

# *Generalized Water Information System (GWIS) Database Utilities User's Manual*

Division of Environmental Assessment and Restoration  
Florida Department of Environmental Protection  
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## Table of Contents

<b>Introduction .....</b>	<b>3</b>
<b>Accessing the Database Utilities Application .....</b>	<b>3</b>
<b>Reconning Sampling Sites .....</b>	<b>4</b>
Making Layers Visible .....	10
Additional Functionality .....	11
<b>Entering Recon Information .....</b>	<b>12</b>
A. Surface Water.....	12
<i>Case 1: Site is Not Sampleable .....</i>	<i>12</i>
<i>Case 2: Site is Sampleable .....</i>	<i>15</i>
B. Groundwater.....	16
<b>Viewing Sampling Sites in a Reporting Unit.....</b>	<b>16</b>
<b>Updating Existing Station Information .....</b>	<b>20</b>
Batch Updates to Existing Station Data.....	23
<b>Adding a New Station.....</b>	<b>23</b>
Minimum Data Requirements for Stations .....	24
<b>Contacts.....</b>	<b>26</b>
<b>Station Information .....</b>	<b>27</b>

## Introduction

The Florida Department of Environmental Protection's (DEP's) Watershed Monitoring Section (WMS) oversees two statewide water monitoring networks, the Status Network and the Trend Network. In each network, field parameters such as temperature and pH are collected regularly, along with water samples which are analyzed in the laboratory. In the Trend Monitoring Network, the samples are taken from fixed surface and groundwater sites, which allows for an assessment of long-term changes in specific waterbodies and wells. In the Status Monitoring Network, the sampling locations are chosen randomly to provide a statistically valid estimate of statewide water conditions.

Status and Trend site data (including locations, water resource types, and owners' contact information) are stored in an Oracle database called GWIS (Generalized Water Information System). An Internet application, GWIS Database Utilities, allows online access to the database. This manual guides users through the Database Utilities application and explains how to use it for site reconnaissance (recon), entering recon tracking data, and updating station information.

## Accessing the Database Utilities Application

Open Google Chrome and navigate to <https://prodapps.dep.state.fl.us/gwis/>. This application can also be used in Mozilla Firefox and Microsoft Edge, but screenshots and instructions in this document are for Chrome. **DEP employees will log in using the same username and password as their network account (Figure 1)**. If the user needs access to make and save edits to information, contact one of the WMS employees with application oversight access (currently Tommy Adams and Jay Silvanima). Clients outside DEP (i.e. contractors) should also contact one of the WMS employees with application oversight access to obtain login credentials. User roles are managed in the DEP Security Suite application (DepSec) as described in the document titled Managing Users and User Access for GWIS Applications July 2022 and is available at [\\floridadep\data\dear\WQAP\Sol\\_Z\datamgmt\Manuals\\_Instructions\Managing Users and User Access for GWIS applications-July2022.docx](\\floridadep\data\dear\WQAP\Sol_Z\datamgmt\Manuals_Instructions\Managing Users and User Access for GWIS applications-July2022.docx). **Any problems or issues with existing data should be reported to the WMS Data Coordinator or the Data Manager.**

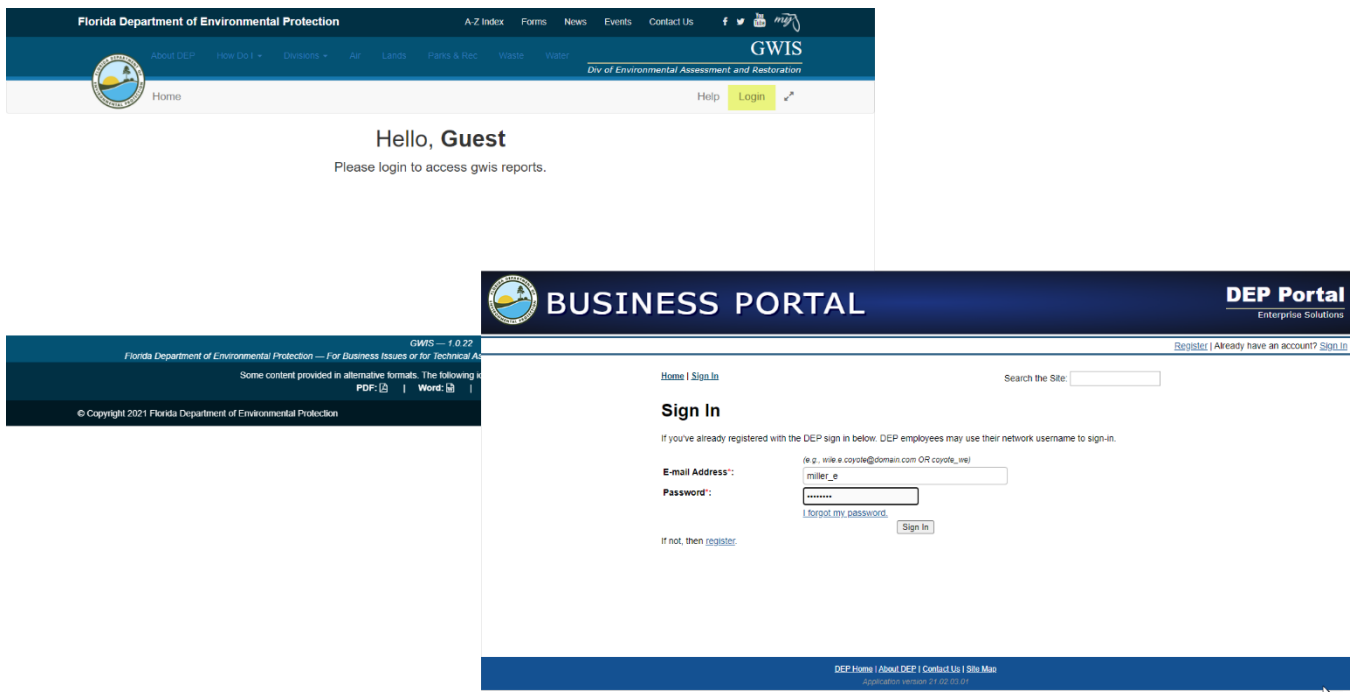


Figure 1. Database Utilities login screen

After login is complete, an introductory screen will appear (Figure 2).

