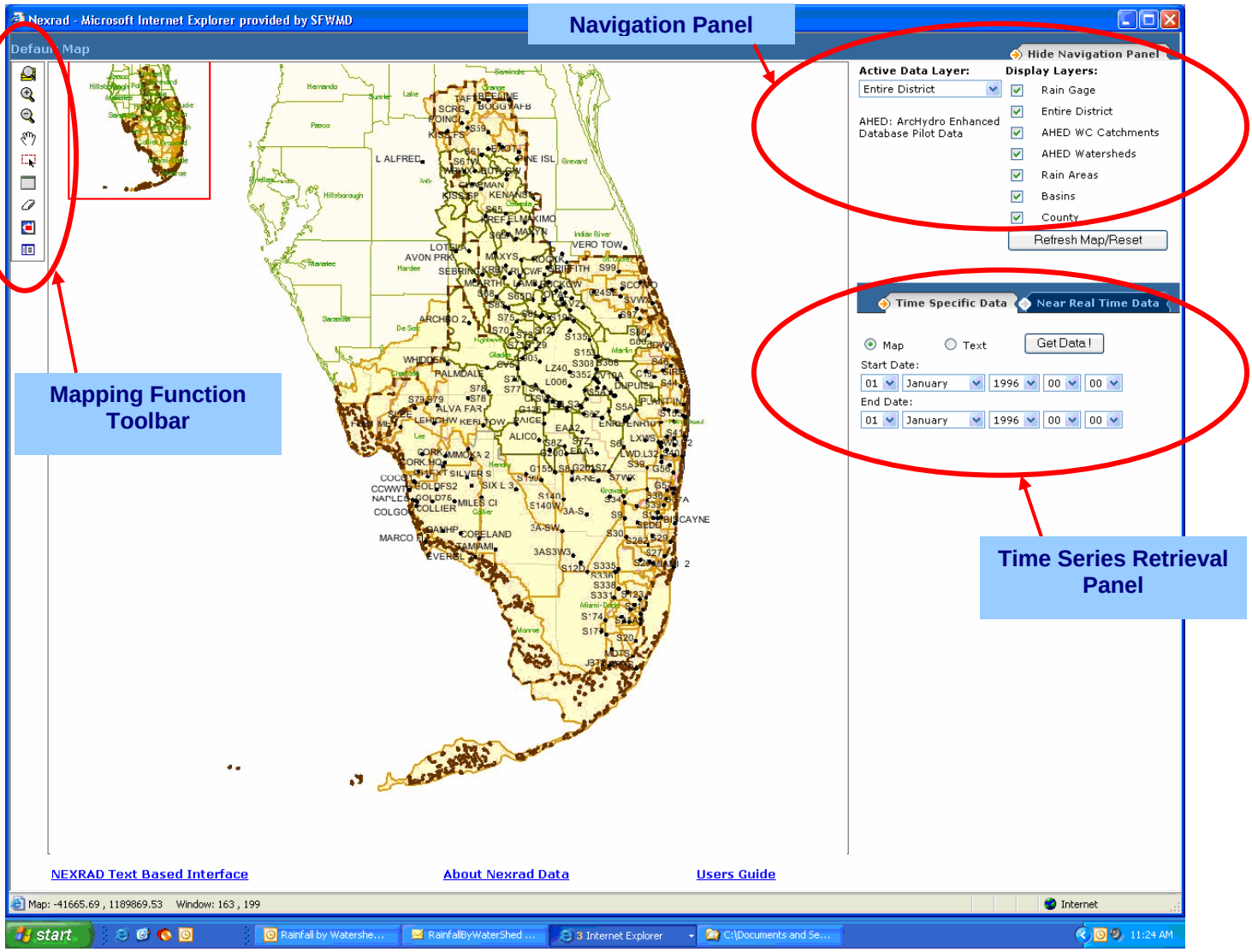
NexRad Radar Rainfall

February 2006

The NexRad Radar Rainfall tool is located is accessed through the Radar-Based Rainfall Data link on the DBHYDRO Browser Menu.

