

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

An Overview of SWFWMD's Available Monitoring Data and Maps

**9th Biennial University of Florida
Water Institute Symposium**

Sandie Will, P.G.

Data Collection Bureau Chief

February 21, 2024

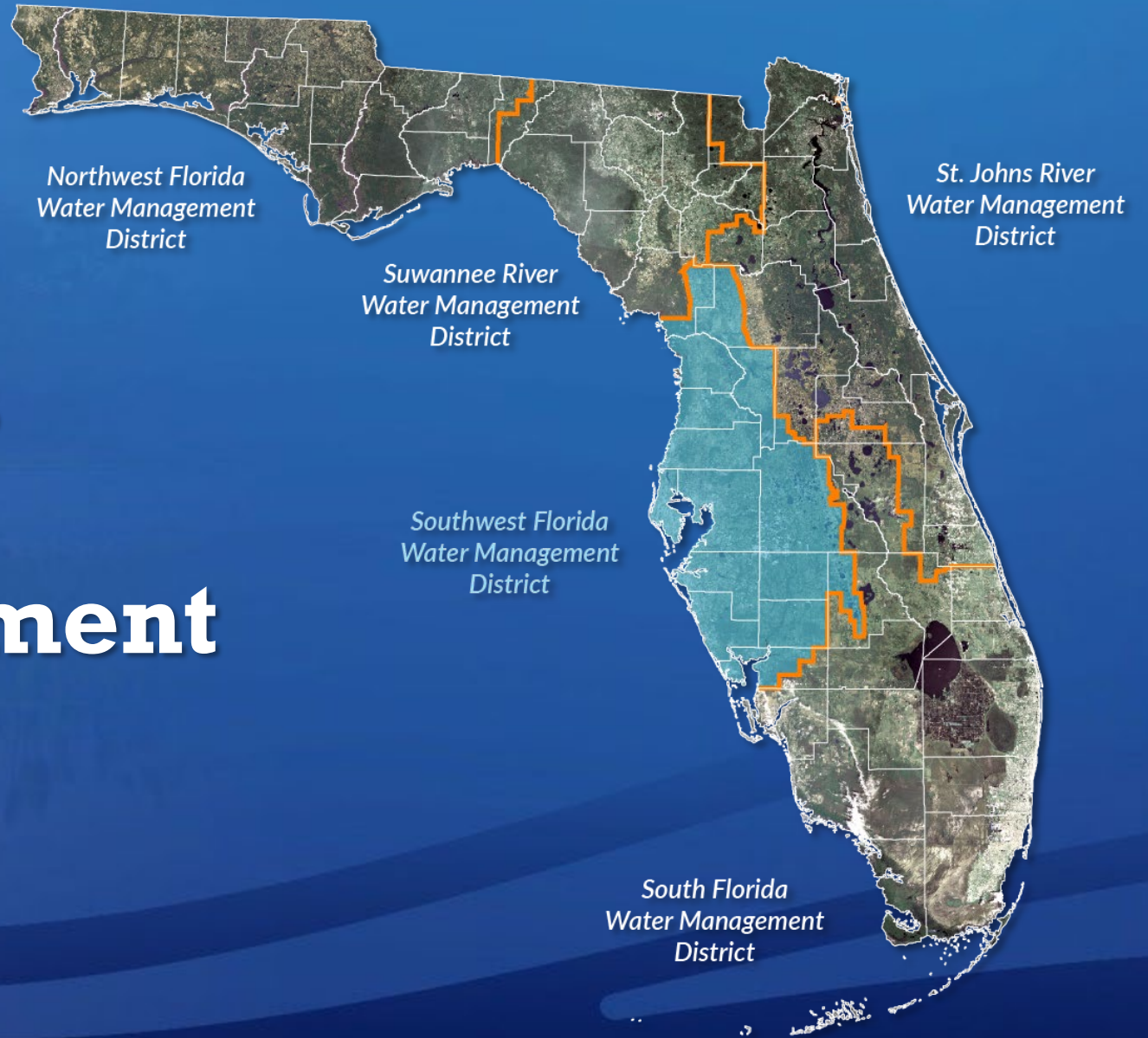
Southwest Florida
Water Management District

Southwest Florida
Water Management District

Presentation Agenda

- Today, I'll be giving you a brief overview of the:
 - District
 - Data Collection Bureau
 - Quality checks and data governance
 - Available data types
 - Where to find and download our data
 - Contact information

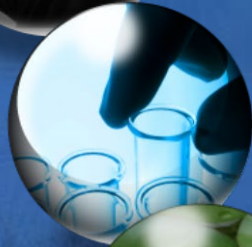
Florida's Water Management Districts



Areas of Responsibility



Water Supply



Water Quality



Natural Systems



Flood Protection

OUR MISSION

- Protect Water Resources
- Minimize Flood Risks
- Ensure the Public's Water Needs Are Met

Data Collection Bureau Overview

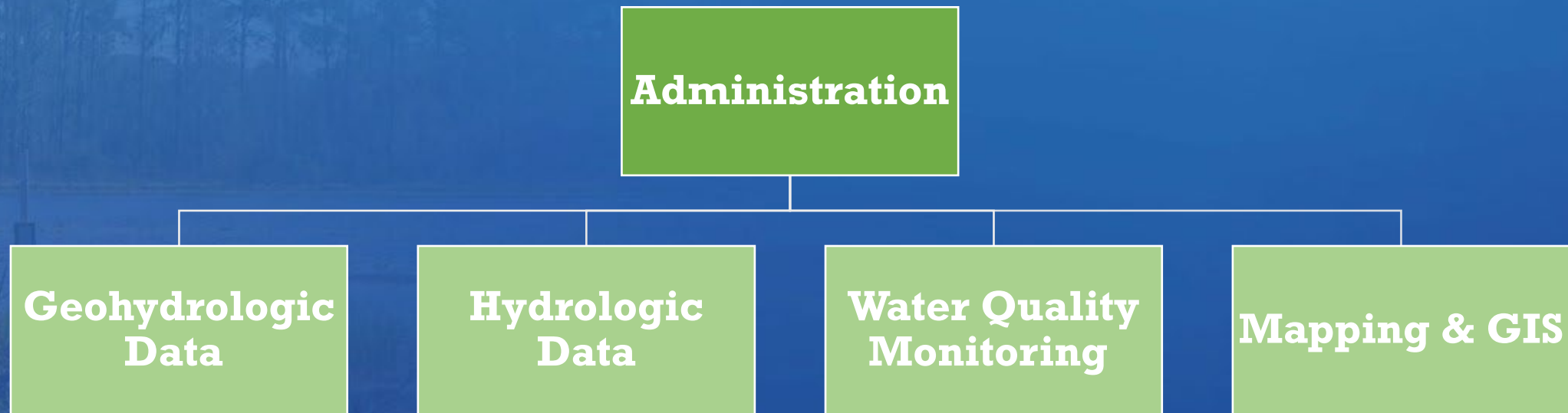
- Highly technical staff
- Responsible for:
 - Collecting data
 - Analyzing data
 - Storing data
 - Reporting data



Internal Checks & Balances

- QA/QC checks
- Audits/peer reviews
 - Laboratory
 - Field staff
 - Lithologic data
- Data Governance
- Water Resources Data Collection Assessment Process