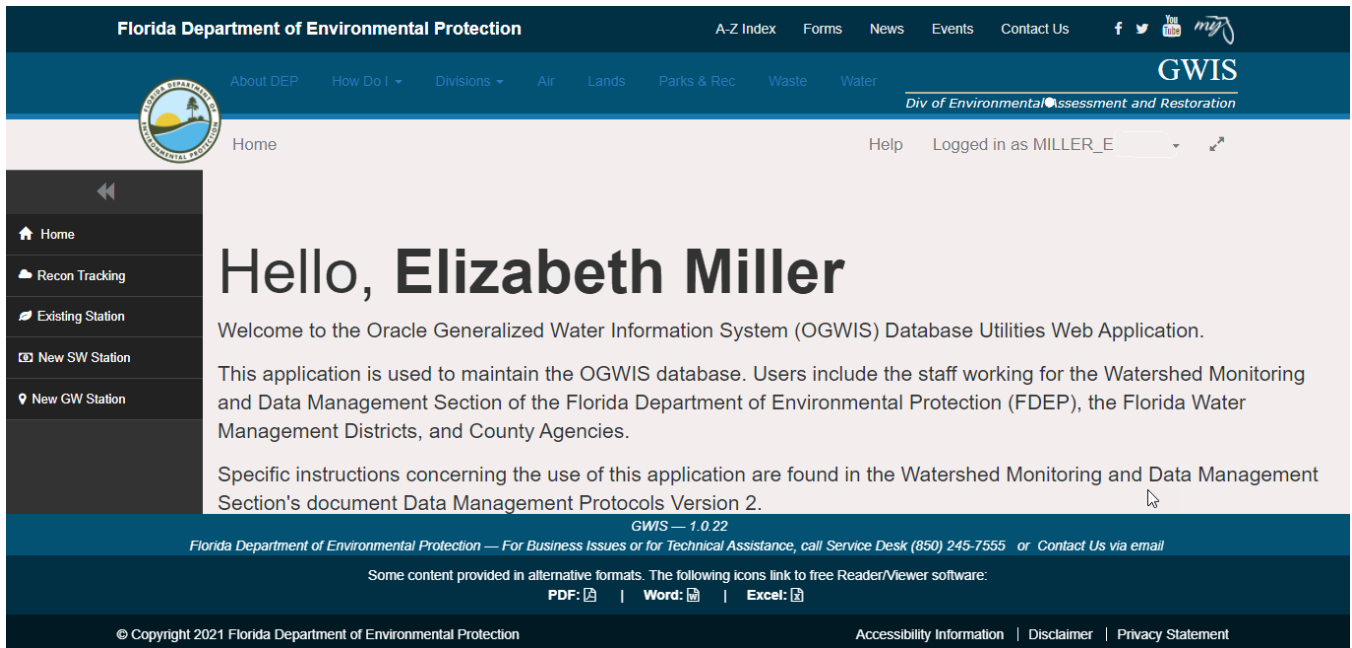


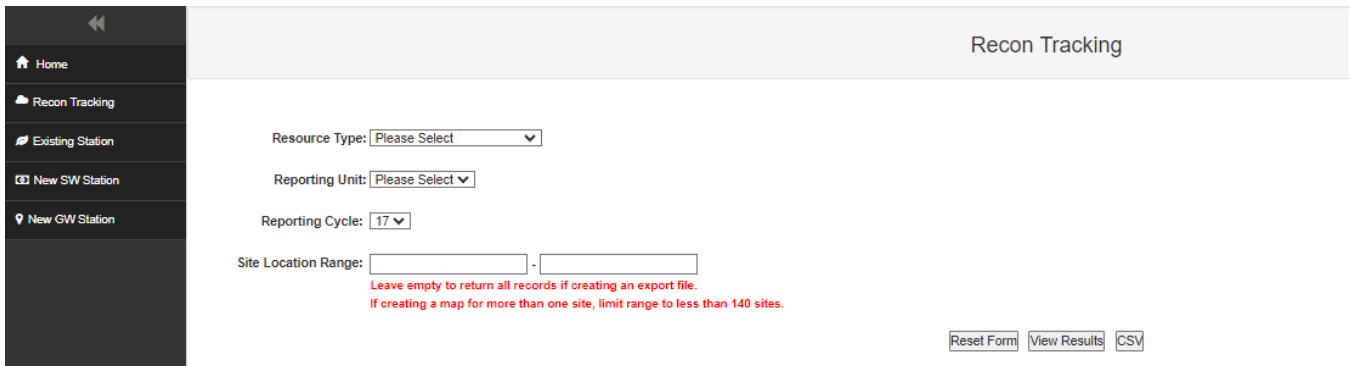
Figure 2. Welcome page for the Database Utilities application

## Reconning Sampling Sites

Because the Status Network sampling sites are chosen randomly, it is necessary to conduct reconnaissance (“recon” or “reconning”) before collecting samples to ensure that the site is appropriate

for sampling. **Recon Tracking** is a feature that allows the user to determine the locations of Status sites, to view aerial imagery and topographic maps, and to enter information on whether the site can be sampled. Please see the Status Network Recon Manual at [http://publicfiles.dep.state.fl.us/dear/DEARweb/WMS/Reports\\_Docs\\_SOPs/Standard%20Operating%20Procedures/Status%20Network%20Recon%20Manual/WMS-ReconManual.pdf](http://publicfiles.dep.state.fl.us/dear/DEARweb/WMS/Reports_Docs_SOPs/Standard%20Operating%20Procedures/Status%20Network%20Recon%20Manual/WMS-ReconManual.pdf) for more guidance on conducting recon.

Begin by clicking **Recon Tracking** in the menu on left side of the screen. This will bring up a page with several drop-down lists (**Figure 3**).



**Figure 3. Recon Tracking drop-down menu page**

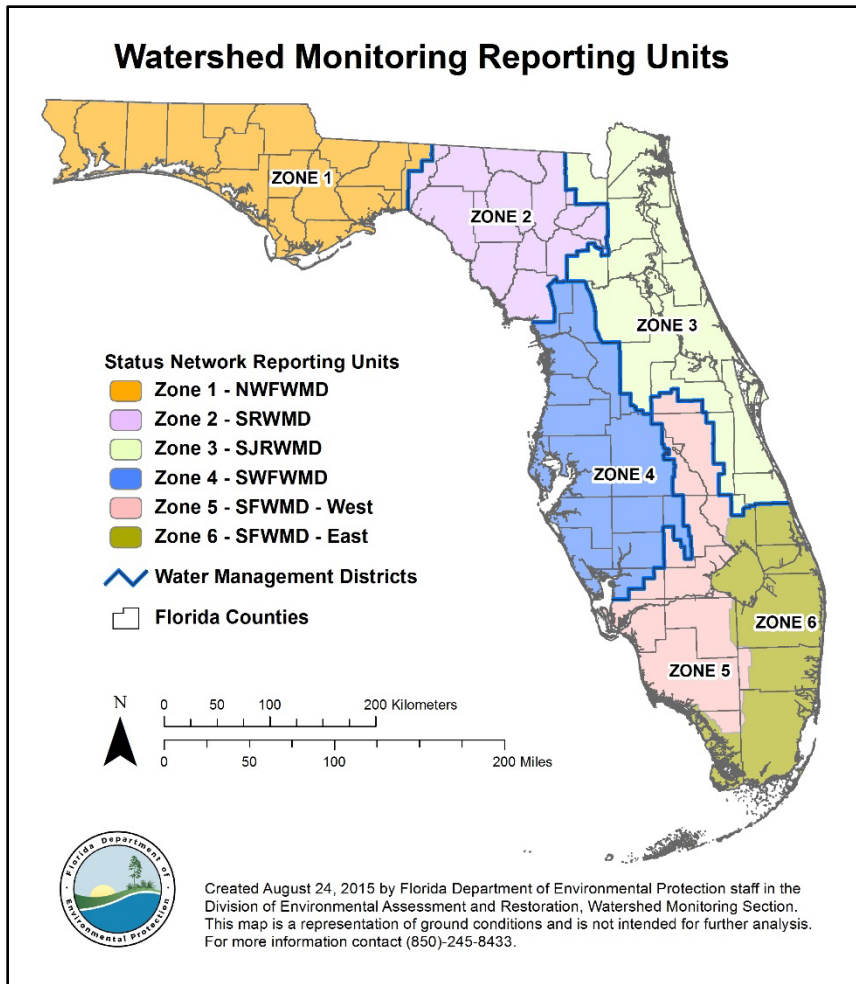
Select the Resource Type, Reporting Unit, Reporting Cycle, and (optional) Site Location Range of interest. These parameters are described below.

**Resource Types** that are currently sampled are:

- Unconfined Aquifer
- Confined Aquifer
- Large Lake
- Small Lake
- Large River
- Small Stream
- Canal

**Reporting Units** are geographical regions of the state (see **Figure 4**). The valid choices are currently:

- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Zone 6



**Figure 4. WMS Reporting Units (zones).** The zones are equivalent to the state's five Water Management Districts (WMDs), with South Florida WMD divided into eastern and western zones. NWF = Northwest Florida; SR = Suwannee River; SJR = St. Johns River; SWF = Southwest Florida; and SF = South Florida.

**Reporting Cycle** refers to the year(s) in which the samples were collected:

- Cycle 3: 2009
- Cycle 4: 2010
- Cycle 5: 2011
- Cycle 6: 2012
- Cycle 7: 2013
- Cycle 8: 2014
- Cycle 9: 2015
- Cycle 10: 2016
- Cycle 11: 2017 (and so on)

**NOTE:** The WMS adopted an annual Reporting Cycle in 2009. From 2000-2008, the Reporting Cycles lasted 4-5 years each. Cycle 1: 2000-2003 and Cycle 2: 2004-2008 are not accessible in GWIS Recon Tracking.

**Site Location Range** is an optional input that one may enter if interested in a specific site number. If left blank, all Status sites that match the chosen criteria will be listed (150 for surface water and 200 for groundwater). Note the instructions in red. If preparing a recon spreadsheet, leave the Site Location Range empty. If creating maps, limit the number of sites to 140 or less. Map Direct cannot map all sites at one time.

Click **View Results** to accept choices and begin reconnaissance. To clear choices and start again, click **Reset Form**. There is also the option to export the site information directly to a file. Choose **CSV** to automatically generate a file. The file will be saved in the designated folder for Downloads on your computer. Clicking on the file will open it, and it can be saved in the desired location.

After clicking **View Results** the list of Status sites corresponding to the chosen inputs will appear with the sample location, latitude and longitude (**Figure 5**). The “Sampleable” column will be populated with “N/A”. This column is updated after the site is reconned. In the example shown below, Resource Type = UNCONFINED AQUIFER, Reporting Unit = Zone 1, and Reporting Cycle = 17 were chosen, and the Site Location Range was left empty. This screen also contains a **CSV** option to save the list of sites to a file in the same manner as the previous screen.