Entering the NexRad Radar Rainfall Application

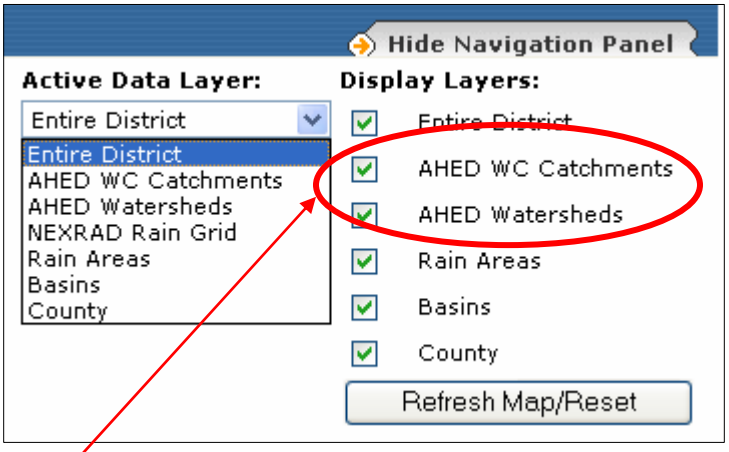
The NexRad Radar Rainfall application provides users with the ability to access rainfall data for District areas. Elements on the main application screen include detailed and overview map images; a **navigation panel** that allows users to activate and display different layers, a **time series retrieval panel** that enables near-real-time and time-specific information to be returned; and a **toolbar** that enables mapping functions. The application has the ability to retrieve information from District GIS data layers and the Arc Hydro (AHED) pilot database.



Using the Navigation Panel

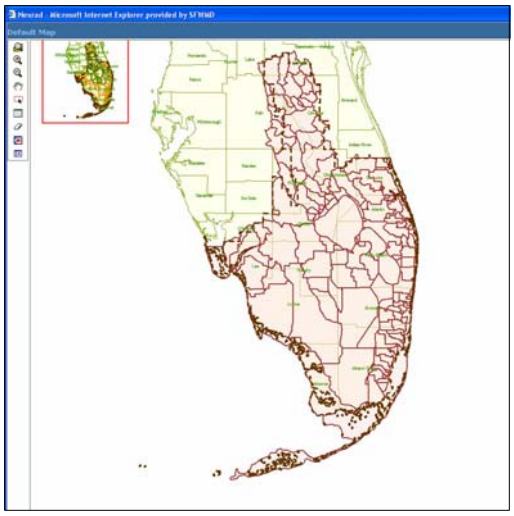
The navigation panel allows users to determine how information is displayed on NexRad map. Users can select the Active layers that they want to query information for by selecting from the Active Data Layer drop-down box. Map display layers are picked from the Display Layers check boxes. Map refreshing and resetting is also controlled through the Navigation Panel.

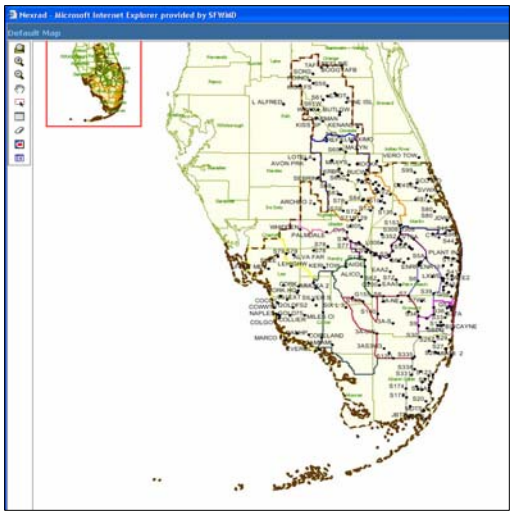
The NexRad application allows users to access information from production GIS layers and the Arc Hydro pilot database.



Arc Hydro Pilot database information can be accessed by selecting layers that start with AHED.

Map display is controlled by Navigation Panel selections.





Hiding the Navigation Bar

Users can choose to hide the Navigation Bar. When this is done a full-screen map image is presented. The Navigation Bar can be toggled on or off.

