### Water Atlas Overview

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



# 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

# 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

### "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 PreservesPage
- 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

Upper Myakka Lake

Water Levels & Flows





Home

Currently 87°F and Partly Cloudy view forecast »

Myakka River Watershed

Water Quality

### Go to a Specific Topic

Explore

Overview/Current Conditions

- 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.

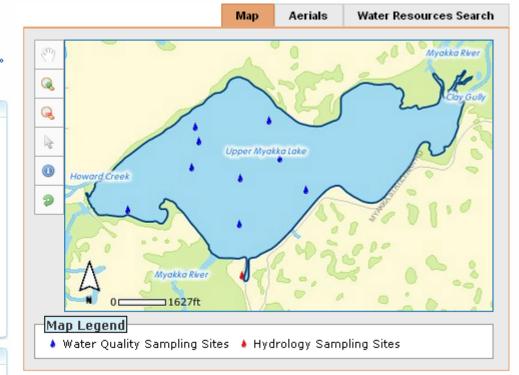
### News and Events

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



Recreation

Photos

Habitats/Ecology

### 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:

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

### Topics

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<del>4yakka River Watershe</del>o

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 »



Dawawatan	Latact Unive	Historia Danca	Additional Tefour.
Parameter	Latest Value	Historic Range	Additional Information
Total Nitrogen (TN)	1,361.0 ug/l 8/1/2011 Source: FDEP Ambient Monitoring Sampling Data	100.0 - 250,810.0 ug/L 6/11/1970 - 8/1/2011 2,420 samples	<ul> <li>№ 2 Year Graph</li> <li>№ 10 Year Graph</li> <li>➡ Seasonal Variation</li> <li>Graph</li> <li>➡ Download this data</li> </ul>
Total Phosphorus (TP)	280.0 ug/L 8/1/2011 Source: FDEP Ambient Monitoring Sampling Data	20.0 - 2,440.0 ug/L 10/2/1962 - 8/1/2011 2,449 samples	<ul> <li>№ 2 Year Graph</li> <li>№ 10 Year Graph</li> <li>➡ Seasonal Variation</li> <li>Graph</li> <li>➡ Download this data</li> </ul>
Chlorophyll a, uncorrected for pheophytin @	11.0 ug/L 8/1/2011 Source: FDEP Ambient Monitoring Sampling Data	0.0 - 87.4 ug/L 1/13/1975 - 8/1/2011 882 samples	<ul> <li>№ 2 Year Graph</li> <li>№ 10 Year Graph</li> <li>➡ Seasonal Variation</li> <li>Graph</li> <li>➡ Download this data</li> </ul>
Chlorophyll a, corrected for pheophytin @	8.5 ug/L 8/1/2011 Source: FDEP Ambient Monitoring Sampling Data	<b>0.0 - 81.0</b> ug/L 10/26/1981 - 8/1/2011 <b>965</b> samples	<ul> <li>№ 2 Year Graph</li> <li>№ 10 Year Graph</li> <li>➡ Seasonal Variation</li> <li>Graph</li> <li>➡ Download this data</li> </ul>

▲ Return to Top

AHASE

resource are:

▲ Return to Top

Datasource (click for details)

Station ID



## Pata 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

### EAGRASS SURVEY PROGRAM

### 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 volunteer's 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.



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### **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?

f you love the outdoors and want to learn more about our have, you will be most welcomed to join in the effort You will get

Enter search term

Search

☐ 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

Hiahliahted Documents

## 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



### Real-time Pata Mapper

Data & Mapping Real-time Data Mapper Station Details 📈 🗗 💆 🗺 in | 🔂 Share Home MYAKKA RIVER AT NORTH PORT CHARLOTTE FL - 02299230 Active 7 Day Graphs Station Overview Monitoring Waterbody: Myakka River a 7-Day Graph of Elevation, water surface Latitude/Longitude: 27.04394639°, -82.2 (653 measurements) Location: Sarasota County, Florida Data Source: USGS NWIS & View data provider's website for this sta Warm Mine 1.5-Last Update: about 3 hours ago (6/1 Latest Data Elevation water surface, ft Last 24 Hours of Data 24 Hour Graphs 7 Day Graphs 0.5- 31 Day Graphs 🕕 Please be aware that the near-real tin through the quality control procedure: -0.5other data sets; therefore, the possible Latest Data Jun 09 Jun 10 Jun 11 Jun 12 Jun 13 Sample Date Value Sample Date 6/14/2012 10:00:00 0.44 ft View last 24 hours of data

