

Water Atlas Overview

Myakka River Management Coordinating Council
June 22, 2012 – Englewood, Florida

wateratlas.org



Water Atlas Program, USF Florida Center for Community Design + Research

What is the Water Atlas?

- A data warehouse
- A set of interactive maps
- A collection of tools for viewing/analyzing data
- An information resource that helps citizens to understand water issues
- An online venue for recruiting/organizing volunteers

wateratlas.org



Water Atlas Program, USF Florida Center for Community Design + Research

Mission

“...to provide a comprehensive information resource that helps citizens, scientists and resource managers make informed decisions concerning our vital water resources.”

Our diverse group of users includes water managers, researchers, educators, citizen-scientist volunteers, and the general public



Water Atlas History

- Began as a Hillsborough Atlas of Lakes in 1997
- Has expanded to include...
 - 8 County Atlases
 - 2 Regional Atlases
 - 1 Statewide Atlas

Hillsborough County & City of Tampa Water Atlas

Lake County Water Atlas

Manatee County Water Atlas

Orange County Water Atlas

Pinellas County Water Atlas

Polk County Water Atlas

Sarasota County Water Atlas

Seminole County Water Atlas

Charlotte Harbor NEP Water Atlas

Tampa Bay Estuary Atlas

Florida Atlas of Lakes

wateratlas.org



“One Atlas”

- All Water Atlas sites have the same “One Atlas” structure and the same basic tools and features
- Individual sites may have optional water resource types (ocean, bays, springs), volunteer page groups, special-interest pages
- All sites use a common dataset and code base, with site-specific customization
- All sites are reachable from all other sites, and from the gateway site WaterAtlas.org



Site Customization

Sarasota

- Bays, Ocean
- Volunteer Pages (NEST, SEA Team)
- Bay Conditions
- “Sarasota Captured” Photo Gallery
- Oral Histories
- Coastal Watershed Wiki

Tampa Bay

- Bays, Ocean
- Restoration Sites

Hillsborough

- Bays, Ponds, Ocean
- Volunteer Pages (Adopt-A-Pond, Lake Management, Stream Water Watch)
- Hillsborough River Watershed Alliance
- Frog Listening Network
- Curriculum for Teachers

Seminole

- Volunteer Pages (Macroinvertebrate Monitoring, Lake Management)
- Watershed Excursion
- Curriculum for Teachers

Lake

- Springs

Charlotte Harbor

- Bays, Ocean
- Volunteer Pages (CanalWatch, CHEVWQM)
- Aquatic Preserves Page
- CCMP Management

Pinellas

- Bays, Ponds, Ocean
- Watershed Excursion
- Curriculum for Teachers



Atlas Organization

- Data is displayed by geography and by topic
- Each watershed and each water resource (lake, stream, bay, ocean, spring) has a page group with data about a group of related topics
- Water resources are grouped within watersheds
- Related data types are grouped on single pages



Geography

Home > Explore > Myakka River Watershed > **Upper Myakka Lake**

Overview/Current Conditions | Water Quality | Water Levels & Flows | Habitats/Ecology | Recreation | Photos

Upper Myakka Lake Map It!
located within Myakka River Watershed

Currently **87°F** and **Partly Cloudy** [view forecast x](#)

Go to a Specific Topic

- Water Resource Characteristics
- Watershed and Drainage Basins
- Report Pollution and Other Environmental Issues
- Regulation
- Get Involved
- Historic Information
- Related Links

Associated Names

- There are no associated names for this body of water.

News and Events

No news or events have been posted yet. Be the first to submit news and events to the Water Atlas.

Water Resource Characteristics

Size and Volume

Surface Area	955 acres
Mean Depth	Not Available
Maximum Depth	Not Available
Approximate Volume	Not Available

Map | Aerials | Water Resources Search

Map Legend

- Water Quality Sampling Sites
- Hydrology Sampling Sites

Data Summary

This water resource is monitored by **14** sampling locations, which have collected a total of **2,761** samples ranging from **9/23/1975** to **1/25/2012**. The sites sampling this water resource are:

Topics

Home > Explore > Myakka River watershed > **Myakka River**

Nutrient Chemistry

Although present in all surface waters, nutrients are among the leading causes of degradation of Florida water resources. [Learn more about nutrient chemistry »](#)



