MAP DIRECT PRACTICE EXERCISE

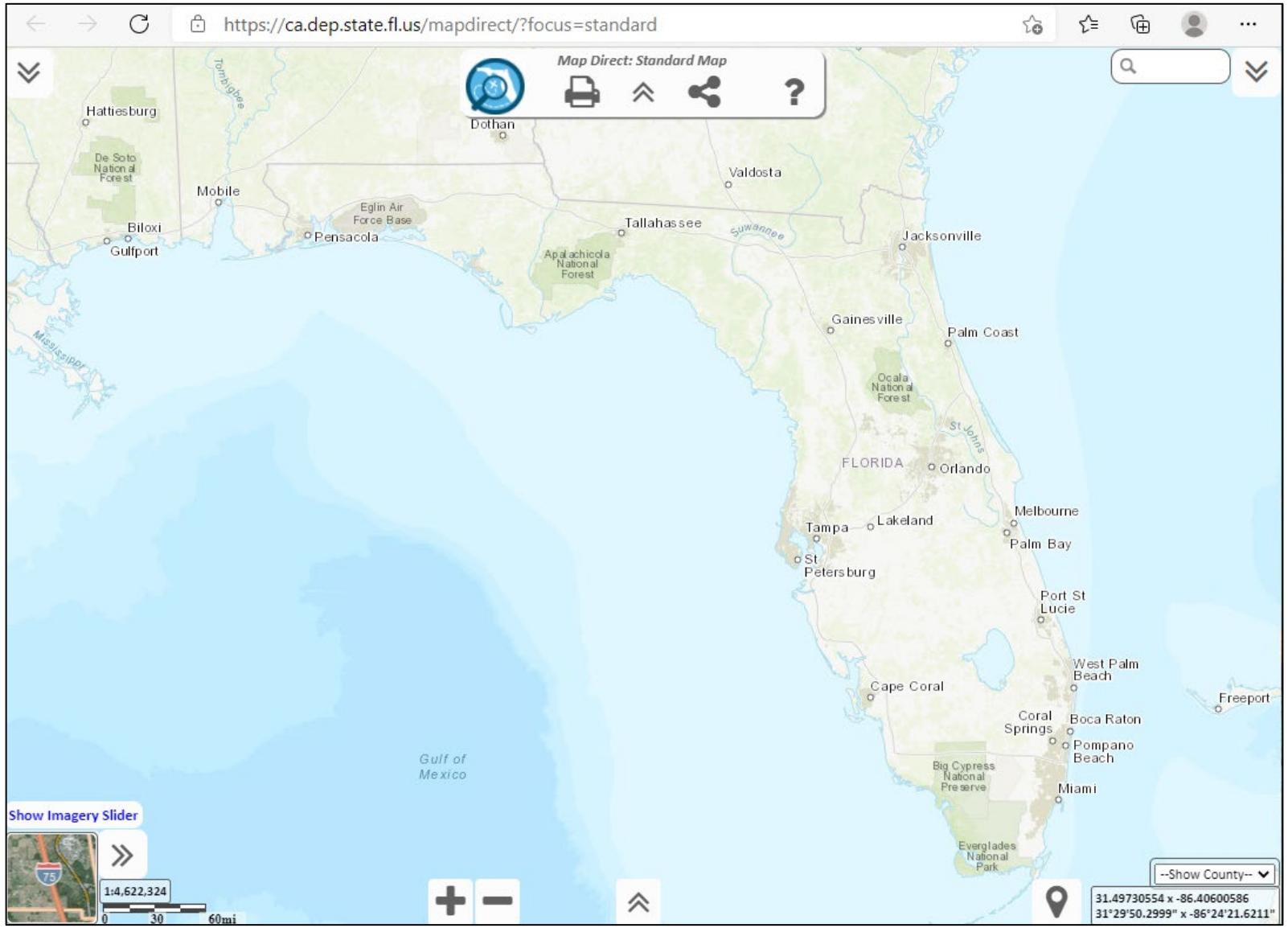
Stephanie Sunderman-Barnes
Division of Environmental Assessment and Restoration Florida
Department of Environmental Protection

Tallahassee, FL | August 27, 2026

PRESENTATION OVERVIEW

- What is Map Direct?
- Open Map Direct from Generalized Water Information System (GWIS) Database Utilities.
- Display Status Network Sites on a Map.
- Explore Map Direct Interface.
- Explore Commonly Used Recon Tools.
- Save and Load Maps in Map Direct.
- Other Resources to Assist Your Recon.

WHAT IS MAP DIRECT?



Map Direct is an in-house developed, web-based, graphical mapping tool designed to assist users with data visualization and analysis.

WHAT CAN MAP DIRECT DO?

- Quickly display layers (no special software needed).
- Filter lists of features.
- Create customizable maps, export and save maps.
- Add layers from other online sources to map.
- Perform “what’s nearby” searches of other layers.
- Perform searches within polygon layers or buffer searches around a selected feature.

(See links provided at end of presentation for additional Map Direct tutorials.)

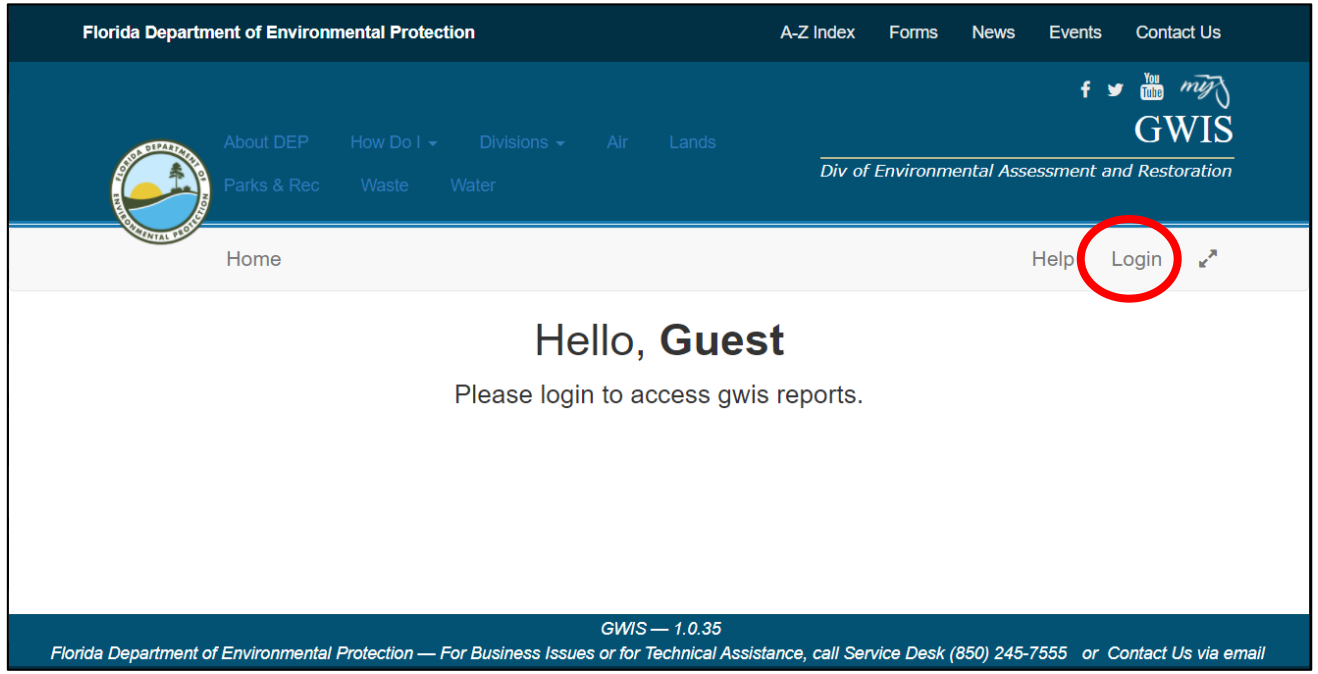
LIMITATIONS OF MAP DIRECT

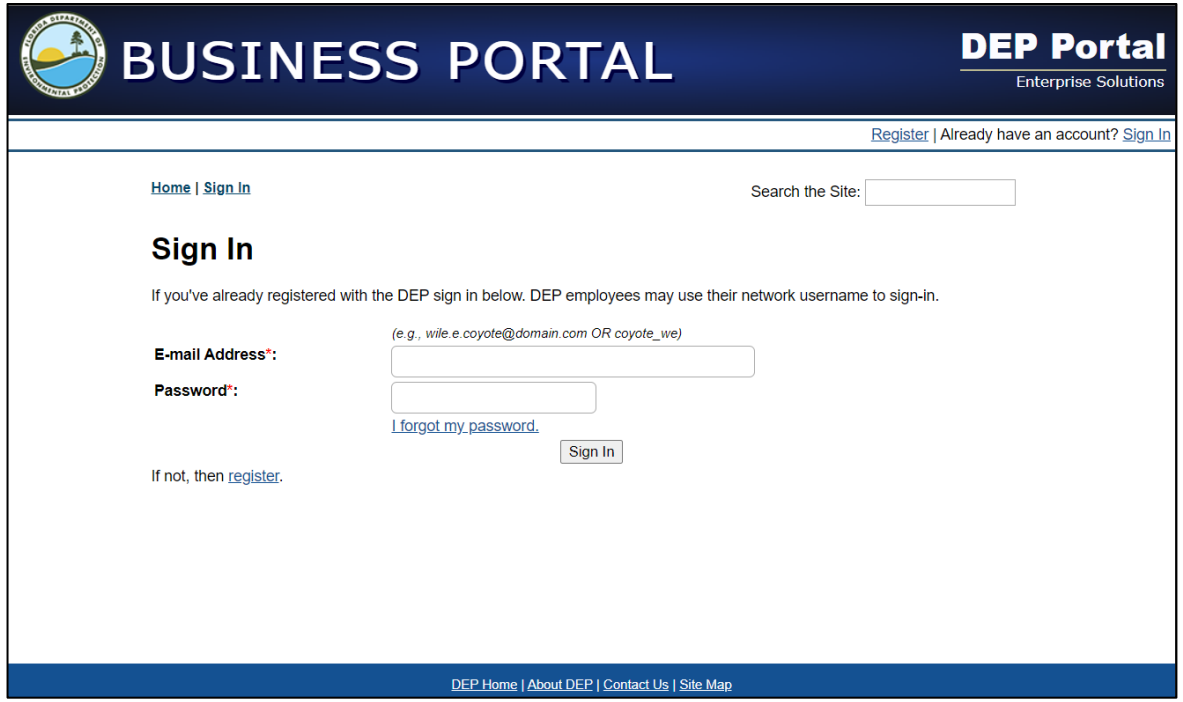
- Cannot perform advanced Geographic Information System (GIS) analyses.
- Cannot change symbology of layers.
- Cannot edit layers within the map.
- Limited support for adding offline data.
- Limited functionality on mobile devices.

PRACTICE EXERCISE:

ACCESS GWIS DATABASE UTILITIES

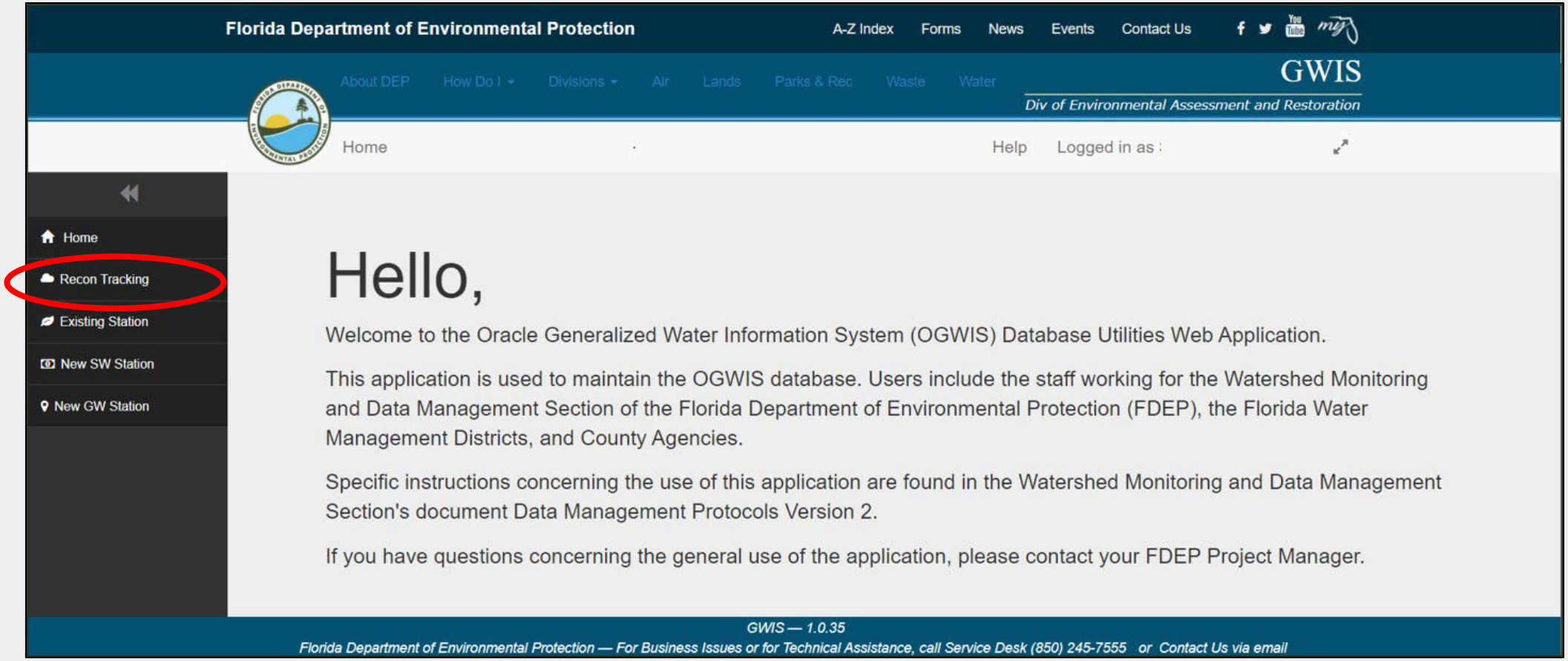
https://prodapps.dep.state.fl.us/gwis/





PRACTICE EXERCISE

Click on Recon Tracking.



