THE WATER ATLAS PROGRAM

http://www.wateratlas.org

Helping communities make informed decisions by providing up-to-date water resource information.

The Florida Center for Community Design + Research
School of Architecture + Community Design
University of South Florida
http://www.fccdr.usf.edu

FLORIDA CENTER
CD+R

USF
UNIVERSITY OF SOUTH FLORIDA

FCCD+R
University of South Florida
4202 Fowler Ave., HMS 301
Tampa, FL 33620-9951
Tel: [813] 974.4042
Fax: [813] 974.6023

Design: Kristin Caulfield
Photography: Richard Gant of SWFWMD

WHAT IS THE WATER ATLAS PROGRAM?

The Water Atlas Program at USF is designed to help meet the needs of local governments by providing the means through technology to connect multiple stakeholders in water resource management. The Program works with local communities to collaboratively build a Water Atlas that is comprehensive and provides citizens and resource professionals with unprecedented access to water resource information. Local governments are able to share the development costs and information technology infrastructure associated with building a comprehensive data warehouse such as the Atlas. The gateway to all of the current Water Atlas sites is: www.WaterAtlas.org.

HOW DOES THE WATER ATLAS WORK?

The Water Atlas uses custom software developed on an industry standard technology to serve timely water resource information on the world wide web. Quality-assured data from multiple agencies are stored in the W-RAD (Water Resources Atlas Database), which is available for the Microsoft SQL environment. Through Active Server Pages (ASP) and the latest GIS technology, users are able to view water resource information and dynamic maps from many different agencies in one location on the world wide web.

EXAMPLES OF INFORMATION AVAILABLE ONLINE

- Aerial Photographs
- Boat Ramps & Parks
- Bottom Contour Maps (Bathymetry)
- Conservation Advice
- Current Water News & Events
- Dynamic Maps
- Ecological Reports
- Educational Curricula
- Fishing Reports
- Historic & Current Photographs
- Near Real-Time Data
- Oral History Narratives
- Research Reports
- Total Maximum Daily Loads (TMDL)
- Water Levels, Flows & Rainfall
- Water Quality Data

WHY DO WE NEED A WATER ATLAS?

The Benefits for Government Agencies & Water Resource Professionals

The Atlas Program has many benefits for local government agencies. First and foremost, because the system allows for easy access to water resource information, managers can save valuable time by directing interested citizens to the website for questions about area water resources. For water resource professionals, the Atlas reduces time spent finding quality-assured data and provides efficient and cost-effective data management. Agencies in the Program have also experienced dramatic increases in citizen participation and volunteerism. Furthermore, the University is committed to continuous improvement of the Program through grants and collaborative partnerships with other institutions and agencies.

The Benefits for Citizens

Two of the largest hurdles encountered by citizens who want to be informed about area water quality issues are the inability to access the data, and having the resources to better understand that data. The Water Atlas Program provides easy access to water resource information for the local citizenry; information they would have never had access to before. In addition, each data component is accompanied by user-friendly explanations.

How Can Our Community Join the Water Atlas Program?

If you are interested in knowing more about the Water Atlas Program, please contact Shawn Landry at The Florida Center for Community Design + Research.

Phone: [813] 974.4042
Email: landry@arch.usf.edu

WATER ATLAS

[Features]

1: ENTERING THE WATER ATLAS

Each Water Atlas site has a custom home page that allows its sponsor to promote its brand/identity, while remaining consistent with the other Water Atlas websites. The overall structure of each site is the same, but content is particular to each site's geographic area and water resource issues. The Water Atlas interface was designed using survey data collected from professional water managers, citizen scientists, and the general public.

2: WATER ATLAS HOME PAGE

The OneAtlas structure makes all site features easy to access from the home page. Easy-to-use menus and search tools allow users to access the most up-to-date, accurate and well-documented water resource data available—down to the individual water resource level.

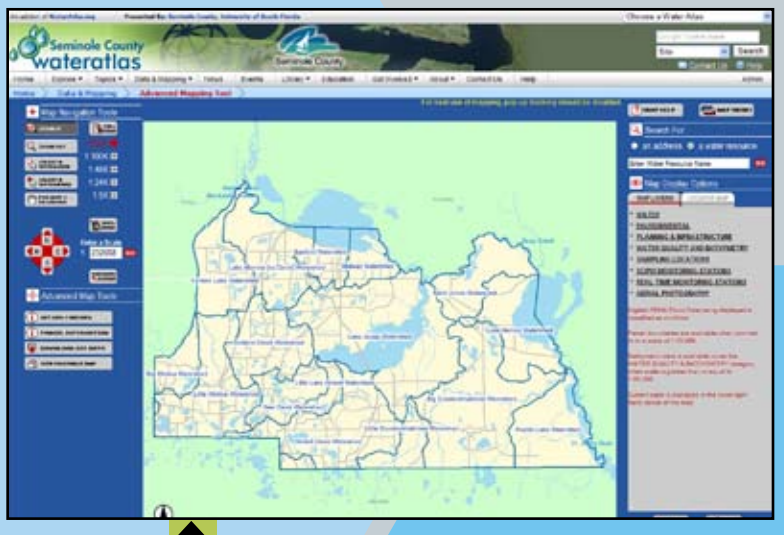
Water Resource pages present data related to individual watersheds, streams, lakes, bays or the ocean. The Water Resource Search box gives quick access, while the Advanced Search tool allows users to browse/search water resources on all atlases at once.