Florida Department of Environmental Protection

A-Z Index Forms News Events Contact Us

About DEP How Do I Divisions Air Lands Parks & Rec Waste Water

GWIS  
Div of Environmental Assessment and Restoration

Home Help Logged in as ADAMS\_TL

Recon Tracking Results

Selection Criteria:  
Resource Type = UNCONFINED AQUIFER; Reporting Unit = Zone 1; Reporting Cycle = 17;

Show Map CSV

RANDOM SAMPLE LOCATION	LATITUDE	LONGITUDE	SAMPLEABLE	STATION ID
Z1-UA-17001	30° 32' 59.7"	87° 1' 27.9"	N/A	
Z1-UA-17002	30° 41' 6.725"	87° 21' 30.63"	N/A	
Z1-UA-17003	30° 22' 13.894"	86° 6' 39.402"	N/A	
Z1-UA-17004	30° 57' 30.1"	85° 6' 31.64"	N/A	
Z1-UA-17005	30° 37' 31"	87° 9' 50"	N/A	
Z1-UA-17006	30° 43' 59.666"	86° 52' 35.756"	N/A	
Z1-UA-17007	30° 11' 46.633"	85° 36' 18.309"	N/A	
Z1-UA-17008	30° 51' .95"	85° 36' 9.34"	N/A	

**Figure 5. Example list of Status sites to recon**

Now, click on the **Random Sample Location** to be reconned (e.g., Z1-UA-17001). A screen with extra information about the site will pop up (**Figure 6**).

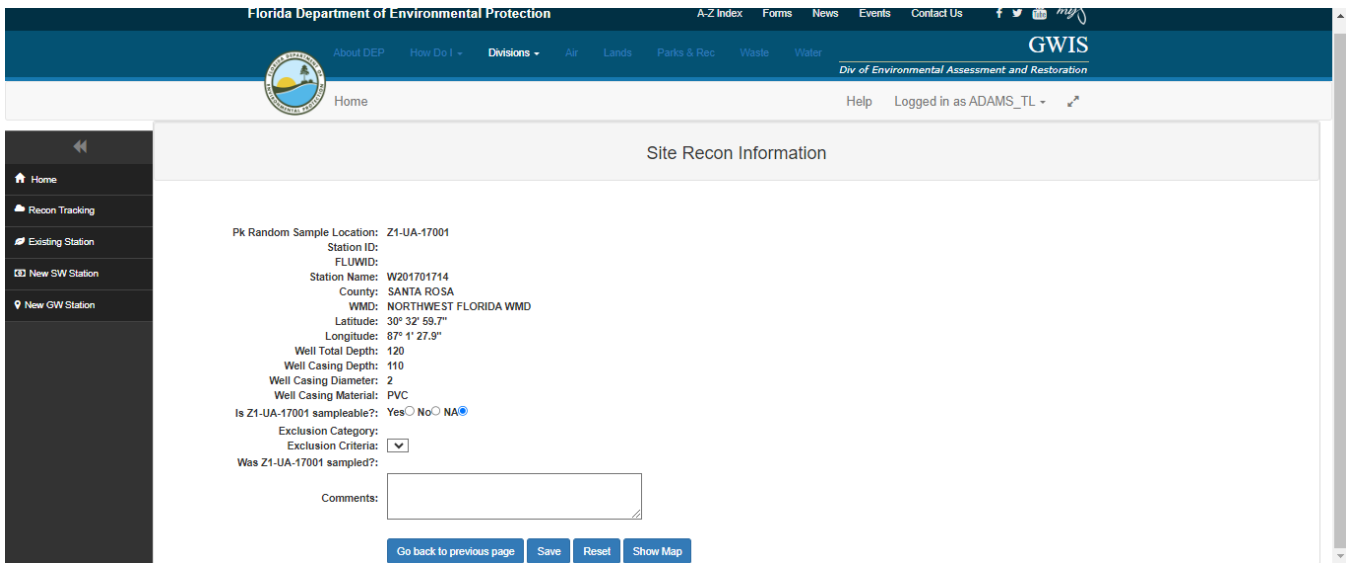


Figure 6. Example recon tracking page for a specific site (Z1-UA-17001)

To recon using a map of the site, click **Show Map**. This feature opens the Map Direct Consolidated Application, which has many viewing options. For more information on using Map Direct, refer to [https://publicfiles.dep.state.fl.us/dear/watershed%20monitoring/info\\_center\\_appdata/sampling\\_training\\_workshop/mapdirect-handout-Aug2021.pdf](https://publicfiles.dep.state.fl.us/dear/watershed%20monitoring/info_center_appdata/sampling_training_workshop/mapdirect-handout-Aug2021.pdf). The Map Direct Application defaults to displaying a basic topographic map as the background (base map). The user can change the base map using the controls at the bottom left of the screen to view the site on top of an aerial photo or no background image. Users can also display a more detailed United States Topographic Map (USA Topo Map) as the base map, or as a map layer using the controls at the top left of the screen. Making the USA Topo Map layer visible is recommended as it provides a first check in determining whether the site is an established/natural reservoir, or if it is manmade. To access this layer, select More Data>Rest Endpoint>ESRI>USA\_Top\_Maps>USA Topo Maps. Waterbodies that are manmade should be excluded from sampling. Please refer to the Recon Manual ([http://publicfiles.dep.state.fl.us/dear/DEARweb/WMS/Reports\\_Docs\\_SOPs/Standard%20Operating%20Procedures/Status%20Network%20Recon%20Manual/WMS-ReconManual.pdf](http://publicfiles.dep.state.fl.us/dear/DEARweb/WMS/Reports_Docs_SOPs/Standard%20Operating%20Procedures/Status%20Network%20Recon%20Manual/WMS-ReconManual.pdf)) and Sampling Manual ([http://publicfiles.dep.state.fl.us/dear/DEARweb/WMS/Reports\\_Docs\\_SOPs/Standard%20Operating%20Procedures/Sampling%20Manuals/WMS-SamplingManual.pdf](http://publicfiles.dep.state.fl.us/dear/DEARweb/WMS/Reports_Docs_SOPs/Standard%20Operating%20Procedures/Sampling%20Manuals/WMS-SamplingManual.pdf)) for examples of exclusions. Figure 7 shows an example USA Topo Map image in Map Direct.



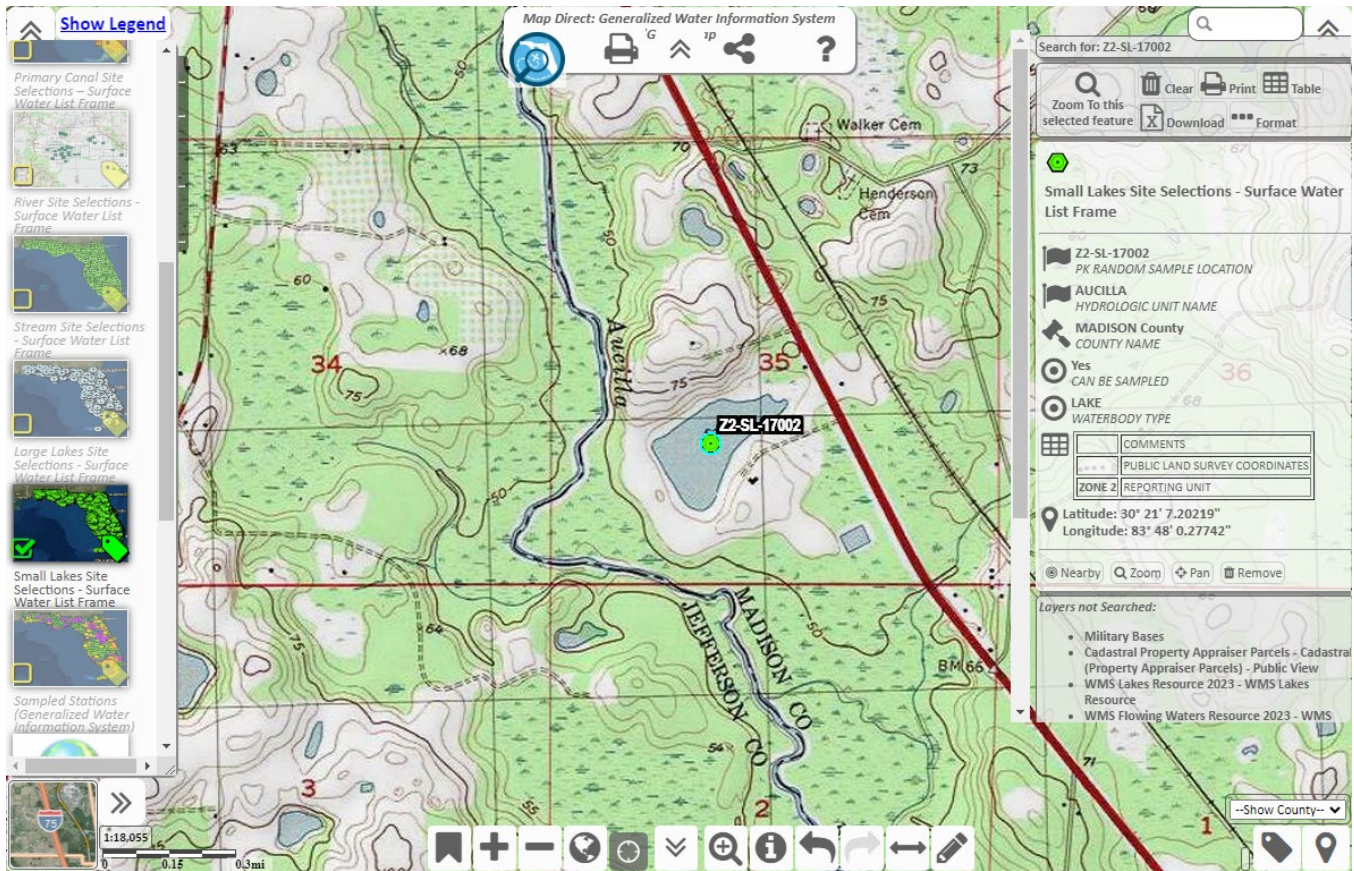


Figure 7. Map Direct USA Topo Map image for the site Z2-SL-17002

Take note of the tools on the left side of the screen. These tools allow users to click on and off Data Layers and labels, or search for additional data layers to display. The buttons on the bottom of the map allow users to zoom in/out to assist in determining the exact location, and measure the distance to other features, such as access roads or potential pollution sources like wastewater treatment plants. Useful tools at the top of the screen include **Help**, **Print to PDF**, and **Map Sharing / Saving**.

