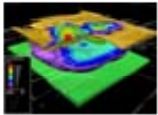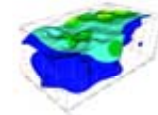# St Johns River Water Management District WEB Page Database Users Guide

EMIS: Environmental Management Information Systems

Welcome to EMIS

EMIS Client Environmental Database Access

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St Johns River Water Management District
WEB Page Database Users Guide

The purpose of this document is to be a guide in assisting you in understanding how to maneuver through the St. Johns River Water Management District database web site. It describes the options available and the basic functionality of the various pages in this site.

To gain access the St Johns River Web based database you need to request a Username and Password by contacting John Higman (ph:386 329 - 4385) at the St. Johns River Water Management office.

The following web address: http://www.duxbury.battelle.org will connect you to the Battelle EMIS site. Once connected begin by clicking on **EMIS Client Databases** in the top left portion of the page.

(Web-page 1)

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This will bring you to the page entitled "**Battelle's Environmental Application Site**". Once here choose **Client 9** to access the St. Johns River WMD database site.

(Web-page 2)
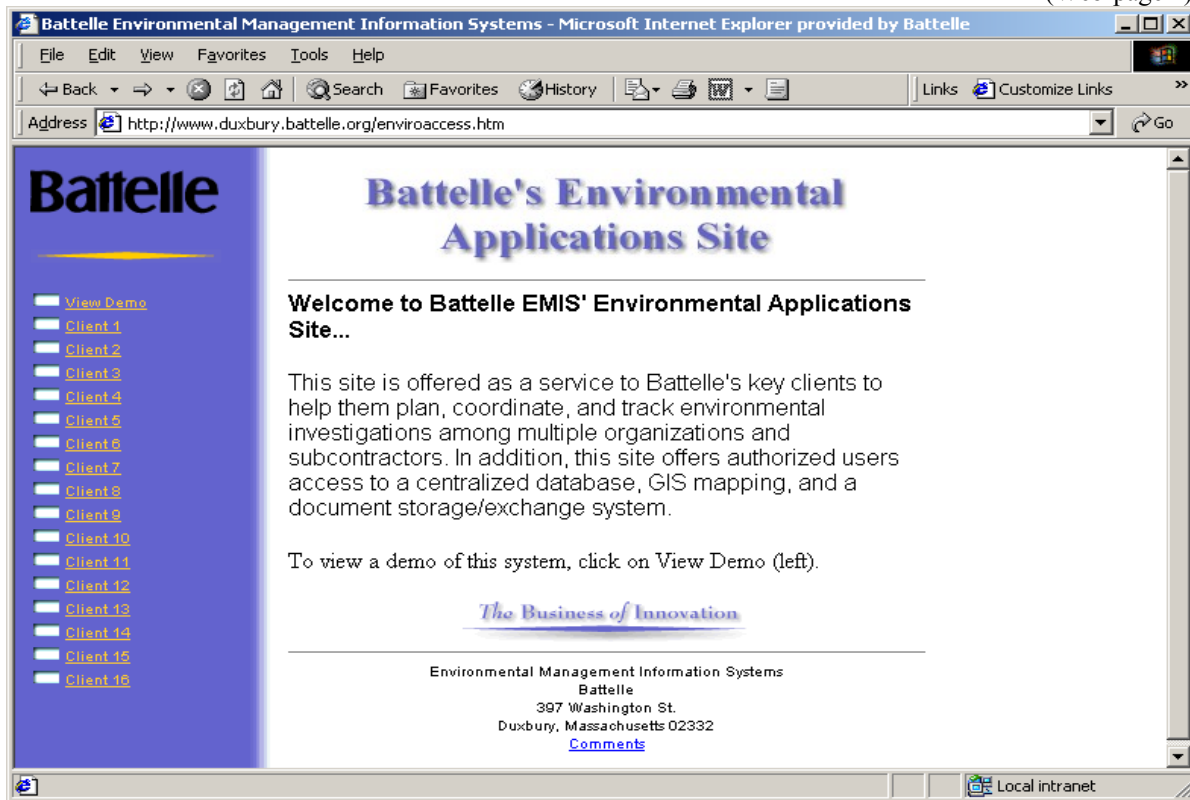
Enter your Username and Password (note: Password is in lower case).

(Web-page 3)

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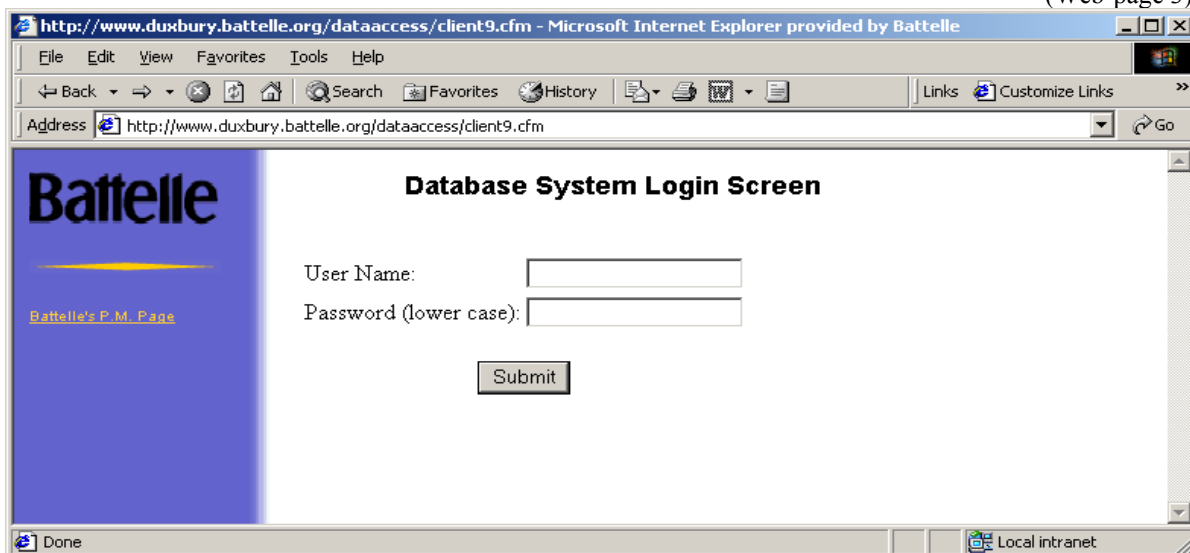
After successfully logging into the site the following page will be displayed. From here you have three options a) **Database Access,** b) **Mapping and GIS capabilities** or c) **Logout**. Also by clicking on the logo in the top left of this page you will be connected to the St. Johns River Water Management District's own Web site (http://sjr.state.fl.us/index.html).
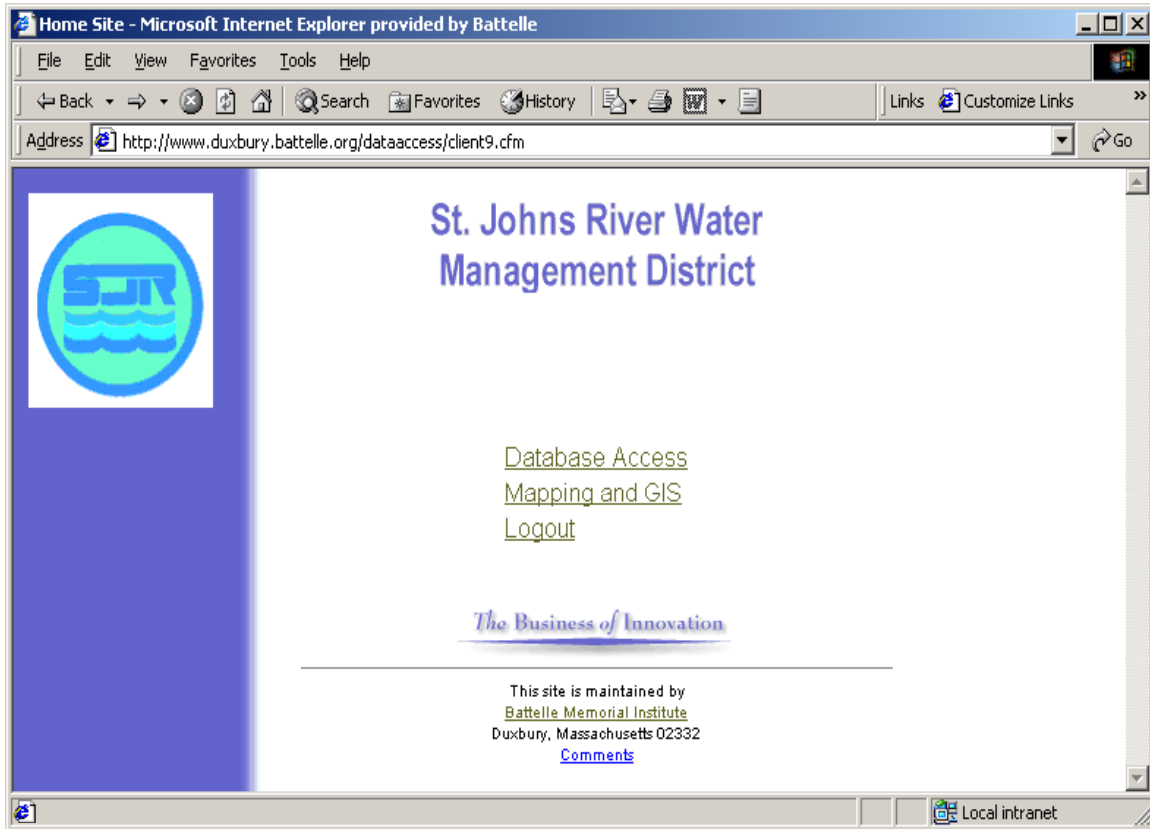
(Web-page 4)

Database Access

If your interest is in reviewing data, clicking on the **Database Access** option will bring you to the following page (Web-page 5). You may choose from a number of pre-existing database views, create queries via pull down options from the selected view and set a download preference. The "**Database help**" link offers guidance in maneuvering through these data query pages.

