

DBHYDRO
User
Guide

September 10, 2013

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What is DBHYDRO?

"DBHYDRO" is the South Florida Water Management District's (the District) hydrometeorologic, water quality, and hydrogeologic data storage and retrieval system. This system is the source of historical and up-to-date data for the region covered by the District. To produce DBHYDRO, the District participates in a cooperative program with other agencies, such as the U.S. Geological Survey, Everglades National Park, the United States Army Corps of Engineers, Lake Worth Drainage District, and the U.S. Department of Agriculture. DBHYDRO allows users to access over 154,000 station-years of data, collected at over 15,000 stations in and around the District. Not only does DBHYDRO contain hydrologic, water quality, and hydrogeologic data, but it also stores additional information about the location and context where and how data are collected. Descriptions are available for most locations, giving the user information on hydrologic basin, latitude, longitude, state plane coordinates, county, section, township, range, and station notes.

One of the more powerful aspects of DBHYDRO is that data can be retrieved in a variety of ways. It is not necessary to know a specific identification number (ID) of a particular station, the database can be scanned to locate all stations that meet certain criteria, such as a given basin, county, or coordinate window. The DBHYDRO database has become an important reference for hydrologic, hydrogeologic, and water quality investigations in South Florida. The application that allows users to specify search criteria and retrieve data from DBHYDRO is called "DBHYDRO Browser".

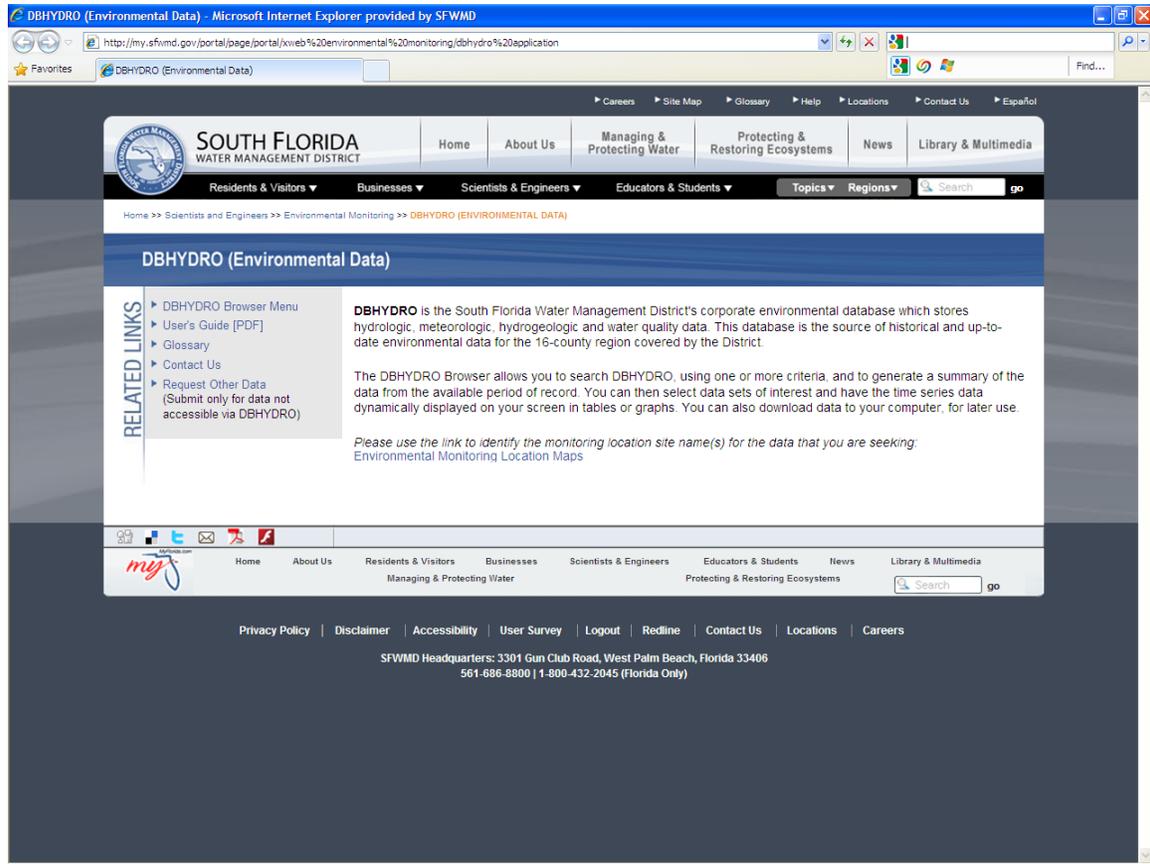
What is DBHYDRO Browser?

The DBHYDRO Browser is a web-based application that allows users to browse the South Florida Water Management District corporate environmental database, DBHYDRO, using one or more criteria, to generate a summary listing of time series. The user can then select one or more time series of interest and have the time series data dynamically displayed on their screen in tables or graphs. In addition to using text-based filters users may also access station data via a virtual globe.

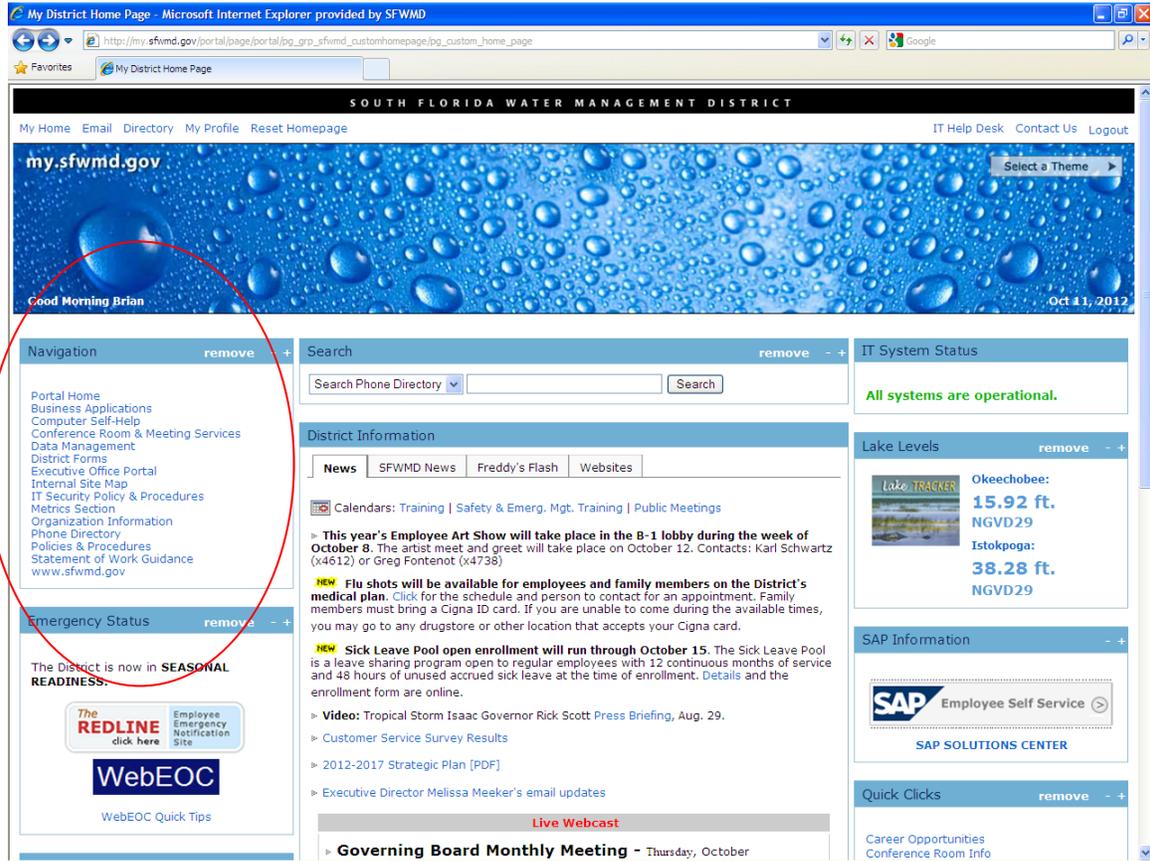
DBHYDRO Browser is tested and supported on Internet Explorer 9.

Getting Started

Internet access is provided at: <http://www.sfwmd.gov/dbhydro>



District employees, or any user authenticated on the SFWMD computer network, may also start the DBHYDRO Browser by first selecting “Business Applications” from the Navigation portlet on the District’s internal portal, and then selecting “DBHYDRO Browser”. Alternatively, District employees may start the DBHYDRO Browser by selecting “Data Management” from the District’s home page on the District’s portal, and then selecting “Enterprise Scientific Data Management” followed by “Applications”.



This is the DBHYDRO main menu. Some options are unavailable to users not authenticated on the District network (i.e. "internal use only").

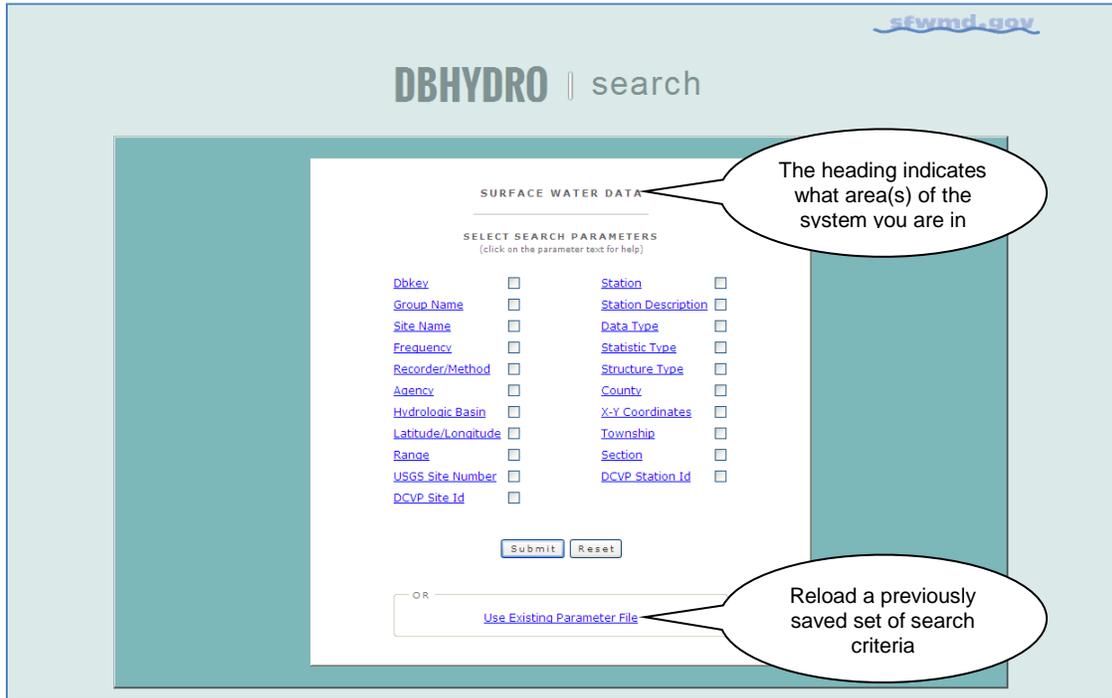
The screenshot shows the DBHYDRO main menu with the following sections and callouts:

- HYDROLOGIC & PHYSICAL DATA**: Includes checkboxes for Surface Water, Meteorological, Groundwater, and WQ Sondes. A callout says: "You may check more than one box at a time". Below the checkboxes is a "Get Data" button. To the right, it says "...or get this data one of these ways:" with links for "by Station", "by Site Name", "by Hydrologic Basin", and "Real Time Data".
- HYDROGEOLOGIC DATA**: Includes a "Get Data" button. A callout says: "Geophysical and lithologic logs".
- WATER QUALITY DATA**: Includes a "Get Sample Data" button. A callout says: "Grab and autosampler data involving chemical analysis".
- OTHER**: Includes links for "Data Validation and Processing Utilities", "RT Data and Radar-Based Rainfall Data", "Metadata/Reference Tables", "Miscellaneous Items and Reports", and "Request DBHYDRO Training". A callout says: "Look-up lists for all the codes we use".
- Navigation and Footer**: Includes links for "DBHYDRO Menu", "Portal Home", "SFWMD Home", "User's Guide", "What's New", "FAQ", "Comments?", "Privacy Policy", "Disclaimer", "Accessibility", "User Survey", "Redirection", "Contact Us", "Locations", and "Careers". A callout says: "Read or download this user guide". Another callout says: "Send us email". A callout at the bottom left says: "Get back to this page anywhere you see this link".
- Contact Information**: SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406. Phone: 561-686-8800 | 1-800-432-2045 (toll-free).

Hydrologic & Physical Data

One may check off multiple data categories simultaneously. For simplicity each category is presented separately in this guide.

Checking “Surface Water” and then clicking on [Get Data](#) leads to the following page:

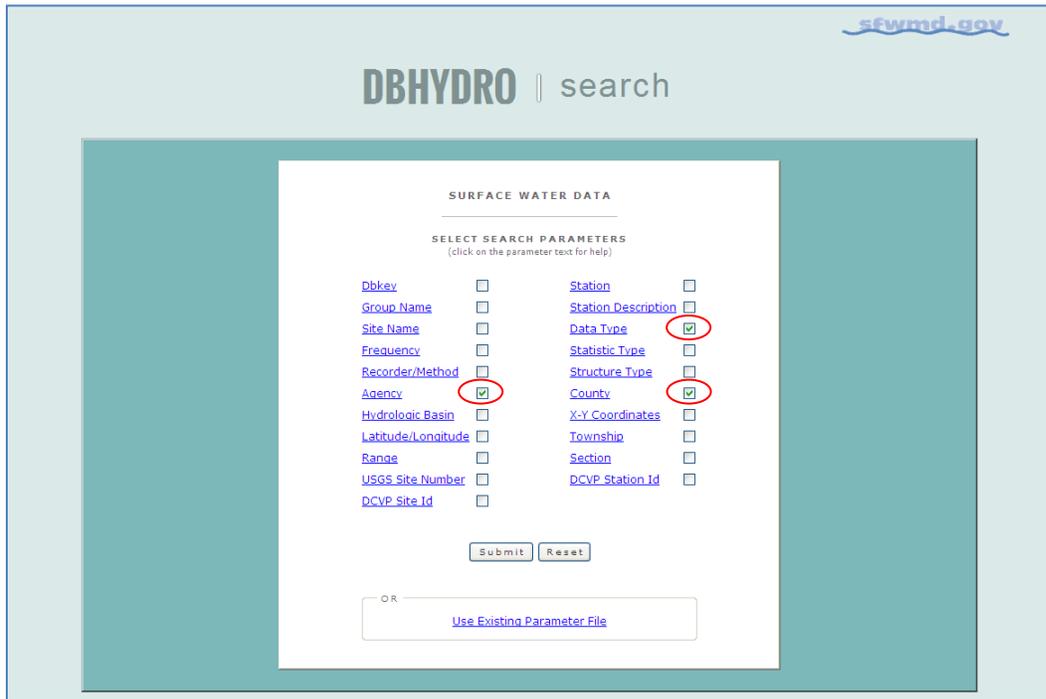


This is where you check off the boxes for the filters you want to use to identify which surface water data you care about. Each parameter (filter) is hyperlinked to a textual description of that parameter. For instance, clicking on the word [Agency](#) leads to the following help text:



Dismissing this window returns you to the Select Surface Water Search Parameters menu.

In the following example, the Agency, Data Type, and County parameters have been selected by checking their associated check boxes:



The screenshot shows the DBHYDRO search interface. At the top right is the logo sfwmd.gov. The main heading is "DBHYDRO | search". Below this is a white box titled "SURFACE WATER DATA" with the sub-heading "SELECT SEARCH PARAMETERS" and a note "(click on the parameter text for help)".

Dbkey	<input type="checkbox"/>	Station	<input type="checkbox"/>
Group Name	<input type="checkbox"/>	Station Description	<input type="checkbox"/>
Site Name	<input type="checkbox"/>	Data Type	<input checked="" type="checkbox"/>
Frequency	<input type="checkbox"/>	Statistic Type	<input type="checkbox"/>
Recorder/Method	<input type="checkbox"/>	Structure Type	<input type="checkbox"/>
Agency	<input checked="" type="checkbox"/>	County	<input checked="" type="checkbox"/>
Hydrologic Basin	<input type="checkbox"/>	X-Y Coordinates	<input type="checkbox"/>
Latitude/Longitude	<input type="checkbox"/>	Township	<input type="checkbox"/>
Range	<input type="checkbox"/>	Section	<input type="checkbox"/>
USGS Site Number	<input type="checkbox"/>	DCVP Station Id	<input type="checkbox"/>
DCVP Site Id	<input type="checkbox"/>		

Below the table are "Submit" and "Reset" buttons. Underneath is an "OR" section with a text input field and a link "Use Existing Parameter File".

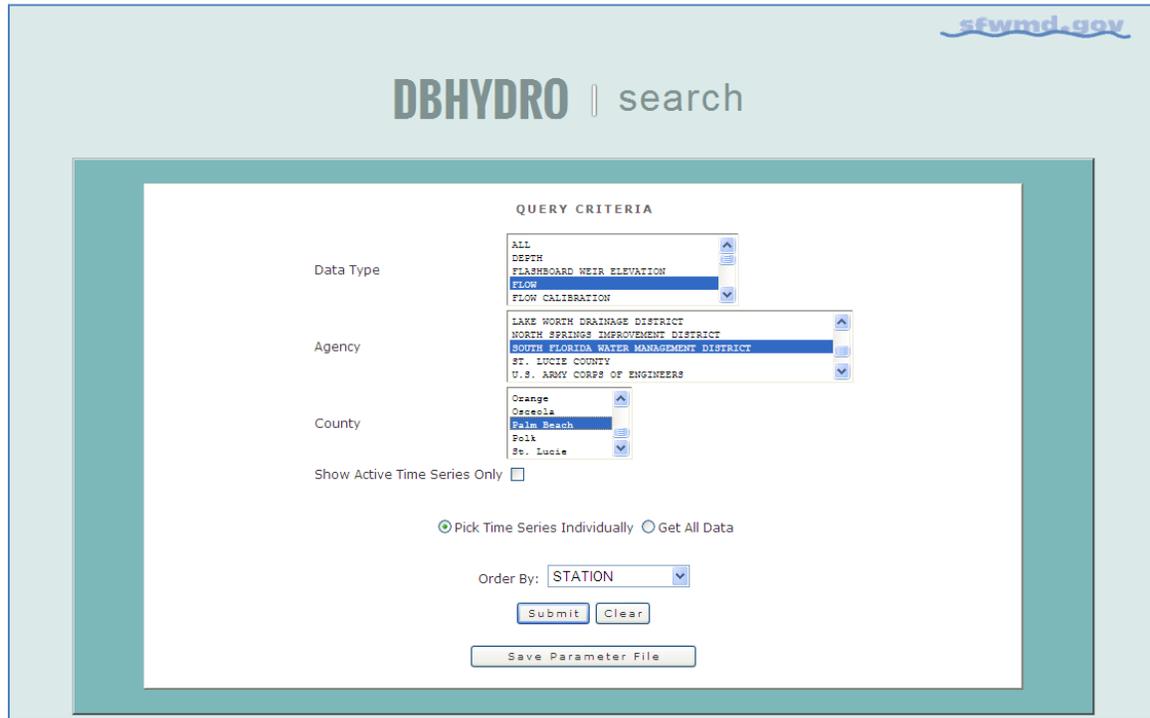
Clicking on the "Submit" button leads to the following screen:

The screenshot shows the DBHYDRO search interface. At the top right is the logo for sfwmd.gov. The main heading is "DBHYDRO | search". Below this is a "QUERY CRITERIA" section with three dropdown menus: "Data Type" (options: ALL, DEPTH, FLASHBOARD WEIR ELEVATION, FLOW, FLOW CALIBRATION), "Agency" (options: ALL, AROME IMPROVEMENT DISTRICT, CITY OF WEST PALM BEACH, DEPARTMENT OF ENVIRONMENTAL REGULATION, EVERGLADES NATIONAL PARK), and "County" (options: ALL, Brevard, Broward, Charlotte, Collier). There is a checkbox for "Show Active Time Series Only" which is currently unchecked. Below the filters are two radio buttons: "Pick Time Series Individually" (selected) and "Get All Data". An "Order By:" dropdown menu is set to "STATION". At the bottom are three buttons: "Submit", "Clear", and "Save Parameter File".

As you can see, only Data Type, Agency, and County (as requested) and those parameters specific to surface water data can now be queried. This list filtering feature helps keep the list of query criteria from getting unnecessarily large and keeps the presented information on one page much of the time.

Each list of values allows one or more selections using the CTRL or SHIFT keys in conjunction with the left mouse button.

The criteria fields are filled in by selecting from the lists of values:



The screenshot shows the DBHYDRO search interface. At the top right is the logo sfwmd.gov. The main heading is "DBHYDRO | search". Below this is a "QUERY CRITERIA" section with the following fields:

- Data Type:** A dropdown menu with options: ALL, DEPTH, FLASHBOARD WEIR ELEVATION, FLOW (selected), and FLOW CALIBRATION.
- Agency:** A dropdown menu with options: LAKE WORTH DRAINAGE DISTRICT, NORTH SPRINGS IMPROVEMENT DISTRICT, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (selected), ST. LUCIE COUNTY, and U.S. ARMY CORPS OF ENGINEERS.
- County:** A dropdown menu with options: Orange, Ocala, Palm Beach (selected), Polk, and St. Lucie.
- Show Active Time Series Only:** An unchecked checkbox.
- Ordering:** Radio buttons for "Pick Time Series Individually" (selected) and "Get All Data". Below this is an "Order By:" dropdown menu set to "STATION".
- Buttons:** "Submit", "Clear", and "Save Parameter File".

In the above example, SFWMD surface water flows in Palm Beach County are of interest. At this point, one may save a parameter file. The parameter file allows the selected criteria to be stored in a file on the user’s individual computer, or server, such that the criteria may be recalled at any future date. This feature is helpful for frequently run queries to minimize keystrokes and mouse events required to get data. Note: You may find the web services URL feature better suits your needs if you have frequently repeated database queries... but more on that later in this guide.

By checking the check box “Show Active Time Series Only” one may filter out older data sets if one is only interested in more recent, or active, data sets. In the example above, both active and inactive time series are sought.

One may order (sort) the subsequent output by any of the available output columns. By default, the output will be in “Station” order.

Frequent users may wish to bypass the next screen to go right to getting data. This technique is useful if you know your query will return only a few data sets interactively or you wish to submit a batch request. To invoke the bypass feature choose the radio button marked “Get All Data” In our example here, we do not bypass the time series list because we want to pick and choose specific data sets. More information on batch requests is provided later on.

Clicking on the "Submit" button results in the following "metadata" list:

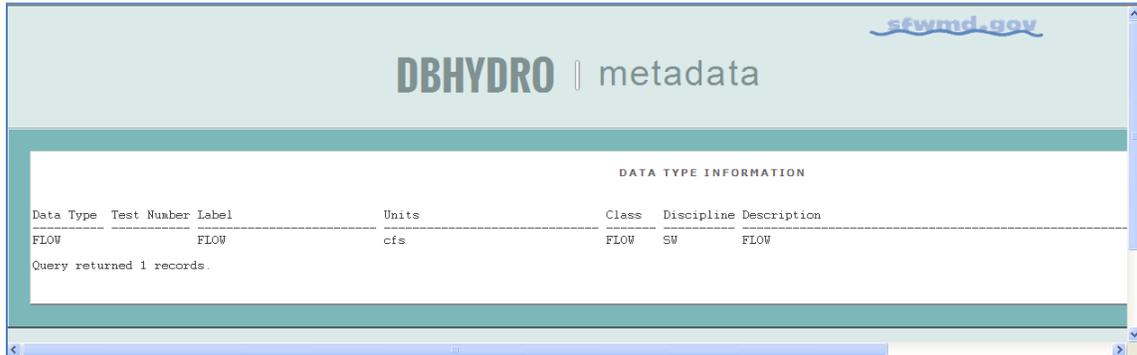
The screenshot shows a web browser window displaying a metadata table for DBHYDRO time series. The table has 20 columns: Get Data, Dbkey, Station, Group, Data Type, Freq, Stat, Recorder, Agency, Start Date, End Date, Strata, County, Op Num, Latitude, Longitude, X COORD, Y COORD, Basin, and Struct. The 'Station' column is sorted, indicated by a downward arrow above its header. Callouts provide the following information:

- Sorted by station.** Click on any column heading to sort.
- A unique data set id** (pointing to the 'Dbkey' column).
- Method of acquisition or derivation** (pointing to the 'Recorder' column).
- SFWMD data quality assurance works on data in batches.** Most data sets are quality assured within two weeks of data collection.
- Click on any [hyperlink](#) for more information** (pointing to underlined fields like 'Station', 'Recorder', 'Start Date', 'End Date', 'Strata', 'County', 'Op Num', 'Latitude', 'Longitude', 'X COORD', 'Y COORD', 'Basin', and 'Struct').

You can also click on the column heading of any column in order to sort the list by that particular column. The "Station" column is used by default as indicated by the arrow ▼ above the column heading.

Each of the underlined fields is hyperlinked to additional information that explains its meaning.

For instance, clicking on the word "[FLOW](#)" in the data type column leads to the following screen that tells us more about what "[FLOW](#)" data is including its units of measure:



The screenshot shows a web browser window with the title "DBHYDRO | metadata" and the URL "sfwmd.gov". The main content area displays "DATA TYPE INFORMATION" with a table of data types. The table has columns for Data Type, Test Number, Label, Units, Class, Discipline, and Description. A single record is shown for "FLOW" with units "cfs", class "FLOW", discipline "SW", and description "FLOW". Below the table, it states "Query returned 1 records." The browser's address bar and scrollbars are also visible.

Data Type	Test Number	Label	Units	Class	Discipline	Description
FLOW		FLOW	cfs	FLOW	SW	FLOW

Query returned 1 records.

This behavior is similar for all the other hyperlinked time series attributes.

The station field hyperlink leads to a screen displaying the station information. Selecting station "C18W_W" leads to this screen:

The screenshot shows the DBHYDRO interface for station C18W_W. The page title is "DBHYDRO | by station" and the URL is "sfwmd.gov". The main content is a "STATION INFORMATION" table with the following data:

Field	Value
Station	C18W_W
Type	Facility
Site	C18W
Latitude	265219.209 (ddmss.sss)
Longitude	801442.158 (ddmss.sss)
X Coord	902277.093 ft
Y Coord	923376.907 ft
County - Name	PAL - Palm Beach
Basin - Name	C18 - C-18/CORBETT
Section	28
Township	41
Range	41
Show Map	Google Map
Description	Weir 200 ft downstream of SR710 on canal C18 West
Travel Info	
Notes	
Nearby Stations	Nearby Stations
Attachments	None Available

Below the table, it says "Query returned 1 record." and there are three buttons: "Get Time Series Data", "Clear All", and "Check All".