Navigation and the icons that appear on the bottom toolbar are explained below. The functions of these can also be accessed by clicking **Help** at the top of the page. The Help menu contains a Map Direct Tutorial and Quick Start guide.

Pan / Zoom using mouse and keyboard (enabled by default): Use the mouse to drag the image up/down or left/right. Zoom in / out by rolling the mouse wheel forward or backward. Zoom in by double clicking on a location or feature on the map, or by holding the shift key and drawing a box using the mouse and left mouse button.



Bookmark tool: Create bookmarks of map views. Return to previously created bookmarks.



Zoom In tool: Magnifies the image.



Zoom Out tool: Increases the map scale (opposite of Zoom In tool).



Zoom to Florida tool: Increases the map scale so that the entire state of Florida is visible.



Zoom to / Track Current Location tool: Displays the user's current location on the map (for use with GPS enabled devices).



Zoom In by Drawing a Box tool: Zooms to a box drawn using the mouse and left mouse button.



Identify tool: Identifies the layer or point.



Go Back tool: Returns to previous map view.



Go Forward tool: Returns to next map view (for use after Go Back tool).



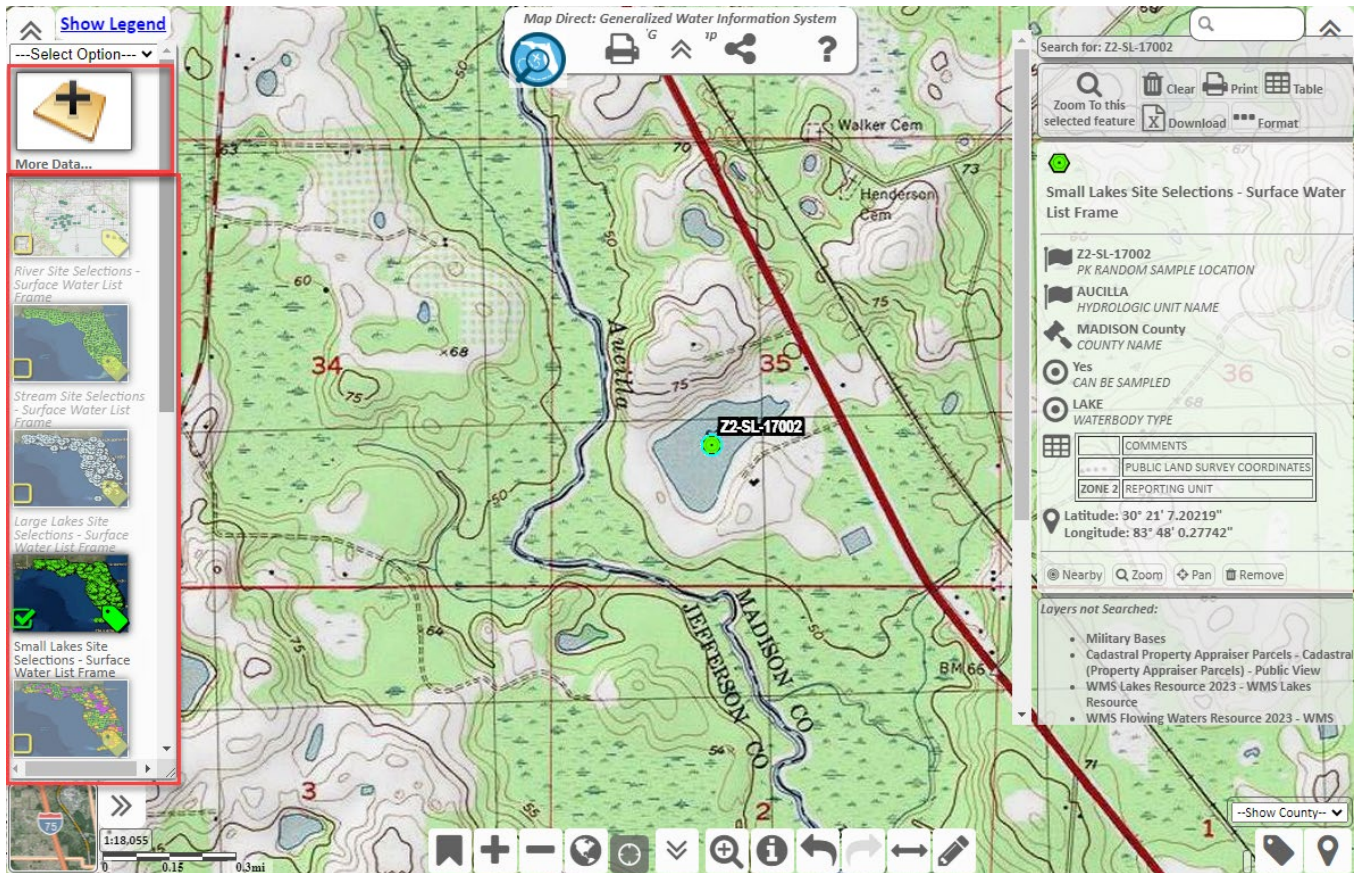
Measure tool: Measures distance and area of lines / polygons drawn by the user.



Draw Graphics tool: Allows user to draw shapes and text boxes on map.

## Making Layers Visible

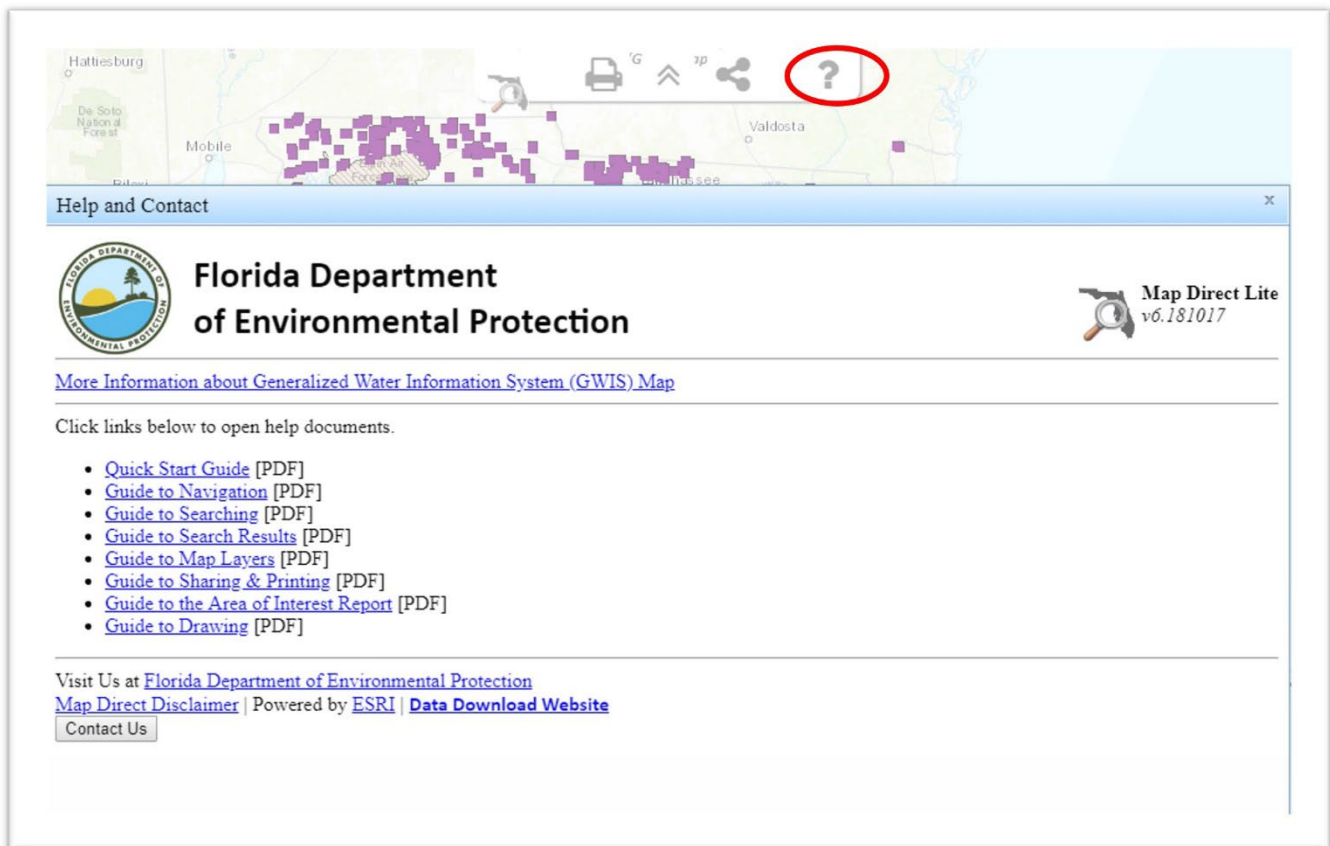
Users can control which layers are displayed by clicking the thumbnails in the **Data Layers** list (**Figure 8**). In addition, users may search for a data layer by clicking the **More Data** button. A commonly used layer is **Cadastral Property Appraiser Parcels**. Many of the WMS layers can be found by searching for "WMS".