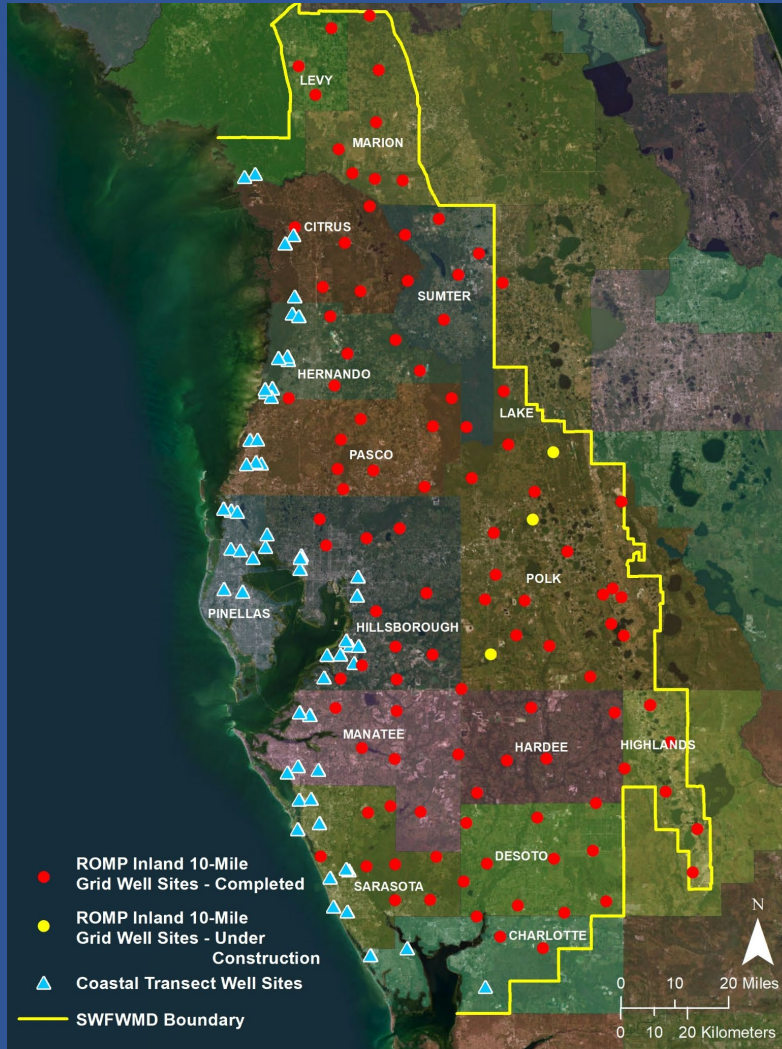
Data Collection Bureau Overview



Data Collection Bureau Overview



District Monitor Well Networks



Well Names Include:

- Coastal Transect = TR
- Regional Observation Monitor-well Program = ROMP

SWFWMD's Main Page: watermatters.org

The screenshot shows the main page of the Southwest Florida Water Management District website. At the top, there is a navigation bar with the logo, the URL 'WATERMATTERS.ORG', a search icon, and a 'MENU' button. Below the navigation bar is a large banner with a background image of trees. The banner contains a yellow 'NOW HIRING! View career opportunities »' button, a white 'Welcome to the Southwest Florida Water Management District' text, and a search bar with the placeholder text 'Search for services, information and more'. Below the banner is a horizontal menu with six colored buttons: 'About' (blue), 'Residents' (yellow), 'Business' (green), 'Programs & Projects' (light blue), 'Resources' (orange), and 'Recreation' (teal). The main content area is divided into a grid of eight sections. The first row contains: 'District Water Restrictions' (with a water tap icon), 'Skip a Week' (with a water tap icon), 'ePermitting' (with a swan icon), and 'Careers: It's My Life's Work' (with a 'Now Hiring' badge and a person icon). The second row contains: 'Data & Maps' (with a map icon, circled in red), 'Projects & Programs' (with a building icon), 'Download or Order the New Rec Guide' (with a 'RECREATION' guide icon), and 'Meetings & Events Calendar' (with a 'Workshop' calendar icon and a red pushpin). The bottom section features three promotional tiles: 'District Newsroom' (with a stack of newspapers icon), 'Recreation' (with a 'GET OUTSIDE!' button), and 'WATER MATTERS PODCAST' (with a podcast cover icon).



Data & Maps

Demographics
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Geohydrologic
[GET THE DATA](#)

GIS, Maps & Survey
[SHOW ME AROUND](#)

Hydrologic
[FIND THE INFORMATION](#)

Water Quality
[FIND OUT MORE](#)

Environmental Data Portal
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Daily Hydrologic Data
[SEE WHAT'S BEEN HAPPENING](#)

Hydrologic Conditions Reports
[GET THE DETAILS](#)

Weather: Rainfall & River Flows
[VIEW THE DATA](#)

Reports

The District issues reports after monitor well construction and aquifer testing. The reports are accessible from 1974 to present. New reports are added as they become available.



Recent Reports

- Well Construction at the Lake Aurora Well Site in Polk County, Florida
- Well Construction at the Trout Lake Well Site in Polk County, Florida
- Hydrogeology, Water Quality, and Well Construction at the ROMP 38 – Parrish Well Site in Manatee County, Florida
- Well Construction and Water Quality at the ROMP TR 19-3A – Heather Well Site in Hernando County, Florida



Geohydrologic Data Interactive Map »

View an interactive map of all Geohydrologic Data well sites, links to associated well site reports, lithologic core descriptions, geophysical logs, lithostratigraphic units, hydrostratigraphic units, and aquifer test characteristics for select well sites.

Stratigraphic Correlation Charts »

The naming convention used for the hydrogeologic units in the Southwest Florida Water Management District (District) are consistent with aquifer nomenclature guidelines proposed by Laney and Davidson (1986) and the North American Stratigraphic Code (2005). These correlation charts provide a comparison of the current nomenclature used at the District and in previously published reports. The correlation charts can be used to understand the progression of hydrostratigraphic and

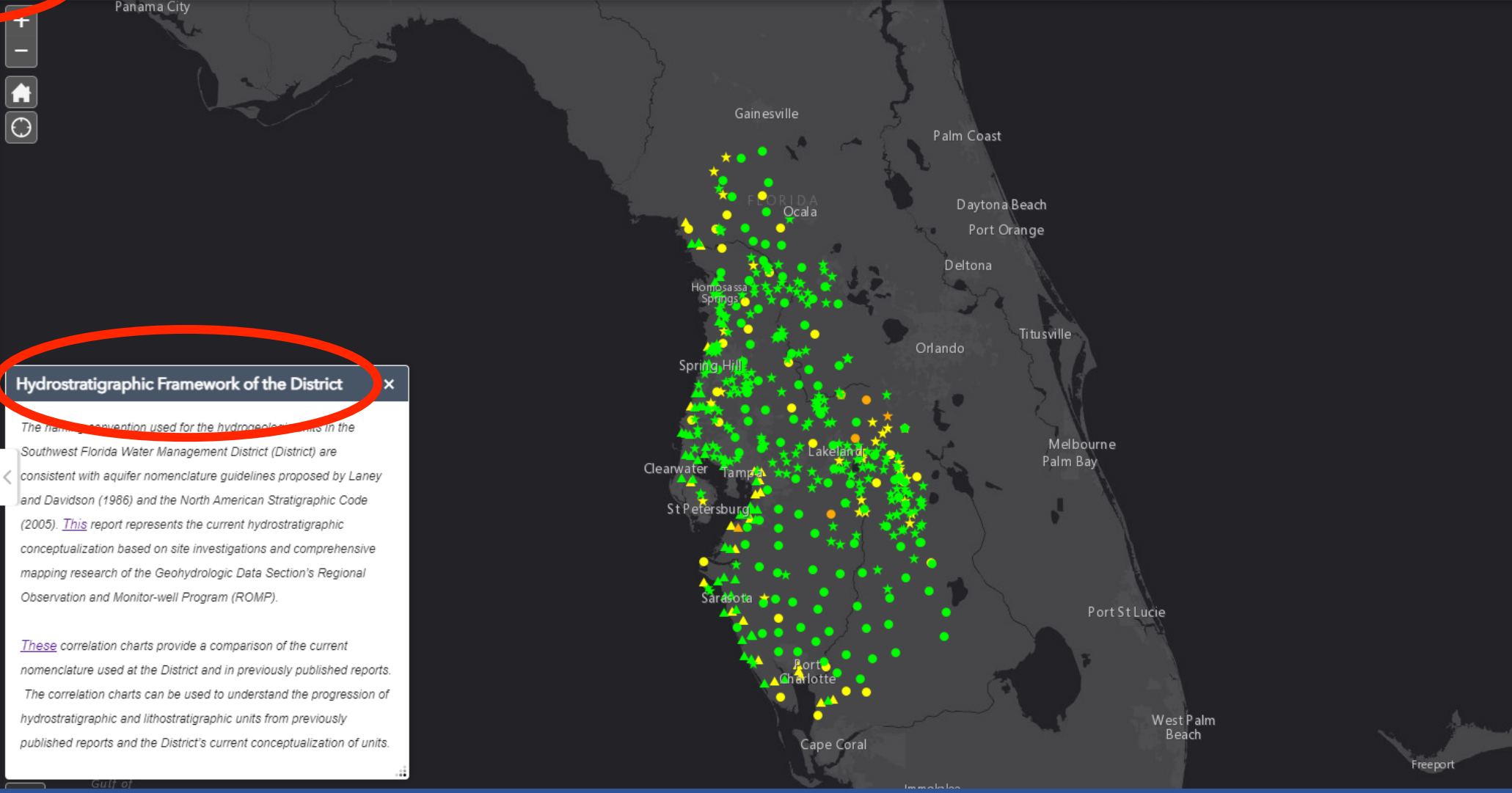
consequential, or other damages, including loss of profit, arising out of the use or inability to use these data even if the District has been advised of the possibility of such damages.