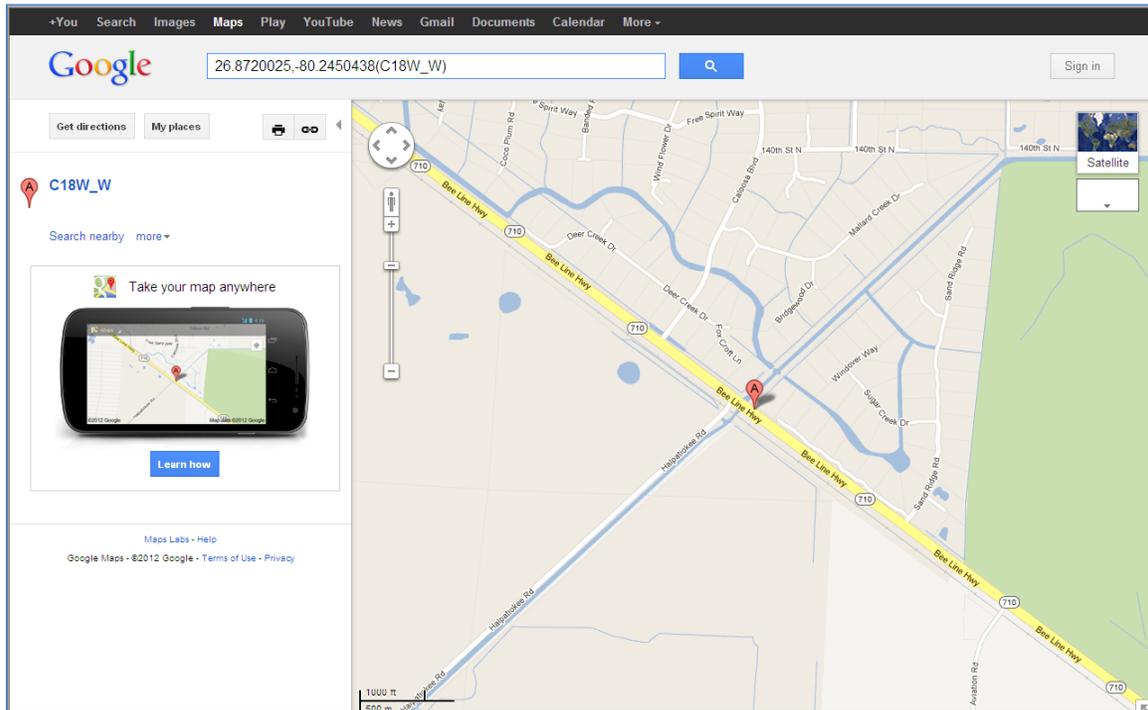
Callout boxes provide additional context:

- "View any attached documents" points to the "Attachments" row.
- "See this location on a map" points to the "Show Map" link.
- "See a list of stations in the area" points to the "Nearby Stations" link.

At the bottom of the page, there is a navigation menu: [DBHYDRO Menu](#) | [Portal Home](#) | [SEWMD Home](#) | [User's Guide](#) | [What's New](#) | [FAQ](#) | [Comments?](#)

From here we can display a map with this station marked on it, "Get Time Series Data", or display structure information about this flow station. Had there been water quality data available at this station there would be a "Get Sample Data" button available. Had there been a groundwater well constructed at this station there would be a link to Well Info.

Selecting "Google Maps" leads to a map similar to this one:



Here we are taking advantage of publicly available map server technology to learn more about the area near the station of interest. The map can be drawn at different scales (zoom in/out) and printed. General directions to the station can also be generated. The South Florida Water Management District does not endorse the use of any particular commercial map server engine or its advertisers.

Alternatively, by selecting the “Nearby Station” link at the right end of the row, we can get a list of other monitoring stations in the vicinity. Such a list may lead us to other data that we, because of previous query criteria, did not realize was present. The column “Distance (miles)” tells us how close other stations are to “C18W_W”.

Get Data	Station	Site	Latitude (ddmmss.ssss)	Longitude (ddmmss.ssss)	X Coord (ft)	Y Coord (ft)	Distance (miles)	County	Basin	Section	Township	Range	Show Map	Description
<input type="checkbox"/>	C18W_H	C18W	265219.209	801442.158	902277.093	923376.907	0.	PAL	C18	28	41	41	Google Map	CANAL C18 WEST, HEADWATER
<input type="checkbox"/>	C18W_R	C18W	265219.209	801442.158	902277.093	923376.907	0.	PAL	C18	28	41	41	Google Map	CANAL C18 WEST, RAINFALL
<input type="checkbox"/>	C18W_T	C18W	265219.209	801442.158	902277.093	923376.907	0.	PAL	C18	28	41	41	Google Map	CANAL C18 WEST, TAILWATER
<input type="checkbox"/>	C18W_W	C18W	265219.209	801442.158	902277.093	923376.907	0.	PAL	C18	28	41	41	Google Map	Weir 200 ft downstream of SR710 on cana
<input type="checkbox"/>	C18	C18	265219.758	801443.945	902114.843	923431.276	.03	PAL	C18	28	41	41	Google Map	CANAL C18 WEST AT SR710 NR JUPITER, FL
<input type="checkbox"/>	C18SR710	C18	265219.757	801443.946	902114.843	923431.276	.03	PAL	C18	28	41	41	Google Map	AT THE POINT WHERE C-18 PASSES UNDER
<input type="checkbox"/>	PB-1525	PB1525	265259.073	801233.561	913897.278	927473.167	2.33	PAL	C18	24	41	41	Google Map	PB1525, GROUNDWATER MONITORING SIT
<input type="checkbox"/>	PB-1524	PB-1524	265444.204	801519.159	898840.357	937998.302	2.85	PAL	JUPITER	16	41	41	Google Map	PB -1524
<input type="checkbox"/>	PB-1553	PB-1553	265444.204	801519.159	898840.357	937998.302	2.85	PAL	JUPITER	16	41	41	Google Map	PB -1553
<input type="checkbox"/>	PB-1552	PB-1552	265444.21	801519.17	898839.514	937998.735	2.85	PAL	JUPITER	16	41	41	Google Map	PB -1552
<input type="checkbox"/>	PBPOC_PW	PB_POC	265418.463	801627.861	892636	935362.768	2.92	PAL	C18	18	41	41	Google Map	PUMPING WELL FOR PALM BEACH PARK OF
<input type="checkbox"/>	PBPOC_OW	PB_POC	265418.463	801627.861	892636	935362.768	2.92	PAL	C18	18	41	40	Google Map	PALM BEACH PARK OF COMMERCE
<input type="checkbox"/>	PB-1550	USGS_14	265135.21	801726.17	887449.456	918848.639	2.93	PAL	C18	6	42	41	Google Map	USGS WELL #14 SFWMD ID #099-22
<input type="checkbox"/>	PB-1551	USGS_14	265135.221	801726.178	887448.82	918849.224	2.93	PAL	C18	6	42	41	Google Map	USGS SITE 14
<input type="checkbox"/>	PB-688R_G	PB-688R	265446.204	801355.157	906443.42	938245.723	2.93	PAL	JUPITER	11	41	41	Google Map	PB-688R
<input type="checkbox"/>	PB-1109		265116.211	801730.163	887098.698	916927.696	3.12	PAL	C18	6	42	41	Google Map	MONITOR SITE FOR WATER QUALITY ASSU
<input type="checkbox"/>	PB-0715	PB715	265115.751	801730.056	887108.586	916881.241	3.12	PAL	C18	6	42	41	Google Map	MONITOR WELL IN J.W. CORBETT AREA, NC
<input type="checkbox"/>	PB-0716		265115.211	801730.163	887099.261	916826.723	3.13	PAL	C18	36	41	40	Google Map	PB-716 [HOWDI:265114080173102]
<input type="checkbox"/>	PB-716_G	PB-716	265115.211	801730.163	887099.261	916826.723	3.13	PAL	C18	36	41	40	Google Map	PB-716 [HOWDI:265114080173102]
<input type="checkbox"/>	PB-1085		265028.214	801156.154	917380.767	912261.063	3.55	PAL	C18	1	42	41	Google Map	MONITOR WELL AT NW CORNER OF PGA BI
<input type="checkbox"/>	PB-563_G	PB-563	265028.214	801155.154	917471.351	912261.635	3.56	PAL	C18	4	2	1	Google Map	PB-563

Warning: Station locations are determined by a number of different methods, each with its own inherent accuracy capabilities. Therefore, some coordinates and distances may only be approximate.

Click on the "Back" button twice in your browser to return to the Time Series Listing page where you can now select one or more data sets for display.

Note that data sets for which there is not yet any data are not selectable. That is, there is no check box available in the Get Data column.

In this example we have indicated we want the data for "G304E_C". We have selected the data set with recorder equal to "PREF". "PREF" is an abbreviation for "preferred". The data is preferred because such data sets undergo an additional level of quality assurance by engineering staff. Whenever "PREF" data is available for your date range of interest it should be used.

Up to 100 rows of metadata will be displayed on each page. If data from different pages are desired it must be fetched separately from one another. Alternatively, one could refine the query so fewer metadata rows are returned such that they all fit on one page.

Scroll down and click on the button that is displayed at the bottom of the screen.



Take notice of the Clear All and Check All buttons that can be used to expedite the time series selection process. Clear All has the effect of removing check marks from all checked time series. Check All has the effect of selecting, or checking all the time series data records. Notice that data sets that have no data are not selectable. A data set may have no data because it is registered in preparation of receiving data but has not received any data yet. Again, a parameter file may be saved at this point in time also.

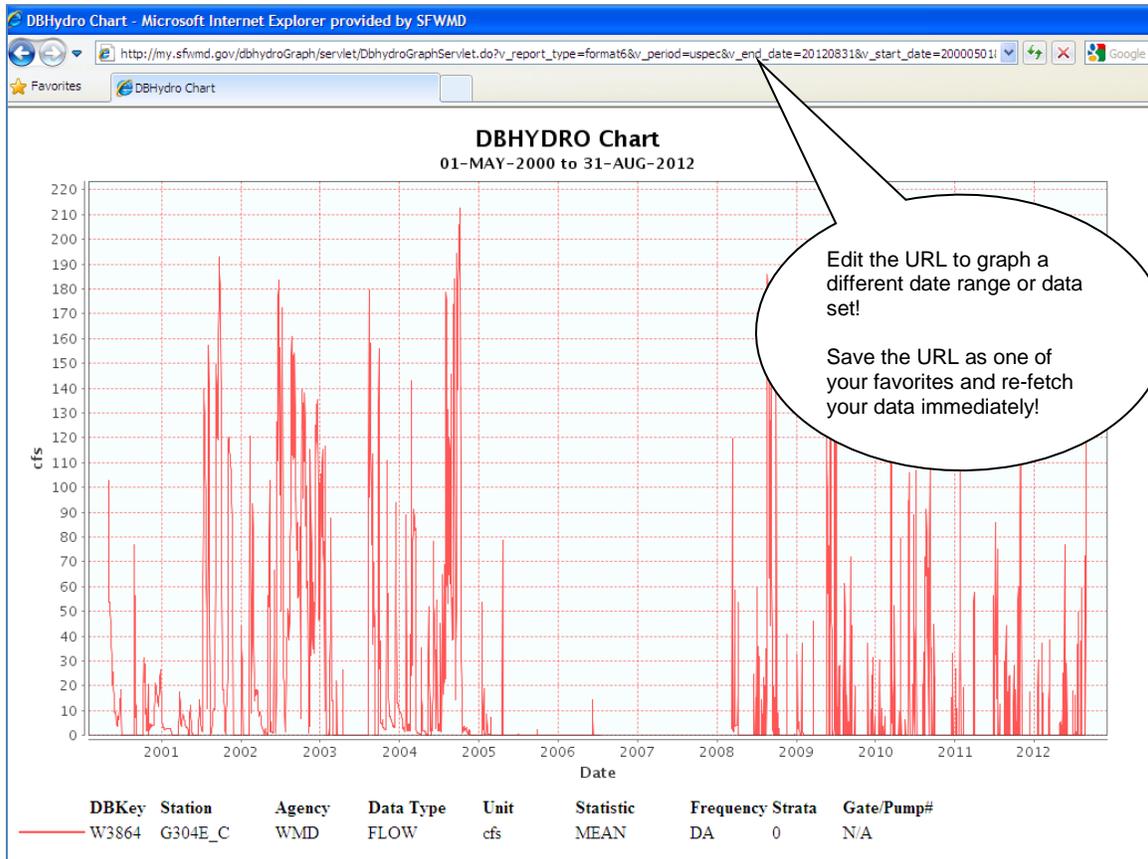
Once the button is pressed the date range selection and format selection screen is now displayed:

When the date range choice is "User Specified" the default start date is the earliest start date in the time series list. The default end date is the most recent end date in the list. Therefore, the default is the entire period of record for all data listed. The dates in the Start Date and End Date fields are ignored when a fixed date range such as "Today and previous 2 days" is selected from the pull-down list.

Here we may make our selections to get the period of record for the data set and plot it on a chart. As indicated above, the appropriate "radio buttons" have been selected. There are thirteen different output report formats (names) and five different output destinations. Note: Not all combinations of Report Format and Destination are valid but the user is informed of invalid combinations when attempted.

Charting/Graphing

Clicking on the "Chart" button under “Destination” results in the following graph:



This graph is generated directly from the database “on-the-fly” ensuring your results are always up-to-date with what is available. The graph may be printed to any available printer. Make sure to print the graph in landscape mode.

One may simply edit the resulting chart URL date text to regenerate a graph covering a different date range or return to the previous screen and enter dates. Chart URLs may be bookmarked and reused directly from your web browser without having to navigate the DBHYDRO menu. Subsequent invocations of a chart URL will always get the current state of the data. More on this feature is in the web services section of this user guide.

Multiple time series and multiple axes are supported.

Clicking on the "Back" button on your browser and selecting the tabular data option allows us to choose several formats. The example below indicates the user is ready to retrieve data in a “one year per page” tabular report.

DBHYDRO | time series

sfwmd.gov

QUERY DATE SELECTION

Time Series List

Get Data	Dbkey	Station	Group	Data Type	Freq	Stat	Strata	Recorder	Agency	Start Date	End Date	County	Op Num	Latitude	Longitude	Basin	Struct
<input checked="" type="checkbox"/>	W3854	G304E_C	G304E_C	FLOW	DA	MEAN	0	PREF	WMD	20000501	20120831	PAL		264008.755	802325.144	STA-1W	CULV

Clear All Check All

Date Range: User Specified
Start Date: 20000501 End Date: 20120831 (YYYYMMDD)

Report Format: Month - Year Matrix

Destination:
 Screen
 File: Fixed column width.
 File: Comma delimited (.csv).
 Adobe (.pdf) Format.
 Chart

Run Mode:
 Online
 Batch [When to use it](#)

Submit Reset

Save Parameter File

Month-Year Matrix fits one year of data to a single page in matrix format in which the columns are months of the year and the rows are days of the month. One Value Per Row format is a single column output in which each value appears on its own line. Multiple Daily Values Per Row format is a multi-column output in which the values for multiple time series appear on a single line corresponding to a single date.

This is what you get with one year to a page. Each month is a separate column and each day is a separate row. Each year is a separate section in the output. Monthly summary statistics are at the bottom of each year.

sfwmd.gov

DBKEY	STATION	AGENCY	COUNTY	TYPE	UNITS	STAT	PQ	START	END	LAT	LONG	SECTION	TOWN	RANGE	ALTERNATE	ID
W3864	G304E_C	WMD	PAL	FLOW	cfs	MEAN	DA	2000	2012	264008	802325	6	44	40		
YEAR: 2000																
DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC				
1	M	M	M	M	100.67	8.52	.00	.00	9.98	.00	12.36	14.08				
2	M	M	M	M	102.85	9.04	.00	.00	7.28	.00	.74	16.82				
3	M	M	M	M	96.54	8.81	.00	.00	10.26	.00	.33	19.57				
4	M	M	M	M	57.52	8.50	.00	.00	13.23	.00	1.78	20.52				
5	M	M	M	M	53.65	9.59	.00	.00	11.77	.00	3.34	20.28				
6	M	M	M	M	53.51	4.92	.00	.00	2.66	.00	4.48	19.57				
7	M	M	M	M	53.51	4.11	.00	.00	3.75	.00	4.50	18.86				
8	M	M	M	M	53.51	4.47	.00	.00	.00	.00	3.94	18.16				
9	M	M	M	M	53.38	5.20	.00	.00	.00	.00	2.17	17.45				
10	M	M	M	M	52.22	5.43	.00	.00	.00	17.86	2.59	16.74				
11	M	M	M	M	49.26	5.61	.00	.00	.00	31.39	3.23	16.07				
12	M	M	M	M	46.08	4.99	.00	.00	.00	21.34	3.87	15.47				
13	M	M	M	M	42.49	3.50	.00	.00	.00	27.13	4.30	14.83				
14	M	M	M	M	38.95	5.80	.00	.00	.00	25.27	4.46	14.13				
15	M	M	M	M	36.11	7.92	.00	.00	.00	22.79	4.36	13.43				
16	M	M	M	M	35.96	7.80	.00	.00	.00	22.96	4.14	12.74				
17	M	M	M	M	32.54	7.35	.00	.00	.00	28.53	3.66	12.04				
18	M	M	M	M	22.47	6.91	.00	.00	.00	25.36	3.84	11.82				
19	M	M	M	M	20.41	6.57	.00	.00	.00	8.47	4.07	13.38				
20	M	M	M	M	21.06	7.25	.00	.00	.00	11.25	4.24	15.11				
21	M	M	M	M	21.88	10.25	.00	.00	.00	10.48	4.26	16.84				
22	M	M	M	M	23.59	13.93	.00	.00	.00	9.27	4.26	18.57				
23	M	M	M	M	25.76	14.71	.00	.00	.00	7.44	4.26	20.30				
24	M	M	M	M	22.82	13.14	.00	.00	.00	3.50	4.26	22.03				
25	M	M	M	M	19.96	11.41	.00	.00	.00	1.88	4.26	23.76				
26	M	M	M	M	18.28	12.64	.00	.00	.00	7.22	4.26	25.49				
27	M	M	M	M	16.56	18.52	.00	.14	.00	7.08	4.72	26.38				
28	M	M	M	M	14.82	17.20	.00	76.80	.00	4.63	6.69	24.10				
29	M	M	M	M	13.85	16.33	.00	73.58	.00	2.05	8.98	21.51				
30	M	M	M	M	11.23	7.65	.00	29.11	.00	5.27	11.47	18.92				
31	M	M	M	M	9.29		.00	56.26		20.67		16.32				
MAX	M	M	M	M	102.85	18.52	.00	76.80	13.23	31.39	12.36	26.38				
MEAN	M	M	M	M	39.32	8.94	.00	7.61	1.96	10.38	4.46	17.93				
MIN	M	M	M	M	9.29	3.50	.00	.00	.00	.00	.33	11.82				
SUM	M	M	M	M	1218.86	268.06	.00	235.89	58.93	321.84	133.82	555.69				

DATA TAG LEGEND

I - "Normal" Limits Exceeded	N - Not Yet Available
< - Less Than	P - Partial Record or USGS Provisional Data
> - Greater Than	R - Rainfall was observed (for evaporation data)
? - Questionable (Do Not Use)	S - Original Had More Than 5 Significant Digits
A - Accumulated (rainfall)	T - Trace Of Precipitation
E - Estimated	U - Uncertified by SFWMD (continuous data series)
I - Inserted (estimated) During Data Processing	V - Verified
J - Estimated (water quality)	X - Included In Next Amount Marked 'A'
L - Line-Average	Y - Provisional Use For Regional Scale Modeling
M - Missing	Z - Not Appropriate For Regional Scale Modeling

This output can be saved explicitly as a .txt file using File → Save As or one may choose Edit → Select All and paste the information into another application.

The file may also be saved in comma separated variable (.csv) format and opened in a program such as Notepad or a spreadsheet program like Microsoft Excel:

1	Time Series Data															
2	DBKEY	STATION	AGENCY	COUNTY	TYPE	UNITS	STAT	FQ	START	END	LAT	LONG	SECTION	TOWN	RANGE	ALTERNATE ID
3	W3864	G304E_C	WMD	PAL	FLOW	cfs	MEAN	DA	2000	2012	264008	802325	6	44	40	
4	YEAR: 2000															
5	DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC			
6	1	M	M	M	M	100.67	8.52	0	0	9.98	0	12.36	14.08			
7	2	M	M	M	M	102.85	9.04	0	0	7.28	0	0.74	16.82			
8	3	M	M	M	M	95.54	8.81	0	0	10.26	0	0.33	19.57			
9	4	M	M	M	M	57.52	8.5	0	0	13.23	0	1.78	20.92			
10	5	M	M	M	M	53.65	9.58	0	0	11.77	0	3.34	20.28			
11	6	M	M	M	M	53.51	4.92	0	0	2.66	0	4.48	19.57			
12	7	M	M	M	M	53.51	4.11	0	0	3.75	0	4.5	18.86			
13	8	M	M	M	M	53.51	4.47	0	0	0	0	3.94	18.16			
14	9	M	M	M	M	53.38	5.2	0	0	0	0	2.17	17.45			
15	10	M	M	M	M	52.22	5.43	0	0	0	17.86	2.59	16.74			
16	11	M	M	M	M	49.26	5.61	0	0	0	31.39	3.23	16.07			
17	12	M	M	M	M	46.08	4.99	0	0	0	21.34	3.87	15.47			
18	13	M	M	M	M	42.49	3.5	0	0	0	27.13	4.3	14.83			
19	14	M	M	M	M	38.85	5.8	0	0	0	25.27	4.46	14.13			
20	15	M	M	M	M	36.11	7.92	0	0	0	22.79	4.36	13.43			
21	16	M	M	M	M	35.96	7.8	0	0	0	22.96	4.14	12.74			
22	17	M	M	M	M	32.54	7.35	0	0	0	28.53	3.66	12.04			
23	18	M	M	M	M	22.47	6.91	0	0	0	25.36	3.84	11.82			
24	19	M	M	M	M	20.41	6.57	0	0	0	8.47	4.07	13.38			
25	20	M	M	M	M	21.06	7.25	0	0	0	11.25	4.24	15.11			
26	21	M	M	M	M	21.88	10.25	0	0	0	10.48	4.26	16.84			
27	22	M	M	M	M	23.59	13.93	0	0	0	9.27	4.26	18.57			
28	23	M	M	M	M	25.76	14.71	0	0	0	7.44	4.26	20.3			
29	24	M	M	M	M	22.82	13.14	0	0	0	3.5	4.26	22.03			
30	25	M	M	M	M	19.96	11.41	0	0	0	1.88	4.26	23.76			
31	26	M	M	M	M	18.28	12.64	0	0	0	7.22	4.26	25.49			
32	27	M	M	M	M	16.56	18.52	0	0.14	0	7.08	4.72	26.38			
33	28	M	M	M	M	14.82	17.2	0	76.8	0	4.63	6.69	24.1			
34	29	M	M	M	M	13.08	16.33	0	73.58	0	2.05	8.98	21.51			
35	30	M	M	M	M	11.23	7.65	0	29.11	0	5.27	11.47	18.92			
36	31	M	M	M	M	9.29		0	56.26		20.67		16.32			
37	MAX	M	M	M	M	102.85	18.52	0	76.8	13.23	31.39	12.36	26.38			

When saving the file, your operating system (e.g. Microsoft Windows) will know that you want this file associated with Microsoft Excel if it is saved with a .csv extension.

An example of One Value Per Row format is as follows:

Time Series Data

DBKEY	STATION	AGENCY	COUNTY	TYPE	UNITS	STAT	FQ	START	END	LAT	LONG	SECTION	TOWN	RANGE	ALTERNATE	ID
W3864	G304E_C	WMD	PAL	FLOW	cfs	MEAN	DA	2000	2012	264008	802325	6	44	40		

Station	DBKEY	Daily Date	Data Value	Code	Revision Date
G304E_C	W3864	25-AUG-2012	48.38		24-SEP-2012
G304E_C	W3864	26-AUG-2012	97.71		24-SEP-2012
G304E_C	W3864	27-AUG-2012	195.58		24-SEP-2012
G304E_C	W3864	28-AUG-2012	190.71		24-SEP-2012
G304E_C	W3864	29-AUG-2012	185.35		24-SEP-2012
G304E_C	W3864	30-AUG-2012	177.30		24-SEP-2012
G304E_C	W3864	31-AUG-2012	175.01		24-SEP-2012

Query returned 7 records.

[Quality Code Listing](#)

[Click here to see Annotations](#)

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Links to quality codes and data processing annotations made during the quality assurance process are located at the bottom of the listing.

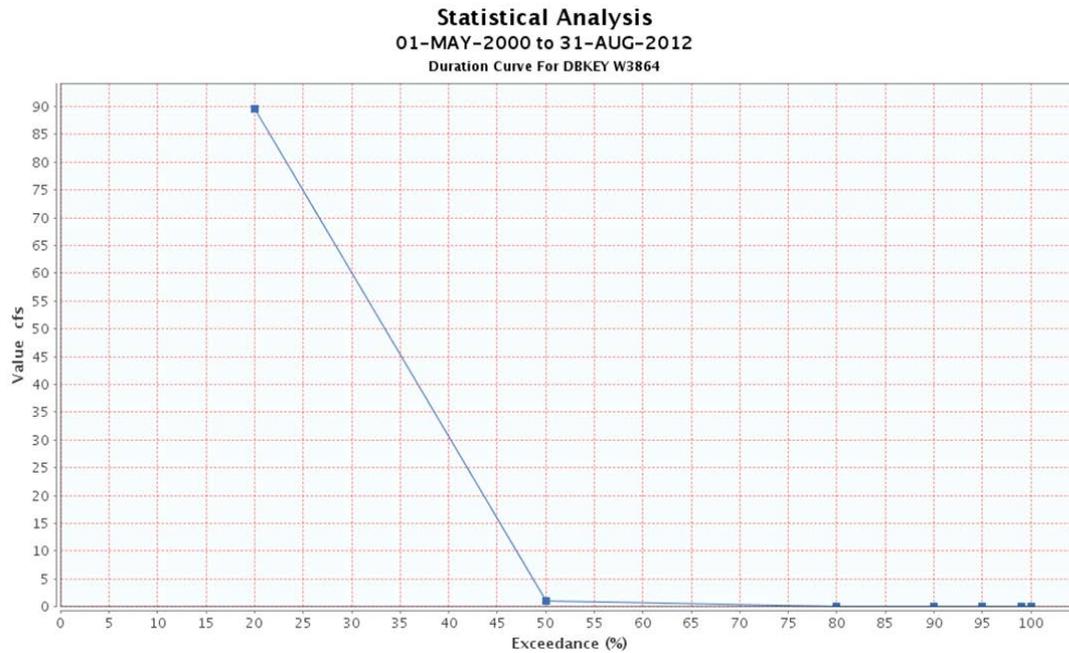
Multiple Daily Values Per Row format (not shown) provides for multiple simultaneous time series values to be displayed on the same row (date/time stamp). Users can chart multiple time series in the browser or with bit of additional manual effort the user may graph multiple time series on the same graph in Excel.