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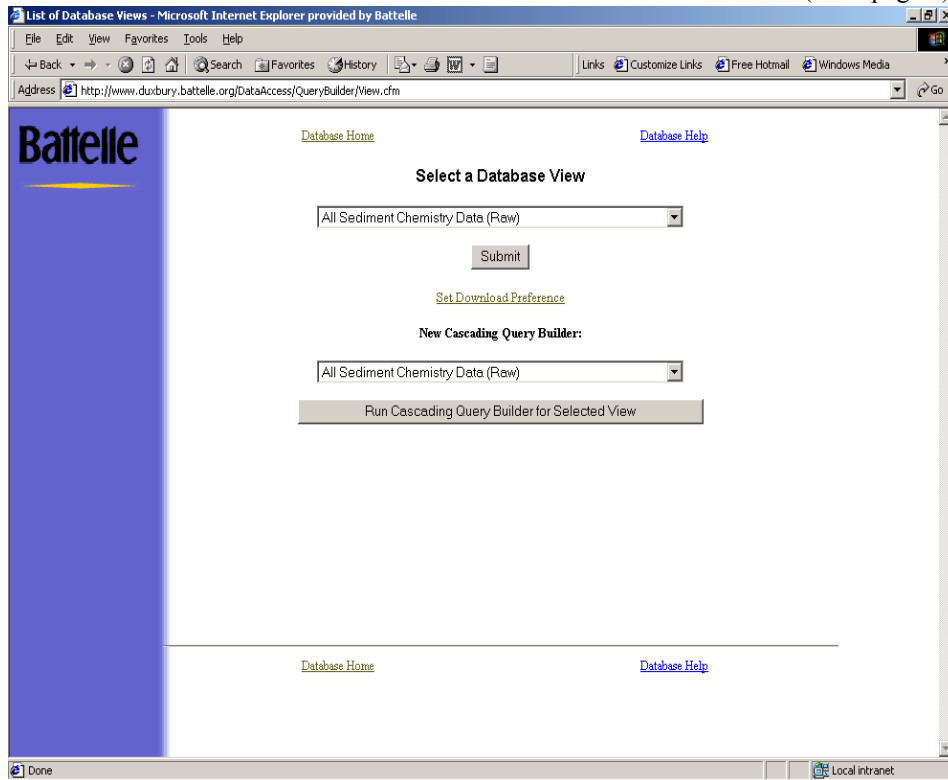
(Web-page 5)

a) **Database Home** returns you to the previous page (Web-page 4)

b) The **Submit** button will display the following page (Web-page 6). This allows you to select which fields are to be displayed and determine the criterion for the selection of information. (Field Names might change depending of the View selected).

c) **Cascading Query Builder** allows you to develop their own view and Mapping of the data (Web-page 8).
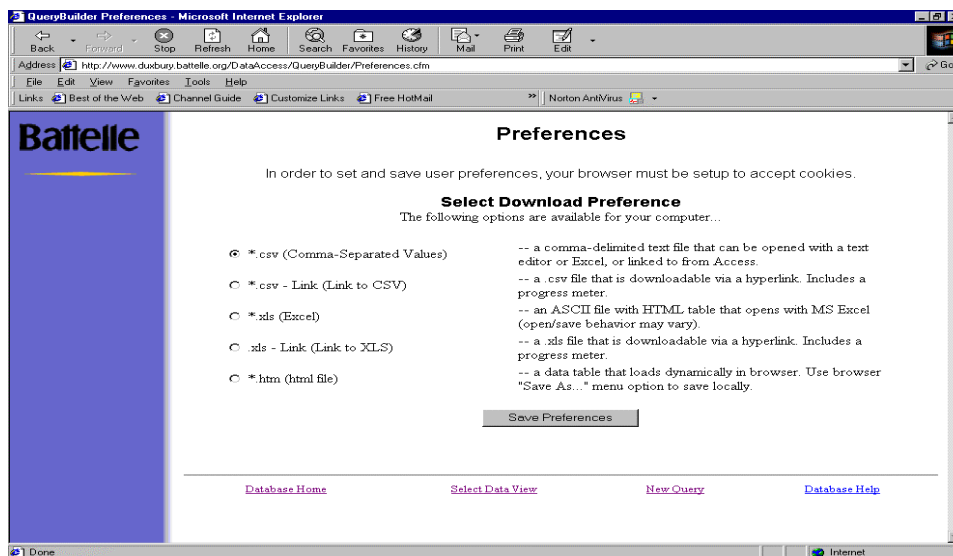
a) The **Select Download Preferences** option allows you to save the selected data to you PC. Listed are the types of file formats available in which to save the data.

The query builder appears listing all data fields in the selected view (refer to Web-page 6).

- Clicking on the box in the Display column allows you choose what field(s) the query will display. Checking the "Check ALL" which will display all of the available fields in the view. Failure to check any fields will cause nothing to be displayed.
- To impose a criterion on character and date fields, select the comparison operator (e.g. =, >) and one or more values. To select multiple values hold down the control key while choosing the values.
- To impose a criterion on a numeric field, select the comparison operator and enter a number in the text box.
- The <> operator departs from ANSI and ISO SQL standards by including NULLS in the result set.
- Choose a logical connector (e.g. and/or) between multiple criteria. The default is to "AND".
- The results of your query will be displayed after clicking "submit". Click "reset" to restore form to original settings.

(refer to Database Help for more detail)   (Web-page 6, top of page)

(Web-page 6, bottom of page)