PRACTICE EXERCISE

Enter Recon Tracking Search Criteria

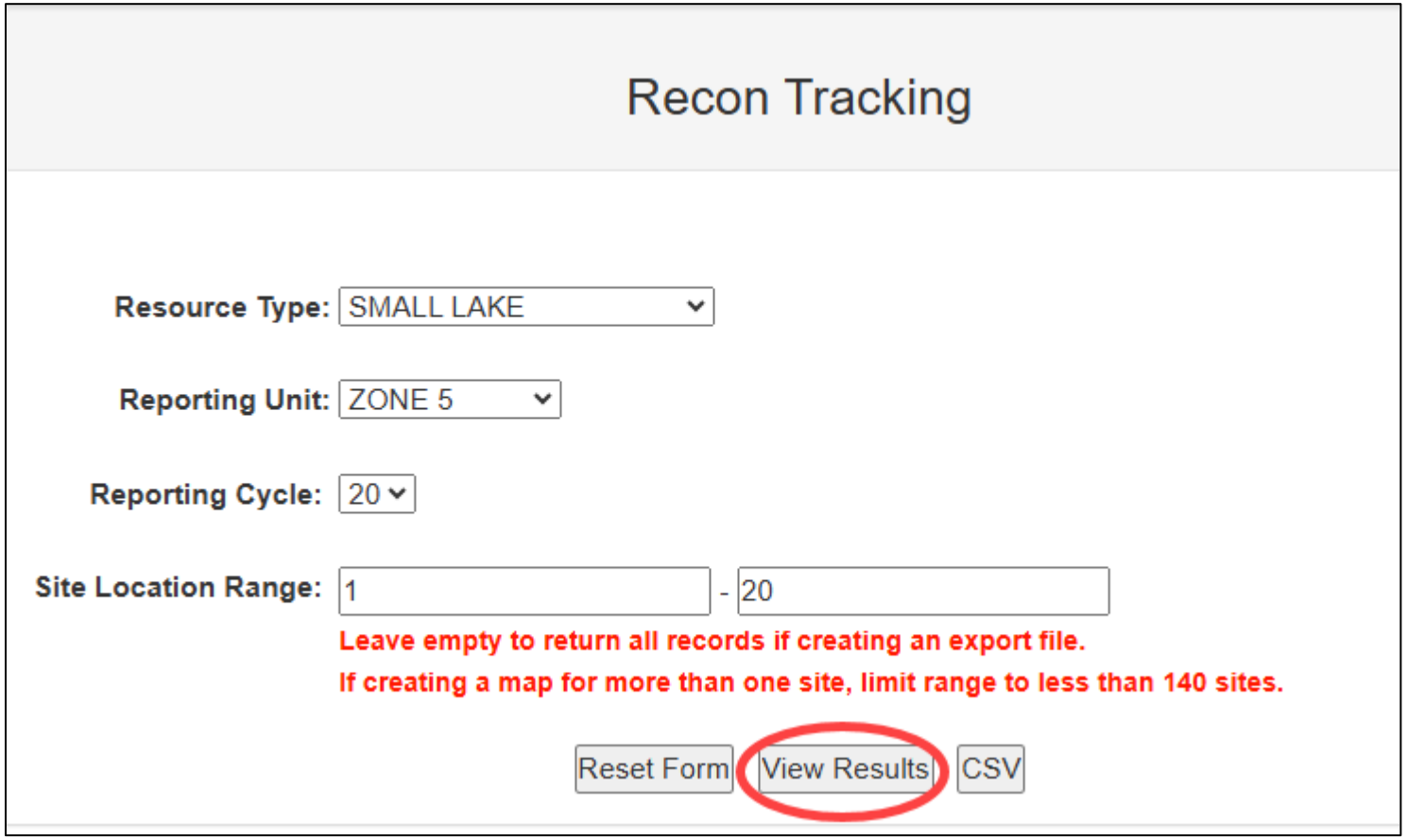
Resource Type = Small Lake

Reporting Unit = Zone 5

Reporting Cycle = 20 (2026)

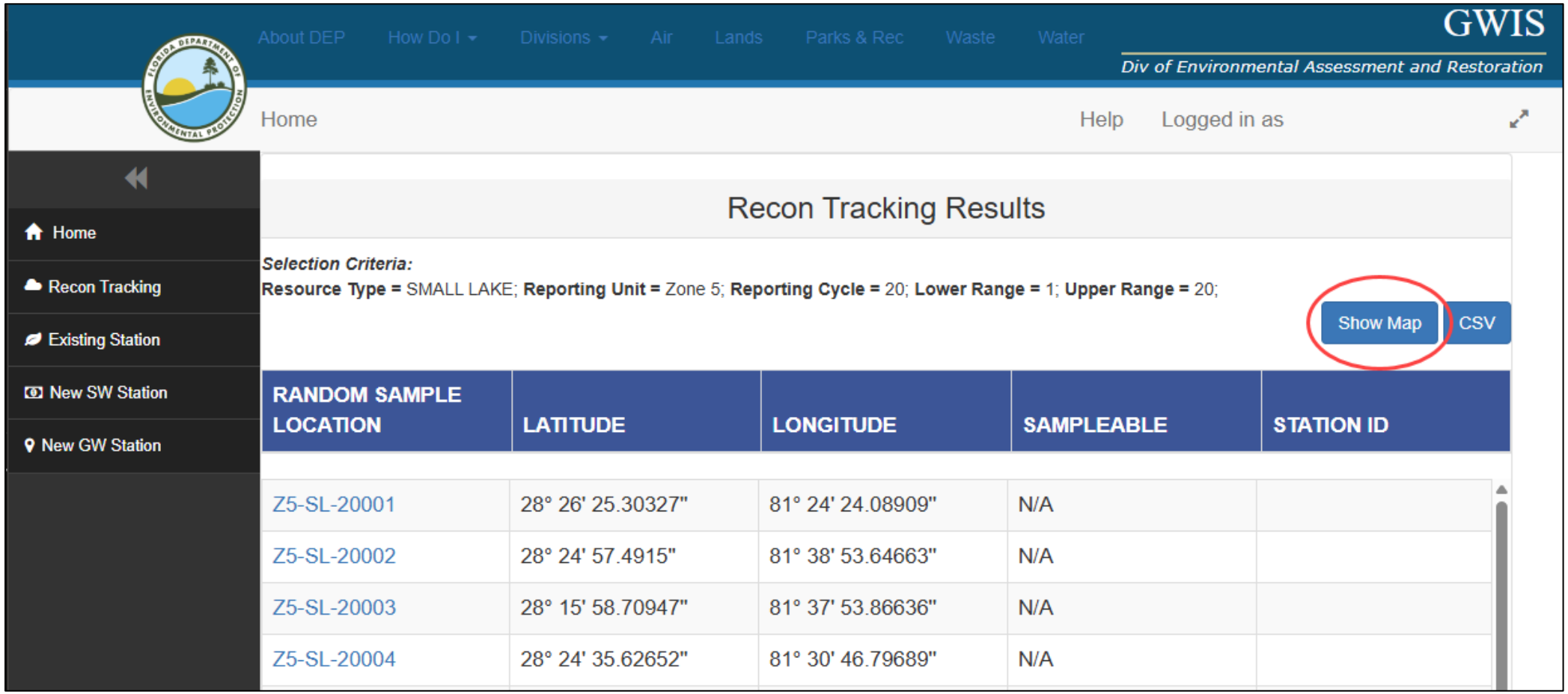
Site Location Range = 1 to 20

Click “View Results.”



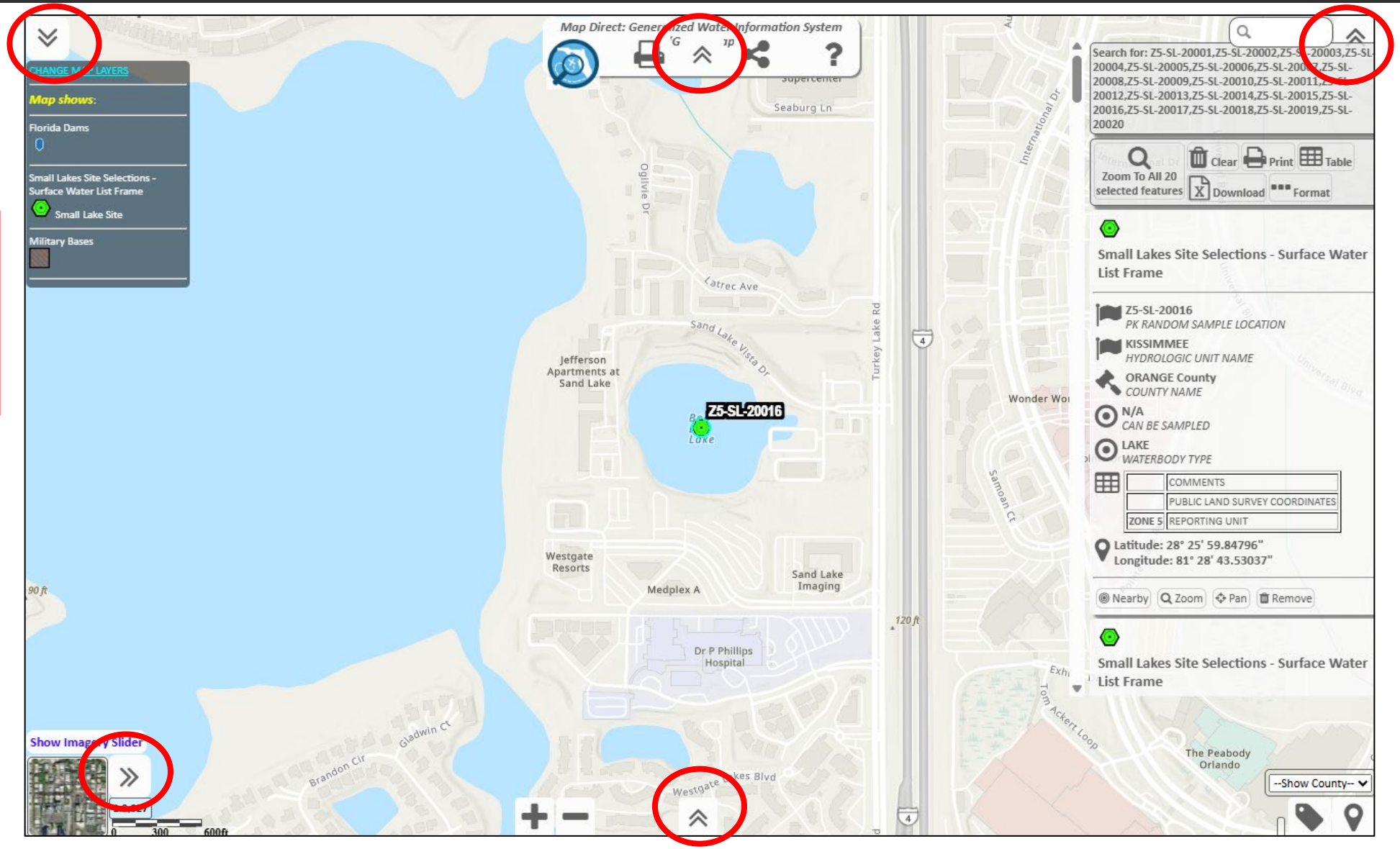
PRACTICE EXERCISE

Click
“Show Map”



EXPLORE MAP DIRECT INTERFACE:

CHEVRON BUTTONS EXPAND AND HIDE MENUS

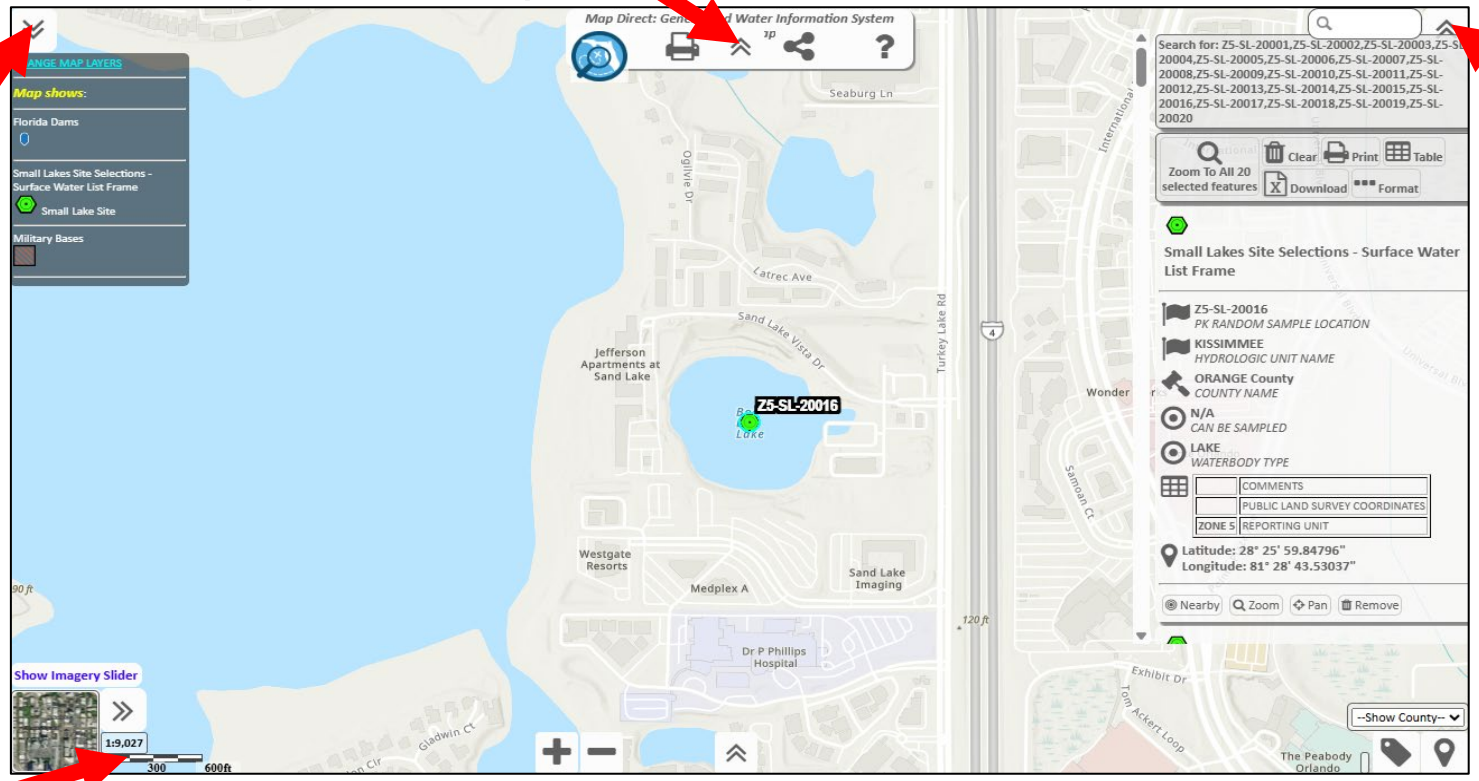


MAP DIRECT MENUS

Save/Load/Share Maps.
Map Direct Help.

Show Map Legend.
Table of Contents:

- Layer Visibility and Labels.
- Add Data to Map.



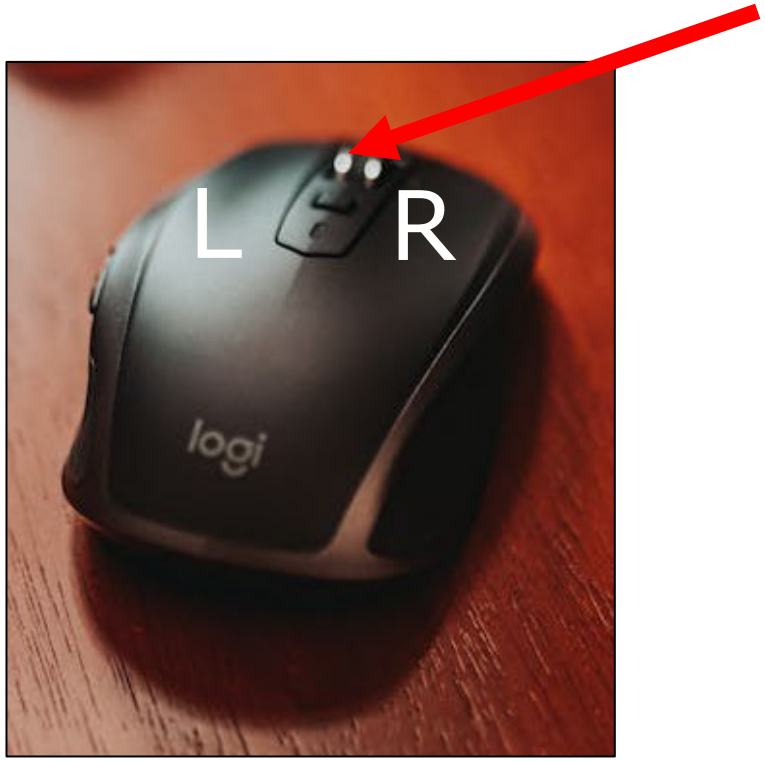
Search Options.
View Feature Attributes.