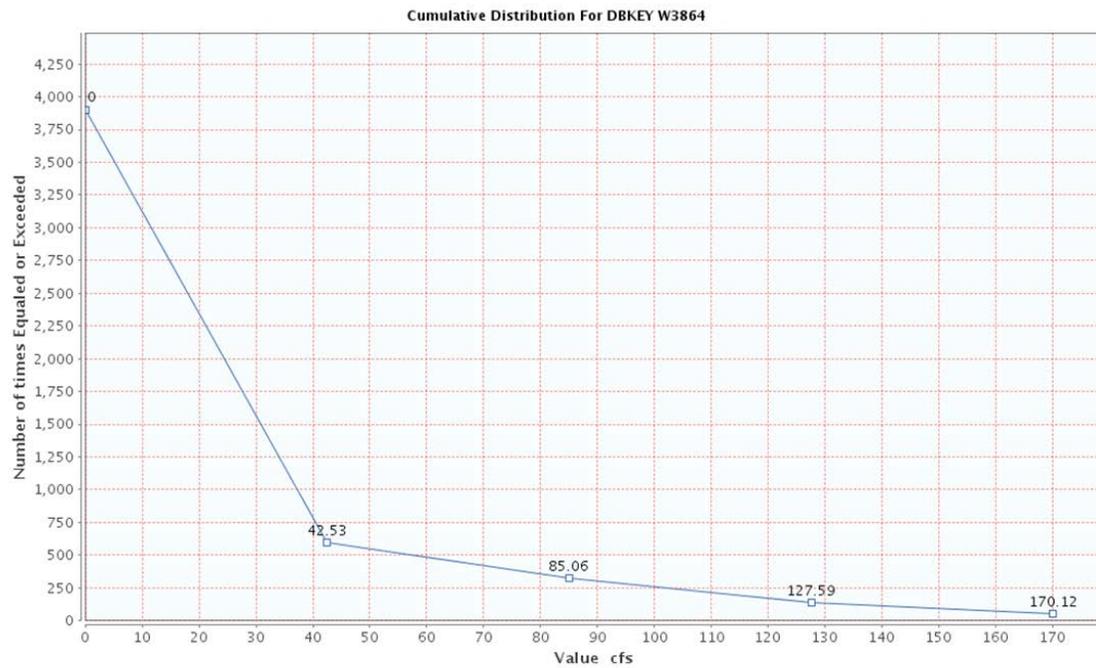
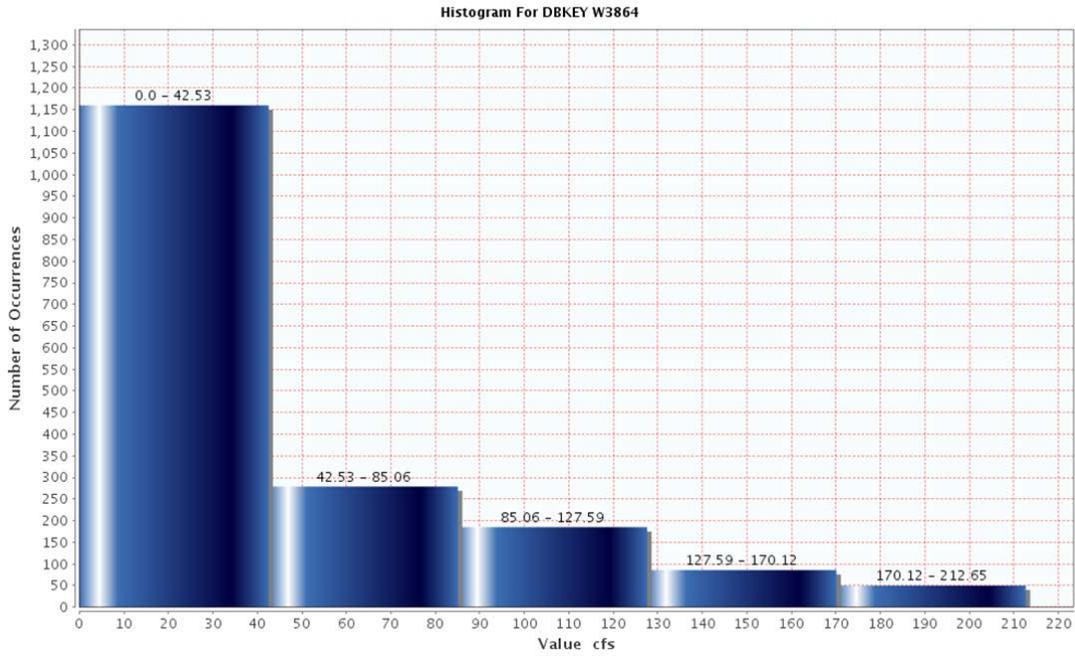
SHEF .E Format (not shown) provides data in Standard Hydrologic Exchange (SHEF) .E Format. The Standard Hydrologic Exchange Format (SHEF) has been developed jointly by the National Weather Service (NWS) and by the Corps of Engineers and is a documented set of rules for coding of data in a form for both visual and computer recognition.

You can also run special statistical summary reports:

- Duration Curve, Histogram, and Cumulative Distribution
- Daily Norms
- Month-by-Month Summary
- Composite Monthly Summary
- Year-by-Year Summary
- Period of Record Summary
- Maximum and Minimum Values and Their Dates

Charts of the duration curve, histogram, and cumulative distribution statistical analyses can also be generated by selecting the corresponding report format:





DBKey	Station	Agency	Data Type	Unit	Statistic	Frequency	Strata	Gate/Pump#
W3864	G304E_C	WMD	FLOW	cfs	MEAN	DA	0	N/A

An example of a composite monthly summary for the entire period of record for the "PREF" erred flow data at G304E_C is shown below. PREF data is data that has undergone a second level of QA/QC by hydrologists or engineers. PREF data, whenever available, should be used to the exclusion of all other data.

This is what you get:

DEKEY STATION	AGENCY	COUNTY	TYPE	UNITS	STAT	FQ	START	END	LAT	LONG	SECTION	TOWN	RANGE	ALTERNATE ID
W3864	G304E_C	WMD	PAL	FLOW	cts	MEAN	DA	2000	2012	264008	802325	6	44	40

DEKEY Station	Data Type	Month	Sample Size	Minimum	Mean	Maximum	Median	Std. Dev.	
W3864	G304E_C	FLOW	01	310	0.000	12.695	138.905	0.000	27.50
W3864	G304E_C	FLOW	02	282	0.000	9.444	142.820	0.000	23.91
W3864	G304E_C	FLOW	03	331	0.000	10.495	187.880	0.000	26.25
W3864	G304E_C	FLOW	04	330	0.000	2.802	79.580	0.000	9.53
W3864	G304E_C	FLOW	05	372	0.000	9.985	159.520	0.000	23.42
W3864	G304E_C	FLOW	06	360	0.000	16.480	183.380	0.000	35.93
W3864	G304E_C	FLOW	07	357	0.000	18.807	172.700	0.000	37.33
W3864	G304E_C	FLOW	08	341	0.000	41.674	195.583	9.430	54.80
W3864	G304E_C	FLOW	09	300	0.000	45.871	194.850	14.585	59.52
W3864	G304E_C	FLOW	10	310	0.000	24.028	212.650	2.345	46.70
W3864	G304E_C	FLOW	11	300	0.000	17.205	120.070	0.000	32.97
W3864	G304E_C	FLOW	12	310	0.000	13.451	135.470	0.000	29.74

This report can be very handy, especially with longer periods of record, to detect seasonal trends in the data.

Users are encouraged to examine all the report formats and outputs.

Batch Mode

Choosing Batch Mode as the Run Mode allows you to retrieve large data sets in an “off-line manner. That is you do not have to wait at the computer “twiddling your thumbs” waiting for the data. Any retrieval that takes longer than five minutes to run interactively will be subject to a standard “time out” by the system and will need to be run as a batch submittal. Most batch jobs are executed immediately.

DBHYDRO | reports

Batch Submittal

Please provide your email address in the text box below and click submit button to submit your request in batch mode. This email address will be used by the dbhydro system to notify you, once data file is ready for download. During normal operation your request should take less than 30 minutes to process. In some cases it may take several hours to process your request.

Email Address

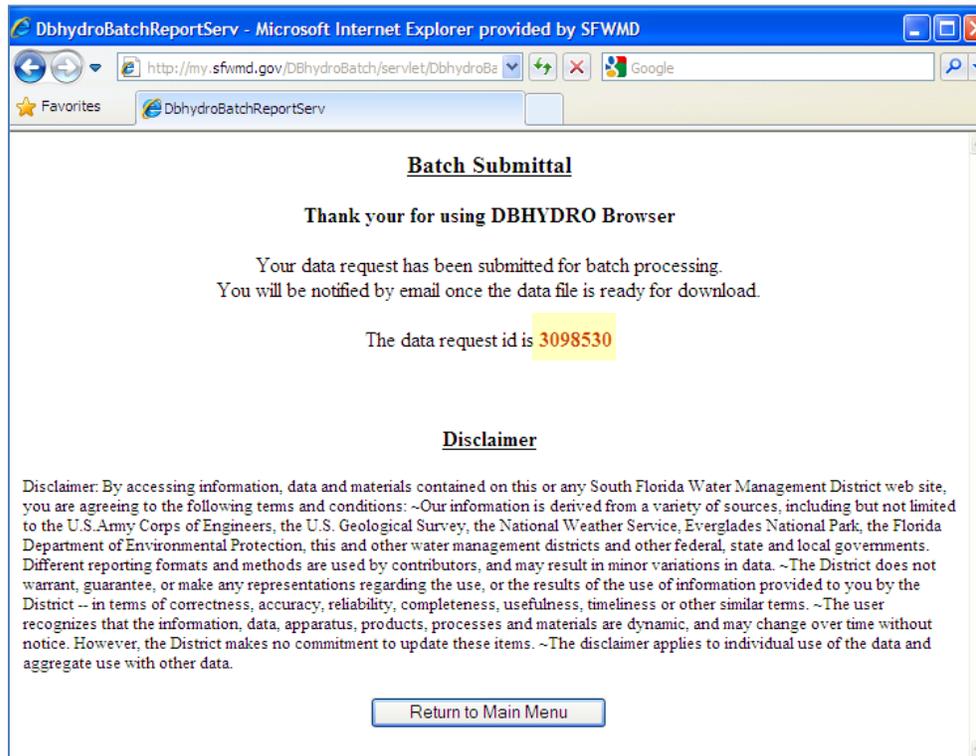
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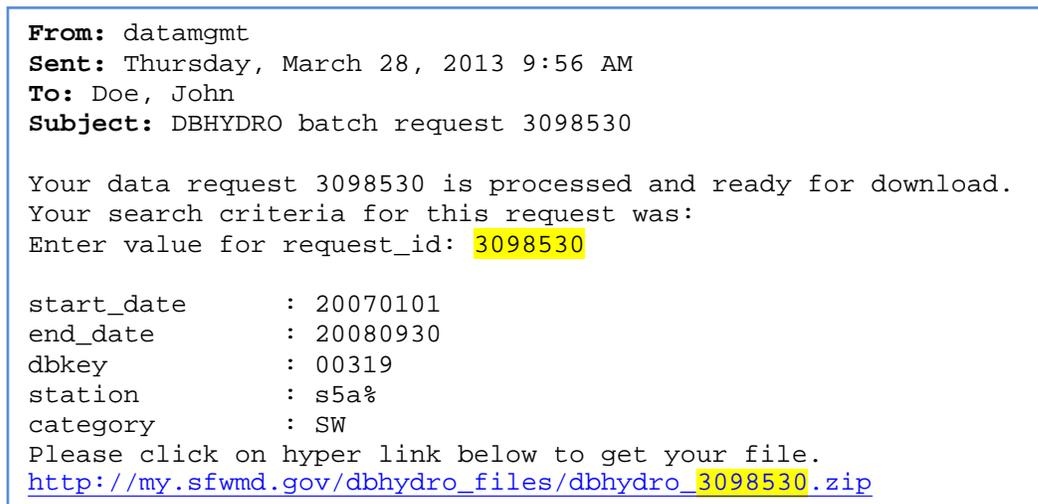
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Enter your email address (carefully) and press . The data request is submitted. You will then receive an email when the data request is done. The email has a hyperlink in it that will allow you to download the file via FTP.

This page is the confirmation page your request has been received:



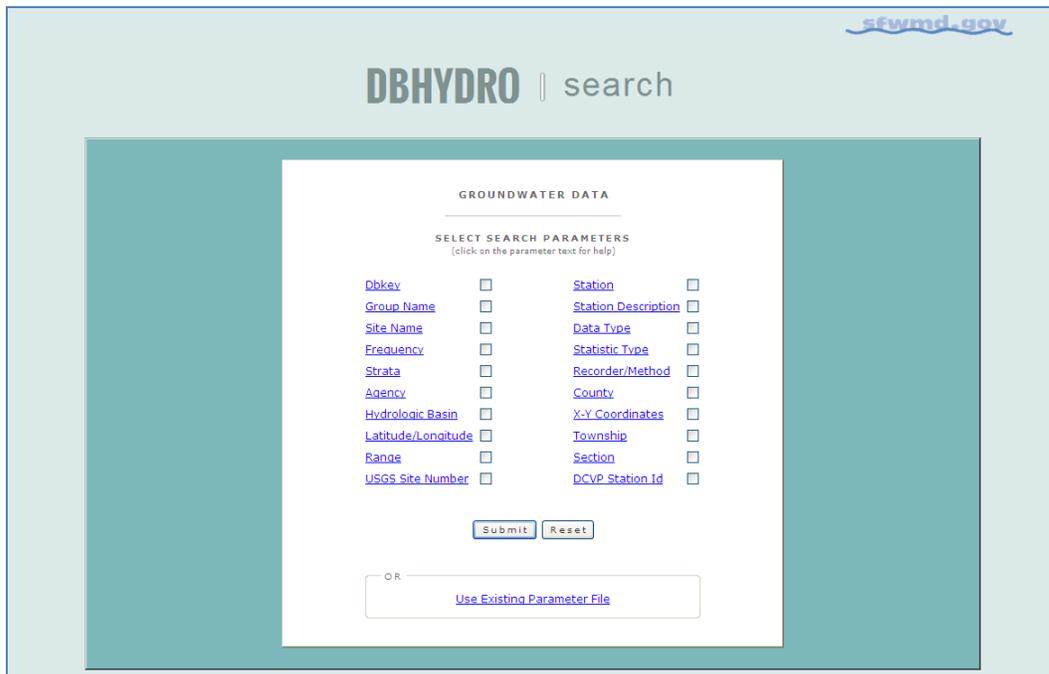
Please make note of the data request id in the event of a problem with email notification. You should receive an email similar to the following:



If your email is not received within 60 minutes please call the SFWMD IT Help Desk at 561-682-6080. Your file may have been created and merely be waiting for you to download it. You may have success downloading the file by editing and invoking the standard download URL by placing your data request id immediately before the .zip: e.g. http://my.sfwmd.gov/dbhydro_files/dbhydro_3098530.zip

Groundwater Data

Selecting "Groundwater Data" from the main menu leads to the following screen:



The screenshot shows the DBHYDRO search interface. At the top, it says "DBHYDRO | search" and "sfwmd.gov". The main content area is titled "GROUNDWATER DATA" and "SELECT SEARCH PARAMETERS (click on the parameter text for help)". Below this, there are two columns of search parameters, each with a checkbox:

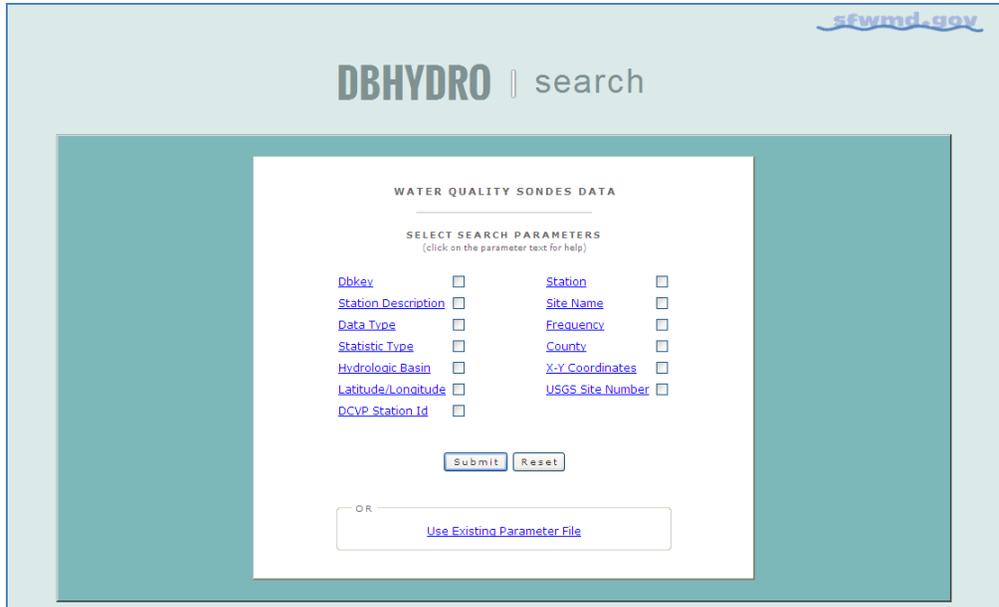
Dbkey	<input type="checkbox"/>	Station	<input type="checkbox"/>
Group Name	<input type="checkbox"/>	Station Description	<input type="checkbox"/>
Site Name	<input type="checkbox"/>	Data Type	<input type="checkbox"/>
Frequency	<input type="checkbox"/>	Statistic Type	<input type="checkbox"/>
Strata	<input type="checkbox"/>	Recorder/Method	<input type="checkbox"/>
Agency	<input type="checkbox"/>	County	<input type="checkbox"/>
Hydrologic Basin	<input type="checkbox"/>	X-Y Coordinates	<input type="checkbox"/>
Latitude/Longitude	<input type="checkbox"/>	Township	<input type="checkbox"/>
Range	<input type="checkbox"/>	Section	<input type="checkbox"/>
USGS Site Number	<input type="checkbox"/>	DCVP Station Id	<input type="checkbox"/>

Below the checkboxes are "Submit" and "Reset" buttons. At the bottom, there is an "OR" label and a text input field containing the link "Use Existing Parameter File".

You will notice there is a slight difference in the search parameters that are available for groundwater data. The search parameters are different because groundwater data, while related to surface water data, is a different discipline.

WQ Sondes (Continuous) Data

Checking the *WQ Sondes* check box from the main menu takes you to the following page:



The screenshot shows a web interface for searching water quality sonde data. At the top right is the logo for sfwmd.gov. The main heading is "DBHYDRO | search". Below this is a white box titled "WATER QUALITY SONDES DATA" with the subtitle "SELECT SEARCH PARAMETERS (click on the parameter text for help)".

Dbkey	<input type="checkbox"/>	Station	<input type="checkbox"/>
Station Description	<input type="checkbox"/>	Site Name	<input type="checkbox"/>
Data Type	<input type="checkbox"/>	Frequency	<input type="checkbox"/>
Statistic Type	<input type="checkbox"/>	County	<input type="checkbox"/>
Hydrologic Basin	<input type="checkbox"/>	X-Y Coordinates	<input type="checkbox"/>
Latitude/Longitude	<input type="checkbox"/>	USGS Site Number	<input type="checkbox"/>
DCVP Station Id	<input type="checkbox"/>		

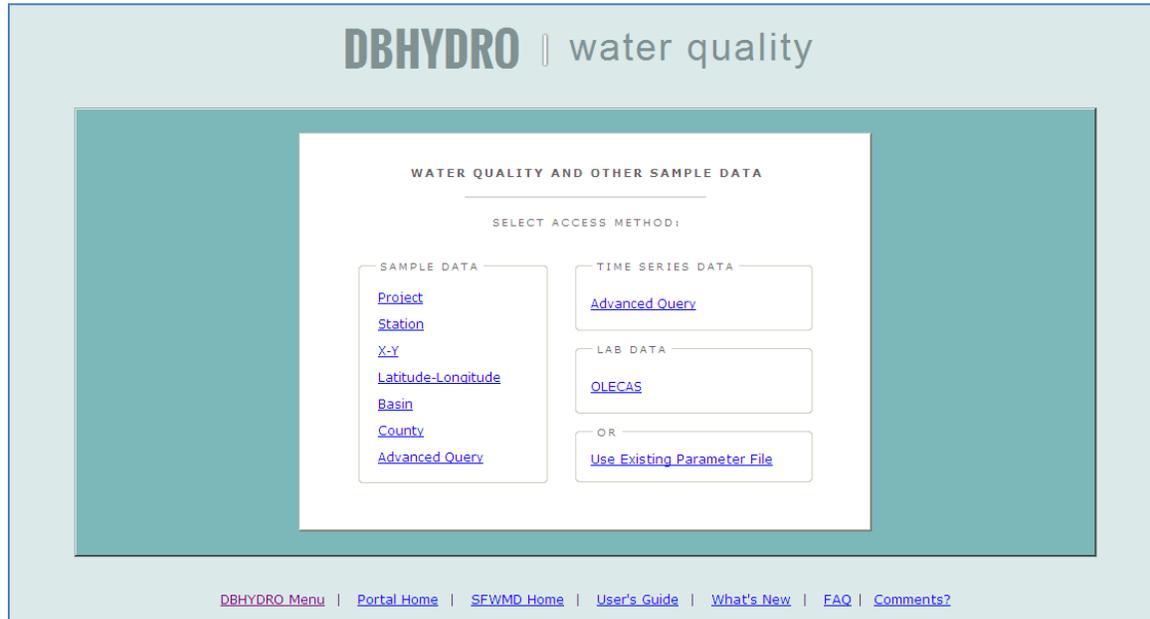
Below the checkboxes are two buttons: "Submit" and "Reset".

Below the buttons is a text input field with "OR" to its left and a link "Use Existing Parameter File" below it.

Data from continuously deployed water quality probes (sondes) is accessed here. This data is also accessible from the Water Quality Data menu → Advanced Query

Water Quality Sample Data

Selecting "Get Sample Data" from the main menu leads to the following screen:



Most water quality queries have similar characteristics so the interface for water quality has been designed to facilitate the most frequently encountered queries.

An Advanced Query option is available for access to continuously measured water quality parameters (sondes) providing the user experience offered by the Hydrologic & Physical Data interface.

The Lab Data On-Line Environmental Chemistry Analyst System (OLECAS) is available to network-authenticated users for reports on recently analyzed data and its comparison to historical trends. OLECAS can help detect curiosities in data that may be investigated for possible analytical rework before the expiration of sample holding time. Holding times are the length of time a sample can be stored after collection and prior to analysis without significantly affecting the analytical results.

A typical project-based query is described here. Selecting Project from the water quality menu leads to this screen in which you can type in a project code or select one or more project codes from the list of values and then select [Next >>](#) .

DBHYDRO | water quality

SELECT PROJECT(S)

Enter Project Code:
(Use the "%" sign as a wild card.)
-- OR --
Select From List

CODE	DESCRIPTION
BSQM	- 1-1/2 Square Mile Area
ASG	- Sarasulla Grove
ACMEB	- Divers Wellington Discharge to C-51 and STA-1E instead of ARMLNWR
ACRA	- Allapattah Complex Restoration Area
ACS	- Agricultural Citrus Study
ARCF	- Arbuckle Creek Watershed
ARCF	- Arbuckle Creek Watershed
ARS	- ARS - RAINFALL MONITORING ARS-RISSINGHEE
ARS	- STANDARD P...
ASTE	- Autosample Tubing
ASVS	- Auto Sampler Validation
AMOL	- LAKE OKEECHOBEE AQUATIC WEED RE...
B	- BACKPUMPING LOWER EAST COAST
BBCW	- Biscayne Bay Coastal Wetlands
BBWQ	- Biscayne Bay Water Quality
BCE	- BUNGLEDGES AG. AREA WATER QUALITY MANAGEMENT (AG. RUNOFF)
BCSB	- Big Cypress Southern Boundary
BCWQ	- Big Cypress Water Quality Monitoring
BGMC	- Belle Glade Marina Chlorides
BIRP	- OPTIMIZATION OF BMFS FOR BEEF CATTLE RANCHING, L.O. BASIN
BIRW	- Buck Island Ranch Wetlands
BISC	- Biscayne Bay Monitoring
BW	- C-111 MONITORING
BOV	- BOYNTON BEACH MALL SURFACE WATER MONITORING
BRM	- BRIGHTON RESERVATION MONITORING: NUTRIENT SAMPLING

(hold ctrl and then click for multiple)
Click Checkbox for All Results

[Next >>](#)

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Hint: Click on any item in the list. Then, as you quickly type the letters of the project code the cursor will "jump" to that item in the list. This "jumping" feature is common to all lists and is helpful if you only know the leading portion of the text.

A list of all the stations for which data has been collected under the given project(s) is provided. Stations of interest may be selected. Select [Next >>](#)

DBHYDRO | water quality

SELECT DESIRED STATION(S)

Search Criteria
Project Selected: ARCK

If you do not select any Stations, then all Stations, in the list, will be used.

ACBI	- AUTOSAMPLES AT BISHOP DAIRY OUTFALL ON SCRUB PENS RD.
ACCC	- AUTOSAM. C & C DAIRY RUNOFF INTO REEDY CREEK
ACCR	- AUTOSAM. AT DRESSEL DY. OUTFALL UPSTR. OF RD. DITCH CULVERT
ACTG	- AUTOSAM. TRIPLE G OUTFALL ON SANFORD HARTS RANCH
ARCK 300	- RUNOFF FROM GROVE ADJACENT TO BISHOP DAIRY HWY.
ARCK 301	- RUNOFF FROM BISHOP DAIRY AT CULVERT BY ORANGE GROVE BISHOP DAIRY R
ARCK 302	- OUTFALL BISHOP DAIRY AT CULVERT ON SCRUB PEN RD
ARCK 303	- ARBUCKLE BRANCH AT ARBUCKLE CREEK RD HWY 700A
ARCK 304	- SANFORD HART PROPERTY AT CULVERT HWY 700A
ARCK 305	- OUTFALL ON HART PROPERTY HWY 700A
ARCK 306	- OLD BOMBING RNG RD DRESSELL OUTFALL UP STREAM RD DITCH CULVERT
ARCK 307	- STATE RD 64 AT BONNET CRK BRIDGE
ARCK 308	- REEDY CREEK AT REEDY CRK BRIDGE ON SCHOOL BUS RD
ARCK 309	- CCC OUTFALL TO REEDY CRK
ARCK 310	- C & C DAIRY OUTFALL INTO REEDY CREEK
ARCK 311	- ARBUCKLE CREEK AT BRIDGE ON ARBUCKLE CREEK ROAD
ARCK 312	- ARBUCKLE CRK. RD. AT ENTRANCE TO BOMBING RANGE
ARCK 313	- CULVERT ON DRESSEL DAIRY RD. RUNOFF FROM DRESSEL DAIRY
ARCK 314	- TRIPLE G RUNOFF AT CULVERT, ON SANFORD HART RANCH
ARCK 315	- TRIPLE G SPRAYFIELD OUTFALL
FB	- QC STATION IDENTITY FOR WATER QUALITY ASSURANCE PROGRAM FIELD BLAN
FSB	- QC STATION IDENTITY FOR WATER QUALITY ASSURANCE PROGRAM (FIELD SPL
FSS	- QC SAMPLE IDENTITY FOR WATER QUALITY ASSURANCE PROGRAM FIELD SPLIT
LABQC	- LAB QUALITY CONTROL SAMPLE
RS	- MONITOR SITE FOR WATER QUALITY ASSURANCE PROGRAM

(hold ctrl and then click for multiple)

A list of test names (and their test numbers), collection methods, and Matrices is presented. Select those upon you which to filter your results. Provide a date range for your query. The begin date of 1950 is merely a placeholder to ensure the entire period of record will be | | by default. Select .