Parameter	Latest Value	Historic Range	Additional Information
Total Nitrogen (TN)	1,361.0 ug/l 8/1/2011 <small>Source: FDEP Ambient Monitoring Sampling Data</small>	100.0 - 250,810.0 ug/L 6/11/1970 - 8/1/2011 2,420 samples	2 Year Graph 10 Year Graph Seasonal Variation Graph Download this data
Total Phosphorus (TP)	280.0 ug/L 8/1/2011 <small>Source: FDEP Ambient Monitoring Sampling Data</small>	20.0 - 2,440.0 ug/L 10/2/1962 - 8/1/2011 2,449 samples	2 Year Graph 10 Year Graph Seasonal Variation Graph Download this data
Chlorophyll a, uncorrected for pheophytin ⓘ	11.0 ug/L 8/1/2011 <small>Source: FDEP Ambient Monitoring Sampling Data</small>	0.0 - 87.4 ug/L 1/13/1975 - 8/1/2011 882 samples	2 Year Graph 10 Year Graph Seasonal Variation Graph Download this data
Chlorophyll a, corrected for pheophytin ⓘ	8.5 ug/L 8/1/2011 <small>Source: FDEP Ambient Monitoring Sampling Data</small>	0.0 - 81.0 ug/L 10/26/1981 - 8/1/2011 965 samples	2 Year Graph 10 Year Graph Seasonal Variation Graph Download this data

[Return to Top](#)

Basins

resource are:

[Return to Top](#)

Datasource (click for details)

Station ID

Data Collection

- SOPs established for each data provider
- Most data is retrieved automatically, some manually
- Total of 327+ data providers, 7,729 water resources, 37,707 sample locations, 250-million+ data samples (as of 6/10/12)
- Optional, adjunct services include specialized data processing/mapping and water resource field assessments



Example Information

- Aerial photographs
- Boat ramps & parks
- Bottom contour maps
- Conservation advice
- Water news & events
- Dynamic maps
- Ecological reports
- Educational curricula/links
- Fishing reports
- Historic & current photos
- Land Use Maps
- Management plans
- Near real-time data
- Research Reports
- Vegetation Data
- Volunteer Group Project Info
- Water levels, flows & rainfall
- Water quality data



Volunteer Pages

SEAGRASS SURVEY PROGRAM

managed by the
Sarasota Environmental Aquatics Team



The Sarasota Environmental Aquatics (SEA) Team is a group of Sarasota County volunteers whose work has made positive impacts on our bays. Whether they are seeding scallops or surveying seagrass, this team of energetic volunteers provides scientists with valuable information. Seagrass survey volunteers boat or kayak Sarasota's bays and document the types of seagrass they see. Seagrass is vital to maintaining healthy aquatic ecosystems, stabilizing shorelines and providing food and shelter for a variety of wildlife, including scallops, manatees and sea turtles. The information gathered by seagrass survey volunteers allows scientists to better understand and manage these important ecosystems. Many volunteers find surveying seagrass fun, easy and rewarding.

• **Requirements:** Attend a two-hour training session and be available a few days during the months of February or August. **Note:** Volunteers should have their own GPS, boat or kayak, but when possible, those who do not will be paired with those who do.

[Home](#) [Archive](#) [Contact](#) [Subscribe](#) [Log in](#)

FAQs

What is SEA Team about?

The Sarasota Environmental Aquatics (SEA) Team is a group of volunteers whose work has made positive impacts on our bays. SEA Team seagrass surveyors are volunteers from all walks of life who regularly monitor the seagrasses in Sarasota's bays, gathering data that will help scientist better understand and manage our seagrass meadows. Seagrass is vital to maintaining healthy aquatic ecosystems, stabilizing shorelines and providing food and shelter for a variety of wildlife, including scallops, manatees and sea turtles. SEA Team is comprised of dedicated and energetic volunteers who provide scientists with valuable information.

What SEA Team Seagrass Volunteers do:

Seagrass survey volunteers boat or kayak Sarasota's bays and document the types of seagrass they see. In addition to this, surveyors also take note of things like blade length, percent bottom cover and algae abundance. It is strongly preferred that volunteers swim at every location they survey, however a visual observation from a boat or kayak will also be accepted. The information gathered by volunteers allows scientists to better understand and manage these important ecosystems. Many volunteers find surveying seagrass fun, easy and rewarding.

• **Requirements:** Attend a two-hour training session and be available a few days during the months of February or August.

Note: Volunteers should have their own GPS, boat or kayak, but when possible, those who do not will be paired with those who do.

Who can join the SEA Team?