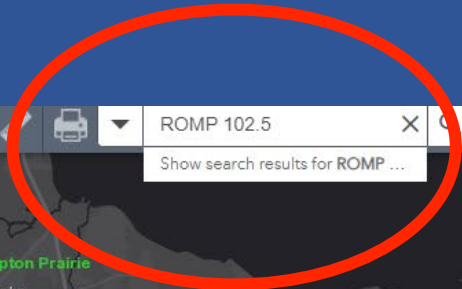
- ### Layers
- GEO Stations from EDP
 - Groundwater Stations
 - QWIP Wells
 - Geohydrologic Well Sites
 - Existing Well Sites
 - ROMP Inland Grid Network
 - Coastal Transect Network
 - Project Support Network
 - Under Construction Well Sites
 - ROMP Inland Grid Network
 - Coastal Transect Network
 - Project Support Network

Hydrostratigraphic Framework of the District

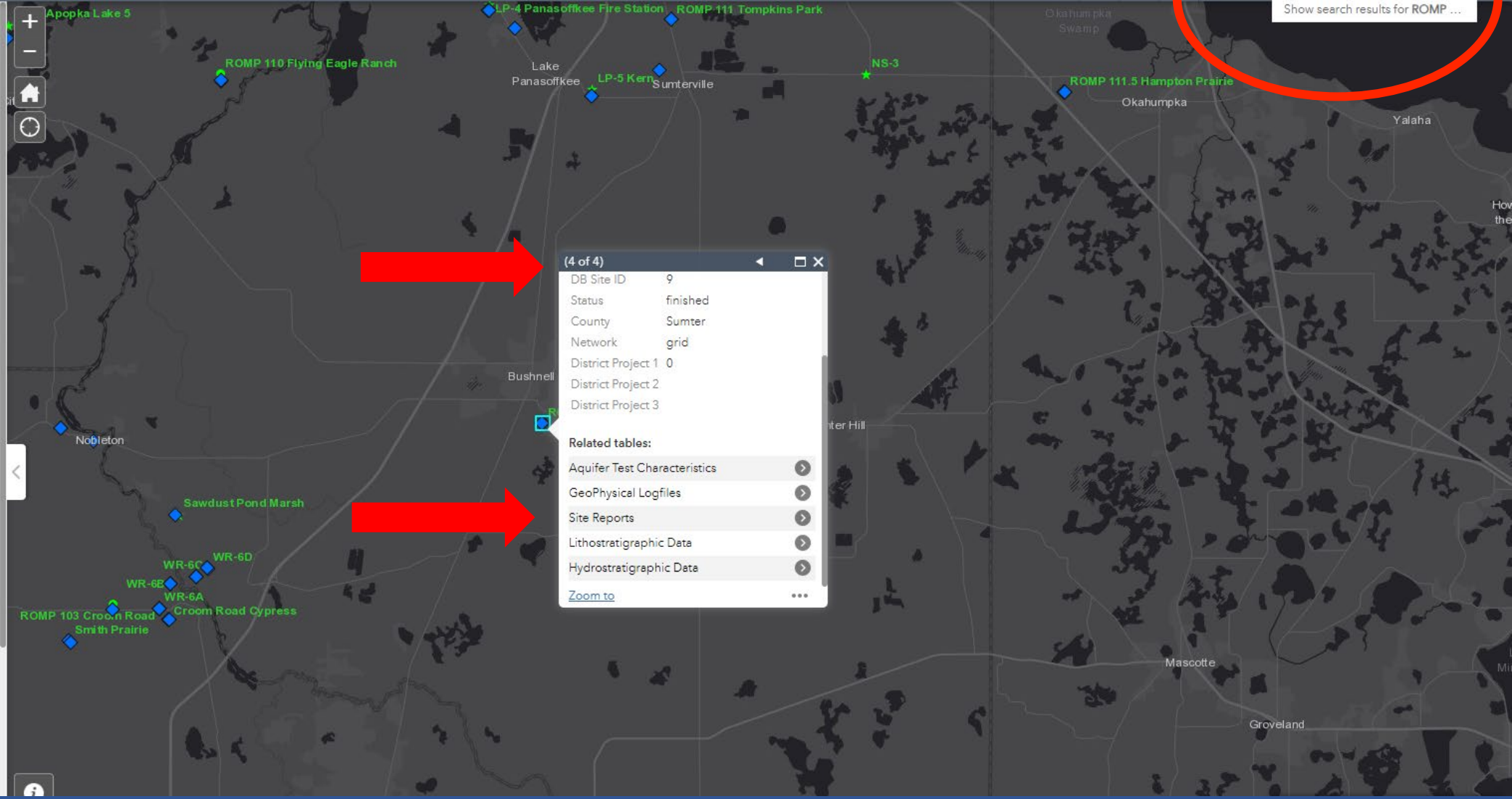
The naming convention used for the hydrostratigraphic units in the Southwest Florida Water Management District (District) are consistent with aquifer nomenclature guidelines proposed by Laney and Davidson (1986) and the North American Stratigraphic Code (2005). [This](#) report represents the current hydrostratigraphic conceptualization based on site investigations and comprehensive mapping research of the Geohydrologic Data Section's Regional Observation and Monitor-well Program (ROMP).

[These](#) correlation charts provide a comparison of the current nomenclature used at the District and in previously published reports. The correlation charts can be used to understand the progression of hydrostratigraphic and lithostratigraphic units from previously published reports and the District's current conceptualization of units.