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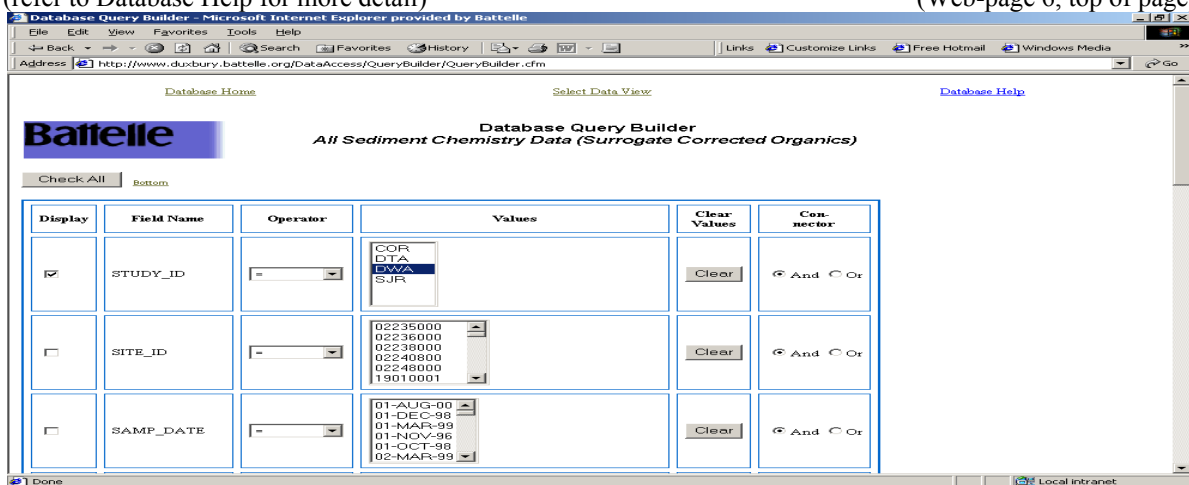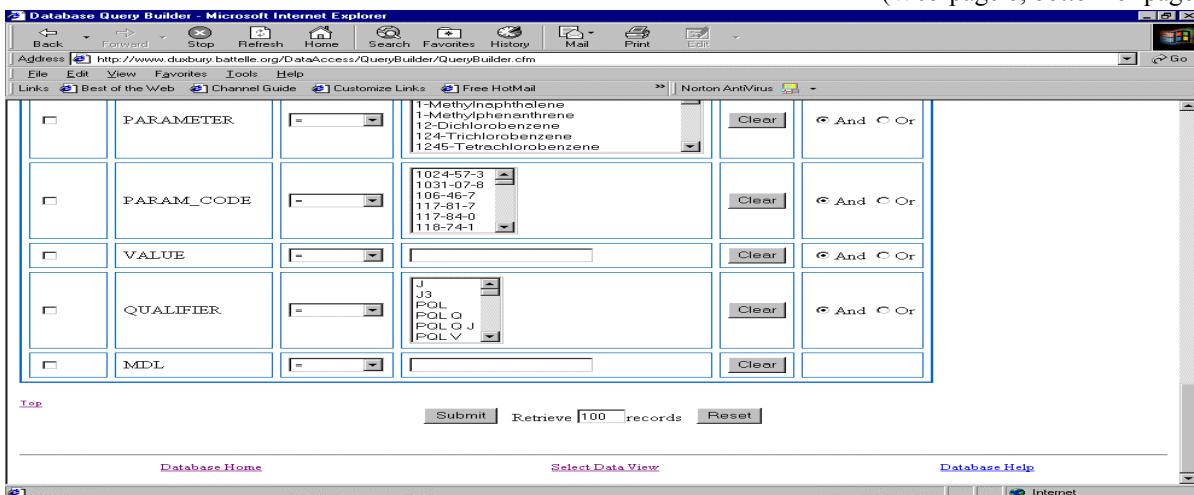
Results page from Query   (Web-page 7)
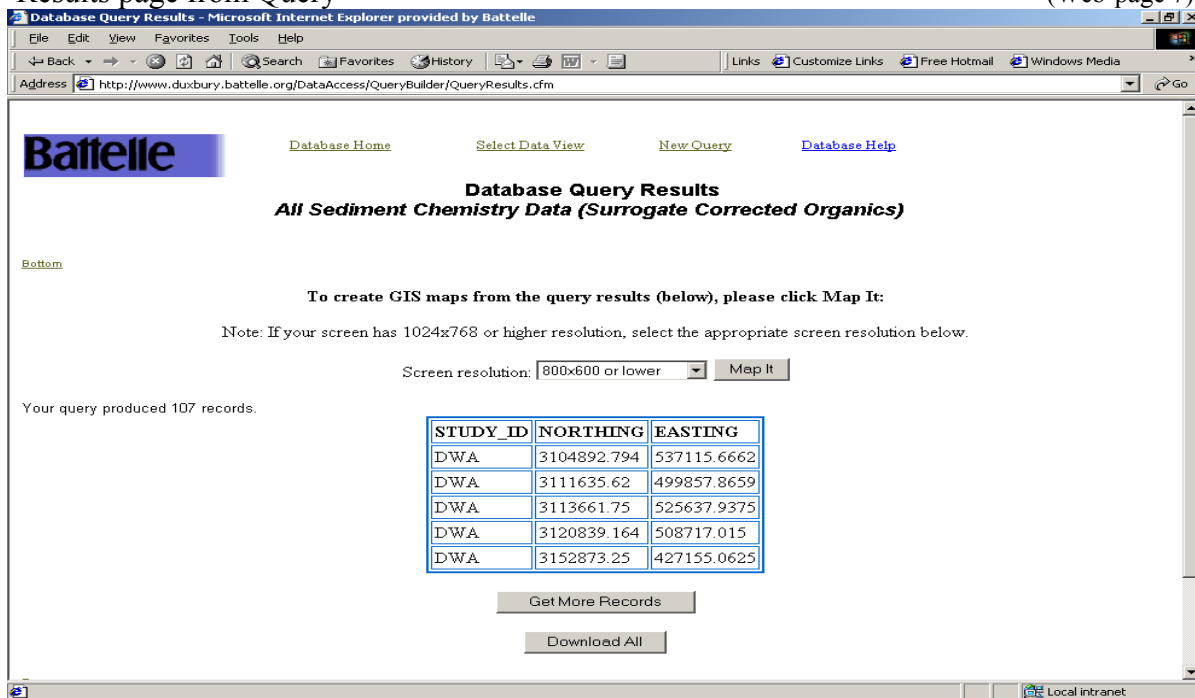
(bottom of Web-page 7)
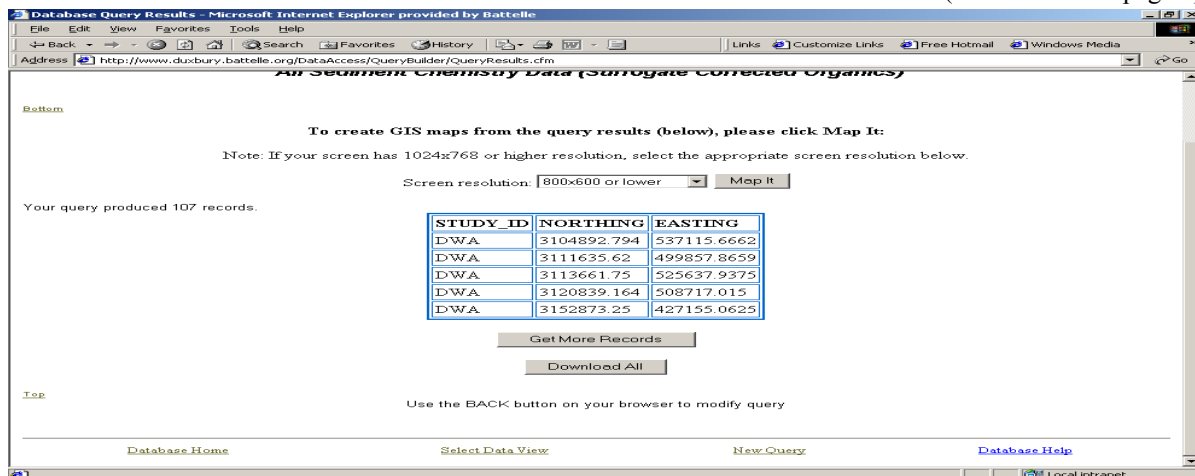
This page displays the results of the information you chose from the query builder. This page affords you a number of options: 1) to create a GIS map of the queried data by clicking on the Map It button which will bring you to the mapping page of this site (refer to the Data Mapper section in this manual), 2) the ability to Download the selected data to your PC by clicking on the Download All button, or 3) choosing from the various options at the bottom of the page which will bring you back to the site's home page, back to select a different data view, creating a different data query and help.

Cascading Query Builder

The Cascading Query Builder option is a more streamlined approach to selecting date. It also allows you to Download the selection data set to your PC and to Map the data from this one screen.

(Web-page 8)
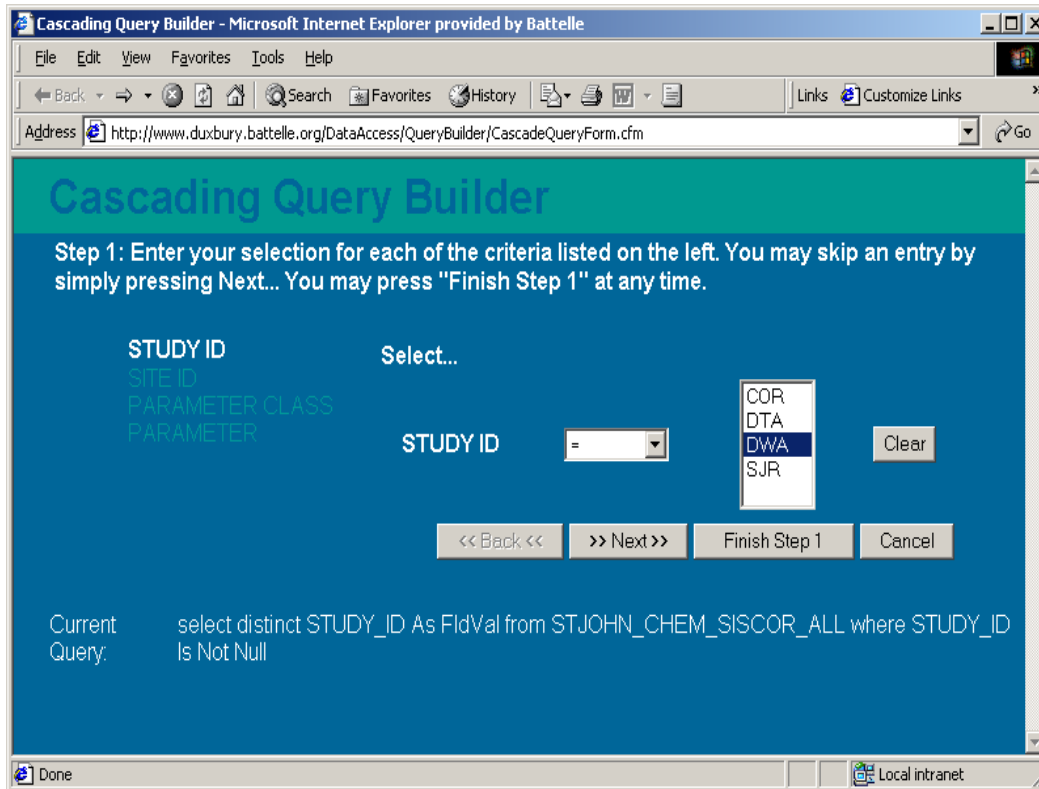
a) Simply follow the instruction on the page to generate a query to select the data of interest.

b) The data set created from the defined query is then displayed (Web-page 9).