If you love the outdoors, and want to learn more about our bays, you will be most welcomed to join in the effort. You will get a

Enter search term

Include comments in search

Seagrass Bed Maps

[Blackburn Bay Seagrass Map](#)
[Lemon Bay Seagrass Map](#)
[Little Sarasota Bay Seagrass Map](#)
[Sarasota Bay East Seagrass Map](#)
[Sarasota Bay West Seagrass Map](#)
[Sarasota Bay Southwest Seagrass Map](#)
[Dona-Roberts Bay Seagrass Map](#)
[Roberts Bay Seagrass Map](#)
[Sarasota Bay Southeast Seagrass Map](#)

Highlighted Documents

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Interactive Tools

All Water Atlas sites have a core set of tools for analyzing and displaying data:

- Advanced Mapper
- Real-time Data Mapper
- Data Download
- Water Quality Contour Mapping (coastal atlases only)
- Digital Library



Advanced Mapper

The screenshot displays the 'Advanced Mapper' web application interface. At the top, there are navigation tabs for 'home', 'Data & Mapping', and 'Advanced Mapping Tools'. A yellow warning message states: 'For best use of mapping, pop-up blocking should be disabled.' To the right of the warning are buttons for 'MAP HELP' and 'MAP THEMES'. The main map area shows several watersheds in Florida, including Manatee River, Sarasota Bay, Little Sarasota Bay, Dona And Roberts Bay, and Myakka River. The 'CITY OF VENICE' is also labeled. On the left side, there is a 'Map Navigation Tools' panel with buttons for 'ZOOM IN', 'ZOOM OUT', 'SELECT A WATERSHED', 'SELECT A WATERBODY', and 'PAN MAP / RE-CENTER'. Below these are directional arrows and a scale input field set to '1: 291388'. At the bottom left, the 'Advanced Map Tools' panel includes 'GET INFO / IDENTIFY', 'DOWNLOAD GIS DATA', and 'VIEW PRINTABLE MAP'. On the right side, there is a search bar with the text 'myakka river' and a 'GO' button. Below the search bar is a 'Map Display Options' panel with tabs for 'MAP LAYERS' and 'LOCATOR MAP'. The 'MAP LAYERS' panel lists several categories: WATER, ENVIRONMENTAL, RECREATION, PLANNING & INFRASTRUCTURE, HABITATS, WATER LEVELS, WATER QUALITY, SAMPLING LOCATIONS, and AERIAL PHOTOGRAPHY.



Real-time Data Mapper

Home > Data & Mapping > Real-time Data Mapper > Station Details

MYAKKA RIVER AT NORTH PORT CHARLOTTE FL - 02299230 Active

Station Overview

Monitoring Waterbody: Myakka River at
Latitude/Longitude: 27.04394639°, -82.2
Location: Sarasota County, Florida
Data Source: USGS_NWIS at
View data provider's website for this sta

Last Update: about 3 hours ago (6/14/2012 10:00:00)

- Latest Data
- Last 24 Hours of Data
- 24 Hour Graphs
- 7 Day Graphs
- 31 Day Graphs

Please be aware that the near-real time data is subject to change through the quality control procedures for other data sets; therefore, the possibility of data changes is not ruled out.

7 Day Graphs

7-Day Graph of Elevation, water surface (653 measurements)

Sample Date	Elevation water surface, ft
Jun 08	0.2
Jun 09	1.1
Jun 10	0.5
Jun 11	0.5
Jun 12	0.5
Jun 13	0.1
Jun 14	0.44

Map data ©2012 Google

Value
0.44 ft

View last 24 hours of data

Download data for this location using the Water Atlas Data Download tool

- [Return to home position](#)
- [Refresh map data](#)



Data Download

Home > Data & Mapping > Data Download and Graphing

Step 5 of 5

You can either download the data or generate a graph below.

1. Generate a graph. Select either "Download" or "Graph". Either open the data in a spreadsheet or generate a graph.

File Type: CSV XLSX

File Format: All Selected

Column for parameter: You may enter a parameter ID up to 55 or less.