- ### Layers
- GEO Stations from EDP
 - Groundwater Stations
 - QWIP Wells
 - Geohydrologic Well Sites
 - Existing Well Sites
 - ROMP Inland Grid Network
 - Coastal Transect Network
 - Project Support Network
 - Under Construction Well Sites
 - ROMP Inland Grid Network
 - Coastal Transect Network
 - Project Support Network
 - Proposed Well Sites



(4 of 4)

DB Site ID	9
Status	finished
County	Sumter
Network	grid
District Project 1	0
District Project 2	
District Project 3	

Related tables:

- Aquifer Test Characteristics
- GeoPhysical Logfiles
- Site Reports
- Lithostratigraphic Data
- Hydrostratigraphic Data

[Zoom to](#)

Data Collection Bureau Overview





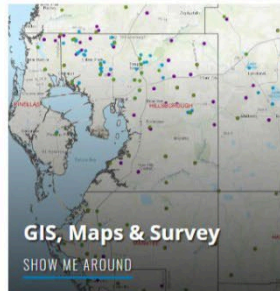
Data & Maps



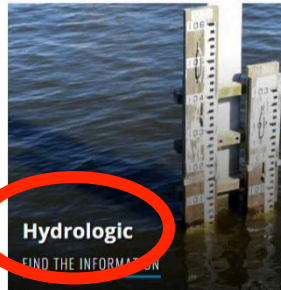
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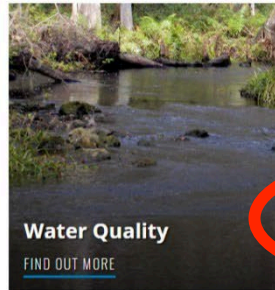
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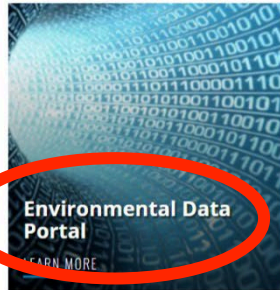
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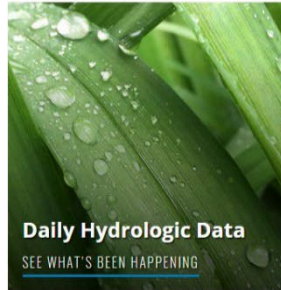
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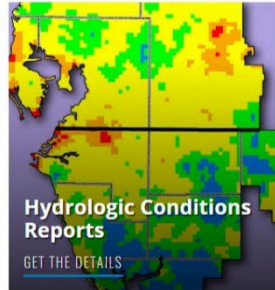
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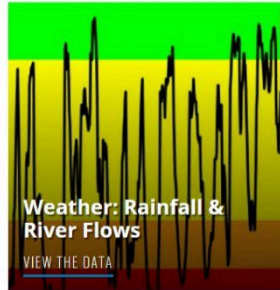
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Station Overview



Search

Filter

1,957 / 11,011
Stations

Clear filter

Resource Type

Groundwater (1,957)

Station Type

Well (1,957)

Station Status

Active (1,957)

Primary

Hydrostratigraphy

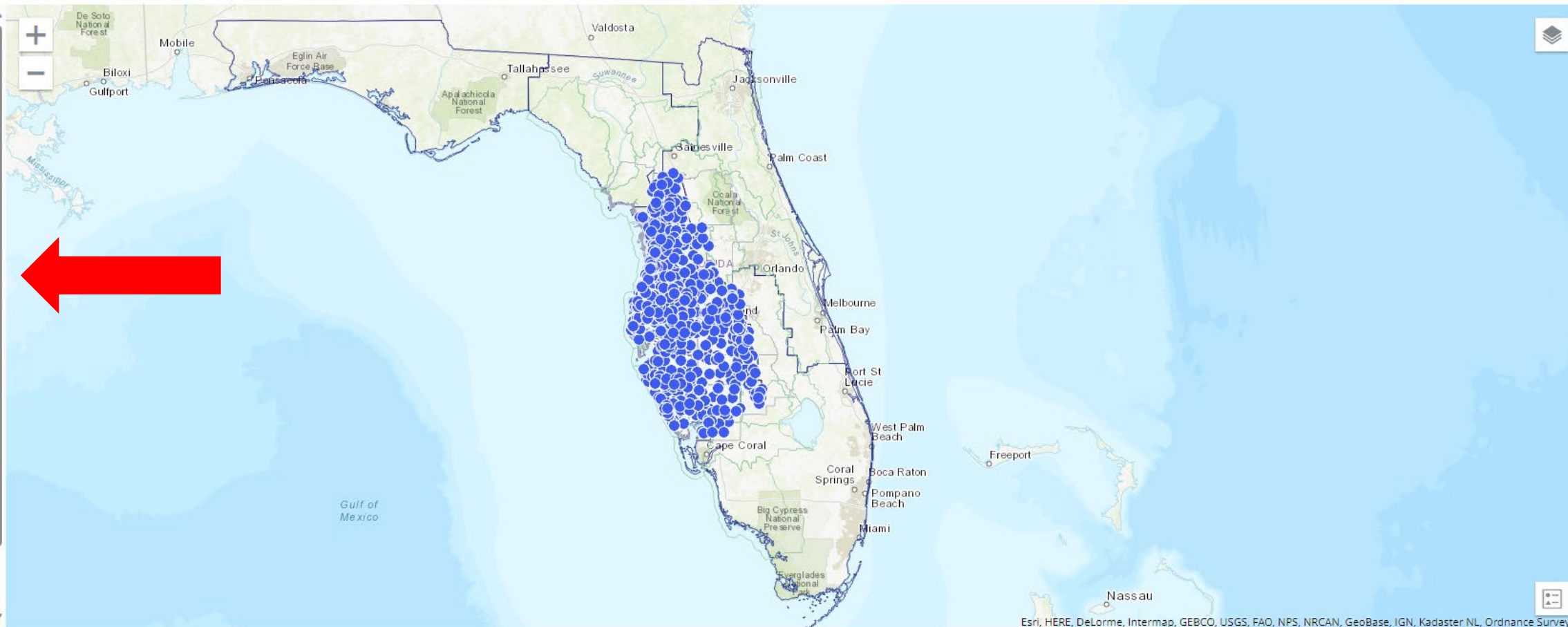
All

Project Number

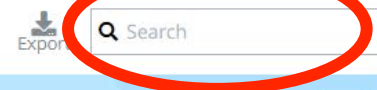
All

Station Parameter

Name



Station Overview



Filter

1,957 / 11,011
Stations

Clear filter

Resource Type

Groundwater (1,957)

Station Type

Well (1,957)

Station Status

Active (1,957)