Using the Map Function Toolbar

The Map Function Toolbar allows user to perform several Mapping functions including:

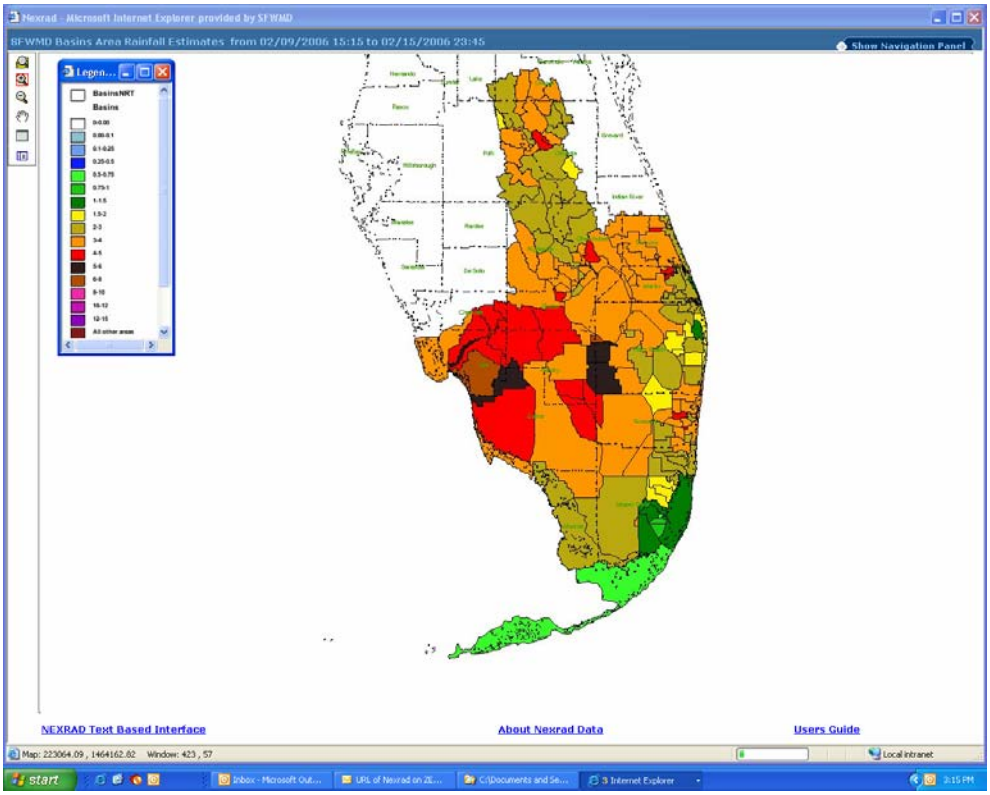
Zoom to Full Extent
Zoom-In, Zoom-Out, Pan,
Select Polygons, Clear Selection,
Show/Hide Navigation Panel,
Toggle Legend, and Toggle Overview Map

Available mapping tools will change based on the functions being performed.

Hovering the mouse over the map function displays the function name

Full Screen Retrieval & Automatic Screen Update

Users can choose to hide the Navigation Panel. If this is done a full screen map image is displayed. If Near-Real-Time data is selected, **the map will be updated automatically every 15 minutes**. This will happen whether or not the full-screen map is being displayed.



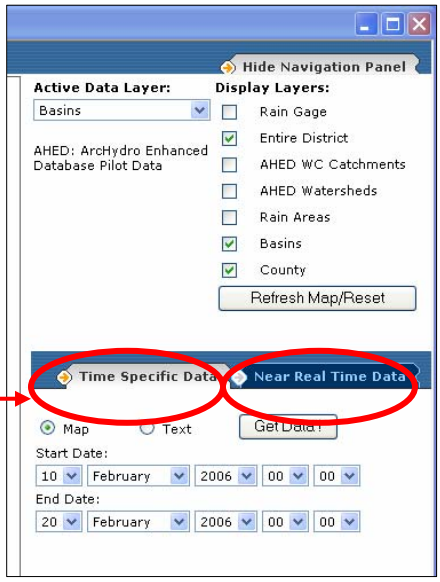
Using the Times Series Retrieval Panel

The Time Series Retrieval Panel allows two types of information to be retrieved:

Near Real Time Data and Time Specific Data

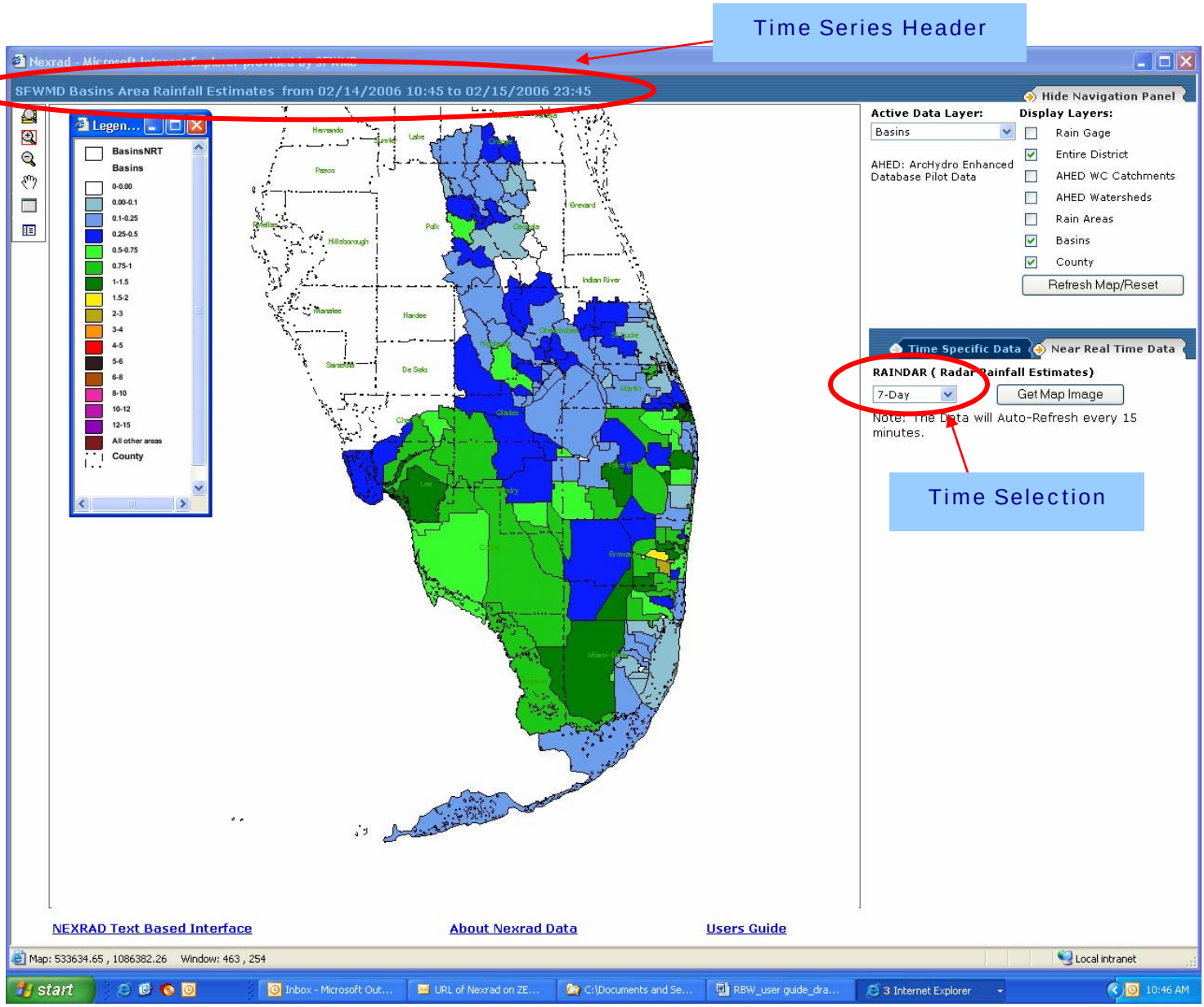
The panel can be toggled between these data types. In both cases, data from the NexRad Radar Rainfall database is retrieved and displayed to the map image or as text output.