(step 2 from Web-page 8)
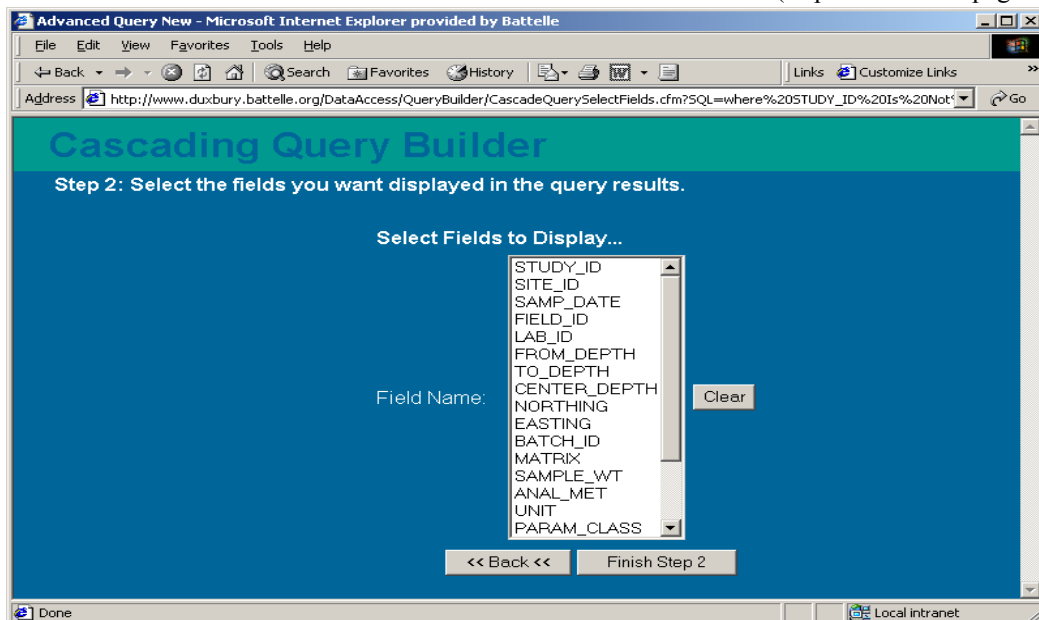
a) Select the fields you wish to display. By holding the Ctrl key down while choosing different fields with the mouse will allow you to choose multiple fields.

(Web-page 9, top of page)
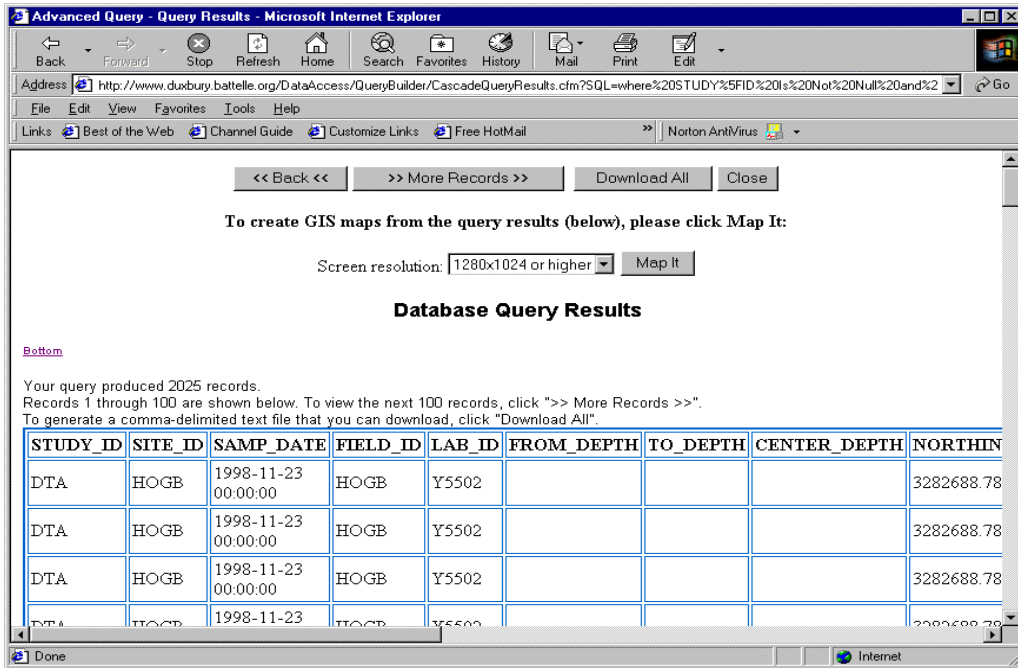
a) From here you are able to save the data set to your PC, view more records in the selection set, go back to change the criteria and reselect or go directly to Map the data.
For a more detailed discussion of the Map option refer to the **Mapping and GIS** section.

(Web-page 9, bottom of page)

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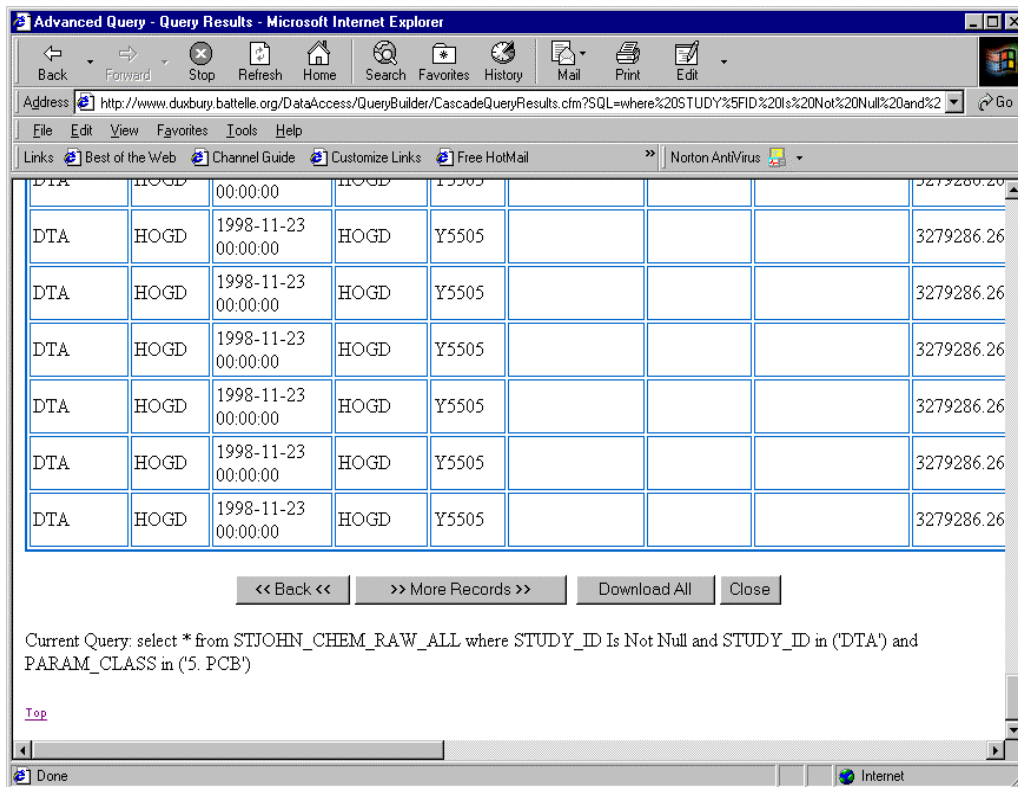
Database Help
The following information is found online in the Database Help.

Welcome to Battelle's Web-Based Query Builder

Environmental data is stored in a central Oracle database. Authorized clients of Battelle have access to their data through a number of pre-defined views.

Instructions

1. You must first enter your user name and password.
2. If you wish to download data, click on *Set Download Preference*
3. Select the data view of interest from the drop-down box.
4. The query builder appears listing all data fields in the view.
5. Check off the fields that you want the query to display.
6. To impose a criterion on character and date fields, select the comparison operator (e.g. =, >) and one or more values.
7. To impose a criterion on a numeric field, select the comparison operator and enter a number in the text box.
8. The <> operator departs from ANSI and ISO SQL standards by including NULLS in the result set.
9. Choose a logical connector (e.g. and/or) between multiple criteria.
10. The results of your query will be displayed after clicking "submit". Click "reset" to restore form to original settings.
11. If you have set a download preference in Step 2, you can transfer the data to a file or spreadsheet by clicking on *Download*

Tips

- These pages are best viewed with Netscape or Microsoft browsers version 4, or higher.
- After 30 minutes of inactivity, you will have to login again to the QueryBuilder to start a new session.
- User names are not case-sensitive, but passwords are case-sensitive. Passwords are typically provided to the user in lower-case.
- The query builder lists all fields once. You can only specify one criterion for each field.
- All "AND" logical connectors will be evaluated before "OR" connectors.
- The *Is Null* and *Is Not Null* operators require no selected or entered value to invoke a condition.
- All other operators require at least one selected or entered value to invoke a condition.