SELECT ADDITIONAL SEARCH CRITERIA

Search Criteria	
Project Selected:	ARCK
Station Selected:	ARCK 307, ARCK 308

Select desired items from the list(s) below. If you do not select any individual items, in a list, then all items, in that list, will be used.

Test Name:	<table style="width: 100%; border-collapse: collapse;"> <tr><td>ALKALINITY, TOT, CaCO₃ (mg/L)</td><td style="text-align: right;">- 67</td><td style="text-align: right;">▲</td></tr> <tr><td>AMMONIA-N (mg/L)</td><td style="text-align: right;">- 20</td><td style="text-align: right;"> </td></tr> <tr><td>CHLORIDE (mg/L)</td><td style="text-align: right;">- 32</td><td style="text-align: right;"> </td></tr> <tr><td>COLOR (PCU)</td><td style="text-align: right;">- 19</td><td style="text-align: right;"> </td></tr> <tr><td>DISSOLVED OXYGEN (mg/L)</td><td style="text-align: right;">- 8</td><td style="text-align: right;"> </td></tr> <tr><td>IRON, TOTAL (ug/L)</td><td style="text-align: right;">- 36</td><td style="text-align: right;"> </td></tr> <tr><td>KJELDAHL NITROGEN, TOTAL (mg/L)</td><td style="text-align: right;">- 21</td><td style="text-align: right;"> </td></tr> <tr><td>NITRATE+NITRITE-N (mg/L)</td><td style="text-align: right;">- 18</td><td style="text-align: right;"> </td></tr> <tr><td>NITRATE-N (mg/L)</td><td style="text-align: right;">- 78</td><td style="text-align: right;"> </td></tr> <tr><td>NITRITE-N (mg/L)</td><td style="text-align: right;">- 19</td><td style="text-align: right;">▼</td></tr> </table>	ALKALINITY, TOT, CaCO ₃ (mg/L)	- 67	▲	AMMONIA-N (mg/L)	- 20		CHLORIDE (mg/L)	- 32		COLOR (PCU)	- 19		DISSOLVED OXYGEN (mg/L)	- 8		IRON, TOTAL (ug/L)	- 36		KJELDAHL NITROGEN, TOTAL (mg/L)	- 21		NITRATE+NITRITE-N (mg/L)	- 18		NITRATE-N (mg/L)	- 78		NITRITE-N (mg/L)	- 19	▼
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Collection Method:	<table style="width: 100%; border-collapse: collapse;"> <tr><td>ACF - Auto-Sampler Composite Flow Proportional</td><td style="text-align: right;">▲</td></tr> <tr><td>ATF - Auto-Sampler Composite Time Flow</td><td style="text-align: right;"> </td></tr> <tr><td>ACT - Auto-Sampler Composite Time Proportional</td><td style="text-align: right;"> </td></tr> <tr><td>ADF - Auto-Sampler Discrete Flow Proportional</td><td style="text-align: right;"> </td></tr> <tr><td>ADT - Auto-Sampler Discrete Time Proportional</td><td style="text-align: right;"> </td></tr> <tr><td>BLK - Bulk</td><td style="text-align: right;"> </td></tr> <tr><td>CXC - Composite Cross Section Core</td><td style="text-align: right;"> </td></tr> <tr><td>CXI - Composite Cross Section Integration</td><td style="text-align: right;"> </td></tr> <tr><td>CDI - Composite Depth Integrated</td><td style="text-align: right;"> </td></tr> <tr><td>CIC - Composite Integrated Core</td><td style="text-align: right;">▼</td></tr> </table>	ACF - Auto-Sampler Composite Flow Proportional	▲	ATF - Auto-Sampler Composite Time Flow		ACT - Auto-Sampler Composite Time Proportional		ADF - Auto-Sampler Discrete Flow Proportional		ADT - Auto-Sampler Discrete Time Proportional		BLK - Bulk		CXC - Composite Cross Section Core		CXI - Composite Cross Section Integration		CDI - Composite Depth Integrated		CIC - Composite Integrated Core	▼										
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Matrix:	<table style="width: 100%; border-collapse: collapse;"> <tr><td>BAL - Algae</td><td style="text-align: right;">▲</td></tr> <tr><td>BAN - Animal</td><td style="text-align: right;"> </td></tr> <tr><td>DI - Deion. H2O</td><td style="text-align: right;"> </td></tr> <tr><td>EFE - Feathers</td><td style="text-align: right;"> </td></tr> <tr><td>EFI - Fish</td><td style="text-align: right;"> </td></tr> <tr><td>GW - Grnd H2O</td><td style="text-align: right;"> </td></tr> <tr><td>PERI - Periphyton</td><td style="text-align: right;"> </td></tr> <tr><td>SPL - Plant</td><td style="text-align: right;"> </td></tr> <tr><td>SW - Shore Water</td><td style="text-align: right;"> </td></tr> <tr><td>RA - Rain</td><td style="text-align: right;">▼</td></tr> </table>	BAL - Algae	▲	BAN - Animal		DI - Deion. H2O		EFE - Feathers		EFI - Fish		GW - Grnd H2O		PERI - Periphyton		SPL - Plant		SW - Shore Water		RA - Rain	▼										
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SPL - Plant																															
SW - Shore Water																															
RA - Rain	▼																														

(hold ctrl and then click for multiple)

Begin Date	1950	JAN	1		
End Date	2012	OCT	11		

Choose Full Report w/o Flagged Results from the list of available reporting types:

The screenshot shows a web interface for selecting a report. At the top right is the logo 'sfwmd.gov'. The main heading is 'DBHYDRO | reports'. Below this is a white box containing the following text and controls:

REPORT SELECTION PAGE

Your query criteria returned 2702 results from 239 trips.

Report Type Full Report w/o Flagged Results

Output Type

- HTML: Display directly to browser.
- File: Fixed column width.
- File: Comma delimited (.csv).
- Adobe (.pdf) Format.

Run Mode

- Online
- Batch Mode [When to use it](#)

Submit

Save Parameter File

[NELAC Laboratory Certification](#)

Note: Full Report is “full” because it includes all attributes including valuable sample-level and result-level comments. Full Report w/o Flagged Results does not include all rows. To obtain data considered “flagged” for exclusion in some legally mandated agency reports please use the Full Report Flagged Results.

and the following report is returned to your web browser!!!

Project Code	Station ID	Sample ID	First Trigger Date	Collection Date	Sample Type	Collection Method	Depth Matrix	Test Number	Test
ARCK	ARCK 307	8002	03-FEB-1989	12:30	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8011	10-FEB-1989	10:55	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8018	15-FEB-1989	11:25	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8118	24-FEB-1989	13:07	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8052	03-MAR-1989	13:15	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8102	09-MAR-1989	12:40	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8128	16-MAR-1989	11:40	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8149	21-MAR-1989	11:15	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8147	28-MAR-1989	10:05	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8163	04-APR-1989	12:30	SAMP	G	0.00 SW	23	PROSP
ARCK	ARCK 307	8177	11-APR-1989	09:29	SAMP	G	0.00 SW	23	PROSP

This output has many columns as indicated by the presence of scroll bar at the bottom of the screen. Codes for remarks, validation level, sampling purpose, and data investigation are available via hyperlinks at the bottom of each report.

Project Code	Station ID	Sample ID	First Trigger Date	Collection Date	Sample Type	Collection Method	Depth Matrix	Test Number	Test
ARCK	ARCK 308	2877	03-JUN-1997	14:48	SAMP	G	0.50 SW	23	
ARCK	ARCK 308	2888	01-JUL-1997	11:35	SAMP	G	0.00 SW	23	
ARCK	ARCK 308	2895	15-JUL-1997	10:55	SAMP	G	0.00 SW	23	
ARCK	ARCK 308	2902	29-JUL-1997	10:45	SAMP	G	0.50 SW	23	
ARCK	ARCK 308	2909	12-AUG-1997	10:35	SAMP	G	0.00 SW	23	
ARCK	ARCK 308	2920	26-AUG-1997	12:05	SAMP	G	0.00 SW	23	
ARCK	ARCK 308	2929	09-SEP-1997	11:15	SAMP	G	0.00 SW	23	
ARCK	ARCK 308	2938	23-SEP-1997	11:25	SAMP	G	0.00 SW	23	
ARCK	ARCK 308	2946	07-OCT-1997	11:48	SAMP	G	0.00 SW	23	

Query returned 232 records.

Disclaimer: "Some data qualified as not usable for certain purposes are excluded from these reports. The Full Report Flagged Results option may be u

[Qualifier/Remark Code Listing](#)

[Validation Level](#)

[Sampling Purpose](#)

[Data Investigation](#)

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SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406
 561-666-6800 | 1-800-432-3845 (Florida Only)

Other basic water quality searches work in a similar manner.

You can return to the water quality menu and perform a “Sample Data - Advanced Query” if the other “Sample Data” searches do not suit your needs.

Selecting Advanced Query leads you to this screen which allows for a complete range of query input parameters. Typical queries involve the selection of a project, a possibly a station, and one or more test names...

WATER QUALITY SAMPLE DATA

SELECT SEARCH PARAMETERS
(click on the parameter text for help)

Project	<input checked="" type="checkbox"/>	Station	<input type="checkbox"/>
Station Description	<input type="checkbox"/>	Collection Date	<input type="checkbox"/>
Sample ID	<input type="checkbox"/>	LIMS Number	<input type="checkbox"/>
Test Number	<input checked="" type="checkbox"/>	Test Name	<input type="checkbox"/>
Sample Type	<input type="checkbox"/>	Program Type	<input type="checkbox"/>
Collect Method	<input type="checkbox"/>	Matrix	<input type="checkbox"/>
County	<input type="checkbox"/>	Hydrologic Basin	<input type="checkbox"/>
X-Y Coordinates	<input type="checkbox"/>	Latitude/Longitude	<input type="checkbox"/>

Test Group

Biological	<input type="checkbox"/>	Field	<input type="checkbox"/>
Major Ions	<input type="checkbox"/>	Metals	<input type="checkbox"/>
Miscellaneous	<input type="checkbox"/>	Nutrient	<input type="checkbox"/>
Organic	<input type="checkbox"/>	Physical	<input type="checkbox"/>

(If no Test Groups are selected, all tests will be returned.)

OR

Program type, matrix, and collection method are unique to water quality data. Data can also be retrieved by the various common test groups. Test groups are a convenient way to specify a family of tests without having to note each test individually.

You may now select from the lists of values...

QUERY CRITERIA

Project: 8SQM - 8-1/2 Square Mile Area

Test Number: ALL

Exclude QC Data Include QC Data

Report All Trips Select Trips to Report

In this example the user has selected the 8SQM project and let the test name criteria default to 'ALL'. The user could also simply have not bothered to check the test name check box in the first place in order to achieve the effect of selecting all test names. The user may select to report on all trips or filter out trips based on a subsequently prescribed date range. In this example, data from all trips are being sought as there is no desire to filter out specific trips prior to data retrieval.

The default excludes the Quality Control (QC) results. However, if one wishes to retrieve QC results such as "spikes" and "blanks" one may choose the "Include QC Data" radio button.

After selecting the **Submit** button, summary information about the complete report is presented followed by a report layout options selector and output format list...

The screenshot displays the 'DBHYDRO | reports' interface. At the top right is the 'sfwmd.gov' logo. The main content area is titled 'REPORT SELECTION PAGE' and shows 'Your query criteria returned 1793 results from 118 trips.' Below this, there are three sections: 'Report Type' with a dropdown menu set to 'Full Report w/o Flagged Results'; 'Output Type' with radio buttons for 'HTML: Display directly to browser.' (selected), 'File: Fixed column width.', and 'File: Comma delimited (.csv)'; and 'Run Mode' with radio buttons for 'Online' (selected) and 'Batch Mode' with a link 'When to use it'. At the bottom of the form are 'Submit' and 'Save Parameter File' buttons, and a link for 'NELAC Laboratory Certification'.

An example listing of the “Full Report – w/o Flagged Results” output to the screen follows:

Project Code	Station ID	Sample ID	First Trigger Date	Collection Date	Sample Type	Flow	Collection Method	Depth	Matrix	Test Number	Test Name
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	21	KFIELD
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	8	DISSOL
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	9	SP COM
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	10	PH. P
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	16	TOTAL
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	18	NITRA
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	32	CHLOR
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	12	TURBID
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	13	COLOR
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	19	NITRI
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	20	AMMON
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	7	TEMP
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	23	PHOSPH
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	25	PHOSPH
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	67	ALKALI
850N	G211	0001	21-MAY-1997	13:05	SAMP	G		0.50	SW	76	NITRA
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	25	PHOSPH
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	8	DISSOL
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	67	ALKALI
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	10	PH. P
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	13	COLOR
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	16	TOTAL
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	7	TEMP
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	9	SP COM
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	12	TURBID
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	19	NITRI
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	20	AMMON
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	21	KFIELD
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	23	PHOSPH
850N	G211	0002	12-JUN-1997	13:45	SAMP	G		0.50	SW	32	CHLOR
850N	G211	0004	22-JUL-1997	11:30	SAMP	G		0.50	SW	18	NITRA
850N	G211	0004	22-JUL-1997	11:30	SAMP	G		0.50	SW	20	AMMON
850N	G211	0004	22-JUL-1997	11:30	SAMP	G		0.50	SW	21	KFIELD
850N	G211	0004	22-JUL-1997	11:30	SAMP	G		0.50	SW	10	PH. P
850N	G211	0004	22-JUL-1997	11:30	SAMP	G		0.50	SW	9	SP COM
850N	G211	0004	22-JUL-1997	11:30	SAMP	G		0.50	SW	8	DISSOL
850N	G211	0004	22-JUL-1997	11:30	SAMP	G		0.50	SW	104	COPPER
850N	G211	0004	22-JUL-1997	11:30	SAMP	G		0.50	SW	7	TEMP

The Full Report – w/o Flagged Results option is a “dump” directly from the database of each row and column for the results satisfying the query criteria.

By choosing the other radio buttons different output options can be used. As you can see the Full Report is very wide. Selecting a file for output, rather than the screen, is very helpful in managing these long lines of data. The fixed format file and comma delimited file (.csv) options are helpful for import into a spreadsheet application. The .pdf file output is great for sharing on the web or in email.

Each station visit (indicated by date collected) is considered a “trip”. A single trip may involve the collection of one or more samples (sample ids). Each sample may be analyzed for one or more analytes (test names/test numbers).

An alternate approach to a complete listing would be to select results by trip...

QUERY CRITERIA

Project: 85QM - 8-1/2 Square Mile Area

Test Number: ALL

Exclude QC Data Include QC Data
 Report All Trips Select Trips to Report

Save Parameter File

A list of relevant trips meeting the specified criteria is displayed along with the number of results derived from each trip...

Trip Listing				
Get Data	Project	Station ID	Collection Date	Total
<input type="checkbox"/>	85QM	G211	19970521	16
<input type="checkbox"/>	85QM	G211	19970612	16
<input type="checkbox"/>	85QM	G211	19970721	2
<input type="checkbox"/>	85QM	G211	19970722	26
<input type="checkbox"/>	85QM	G211	19970825	16
<input type="checkbox"/>	85QM	G211	19970922	16
<input type="checkbox"/>	85QM	G211	19971117	16
<input type="checkbox"/>	85QM	G211	19971215	16
<input type="checkbox"/>	85QM	G211	19980122	27
<input type="checkbox"/>	85QM	G211	19980219	16
<input type="checkbox"/>	85QM	G211	19980302	16
<input type="checkbox"/>	85QM	G211	19980319	16
<input type="checkbox"/>	85QM	G211	19980401	28
<input type="checkbox"/>	85QM	G211	19980415	16
<input type="checkbox"/>	85QM	G211	19980429	16
<input type="checkbox"/>	85QM	G211	19980513	16
<input type="checkbox"/>	85QM	G211	19980528	16
<input type="checkbox"/>	85QM	G211	19980610	16
<input type="checkbox"/>	85QM	G211	19980625	16

The number of analytical results generated from the trip.

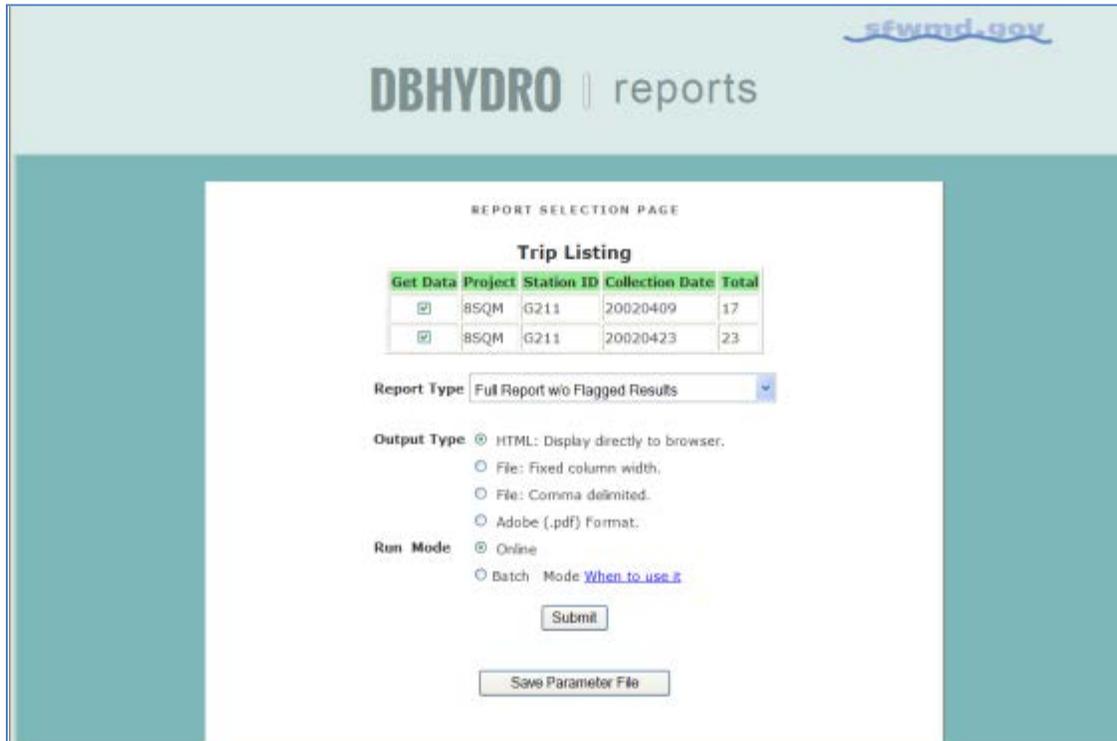
After selecting the trips of interest...

<input type="checkbox"/>	8SQM	G211	20010925	15
<input type="checkbox"/>	8SQM	G211	20011010	23
<input type="checkbox"/>	8SQM	G211	20011023	1
<input type="checkbox"/>	8SQM	G211	20011108	16
<input type="checkbox"/>	8SQM	G211	20011204	16
<input type="checkbox"/>	8SQM	G211	20011218	16
<input type="checkbox"/>	8SQM	G211	20020103	23
<input type="checkbox"/>	8SQM	G211	20020115	20
<input type="checkbox"/>	8SQM	G211	20020129	15
<input type="checkbox"/>	8SQM	G211	20020212	1
<input type="checkbox"/>	8SQM	G211	20020226	14
<input type="checkbox"/>	8SQM	G211	20020312	16
<input type="checkbox"/>	8SQM	G211	20020326	15
<input type="checkbox"/>	8SQM	G211	20020409	17
<input type="checkbox"/>	8SQM	G211	20020423	23

Query returned 116 Trips.

the user selects the button.

Getting data results in the following listing which is a consolidation of the selected trips:



The screenshot shows the 'DBHYDRO | reports' interface. At the top right is the 'sfwmd.gov' logo. The main content area is titled 'REPORT SELECTION PAGE' and 'Trip Listing'. It features a table with the following data:

Get Data	Project	Station ID	Collection Date	Total
<input checked="" type="checkbox"/>	BSQM	G211	20020409	17
<input checked="" type="checkbox"/>	BSQM	G211	20020423	23

Below the table, there are configuration options:

- Report Type:** A dropdown menu set to 'Full Report w/o Flagged Results'.
- Output Type:** Radio buttons for:
 - HTML: Display directly to browser.
 - File: Fixed column width.
 - File: Comma delimited.
 - Adobe (.pdf) Format.
- Run Mode:** Radio buttons for:
 - Online
 - Batch Mode [When to use it](#)

At the bottom, there are 'Submit' and 'Save Parameter File' buttons.

The report type and output options are the same as for reporting on all trips.

Hydrogeologic Data

Selecting *Hydrogeologic Data* from the main menu takes you to the following page:

The screenshot shows the DBHYDRO search interface. At the top, there is a header with "DBHYDRO | search" and the "sfwmd.gov" logo. Below the header, the page is titled "HYDROGEOLOGIC DATA" and "SELECT SEARCH PARAMETERS (click on the parameter text for help)". The search parameters are listed in two columns, each with a checkbox:

Parameter	Checkbox	Parameter	Checkbox
Station	<input type="checkbox"/>	Station Description	<input type="checkbox"/>
County	<input type="checkbox"/>	X-Y Coordinates	<input type="checkbox"/>
Latitude/Longitude	<input type="checkbox"/>	Township	<input type="checkbox"/>
Range	<input type="checkbox"/>	Section	<input type="checkbox"/>
DCVP Station Id	<input type="checkbox"/>	Total Depth	<input type="checkbox"/>
Screen Depth	<input type="checkbox"/>	Aquifer	<input type="checkbox"/>
Data Type	<input type="checkbox"/>	Borehole Purpose	<input type="checkbox"/>
Formation	<input type="checkbox"/>		

Below the parameters, there are "Submit" and "Reset" buttons. At the bottom, there is an "OR" label and a text input field with a "Use Existing Parameter File" button.

A callout bubble points to the "Aquifer" checkbox with the following text: "Use of aquifer as a criterion will result in exclusion of hydrogeologic information from wells that do not have monitoring. Use with care. Consider using a range of total depths instead."

While the search parameters look similar to those in *Groundwater Data*, queries under *Hydrogeologic Data* direct you to well construction specifications, geophysical, hydraulic and lithologic data, multimedia data, and data rather than to groundwater data alone.

Once you have chosen your selection criteria, the browser directs you to a page that displays that criteria and allows you to submit or save your parameters to a file.

In the example below, a query was built to select all wells in Palm Beach County with total depths between 300 and 400 feet.
You would select County and Total Depth as shown below...

The screenshot shows the DBHYDRO search interface. At the top right is the logo for sfwmd.gov. The main header reads "DBHYDRO | search". Below this is a section titled "HYDROGEOLOGIC DATA" with a sub-section "SELECT SEARCH PARAMETERS (click on the parameter text for help)".

Station	<input type="checkbox"/>	Station Description	<input type="checkbox"/>
County	<input checked="" type="checkbox"/>	X-Y Coordinates	<input type="checkbox"/>
Latitude/Longitude	<input type="checkbox"/>	Township	<input type="checkbox"/>
Range	<input type="checkbox"/>	Section	<input type="checkbox"/>
DCVP Station Id	<input type="checkbox"/>	Total Depth	<input checked="" type="checkbox"/>
Screen Depth	<input type="checkbox"/>	Aquifer	<input type="checkbox"/>
Data Type	<input type="checkbox"/>	Borehole Purpose	<input type="checkbox"/>
Formation	<input type="checkbox"/>		

Below the table are two buttons: "Submit" and "Reset".

At the bottom, there is a section labeled "OR" with a text input field and a link: [Use Existing Parameter File](#).

and then click on .

The following screen will appear. This screen allows you to select the specific county or counties and specify the range of total depth...

The screenshot shows the DBHYDRO search interface. At the top right is the logo sfwmd.gov. The main heading is "DBHYDRO | search". Below this is a "QUERY CRITERIA" section. It includes a "County" dropdown menu with a list of counties: ALACHUA, BAKER, DAE, and DEADEWOOD. The "Total Depth From" field is set to 300, and the "Total Depth To" field is set to 400. Below these fields is a note: "Separate multiple values in Text field by '|'. The '%' character may be used as a wildcard." There are "Submit" and "Clear" buttons, and a "Save Parameter File" button at the bottom of the form. The footer contains navigation links: [DBHYDRO Menu](#), [DBHYDRO Home](#), [SFWMD Home](#), [User's Guide](#), [What's New](#), [FAQ](#), [Comments?](#), [Privacy Policy](#), [Disclaimer](#), [Accessibility](#), [User Survey](#), [Redline](#), [Contact Us](#), [Locations](#), and [Careers](#). It also provides the address: "SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406" and phone numbers: "561-686-8800 | 1-800-432-2045 (Florida Only)".

Clicking on [Submit](#) leads you to the Output Parameters Selection screen...

This screen allows you to select what kind of report you want and where you want the output to go...

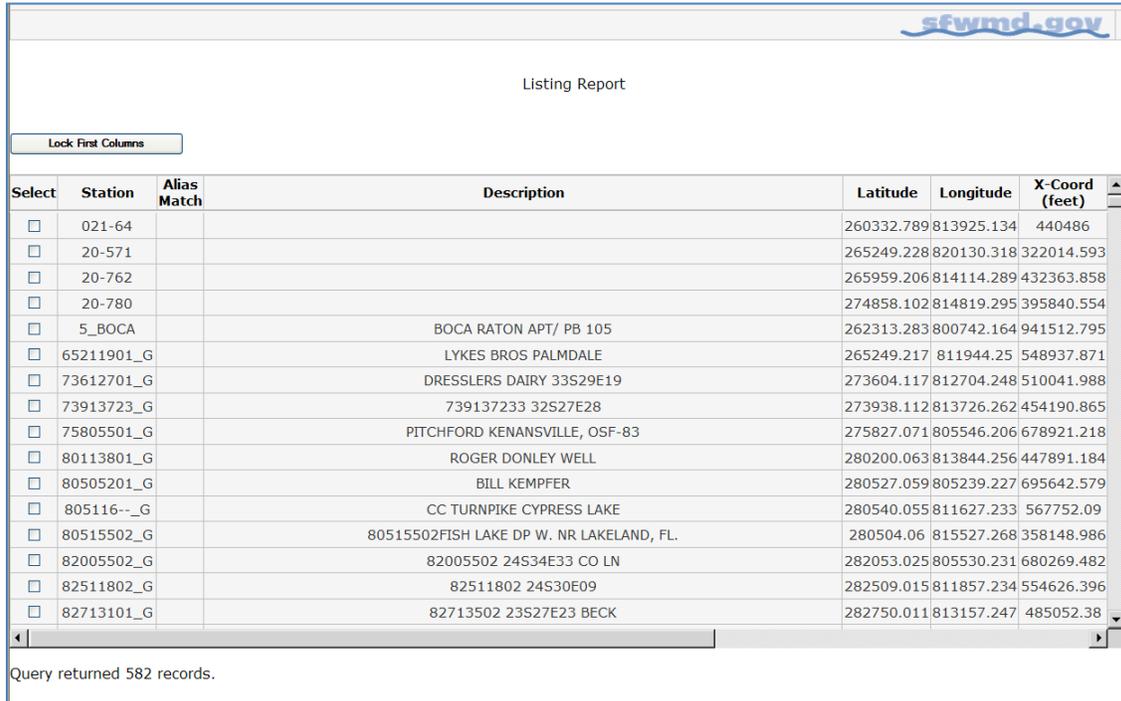
The screenshot shows a web form titled "Output Parameters Selection" with the "sfwmd.gov" logo in the top right corner. The form contains the following sections:

- Selected Parameters :**
 - Total Depth From : 300
 - Total Depth To : 400
- Output Format :**
 - Listing Report
 - Header-Detail Report
 - Summary Report
- Output To :**
 - Screen
 - File

Below the form are two buttons: "Submit" and "Reset". At the bottom of the page, there is a navigation menu with links: [DBHYDRO Menu](#) | [DBHYDRO Home](#) | [SFWMD Home](#) | [User's Guide](#) | [What's New](#) | [FAQ](#) | [Comments?](#). Below the navigation menu are additional links: [Privacy Policy](#) | [Disclaimer](#) | [Accessibility](#) | [User Survey](#) | [Redline](#) | [Contact Us](#) | [Locations](#) | [Careers](#). At the very bottom, the address and phone numbers are listed: SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406. 561-686-8800 | 1-800-432-2045 (Florida Only).