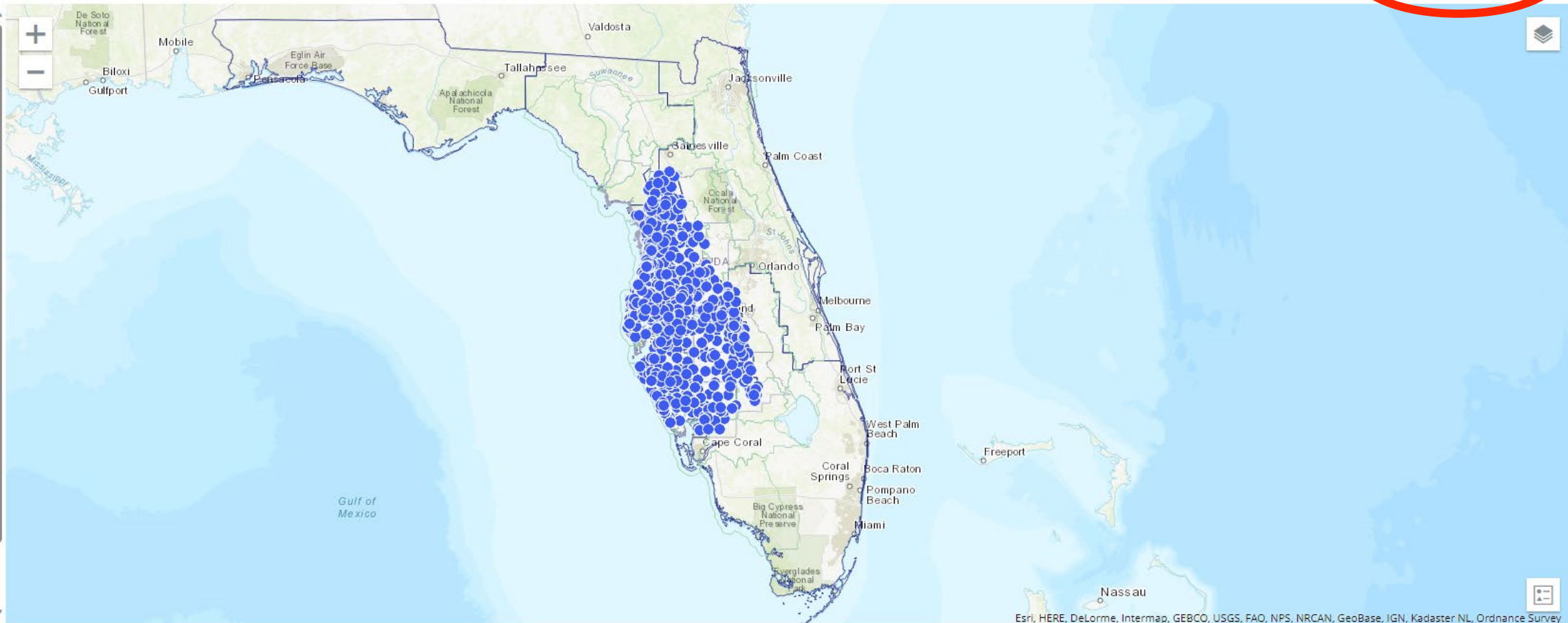
Primary
Hydrostratigraphy

All

Project Number

All

Station Parameter
Name



Station Overview

+ Advanced Search

User Instructions

District Data

Contact Us

Station Overview

Map Table

Export Search

Filter

1,957 / 11,011
Stations

Clear filter

Resource Type

Groundwater (1,957)

Station Type

Well (1,957)

Station Status

Active (1,957)

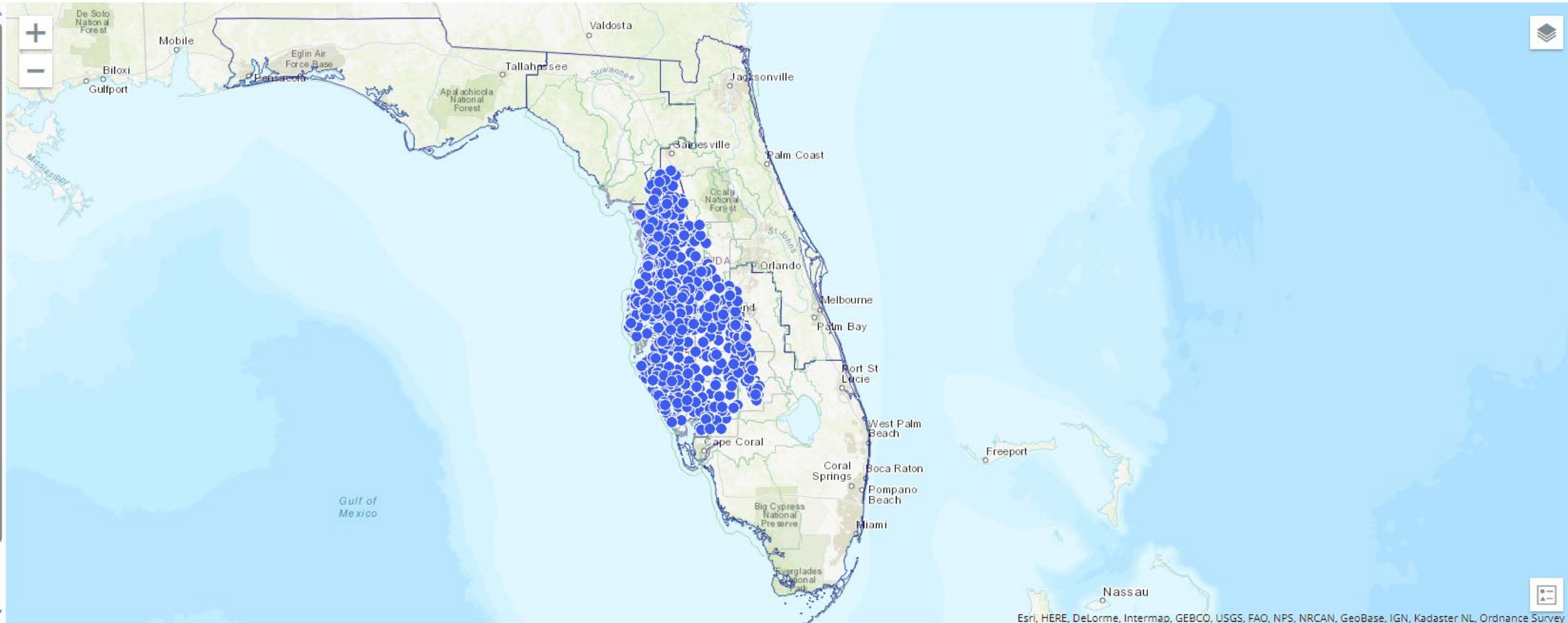
Primary
Hydrostratigraphy

All

Project Number

All

Station Parameter
Name



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[+ Advanced Search](#)


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[i District Data](#)

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Station Overview

[Map](#) [Table](#)



Filter



11,011 / 11,011
Stations

[Clear filter](#)