Known Issues

Netscape Navigator
Microsoft Internet Explorer

- Currently, Internet Explorer will not typically provide the user with the option to download to Excel. Choose CSV format, download, and open CSV file with Excel.

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Mapping and GIS
To retrieve and displaying data on a map, choose the **<u>Mapping and GIS</u>** option, which will bring you to the following page. This allows you to choose from pre-existing database views from the pull downs, and offers View Instructions or back to St. John's WMD Home page (Web-page 4).

(Web-page 10)
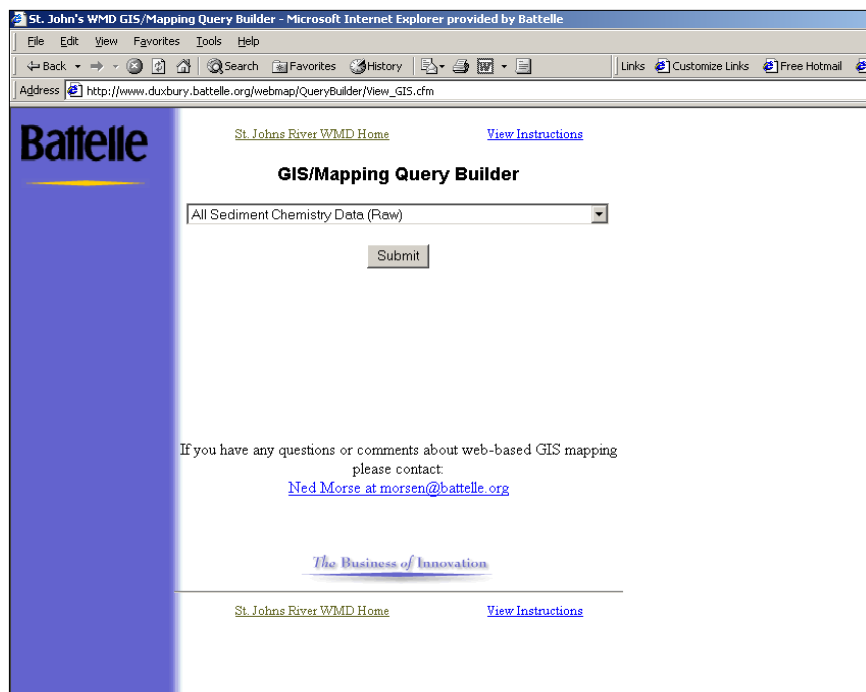
a) **St Johns River WMD Home** returns you to the previous page (Web-page 4).

b) **Select Data** View allows you to choose from predefined data views to display data. It clears any previous choice and allows you to select from the pull-down (Web-page 10).

c) The **Submit** button will display the following page (Web-page 11). This allows you to select the fields to be displayed and determine the criterion for the selection of information. Depending on the selected view Field Names might change.

Upon choosing a view and submitting it, you are brought to the **Query Builder Page**. From here one selects the value(s) to extract from the database to be placed on a map of the area. At the bottom of the page there is a box that allows you to determine the number of records to display on the screen.

(Web-page 11)

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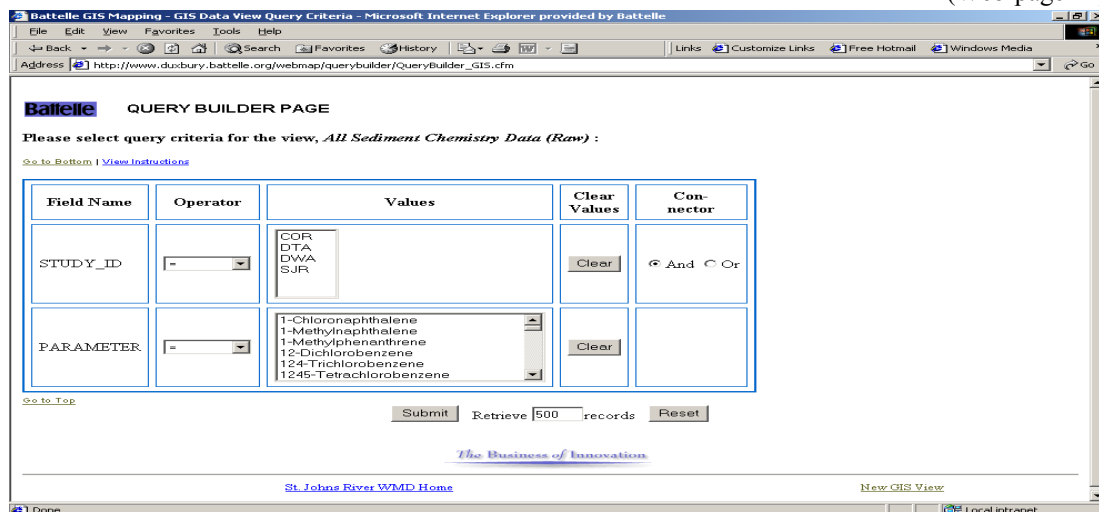
This page displays the data returned from the above query allowing you to preview the data prior to mapping. It also has options to display more records from the selection set, the ability to download the selection set, to choose a new view, choose a new query or return to the St. John's Home page (Web-page 4). Once you are satisfied with the selected data, a map can be created by selecting options at the top of Web-page 12. It allows you to choose via a pull down for **Screen Resolution** to best match your display. The **Map It** button launches the system to produce a GIS map of the data (refer to Web-page 13).

(Web-page 12, top of page)

St. Johns River WMD Home   New GIS View   New Query

QUERY RESULTS

To create GIS maps from the query results (below), please click Map It:

Note: If your screen has 1024x768 or higher resolution, select the appropriate screen resolution below.

Screen resolution: 800x600 or lower [Map It]

Go to Bottom

Query results for the view, *All Sediment Chemistry Data (Surrogate Corrected Organics)* :

Your query returned 19123 records.

STUDY_ID	SITE_ID	SAMP_DATE	FIELD_ID	LAB_ID	FROM_DEPTH	TO_DEPTH	CENTER_DEPTH	NORTHING	EASTING	BATCH_ID	MATRIX	SAMPLE_WT	ANAL_MET	UNIT
DWA	SOUTH	1999-03-03 00:00:00	SOUTH	WI80COMP				3165376.25	512920.4063	99-104	Sediment	7.7	8270-MOD	ug/kg, dry wt.
DWA	SOUTH	1999-03-03 00:00:00	SOUTH	WI80COMP				3165376.25	512920.4063	99-104	Sediment	7.7	8270-MOD	ug/kg, dry wt.
DWA	SOUTH	1999-03-03 00:00:00	SOUTH	WI80COMP				3165376.25	512920.4063	99-104	Sediment	7.7	8270-MOD	ug/kg, dry wt.
DWA	SOUTH	1999-03-03 00:00:00	SOUTH	WI80COMP				3165376.25	512920.4063	99-104	Sediment	7.7	8270-MOD	ug/kg, dry wt.
DWA	MAITL	1999-03-04 00:00:00	MAITL	WI81COMP				3165511.75	465657.0938	99-104	Sediment	14.82	8270-MOD	ug/kg, dry wt.

(Web-page 12, bottom of page)

														wt.
DWA	CC03	1996-12-08 00:00:00	CC03	Z3593				3104892.794	537115.6662	96-270	Sediment	24.53	8270-MOD	ug/kg, dry wt.
DWA	SRS	1996-12-08 00:00:00	SRS	Z3594				3157362.849	505510.8752	96-270	Sediment	19.81	8270-MOD	ug/kg, dry wt.
DWA	20030411	1996-12-09 00:00:00	20030411	Z3595-R				3251549.506	457434.9236	96-270	Sediment	3.46	8270-MOD	ug/kg, dry wt.
DWA	HAW	1996-12-09 00:00:00	HAW	Z3596				3252223.973	458138.2367	96-270	Sediment	15.08	8270-MOD	ug/kg, dry wt.
DWA	27010024	1996-12-09 00:00:00	27010024	Z3597				3245880.684	491611.0251	96-270	Sediment	7.09	8270-MOD	ug/kg, dry wt.
DWA	27010037	1996-12-09 00:00:00	27010037	Z3598				3231465.29	498887.9598	96-270	Sediment	22.75	8270-MOD	ug/kg, dry wt.
DWA	20010003	1996-12-10 00:00:00	20010003	Z3599				3190008.361	468533.3194	96-270	Sediment	13.48	8270-MOD	ug/kg, dry wt.
DWA	LMAC	1996-12-10 00:00:00	LMAC	Z3600				3190778.366	474523.9198	96-270	Sediment	3.27	8270-MOD	ug/kg, dry wt.