**Figure 8. Map Direct Data Layers list and Add Data Layer button. The data layers list and data layer button are enclosed by a red rectangle on the left side of the screen.**

### Additional Functionality

To fully explore the functionality of Map Direct, click on the **Help** (question mark) icon near the top center of the page (**Figure 9**). The Help icon will open a window that contains Map Direct Tutorials and a Map Direct Quick Start Guide.



**Figure 9. Map Direct Help Icon and Help Topics. The help icon is a grey question mark at the top right of the screen and is circled in red.**

## Entering Recon Information

### A. Surface Water

After determining whether the site is sampleable, information can be updated in the Database Utilities application. Until a station is reconned, the “Is [the site] sampleable?” field is marked “N/A”.

#### *Case 1: Site is Not Sampleable*

If the site is not sampleable, click **No (Figure 10)** and the **Exclusion Category** drop-down list will appear. If a site is marked as unsampleable, a reason must be chosen from the **Exclusion Category** drop-down list. After choosing an Exclusion Category, the **Exclusion Criteria** drop-down list will appear. Select the appropriate Exclusion Criteria. The Exclusion Criteria available depend on the Exclusion Category chosen. Refer to **Table 1** for the valid combinations. Please see the WMS [Sampling Manual](#) for the most up-to-date exclusions list.

Site Recon Information

PK RANDOM SAMPLE LOCATION: Z1-LL-15001  
Station ID: NA  
Waterbody Name: NA  
County: JEFFERSON  
WMD: NORTHWEST FLORIDA WMD  
Random Latitude: 30° 37' 5.5738"  
Random Longitude: 83° 52' 48.6951"  
Is Z1-LL-15001 sampleable?: Yes  No  NA   
Exclusion Category: NO PERMISSION FROM OWNER  
Exclusion Criteria: UNABLE TO OBTAIN PERMISSION FROM OWNER  
Was Z1-LL-15001 sampled?:  
Comments:   
Go back to previous page Save Reset Show Map

**Figure 10. Example recon tracking page for an unsampleable surface water site. Site Z1-LL-15001 is displayed as an example.**

**Table 1. Surface Water Exclusion Criteria and Definitions. This is a two-column table with Exclusion Category in the first column and the associated Exclusion Criteria in the second column.**

EXCLUSION CATEGORY	EXCLUSION CRITERIA
DRY	SMALL LAKE OR LARGE LAKE < 1 METER AT DEEPEST POINT
DRY	DRY DURING INDEX PERIOD, INCLUDES SMALL LAKE WATER < 4 HECTARES LARGE LAKE WATER < 10 HECTARES
DRY	STREAM/RIVER/CANAL FLOW POOLED AND DISCONNECTED AT RANDOM LOCATION
DRY	RANDOM LOCATION LESS THAN 10 CM DEEP
NO PERMISSION FROM OWNER	ACCESS DENIED BY PROPERTY OWNER
NO PERMISSION FROM OWNER	UNABLE TO OBTAIN PERMISSION FROM OWNER
OTHERWISE UNSAMPLEABLE	FLOOD CONDITIONS (FLOW OUT OF BANKS) AT STREAM/RIVER/CANAL RANDOM LOCATION
OTHERWISE UNSAMPLEABLE	UNSAFE SAMPLING CONDITIONS
OTHERWISE UNSAMPLEABLE	OPEN WATER IN LAKE LESS THAN 0.1 HECTARE
OTHERWISE UNSAMPLEABLE	LESS THAN 0.5 SQUARE METERS FREE OF ATTACHED VEGETATION AT SAMPLING POINT
UNABLE TO ACCESS	NO OPEN WATER AVAILABLE AT LAKE SAMPLING POINT
UNABLE TO ACCESS	UNABLE TO REACH RANDOM LOCATION WITHIN THREE HOURS FROM ACCESS POINT
UNABLE TO ACCESS	UNABLE TO GET EQUIPMENT TO RANDOM LOCATION (SAMPLER CANNOT GET NECESSARY SAMPLING EQUIPMENT TO SITE)
WRONG RESOURCE/NOT PART OF TARGET POPULATION	ARTIFICIALLY CREATED LAKE OTHER THAN ESTABLISHED IMPOUNDMENTS
WRONG RESOURCE/NOT PART OF TARGET POPULATION	STORMWATER TREATMENT AREAS
WRONG RESOURCE/NOT PART OF TARGET POPULATION	WETLANDS
WRONG RESOURCE/NOT PART OF TARGET POPULATION	ROADSIDE BORROW PIT
WRONG RESOURCE/NOT PART OF TARGET POPULATION	CURRENT OR HISTORIC MINING OPERATION WITHOUT RESTORATION
WRONG RESOURCE/NOT PART OF TARGET POPULATION	STREAM/RIVER ARTIFICIALLY ALTERED WITH LOSS OF SINUOSITY AND BOX CUT BANKS (NOT A PRIMARY CANAL)
WRONG RESOURCE/NOT PART OF TARGET POPULATION	ARTIFICIAL LAKE, LAGOON, OR POND USED FOR AGRICULTURAL OR AQUACULTURE OPERATIONS
WRONG RESOURCE/NOT PART OF TARGET POPULATION	ESTABLISHED LAKE SIZE IS < 4 HECTARES, VIA BEST PROFESSIONAL JUDGEMENT, (NOT "DRY")
WRONG RESOURCE/NOT PART OF TARGET POPULATION	GIS COVERAGE INCORRECT, WATERBODY NOT PRESENT AT RANDOM LOCATION
WRONG RESOURCE/NOT PART OF TARGET POPULATION	WATERBODY WITHIN FDEP PERMITTED FACILITY BOUNDARY
WRONG RESOURCE/NOT PART OF TARGET POPULATION	RANDOM LOCATION LIES AT OUTFALL OF FDEP PERMITTED FACILITY (SITE LIES AT THE OUTFALL POINT OF EFFLUENT OR IN MIXING ZONE)
WRONG RESOURCE/NOT PART OF TARGET POPULATION	RANDOM LOCATION FALLS OUTSIDE REPORTING ZONE
WRONG RESOURCE/NOT PART OF TARGET POPULATION	ESTUARY
WRONG RESOURCE/NOT PART OF TARGET POPULATION	CHANGING RESOURCE TYPE (INCLUDING RESTORATION AREAS) (RESOURCE TYPE WILL DEFINITELY CHANGE PRIOR TO SCHEDULED SAMPLING. EXAMPLE: IMPOUNDMENT OF A FORMER RIVER TO FORM A LAKE.)
WRONG RESOURCE/NOT PART OF TARGET POPULATION	STREAM SEGMENT IS NOT CONNECTED TO WATERS OF THE STATE
WRONG RESOURCE/NOT PART OF TARGET POPULATION	DRAINAGE/IRRIGATION DITCH

After entering the Exclusion Category and Criterion, please add a short statement to the **Comments** field describing why the site was excluded. Include the word “field” or “office” to denote the type of recon completed, as well as the name of the person performing the recon and the date (**Figure 11**). Questions should be directed to the appropriate WMS contact.

## Site Recon Information

PK RANDOM SAMPLE LOCATION: Z2-SL-17022  
 Station ID: NA  
 Waterbody Name:  
 County: HAMILTON  
 WMD: SUWANNEE RIVER WMD  
 Random Latitude: 30° 32' 8.3913403"  
 Random Longitude: 83° 11' 10.5144997"  
 Is Z2-SL-17022 sampleable?: Yes  No  NA   
 Exclusion Category:   
 Exclusion Criteria:   
 Was Z2-SL-17022 sampled?:  
 Comments:

Go back to previous page
Save
Reset
Show Map

**Figure 11. Example of a completed Recon Tracking page for an unsampleable surface water station. Site Z1-LL-15021 is displayed as an example.**

Click **Save** to record the information or **Reset** to clear edits and begin again.

