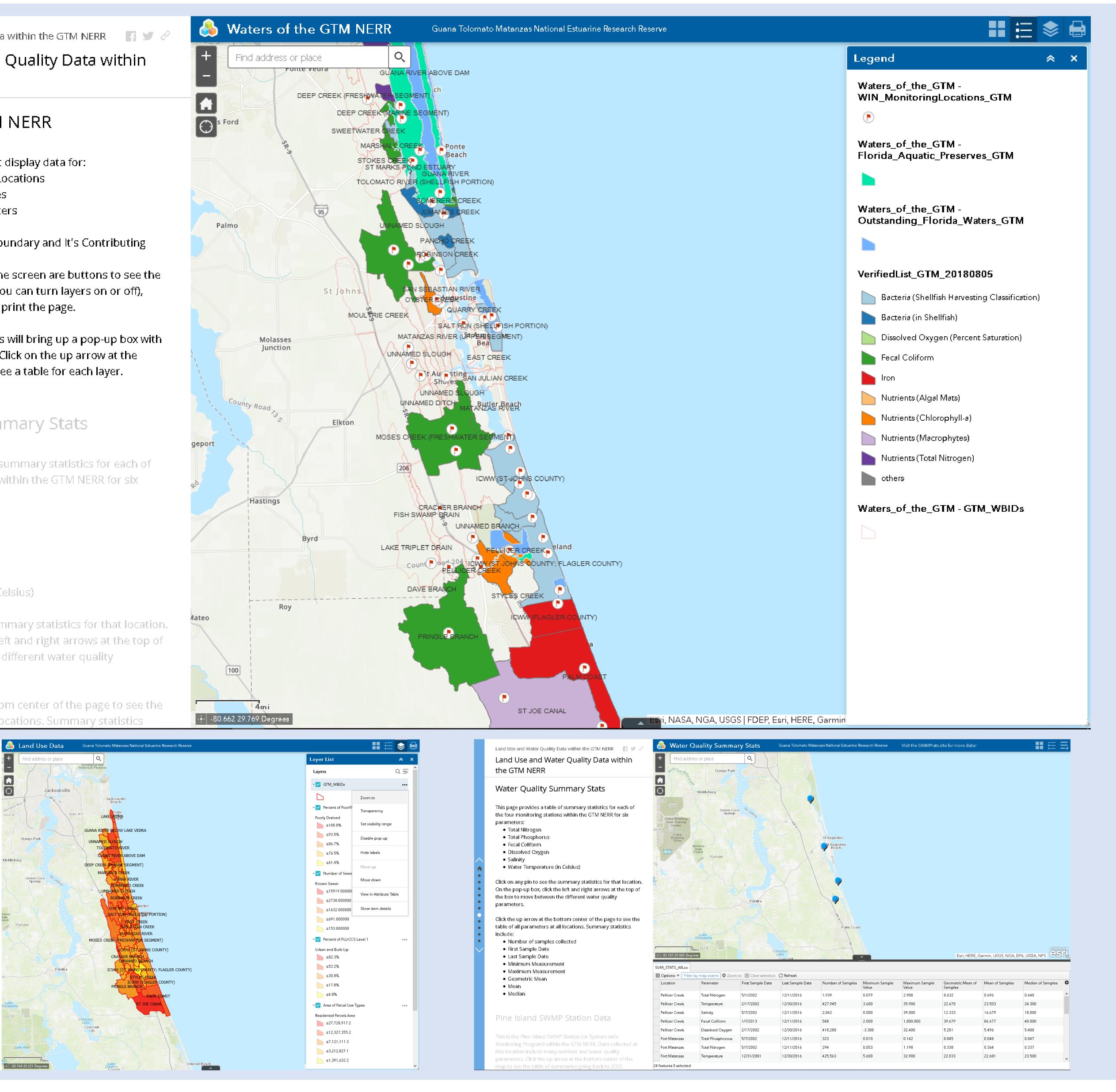
There are several layers of information here containing different types of land use data for each of the polygon shapes on the map. These shapes are referred to as 'WBIDs' which stands for "Water Body ID." WBIDs are delineated by the Florida Department of Environmental Protection and roughly represent a water drainage basin at the lowest level. By looking at the different types of land uses in the water body drainage basin, we can get some sense of the types of activities – occurring there that may impact water quality. For example, if there are a lot of roads in a WBID, we may see higher concentrations of road grime in the WBID especially after rain events that wash grime off the roads and into water bodies.

his page in the story map displays layers of several different ypes of land use information. These include: • The number of parcels grouped by the major categories of Florida Department of Revenue 'use codes

- The total acreage of parcels grouped by the major categories of Florida Department of Revenue 'use codes' • The percent of area coverage in the WBID for each of the
- highest level Florida Land Use and Cover Classification indices
- The number of parcels with Sewer or Septic service from the Florida Department of Health Florida Water Management Inventory
- The percentage of poorly drained or well drained soils in the WBID

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ach layer is shaded such that the attribute of the layer that ogically represents the highest human impact is darker red and areas with less human impact are yellow. For example, in the count of parcels laver, residential parcels are the attribute.



- **Objective 1**: Respond to needs expressed by the Oyster and Water Quality Task

Results

https://arcg.is/1SneqK

Ongoing Activities

Periodic updates to data

Add water quality data from **STORET/WIN STORET**

Respond to additional information needs from the Task Force

Continuous usability improvement

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	First Sample Date	Last Sample Date	Number of Samples	Minimum Sample Value	Maximum Sample Value	Geometric Mean of Samples	Mean of Samples	Median of Samples	C
Total Nitrogen	5/1/2002	12/11/2016	1,939	0.079	2.908	0.632	0.696	0.640	1
	2/17/2002	12/30/2016	427.945	3.600	35.900	22.670	23.503	24.300	
Salinity	5/7/2002	12/11/2016	2,042	0.000	39.000	12.333	16.679	18.000	
Fecal Coliform	1/7/2013	12/11/2016	548	2.000	1,000.000	39.679	86.677	40.000	
Dissolved Oxygen	2/17/2002	12/30/2016	418,288	-3.300	32.400	5.201	5.496	5.400	
Total Phosphorous	5/7/2002	12/11/2016	323	0.010					