Go to Top

[Download All]

Use the BACK button on your browser to modify query

The Business of Innovation

St. Johns River WMD Home   New GIS View   New Query

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Data Mapper Page
(Web-page 13)
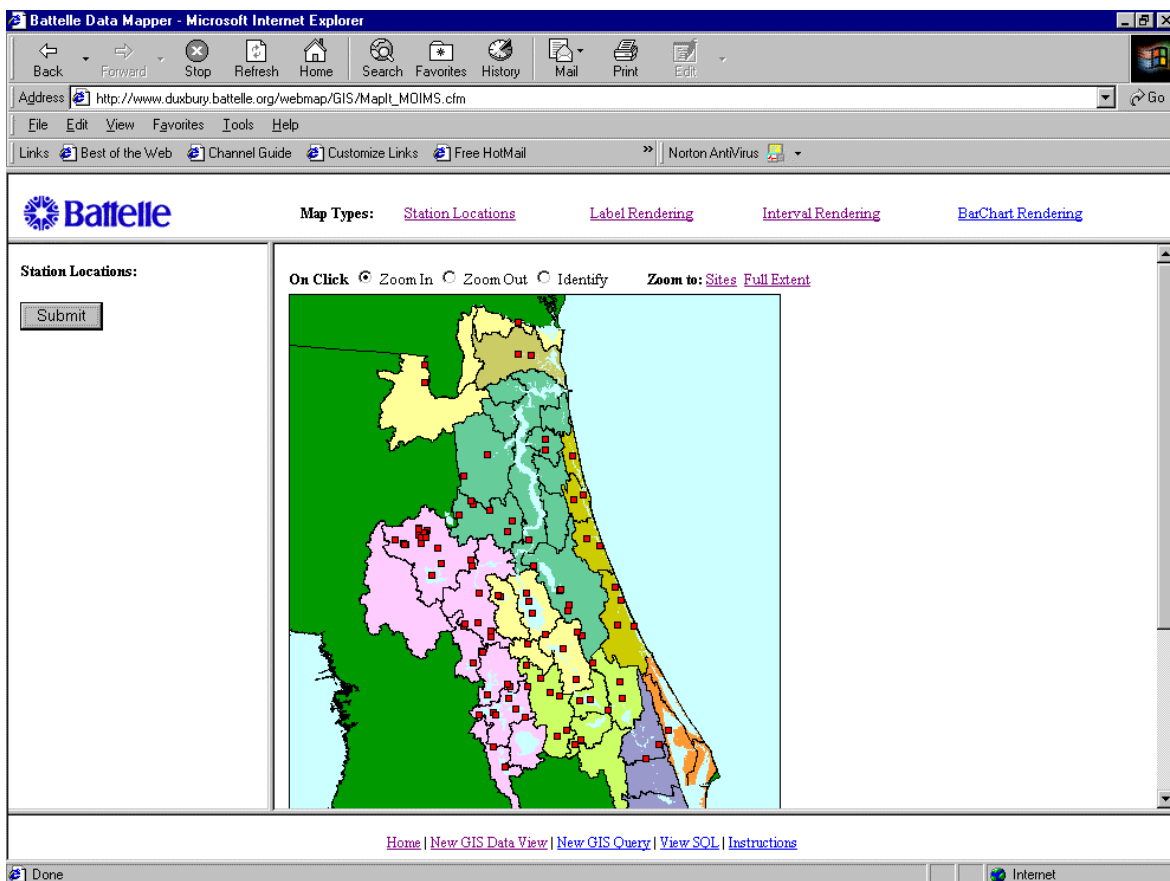
The following instructions refer to the options on Web-page 13.

1. The Data Mapper opens to the **Sample Locations** map type. The results of your query are displayed as small red squares, on the map. If you do not immediately see a map, an hourglass should display as the map is being generated.

2. The Data Mapper page has 4 areas or panes. The top pane provides links to select from four different **Map Types**. The left pane contains the name of the map type currently being displayed, a **Submit** button, and any options available for the selected map type. The right pane displays the map itself. The bottom pane provides navigation links to **Home** etc.

3. Once a map is generated, click on one of the radio buttons above the map and using the cursor to either **Zoom In or Zoom Out** on a particular area by left-clicking on the map, or **Identify** specific data record information by left-clicking on a particular square on the map. The square you are "Identifying" will have a plus (+) sign placed on top of it. Squares on the map representing sampling locations may overlap at small map scales. Zoom in on the square, prior to using the "Identify" feature, to ensure that you are locating the sample site that you are interested in. A good rule of thumb is to leave a space the size of a square between the squares you are trying to identify. Use the **Zoom Out** or **Return to Full Extent** options to view a larger area of the map.

4. The **Label Rendering** map type allows you to have a label assigned to each square on the map from one **Label Field**, such as the Site_id or Samp_date etc. of the data record in question. Press the **Submit** button to generate a map with labels. **Zoom In** as necessary.
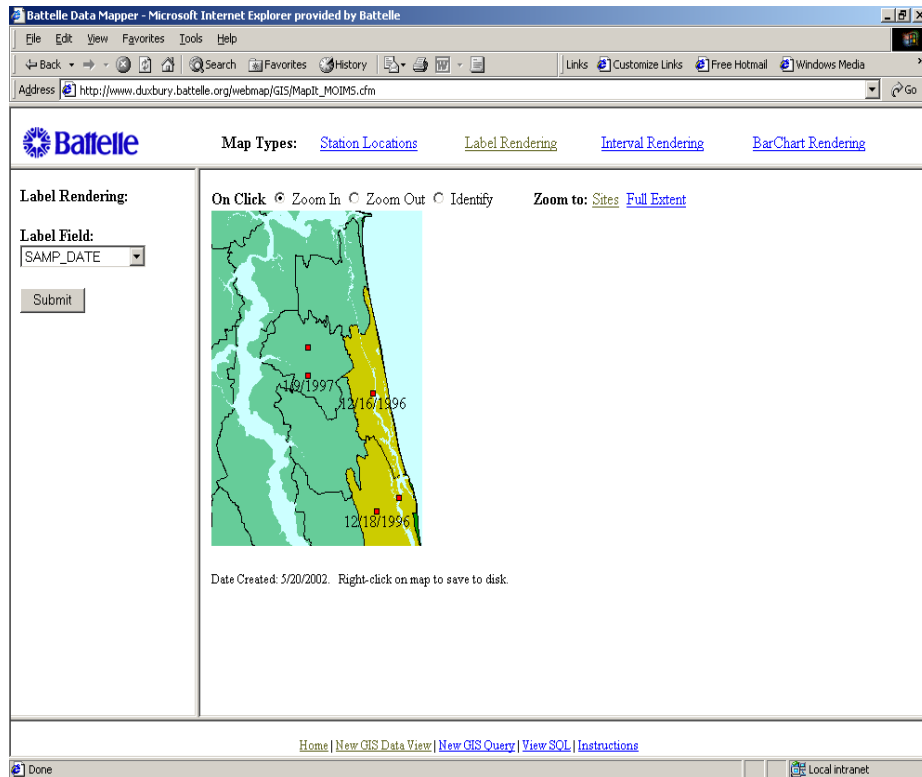
5. The **Interval Rendering** map type allows you to classify squares on the map for values associated with one **Data Field**. Select a Data Field then click on **GO.**
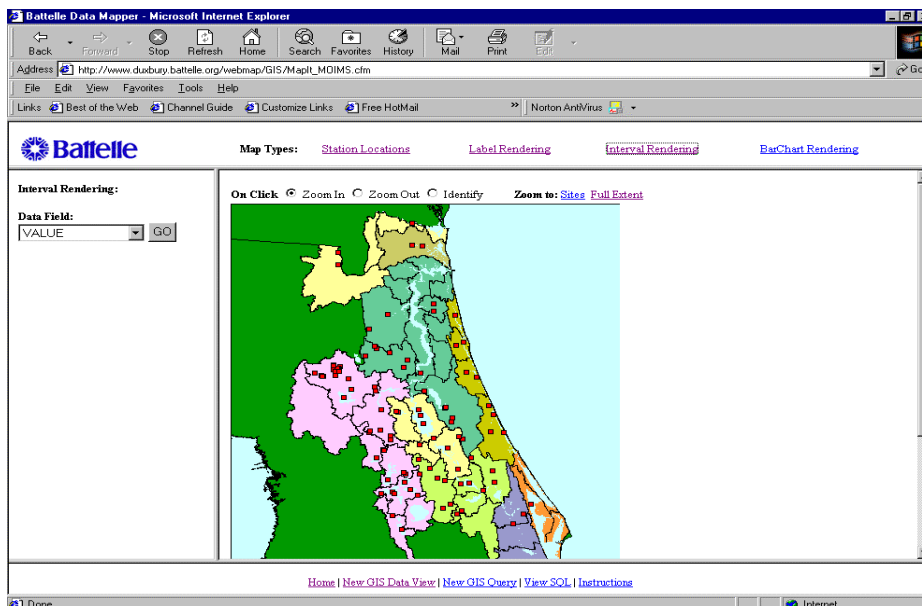
(Clicking on **GO** displays the page below)
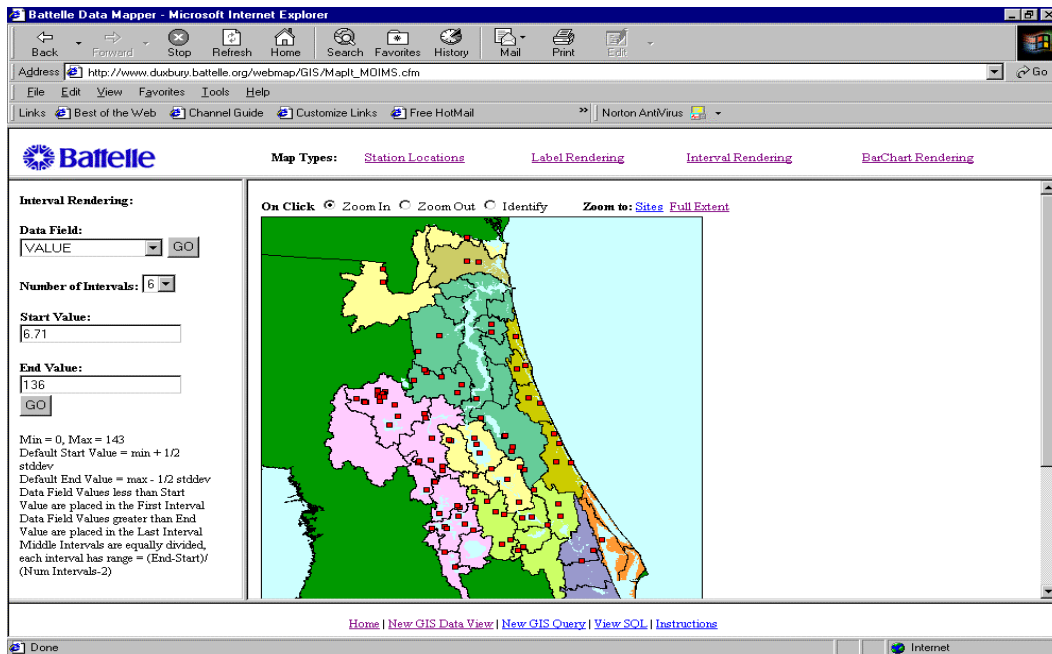
The Number of Intervals, and the Start and End Values will display with default values. Pressing **GO** will accept the default values or modify them as needed to achieve the desired display then press **GO**. The Data Mapper automatically set the values based on the following criteria: (Default Start Value = min + 1/2 stddev