Time Series Selection: Near-Real Time or Time Specific

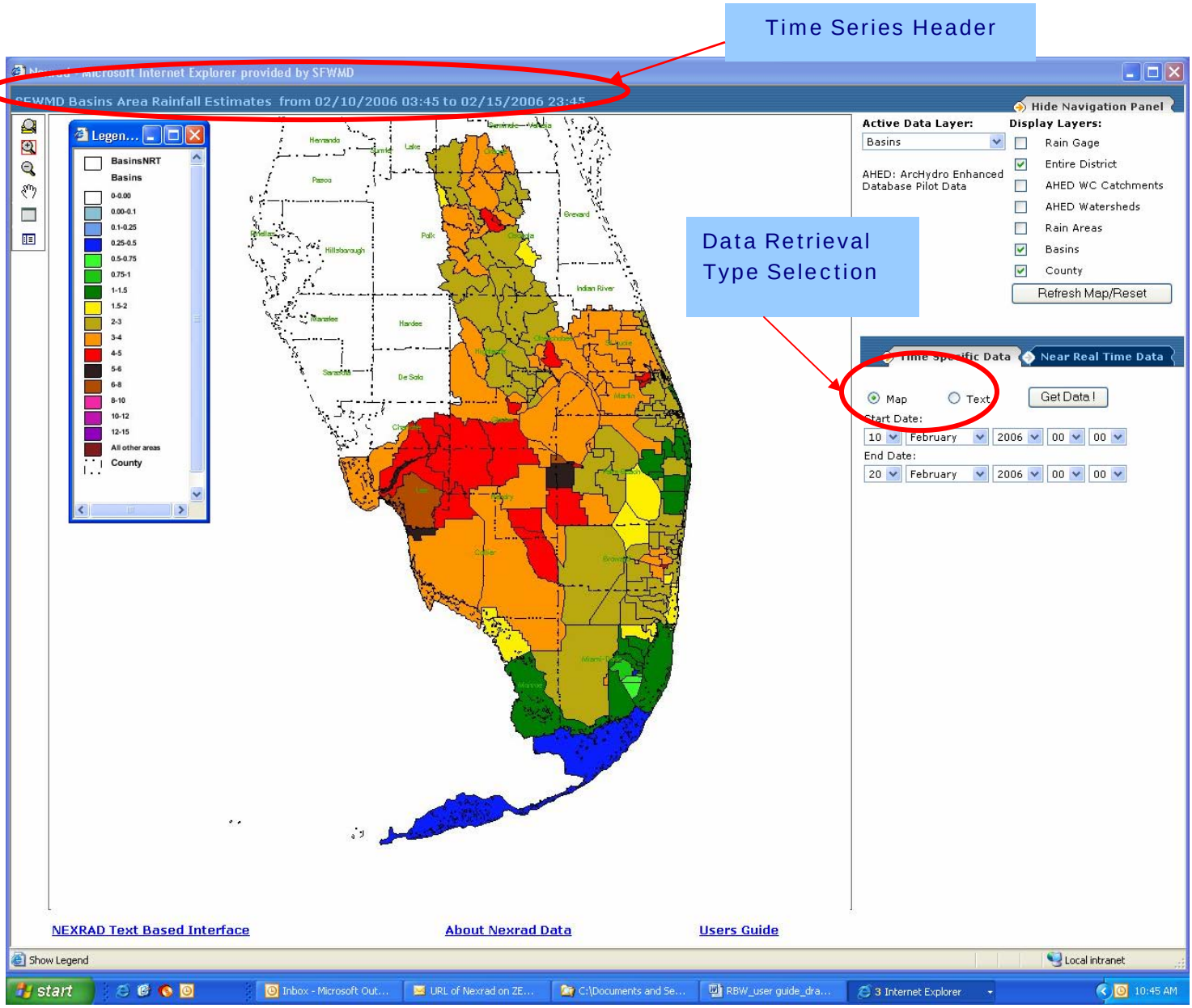


Near Real Time (NRT) Data Display

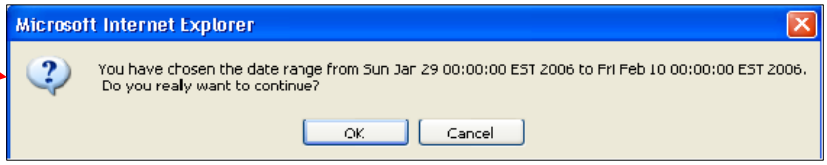
Data can be gathered for specific time sets available in the NRT selection box. After choosing NRT data that you want, click on the *Get Map Image* button to retrieve the map. The time frame of available data appears on the screen's header bar. The Legend can be toggled on or off as needed.