Resource Type

All

Station Type

All

Station Status

All

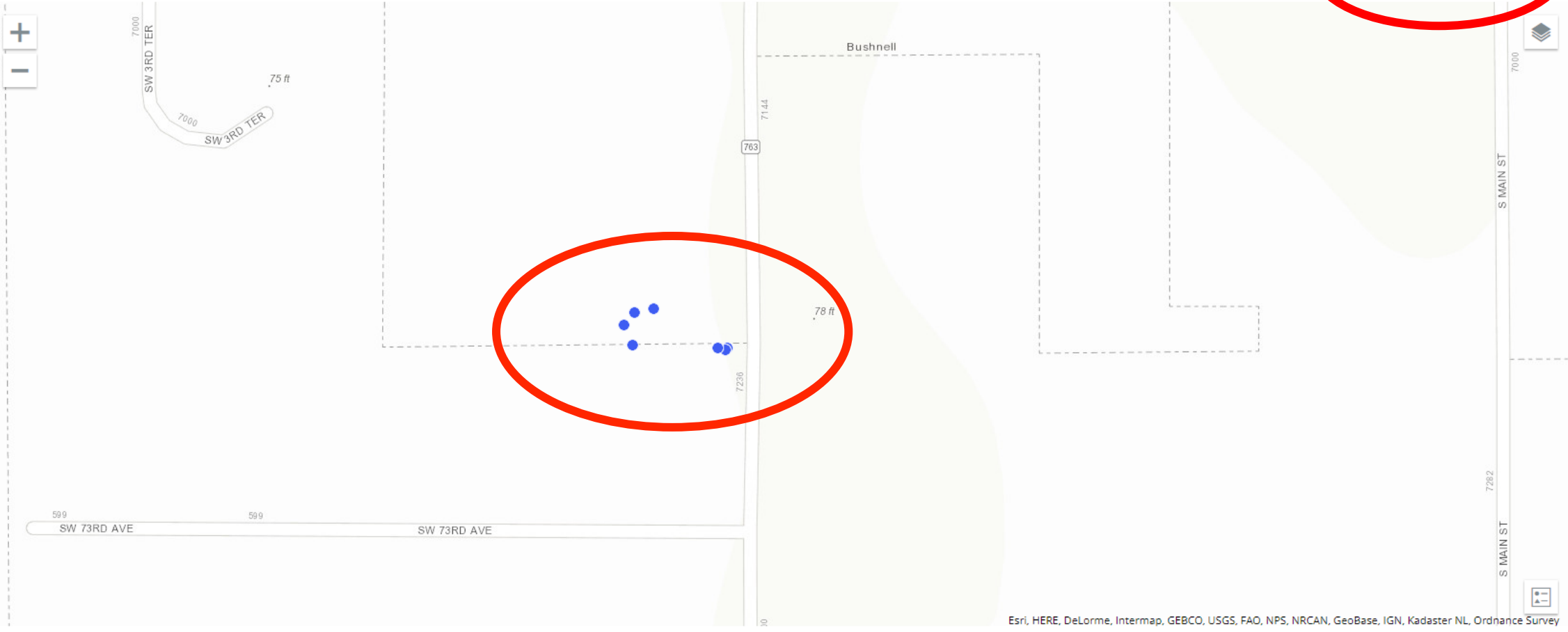
Primary Hydrostratigraphy

All

Project Number

All

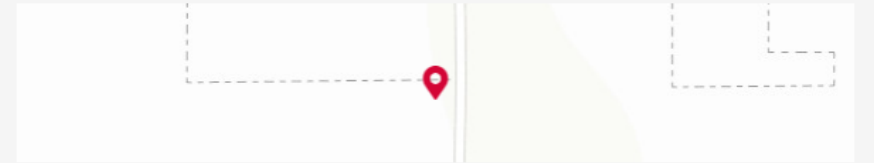
Station Parameter Name





ROMP 102.5 U Fldn Aq Monitor

Station Number: 738457 Latitude: 28.65031 WCP#: 806610
Resource Type: Groundwater Longitude: -82.10869 WUP#: 0
Station Type: Well USGS ID: 283901082063102



Hydrology Water Quality

Selection Graph

Search

Time Series

Water elevation

Station Parameter Name	Time Series Name	Unit Name	From	To	...
<input checked="" type="checkbox"/> WL	District Daily Maximum NAVD 88	foot	08/08/2011 12:00:00 AM	01/29/2024 12:00:00 AM	
<input type="checkbox"/> WL	District Daily Maximum NGVD 29	foot	08/08/2011 12:00:00 AM	01/29/2024 12:00:00 AM	



ROMP 102.5 U Fldn Aq Monitor

Station Number: 738457

Latitude: 28.65031

WCP#: 806610

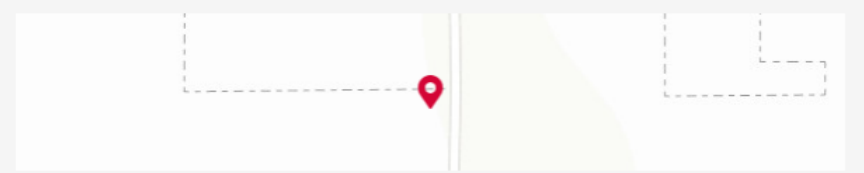
Resource Type: Groundwater

Longitude: -82.10869

WUP#: 0

Station Type: Well

USGS ID: 283901082063102



Hydrology Water Quality

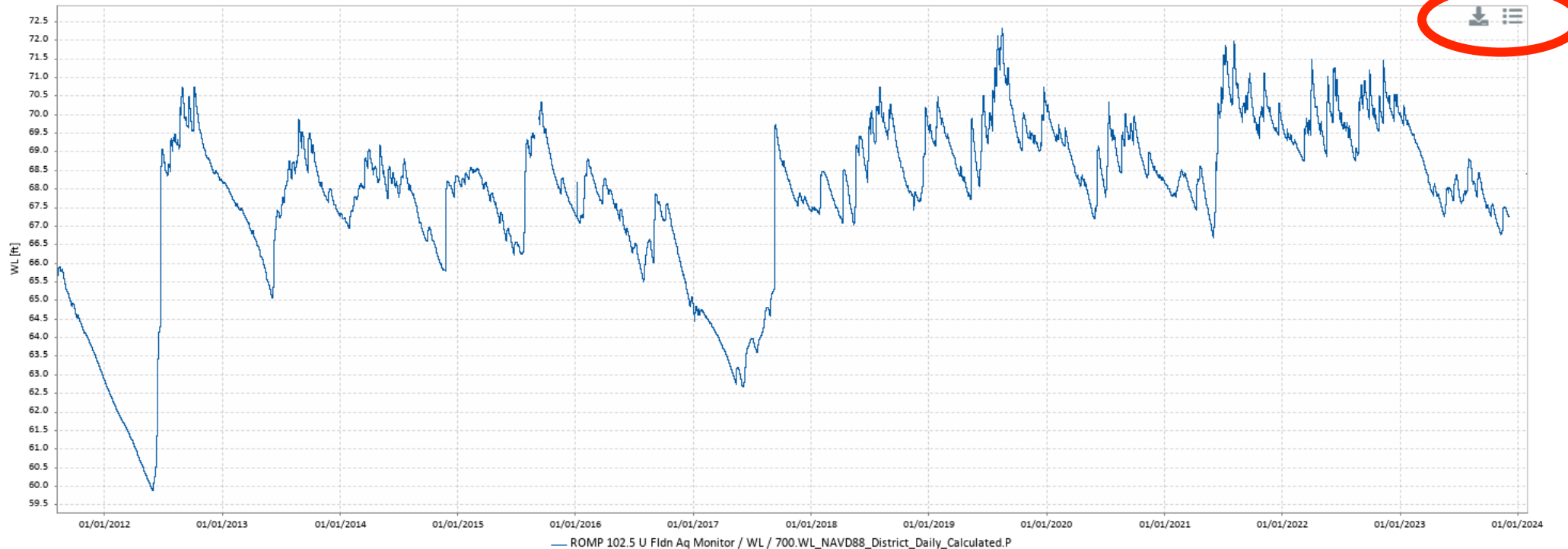
Selection **Graph**

Multiple Timeseries

3 d 10 d 1 m 3 m 1 y ∞

08/07/2011 01/29/2024

Water elevation



ROMP 102.5 U Fldn Aq Monitor / WL / 700.WL_NAVD88_District_Daily_Calculated.P

Generated at: 01/31/2024 10:15



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Hydrologic Conditions Reports


The Hydrologic Conditions Report provides an excellent historical record for long-term local and regional hydrologic analysis.


The Hydrologic Conditions Report is generated monthly and provides an analytical summary of regional and temporal variations in the hydrologic conditions for planning and regulatory purposes. In addition, it provides an excellent historical record for long-term local and regional hydrologic analysis.


Data collected are used by the regulatory, technical, and analytical sections of the District. Data recently collected and maintained by the section include: station and basin rainfall totals, stream and spring discharge measurements, and surface and ground water levels. Frequency of data collection ranges from hourly to monthly readings. All data collected are processed and analyzed, then uploaded into the Water Management Data Base for general access by the District. The Water Management Data Base is also periodically augmented from the United States Geological Survey's hydrologic data network.