Default End Value = max - 1/2 stddev

Data Field Values less than Start Value are placed in the First Interval

Data Field Values greater than End Value are placed in the Last Interval

Middle Intervals are equally divided, each interval has range = (End-Start)/(Num Intervals-2))

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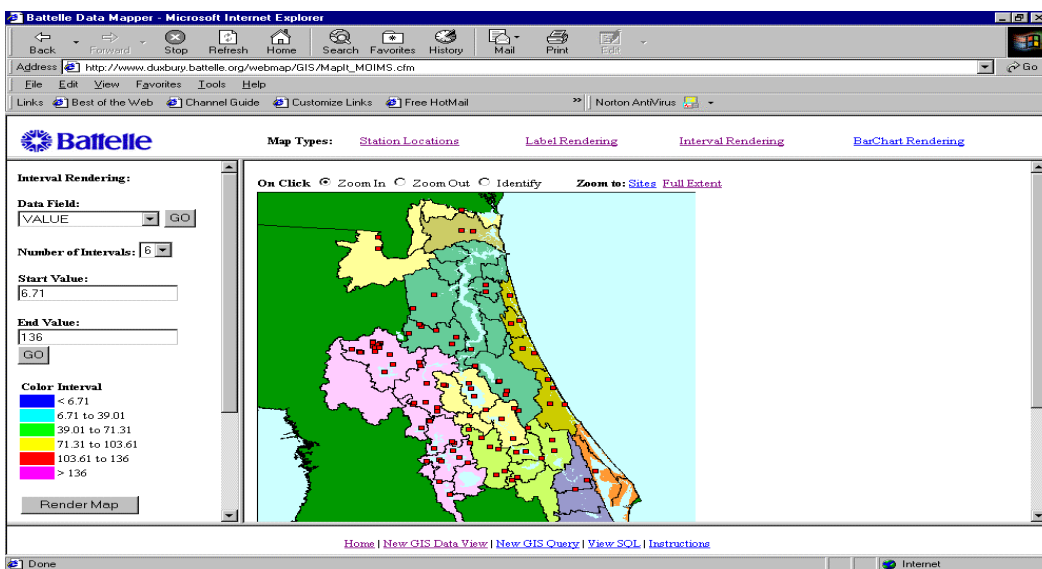
Once you have created the value range and intervals to display the data of interest press the **Render Map** button and the Interval Rendering map will be displayed.
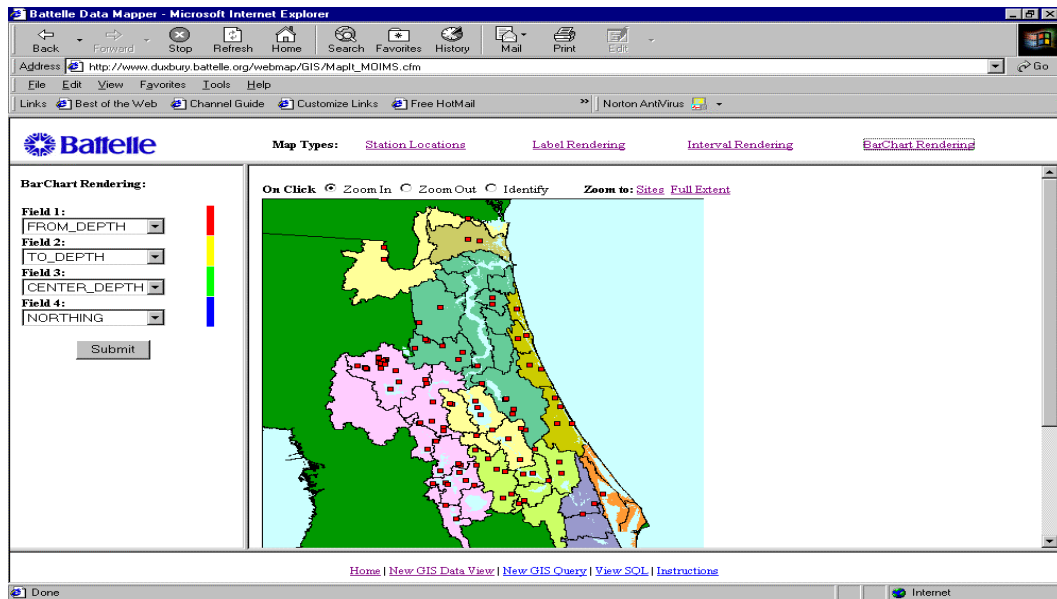
6. The **BarChart Rendering** map type allows you to qualitatively compare values in up to four database **Fields** among squares on the map.