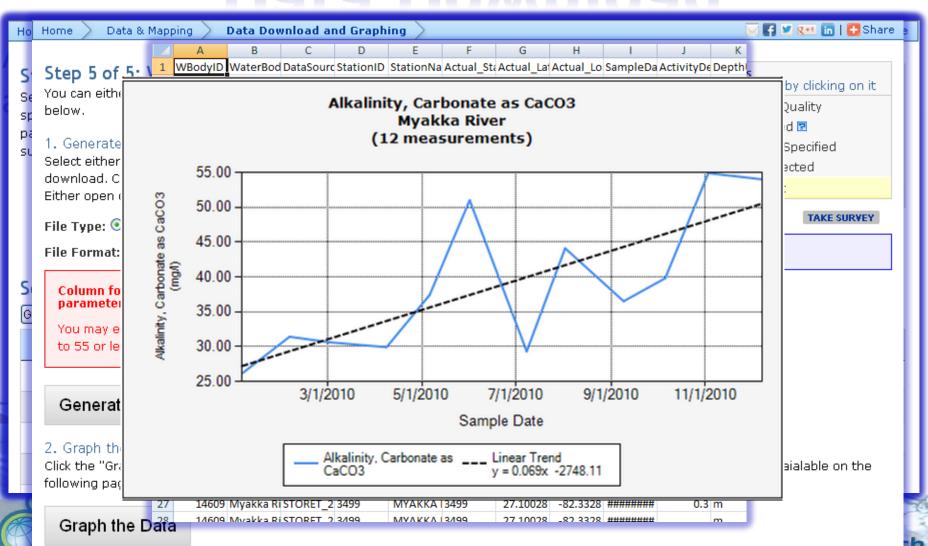
Biscayne D



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

Refresh map data

### **Pata Pownload**



### **WQ Contour Mapping**

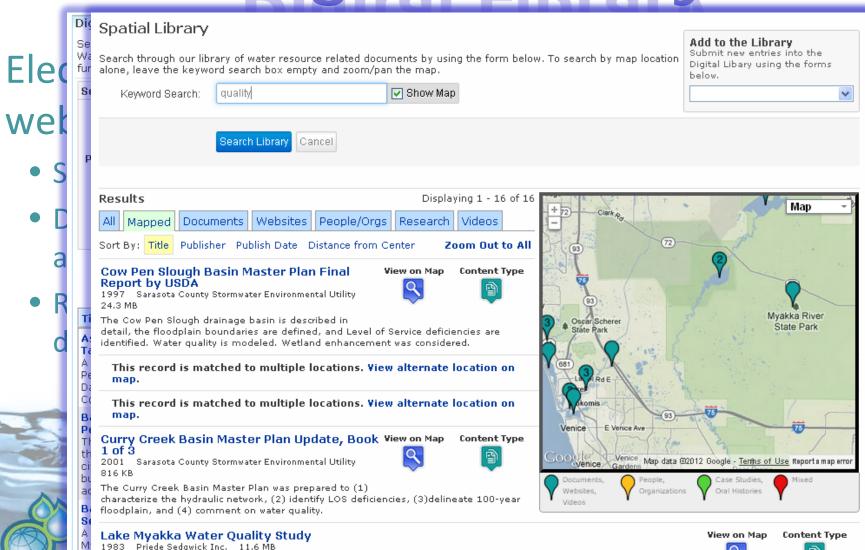
Home Data & Mapping Water Quality Contour Mapping **Custom Contour Maps** Water Quality Contour Mapping - Custom Maps Generate your own contour map of coastal waters within the area by specifying your desired criteria below. The process: · Uses all available data on the Water Atlas; Has data that is 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 💌 Select a Water Quality Parameter Month Begin Date: Chlorophyll a Each End Date: Color The Dissolved Oxygen (Bottom) distri E-mail Address: Dissolved Oxygen (Surface) Filter Salinity (Bottom) Submit Salinity (Surface) Secchi Depth Total Nitrogen View Prior Contour Reques Total Phosphorus Review all the custom generated Turbidity

Control of the request and 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
Ц	E01	Salinity	1/1/2011 5/30/2011

arch

### **Digital Library**



Studey 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.

### An Exalving 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:

Jan Allyn, Web Content Manager

janallyn@usf.edu

(813) 579-3381

Follow us on:





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

# Questions?