NOTE: If “No” was entered for the question, “Is [the site] sampleable?”, the recon information cannot be saved without entering the Exclusion Category and Criteria.

**Case 2: Site is Sampleable**

If the recon indicates that the site can be sampled, click **Yes**. After the site has been sampled, be sure to update the sampling date (it defaults to the current date) and add any pertinent comments at this time. Click **Save** to record edits (**Figure 12**).

Figure 12. Example of a completed Recon Tracking page for a sampleable surface water station. Site Z1-LL-15002 is displayed as an example.

## B. Groundwater

When Confined Aquifer or Unconfined Aquifer are selected as the Resource Type, a list of wells that were selected as candidates for sampling will appear. To recon a groundwater station, click **Show Map** at the bottom of the station screen, and review as you would for surface water. The [Recon Manual](#) provides more details and examples. Be sure to click **Save** to record edits.


## Viewing Sampling Sites in a Reporting Unit

Another feature of the Database Utilities Map Direct application is the ability to view current site selections along with previously sampled sites. If a waterbody/well was sampled in the past, this may provide evidence that it is sampleable during the current Cycle. To view the past and present sites, go back to the list of random sampling sites and click **Show Map (Figure 13)**. Remember that all 150 surface water or 200 groundwater sites cannot be mapped at one time. Limit the list of sites to 140 or less sites for mapping purposes.



Recon Tracking Results					
Selection Criteria: Resource Type = LARGE LAKE; Reporting Unit = Zone 1; Reporting Cycle = 15;					
<span>Show Map</span> <span>CSV</span>					
RANDOM SAMPLE LOCATION	LATITUDE	LONGITUDE	SAMPLEABLE	STATION ID	
Z1-LL-15001	30° 37' 5.5738"	83° 52' 48.6951"	NO		
Z1-LL-15002	30° 52' 2.34339"	86° 49' 36.4139"	YES	59280	
Z1-LL-15003	30° 47' 11.5521"	86° 11' 35.163"	YES	59281	
Z1-LL-15004	30° 19' 10.6375"	85° 34' 47.677"	YES	59282	
Z1-LL-15005	30° 38' 14.627"	84° 12' 9.94485"	YES	59283	
Z1-LL-15006	30° 30' 51.9836"	85° 32' 24.574"	YES	59284	
Z1-LL-15007	30° 43' 28.1467"	84° 52' 42.6568"	YES	59285	
Z1-LL-15008	30° 18' 13.8139"	85° 35' 20.3856"	YES	59286	
Z1-LL-15009	30° 32' 49.849"	84° 19' 25.571"	NO		
Z1-LL-15010	30° 33' 25.6952"	85° 47' 10.1978"	NO		

Figure 13. Example list of Status Zone 1 unconfined aquifer sites to recon with the 'Show Map (button indicated by red square).

A map appears showing the random sites listed above, along with the past sampling sites from *all* water resources. The current site selections will appear with their labels turned on by default. Different symbols are used for each resource. The symbols will be surrounded by hollow blue circles when selected (**Figure 14**). Upon zooming in, one can see the past sampling points for all resources in the Reporting Unit. If the past sampling points are not displayed, click the "Sampled Stations" layer button on the left side to make them visible. To view the legend for all visible layers, click the "Show Legend" button in the top left corner (**Figure 15**). The "Sampled Stations" layer includes sites that were sampled under the Status Network, Trend Network, and/or the now-discontinued Background / Very Intense Study Area (VISA) Networks. To display information about a site, click the Identify Point icon , and then click on the symbol for that site.

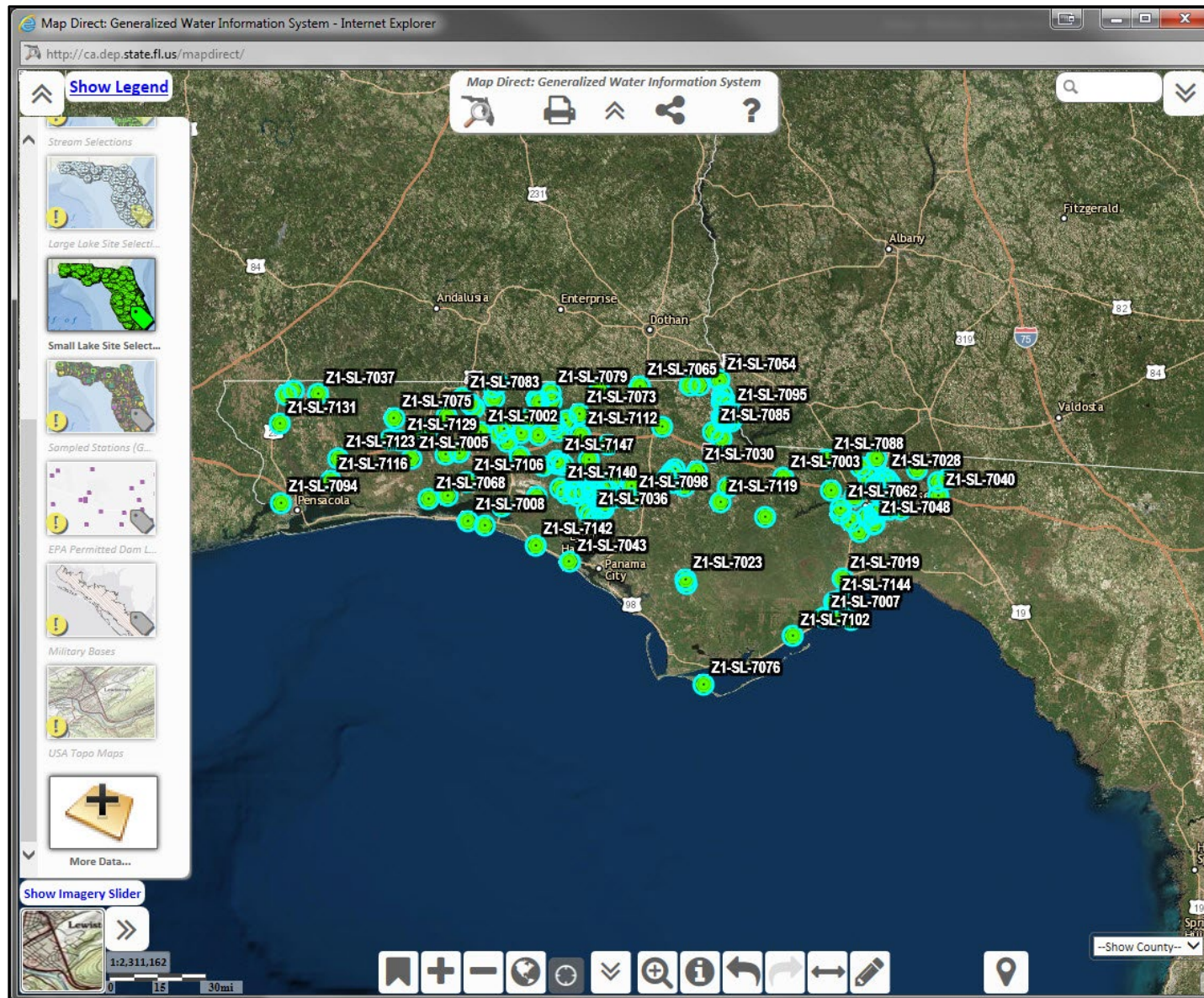


Figure 14. Results of clicking the Show Map (Random Sample Location) button. In this case the inputs were: Resource Type = Small Lake, Reporting Unit = Zone 1, and Reporting Cycle = 7.