In this example, a Listing Report is chosen.

The Listing Report Option (shown below) returns a table with names, locations, and highlighted items for construction and multimedia data when available.



Select	Station	Alias Match	Description	Latitude	Longitude	X-Coord (feet)
<input type="checkbox"/>	021-64			260332.789	813925.134	440486
<input type="checkbox"/>	20-571			265249.228	820130.318	322014.593
<input type="checkbox"/>	20-762			265959.206	814114.289	432363.858
<input type="checkbox"/>	20-780			274858.102	814819.295	395840.554
<input type="checkbox"/>	5_BOCA		BOCA RATON APT/ PB 105	262313.283	800742.164	941512.795
<input type="checkbox"/>	65211901_G		LYKES BROS PALMDALE	265249.217	811944.25	548937.871
<input type="checkbox"/>	73612701_G		DRESSLERS DAIRY 33S29E19	273604.117	812704.248	510041.988
<input type="checkbox"/>	73913723_G		739137233 32S27E28	273938.112	813726.262	454190.865
<input type="checkbox"/>	75805501_G		PITCHFORD KENANSVILLE, OSF-83	275827.071	805546.206	678921.218
<input type="checkbox"/>	80113801_G		ROGER DONLEY WELL	280200.063	813844.256	447891.184
<input type="checkbox"/>	80505201_G		BILL KEMPFER	280527.059	805239.227	695642.579
<input type="checkbox"/>	805116--_G		CC TURNPIKE CYPRESS LAKE	280540.055	811627.233	567752.09
<input type="checkbox"/>	80515502_G		80515502FISH LAKE DP W. NR LAKELAND, FL.	280504.06	815527.268	358148.986
<input type="checkbox"/>	82005502_G		82005502 24S34E33 CO LN	282053.025	805530.231	680269.482
<input type="checkbox"/>	82511802_G		82511802 24S30E09	282509.015	811857.234	554626.396
<input type="checkbox"/>	82713101_G		82713502 23S27E23 BECK	282750.011	813157.247	485052.38

Query returned 582 records.

The Listing Report is wide and you will have to scroll to the right to see that there are links to casing, screen, and multimedia information. There is also a link to a map. Multimedia may include any kind of documents including scanned field notes, driller reports and logs, and photographs.

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Listing Report

Description	Latitude	Longitude	X-Coord (feet)	Y-Coord (feet)	County	Total Depth (feet)	Casing	Screen	Map	Multimedia
	260332.789	813925.134	440486	627716.953	COLLIER	352	No Casing	No Screen	MAP	NO Multimedia
	265249.228	820130.318	322014.593	927026.624	CHARLOTTE	361	No Casing	No Screen	MAP	NO Multimedia
	265959.206	814114.289	432363.858	969700.656	CHARLOTTE	394	No Casing	No Screen	MAP	NO Multimedia
	274858.102	814819.295	395840.554	1266714.558	CHARLOTTE	317	No Casing	No Screen	MAP	NO Multimedia
BOCA RATON APT/ PB 105	262313.283	800742.164	941512.795	747324.618	PALM BEACH	323	Casing	Screen	MAP	NO Multimedia
LYKES BROS PALMDALE	265249.217	811944.25	548937.871	925813.116	GLADES	400	Casing	No Screen	MAP	NO Multimedia
DRESSLERS DAIRY 33529E19	273604.117	812704.248	510041.988	1187966.993	HIGHLANDS	350	Casing	No Screen	MAP	NO Multimedia
739137233 32527E28	273938.112	813726.262	454190.865	1209820.88	POLK	310	No Casing	Screen	MAP	NO Multimedia
PITCHFORD KENANSVILLE, OSF-83	275827.071	805546.206	678921.218	1323325.794	OSCEOLA	328	No Casing	Screen	MAP	NO Multimedia
ROGER DONLEY WELL	280200.063	813844.256	447891.184	1345380.517	POLK	300	No Casing	No Screen	MAP	NO Multimedia
BILL KEMPFER	280527.059	805239.227	695642.579	1365753.127	OSCEOLA	375	Casing	No Screen	MAP	NO Multimedia
CC TURNPIKE CYPRESS LAKE	280540.055	811627.233	567752.09	1367145.494	OSCEOLA	315	No Casing	No Screen	MAP	NO Multimedia
80515502FISH LAKE DP W. NR LAKE LAND, FL.	280504.06	815527.268	358148.986	1364542.393	POLK	311	Casing	No Screen	MAP	NO Multimedia
82005502 24534E33 CO LN	282053.025	805530.231	680269.482	1459255.708	ORANGE	300	Casing	No Screen	MAP	NO Multimedia
82511802 24530E09	282509.015	811857.234	554626.396	1485235.14	ORANGE	400	No Casing	No Screen	MAP	NO Multimedia
82713502 23527E23 BECK	282750.011	813157.247	485052.38	1501740.659	ORANGE	347	Casing	Screen	MAP	NO Multimedia

Query returned 582 records.

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A Header-Detail report lists the information for all wells that met your search criteria and the report looks like this...

Header-Detail Report	
Station	021-44 MAP NO Multimedia
Alias Hatch	
Description	
Latitude	260313
Longitude	813925
E Coordinate	440486 (feet)
F Coordinate	627717 (feet)
County	COLLIER
Total Depth	352 (feet)
Station	20-571 MAP NO Multimedia
Alias Hatch	
Description	
Latitude	265249
Longitude	820130
E Coordinate	322015 (feet)
F Coordinate	927037 (feet)
County	CHARLOTTE
Total Depth	381 (feet)
Station	20-762 MAP NO Multimedia
Alias Hatch	
Description	
Latitude	265959
Longitude	814114
E Coordinate	432364 (feet)
F Coordinate	949781 (feet)
County	CHARLOTTE
Total Depth	394 (feet)
Station	20-780 MAP NO Multimedia
Alias Hatch	
Description	
Latitude	274858
Longitude	814619
E Coordinate	395841 (feet)
F Coordinate	1266715 (feet)
County	CHARLOTTE
Total Depth	317 (feet)
Station	5_BOCA MAP NO Multimedia
Alias Hatch	
Description	BOCA RATON APT/ PD 105
Latitude	262213
Longitude	800742
E Coordinate	941513 (feet)
F Coordinate	947016 (feet)

The Header Detail option (above) offers a different display format, and shows casing and screen details on screen when they are available instead of just showing links. Both the Header Detail and the Listing Report options have links to multimedia data. These multimedia data include photos, spreadsheets, and other documents in a wide variety of formats, including JPG, TXT, TIFF, XLS, PDF, and others.

The summary report (below) shows all the different types of data available for each well appearing in the query. The Summary Report format provides highlighted links to the different data types offered in the hydrogeologic section of DBHYDRO. The link to time series data will bring up a list of all time series for this station including water quality and hydrologic data.

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Summary Report

Lock First Columns

Select	STATION	COUNTY	ALIASES				XCOORD	YCOORD	
			DBHYDRO	SFWHD	USGS Site ID	USGS Station Name	FGS	Core Lab	
<input type="checkbox"/>	021-64	COLLIER		C2017			440486 627716.953	No	
<input type="checkbox"/>	20-571	CHARLOTTE					322014.593 927026.624	No	
<input type="checkbox"/>	20-762	CHARLOTTE					432363.858 969700.658	No	
<input type="checkbox"/>	20-780	CHARLOTTE					395840.554 1266714.558	No	
<input type="checkbox"/>	3_BOCA	PALM BEACH					941512.795 747324.618	No	
<input type="checkbox"/>	05211901_G	GLADES			265248081194501	05211901 41530E28 LYKES	548937.871 925813.116	No	
<input type="checkbox"/>	73612701_G	HIGHLANDS	DRESSLER DAIRY D WELL NR AVON PK		273603081270501	7361270133529E19 DRESSLE	510041.988 1187966.993	No	
<input type="checkbox"/>	73913723_G	POLK			273937081372701	739137233	454190.865 1209820.88	No	
<input type="checkbox"/>	75805501_G	OSCEOLA			275826080554701	75805501 PITCHFORD WELL	678921.218 1323325.794	No	
<input type="checkbox"/>	80113801_G	POLK			280139081384501	80113801 ROGER DONLEY WE	447891.184 1345380.517	No	
<input type="checkbox"/>	80505201_G	OSCEOLA			280501080523701	KEMPFER WELL NR DEER PAR	695642.579 1365753.127	No	
<input type="checkbox"/>	805116__G	OSCEOLA			280539081162801	805116-- 27530E36 CC TU	567752.09 1367145.494	No	
<input type="checkbox"/>	80515502_G	POLK	FISH LAKE DEEP WELL		280503081552801	80515502 FISH LAKE DEEP	358148.986 1364542.363	No	
<input type="checkbox"/>	82005502_G	ORANGE			282052080553101	82005502 24534E33 CO LN	680269.482 1459255.708	No	
<input type="checkbox"/>	82511802_G	ORANGE			282508081185802	82511802 24530E09	554626.396 1485235.14	No	

Query returned 982 records.

Scrolling to the right...

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Summary Report

Lock First Columns

USGS Station Name	FGS	XCOORD	YCOORD	Core Lab	DATATYPE										
					Lithologic	Geophysics	Hydraulic	Construction	Hydrostratigraphy	Formation	Flow Characteristic	Tracer Data	Multimedia	Time Series	
		440486	627716.953	No	No	Yes	No	No	No	No	No	No	No	No	WQ
		322014.593	927026.624	No	No	Yes	No	No	No	No	No	No	No	No	-
		432363.858	969700.658	No	No	Yes	No	No	No	No	No	No	No	No	-
		395840.554	1266714.558	No	No	Yes	No	No	No	No	No	No	No	No	-
		941512.795	747324.618	No	No	No	No	No	Yes	No	No	No	No	No	-
05211901 41530E28 LYKES		548937.871	925813.116	No	No	No	No	No	Yes	No	No	No	No	No	-
1270133529E19 DRESSLE		510041.988	1187966.993	No	No	No	No	No	No	No	No	No	No	No	-
739137233		454190.865	1209820.88	No	No	No	No	No	Yes	No	No	No	No	No	-
805501 PITCHFORD WELL		678921.218	1323325.794	No	No	No	No	No	Yes	Yes	No	No	No	No	-
13801 ROGER DONLEY WE		447891.184	1345380.517	No	No	No	No	No	Yes	No	No	No	No	No	-
KEMPFER WELL NR DEER PAR		695642.579	1365753.127	No	No	No	No	No	Yes	No	No	No	No	No	-
05116-- 27530E36 CC TU		567752.09	1367145.494	No	No	No	No	No	Yes	No	No	No	No	No	-
0515502 FISH LAKE DEEP		358148.986	1364542.363	No	No	No	No	No	Yes	No	No	No	No	No	-
8005502 24534E33 CO LN		680269.482	1459255.708	No	No	No	No	No	Yes	No	No	No	No	No	-
82511802 24530E09		554626.396	1485235.14	No	No	No	No	No	Yes	No	No	No	No	No	-

Query returned 982 records.

Clicking on the 'Yes' link under Lithologic for station W-12425, produces a detailed lithologic description as shown below:

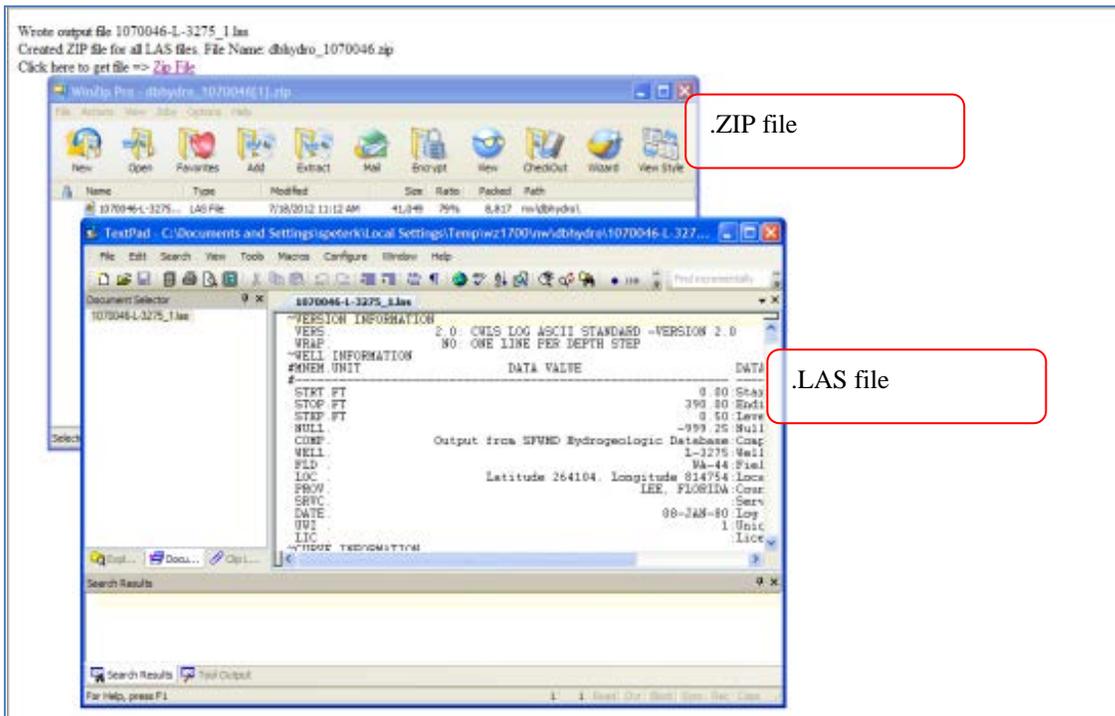
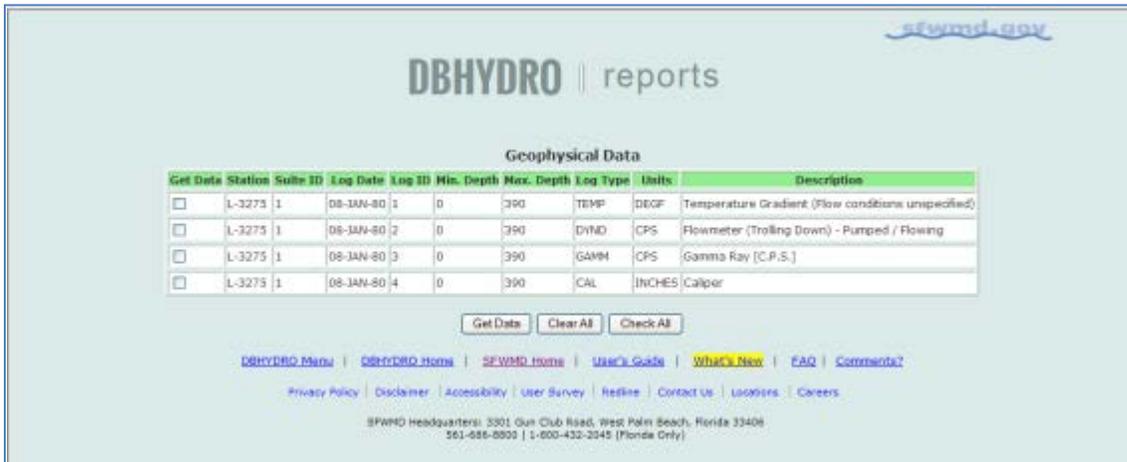
Station		X-Coord	Y-Coord	Lithologic Details						
W-12425		955542	828434	Min. Depth	Max. Depth	Primary Rock	% Primary Rock	Primary Color	Induration	% Porosity
0	20	SAND (QUARTZ)						DARK YELLOWISH ORANGE	UNCONSOLIDATED	
20	30	SAND (QUARTZ)						DARK YELLOWISH ORANGE	UNCONSOLIDATED	
30	45	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	SAMPLE INCLUDES
45	60	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	SAMPLE INCLUDES
60	80	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	SAMPLE INCLUDES
80	90	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	SAMPLE INCLUDES
90	110	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	SAMPLE INCLUDES
110	125	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	
125	130	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	
130	135	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	SAMPLE INCLUDES
135	140	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	ONLY CONSOLIDATED
140	150	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	SAMPLE INCLUDES
140	150	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	ONLY CONSOLIDATED
150	164	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	SAMPLE CONTAINS
164	175	SAND (QUARTZ)						YELLOWISH GRAY	UNCONSOLIDATED	ELY CONSOLIDATED
175	190	LIMESTONE						MODERATE BLuish GRAY	MODERATE	ED ALLOCHENS AND
190	205	LIMESTONE						MODERATE BLuish GRAY	MODERATE	TAL LIMESTONE CH
205	220	LIMESTONE						YELLOWISH GRAY	MODERATE	SAMPLE INCLUDES
220	235	LIMESTONE						YELLOWISH GRAY	POOR	F PELLETAL LIMES
235	250	LIMESTONE						LIGHT GREENISH YELLOW	POOR	SAMPLE CONTAINS
250	280	LIMESTONE						VERY LIGHT ORANGE	POOR	RACE AMOUNTS OF I
280	295	SANDSTONE						LIGHT OLIVE GRAY	POOR	ND SOME FROSTED
295	325	SAND (QUARTZ)						OLIVE GRAY	UNCONSOLIDATED	SAMPLE INCLUDES

This information can be saved to a text file (Save as .txt) through the web browser file menu.

Clicking on the summary report 'Yes' link under the Geophysics data type takes you through a series of screens which allow you to create a file in Log ASCII Standard (LAS) format. (LAS) is a standard file format, created by the Canadian Well Logging Society, to store wellbore log information. Well logging is used to characterize subsurface stratigraphy in a wellbore.

Common curves found in a LAS file might be gamma ray logging, sonic logging, or resistivity logging.

Files are delivered in a compressed (.zip) format.



Clicking on the summary report 'Yes' link under the Hydraulic data takes you to a screen showing the aquifer characteristics, test details, and analysis methods employed for any aquifer performance tests associated with the well.

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DBHYDRO | reports

Hydraulic Details

Site	JONATHAN DICKINSON STATE PARK -R1281		
Test Type	APT	Site Map	NO
Start Test Date Time	28-SEP-1989 1220	Discharge Rate	168 (g/min)
Pumped Well	N-1281	Spec Capacity	(gpc-ft)
Pumped Well E-Coord	927986 (feet)	Transmissivity	3617.89 (ft**2/day)
Pumped Well Y-Coord	979684 (feet)	Storativity	.08047
Hours Pumped	71.5	Horizontal K	(feet/day)
Tested Interval Min	38 (ft)	Vertical K	(feet/day)
Tested Interval Max	120 (ft)	Leakance	(l/day)
No Monitored Wells	2		
Aquifer	SURFICIAL AQUIFER SYSTEM		
Source	SOUTH FLORIDA RWD		
Reference	ADAMS, EARLE W. BASCE 1998, HYDROGEOLOGIC INVESTIGATION JONATHAN DICKINSON STATE PARK, SFWMD, DEPARTMENT OF RESEARCH AND EVALUATION, ...		
Comments			

Station	E-Coord (feet)	Y-Coord (feet)	Analysis Method	Distance from Production Well (ft)	Max Drawdown (ft)	Transmissivity (ft**2/day)	Storativity	Leakance
1D_JDSP	945461	973063	NEUMAN	75		3604.95	.0852	
2D_JDSP	945386	973063	NEUMAN	157		2817.51	.0847	

Access by Station Name

Selecting "by Station" from the DBHYDRO Browser menu brings up the following screen:

The screenshot shows the 'DBHYDRO | by station' interface. At the top right is the 'sfwmd.gov' logo. The main heading is 'DBHYDRO | by station'. Below this is a 'STATION LISTING (By Alphabetic Grouping)' section. A horizontal menu of letters from A to Z is displayed. Below the menu is a search form with the following fields: 'Station Name: [input] Use % sign as a wild card.', 'AND / OR', 'Latitude From: [input]', 'Latitude To: [input]', 'Longitude From: [input]', 'Longitude To: [input]', 'AND / OR', 'X Coordinate From: [input]', 'X Coordinate To: [input]', 'Y Coordinate From: [input]', and 'Y Coordinate To: [input]'. At the bottom of the form are 'Submit' and 'Reset' buttons. The footer contains navigation links: 'DBHYDRO Menu | DBHYDRO Home | SEWMD Home | User's Guide | What's New | FAQ | Comments?'. Below these are 'Privacy Policy | Disclaimer | Accessibility | User Survey | Redline | Contact Us | Locations | Careers'. At the very bottom, it says 'SFWMD headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406 561-686-8800 | 1-800-432-2045 (Florida Only)'.

On this screen you can select the letter that corresponds with the first letter of the name of the station in which you are interested with or without wildcard characters. Alternatively you can type in the name of the station in which you are interested. The percent sign “%” can be used as a wildcard character. You may also select by a lat-lon or x-y box. X-Y coordinates are Florida state plane NAD83 East Zone in units of feet.

In this example we show selection by letter. Once a letter is selected, a list of database stations beginning with the selected letter will appear as follows:

DBHYDRO | by station

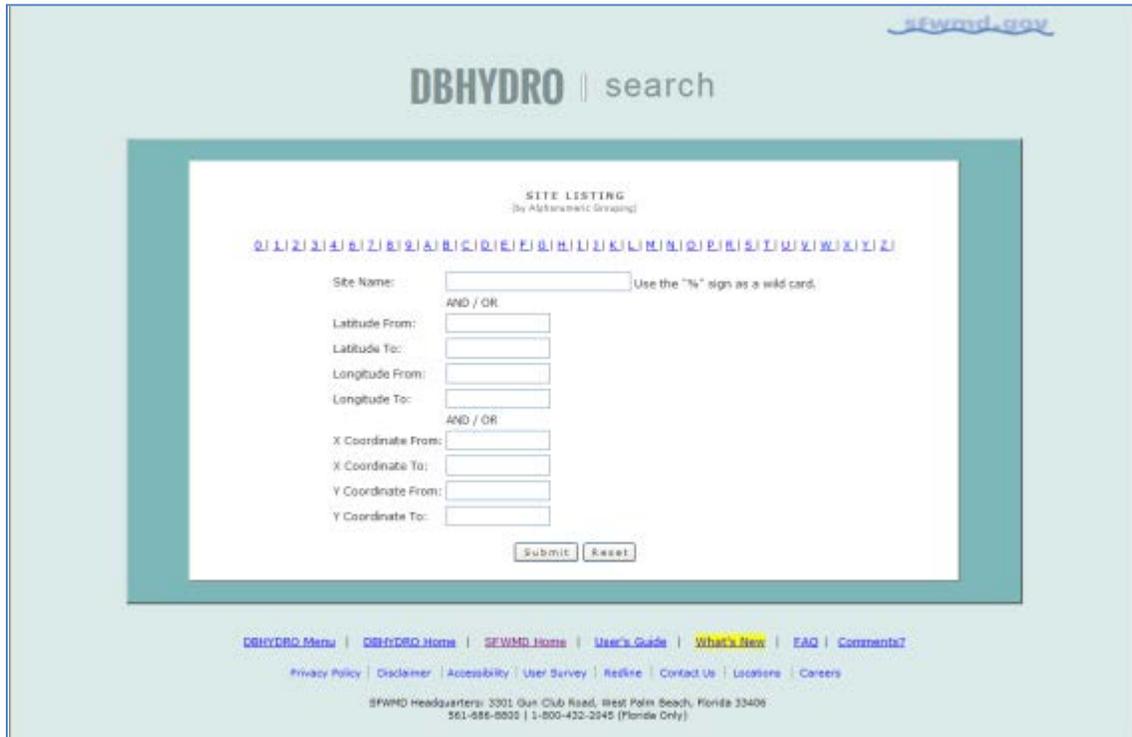
STATION INFORMATION

Get Data	Station	Site	Latitude	Longitude	X Coord	Y Coord	County	Basin	Section	Township	Range	Sh
<input type="checkbox"/>	T		261916.283	802129.175	866423.511	722953.53	BRO	CA2A	28	47	40	Google Map
<input type="checkbox"/>	T1-1		252451.332	803523.638	791525.994	393016.114	DAD	ENP	1	58	37	Google Map
<input type="checkbox"/>	T1-10S		251324.435	802637.211	840079.889	323846.17	DAD	????????				Google Map
<input type="checkbox"/>	T1-1N		251745.424	802637.209	839970.898	350193.744	DAD	C111	17	59	39	Google Map
<input type="checkbox"/>	T1-1S	S197	251704.426	802637.209	839988.035	346054.825	DAD	C111	20	59	39	Google Map
<input type="checkbox"/>	T1-2		252456.851	803536.898	790308.526	393569.646	DAD	ENP	2	58	37	Google Map
<input type="checkbox"/>	T1-2N		251835.422	802637.209	839949.99	355241.216	DAD	C111	9	59	39	Google Map
<input type="checkbox"/>	T1-2S		251636.427	802637.21	839999.735	343228.249	DAD	C111	20	59	39	Google Map
<input type="checkbox"/>	T1-3		252455.052	803546.138	789461.892	393385.372	DAD	ENP	2	58	37	Google Map
<input type="checkbox"/>	T1-3N		251924.42	802637.208	839929.489	360187.748	DAD	C111	4	59	39	Google Map
<input type="checkbox"/>	T1-3S		251608.428	802637.21	840011.43	340401.676	DAD	C111	29	59	39	Google Map
<input type="checkbox"/>	T1-4N		252017.418	802637.208	839907.303	365538.088	DAD	C111	33	58	39	Google Map
<input type="checkbox"/>	T1-4S		251543.429	802637.21	840021.87	337877.953	DAD	C111	29	59	39	Google Map
<input type="checkbox"/>	T1-5N		252106.416	802637.207	839886.78	370484.638	DAD	C111	28	58	39	Google Map
<input type="checkbox"/>	T1-5S		251516.43	802637.21	840033.142	335152.334	DAD	C111	32	59	39	Google Map
<input type="checkbox"/>	T1-6S		251448.431	802637.21	840044.831	332325.78	DAD	C111	32	59	39	Google Map
<input type="checkbox"/>	T1-7S		251420.432	802637.211	840056.52	329499.24	DAD	????????				Google Map
<input type="checkbox"/>	T1-9S		251352.433	802637.211	840068.206	326672.704	DAD	????????				Google Map
<input type="checkbox"/>	T12		264103	802230	860246.814	854866.425	PAL	S5A	32	43	40	Google Map
<input type="checkbox"/>	T18		264103	802230	860246.814	854866.425	PAL	S5A	32	43	40	Google Map
<input type="checkbox"/>	T19		264103	802230	860246.814	854866.425	PAL	S5A	32	43	40	Google Map
<input type="checkbox"/>	T2-1		252409.273	803601.619	788056.369	388759.644	DAD	ENP	11	58	37	Google Map

In this example the letter "T" was selected to generate the list of stations indicated. Each of the station names is hyperlinked to information about that station, an example of which is in the Surface Water Data section. One may also get data by station through this screen by checking the "Get Data" box, at the bottom the page, for each station of interest.