Reports

 [December 2023 Hydrologic Conditions Report](#)

 [November 2023 Hydrologic Conditions Report](#)

 [October 2023 Hydrologic Conditions Report](#)

 [September 2023 Hydrologic Conditions Report](#)

[Weather & Hydrology »](#)

[Weather: Rainfall and River Flow »](#)

[Hydrologic Conditions Reports](#)

[Hydrologic Data »](#)

Disclaimer: The user assumes the entire risk related to its use of these data. The Southwest Florida Water Management District provides these data on an "as is" basis and specifically disclaims any warranty, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular use. The entire risk as to quality and performance is with the user. In no event will the District or its staff be liable for any direct, indirect, incidental, special, consequential, or other damages, including



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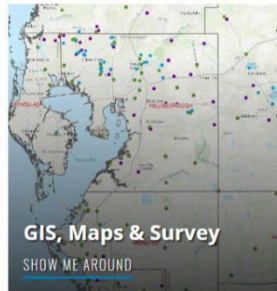
Data & Maps



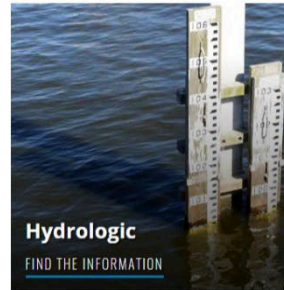
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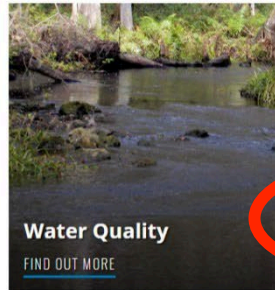
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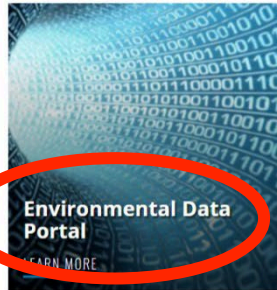
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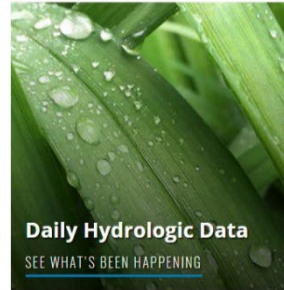
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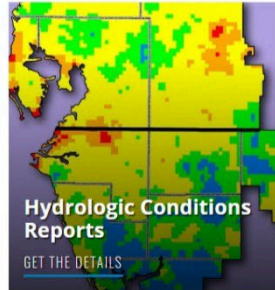
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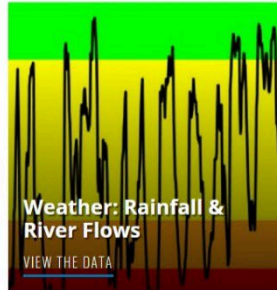
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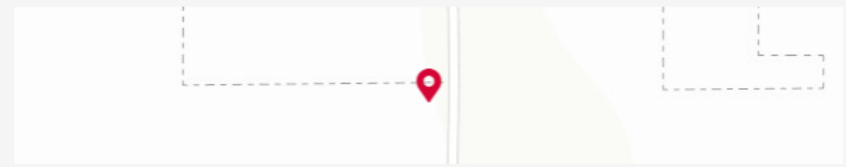


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ROMP 102.5 U Fldn Aq Monitor

Station Number: 738457 Latitude: 28.65031 WCP#: 806610
Resource Type: Groundwater Longitude: -82.10869 WUP#: 0
Station Type: Well USGS ID: 283901082063102



Hydrology **Water Quality**

Chloride (Dissolved)

Multiple Parameters

3 d 10 d 1 m 3 m 1 y ∞

04/10/2011 04/11/2011

- Alkalinity (Total)
- Calcium (Dissolved)
- Chloride (Dissolved)**
- Iron (Dissolved)
- Magnesium (Dissolved)
- pH (Total)
- Potassium (Dissolved)
- Residues- Filterable (TDS) (Dissolved)
- Residues- Filterable (TDS) (Total)
- Silica- Dissolved (Dissolved)
- Sodium (Dissolved)
- Specific Conductance (Total)

Graph

Table

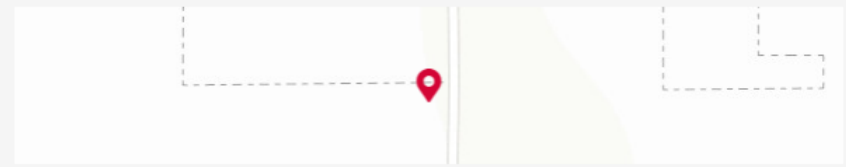


● Chloride (Dissolved) [mg/l] / Chloride (Dissolved)_EPA_300.0_Chloride



ROMP 102.5 U Fldn Aq Monitor

Station Number: 738457 Latitude: 28.65031 WCP#: 806610
Resource Type: Groundwater Longitude: -82.10869 WUP#: 0
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Chloride (Dissolved)

Multiple Parameters

3 d 10 d 1 m 3 m 1 y ∞

04/10/2011 04/11/2011

- Alkalinity (Total)
- Calcium (Dissolved)
- Chloride (Dissolved)**
- Iron (Dissolved)
- Magnesium (Dissolved)
- pH (Total)
- Potassium (Dissolved)
- Residues- Filterable (TDS) (Dissolved)
- Residues- Filterable (TDS) (Total)
- Silica- Dissolved (Dissolved)
- Sodium (Dissolved)
- Specific Conductance (Total)

Graph Table



● Chloride (Dissolved) [mg/l] / Chloride (Dissolved)_EPA_300.0_Chloride

ROMP 102.5 U Fldn Aq Monitor

Station Number: 738457

Latitude: 28.65031

WCP#: 806610

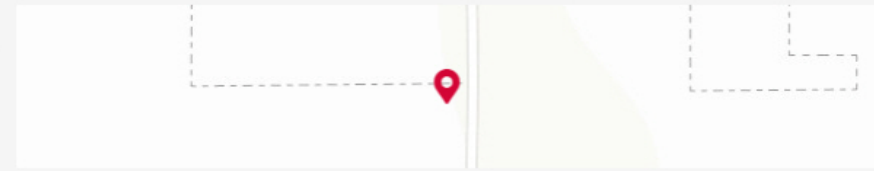
Resource Type: Groundwater

Longitude: -82.10869

WUP#: 0

Station Type: Well

USGS ID: 283901082063102



Hydrology

Water Quality

Chloride (Dissolved)

Multiple Parameters

Alkalinity (Total)

Calcium (Dissolved)

Chloride (Dissolved)

Iron (Dissolved)

Magnesium (Dissolved)

pH (Total)

Potassium (Dissolved)

Residues- Filterable (TDS)
(Dissolved)

Residues- Filterable (TDS)
(Total)

Silica- Dissolved (Dissolved)

Sodium (Dissolved)

Specific Conductance (Total)