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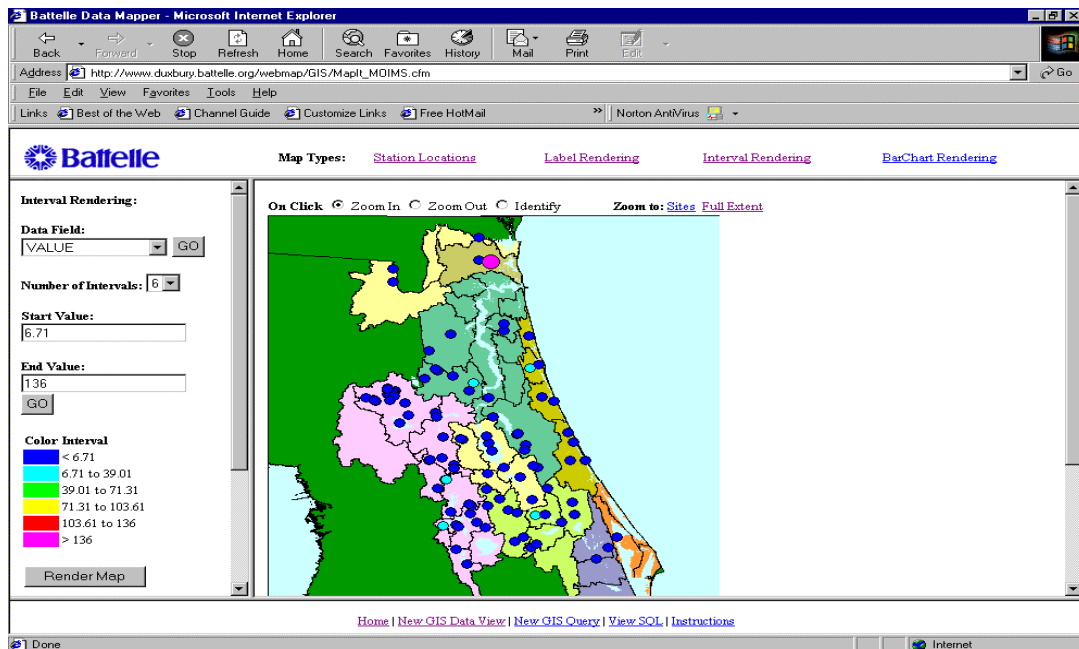
7. Designate from one to four data fields by use of the pull-down arrows; barcharts will show the relative values in those data fields for each square on the map. **Zoom In** as necessary.
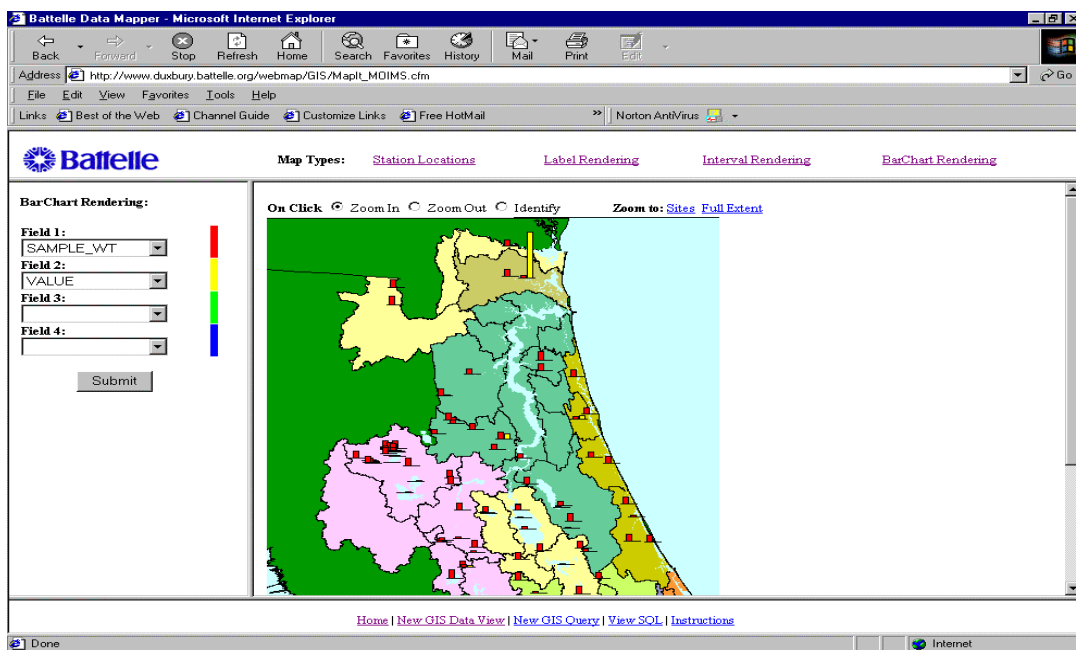

8. You can save the map image to your PC by right clicking on the map.

9. The **View SQL** link allows you to view the query language used to select data records for the map being viewed.

View Instructions
The following information is found online.

Web-Based Query Builder and Data Mapper Instructions

The Query Builder and Data Mapper pages are best viewed with either Netscape or Microsoft browsers, Version 4 or higher.

Database View Selector Page

1. Select a Database View from the drop-down box and then click **Submit**.

    GIS Data Views display sampling locations in maps. GIS Data Views containing analytical results can be mapped to display the spatial variability of a single analyte (interval rendering). For these views, be sure to select only one analyte. GIS Data Views can be designed to enable the spatial variability of multiple analytes to be displayed using Bar Charts. GIS Data Views can also be designed to use Bar Charts to display both spatial and temporal variability of an analyte or spatial variability of an analyte at different depths.

GIS Data Views can be designed so that samples that were taken at the same location (for example, same latitude and longitude) are averaged to obtain a mean site value. This site averaged data view allows the user to more easily view and compare sites on a two-dimensional map. It is also possible to group samples taken at slightly different locations to be grouped together by rounding the X and Y coordinate values to some specified number of decimals.

Query Builder Page

1. Selecting query criteria through the Query Builder allows you to select specific records to be mapped using the web-based Data Mapper. In general, you select specific records by designating values for various **Fields**, using **Operators** and **Connectors** to further define the query.

   The following applies to the *All Sediment Chemistry Data (Raw)* GIS Data View (available through the St Johns River Site). If you choose a different GIS Data View the selections will be different but the steps are similar.

   All Sediment Chemistry Data (Raw) **GIS Data View**

   Available Fields include:

   STUDY_ID: particular sampling event

   PARAMETER: chemical compound name

2. You may select multiple values for some fields, for example you select multiple Study_IDs in the fields. At the same time you are not required to select a value for each field (*note that older browsers such as Internet Explorer 3 may not support selection of more than one value per field*). For text and date fields, you may select one value from the list provided in the **Values** column. For number fields, you may enter a number in the **Values** column. Select the comparison operator you wish to use in the **Operator** column (note that the default is an "=" sign). It is recommended to use the default "=" sign when selecting.

3. If you specify values for more than one field, be sure that your selections are not mutually exclusive.

4. The logical And/Or option in the **Connector** column defaults to "And". This means that only records that meet all of the specified field value conditions will be returned. To return records where at least one of the specified field values holds, change the option in the Connector column to "Or". Note that all "And" logical connectors will be evaluated before "Or" connectors.

5. If you have a lower-speed Internet connection, change the number of records to be displayed, at the bottom of the page, to a number less than 500. This is the number of records that will be displayed in the Query Results page. If your query returns more records than the number you designate, you will have an opportunity to show more records. You do not have to display all of the records retrieved by the query in order to download or create maps.

The following applies to all GIS Data Views:

6. Press the **Submit** button at the bottom of the page to begin your query. To more quickly navigate to the bottom of the page, click on the link that says, **Go to Bottom**, located at the top of the page.

7. If you do not wish to submit the query, click on your browser's **Back** button or click on the **Home** link at the bottom of the page.

Query Results Page

1. Your query results are displayed in a table. You can review, cut-and-paste, print, or map the contents of the table.

2. To create a map, press the **Map It button**.

3. You have the option of selecting a **Screen Resolution** that best matches your computer's display screen. Change screen resolution to the 800x600 option if you find the map is too large to view without scrolling.

Data Mapper Page

1. The Data Mapper opens to a **Sample Locations** map type. The results of your query are displayed as small red squares, on the map. If you do not immediately see a map, it is being generated. Your cursor should show an hourglass during map generation.

2. The Data Mapper page has 4 panes. The top pane provides links to select from four different map types. The left pane contains the name of the map type currently being displayed, a **Submit** button, and any options available for the selected map type. The right pane displays the map. The bottom pane provides navigation links.

3. Once a map is generated, use the cursor to either **Zoom In** on a particular area by left-clicking on the map, or **Identify** specific data record information by left-clicking on a particular square on the map. The color of the square you are "identifying" will change. Squares on the map representing sampling locations may overlap at small map scales. Zoom in on the square, prior to using the "Identify" feature, to ensure that you are locating the sample site that you are interested in. A good rule of thumb is to leave a space the size of a square between two squares you are trying to identify. Use the **Zoom Out** and **Return to Full Extent** options to view a larger area of the map.

4. The **Label Rendering** map type allows you to assign a label to each square on the map from one **Label Field**, such as the data source or mercury concentration of the data record in question. Press the **Submit** button to generate a map with labels. **Zoom In** as necessary.

5. The **Interval Rendering** map type allows you to classify squares on the map for values associated with one **Data Field**. Select a Data Field, the Number of Intervals, and the Start and End Values. Press the **Submit** button. **Zoom In** as necessary.

6. The Data Mapper automatically sets default values for the first interval below the "Start Value" and the last interval above the "End Value". The remaining "Number of Intervals" are equally divided between the start and end. To maximize the value of this map type, attempt to set the "Start Value" slightly greater than the lowest values in the query and the "End Value" slightly less than the highest values in the query.

7. The **BarChart Rendering** map type allows you to qualitatively compare values in up to four database **Fields** among squares on the map. Designate from one to four data fields; barcharts will show the relative values in those data fields for each square on the map. **Zoom In** as necessary.

8. Right-clicking with the mouse on a finished map allows the user to save the map image to disk.

9. The **View SQL** link allows the user to view the query language used to select data records for the map being viewed.