Change Basemaps.
Switch between Basemap and Imagery Slider.

Navigation and Selection Tools:
Bookmarks; Zoom Tools; Identify; Measurement Tools; Drawing Tools.

EXPLORE MAP DIRECT INTERFACE:

MOUSE BUTTON INTERACTIONS



Center button (wheel)

- Use wheel to zoom in or out of the map.
- Click and hold to pan the map.

Left button (L)

- Click chevron to hide or unhide a tool.
- Click map features to identify them.
- Click and hold to pan the map.

Right button (R)

- Click an item in the contents panel to open the layer tools menu.
- Click and hold to pan the map.

EXPLORE MAP DIRECT INTERFACE:

TOUCH SCREEN INTERACTION FOR TABLETS

(NOTE – Some touch screen interactions and tools do not work when viewing Map Direct on smartphones.)

Pinch

- Zoom in or out of the map.

Touch

- Hide or unhide a tool.
- Identify a feature.

Touch and Drag

- Pan the map.
- Draw search boxes.

Double Touch

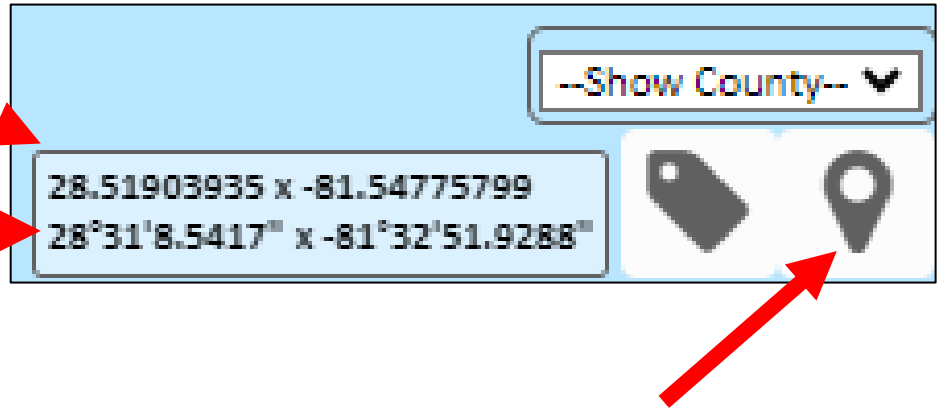
- Zoom in on an area of the map.
- Open the layer tools menu by interacting with an item in the contents panel.

EXPLORE MAP DIRECT INTERFACE:

COORDINATES OF MOUSE POINTER

Latitude, Longitude
(Decimal Degrees)

Latitude, Longitude
(Degrees, Minutes and
Decimal Seconds)

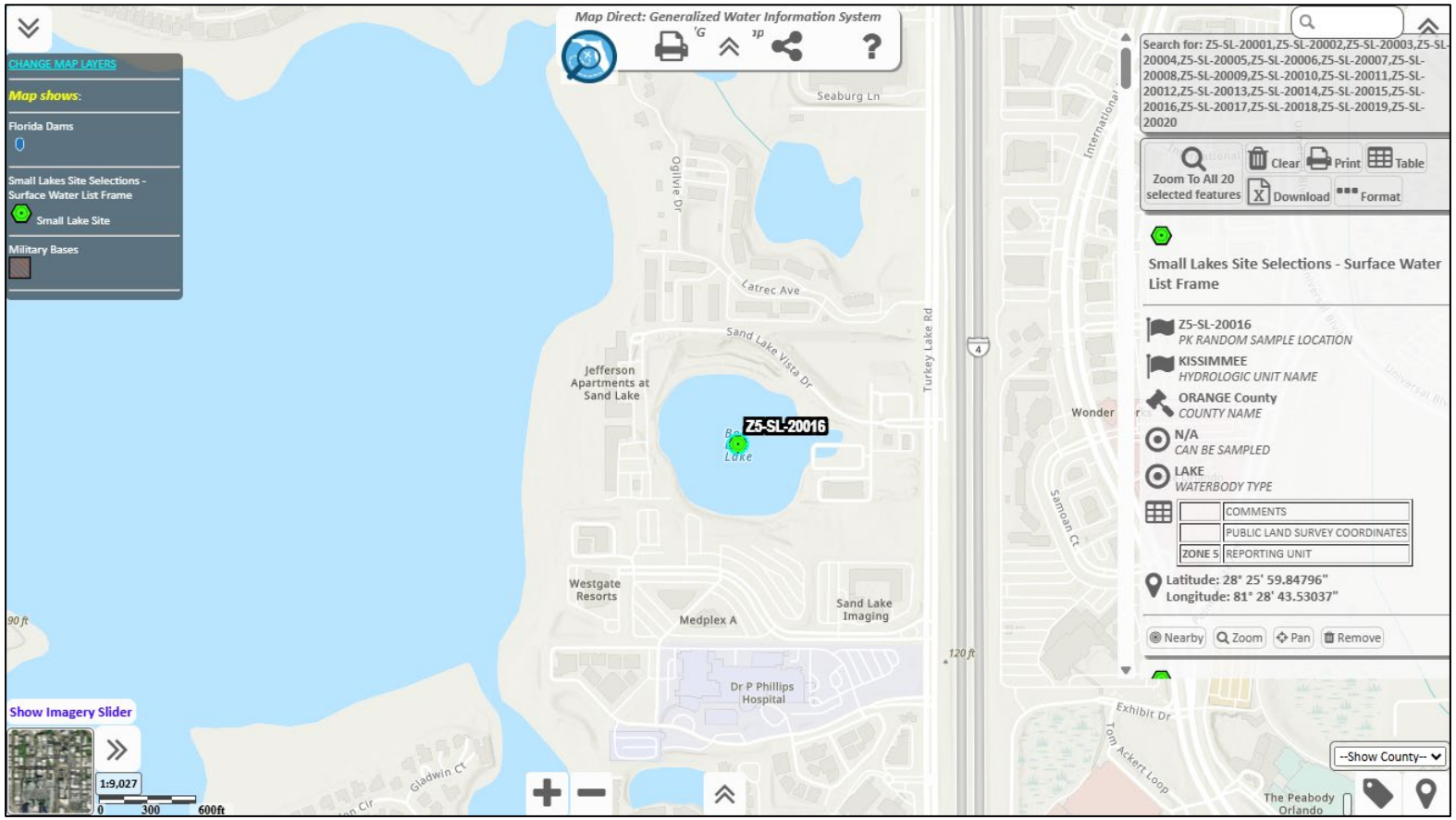


Map Pointer Drop Symbol

- Display identifies the location of your mouse pointer on the Map.
- Use the map pointer drop symbol tool to drop a marker on the map location of interest. The location details window will open, and additional search options will be available.

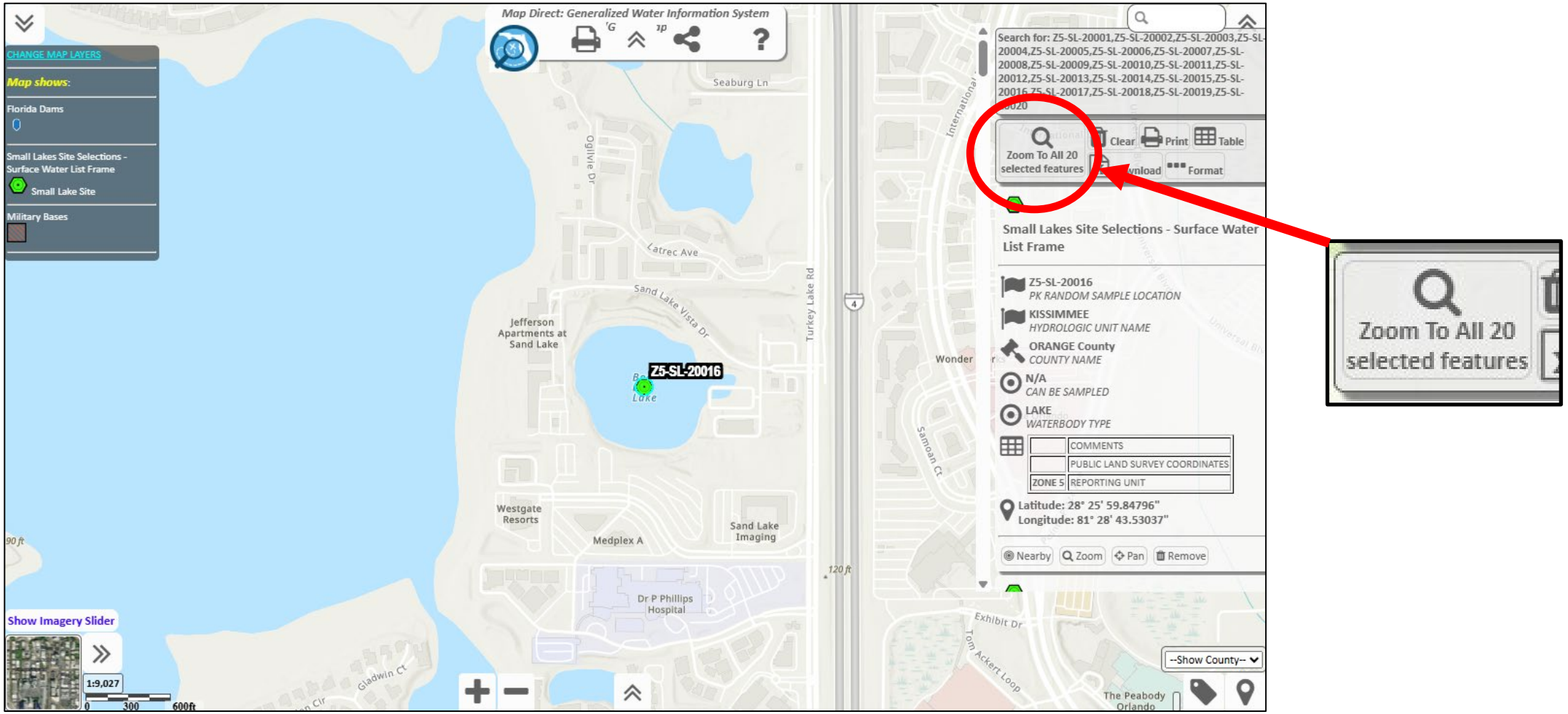
EXPLORE COMMONLY USED RECON TOOLS

Please Refresh Your Internet Browser to Return to Original View of Z5 SL, Cycle 20 Search Results.



COMMON RECON TOOLS:

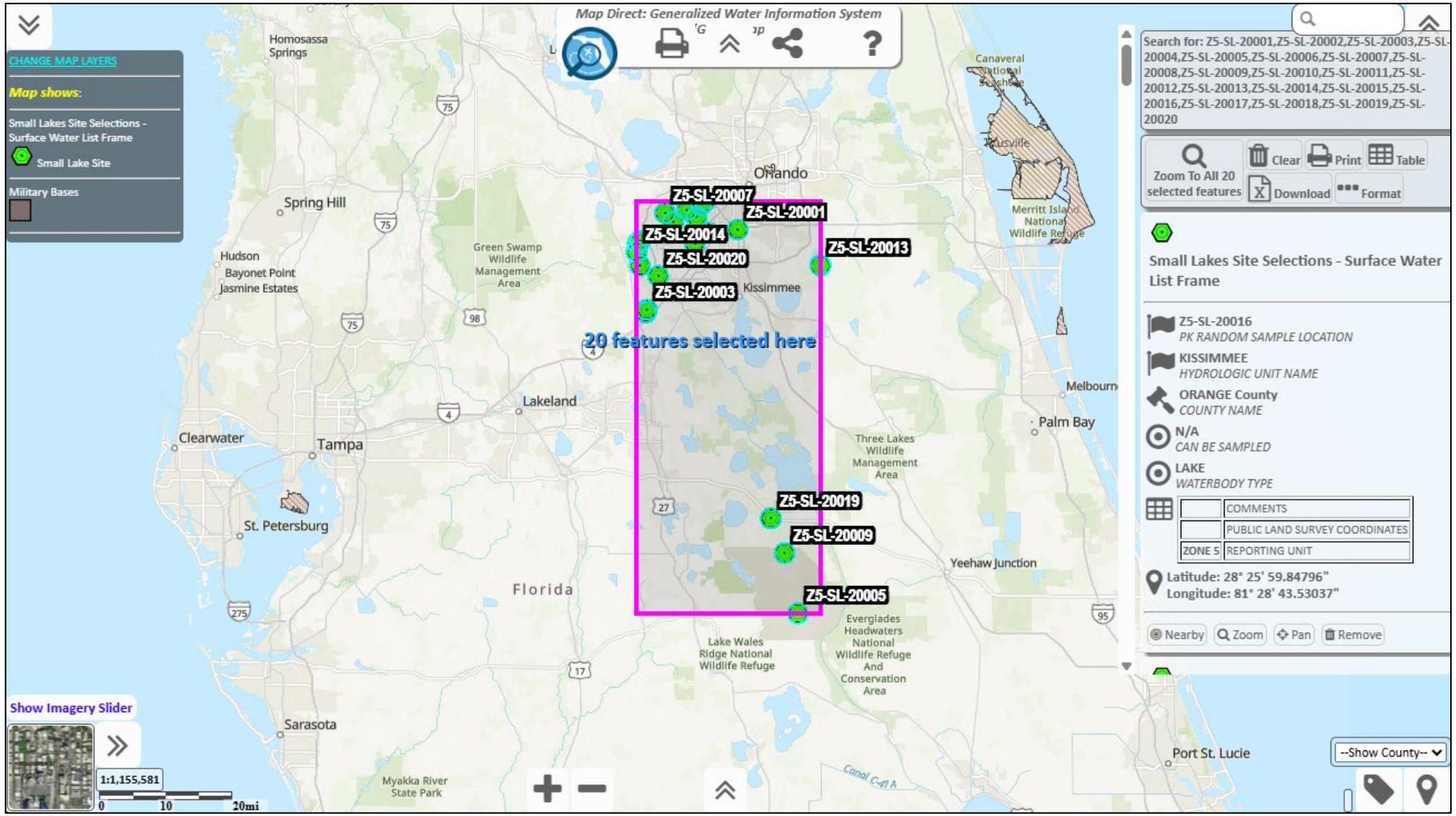
ZOOM TO ALL SELECTED SITES



COMMON RECON TOOLS:

ZOOM TO ALL SITES

Zone 5,
Small Lakes,
Cycle 20,
Sites 1 to 20.