Time Specific Data Display Data can be gathered for specific time periods defined by the user. Requested data can be displayed to the map or be made available in text format. After choosing the desired time period, click *Get Data* to display information to the map or to a text file. If the desired output is a map, **the time frame of available data appears on the screen's header bar**.



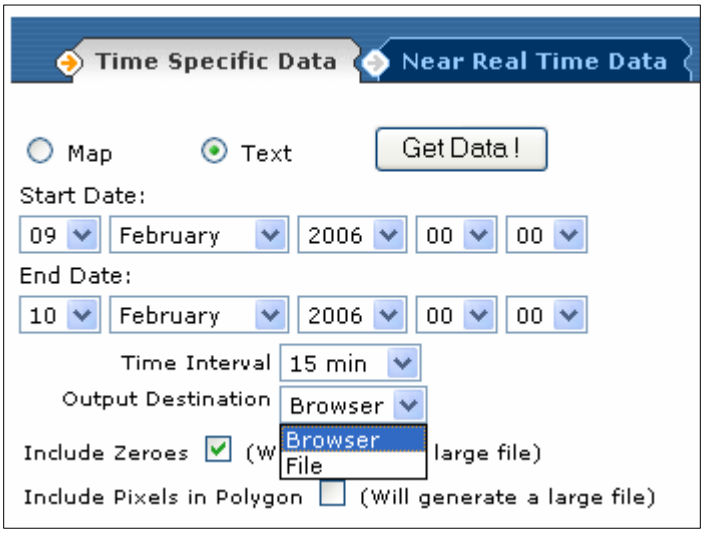
A confirmation message will appear before data is retrieved.



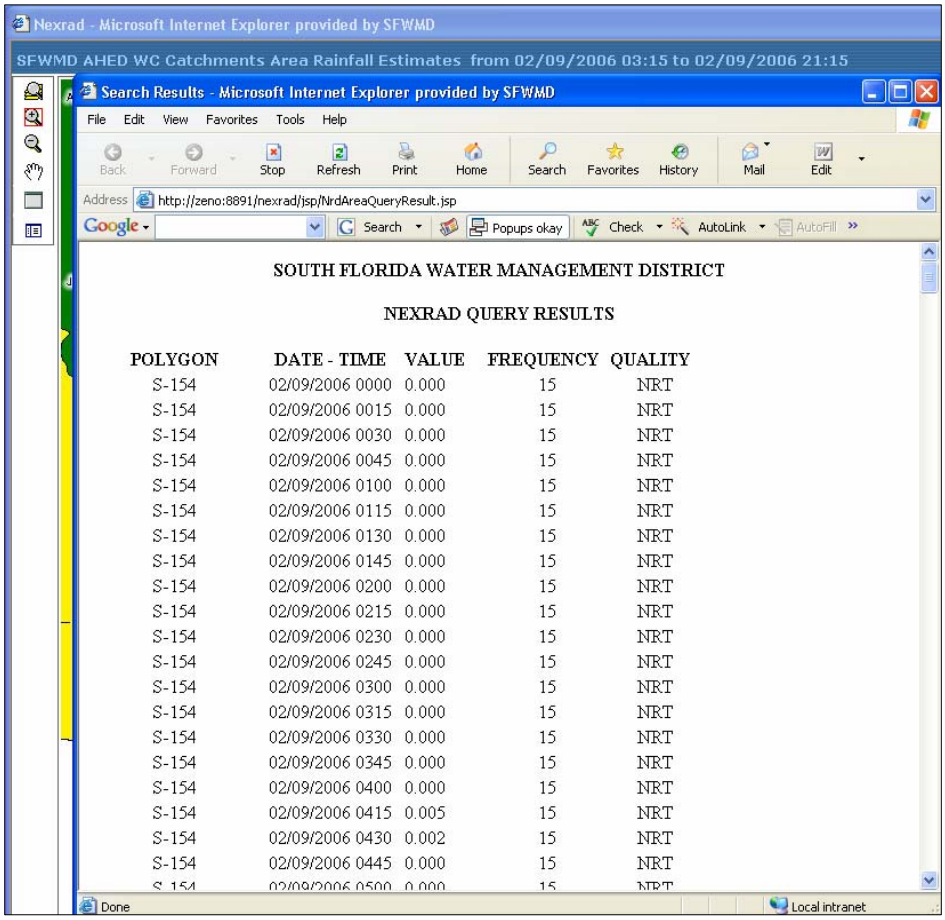
Time Specific Text Retrieval

Text formatted data can be returned to the browser or sent to a file. After choosing the desired time period, click *Get Data* to display information to the map or to a text file. If text is chosen, users can **select a time interval** from the Time Interval selection box and **route the output to either the browser or a file**.