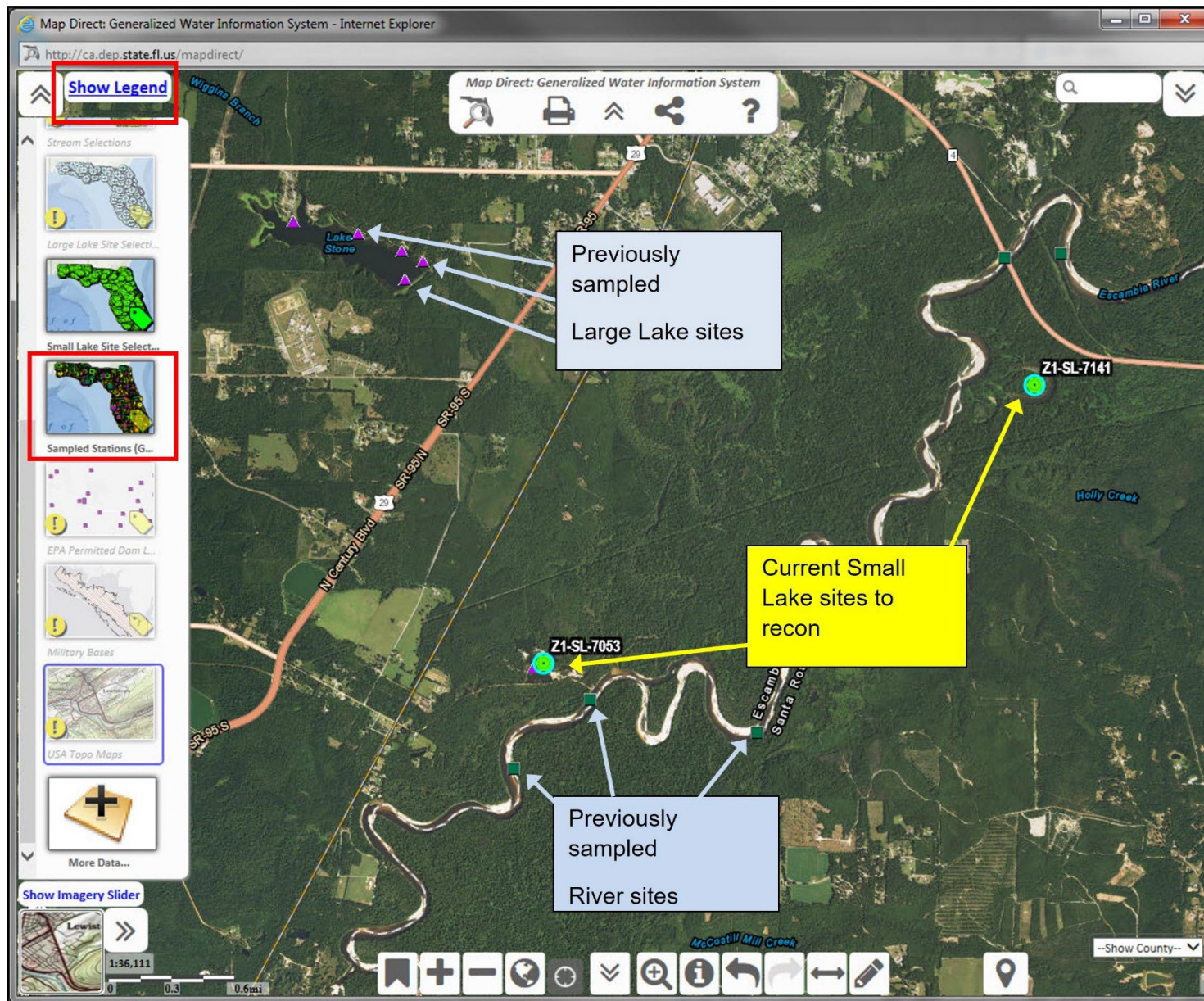


Figure 15. Zoom-in of the previous figure. Cycle 7 Small Lake selections are indicated with blue circles and site names (e.g., Z1-SL-7053). To display historical sites from all resources, click the "Sampled Stations" layer button on the left side. To view the legend for all visible layers, click the "Show Legend" button in the top left corner.

## Updating Existing Station Information

Periodically, some of the data for a station may change (e.g., ownership of a well or phone numbers may change). Updates to reflect these changes should be made in a timely manner<sup>1</sup> by either the WMS contact (See Contacts, page 26) or the contracted sampling agency. To update information in the Database Utilities, click on **Existing Station** (*Figure 16*).

The screenshot shows the OGWS Database Utilities Web Application interface. At the top, there is a navigation bar with links for 'A-Z Index', 'Forms', 'News', 'Events', and 'Contact Us'. Below this is a header for the 'Florida Department of Environmental Protection' and 'GWIS Div of Environmental Assessment and Restoration'. The main content area features a personalized greeting: 'Hello, Elizabeth Miller'. Below the greeting, there is a welcome message and instructions on how to use the application. A navigation menu on the left side of the page has 'Existing Station' highlighted with a red rectangle. The footer contains copyright information and links for 'Accessibility Information', 'Disclaimer', and 'Privacy Statement'.

**Figure 16.** Click **Existing Station** to view or modify station information. **Existing Station** link is indicated by a red rectangle.

There are several options for accessing site information (*Figure 17*):

1. If the **Station ID** (i.e. pk\_station from the Oracle table T\_STATION) is known, enter it into the **Station ID** field and click **View Results**. That station will be shown. If the **Station ID** is not known but the **Station Name** is known, enter it into the **Station Name** field and click **View Results**. A list of stations with similar names will be shown. Click on the appropriate station name.
2. If the entire **Station Name** is not known, enter known characters and leave the rest of the field blank. The application will search for all stations with the beginning characters identified.
3. As an alternative, select a Water Resource, County, FLUWID (Florida Unique Well Identification) number, etc., to search for the site. Click **View Results**, and a list will show up as seen in *Figure 18*.

<sup>1</sup> Ideally, this should be after the Lab and Field data are combined and made available for review, but before the data are released.

Note: The search function is case-sensitive. If the desired station is not found, try entering the search criteria again using all capital letters.

**Existing Station**

Station ID:

Station Name:

Status Random Site ID:

Water Resource:

Waterbody Name:

County:

Agency Maintaining Info:

Hydrologic Unit Name:

Florida Unique Well ID:

Figure 17. Existing Station screen showing search options

**Existing Station Results**

Selection Criteria:  
Waterbody Name = Alligator Lake;

STATION_ID	STATION_NAME	COUNTY_NAME	WATER_MANGEMENT_DISTRICT	DEP_DISTRICT	WATERBODY_TYPE	WATER_RESOURCE	WATERBODY_NAME	FLORIDA_UNIQUE_WELL_IDENTIFIER	RANDOM_SAMPLE_LOCATION
53821	Z2-LL-12009	COLUMBIA	SUWANNEE RIVER WMD	NORTHEAST DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z2-LL-12009
56161	Z2-LL-13013	COLUMBIA	SUWANNEE RIVER WMD	NORTHEAST DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z2-LL-13013
43556	Z2-LL-7005	COLUMBIA	SUWANNEE RIVER WMD	NORTHEAST DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z2-LL-7005
45159	Z2-LL-8003	COLUMBIA	SUWANNEE RIVER WMD	NORTHEAST DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z2-LL-8003
47087	Z2-LL-9011	COLUMBIA	SUWANNEE RIVER WMD	NORTHEAST DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z2-LL-9011
49499	Z5-LL-10001	OSCEOLA	SOUTH FLORIDA WMD	CENTRAL DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z5-LL-10001
53846	Z5-LL-12003	OSCEOLA	SOUTH FLORIDA WMD	CENTRAL DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z5-LL-12003
53846	Z5-LL-12005	OSCEOLA	SOUTH FLORIDA WMD	CENTRAL DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z5-LL-12005
56223	Z5-LL-13006	OSCEOLA	SOUTH FLORIDA WMD	CENTRAL DISTRICT	LAKE	LARGE LAKE	ALLIGATOR LAKE		Z5-LL-13006

Figure 18. All existing stations in waterbodies named ALLIGATOR LAKE

When the list appears, click on the appropriate station name. The station information will appear, as seen in **Figure 19**. Fields that are not in a box are not editable.

**Figure 19. Information page for an Existing Station. Station 53821 is displayed as an example. Note that STATION ID and STORET ID cannot be edited.**

To update information in this screen, simply type in the new information over the old or blank field and click **Save** at the bottom of the screen. All station information is displayed on one page. Use the scroll bar on the right side of the screen to scroll to additional information.

If an owner or contact requests monitoring information, click on the **Letter** drop down menu under the **Owner** heading (**Figure 20**). Select either Owner or Contact from the drop-down list. This action lets the WMS contact know (via the Automated Data Management [ADM] interface) that he or she needs to send monitoring information to that person or organization.