COMMON RECON TOOLS:

VIEW SELECTED SITES IN TABLE

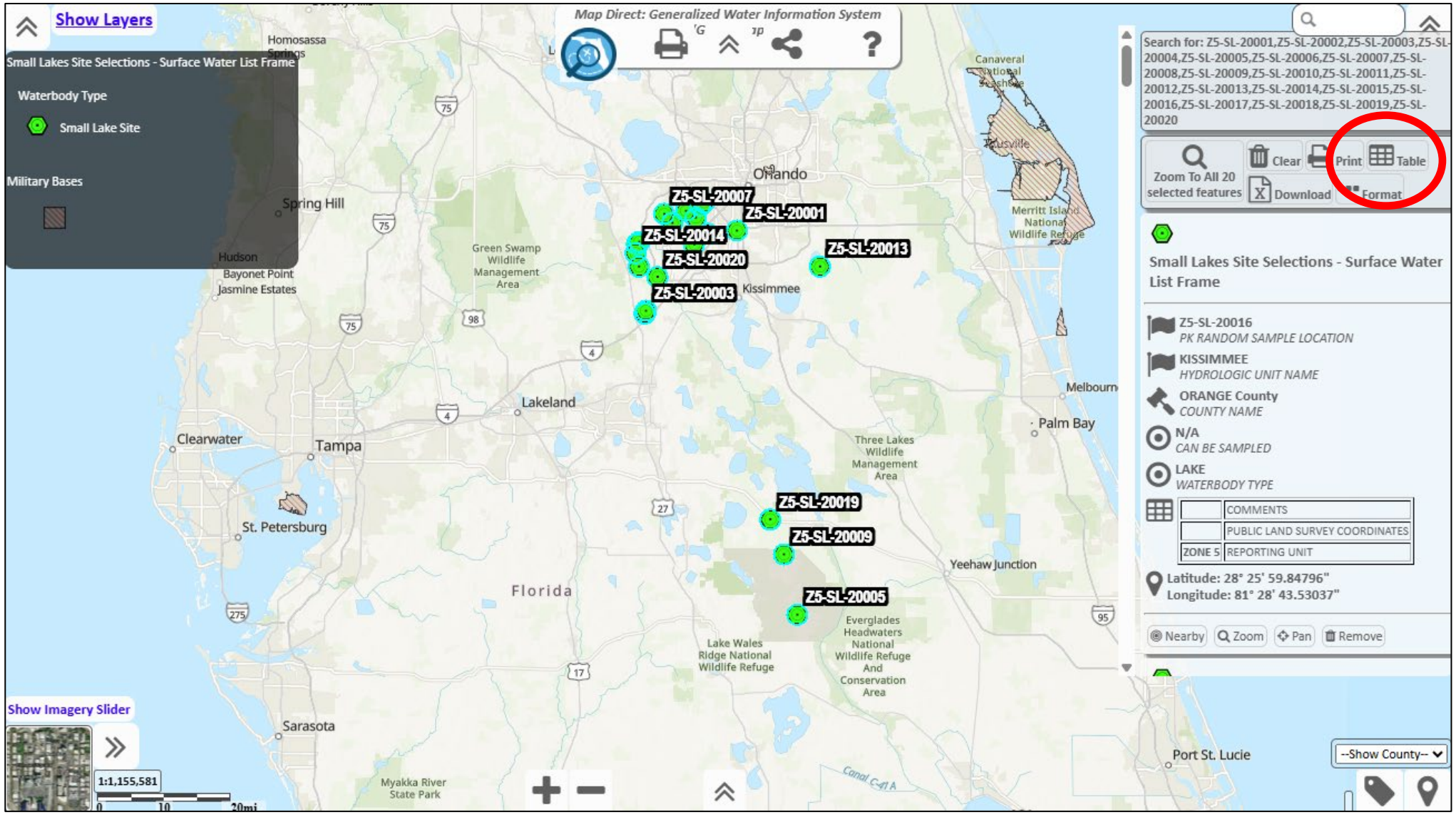


TABLE VIEW

Click column name to sort.

Clear Results | Printable View | Download as Spreadsheet | Close

Small Lakes Site Selections - Surface Water List Frame: 20 found.

Map show	PK_RANDOM_SAMPLE_LOCATION (String)	REPORTING_UNIT (String)	WATERBODY_TYPE (String)	WATERBODY_NAME (String)	CAN_BE_SAMPLED (String)	LAT_DD (Double)	LAT_MM (Double)	LAT_SS (Double)	LONG_DD (Double)	LONG_MM (Double)	LONG_SS (Double)	P
Remove	Z5-SL-20016	ZONE 5	LAKE		N/A	28	25	59.84796	81	28	43.53037	
Remove	Z5-SL-20017	ZONE 5	LAKE		N/A	28	15	36.02295	81	38	5.82493	
Remove	Z5-SL-20018	ZONE 5	LAKE		N/A	28	28	3.82317	81	30	31.28111	
Remove	Z5-SL-20019	ZONE 5	LAKE		N/A	27	48	39.14697	81	19	29.24952	
Remove	Z5-SL-20020	ZONE 5	LAKE	BUCK LAKE	N/A	28	20	21.12419	81	36	12.43476	
Remove	Z5-SL-20005	ZONE 5	LAKE	SUBMARINE LAKE	N/A	27	36	10.72726	81	15	29.47122	
Remove	Z5-SL-20006	ZONE 5	LAKE		N/A	28	24	39.78629	81	39	14.44167	
Remove	Z5-SL-20007	ZONE 5	LAKE		N/A	28	28	35.89258	81	35	13.05093	
Remove	Z5-SL-20008	ZONE 5	LAKE		N/A	28	30	4.59718	81	29	17.80984	
Remove	Z5-SL-20009	ZONE 5	LAKE		N/A	27	44	5.53463	81	17	27.27139	
Remove	Z5-SL-20010	ZONE 5	LAKE	LAKE AUSTIN	N/A	28	21	42.51368	81	38	55.97532	
Remove	Z5-SL-20011	ZONE 5	LAKE		N/A	28	27	25.12707	81	34	0.5328	
Remove	Z5-SL-20012	ZONE 5	LAKE		N/A	28	29	40.94318	81	29	50.03707	
Remove	Z5-SL-20013	ZONE 5	LAKE		N/A	28	21	43.40267	81	12	7.53757	
Remove	Z5-SL-20014	ZONE 5	LAKE		N/A	28	23	28.18893	81	39	25.57857	
Remove	Z5-SL-20015	ZONE 5	LAKE		N/A	28	28	59.94068	81	31	57.28331	
Remove	Z5-SL-20001	ZONE 5	LAKE	LAKE ROGER	N/A	28	26	25.30327	81	24	24.08909	
Remove	Z5-SL-20002	ZONE 5	LAKE		N/A	28	24	57.4915	81	38	53.64663	
Remove	Z5-SL-20003	ZONE 5	LAKE		N/A	28	15	58.70947	81	37	53.86636	
Remove	Z5-SL-20004	ZONE 5	LAKE	LITTLE FISH LAKE	N/A	28	24	35.62652	81	30	46.79689	

TABLE VIEW

Click on a row to return to map and zoom to site.

Example:
Z5-SL-20004

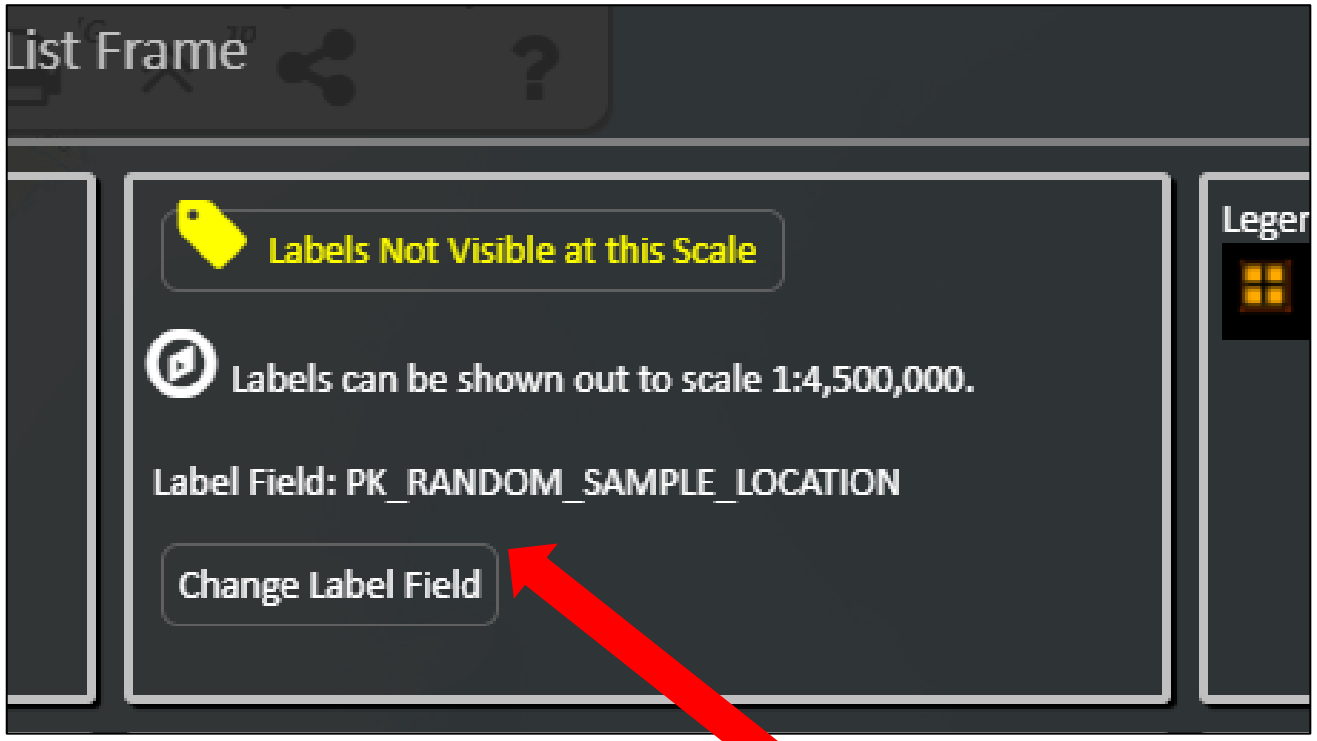
Clear Results | Printable View | Download as Spreadsheet | Close

Small Lakes Site Selections - Surface Water List Frame: 20 found.

	PK_RANDOM_SAMPLE_LOCATION (String)	REPORTING_UNIT (String)	WATERBODY_TYPE (String)	WATERBODY_NAME (String)	CAN_BE_SAMPLED (String)	LAT_DD (Double)	LAT_MM (Double)	LAT_SS (Double)	LONG_DD (Double)	LONG_MM (Double)	LONG_SS (Double)
Remove	Z5-SL-20001	ZONE 5	LAKE	LAKE ROGER	N/A	28	26	25.30327	81	24	24.08909
Remove	Z5-SL-20002	ZONE 5	LAKE		N/A	28	24	57.4915	81	38	53.64663
Remove	Z5-SL-20003	ZONE 5	LAKE		N/A	28	15	58.70947	81	37	53.86636
Remove	Z5-SL-20004	ZONE 5	LAKE	LITTLE FISH LAKE	N/A	28	24	35.62652	81	30	46.79689
Remove	Z5-SL-20005	ZONE 5	LAKE	SUBMARINE LAKE	N/A	27	36	10.72726	81	15	29.47122
Remove	Z5-SL-20006	ZONE 5	LAKE		N/A	28	24	39.78629	81	39	14.44167
Remove	Z5-SL-20007	ZONE 5	LAKE		N/A	28	28	35.89258	81	35	13.05093
Remove	Z5-SL-20008	ZONE 5	LAKE		N/A	28	30	4.59718	81	29	17.80984
Remove	Z5-SL-20009	ZONE 5	LAKE		N/A	27	44	5.53463	81	17	27.27139
Remove	Z5-SL-20010	ZONE 5	LAKE	LAKE AUSTIN	N/A	28	21	42.51368	81	38	55.97532
Remove	Z5-SL-20011	ZONE 5	LAKE		N/A	28	27	25.12707	81	34	0.5328
Remove	Z5-SL-20012	ZONE 5	LAKE		N/A	28	29	40.94318	81	29	50.03707
Remove	Z5-SL-20013	ZONE 5	LAKE		N/A	28	21	43.40267	81	12	7.53757
Remove	Z5-SL-20014	ZONE 5	LAKE		N/A	28	23	28.18893	81	39	25.57857
Remove	Z5-SL-20015	ZONE 5	LAKE		N/A	28	28	59.94068	81	31	57.28331
Remove	Z5-SL-20016	ZONE 5	LAKE		N/A	28	25	59.84796	81	28	43.53037
Remove	Z5-SL-20017	ZONE 5	LAKE		N/A	28	15	36.02295	81	38	5.82493
Remove	Z5-SL-20018	ZONE 5	LAKE		N/A	28	28	3.82317	81	30	31.28111
Remove	Z5-SL-20019	ZONE 5	LAKE		N/A	27	48	39.14697	81	19	29.24952
Remove	Z5-SL-20020	ZONE 5	LAKE	BUCK LAKE	N/A	28	20	21.12419	81	36	12.43476

COMMON RECON TOOLS:

CHANGE SITE LABELS

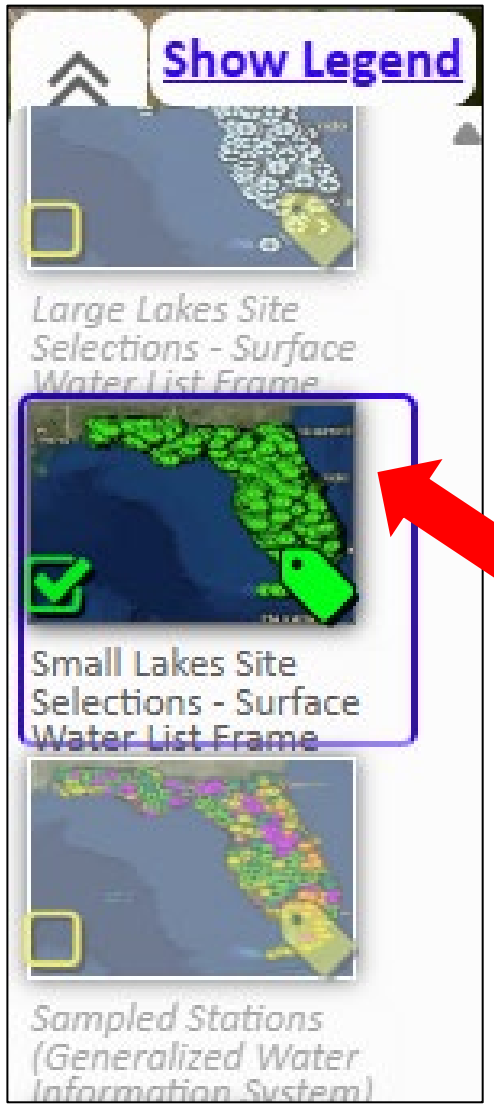


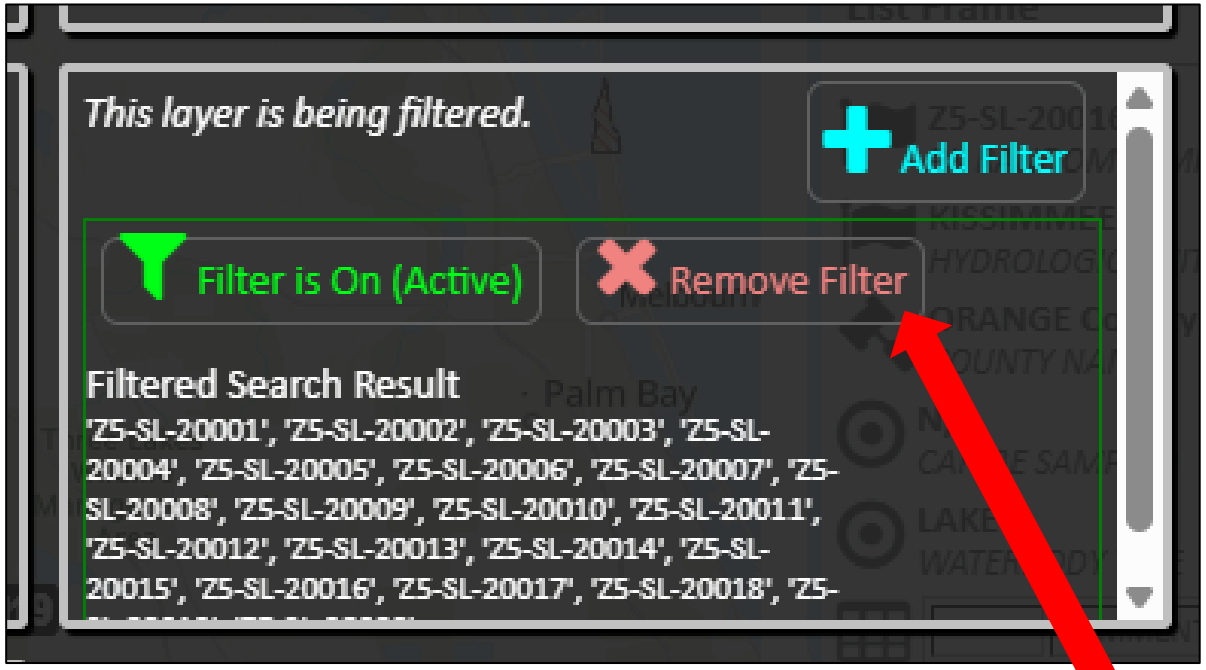
Double click the Small Lakes Site selections tile with left mouse button (Double Touch for touch screen devices.).