Access by Site Name

Sites represent a collection of stations. Therefore, you can gain access to a group of related stations by accessing a single site. By virtue of this “one-to-many” relationship, the site listing will always be shorter than the station listing. Selecting "by Site" from the DBHYDRO Browser menu brings up the following:



The screenshot displays the DBHYDRO search interface. At the top, it says "DBHYDRO | search" and "sewmd.gov". The main content area is titled "SITE LISTING (By Alphabetical Grouping)" and features a navigation bar with letters A through Z. Below this is a search form with the following fields:

- Site Name: Use the "%" sign as a wild card.
- AND / OR
- Latitude From:
- Latitude To:
- Longitude From:
- Longitude To:
- AND / OR
- X Coordinate From:
- X Coordinate To:
- Y Coordinate From:
- Y Coordinate To:

At the bottom of the form are "Submit" and "Reset" buttons. The footer contains navigation links: DBHYDRO Menu, DBHYDRO Home, SEWMD Home, User's Guide, What's New, FAQ, Comments?, Privacy Policy, Disclaimer, Accessibility, User Survey, Redite, Contact Us, Locations, Careers, and the address: SEWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406, 561-986-8828 | 1-800-432-2945 (Florida Only).

On this screen you can select the letter that corresponds with the first letter of the name of the site in which you are interested. Alternatively you can type in the name of the site in which you are interested. The percent sign “%” can be used as a wildcard character. You may also select by a lat-lon or x-y box. X-Y coordinates are Florida state plane NAD83 HARN East Zone in units of feet.

In this example we show selection by letter. Once a letter is selected, a list of database sites beginning with the selected letter will appear as follows:

sfwmd.gov

Site Information

Get Data	Site Name	Site Type	Site Group	Site Priority	Contact Authority	Site Status	Site Status Date	Rec Status	Description
<input type="checkbox"/>	T3			2		A	18-OCT-2001	A	
<input type="checkbox"/>	T5			2		A	16-OCT-2001	A	
<input type="checkbox"/>	TAFT			2	WAYNE HERMANN	A	18-FEB-1992	A	TAFT PROPERTY NEAR ORLANDO
<input type="checkbox"/>	TAFT DW1			2		A	01-JAN-1900	A	CANAL INFLOW TO TAFT DRAINWELL
<input type="checkbox"/>	TALISMAN			1		A	01-JAN-1900	A	TALISMAN SUGAR - US SUGAR
<input type="checkbox"/>	TALYC.E0			2		A	01-JAN-1900	A	SCS STRUCTURE ON EAST OTTER CREEK TRIBUTARY TO TAYLOR CRE
<input type="checkbox"/>	TALYC.N2			2		A	01-JAN-1900	A	SCS STRUCTURE ON N.W. TAYLOR CREEK DOWNSTREAM FROM BRID
<input type="checkbox"/>	TAM.S333			2		A	01-JAN-1900	A	TAMIAMI CANAL ABOVE 5-333 NR MIAMI,FL
<input type="checkbox"/>	TAMBR1			1		A	01-FEB-1991	A	
<input type="checkbox"/>	TAMBR2			1		A	01-FEB-1991	A	
<input type="checkbox"/>	TAMBR3			1		A	01-FEB-1991	A	
<input type="checkbox"/>	TAMBR4			1		A	01-FEB-1991	A	
<input type="checkbox"/>	TAMBR5			1		A	17-APR-1991	A	
<input type="checkbox"/>	TAMBR5			1		A	18-JUL-1991	A	
<input type="checkbox"/>	TAMBR90			1		A	30-OCT-2000	A	
<input type="checkbox"/>	TAMI		XXXX	3		D	18-FEB-1992	A	
<input type="checkbox"/>	TAMI AIR			1		A	01-JAN-1900	A	TAMIAMI AIRPORT
<input type="checkbox"/>	TAMI DBL			1		A	01-JAN-1900	A	TAMIAMI CANAL AT DADE-BROWARD LEVEE
<input type="checkbox"/>	TAMI.115			2		A	01-JAN-1900	A	TAMIAMI CANAL @ BRIDGE 115
<input type="checkbox"/>	TAMI.40M			2		A	01-JAN-1900	A	TAMIAMI CANAL OUTLETS, 40-MILE BEND TO MONROE, F
<input type="checkbox"/>	TAMI.77			2		A	01-JAN-1900	A	TAMIAMI CANAL AT BRIDGE 77, NR. CARNESTOWN, FLOR
<input type="checkbox"/>	TAMI.83			2		A	01-JAN-1900	A	TAMIAMI CANAL OUTLETS AT BRIDGE 83
<input type="checkbox"/>	TAMI.96			2		A	01-JAN-1900	A	TAMIAMI CANAL @ BRIDGE 96
<input type="checkbox"/>	TAMBA		XXXX	3		D	18-FEB-1992	A	
<input type="checkbox"/>	TAMIAMI			2		A	01-JAN-1900	A	TAMIAMI CANAL OUTLETS, MONROE TO CARNESTOWN, FLA
<input type="checkbox"/>	TAMBR37	RU	BICY	2		D	01-JAN-1900	A	TAMIAMI CANAL AT BRIDGE 37

In this example the letter "T" was selected to generate the list of sites indicated. Each of the site names is hyperlinked to information about that site, an example of which is in the Surface Water Data section. One may also get data by site through this screen by checking the "Get Data" box for each site of interest.

Access by Hydrologic Basin

Stations can be accessed by hydrologic basin. Basin names are grouped by first letter.



Selecting a first letter, in this case 'B', brings up a list of all the basins that begin with the letter 'B'.

In this example, basin name BOGGY CR is selected:



The time series listing is displayed for all continuous time series in basin BOGGY CR:

Get Data	Dbkey	Station	Group	Data Type	Freq	Stat	Recorder	Agency	Start Date	End Date	Strata	County	Op Num	Latitude	Longitude	X
<input type="checkbox"/>	PT351	086628-1	086628	RAIN	DA	SUM	NA	NOAA	01-FEB-1974	28-JUN-1996	0	ORA		282700	811900	554
<input type="checkbox"/>	PT352	086628-2	086628	RAIN	DA	SUM	NA	NOAA	01-JUL-1996	28-DEC-2001	0	ORA		282602	811930	551
<input type="checkbox"/>	PT482	086633-1	086633	RAIN	DA	SUM	NA	NOAA	18-FEB-1950	28-DEC-1958	0	ORA		283300	812100	543
<input type="checkbox"/>	PT354	086638-1	086638	RAIN	DA	SUM	NA	NOAA	01-JUL-1948	28-JAN-1974	0	ORA		283300	812000	549
<input type="checkbox"/>	10868	82911801	82911801	WELL	RI	RAND	7777	USGS	14-MAY-1980	25-SEP-1981	422	ORA	0	282956.005	811817.232	558
<input type="checkbox"/>	10321	BOGGY.TA	BOGGY.TA	CLD	RI	RAND	7777	USGS	10-JUN-1980	29-JUL-1982	0	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	10317	BOGGY.TA	BOGGY.TA	CO	RI	RAND	7777	USGS	06-FEB-1980	30-SEP-1983	0	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	00113	BOGGY.TA	BOGGY.TA	FLOW	DA	MEAN	NA	USGS	01-SEP-1959	03-MAY-2011	0	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	00111	BOGGY.TA	BOGGY.TA	GAGHT	DA	MEAN	7777	USGS	17-SEP-1959	03-MAY-2011	60.97	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	10320	BOGGY.TA	BOGGY.TA	H2O2	RI	RAND	7777	USGS	06-FEB-1980	11-AUG-1984	0	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	10318	BOGGY.TA	BOGGY.TA	PH	RI	RAND	7777	USGS	06-FEB-1980	30-SEP-1983	0	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	10316	BOGGY.TA	BOGGY.TA	SCOND	RI	RAND	7777	USGS	06-FEB-1980	30-SEP-1983	0	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	00112	BOGGY.TA	BOGGY.TA	STG	DA	FWM	7777	USGS	04-OCT-1978	11-AUG-1984	0	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	10319	BOGGY.TA	BOGGY.TA	SIG	RI	RAND	7777	USGS	06-FEB-1980	11-AUG-1984	0	ORA	0	282217.022	811838.234	556
<input type="checkbox"/>	05638	BOGGY527	BOGGY527	FLOW	DA	MEAN	NA	WMD			0	ORA	0	282342.019	812231.237	535
<input type="checkbox"/>	05633	BOGGY527	BOGGY527	STG	BK	INST	7777	WMD	23-OCT-1985	13-MAR-1999	0	ORA	0	282342.019	812231.237	535
<input type="checkbox"/>	07170	BOGGY527	BOGGY527	STG	DA	MEAN	SP01	WMD	19-MAY-1987	31-MAY-1988	0	ORA	0	282342.019	812231.237	535

Real Time Data

Choose Real Time Data from the main menu. This option is presently only available for users whose login credentials have been authenticated on the SFWMD computer network.

Real time stages and water control structure operations are available. For instance, if one has interest in real-time data at the S155 spillway, one checks the Site Name box and selects “Submit”

The screenshot shows a web browser window displaying the DBHYDRO search interface. At the top right, the URL sfwmd.gov is visible. The main heading is "DBHYDRO | search". Below this, the section is titled "REAL TIME DATA". Underneath, it says "SELECT SEARCH PARAMETERS" with a note "(click on the parameter text for help)". There are two columns of search parameters, each with a checkbox:

DRKFY	<input type="checkbox"/>	Station	<input type="checkbox"/>
Station Description	<input type="checkbox"/>	Site Name	<input checked="" type="checkbox"/>
Data Type	<input type="checkbox"/>	County	<input type="checkbox"/>
Hydrologic Basin	<input type="checkbox"/>	X-Y Coordinates	<input type="checkbox"/>
Latitude/Longitude	<input type="checkbox"/>	DCVP Station Id	<input type="checkbox"/>

Below the checkboxes are two buttons: "Submit" and "Reset". Underneath these buttons, it says "OR" and there is a text input field with the text "Use Existing Parameter File" inside it.

At the bottom of the page, there is a navigation menu with the following links: [DBHYDRO Menu](#) | [Portal Home](#) | [SFWMD Home](#) | [User's Guide](#) | [What's New](#) | [FAQ](#) | [Comments?](#)

Select site S155 from the list of values and select “Submit”...

sfwmd.gov

DBHYDRO | search

QUERY CRITERIA

Site Name	S15	- S-15 PUMP ON SOUTH NEW RIVER CANAL NR DAVIE, FL
	S131	- S131 LOCK AND SPILLWAY (LAKEPORT LOCK)
	S133	- S-133 PUMP FROM N.E. BRIDGE TO LAKE OKEECHOBEE
	S135	- S135
	S136W	- S136W DUAL GATE STRUCTURE
	S140	- S-140 PUMPS ON LEVEE L-28 AT CONSERV. AREA 3A
	S145	- S-145 SPILLWAY ON CANAL C-1 AT F.E.C. RAILROAD
	S150	- S-150 CONVEYER ON LEVEE L-9 AT LEVEE L-35W
	S153L	- S-153L (LATCHING GATE) ON LEVEE L-65 AT CANAL C-44A
	S154	- S-154 CONVEYER TRUSS LEVEE L-24 NEAR OKEECHOBEE
	S155	- S-155 SPILLWAY ON N.F.E. CANAL AT S.W. 1
	S155A	- S155A GATE STRUCTURE ON CSI CANAL
	S145	- S-145 SPILLWAY ON CANAL C-12 NEAR F.E.C. RAILROAD
	S147	- STRUCTURE 147, ON C-163, DADE COUNTY
	S149	- S-149 CONVEYER ON CANAL C-21 AT INDUSTRIAL CANAL

Pick Time Series Individually
 Get All Data

Order By: STATION

[DBHYDRO Menu](#) |
 [Portal Home](#) |
 [SEWMD Home](#) |
 [User's Guide](#) |
 [What's New](#) |
 [FAQ](#) |
 [Comments?](#)

Check off the time series of interest and select

sfwmd.gov

DBHYDRO | time series

Get Data	Dbkey	Station	Group	Data Type	Freq	Stat	Recorder	Agency	Start Date	End Date	Strata	County	Op Num	Latitude	Longitude	X COORD	Y COORD
<input checked="" type="checkbox"/>	LY442	S155_H	S155	STG	BK	INST	TELE	WMD	19-FEB-1986	07-JUN-2011	0	PAL	0	263840.5	800318.544	964797.771	8411
<input checked="" type="checkbox"/>	LT003	S155_S	S155	GATE	BK	INST	TELE	WMD	19-FEB-1986	03-JUN-2011	0	PAL	1	263841.237	800318.141	964833.771	8411
<input checked="" type="checkbox"/>	LS456	S155_S	S155	GATE	BK	INST	TELE	WMD	19-FEB-1986	05-JUN-2011	0	PAL	2	263841.237	800318.141	964833.771	8411
<input checked="" type="checkbox"/>	LS828	S155_S	S155	GATE	BK	INST	TELE	WMD	19-FEB-1986	02-JUN-2011	0	PAL	3	263841.237	800318.141	964833.771	8411
<input checked="" type="checkbox"/>	LY443	S155_T	S155	STG	BK	INST	TELE	WMD	19-FEB-1986	15-DEC-2011	0	PAL	0	263841.271	800317.663	964877.117	8411

Query returned 5 records.

Set the Date Range for “Today and previous 2 days”, select the Chart destination option, and press the Submit button.

QUERY DATE SELECTION

Time Series List

Get Data	Dbkey	Station	Group	Data Type	Freq	Stat	Strata	Recorder	Agency	Start Date	End Date	County	Op Num	Latitude	Longitude	Basin	St
<input checked="" type="checkbox"/>	IY442	S155_H	S155	STG	BK	INST	0	TELE	WMD	19860219	20110607	PAL	0	263840.5	800318.544	CS1E	
<input checked="" type="checkbox"/>	LT003	S155_S	S155	GATE	BK	INST	0	TELE	WMD	19860219	20110603	PAL	1	263841.237	800318.141	CS1E	SP
<input checked="" type="checkbox"/>	LS456	S155_S	S155	GATE	BK	INST	0	TELE	WMD	19860219	20110605	PAL	2	263841.237	800318.141	CS1E	SP
<input checked="" type="checkbox"/>	LS828	S155_S	S155	GATE	BK	INST	0	TELE	WMD	19860219	20110602	PAL	3	263841.237	800318.141	CS1E	SP
<input checked="" type="checkbox"/>	IY443	S155_T	S155	STG	BK	INST	0	TELE	WMD	19860219	20111215	PAL	0	263841.271	800317.663	CS1E	

Date Range: Today and previous 2 days (dropdown)

Start Date: End Date: (YYYYMMDD)

Report Format: One Value Per Row (dropdown)

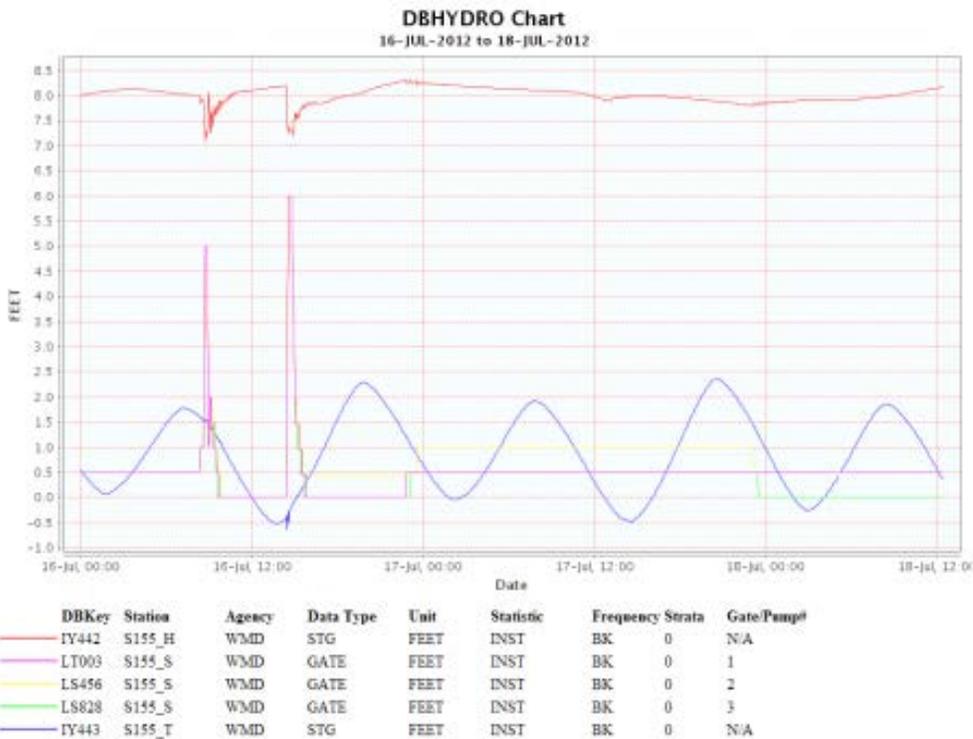
Destination:

- Screen
- File: Fixed column width.
- File: Comma delimited (.csv).
- Adobe (.pdf) Format.
- Chart

Run Mode:

- Online
- Batch [When to use it](#)

A hydrograph with current data is generated and displayed:

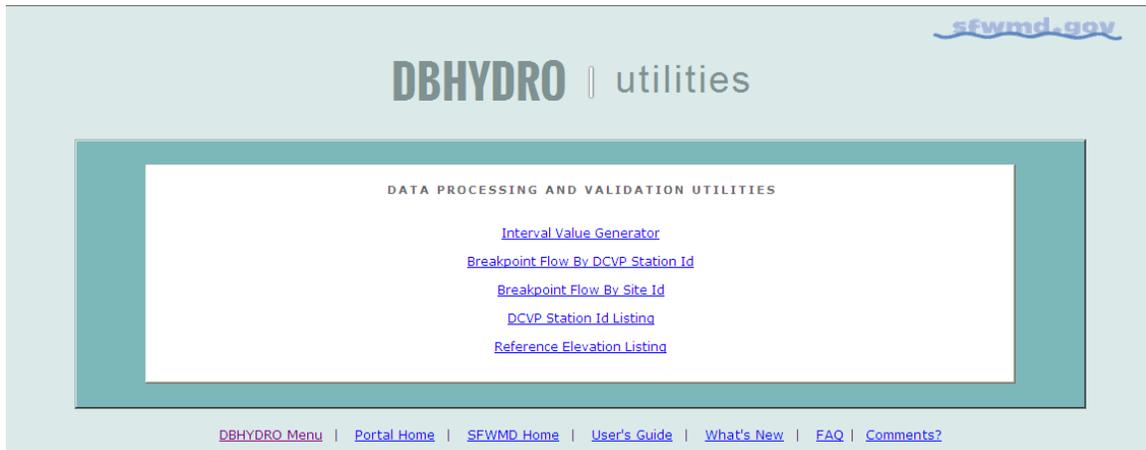


This graph shows stage (water levels) and gate openings for the current day and previous two days. The tabular view of this data (One Value Per Row) tells us after which date each time series is provisional. Provisional data is that data which is considered not to have undergone standard and accepted review procedures. These procedures typically involve interactive review by one or more staff members.

Data Processing and Validation Utilities

This option is available on the SFWMD intranet only.

These utilities are primarily used by the SFWMD Engineering Associates who handle the routine processing of instrument readings and perform quality assurance on these readings prior to archiving in the corporate database.



Interval Value Generator

Selecting “Interval Value Generator” brings you to the following screen:

Interval Value Generator(IVG)/Extract Parameter Screen

Station Id - Start Date - End Date - Site Name - Parameter

Station ID	Start Date	End Date	Site Name	Parameter
27-MAN	-	-	S27	PUMP
2A159+	19990107	20121008	2A159	GROUNDWATER
2A300+	19990106	20120814	2A300	STAGE
2A37E+	20000628	20121007	G2A37E	STAGE
2A37E+T1	-	-	G2A37E	WATER TEMPERATURE
2A37E+W1	20000628	20121007	G2A37E	GROUNDWATER
2A37E+W2	20000628	20121007	G2A37E	GROUNDWATER
2A37E+W3	20000628	20121007	G2A37E	GROUNDWATER
2A37E+W4	20000628	20121007	G2A37E	GROUNDWATER
3A-2S+	19900828	19910828	3A-2S	HEADWATER ELEVATION
3A-3+	19900831	19910826	3A-3	HEADWATER ELEVATION
3A-36+R	19950126	20071106	3A-36	RAINFALL

Statistic Type:

Reporting Interval: or # of Minutes:

Date Range: YYYYMMDDHH24MI

Start Date:

End Date:

Data Source:

Output Format: Fixed Comma Delimited

Online Batch Mode

The Interval Value Generator (IVG) program allows the user to generate summarized statistical information from any individual or group of individual DCVP Station_ids. Each station_id is considered to be a set of readings from a single sensor or device. IVG can be used to create mean daily values, maximum hourly values, and minimum monthly values, etc... The user may define any date range of interest. IVG works with archived, provisional, and real-time data. Output may be online or via batch jobs. Batch jobs send email notification when complete.

DCVP Station Id Listing

Returning to the Data Processing and Validation Utilities menu affords us other options. The Data Collection Validation Processing (DCVP) system station reference table may be accessed by selecting “DCVP Station ID Listing”. The selection leads to this screen:

The screenshot shows a web browser window with the URL sfwmd.gov in the top right corner. The page title is "DCVP Station Id Search Criteria". Below the title is a navigation menu with links: [2](#) | [3](#) | [6](#) | [7](#) | [9](#) | [A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [Y](#) |

The main form contains the following fields:

- DCVP Station ID:** A text input field with a placeholder "(Use the \"%\" sign as a wild card.)".
- Application Name:** A dropdown menu with "ALL" selected. Other options include "RF2 - GRAPHIC RAINFALL DATA", "RF3 - MANUAL RAINFALL DATA", and "SG1 - DIGITAL PUNCHED TAPE DATA".
- Parameter Code:** A dropdown menu with "ALL" selected. Other options include "? - UNKNOWN", "A - FLOW CALIBRATION CONSTANT", and "A1 - 1ST ORDER COEFFICIENT".
- Technician:** A dropdown menu with "ALL" selected. Other options include "AJAYI JOHNSON", "ALICIA CARIBOCCAS", and "ALISON MOORMAN".
- Site Name:** A dropdown menu with "ALL" selected. Other options include "01NO", "01SO", and "02274490 - Williamson Ditch near Okeechobee, FL".
- Agency:** A dropdown menu with "ALL" selected. Other options include "COE", "FS", and "LM".

At the bottom of the form are two buttons: "Submit" and "Reset".

The user may select all station_ids (timeseries) starting with a given character or query by station_id name (including the % as the wildcard character), application name (the processing method), the parameter code, the technician assigned to the station, the site name, or the agency from whom the data is received.

In this example, we keep it simple...