**Figure 20. Illustration of the Owner heading. LETTER: is the last item under this heading and is indicated by a red box. The LETTER drop-down menu is also indicated by a red box. Station 53821 is displayed as an example.**

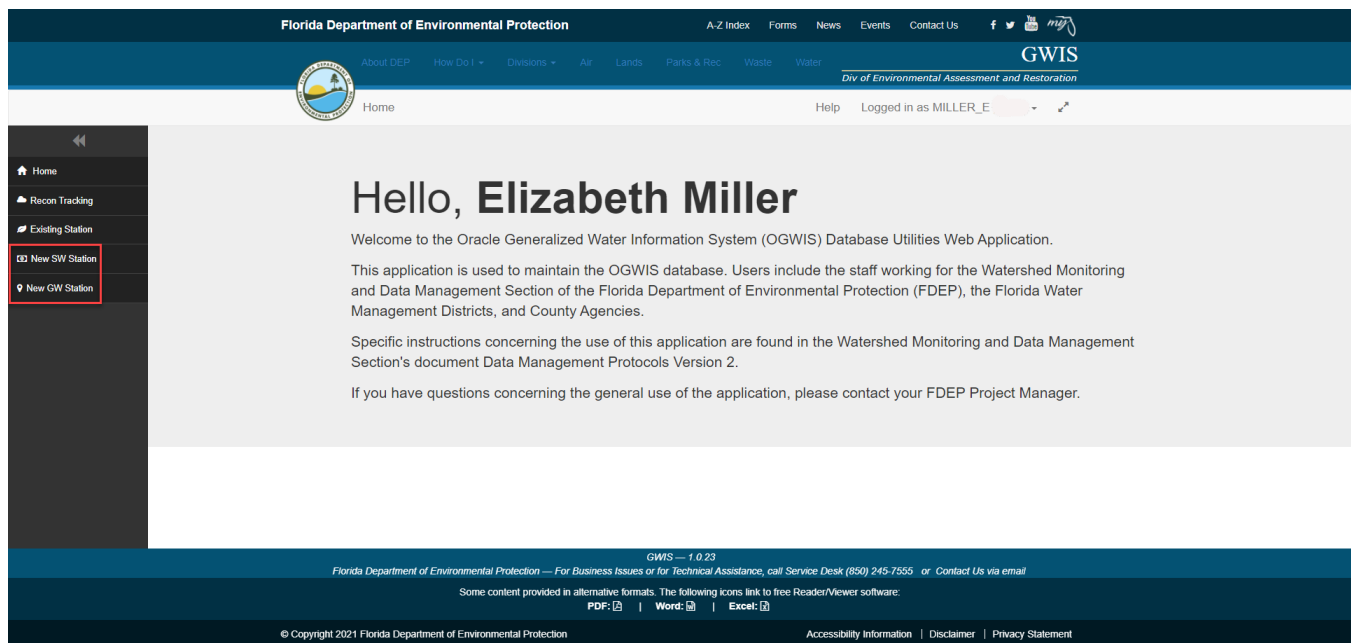
Changes to waterbody names should be routed through your WMS contact (See Contacts, page 26). Waterbody names are only assigned if they are officially added to the Geographic Naming Information System (GNIS). For a comprehensive list of the information contained in each tab, see page 27. Other Geographic and Hydrology information is not editable through this interface. If information such as LATITUDE, LONGITUDE, COUNTY, WATER RESOURCE, etc. need to be updated, contact the Project Manager or Data Coordinator.

## Batch Updates to Existing Station Data

Requests for large-scale updates to station data should be made to the Data Coordinator.

## Adding a New Station

Only WMS staff have the correct permissions to add new stations manually. If a station needs to be added, please check with the appropriate WMS contact. Station addition should be done only with the Data Coordinator permission. To add a new surface water (SW) or groundwater (GW) station, select **New SW Station** or **New GW Station (Figure 21)**.



**Figure 21. Click New SW Station or New GW Station to add a new station. Links are boxed in red on the left side of the image.**

In each case, a tabbed form (**Figure 22**) appears. Enter required data (see next section for list of required fields) and click **Save**.

Figure 22. Add a New SW Station Page. Required elements have a red star after.

## Minimum Data Requirements for Stations

There are certain minimum data requirements for all stations in order to save them to the database.

1. For a **groundwater station (well)**, the following minimum information is required (as defined in the current Stations Table Data Dictionary):

- STATION NAME
- WATERBODY NAME (aquifer)
- WATER RESOURCE (confined/unconfined)
- LATITUDE
- LONGITUDE
- LOCATION METHOD
- LOCATIONAL DATUM
- CASING DIAMETER (inches)
- CASING DEPTH (feet below Land Surface)
- TOTAL DEPTH (feet below Land Surface)

2. For **surface water stations**, the following information is required:

- STATION NAME
- WATERBODY TYPE (stream/canal/lake)
- WATERBODY NAME
- WATER RESOURCE (small stream/large river/canal/large lake/small lake)
- LATITUDE
- LONGITUDE



- LOCATION METHOD
- LOCATIONAL DATUM

In addition to the above-mentioned data elements, the WMS contact or contracted sampling agency should make every effort to provide as much information about the site as appropriate and possible.

## Contacts

This is a four-column table with the title and organization/agency of the contact in the first column, the contact name in the second column, the contact phone number in the third column and the contact email in the fourth column.

Title/Description	Name	Phone	Email
<b>Section Administrator</b> (Watershed Monitoring Section)	Jay Silvanima	(850) 245-8507	<a href="mailto:James.Silvanima@dep.state.fl.us">James.Silvanima@dep.state.fl.us</a>
<b>Data Coordinator</b> (Watershed Monitoring Section)	Thomas Adams	(850) 245-8512	<a href="mailto:Thomas.L.Adams@floridadep.gov">Thomas.L.Adams@floridadep.gov</a>
<b>Data Manager</b> (Watershed Monitoring Section)	Christopher Grover	(850) 245-8065	<a href="mailto:Christopher.Grover@floridadep.gov">Christopher.Grover@floridadep.gov</a>
<b>Zone 1</b> (Northwest Florida Water Management District, DEP Samplers) <b>Zone 3</b> (St. Johns River Water Management District and Alachua County samplers)	Tom Seal	(850) 245-8514	<a href="mailto:Thomas.Seal@dep.state.fl.us">Thomas.Seal@dep.state.fl.us</a>
<b>Zone 2 and Zone 3</b> (DEP samplers)	Meghan Maly	(850) 245-8232	<a href="mailto:Meghan.Maly@floridadep.gov">Meghan.Maly@floridadep.gov</a>
<b>Zone 4</b> (Southwest Florida Water Management District) <b>Zone 5</b> (South Florida Water Management District (West), <b>and</b> <b>Zone 6</b> (South Florida Water Management District (East))	Lana Neff	(850) 245-8321	<a href="mailto:Lana.Neff@floridadep.gov">Lana.Neff@floridadep.gov</a>

## Station Information

This is a list of the elements found in the existing or new station information display.

(\* = required information)

### Station Information Tabs:

1. Identifier

STATION ID  
STORET ID  
RANDOM SAMPLE LOCATION ID (for Status sites)  
FL UNIQUE WELL ID (for groundwater sites)  
STATION NAME\*  
STATION DESCRIPTION

2. Owner

OWNER NAME  
PROPERTY OWNER  
MAIL ADDRESS  
CITY  
STATE  
ZIP  
TELEPHONE  
SECONDARY TELEPHONE  
EMAIL  
CONTACT NAME  
CONTACT AGENCY  
CONTACT ADDRESS  
CONTACT CITY  
CONTACT STATE  
CONTACT ZIP  
CONTACT TELEPHONE  
CONTACT SECONDARY TELEPHONE  
CONTACT EMAIL  
LETTER (requests for monitoring information)

3. Lat/Long

LATITUDE (in degrees/minutes/seconds)\*  
LONGITUDE (in degrees/minutes/seconds)\*  
LOCATION METHOD\*  
LOCATIONAL DATUM\*

4. Geographic

COUNTY (determined based on lat/long)  
WATER MGMT DISTRICT  
DEP DISTRICT OFFICE  
TMDL BASIN  
REPORTING UNIT (for Status sites)

### For Groundwater Wells:

5. Hydro

WATER BODY NAME (name of aquifer)\*

WATER RESOURCE (confined/unconfined)\*  
HYDROLOGIC UNIT NAME (determined based on lat/long)\*  
SUBAQUIFER  
GRID CELL  
TOP OF AQUIFER (depth in feet)  
BOTTOM OF AQUIFER (depth in feet)  
GEOLOGIC LOG  
LITHOLOGIC LOG  
DRILLER LOG  
HYDROLOGIC DATA

6. Hydro II

DRILL DATE  
WELL STATUS (flowing, non-flowing, plugged, etc.)  
WELL TYPE  
CONSTRUCTION METHOD  
LIFT TYPE  
TOTAL DEPTH (in feet below land surface)\*  
CASING DEPTH (in feet)\*  
SCREEN BEGIN DEPTH (in feet)  
SCREEN END DEPTH (in feet)

7. Hydro III

FINISH  
SCREEN MATERIAL  
SCREEN DIAMETER (in inches)  
CASING MATERIAL\*  
CASING DIAMETER (in inches)\*  
LAND SURFACE ELEVATION (in feet)  
MEASURING PT ELEVATION (in feet)  
WATER LEVEL RECORDER  
LEAD WEIGHT

8. Project Info

SAMPLED TV (Trend Network)  
SAMPLED WQAS (Watershed Assessment Section)  
SAMPLED Background  
SAMPLED VISA  
SAMPLED HRSPWS (FL Dept. of Health & Rehabilitative Services Private Well Survey)  
SAMPLED STATUS  
DATA SOURCE  
AGENCY

9. Comments

*For Surface Water Sites:*

5. SW Hydrology

WATER BODY NAME\*  
OTHER WATERBODY NAME  
WATER BODY TYPE\*  
WATER RESOURCE\*  
SW CLASS  
HYDROLOGIC UNIT NAME

6. Project Info

SAMPLED TV (Trend Network)

SAMPLED STATUS

SAMPLED WQAS (Watershed Assessment Section.

DATA SOURCE

AGENCY

7. Comments