In Layer Properties Menu, Select “Change Label Field.”

COMMON RECON TOOLS:

CHANGE FILTERS FOR DATA DISPLAYED





Double click the Small Lakes Site selections tile with left mouse button (Double Touch for touch screen devices.).

In Layer Properties Menu, Locate Filtering Tools. Click “Remove Filter” to clear current list of sites.

COMMON RECON TOOLS:

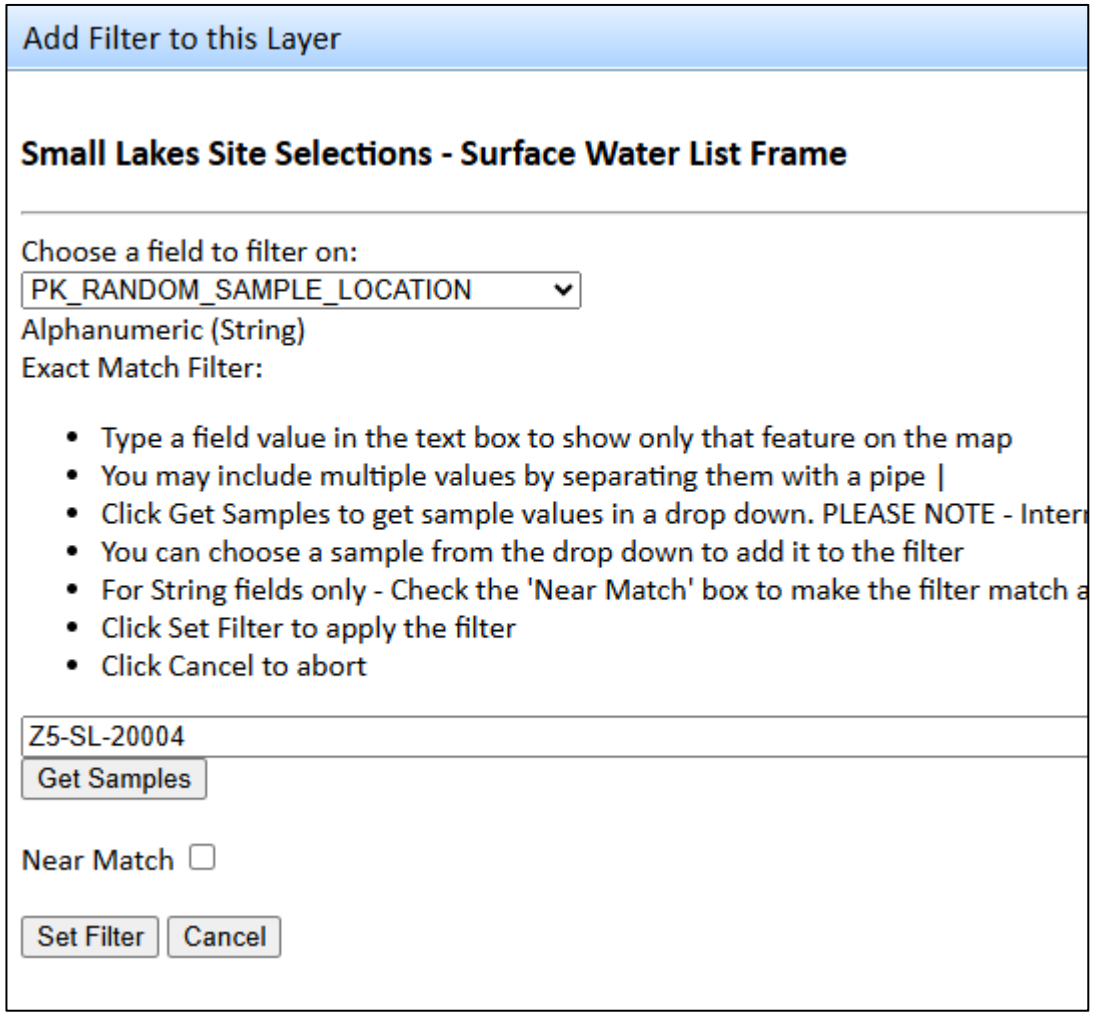
CHANGE FILTERS FOR DATA DISPLAYED

Click “Add Filter”.

In the filtering options menu:

- Select PK_RANDOM_SAMPLE_LOCATION as the field to filter on.
- In the text box, type the site name (use all capital letters and include the hyphens), or type multiple site names with a pipe character between each site.

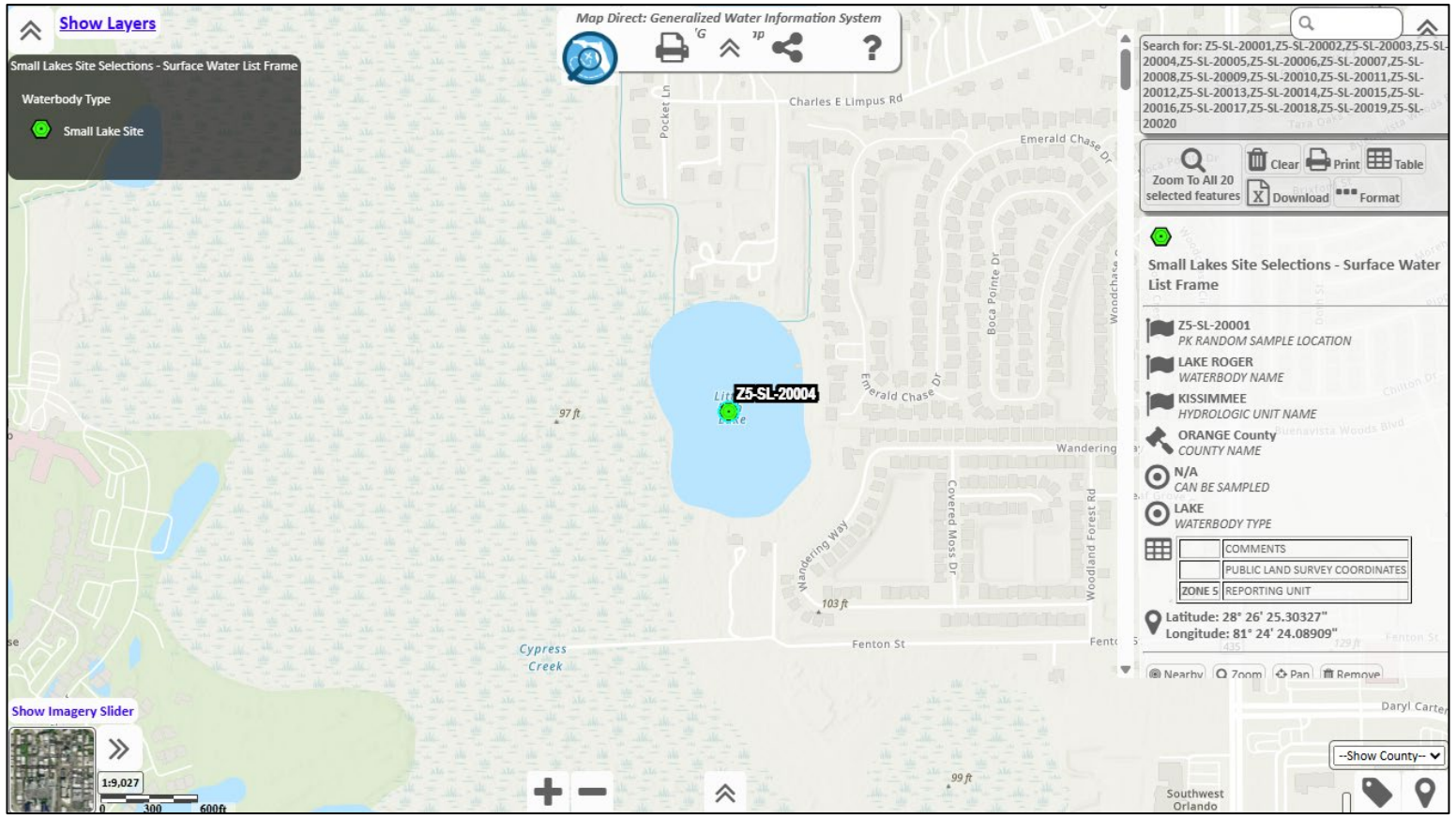
  Example: Z5-SL-20002|Z5-SL-20008
- Click “Set Filter”.



EXPLORE COMMONLY USED RECON TOOLS

After practicing changing labels and filters, please return to site Z5-SL-20004.

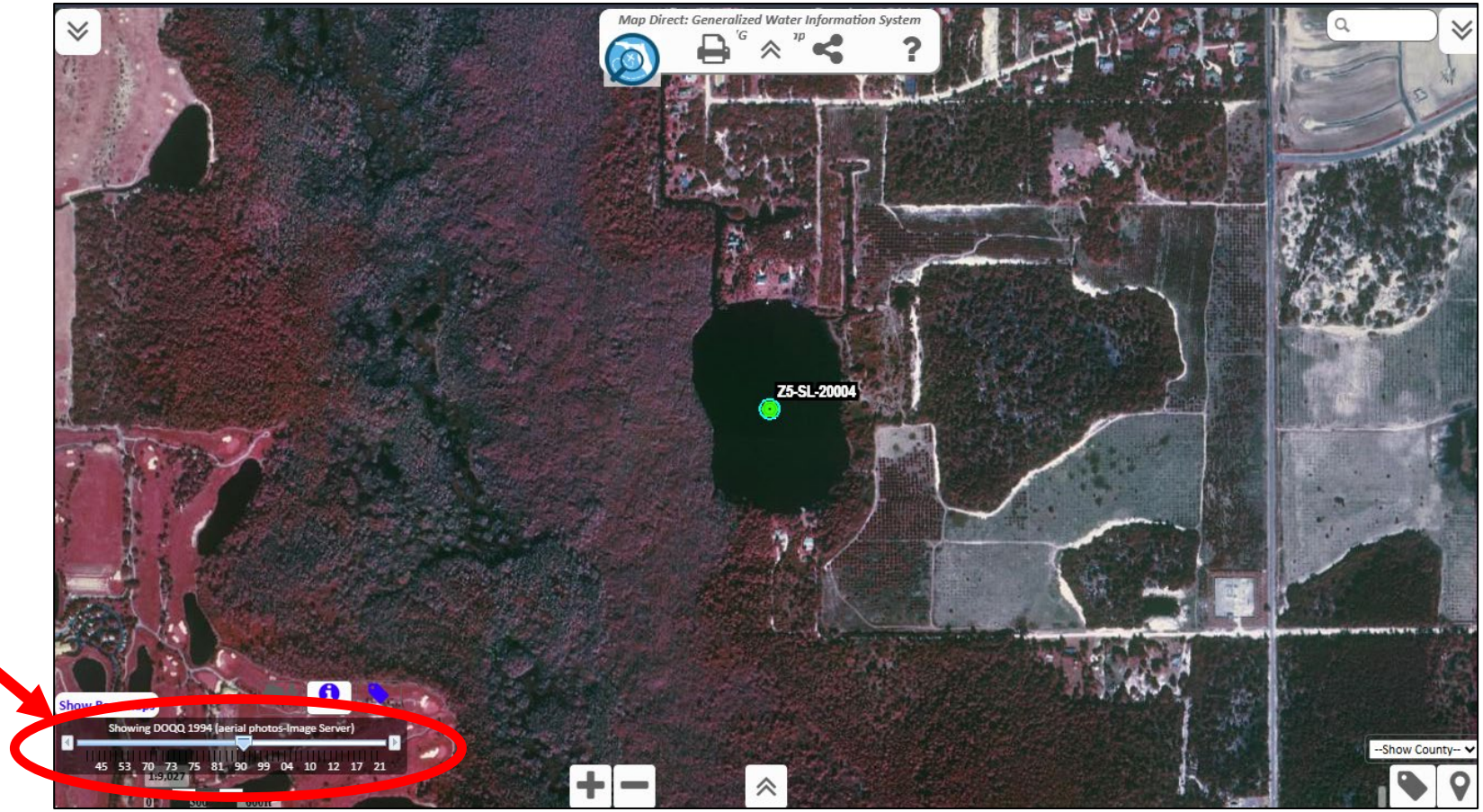
If needed, refresh your internet browser to return to the original view of Z5 SL, Cycle 20 search results.



COMMON RECON TOOLS:

EXAMINE IMAGERY FROM MULTIPLE YEARS

Click “Show Imagery Slider.”



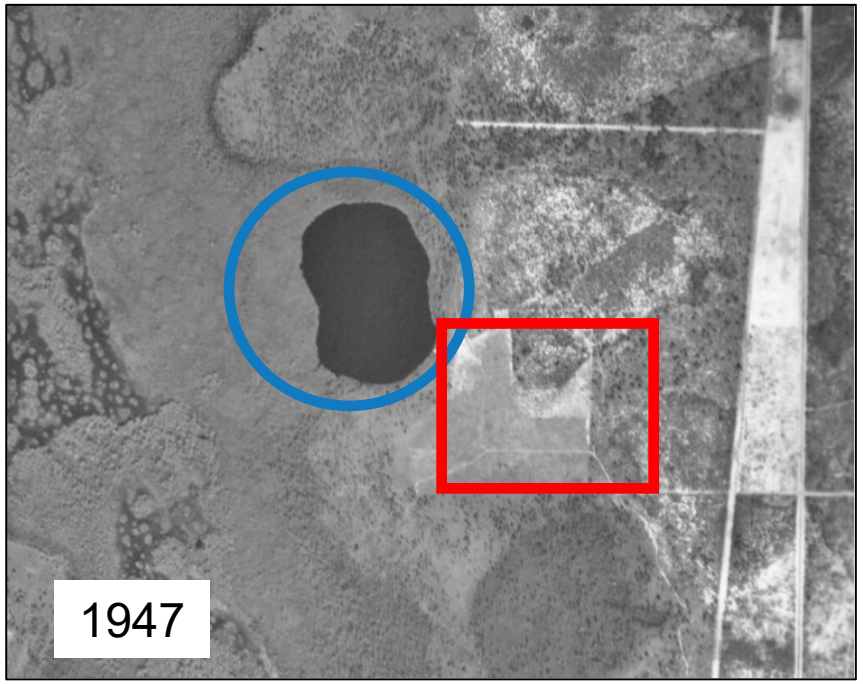
Example: DOQQ 1994

CONFIRM PRESENCE OF WATERBODY IN HISTORIC AERIALS

Imagery Sources

- Map Direct Imagery Slider.
- University of Florida Smathers Library Historic Aerial Photos.

https://ufdc.ufl.edu/collections/aerials



Blue circle shows that the Little Fish Lake (Z5-SL-20004) is present in photos from 1947.