Users can also elect to include zero rainfall entries or pixel-in-polygon data. Both of these selections could result in large files.



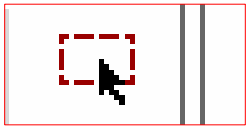
The requested information is displayed to the screen. If *File* is selected, a text file is created and the user can save the file to the desired output file type.



Polygon Selection

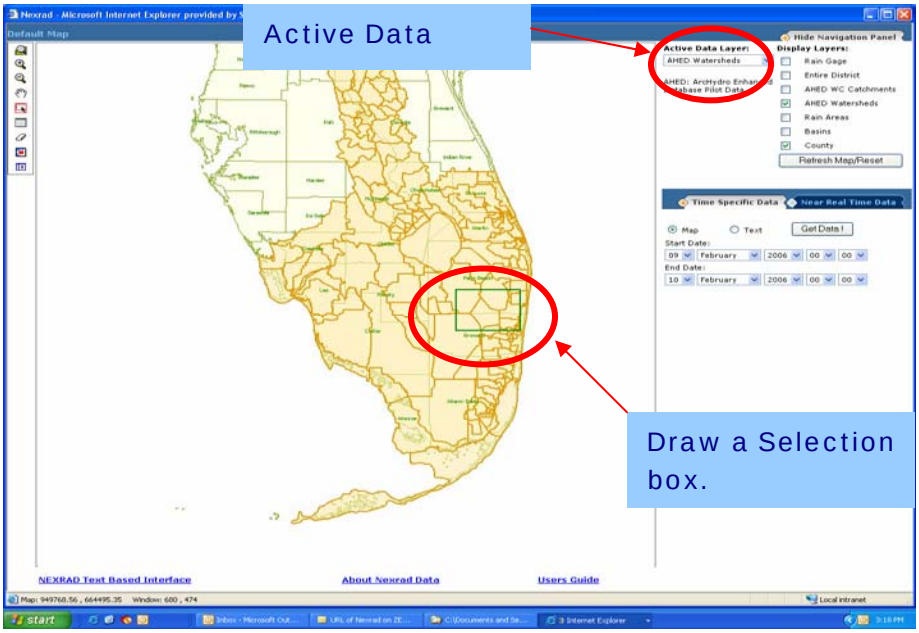
The Nexrad Radar Rainfall application enables specific polygons to be selected for display and further analysis. In order to begin the polygon selection process, first click the Refresh Map/Reset button to start with a new map display.

Use the Selection Tool



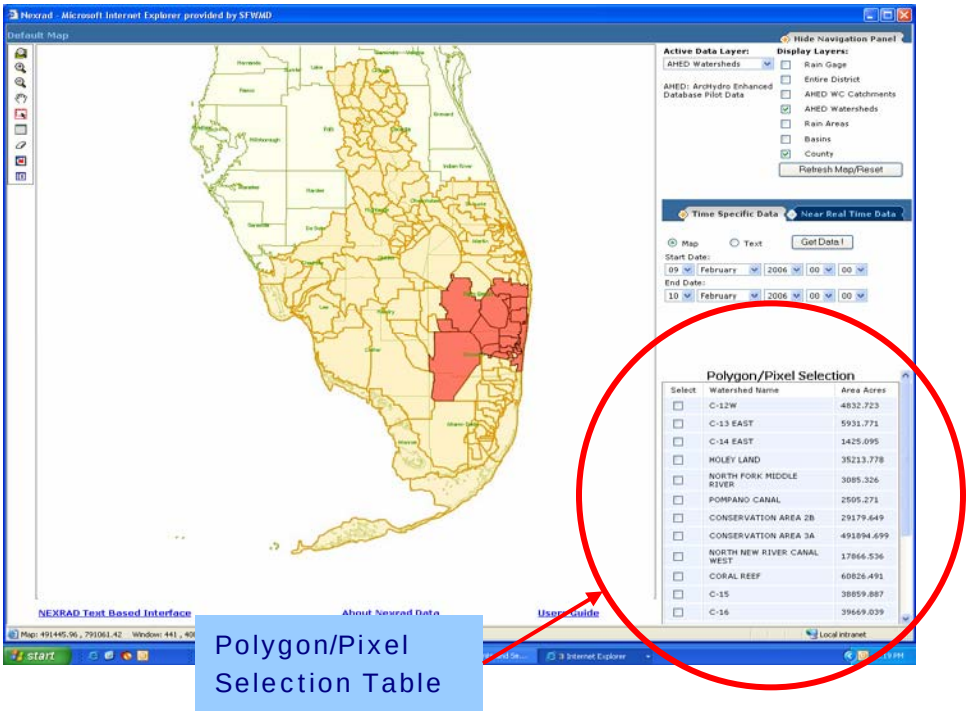
on the Map Function Toolbar to select the desired polygons. **Use the Selection tool to draw a box that includes the polygons you want information for.**