Selecting the letter “T” generates a list of all DCVP station ids beginning with the letter “T”:

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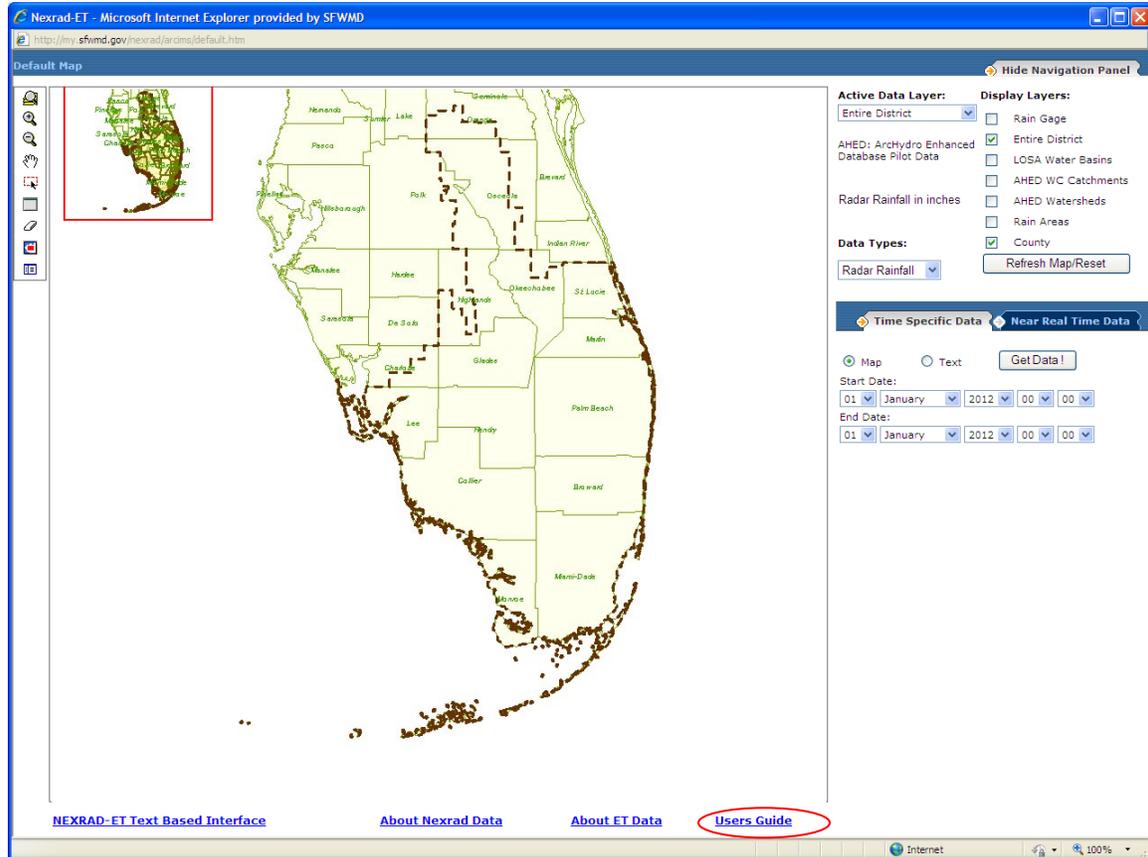
Station Reference Information

Get Data	DCVP Station Id	Site Name	Application Name	Parameter Code	Operation Code	Operation Number	Start Date	End Date	Datum & RPOR	Technician	Altern. Tech.	Recorder Class	Priority	Processed	Collected	Project Code	Station Status D
<input type="checkbox"/>	T3@H	I3	SG3	H			09-JUL-1993	31-DEC-1994	Info			DWR	2	N	Y		01-JAN-19
<input type="checkbox"/>	T5+STG	T5	SG3	ST			21-JUL-1992	05-JUL-2006	Info	liurado		LOGGNET	2	N	N		03-MAR-1
<input type="checkbox"/>	T5-STG	T5	SG4	ST			27-JUL-2006	09-OCT-2012	Info	liurado		MOSCAD	1	Y	Y		25-JUN-20
<input type="checkbox"/>	TAFT+GW	TAFT	SG3	GW			09-JUL-2004	08-JUL-2006	Info	awalsh		LOGGNET	1	N	N		01-JUL-20
<input type="checkbox"/>	TAFT+R	TAFT	SG3	R	Z		09-JUL-2004	08-JUL-2006	Info	awalsh		LOGGNET	1	N	N		01-JUL-20
<input type="checkbox"/>	TAFT+RR	TAFT	SG3	R			01-OCT-2007	01-SEP-2011	Info			NRG	1	N	Y		01-JUL-20
<input type="checkbox"/>	TAM-BR37	TAMIBR37	SG1	ST			29-FEB-1984	09-MAR-1995	Info	tbrown		DIGITAL	2	N	N	8041	13-JAN-19
<input type="checkbox"/>	TAM-BR52	TAMIBR52	SG2	ST			16-MAY-1984	09-MAR-1995	Info	tbrown		GRAPHIC	2	N	N	8041	19-JAN-19
<input type="checkbox"/>	TAM-BR55	TAMIBR55	SG2	ST			16-MAY-1984	09-MAR-1995	Info	tbrown		GRAPHIC	2	N	N	8041	19-JAN-19
<input type="checkbox"/>	TAM-INDI	TAMINR37	SG1	ST			20-JUN-1981	02-MAY-1983	Info			DIGITAL	2	N	N	8041	01-JAN-19
<input type="checkbox"/>	TAM-TOMA	TAMTOM	SG1	ST			20-JUN-1981	19-AUG-1999	Info	izamora		DIGITAL	2	N	N	8041	19-AUG-1
<input type="checkbox"/>	TAMBR37+	TAMIBR37	SG3	ST			13-JAN-1995	08-APR-2004	Info	tbrown		SS CR10	2	N	N		13-JAN-19
<input type="checkbox"/>	TAMBR40+	TAMBR40	SG4	ST			08-JAN-2004	03-OCT-2012	Info	tbrown		LOGGNET	1	Y	Y		01-OCT-2
<input type="checkbox"/>	TAMBR45+	TAMBR45	SG4	ST			08-JAN-2004	03-OCT-2012	Info	tbrown		LOGGNET	1	Y	Y		01-OCT-2
<input type="checkbox"/>	TAMBR52+	TAMIBR52	SG3	ST			19-JAN-1995	08-APR-2004	Info	tbrown		SS CR10	2	N	N		19-JAN-19
<input type="checkbox"/>	TAMBR55+	TAMIBR55	SG3	ST			19-JAN-1995	08-APR-2004	Info	tbrown		SS CR10	2	N	N		19-JAN-19
<input type="checkbox"/>	TAMBR66+	TAMBR66	SG4	ST			08-JAN-2004	03-OCT-2012	Info	tbrown		LOGGNET	1	Y	Y		01-OCT-2
<input type="checkbox"/>	TAMBR71+	TAMBR71	SG4	ST			08-JAN-2004	03-OCT-2012	Info	tbrown		LOGGNET	1	Y	Y		01-OCT-2
<input type="checkbox"/>	TAMI.WW	WWIND.41	SG1	ST			02-JUL-1986	12-DEC-1994	Info			DIGITAL	2	N	N	8041	12-DEC-1
<input type="checkbox"/>	TAMTOM+	TAMTOM	SG4	ST			19-AUG-1999	08-OCT-2012	Info	ibobsein	izamora	LOGGNET	1	Y	Y		19-AUG-1
<input type="checkbox"/>	TB1+GW1	TB1	SG4	GW	W	1	01-JUL-2003	26-SEP-2012	Info	abokor		LOGGNET	1	Y	Y		09-APR-20
<input type="checkbox"/>	TB1+GW2	TB1	SG4	GW	W	2	01-JUL-2003	26-SEP-2012	Info	abokor		LOGGNET	1	Y	Y		09-APR-20

There is an extensive list of DCVP station id attributes, several of which are hyperlinked to other related tables to provide additional information about the particular time series. For instance, you can find out the name of the person responsible for the validation of a particular SFWMD data set if you have questions about the data.

Radar Based Rainfall Data

This option is available on the SFWMD intranet only.



NEXRAD or **Nexrad** (**N**ext-**G**eneration **R**adar) is a network of 159 high-resolution S-band Doppler weather radars operated by the National Weather Service, an agency of the National Oceanic and Atmospheric Administration (NOAA) within the United States Department of Commerce. Its technical name is **WSR-88D**, which stands for **W**eather **S**urveillance **R**adar, **1988**, **D**oppler. NEXRAD detects precipitation and atmospheric movement or wind. It returns data which when processed can be displayed in a mosaic map which shows patterns of precipitation and its movement. (source: Wikipedia, <http://en.wikipedia.org/wiki/NEXRAD>, accessed April 5, 2013).

This application, also known as NEXRAD or NEXRAIN data, has its own User's Guide which may be accessed from the bottom of the main screen as shown above. Both map-based and text-based retrievals are available. Map-based retrievals result in thematic maps of rainfall amounts defined by the geographic layer of choice. Text-based retrievals result in data files that may be viewed or imported into other applications.

Metadata/Reference Tables

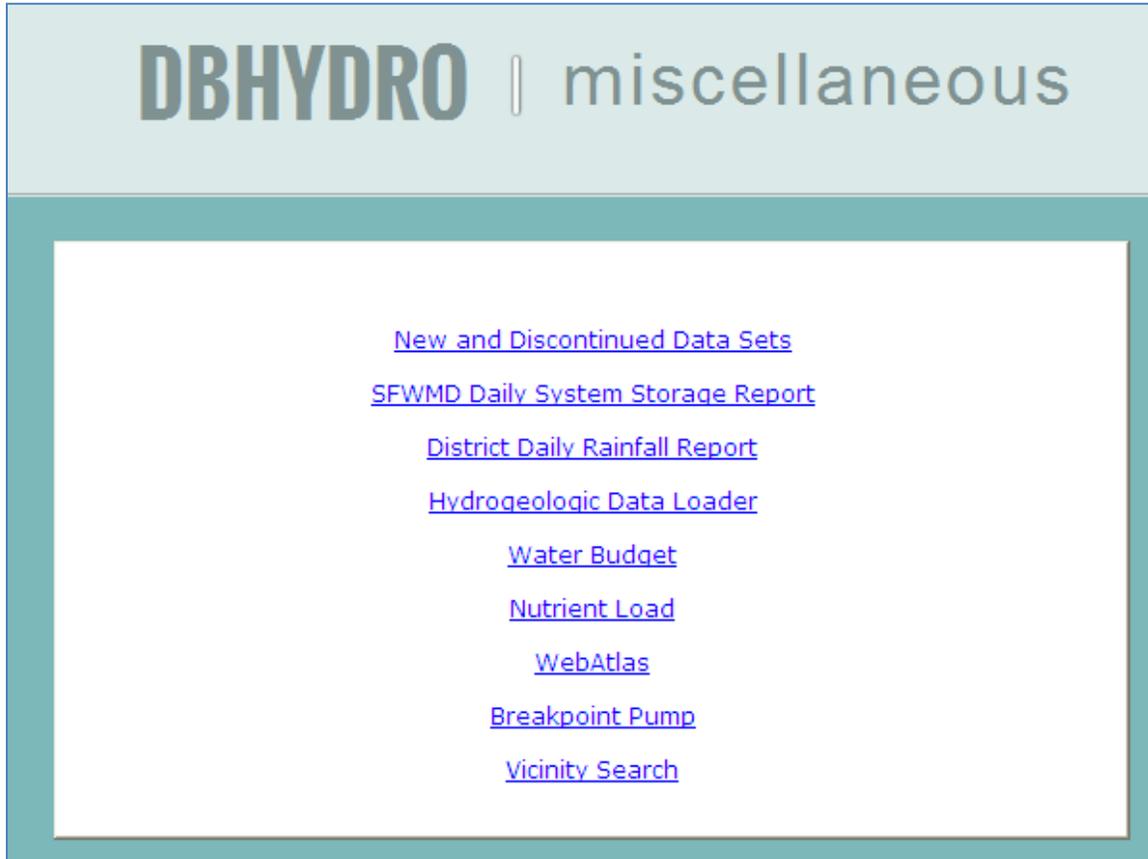
Metadata includes descriptive information about the context, quality and condition, or characteristics of the data. In the case of DBHYDRO, each of the attributes of a time series or a measurement is such metadata. The domains from which these attributes are drawn are accessible by selecting the Metadata/Reference Tables option from the main page. Upon selection, the following DBHYDRO Metadata screen appears:



Selecting any one of the items displays an up-to-date list of valid values for that particular attribute.

Miscellaneous Items and Reports

The menu items, some limited to SFWMD internal use only, offer other web resources that users have found helpful.



New and Discontinued Data Sets

New data sets are continually added to the database. Monitoring may also be discontinued or changed from one method to another. This feature provides information on these types of additions and changes to the database.

Selecting New and Discontinued Data Sets results in this screen...

You may choose from a variety of report types, disciplines, and date ranges of interest. The following screen displays the results of a query of newly created data sets in the surface water discipline:

Dbkey	Station	Group	Data Type	Freq	Stat	Strata	Recorder	Agency	Gate No	Registered By	Registered Date	User OSID	Status	Status Date	Date Created	Start Date	End Date
83745	G436_P	G436_P	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	05-JUL-2012	DBACHAN	P	05-JUL-2012	05-JUL-2012		
83747	G438A_C	G438A_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	06-JUL-2012	DBACHAN	P	06-JUL-2012	06-JUL-2012		
83748	G438B_C	G438B_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	06-JUL-2012	DBACHAN	P	06-JUL-2012	06-JUL-2012		
83749	G438C_C	G438C_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	09-JUL-2012	DBACHAN	P	09-JUL-2012	09-JUL-2012		
83750	G438D_C	G438D_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	11-JUL-2012	DBACHAN	P	11-JUL-2012	11-JUL-2012		
83757	G438E_C	G438E_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	11-JUL-2012	DBACHAN	P	11-JUL-2012	11-JUL-2012		
83758	G438F_C	G438F_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	13-JUL-2012	DBACHAN	P	13-JUL-2012	13-JUL-2012		
83759	G438G_C	G438G_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	13-JUL-2012	DBACHAN	P	13-JUL-2012	13-JUL-2012		
83760	G438H_C	G438H_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	13-JUL-2012	DBACHAN	P	13-JUL-2012	13-JUL-2012		
83761	G438I_C	G438I_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	13-JUL-2012	DBACHAN	P	13-JUL-2012	13-JUL-2012		
83762	G438J_C	G438J_C	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	13-JUL-2012	DBACHAN	P	13-JUL-2012	13-JUL-2012		
83746	G445_P	G445_P	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	06-JUL-2012	DBACHAN	P	06-JUL-2012	06-JUL-2012		

By selecting “Other Data Sets at Station” you can see what other time series are, or have been, measured at the station of interest.

All the “headers” for each of the time series at the selected station are displayed here:

sfwmd.gov

Data Sets at Station G445_P

Dbkey	Station	Group	Data Type	Freq	Stat	Strata	Recorder	Agency	Gate No	Registered By	Registered Date	User OSID	Status	Status Date
83746	G445_P	G445_P	FLOW	DA	MEAN	0	TELE	WMD		DBACHAN	06-JUL-2012	DBACHAN	P	06-JUL-2012

Query returned 1 records.

[DBHYDRO Menu](#) | [Portal Home](#) | [SFWMD Home](#) | [User's Guide](#) | [What's New](#) | [FAQ](#) | [Comments?](#)

[Privacy Policy](#) | [Disclaimer](#) | [Accessibility](#) | [User Survey](#) | [Redline](#) | [Contact Us](#) | [Locations](#) | [Careers](#)

SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406
561-686-8800 | 1-800-432-2045 (Florida Only)

SFWMD Daily System Storage Report

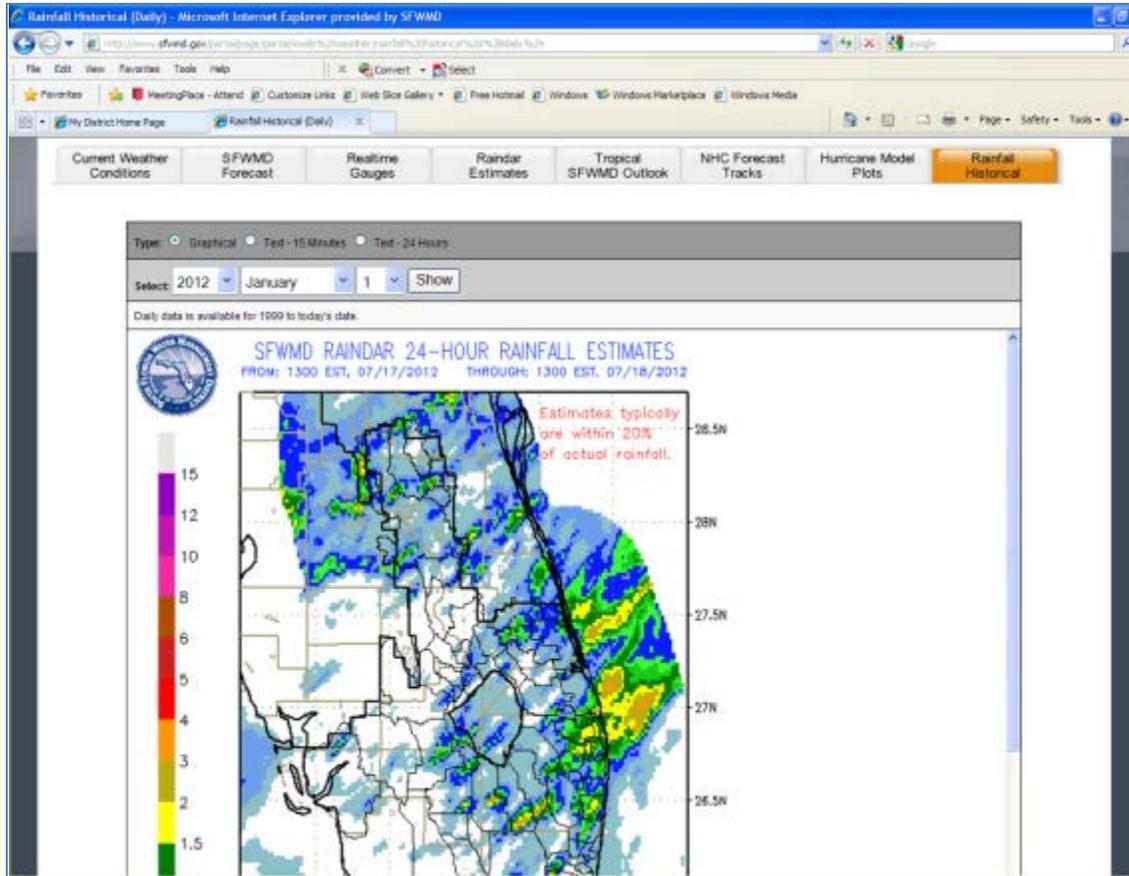
(targeted for retirement)

The Daily System Storage Report shows a number of key water bodies in south Florida and their current water levels, estimated storage, and recent changes in storage. The report is one of many tools available to water managers. The user must be authenticated on the SFWMD network to access this report.

SFWMD System Storage Report					
Report Date: <input type="text" value="12/19/2012"/> <input type="button" value="Go"/>					
Report Date: 12/19/2012			Basis Date: 10/1/2012		
Basin	Stage (ft)			Storage (ac-ft)	
	12/18/2012	Reg. Sched.	12/19/2012	Current	Basis Data
Myrtle (S-57 hw)	61.83	61.80	61.80	10,000	8,475
Alligator (S-60 hw)	63.53	64.00	63.53	54,210	50,570
Mary Jane (S-62 hw)	60.93	61.00	60.95	25,125	21,170
Gentry (S-63 hw)	61.66	61.50	61.66	17,208	15,948
East Tohopekaliga	56.94	58.00	56.95	112,425	112,310
Tohopekaliga	54.39	55.00	54.33	133,265	128,755
Cypress and Hatchineha	51.05	52.50	51.02	64,320	71,200
Lake Kissimmee Avg.	51.07	52.50	51.13	368,646	383,822
Istokpoga (S-68 hw)	39.43	39.50	39.50	186,640	169,279
Upper Sub-System Gain in Storage for: 12/19/2012 is -----> 10,310 (ac-ft) Comparative Gain in Storage for: 12/18/2012 is -----> 6,648 (ac-ft)					
Basin	Stage (ft)			Storage (ac-ft)	
	12/18/2012	Reg. Sched.	12/19/2012	Current	Basis Data
Lake Okeechobee Avg.	15.18	12.66	15.19	4,031,700	4,220,900
L-8 Reservoir	-.83	.00	-.94	27,840	36,919
WCA-1	16.77	17.31	16.77	264,200	310,300
WCA-2	12.72	11.71	12.71	173,200	275,200

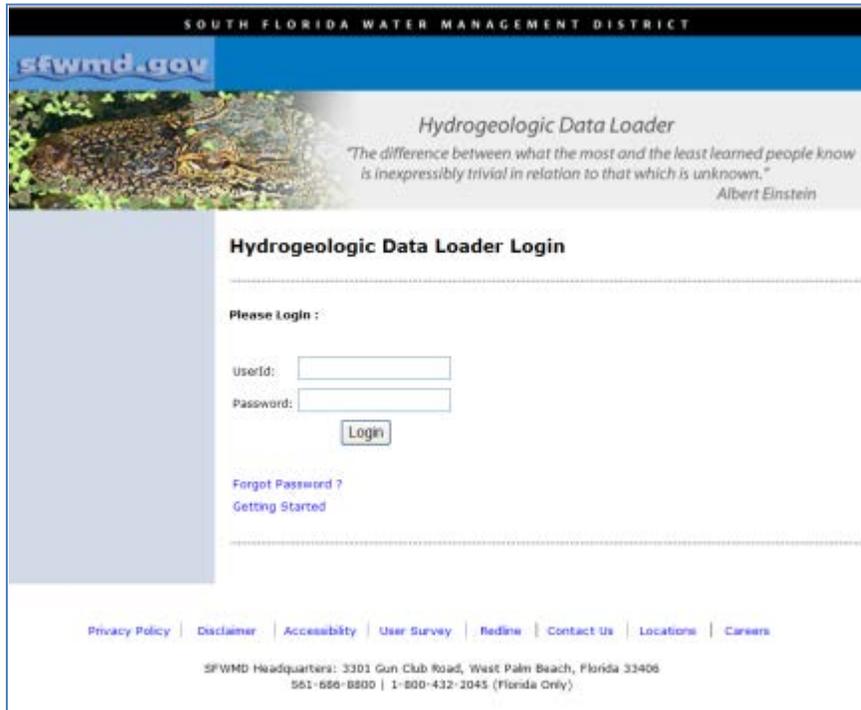
District Daily Rainfall Report

Several tabbed interfaces to District-wide rainfall data and other web-based climate resources are available via this page.



Hydrogeologic Data Loader

The hydrogeologic data loader is a specialized interface for SFWMD data stewards, or other authorized personnel, to perform bulk transfers of hydrogeologic data into DBHYDRO.



The screenshot shows the login interface for the Hydrogeologic Data Loader. At the top, there is a header for the South Florida Water Management District with the website address sfwmd.gov. Below the header is a banner image of a natural landscape with the title "Hydrogeologic Data Loader" and a quote by Albert Einstein: "The difference between what the most and the least learned people know is inexpressibly trivial in relation to that which is unknown." Below the banner is a login section titled "Hydrogeologic Data Loader Login". It includes a "Please Login :" prompt, input fields for "UserId:" and "Password:", and a "Login" button. There are also links for "Forgot Password ?" and "Getting Started". At the bottom of the page, there is a footer with navigation links: "Privacy Policy", "Disclaimer", "Accessibility", "User Survey", "Redline", "Contact Us", "Locations", and "Careers". Below the links is the SFWMD Headquarters address: "3301 Gun Club Road, West Palm Beach, Florida 33406" and phone numbers: "561-686-8800 | 1-800-432-2045 (Florida Only)".

Water Budget

This function is available on the SFWMD intranet only.

The primary purpose of this program is to provide comprehensive water budget information for Stormwater Treatment Areas (STAs). However, the program can be used to develop a water budget for any water body, where daily data are available from the corporate database, DBHYDRO. The program is capable of performing calibration of water budgets for STAs and also for each cell within a STA.

The water budget application has its own user guide which is accessible from the water budget application menu.



Nutrient Load Computation Application

This function is available to SFWMD staff on the SFWMD intranet only.

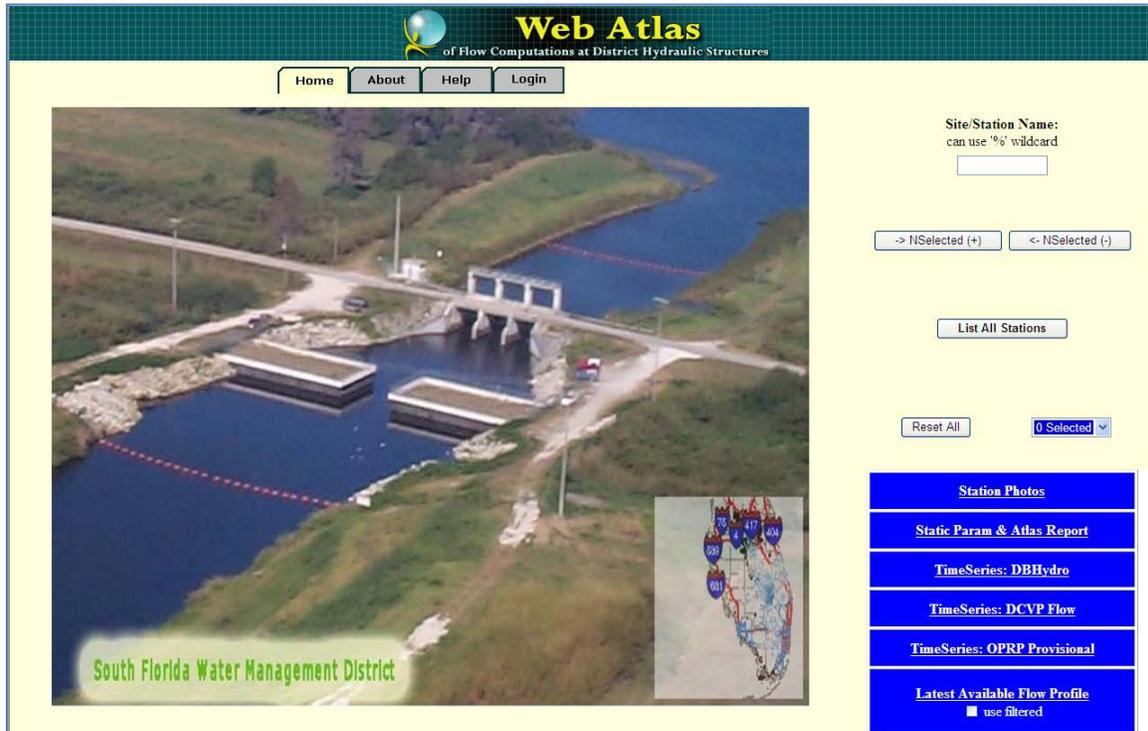
Key features of the nutrient load application include the ability to calculate loads based on flow time series and water quality concentration time series pairings. The outputs of these calculations are not presently stored in DBHYDRO.

The nutrient load application has its own User Guide accessible from the application's menu.

Web Atlas of Flow Computation at District Hydraulic Structures

This function is available on the SFWMD intranet only.

The Web Atlas application is an interface to information on all registered hydraulic structures of type: culvert, pump, spillway, weir, or index velocity meter. The application displays station photos, accesses real-time and historical time series data, displays configuration parameters used in discharge computation, and describes the computations.



Nearby Station Look-up

By selecting Vicinity Station from the menu one can find out what stations are near a given station or coordinate. A variable distance in miles may be entered. The output list may be further filtered by discipline and even further by data type.

sfwmd.gov

DBHYDRO | vicinity station query

STATION:

LATITUDE: (DDMMSS.SS)

LONGITUDE: (DDMMSS.SS)

X COORDINATE: feet (NAD83)

Y COORDINATE: feet (NAD83)

DISTANCE: (Miles)

DISCIPLINE:
 Groundwater
 Hydrogeologic Data
 Surface Water
 Meteorological Data
 Water Quality

DATA TYPE:

By clicking on Submit a list of stations, filtered if specified, within the provided distance is displayed, sorted by distance.

sfwmd.gov

DBHYDRO | by station

STATION INFORMATION

Get Data	Station	Site	Latitude	Longitude	X Coord	Y Coord	Distance in miles	County	Basin	Section	Township	Range	Show Map	Structure Info	Description
<input type="checkbox"/>	S155_R	S155	263841.237	800318.141	964833.771	841194.44	0.	PAL	C51E	15	44	43	Google Map	Info	S-155 SPILLWAY ON W.P.B. CANAL AT U
<input type="checkbox"/>	S155_S	S155	263841.237	800318.141	964833.771	841194.44	0.	PAL	C51E	15	44	43	Google Map	Info	S-155 SPILLWAY ON W.P.B. CANAL AT U
<input type="checkbox"/>	S155_T	S155	263841.271	800317.663	964877.117	841198.116	.01	PAL	LWLAGOON	15	44	43	Google Map	Info	S-155 SPILLWAY ON W.P.B. CANAL AT U
<input type="checkbox"/>	S155_H	S155	263840.5	800318.544	964797.771	841119.747	.02	PAL	C51E	15	44	43	Google Map	Info	S-155 SPILLWAY ON W.P.B. CANAL AT U
<input type="checkbox"/>	CS1S155	S155	263841.541	800317.194	964919.477	841225.771	.02	PAL	LWLAGOON	15	44	43	Google Map	Info	UPSTREAM OF S155 ON C-51 NEAR LAK
<input type="checkbox"/>	G55_S	G55	263841.237	800322.141	964470.802	841191.757	.07	PAL	C51E	15	44	43	Google Map	Info	G-55 SPILLWAY (ONLY) ON W.P.B. CANV
<input type="checkbox"/>	G55_H	G55	263841.237	800322.141	964470.802	841191.757	.07	PAL	C51E	15	44	43	Google Map	Info	G-55 SPILLWAY (ONLY) ON W.P.B. CANAL
<input type="checkbox"/>	G55FB_C	G55FB	263841.237	800322.141	964470.802	841191.757	.07	PAL	C51E	15	44	43	Google Map	Info	G-55 CULVERT (ONLY) ON W.P.B. CANAI
<input type="checkbox"/>	G55_T	G55	263841.237	800322.141	964470.802	841191.757	.07	PAL	C51E	15	44	43	Google Map	Info	G-55 SPILLWAY (ONLY) ON W.P.B. CANAL
<input type="checkbox"/>	PB-56_G	PB-56	263757.243	800338.15	963050.705	836738.585	.91	PAL	C51E	15	44	43	Google Map	Info	PB-56
<input type="checkbox"/>	FHHSWX	FHHSWX	263911.333	800400.924	960929.334	844204.801	.93	PAL	C51E	9	44	43	Google Map	Info	FOREST HILL HIGH SCHOOL WEATHER S ENVIRONMENTAL ACADEMY, CO-OP W/

Query returned 11 records.