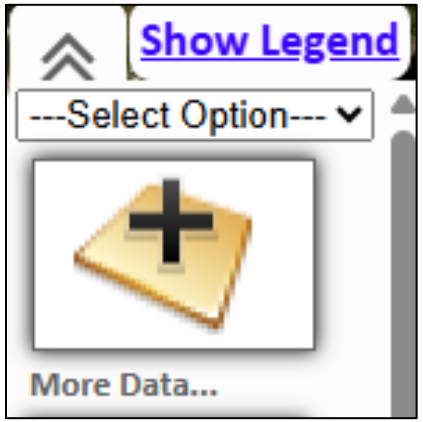
Red rectangle shows example of nearby manmade lake-like features, which are not present in the photos from 1947.

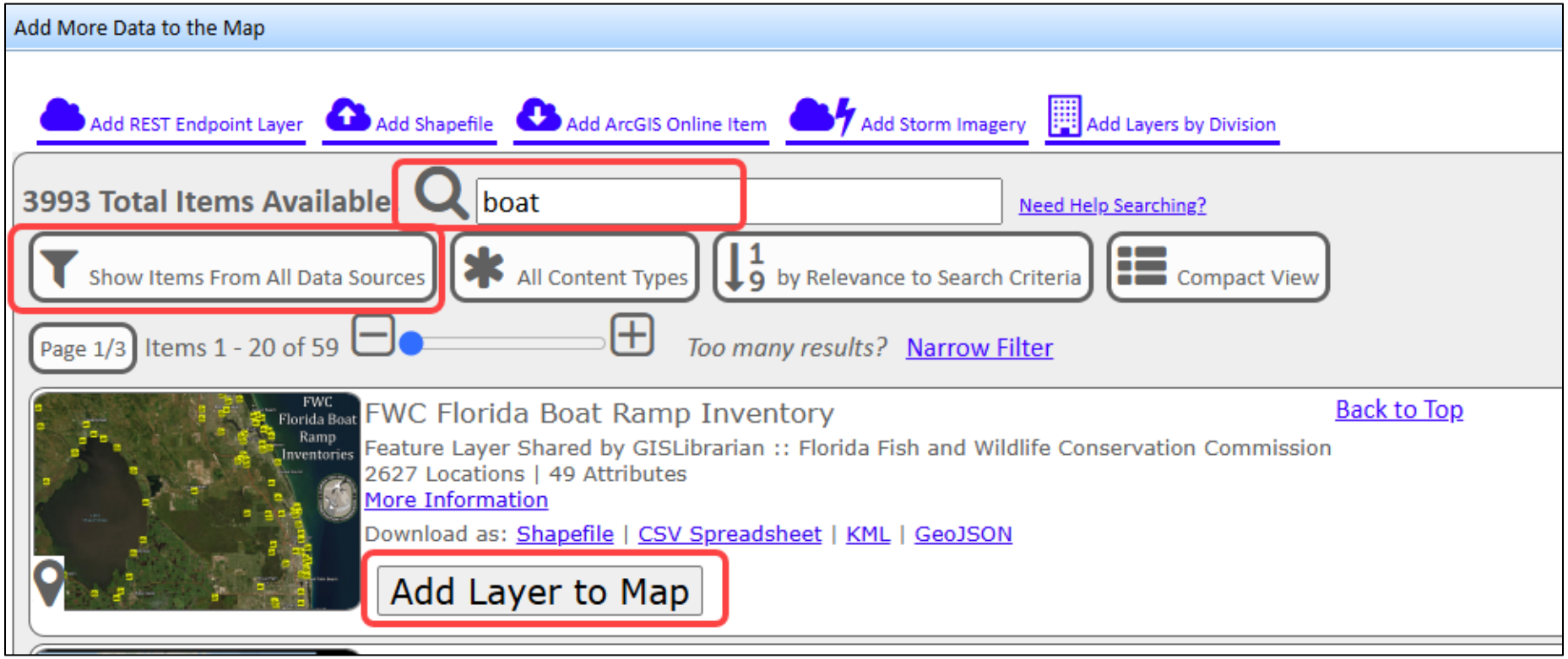
EXPLORE TOOLS FOR SITE ACCESS

- View boat ramp locations and details.
- Identify landowners surrounding a lake.

TOOLS FOR SITE ACCESS:

FWC BOAT RAMPS LAYER

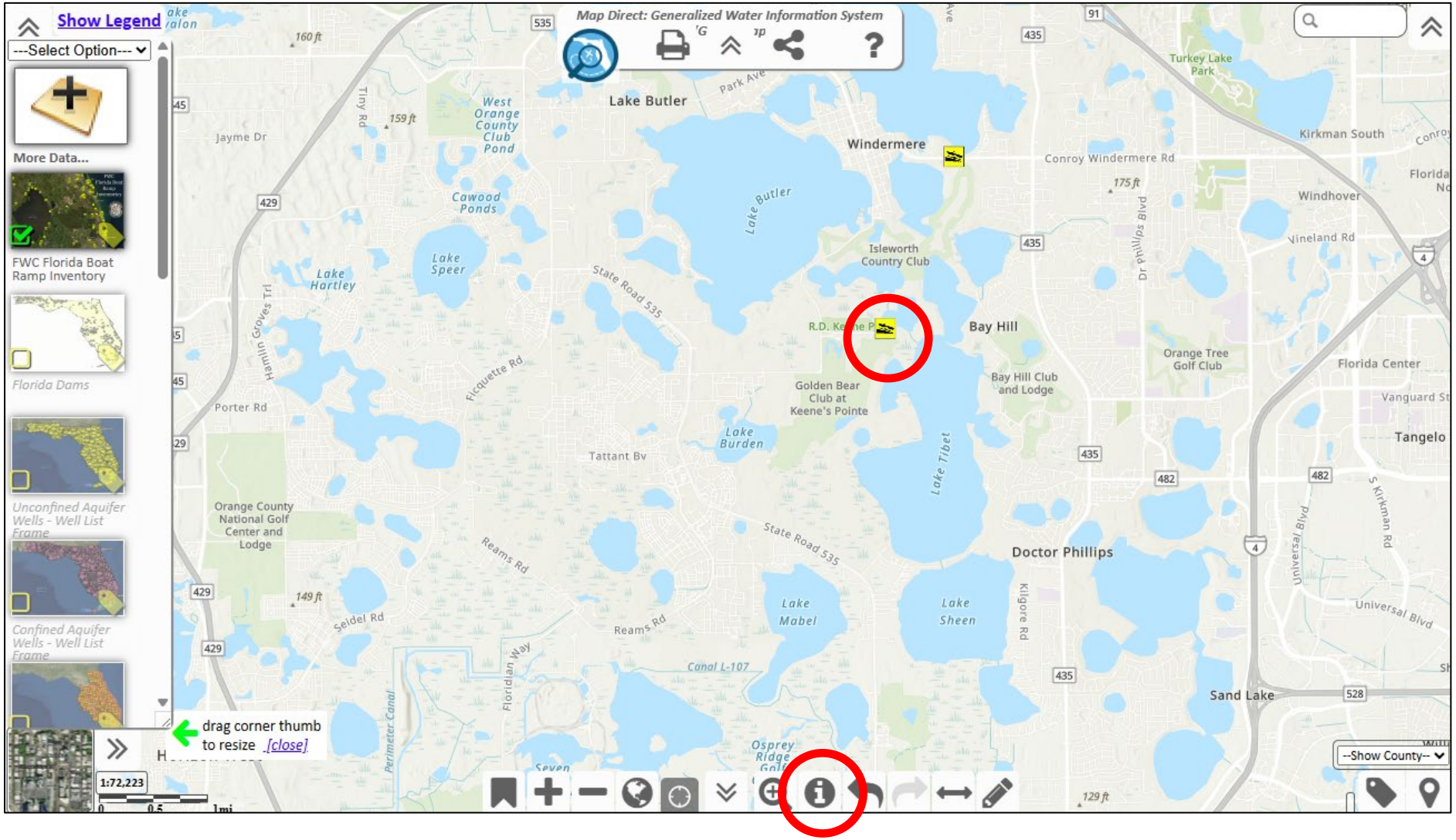




Use “More Data…” tool to search for and add the “FWC Florida Boat Ramp Inventory” layer to the map.

TOOLS FOR SITE ACCESS:

FWC BOAT RAMPS LAYER



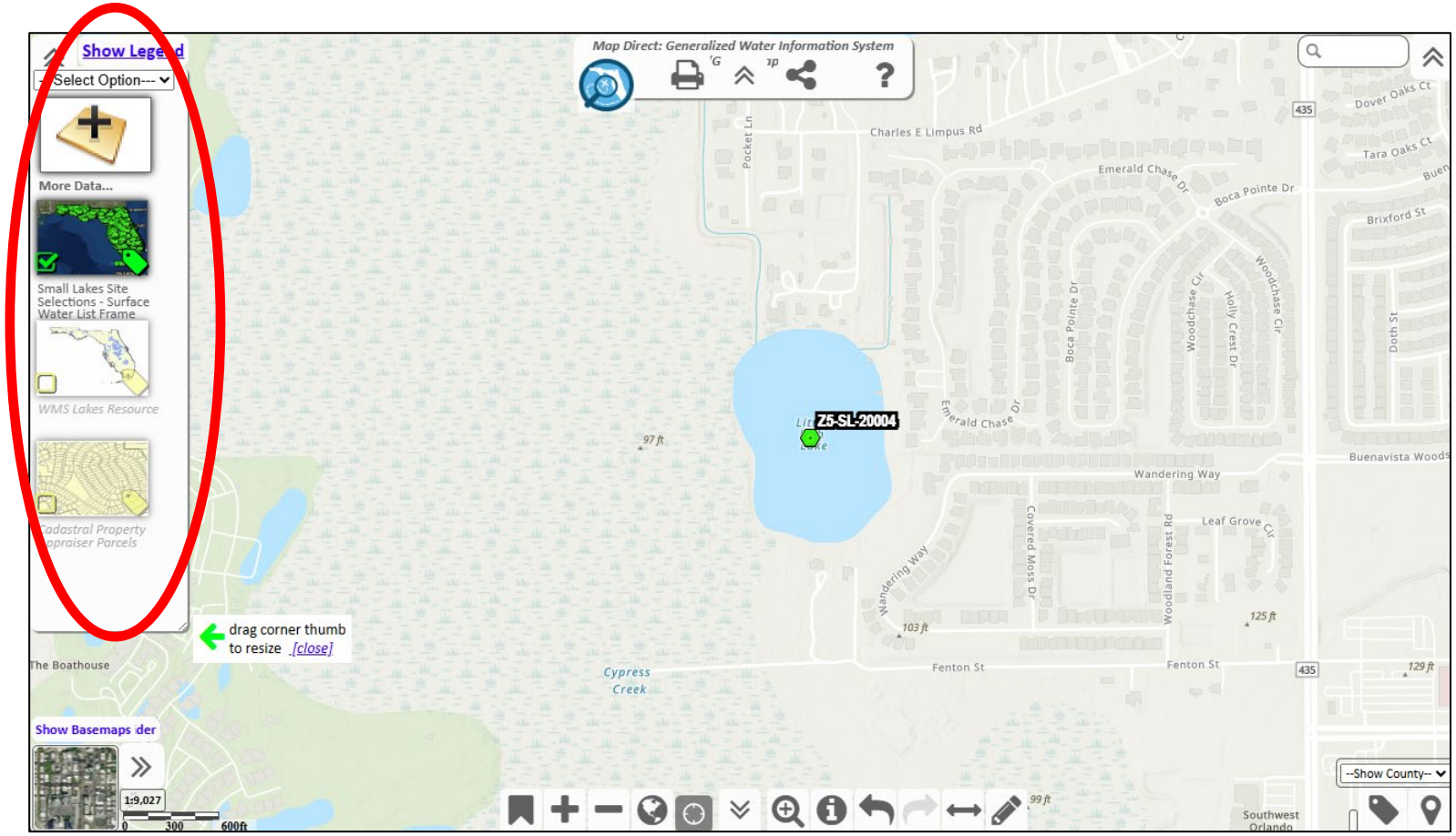
Use Identify Tool to Display Details.

(No boat ramps on selected lake, Little Fish Lake. Example shown for other lakes nearby.)

TOOLS FOR SITE ACCESS:
IDENTIFY PROPERTY OWNERS

Preparation:
Remove all layers
(click tile and drag to right)
or turn off visibility
(no green check mark on tile).

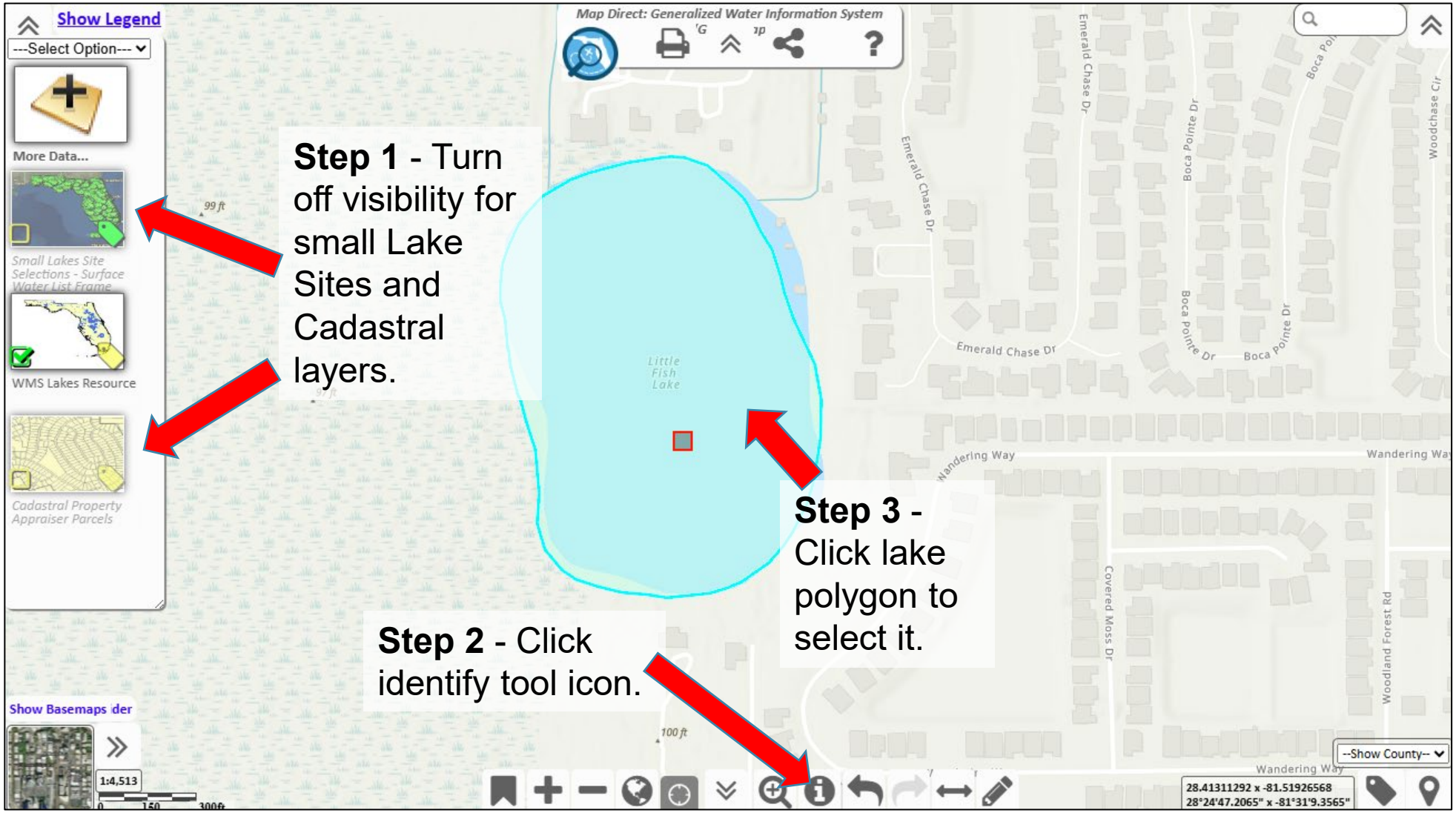
Except:
Small Lakes Site Sections,
WMS Lakes Resource, and
Cadastral Property Appraiser
Parcels.