One-click access to popular tools is provided from the home page: Digital Library, Data Download and Graphing, Real-Time Data and Map, Advanced Mapping, and Water Quality Contour Mapping.

The Jump to Topic feature directly connects users to extensive and valuable information about important water resource management issues.

The news and the events calendar are designed to engage and inform citizens, letting them know about local and state water issues, recent improvements to atlas functionality and content, upcoming public meetings and volunteer opportunities.

Feedback forms make it easy for citizens to report problems with a local water resource, contribute data to the Water Atlas, or volunteer in their communities.



3: NAVIGATING THE ATLAS

Finding an Individual Water Resource

Through the use of search tools, lists of named water resources, and online map navigation, users can easily pinpoint the water resource they are interested in exploring.

Interactive Mapping

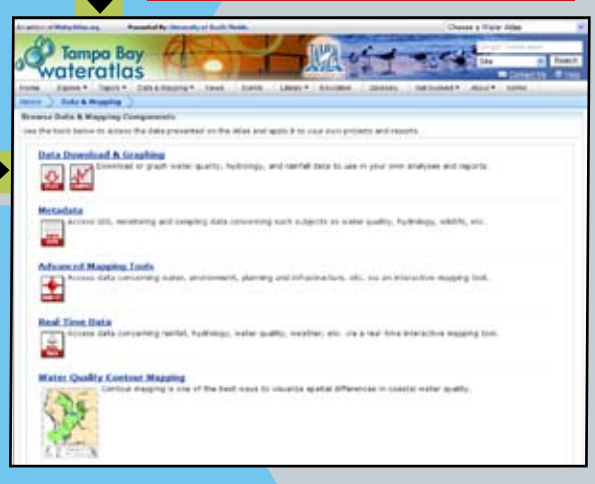
The mapping interface allows the user to turn on multiple layers such as FEMA flood zones, land use and aerial photography. Once a series of layers is selected, the user can access data on individual sampling locations and print customized map layouts.

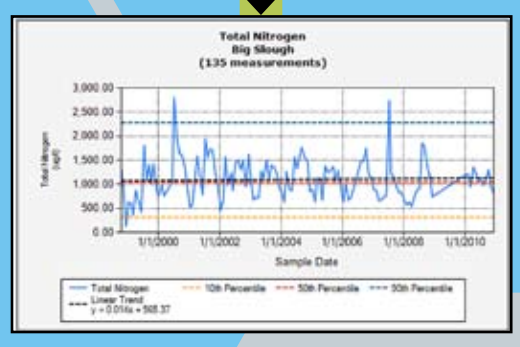
Finding the Data

At the individual water resource level, the data have been divided into sections, making it easy for users to find the information they need. For most water resources, the data are divided into the following areas: Overview/Current Conditions, Water Quality, Water Levels/Flows, Habitats/Ecology, Recreation and Photos.

FOR THE CITIZEN

FOR THE WATER RESOURCE PROFESSIONAL





4: FEATURES FOR THE CITIZEN

Context Specific Help

All of the data components on the individual water resource data pages are accompanied by explanatory text that helps the user understand what the data mean.

Online Communication Tools

Through the use of online forms, the user can communicate with the scientists behind the data and the developers behind the Water Atlas. These forms encourage citizen participation in managing community water resources.

Volunteer pages facilitate data submission by citizen scientists and community groups.

Other citizen-based features include a photo library, educational library and oral histories.

5: FEATURES FOR THE WATER RESOURCE PROFESSIONAL

Advanced Graphing

An Advanced Graphing Tool allows the user to chose specific water resources, datasets and sample locations to create customized graphs.

Data Download

The Data Download Tool allows the user to download customized datasets to their computer as either a Microsoft Excel file or a text file.

Water Quality Contour Mapping

This tool allows easy visualization and temporal/spatial comparison of selected water quality data. A standard set of maps is created monthly, or users can make generate their own custom maps.

Other features for professionals include access to metadata, research and management based libraries, and a secure web-based interface for managing the data presented on the Atlas.