Generate Graph

2. Graph the data. Click the "Graph" button on the following page.

Graph the Data

Alkalinity, Carbonate as CaCO3 Myakka River (12 measurements)

Sample Date	Alkalinity, Carbonate as CaCO3 (mg/l)
2/1/2010	27.00
2/15/2010	31.50
3/1/2010	30.50
4/15/2010	30.00
5/1/2010	35.00
6/15/2010	51.00
7/1/2010	30.00
8/15/2010	44.00
9/1/2010	37.00
10/15/2010	40.00
11/1/2010	55.00
11/15/2010	54.00

Linear Trend: $y = 0.069x - 2748.11$

WBODYID	WaterBodyName	DataSource	StationID	StationName	Actual_StartDate	Actual_EndDate	Actual_Location	SampleDate	ActivityDepth	Depth
27	14609 Myakka Ri	STORET_2	3499	MYAKKA	3499	27.10028	-82.3328	#####		0.3 m
28	14609 Myakka Ri	STORET_2	3499	MYAKKA	3499	27.10028	-82.3328	#####		m

Available on the

WQ Contour Mapping

Home > Data & Mapping > Water Quality Contour Mapping > Custom Contour Maps

Water Quality Contour Mapping - Custom Maps

Generate your own contour map of coastal waters within the area by specifying your desired criteria below. The process:

- Uses all available data on the Water Atlas;
- Has data that is available for select parameters as far back as 1946;
- Generates a high-quality map displaying a continuous interpolated surface for where data exists;
- Averages each sampling point's results for the time frame specified.

You will receive an e-mail notifying you that the request has been initiated and another upon completion of your contour map.

Request a New Water Quality Contour Map

Parameter:

Select a Water Quality Parameter

Begin Date:

Select a Water Quality Parameter

End Date:

Chlorophyll a

E-mail Address:

Color

Dissolved Oxygen (Bottom)

Dissolved Oxygen (Surface)

Salinity (Bottom)

Salinity (Surface)

Secchi Depth

Total Nitrogen

Total Phosphorus

Turbidity

Submit

View Prior Contour Requests

Review all the custom generated contour maps. Clicking  will download that contour map.

Request ID	Parameter	Date Range
596	Turbidity	10/25/1977 - 4/10/2012
558	Chlorophyll a, corrected for pheophytin	4/1/2011 - 4/29/2011
551	Nitrogen	1/1/2010 - 12/31/2011
522	Dissolved oxygen (DO); bottom	1/1/2010 - 12/31/2010
521	Salinity	1/1/2011 - 5/30/2011

S

Digital Library

Electronics

- S
- D
- a
- R

Spatial Library

Search through our library of water resource related documents by using the form below. To search by map location alone, leave the keyword search box empty and zoom/pan the map.

Keyword Search: Show Map

Add to the Library
Submit new entries into the Digital Library using the forms below.

Results

Displaying 1 - 16 of 16

[All](#) [Mapped](#) [Documents](#) [Websites](#) [People/Orgs](#) [Research](#) [Videos](#)

Sort By: [Title](#) [Publisher](#) [Publish Date](#) [Distance from Center](#) [Zoom Out to All](#)

Cow Pen Slough Basin Master Plan Final Report by USDA

1997 Sarasota County Stormwater Environmental Utility 24.3 MB

The Cow Pen Slough drainage basin is described in detail, the floodplain boundaries are defined, and Level of Service deficiencies are identified. Water quality is modeled. Wetland enhancement was considered.

[View on Map](#) [Content Type](#)

This record is matched to multiple locations. [View alternate location on map.](#)

This record is matched to multiple locations. [View alternate location on map.](#)

Curry Creek Basin Master Plan Update, Book 1 of 3

2001 Sarasota County Stormwater Environmental Utility 816 KB

The Curry Creek Basin Master Plan was prepared to (1) characterize the hydraulic network, (2) identify LOS deficiencies, (3) delineate 100-year floodplain, and (4) comment on water quality.

[View on Map](#) [Content Type](#)

Lake Myakka Water Quality Study

1983 Priede Sedgwick Inc. 11.6 MB

Study to (1) define the discharge limits to meet dissolved oxygen standards in Whitaker Bayou, (2) define existing water quality, flushing rates and existing/desired nutrient loadings in the lake system and (3) estimate impact to Sarasota Bay by City of Sarasota wastewater discharge and desirable nutrient limits at discharge locations.

[View on Map](#) [Content Type](#)

Map

Documents, Websites, Videos
People, Organizations
Case Studies, Oral Histories
Mixed

wateratlas.org

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An Evolving Project...

- New features and tools are constantly under development
- As GIS and database technologies improve, so does the Water Atlas
- Our sponsors and users constantly find new uses for the Water Atlas
- Future enhancements will include more mobile apps
- What would you like to use the Water Atlas for? Tell us!



Contact the Water Atlas

If you have questions, comments, suggestions...

Please contact:

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Cool, clear, spatially-mapped data served fresh daily... Drink up!



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Questions?



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