TOOLS FOR SITE ACCESS:
IDENTIFY PROPERTY OWNERS

Make WMS lakes resource (polygon layer) the only visible layer in the map.

Use identify tool to select polygon for Little Fish Lake (lake that contains site Z5-SL-20004.)

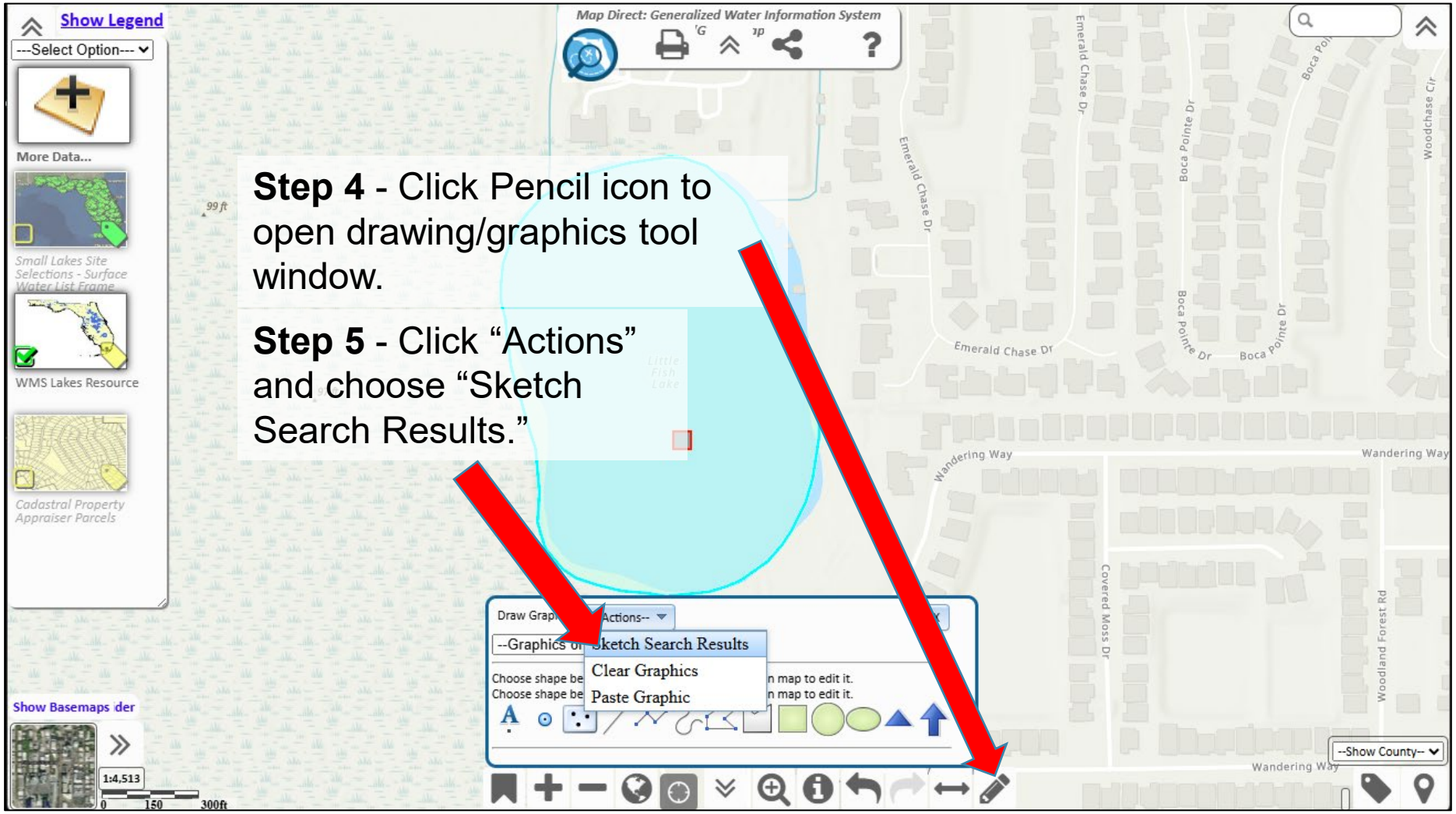


TOOLS FOR SITE ACCESS:
IDENTIFY PROPERTY OWNERS

Click pencil icon to open drawing/graphics tools.

In “actions” menu, select “sketch search results.”

This will draw a temporary copy of the lake polygon.

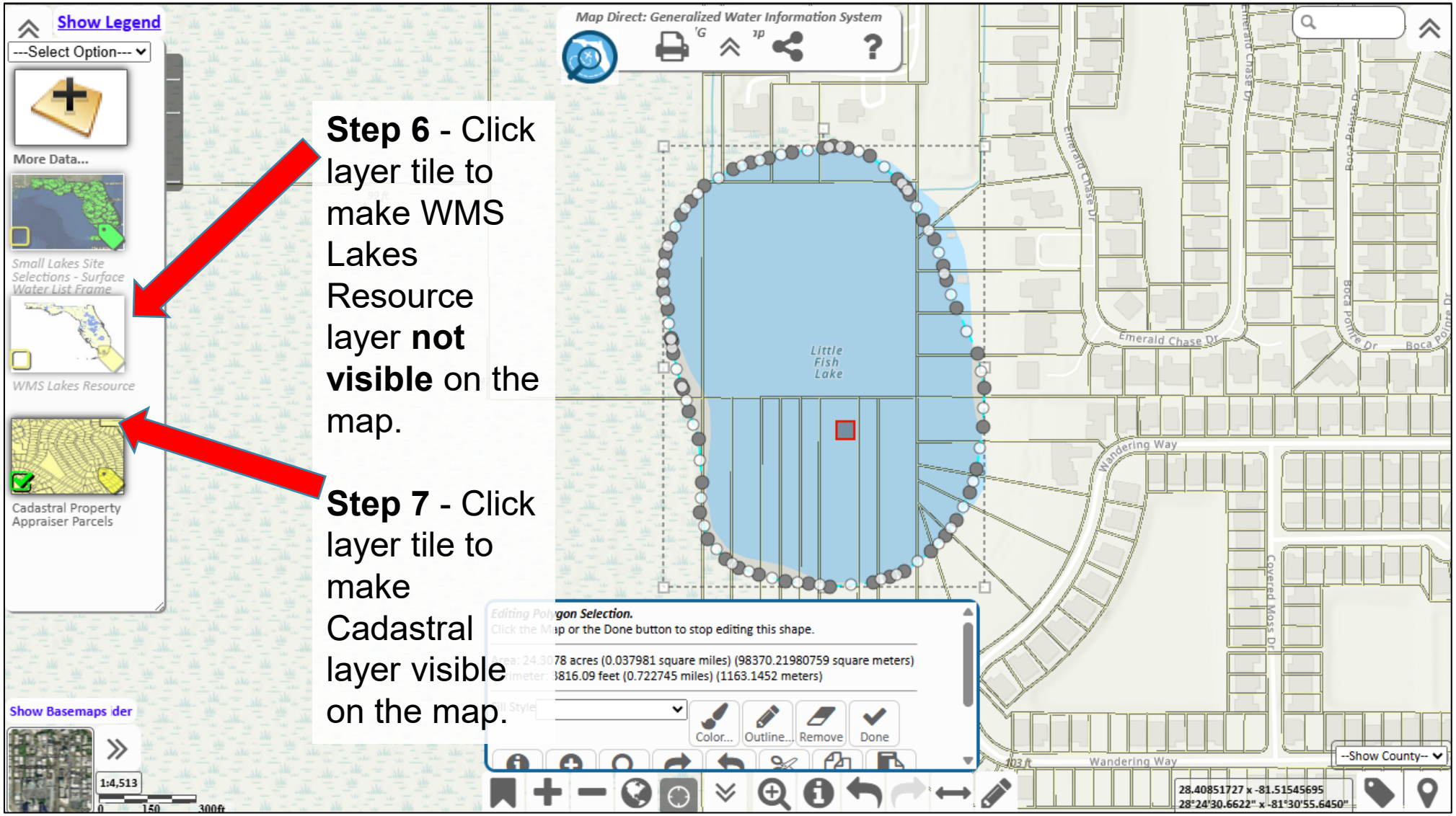


TOOLS FOR SITE ACCESS:
IDENTIFY PROPERTY OWNERS

Use polygon drawing to identify parcels and owners.

Make lake polygons layer not visible.

Make cadastral layer visible.

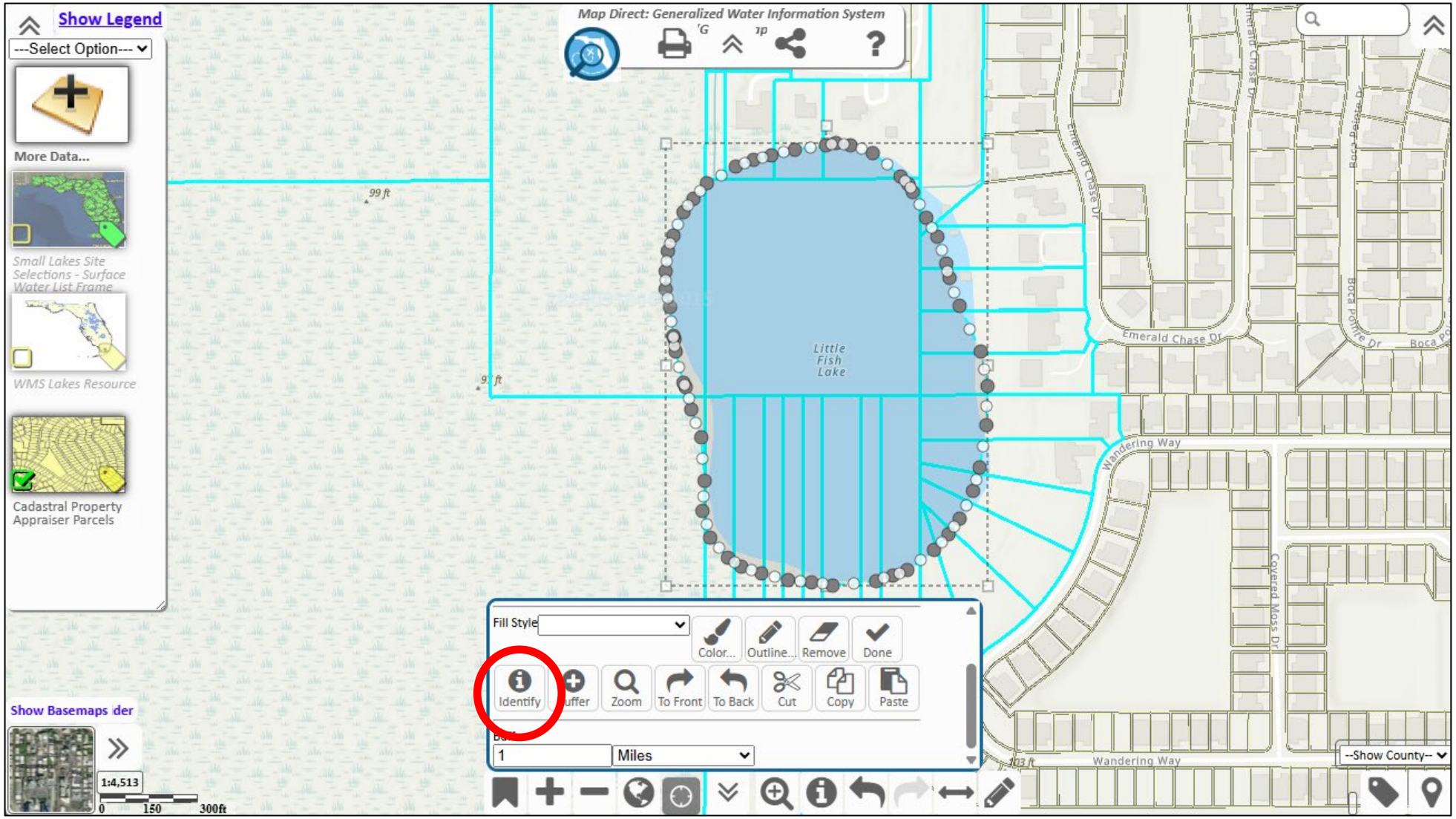


Step 6 - Click layer tile to make WMS Lakes Resource layer **not visible** on the map.

Step 7 - Click layer tile to make Cadastral layer visible on the map.

TOOLS FOR SITE ACCESS:
IDENTIFY PROPERTY OWNERS

Click “identify” in search sketch results window to get a list of parcels surrounding the lake.



TOOLS FOR SITE ACCESS:
IDENTIFY PROPERTY OWNERS

Open table view and download spreadsheet of selected parcels and property owner information.