Web Services

Users have the ability to create their own interfaces to DBHYDRO by knowing some of the special URLs the system uses. Most URLs are exposed in the browser's address bar. If you like a page, many URL's can be copied and reused as a browser bookmark or in any document or other web page as a hyperlink. By embedding these hyperlinks in bookmarks or applications you can create a custom project-oriented or function-oriented document or web page and avoid having to navigate the DBHYDRO menu or Google Earth.

Note of caution: What may appear as spaces (“ ”) in these URL examples are actually underscores (“_”).

Water Quality Results

Water quality data access is controlled by an SQL “where clause” that defines which data is to be retrieved and a `target_code` which defines the destination of the retrieved data. The where clause may contain references to `project_code`, `station_id`, and `date_collected`. The `target_code` may either be `screen` or `csv`. `Screen` displays results on the screen and `csv` creates a comma separated variable (.csv) file for ready import into software applications such as Microsoft Excel. Only data that has met quality standards for SFWMD mandated reports are accessible via these URLs. Data not meeting such reporting standards is considered to be “flagged”.

The water quality data report for data that has not been flagged can be generated directly for any project_code, in this case ACMEB, with the following URL:

http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+project_code+=+'ACMEB'&v_target_code=screen

The water quality data report for data that has not been flagged can be generated directly for any station, in this case ORF-62, with the following URL:

http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+station_id+=+'ORF-62'&v_target_code=screen

The water quality data report for data that has not been flagged can be generated directly for a list of stations with the following URL:

[http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+station_id+in+\('ACRA1','ACRA2'\)&v_target_code=screen](http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+station_id+in+('ACRA1','ACRA2')&v_target_code=screen)

The station list is enclosed by parentheses with each station in single quotes and separated by commas.

You can restrict date ranges. If you want to get data only after a certain date, insert after “`v_where_clause=where`”, the following string:
`+date_collected+>+'01-JAN-2010'+and+`

as follows:

[http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+date_collected+>+'01-JAN-2010'+and+station_id+in+\('ORF-62','ACRA1'\)&v_target_code=screen](http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+date_collected+>+'01-JAN-2010'+and+station_id+in+('ORF-62','ACRA1')&v_target_code=screen)

To write the results directly to a .csv (comma separated variable) file use a target_code of file_csv as shown here:

[http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+date_collected+>+'01-JAN-2010'+and+station_id+in+\('ORF-62','ACRA1'\)&v_target_code=file_csv](http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+date_collected+>+'01-JAN-2010'+and+station_id+in+('ORF-62','ACRA1')&v_target_code=file_csv)

You may also use:

+date_collected+<+'01-JAN-2011'+and+
to get data only before a certain date.

To display the data for all stations beginning with the characters ACRAWEL:

[http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+station_id+like+\('ACRAWEL%25'\)&v_target_code=screen](http://my.sfwmd.gov/dbhydroplsql/water_quality_data.report_full?v_where_clause=where+station_id+like+('ACRAWEL%25')&v_target_code=screen)

Note the use of %25 as the wildcard.

Notes:

Flagged water quality data must be retrieved interactively via DBHYDRO Browser.

Hydrologic Instantaneous and Daily Values

A daily values report can be generated directly for any dbkey, in this case 15631, and date range with the following URL:

http://my.sfwmd.gov/dbhydroplsql/web_io.report_process?v_period=uspec&v_start_date=20090101&v_end_date=20110430&v_report_type=format6&v_target_code=screen&v_run_mode=onLine&v_js_flag=Y&v_dbkey=15631

Use v_period=uspec (user specified) to have explicit control over the start and end dates of the period for which data is to be retrieved. v_start_data and v_end_date are provided in the format of YYYYMMDD. Multiple dbkeys are separated by a forward slash (/). Options for v_report_type include format6 and format7. format6 is one value per row. format7 is multiple timeseries daily values per row. Each input variable, except for the first one, is preceded by the ampersand character.

Instantaneous values time series are retrieved only using format6.

Notes:

Specification of dates has a different format for water quality than it does for daily values.

Hydrographs

A hydrograph of the past 7 days (1 week) of instantaneous near real-time values from the four gages that comprise the Lake Okeechobee daily average is generated as follows:

http://my.sfwmd.gov/dbhydroGraph/servlet/DbhydroGraphServlet.do?v_report_type=format6&v_period=1week&v_dbkey=IX846/IX865/IX875/IY030

Dbkeys should be of frequency 'BK' to execute properly with this URL. Other options for the period for instantaneous data include '3day' and 'today'. Increasing the number of dbkeys and the duration will increase the time it takes to generate the graph. Multiple dbkeys are separated by the forward slash (/) character.

To generate a hydrograph of the past year of daily stage values from four water level gages on Lake Okeechobee:

http://my.sfwmd.gov/dbhydroGraph/servlet/DbhydroGraphServlet.do?v_report_type=format6&v_period=year&v_dbkey=16022/12509/12519/16265

Dbkeys should be of frequency 'DA' for periods of one year (v_period=year). Other appropriate options for daily values hydrographs include v_period=month. v_start_date and v_end_date may always be supplied explicitly. The values of v_start_date and v_end_date will be ignored unless the value of v_period is provided as v_period=uspec.

An error may be encountered if there is no data, or insufficient data, in the period specified. Tip: If a  icon should appear where the graph otherwise should, refreshing  your page will often solve the problem.

Note: To ensure updated data be sure to clear your web browser cache prior to executing the same url a second time within the same browser session.

Map-based Access Using Google Earth

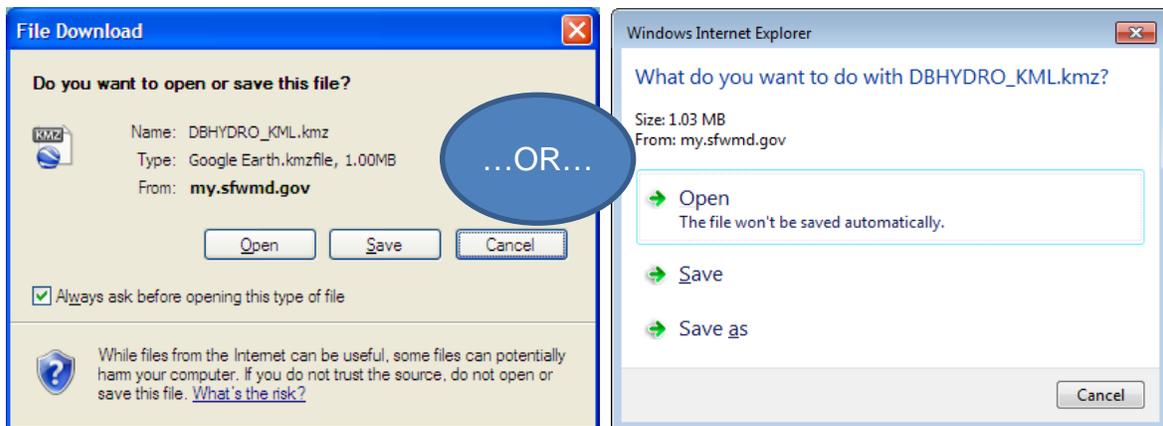
Access to DBHYDRO Browser via Google Earth is enabled from the main menu or through the use of this special URL:

http://my.sfwmd.gov/KMLEXT/CUSTOMKMLS/DBHydro/DBHydroKML/DBHYDRO_KML.kmz

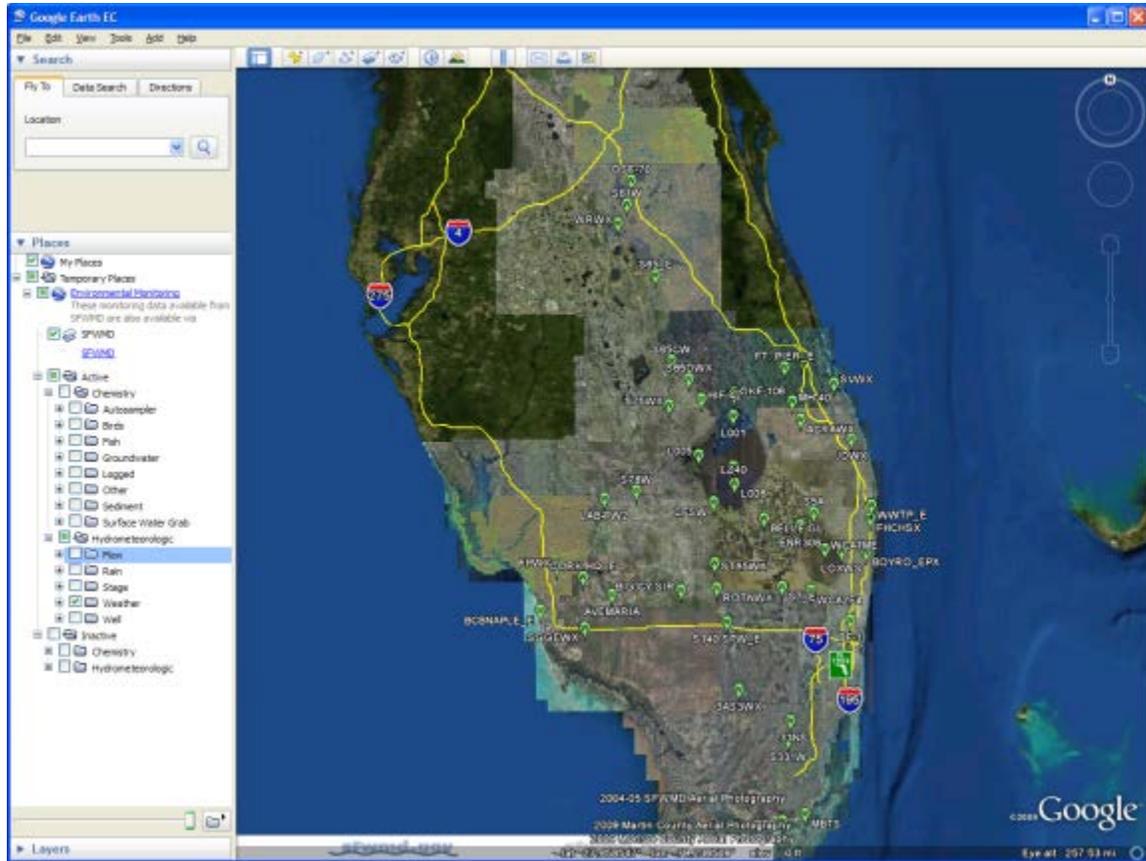
Either way, the user's computer requires the free to the public Google Earth software downloadable from: <http://www.google.com/earth/download/ge/>

Knowledge of the Google Earth software is assumed.

When selecting the DBHYDRO via Google Earth hyperlink, if presented with choices such as:



the user should choose Open. Opening the .kmz file will start Google Earth and present the user an initial view of the monitoring network as shown:

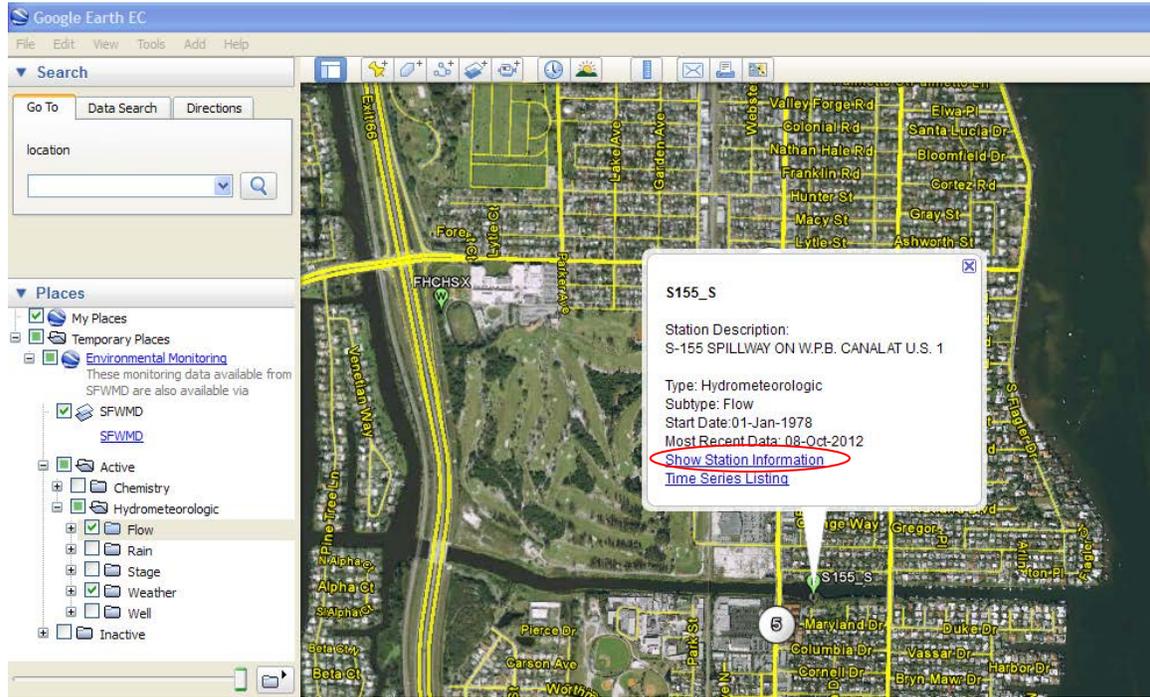


In the event Google Earth fails to launch as shown you may Save the .kmz file to your computer and then drag it into an open Google Earth window.

For best performance, after loading of the DBHYDRO Environmental Monitoring placemarks, the user should first zoom to a specific area of interest then turn on placemarks on the map. Turning on all the placemarks while zoomed out will result in longer page re-display times and a cluttered screen.

These placemarks are loaded into the Temporary Places section of Google Earth as Environmental Monitoring and, if prompted, should be discarded upon exiting Google Earth.

In this example we have first zoomed into eastern Palm Beach County and located the S-155 spillway and then turned on the Active Flow placemarks.



Selecting the Show Station Information link leads us to the station information screen we have seen earlier in this user guide. As you might infer, the map interface is an alternative, and for some more intuitive, path to the same data accessible through the menu-driven web pages.

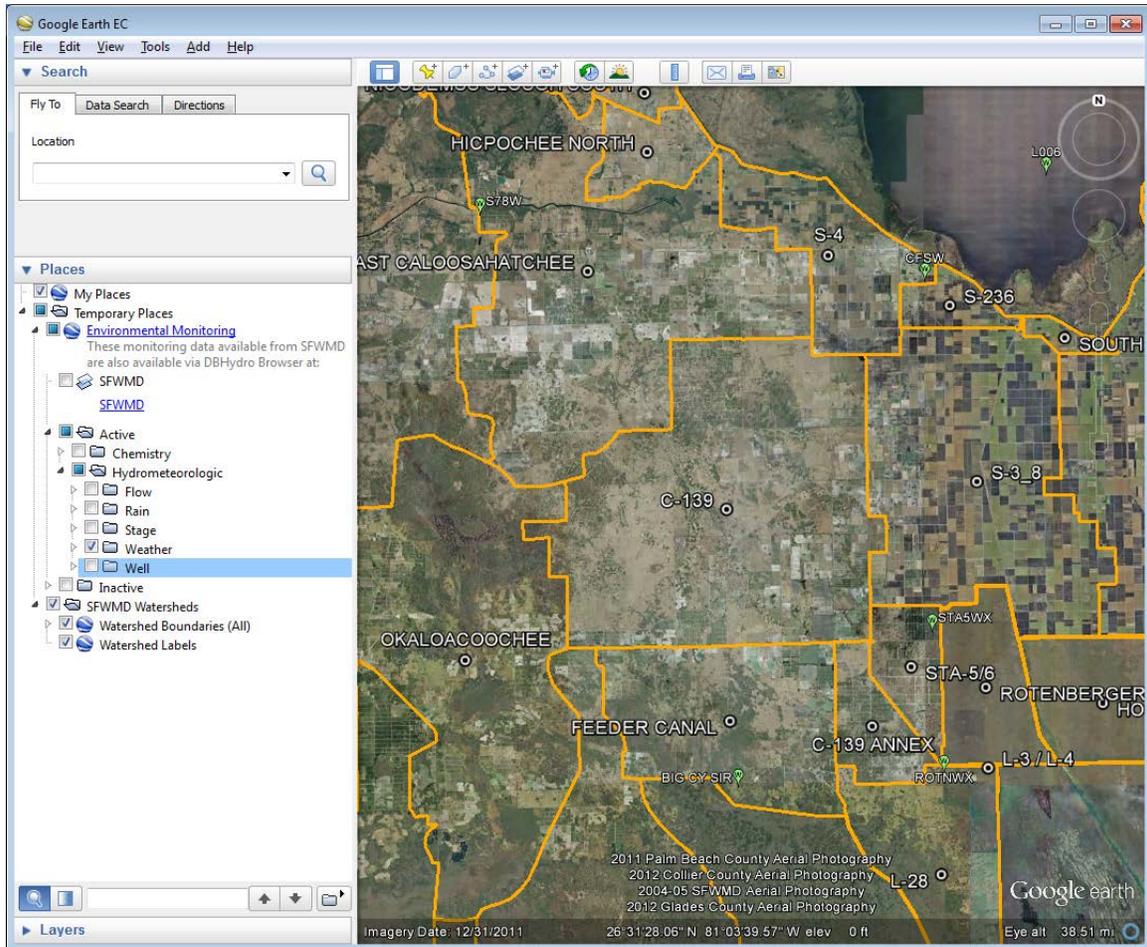
The screenshot displays the 'DBHYDRO | by station' interface. The main content area is titled 'STATION INFORMATION' and contains a table with the following data:

Field	Value
Station	S155_S
Type	Facility
Site	S155
Latitude	263841.237 (ddmss.sss)
Longitude	800318.141 (ddmss.sss)
X Coord	964833.771 ft
Y Coord	841194.44 ft
County - Name	PAL - Palm Beach
Basin - Name	C51E - C-51 EAST
Section	15
Township	44
Range	43
Show Map	Google Map
Description	S-155 SPILLWAY ON W.P.B. CANAL AT U.S. 1
Travel Info	Access from U.S. (Federal Highway) by turning west onto either Maryland Drive or Arlington Road.
Notes	
Nearby Stations	Nearby Stations
Attachments	None Available

Below the table, the text 'Query returned 1 record.' is displayed. Underneath this text are three buttons: 'Get Time Series Data', 'Clear All', and 'Check All'.

The South Florida Water Management District watersheds may be added to the Google Earth session by selecting this hyperlink:

<http://my.sfwmd.gov/KMLEXT/CUSTOMKMLS/DBHydro/Watersheds/SFWMDWatersheds.kmz>



The watershed boundaries places pane may be expanded to identify each watershed separately. By default, the watershed boundaries are turned on.

The watershed labels may be turned on and off as a distinct layer. By default the watershed labels are turned off.

Application Enhancements

Contact Brian Turcotte at 561-682-6579 or email at bturcott@sfwmd.gov to discuss or request ideas for improvement. SFWMD employees may also call the IT Help Desk, send email to “IT Help Desk”, or log their own Remedy Help Desk requests or bug reports.

Training

The South Florida Water Management District offers *Introduction to DBHYDRO* training. District employees should contact their training coordinator to register and sign up for course number 50015360. Non-District personnel should contact Sharon Peterkin, 561-686-8800 x4594, speterk@sfwmd.gov to reserve a seat in a class.

Data Requests and Inquiries

Sharon Peterkin, 561-686-8800 x4594, speterk@sfwmd.gov , is available as a first point of contact to assist users in data acquisition, to report questionable data, or to route data inquiries to the appropriate data steward.

Appendix A - Water Quality Report Column Descriptions

PROJECT CODE

A short identifier given to a collection of samples from a group of related stations. The code identifies project-specific samples. The code is typically derived from the project description. e.g. "ENRP" is the project code for samples collected in the "Everglades Nutrient Removal Project".

STATION ID

Identifies the sampling station name for the water quality data sample collection activity.

SAMPLE ID

Identifies a discrete sample within a project. Usually sequential numbers 00001 - 99999.

FIRST TRIGGER DATE

Populated for autosampler data

COLLECTION DATE

Date and time the sample was collected by the field person.

SAMPLE TYPE NEW

Keeps track of the kind of sample and is considered more technically correct than the sample type numeric code.

COLLECTION METHOD

The method by which the sample was collected. For example, 'G' means grab sample. Codes are listed in the metadata listings pages.

DEPTH

The depth below the water surface at which the sample was taken.

DEPTH_UNITS

The units of measure of the depth value.

MATRIX

The substance in which the analyte was present.

TEST_NUMBER

Numeric code used to identify individual tests within the laboratory. e.g. 25 = TPO4 "Total Phosphorus".

TEST NAME

A description of the test performed.

STORET CODE

The Environmental Protection Agency five character legacy code for the corresponding result.

METHOD

The method by which the sample was analyzed.

MEASURE DATE

The data the laboratory analysis was conducted.

VALUE

Numeric field which contains the result analyzed for a specific test.

UNCERTAINTY

The reporting of estimated analytical measurement uncertainty values for all analytes was implemented at the SFWMD Chemistry Laboratory in July 2012. The values entered into DBHYDRO for the District's laboratory reflect only analytical uncertainty (i.e., without the contributions from field activities). The uncertainty has a probabilistic basis and reflects incomplete knowledge of the quantity. All measurements are subject to uncertainty and a measured value is only complete if it is accompanied by a statement of the associated uncertainty.

The uncertainty value in DBHYDRO has been estimated using the nested hierarchical methodology by Ingersoll (2001) in combination with a mathematical model found in the Eurachem/CITAC (2000) guide on uncertainty. This QC-based nested approach uses the statistical quality control data attributed to laboratory measurement activities and does not include uncertainty attributed to field sampling activities. The estimated uncertainty is calculated using the following equation:

$$u(x) = \sqrt{s_0^2 + (s_1^2 x^2)}$$

in which:

$u(x)$ is the combined standard uncertainty in the result x .

s_0 is a constant contribution to the overall uncertainty derived from the procedure to determine the MDL.

s_1 is a proportionality constant derived from nested hierarchical methodology by Ingersoll.

Many factors contribute towards deviation from the true value of the measurement including:

- Imperfections in the measuring instrument
- Imperfections in the measurement method
- Operator effects

MDL

Method Detection Limit. Is peculiar to each laboratory and is calculated based on statistical analysis of the results of repeated analyses of the same standard. "The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. The MDL for an analytical procedure may vary as function of sample type. The procedure requires a complete, specific, and well defined analytical method. It is essential that all sample processing steps of the analytical method be included in the determination of the method detection limit."--- CFR Part 136 Appendix B (revised July 1998)

PQL

Practical Quantitation Level. One may estimate the quantitation limits as 4 to 10 times the method detection limit if the matrix is ground water or low-concentration soil, and 500 times the method detection limit for VOC*s in water-miscible liquid waste. In setting a quantification level, the agency must consider the achievability of the value by competent commercial laboratories.

RDL

This value is the Reportable Detection Limit and is the lowest value the analyst has confidence reporting.

UNITS

Contains the units in which a test value is reported by the laboratory (SFWMD or contractor) e.g. microg/L. Ideally, all units for a given test should be reported the same. When a lab gives us different units for a test it should trigger a review of the value so we make sure the data set is consistent with respect to units.

REMARK_CODE

Comprised of zero, one, or more data qualifiers as applied by the lab or project manager. The list of data qualifiers and their meaning are approved by Florida DEP.

FLAG

Indicates data that is excluded from certain analyses based on interagency agreement. Your criteria may be different. Flag is <null> unless there is a "fatal" qualifier in the remark code. In such a case the flag is set to 'yes'. The user should review the REMARK CODE field on every result.

LIMS_NUMBER

Unique string generated by the laboratory at sample log in. Used to identify a discrete sample and all results for a sample. e.g. "1345-670"

SOURCE

Identifies the source laboratory of the sample data. e.g. "USGS" indicates data came from the United States Geological Survey.'

OWNER

Typically the organization who paid for the analysis.

VALIDATION LEVEL

The degree to which validation occurred. Codes are listed in the metadata listings.

VALIDATOR

The organization responsible for the validation of result.

SAMPLING PURPOSE

The purpose of the sample provides context for potential re-use of the data for other purposes.

DATA INVESTIGATION

Indicates whether the data has been subject to additional investigation subsequent to validation. Presence of the indicator helps prevent unnecessary re-investigations of data. Results of investigations are kept on file for future inquiries.

TDEPTH

The total depth of the water column at the location of the sample.

DCS

DCS is depth to consolidated substrate. Values are in meters.

SAMPLE TYPE

Two digit number for legacy applications. Information embedded here is contained explicitly in other report columns.

QCTYPE

Indicates sample is a quality control sample otherwise null. e.g. EB = Equipment Blank.

DISCHARGE

A code indicating whether or not water was flowing at the time of the sampling event and in which direction it was flowing if it was flowing. Codes are 0 = no discharge, 1 = flow in the positive direction, 2 = flow in the negative direction.

UP DWN STREAM

Indicates where a sample was collected with respect to a control structure. If downstream and flowing then higher turbidity may be expected. Codes are 0 = Undefined, 1 = Upstream, 2 = Downstream.

WEATHER CODE

Weather conditions when sample was taken e.g. 0 = undefined, 01 = clear skies, 02 = slight overcast, 03 = medium overcast, 04 = very overcast, 05 = drizzle, 06 = rain

PROGRAM TYPE

Distinguishes routine monitoring data from experimental data.

Appendix B - Units Conversions

Length

1 meter = 3.281 feet

Area

1 acre = 43,560 square feet

Volume

1 cfs-day = 86,400 cubic feet

1 cubic foot = 7.481 gallons

1 acre-ft = 43,560 cubic feet

1 acre-ft = 325,900 gallons

Temperature

[°Fahrenheit] = [°Celsius] $\times \frac{9}{5}$ + 32

[°Celsius] = ([°Fahrenheit] - 32) $\times \frac{5}{9}$

Appendix C - Units Abbreviations/Symbols

Symbol	Description
mg/L	milligrams per litre
ug/L	micrograms per litre
ng/L	nanograms per litre
g/cc	grams per cubic centimetre
ug/kg	micrograms per kilogram
mm	millimetres
ft	feet
ft NAVD88	feet North American Vertical Datum 1988
ft NGVD29	feet National Geodetic Vertical Datum 1929
cfs	cubic feet per second



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