3 d

10 d

1 m

3 m

1 y

∞

04/10/2011



04/11/2011



Graph

Table

Export

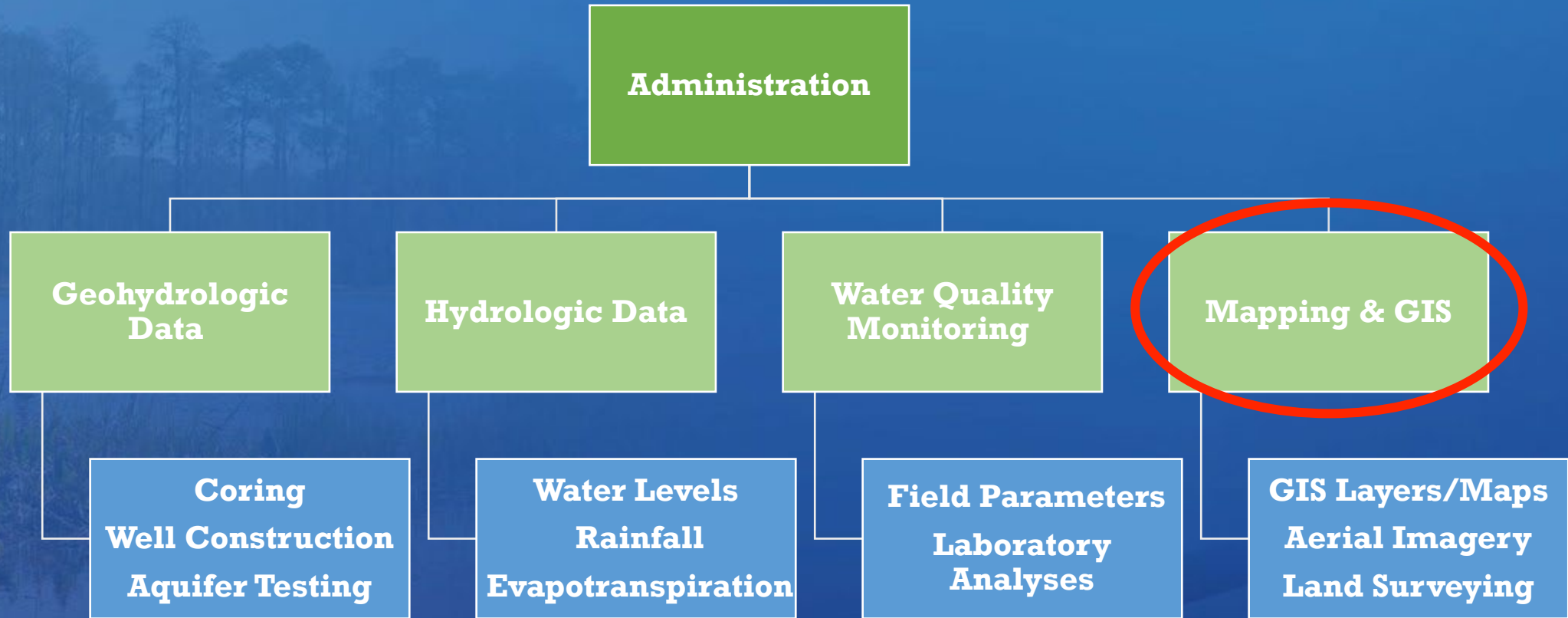
Timestamp	Chloride (Dissolved) [mg/l]	Station Name	Station Number	Project Number	Parameter Type Longname	Unit Symbol	Sample ID	Sample Depth	...
04/11/2011 11:25 AM	8.2	ROMP 102.5 U Fldn Aq Monitor	738457	C005	Chloride (Dissolved)	mg/l	200525594		▲

Laboratory Data

- Laboratory Parameters
 - Nutrients
 - Trace metals
 - Major ions
 - Physical Properties
 - Chlorophyll
- Field Parameters
 - pH
 - Specific conductance
 - Temperature
 - Dissolved oxygen
 - Turbidity



Data Collection Bureau Overview





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Interactive Map Gallery

The District's new map gallery contains dynamic, interactive maps created by District staff. This gallery contains general purpose and District-specific maps. [VIEW MAP GALLERY »](#)

Aerial Photography

The District provides an extensive collection of digital aerial photos (DOQQ: Digital Orthophoto Quarter Quadrangle) available through the Florida Images Inventory. [VIEW IMAGERY »](#)

District Maps and District Service Office Locations

Our service office addresses and District maps pertaining to watersheds, planning regions and water restrictions, plus links to Google location maps. [VIEW MAPS »](#)

GIS Data

The GIS Open Data portal allows consumers to interact with data through charts, tables, and maps. The information can be of value to many governmental agencies, private businesses and the public. Use of these data require a general understanding of GIS. The data can be downloaded into spreadsheet format, KML, or shapefile. The Open Data site works best with either Firefox or Chrome and is available from 6 a.m. to 10 p.m. [GO TO OPEN DATA PORTAL »](#)

Survey Benchmarks

Data & Maps Sections

- [Demographics »](#)
- [Geohydrologic »](#)
- [GIS, Maps & Survey](#)
- [Hydrologic »](#)
- [Water Quality »](#)





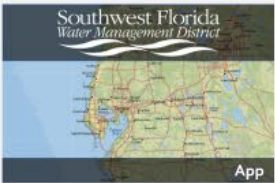
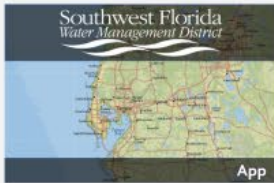

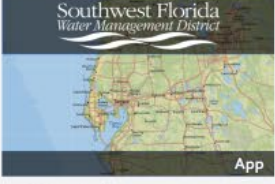
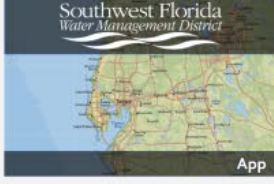
Contact Us

If you have questions about District data or maps, email Data.Maps@WaterMatters.org.

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Interactive Map Gallery

Hover over one of the interactive maps below for a detailed description, instructions and access to the application.

 <p>Map Viewer</p> <p>Geohydrologic Data Map Vie...</p>	 <p>App</p> <p>Permits - ERP Mapping Applic...</p>	 <p>App</p> <p>Permits - WUP Mapping Appli...</p>
 <p>App</p> <p>Permits - WCP Mapping Appli...</p>	 <p>App</p> <p>Water Quality Collection Sites</p>	 <p>App</p> <p>Last-Recorded Value for Hydr...</p>
 <p>App</p> <p>Near-Real-Time Hydrologic D...</p>	 <p>App</p> <p>Which District Am I In?</p>	 <p>App</p> <p>General Mapping Application</p>

Data & Maps

- Demographics »
- Geohydrologic »
- GIS, Maps & Survey »
- Hydrologic »
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Summary of Available Data Types

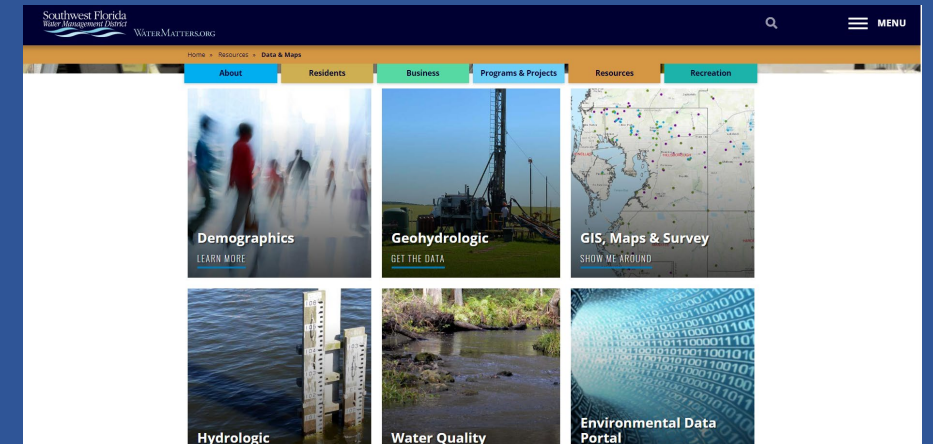
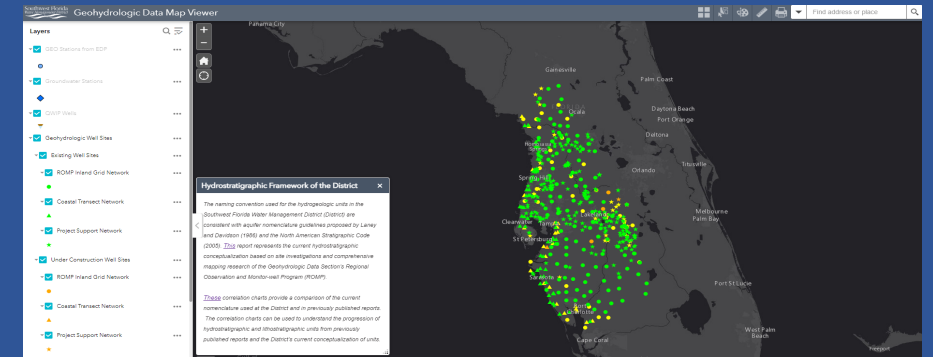
- Geohydrologic Data Map Viewer
 - Hydrogeologic

Watermatters.org/data & maps

- Environmental Data Portal
 - Hydrologic
 - Water quality



- Maps & Survey Elevations
 - Data & Maps webpage



Inquiries

- Email: Data.Maps@WaterMatters.org

Questions