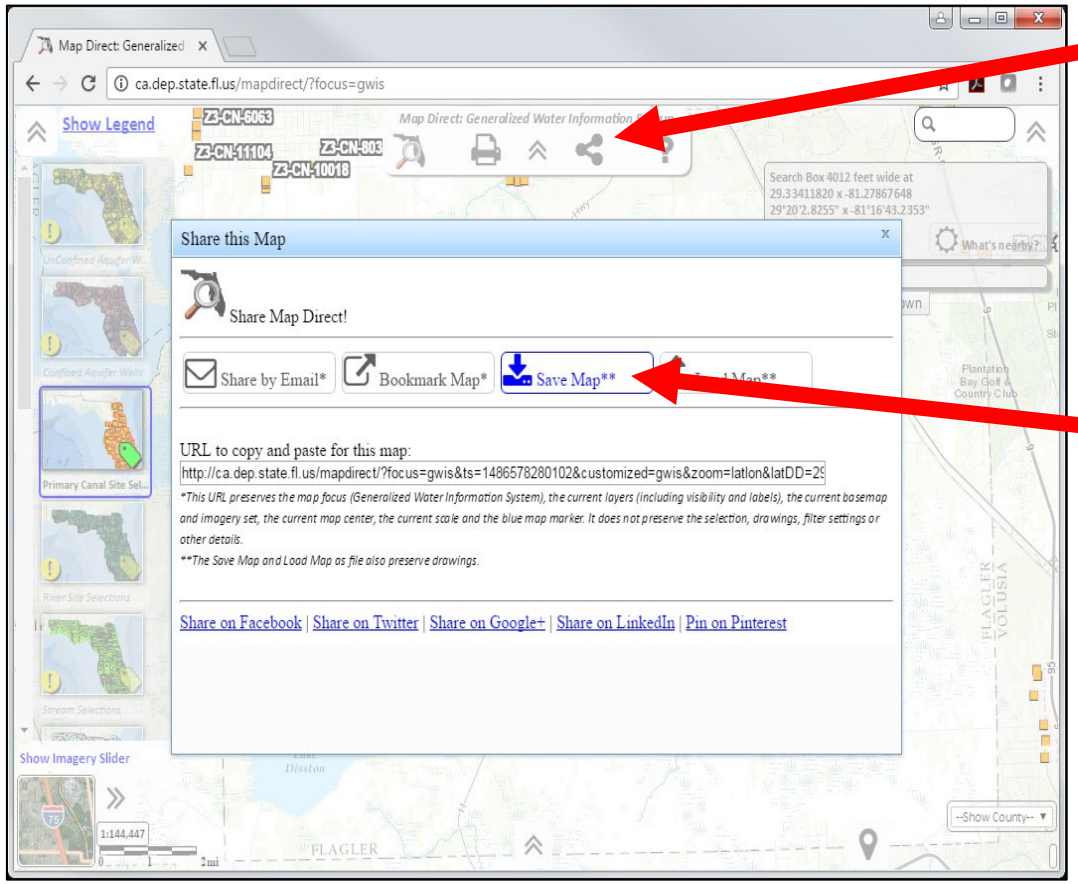
Clear Results | Printable View | Download as Spreadsheet | Close

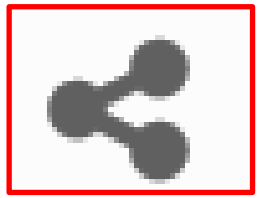
Cadastral Property Appraiser Parcels: 28 found

	OBJECTID (OID)	PARCELNO (String)	PARCEL_ID (String)	OWN_NAME (String)	OWN_ADDR1 (String)	OWN_ADDR2 (String)	OWN_CITY (String)	OWN_STATE (String)	OWN_ZIPCD (Double)	OWN_STATE (String)	S_LEGAL (String)
Remove	6103881	282409584401015	282409584401015	JEC FLORIDA LLC	9209 RIDGE PINE TRL		ORLANDO	FLORIDA	32819	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6103879	282409584401013	282409584401013	MCLAURIN DALLAS C	MCLAURIN VELMA F	9301 FENTON ST	ORLANDO	FLORIDA	32836	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6100971	282410667000310	282410667000310	VICPAR HOLDINGS LLC	7680 UNIVERSAL BLVD STE 510		ORLANDO	FLORIDA	32819	FL	PHILLIPS GROVE 94/108 LOT 31
Remove	6103880	282409584401014	282409584401014	METATRON PROPERTIES LLC	9477 WESTOVER CLUB CIR		WINDERMERE	FLORIDA	34786	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6095322	282409000000001	282409000000001	GRAND CYPRESS ORLANDO LLC	1 N JACARANDA ST		ORLANDO	FLORIDA	32836	FL	THE SE1/4 OF NW1/4 OF SE1/4 OF
Remove	6100972	282410667000320	282410667000320	SAFEPAR INVESTMENTS LLC	7680 UNIVERSAL BLVD STE 510		ORLANDO	FLORIDA	32819	FL	PHILLIPS GROVE 94/108 LOT 32
Remove	6075890	282409893500370	282409893500370	SHAUKAT MUHAMMAD	SHAUKAT BINA	10807 EMERALD CHASE DR	ORLANDO	FLORIDA	32836	FL	WATERS EDGE & BOCA POINTE AT
Remove	6077039	282409893500390	282409893500390	ATASSI SOUHEIR KILANI	10753 EMERALD CHASE DR		ORLANDO	FLORIDA	32836	FL	WATERS EDGE & BOCA POINTE AT
Remove	6077038	282409893500380	282409893500380	MACDONALD MATTHEW	MACDONALD JENNIFER	512 6TH ST S	STILLWATER	MINNESOTA	55082	MN	WATERS EDGE & BOCA POINTE AT
Remove	6103883	282409584401022	282409584401022	SAAB CAPITAL LLC	1420 CELEBRATION BLVD STE 200		KISSIMMEE	FLORIDA	34747	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6100970	282410667000300	282410667000300	DEFILIPPIS RANDY	DEFILIPPIS JENNIFER	7778 WANDERING WAY	ORLANDO	FLORIDA	32836	FL	PHILLIPS GROVE 94/108 LOT 30
Remove	6093894	282408312601000	282408312601000	GRAND CYPRESS ORLANDO LLC	1 N JACARANDA ST		ORLANDO	FLORIDA	32836	FL	GRAND CYPRESS RESORT - PHASE
Remove	6103882	282409584401021	282409584401021	KYUNG UK PARK TRUST 1/2 INT	BANG DEUK PARK TRUST 1/2 INT	1714 BRIDGEWATER DR	HEATHROW	FLORIDA	32746	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6103884	282409584401023	282409584401023	MARGARET HITCH PRICE TESTAMENT	C/O BARBARA PRICE TRUST	1411 EDGEWATER DR STE 100	ORLANDO	FLORIDA	32804	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6103870	282409584400692	282409584400692	ALLEN ROBERT M	ALLEN PAMELA LYNN EPSTEIN	9222 CHARLES E LIMPUS RD	ORLANDO	FLORIDA	32836	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6079379	282409893500220	282409893500220	TRACY CHRISTOPHER L	TRACY JEANINE V	9731 CHESTNUT RIDGE DR	WINDERMERE	FLORIDA	34786	FL	WATERS EDGE & BOCA POINTE AT
Remove	6075889	282409893500360	282409893500360	AFZAL AKASH	10813 EMERALD CHASE DR		ORLANDO	FLORIDA	32836	FL	WATERS EDGE & BOCA POINTE AT
Remove	6100974	282410667000340	282410667000340	CALDERON CARLOS	MOLINA MARIA ANTONIETA	6905 CUCAMELON CT	WINDERMERE	FLORIDA	34786	FL	PHILLIPS GROVE 94/108 LOT 34
Remove	6100973	282410667000330	282410667000330	KUMAR ARJUN	KUMAR SARA	103 BALSAM AVE	TORONTO ON	CANADA	0	FC	PHILLIPS GROVE 94/108 LOT 33
Remove	6103877	282409584400710	282409584400710	SEELA SRINIVAS	SEELA ARUNA	2642 FAWNLAKE TRL	ORLANDO	FLORIDA	32828	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6091447	282409584401024	282409584401024	JEC FLORIDA LLC	9209 RIDGE PINE TRL		ORLANDO	FLORIDA	32819	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6103878	282409584401012	282409584401012	PAREDES ALEXIS M	9325 FENTON ST		ORLANDO	FLORIDA	32836	FL	WILLIS R MUNGERS LAND SUB E/2
Remove	6100969	282410667000290	282410667000290	DEFILIPPIS RANDY	DEFILIPPIS JENNIFER	7778 WANDERING WAY	ORLANDO	FLORIDA	32836	FL	PHILLIPS GROVE 94/108 LOT 29
Remove	6103875	282409584400704	282409584400704	KILGORE MARIETTA ESTATE	PO BOX 85		WAYNESVILLE	NORTH CAROLINA	28786	NC	WILLIS R MUNGERS LAND SUB E/2
Remove	6103872	282409584400700	282409584400700	FIGUEROA KEITZALIS RESTO	9226 CHARLES E LIMPUS RD		ORLANDO	FLORIDA	32836	FL	DOC 20220360238 - ERROR IN LEG
Remove	6103869	282409584400691	282409584400691	BROWN WILLIAM E	BROWN CAROLYN	9216 CHARLES E LIMPUS RD	ORLANDO	FLORIDA	32836	FL	WILLIS R MUNGERS LAND SUB E/2

SAVING AND LOADING MAPS:

SAVE MAP TOOL





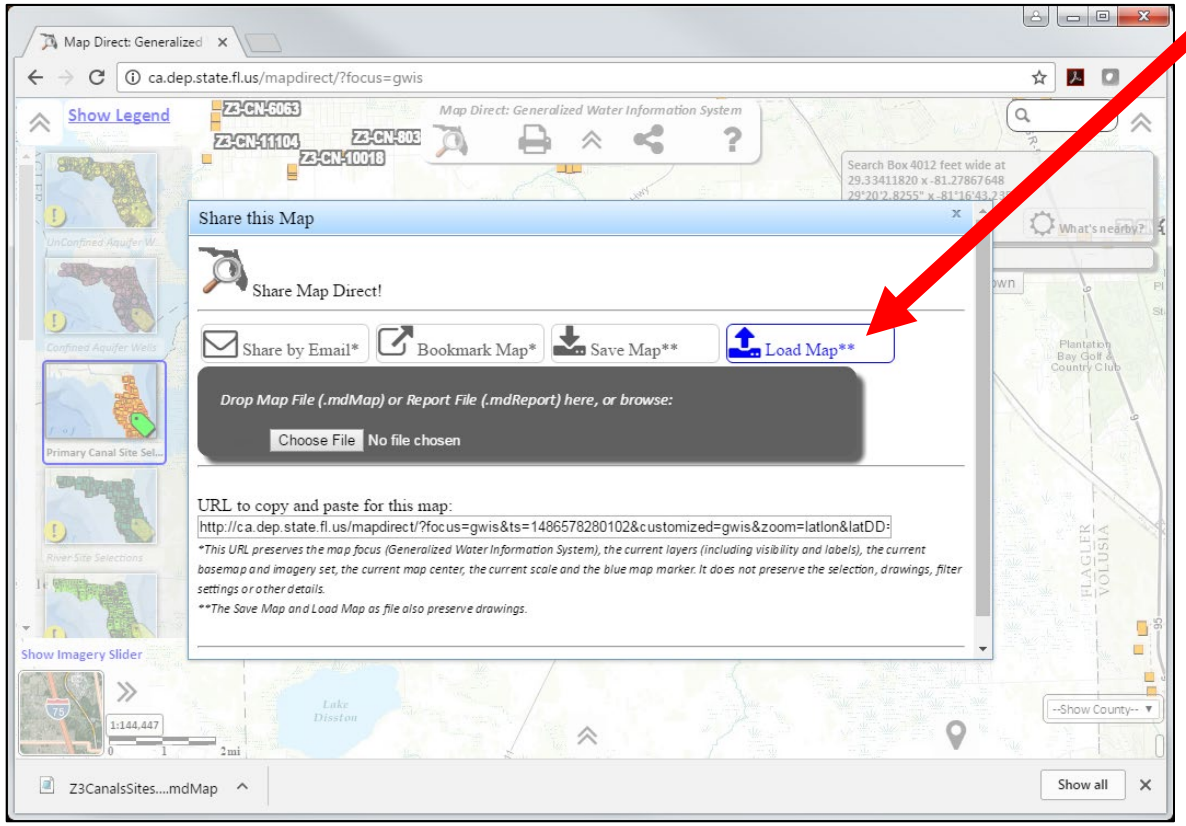
Click on the Share icon and choose “save map” button.

File will be saved with the “.mdMap” extension.

Default file name is unrelated to your search criteria.
Before saving, enter a more meaningful name for the file.
“Z5_SL_Cycle20_Sites1to20.mdMap”.

SAVING AND LOADING MAPS:

LOAD MAP TOOL



Click “Load Map.” Then, drag file to gray area of button or browse to file location. “Choose file” to load into the “standard” map.

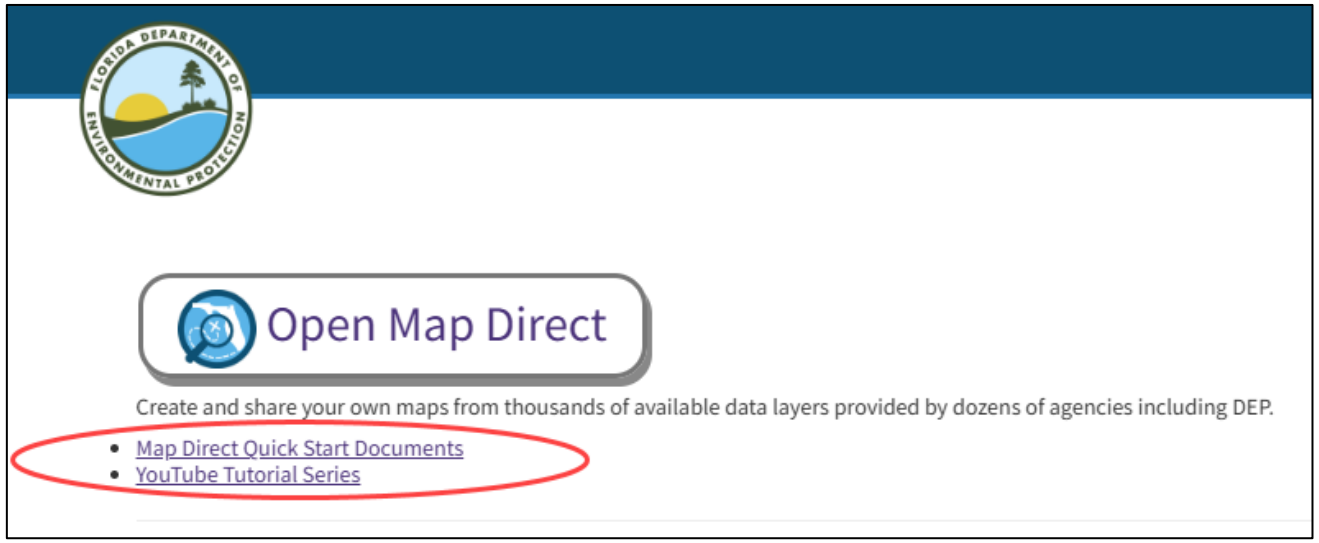
“Z5_SL_Cycle20_Sites1to20.mdMap”

ADDITIONAL ONLINE RESOURCES

Map Direct Help Guides

(https://ca.dep.state.fl.us/mapdirect/)

- Quick Start Documents
- YouTube Tutorial Series



Watershed Information Center, Map Direct Resources Section

(https://floridadep.gov/dear/watershed-monitoring-section/content/watershed-monitoring-information-center)

Custom Files for Status Network Recon

Map Direct files with all site selections for each project in current Cycle.

REPORT ISSUES / ASK QUESTIONS

Contact for Map Direct Accessed from GWIS Database Utilities:

Tommy Adams

DEP WMS Data Coordinator

Thomas.L.Adams@FloridaDEP.gov

850-245-8512

THANK YOU

Stephanie Sunderman-Barnes
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection

Contact Information:
850-245-8517
Stephanie.Sundermanbarnes@FloridaDEP.gov

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION