

Finding Data using Hydrologic Info Systems

We have a server at UF with datasets on it that are served over the internet via WebServices. 10 other testbeds have HIS server with their data networks. To see the datasets that are available in these webservices, go to HIS Central for data network descriptions: <http://water.sdsc.edu/centralhis/> Here, you can see metadata about the data networks under “details.”

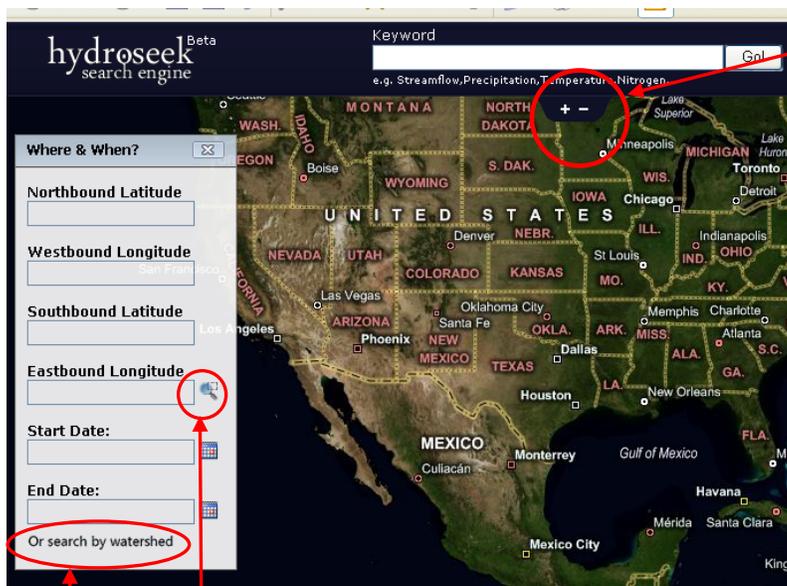
You can access data in networks 3 ways:

1. Hydroseek website (hosted by Drexel University) --- Page 1
 - a. Accesses webservices on all HIS servers (11 Waters Testbeds) + national NWIS webservice + EPA Storet webservice.
 - b. <http://www.hydroseek.org/search/>
2. DASH website (hosted by UF Water Institute) --- Page 4
 - a. Accesses webservices on our UF HIS server (1 Waters Testbed) + national NWIS webservice.
 - b. <http://ees-his06.ad.ufl.edu/dash>
3. MS Excel HIS Web Service client (created by UT-Austin, edited by KM)
 - a. Need to install a little program so macros in MS Excel work
 - b. Data sheets and installation software link available at <http://suwanneho.ifas.ufl.edu/datasets-sfetestbed-HIS.htm>

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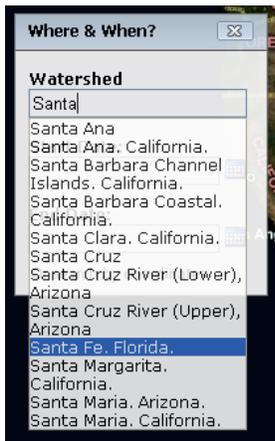


Use to Zoom in / out of the map

Two best ways to start the search is to click on Search by Watershed OR Magnifying glass to select area on the map.

Search by Watershed

1. Click on Search by Watershed
2. Type in Santa Fe and select Santa Fe, Florida, from the dropdown list
This will narrow the search of variables to our watershed.



Select Area with Magnifying Glass

3. You can also use the magnifying glass instead of the watershed name to narrow the search geographically: click on the magnifying glass icon in the Where & When dialogue.
4. If you've already searched by Watershed, click on "Or search by Coordinates" at the bottom to see the magnifying glass again:



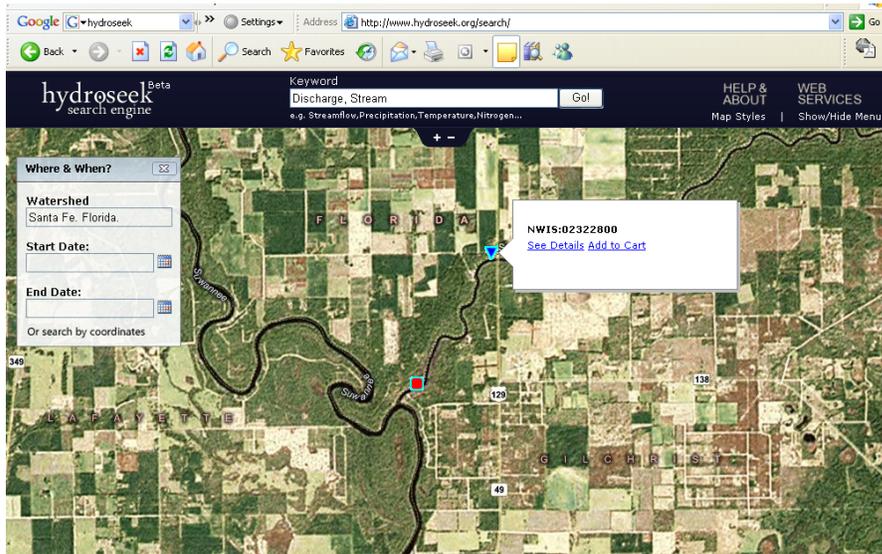
5. Click and release one time on a corner of the box you wish to outline, then click again on the opposite diagonal corner of the box.

Searching for Variables

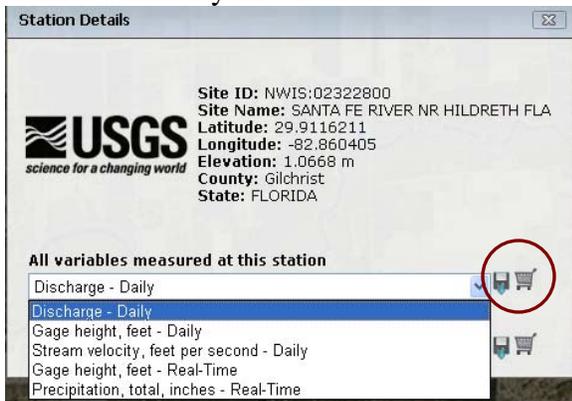
6. Click in the Keyword box and start typing the variable you are searching for (e.g. "Nitr" or "Disch")



7. Select parameter of your choice, and Click GO! The system will zoom into the Santa Fe watershed and show stations that have that data parameter collected.
8. Double click on the map (or use + sign) to zoom in more in a particular area.
9. Float over a station symbol:



10. Click See Details; here you can see list of all parameters collected for the station! You can select one at a time to add to your data cart:



- 11. You can add multiple variables for multiple stations to the datacart.
- 12. To see the datacart, go to top right of window, float over Show/Hide menus; select Data Cart.
- 13. It shows you all the data sets you have selected for download: Click on Download Cart

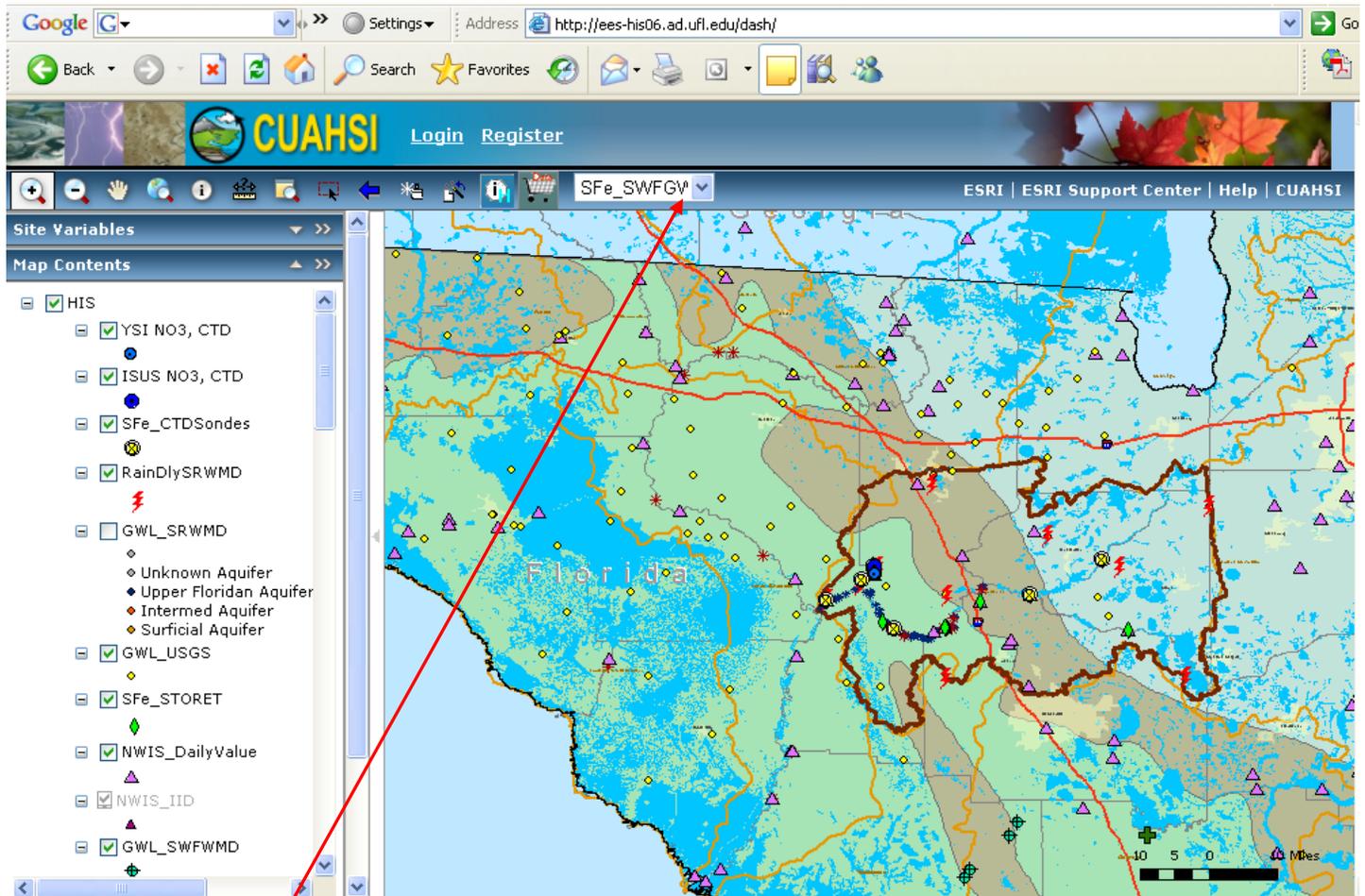


14. You will receive an email with a link to a zip file with 1 Excel workbook containing a sheet for each station dataset.

DASH Website

Accesses webservices on our UF HIS server (UF Waters Testbed data networks) + national NWIS webservice.

<http://ees-his06.ad.ufl.edu/dash/>



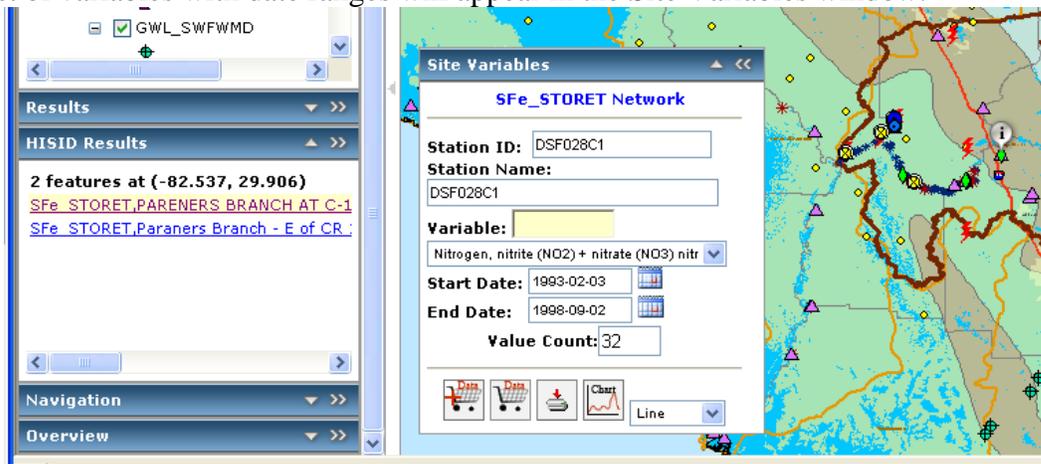
Search for Data

1. See dataset names in the Map Contents on the left. Each of these layers corresponds with a dataset listed in the **dropdown** in the toolbar above.
2. Click on the dropdown list to see all data networks this DASH has access to and select which network of data you'd like to download data for. (All these databases ("networks") except the 2 NWIS networks are on our UF HIS Server and were loaded by us.)



3. Then activate the iH tool by clicking on it.
4. Click on a station on the map that is part of the selected network.

5. One or more station names should appear in the HISID results window; Click on one of the stations, and a list of variables with date ranges will appear in the Site Variables window:



6. Now you may chart the data for a variable at the site for a date range by clicking on , or select a variable and download directly as a comma delimited file by clicking on , or add the selected variable and date range to the data cart by clicking on 

Here is a partial result of a CSV download:

```
# Query Parameters:
# QueryDate: 6/9/2008 4:20:25 PM
# Location: SFe_CTDSondes:CTD-USGS2700
# Variable: SFe_CTDSondes:Electrical Conductivity
# DateRange: 6/8/2007 12:00:00 AM - 4/7/2008 12:00:00 AM
# QueryURL:
# OD Web Service
#
# Source Information:
# Organization: UF Water Institute
# SourceID: 302
# Source Desc: UF SantaFe HO Testbed
# Email: Unknown
# Address: Unknown, Unknown, Unknown Unknown
# TypeOfContact: main
# ContactName: Unknown
# Phone: Unknown
#
# Site Information:
# Name: CTDsonde-USGSNWIS02322700
# Code: CTD-USGS2700
# Location: : 29.9525,-82.78611
#
# Variable Information:
# Name: Electrical Conductivity
# Code: Electrical Conductivity
# Vocabulary: FLWI
# Valuetype: Field Observation
# Datatype: Continuous
# GeneralCategory: Unknown
# NoDataValue: -9999
# Units: Continuous mS/cm, code:269
#
# Data Value Count:29130
#
DATETIME,VALUE
6/8/2007 2:55:00 PM,0
6/8/2007 3:10:00 PM,0.28
```

6/8/2007 3:25:00 PM,0.283
6/8/2007 3:40:00 PM,0.28
6/8/2007 3:55:00 PM,0.283

Currently DATA CART DOES NOT WORK in DASH, use DASH CSV download....

7. The data cart is limited to only adding different variables for stations all in the SAME data network. I.e., you can only add storet data to one cart, or rainfall to one cart.

8. To view/download the data cart, click on the data cart symbol with no arrow:



Select	ID	Site Code	Site Name	Network	Variable Name	Variable Code	Value Count	Begin Date	End Date
<input type="checkbox"/>	397	DSF028C1	DSF028C1	SFe_STORET	Nitrogen, nitrite (NO2) + nitrate (NO3) nitrogen as N	Nitrite_Nitrate	32	1993-02-03	1998-09-02
<input type="checkbox"/>	398	SFR010C1	SFR010C1	SFe_STORET	Nitrogen, nitrate (NO3) as N	Nitrate	20	1990-02-15	1991-09-12

9.

10. Select datasets you want and click Download data.

11. It will create a zip and prompt you for a location to save the data.

Currently DATA CART DOES NOT WORK in DASH, use DASH CSV download....

MS Excel HIS Web Service client

Go to <http://suwanneehi.ifas.ufl.edu/datasets-sfetestbed-HIS.htm>

and click on this link _____ to get download for installing software for macros in Excel to work.

Then click on one of these links to access webservice linked to data on our server:

- o [YSI](#)
- o [ISUS](#)
- o [CTD Sondes \(Excel 2007\)](#)
- o [Microwave data in Citra Florida](#)
- o [Daily Rainfall in Santa Fe basin](#)
- o [Florida DEP Storet - NO3 and P in streams](#)
- o [GWL in all SRWMD](#)
- o [GWL in 22 counties from USGS](#)

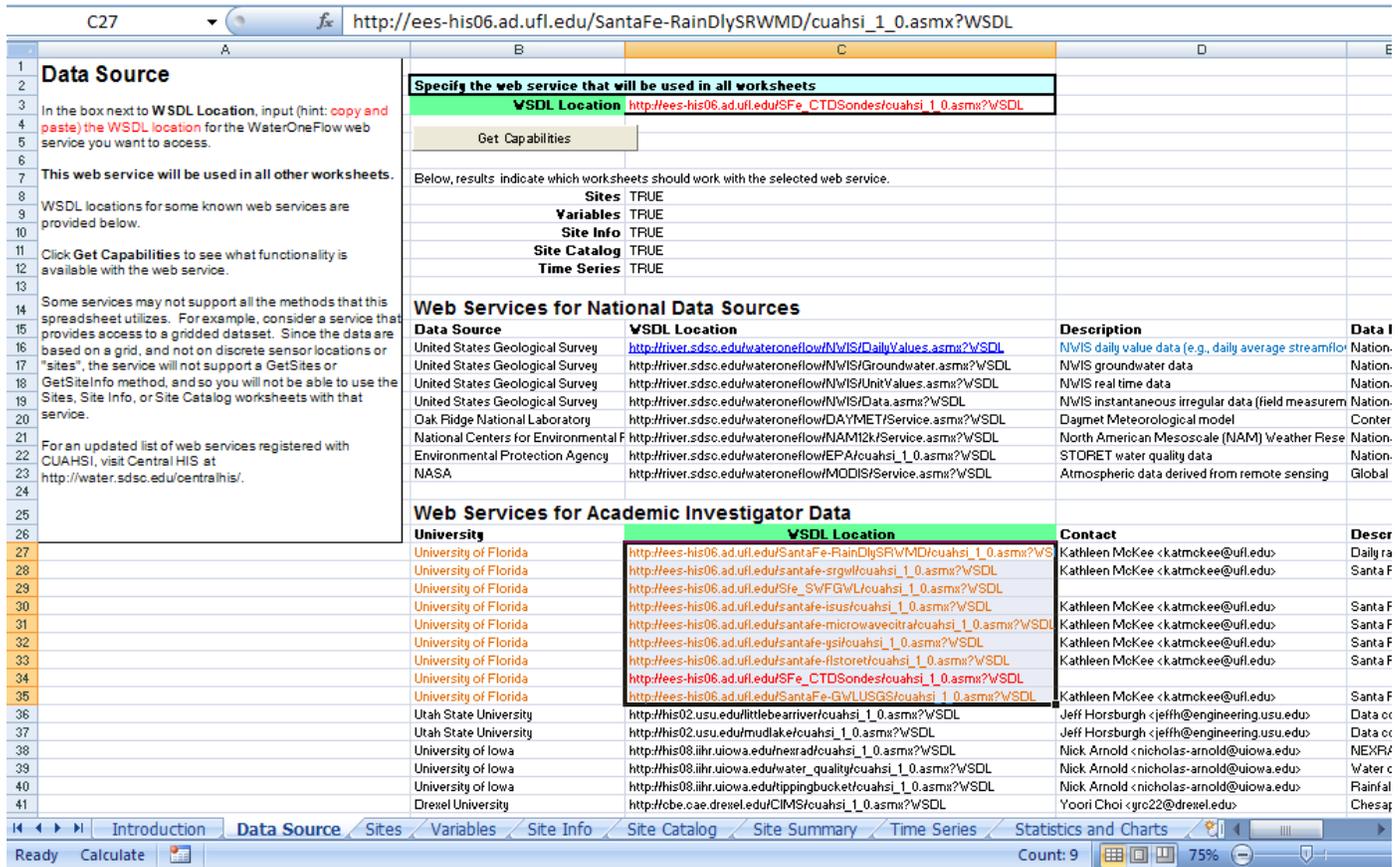
Data on the server is currently being updated MANUALLY so is not up to date.

We hope to implement Streaming Data Loader so the sensors are updated every day from Ray's FTP site.

The Excel for CTD Sonde uses the newest version of this Excel Client with multiple sheets that have macros that harvest data from the Database on our server at UF for these datasets. The Data Source sheet has a list of many of the web services that you can use to access data.

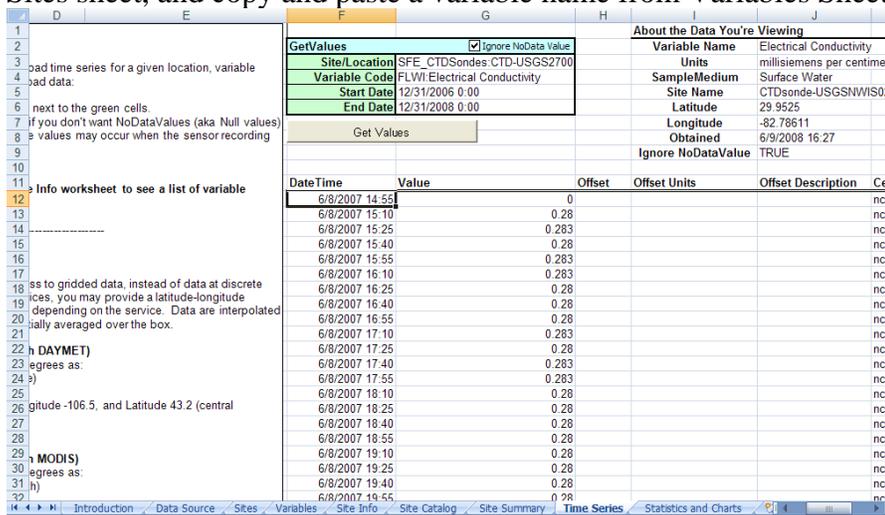
I created specific Excel sheets for most of our HIS web services (see list above). Otherwise the Excel sheet is designed to let the user copy and paste the WSDL address into the cell for that...

There are nice instructions on each of the sheets!



Browse the sheets. For datasets with a LOT of sites, do not click on Get Sites macro; will take a long time to retrieve, and I already retrieved the data sites for these saved Excel sheets.

To get a Time Series for a site and a variable, go to Time Series sheet; copy and paste a Site name from the Sites sheet, and copy and paste a variable name from Variables Sheet; enter date range:



Finis.