The polygons that are selected will correspond to the current Active Data Layer.



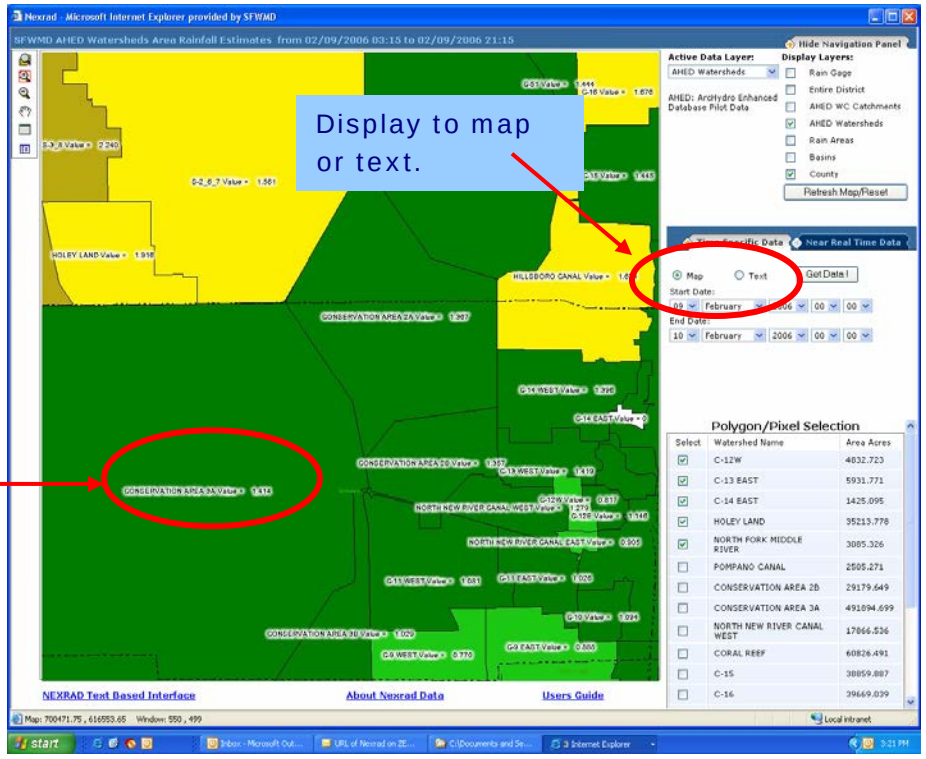
The selected polygons will be highlighted to the screen. A Polygon/Pixel Selection Table with all the selected polygons will display. **Click the Select box for the polygons that you would like to more information on.**

Once you have selected the polygons, **click on *Get Data.***



If *Map* is selected, the map image zooms to the extent of the selected polygons. The rainfall amounts for the polygons within the extent area are displayed.

Click *Refresh Map* / *Reset* to begin another query.



Getting Text Information for selected polygons

If text data is desired, select the *Text* button prior to getting data.

Using the Rain Grid

When needing to see Rain Grid information make the the Rain Grid the Active Layer. This will allow the NexRad Rain Grid to be displayed. The Rain Grid only displays for the Entire District. You can also use the map Zoom-In tool to access the Rain Grid to see its relationship to a specific polygon. Further zooming will display the pixel-id for each pixel.