

State of California
Water Resources Control Board



eWRIMS Public User
GIS System

November 2008

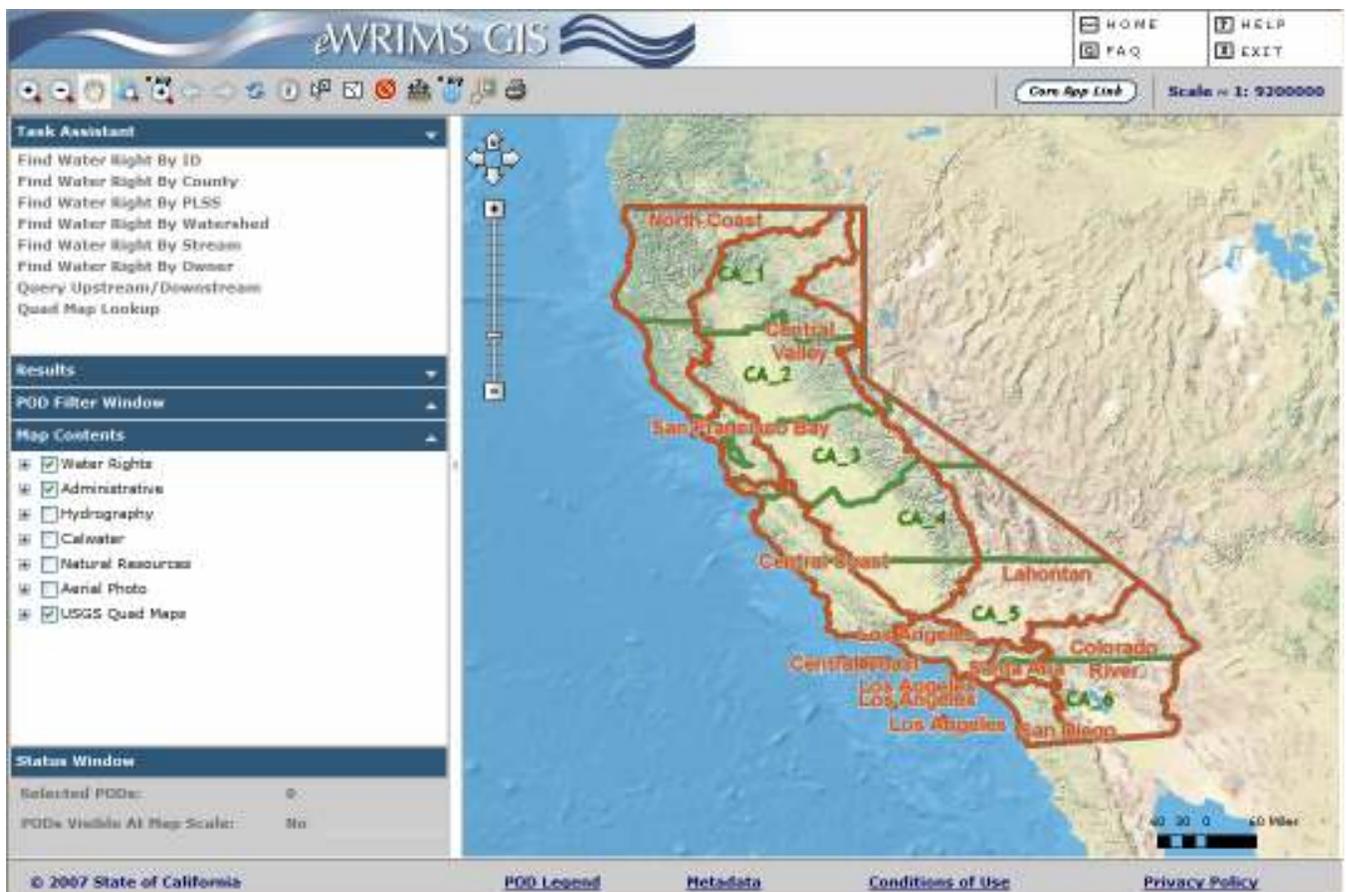
Table of Contents

GIS SYSTEM	1
Title Bar	2
Home	2
FAQ.....	2
Help	2
Exit	2
Map Toolbar	2
Zoom In.....	2
Zoom Out.....	3
Pan.....	3
Full Extent.....	3
Back Extent	4
Forward Extent.....	4
Refresh Map	4
Map Identify	4
Select PODs.....	4
Clear Selected PODs.....	4
Clear Stream Trace.....	4
Show Overview Map.....	6
Print Map	6
Core App Link	6
Scale	6
Control Panel	6
Customizing the Control Panel	7
Navigation	8
Task Assistant	8
Results	10
POD Filter Window	12
Map Contents	12
Status Window	16

GIS SYSTEM

The GIS system is a component of eWRIMS that may be accessed from <http://www.waterboards.ca.gov/ewrims/> or from the eWRIMS Public Menu or by using the **Map It** feature from the eWRIMS Water Right Search Results screen. Within the GIS component there are a variety of search queries and tasks that may be performed. The Skill Review provides exercises to practice GIS system navigation and functionality.

The GIS System automatically times out the session after 10 minutes of inactivity.



Title Bar

The title bar located on the top of the screen contains several quick links.

Home opens a window containing the Water Rights Home Page

FAQ opens a window containing a list of Frequently Asked Questions about eWRIMS.

Help opens a window to the eWRIMS Training Workbook (this document).

Exit logs you out of the GIS system.



Map Toolbar

The map toolbar contains a variety of functions used to manipulate the display map view. To activate a function, click the icon. The function will remain activated until another function is activated.



The map toolbar allows the following functions:

Zoom In:  Clicking on this icon magnifies the selected area, re-centers the map, and reduces the map scale. There are two ways to use this function.

1. Zoom In to a specific point. Click the **Zoom In** icon once to activate the function. Click once on the desired display map point. The map will refresh and display a zoomed in view of the point area.
2. Zoom In to a defined area. Click the **Zoom In** icon once to activate the function. With the mouse, click and drag draw a box on the display map. When you release the click, the map will refresh and display a zoomed in view of the defined zoom area.

Zoom Out:  Clicking on the icon de-magnifies the selected area, re-centers the map and increases the Map Scale. There are two ways to use this function.

1. Zoom Out to a specific point. Click the **Zoom Out** icon once to activate the function. Click once on the desired display map point. The map will refresh and display a zoomed out view of the point area.
2. Zoom Out to a defined area. Click the **Zoom Out** icon once to activate the function. With the mouse, Click and Drag draw a box on the display map. When you release the click, the Map will refresh and display a zoomed out view of the defined zoom area.

Pan:  Without changing the Map Scale, the **Pan** function allows the display map view to be moved. Click the **Pan** icon once to activate the function. Click the display map and while holding your click, drag your cursor to the desired viewing area. The map will move with your cursor until you release the click.

Full Extent:  Returns the display map to its default display, the State of California. Click the Full Extent icon once and the map will automatically return to its default display.

Zoom to Coordinate:  Allows you to type in the State Plane Coordinates (Feet) NAD83 or NAD27 or the Lat/Long (WGS84 – Decimal Degrees) and zoom to those coordinates. Click the Zoom to Coordinate icon once to activate the function. A pop up menu is returned with two coordinate functions:

1. Enter your Northing and Easting in State Plane Coordinates (Feet) format. Enter the correct Zone and choose the correct Datum; NAD83 or NAD27. Click the Submit button.



The screenshot shows a dialog box titled "Zoom to Coordinate" with two sections. The first section, "State Plane Coordinates (Feet)", contains input fields for "Northing:" and "Easting:", a dropdown menu for "Zone:" set to "1", and a dropdown menu for "Datum:" set to "NAD83". Below these is a "Submit" button. The second section, "Lat/Long (WGS84 - Decimal Degrees)", contains input fields for "Latitude:" and "Longitude:", and a "Submit" button below them.

2. Enter the Latitude and Longitude in WGS84 Decimal Degrees. Click the Submit button.

Back Extent:  Functions as a back button returning the map to its last display. Click the **Back Extent** icon once and the map will automatically return to its previous display.

Forward Extent:  Functions as a forward button returning the map to its forward display. Click the **Forward Extent** icon once and the map will automatically return to its forward display.

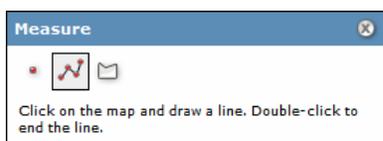
Refresh Map:  Reloads the display map. Use this icon when something doesn't draw properly on the display map. Click the Refresh Map icon once and the map will automatically redraw.

Map Identify:  Provides information specific to the active map layers of a specified point clicked on the map. Click the **Map Identify** icon once to activate the function. Click on the desired identify location on the display map. A query will execute detailing results in the Results Control Panel box.

Select PODs:  Used to select an area of PODs on the display map. Click the **Select POD** icon once to activate the function. With the mouse, click and drag draw a box on the display map. Review the Results control panel box for POD detail.

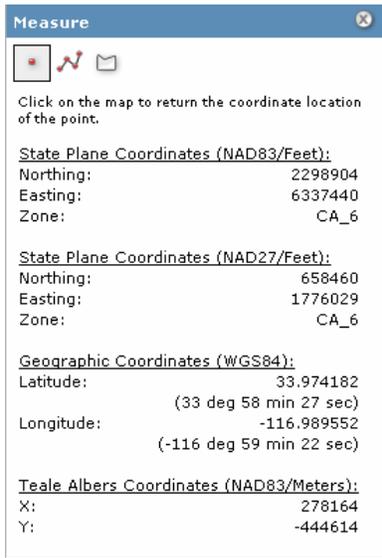
Clear Selected PODs:  Used to quickly clear all selected PODs. Clicking on it removes the pushpins from the display map, un-checks any selected items in the Results Control Panel Box and updates the Selected POD Number to zero in the Status Window control panel box. Control Panel Boxes are described in the control panel section.

Clear Stream Trace:  Removes the Stream Trace graphic from the display map.



Measure:  Used to define point location data, measuring distance and/or area. Click the Measure icon once to activate

the function. A pop up box is returned with three measure functions:



1. To identify point location coordinates click the point icon to activate the function. Click on a point in the display map. The coordinate location data will display in the pop up box.
2. To measure distance, click the line icon to activate the function. This function allows for multi-segmented lines. Click once on a point in the display map to specify the FROM distance. Move your cursor to the TO distance point. Double click to end the line. The distance detail will display in the pop up box. The Length default is miles. Use the drop down menu to convert the length to a different unit.

3. To measure a specified area, click the polygon icon to activate the function. Click once on the map to begin drawing a polygon. Continue clicking once to add vectors. When complete, double click to complete the area. The perimeter and area will display in the pop up box. The default is Miles. Use the drop down menu to convert the perimeter and area to a different unit of measure.



Convert Coordinates:  Allows you to type in the State Plane Coordinates (Feet) datum NAD83 or NAD27 or the Lat/Long (WGS84 – Decimal Degrees) and convert those coordinates. Click the **Convert Coordinates** icon once to activate the function. A pop up menu is returned with the coordinate functions:



1. Enter your Northing and Easting in State Plane Coordinates (Feet) format. Enter the correct Zone and choose the correct Datum; NAD83 or NAD27. Click the Submit button.

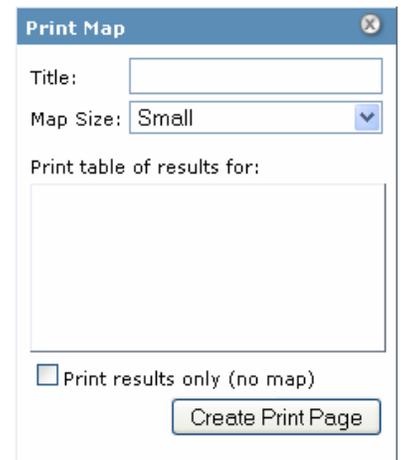
2. Enter the Latitude and Longitude in WGS84 Decimal Degrees. Click the Submit button

Once the Submit button had been pushed a new Convert Coordinates pop up appears with listing the three possible converted coordinate values.

Show Overview Map:  Use this button to show or hide the overview map in the top right corner of the map display. Click the **Show Overview Map** and the overview map will show on the map. Click the **Show Overview Map** again and the overview map will be hidden.



Print Map:  Use this button to print the map displayed or the results for a query. Click the Print Map button and the Print Map menu appears. On the Print Map menu you can name your map, decide the size of the map, print the table results or choose to print the table results without a map.



Print Map

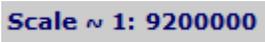
Title:

Map Size:

Print table of results for:

Print results only (no map)

Core App Link:  Use this button to link back to the eWRIMS Application passing a list of selected PODs from GIS to eWRIMS. If no PODs are selected, this link will take you to the eWRIMS Main Menu.

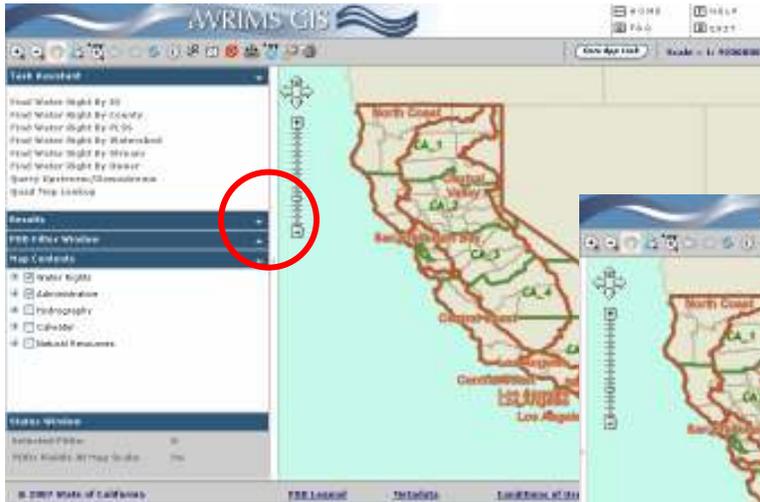
Scale:  Displays the current Map Scale. The scale is dependant on the window size.

Control Panel

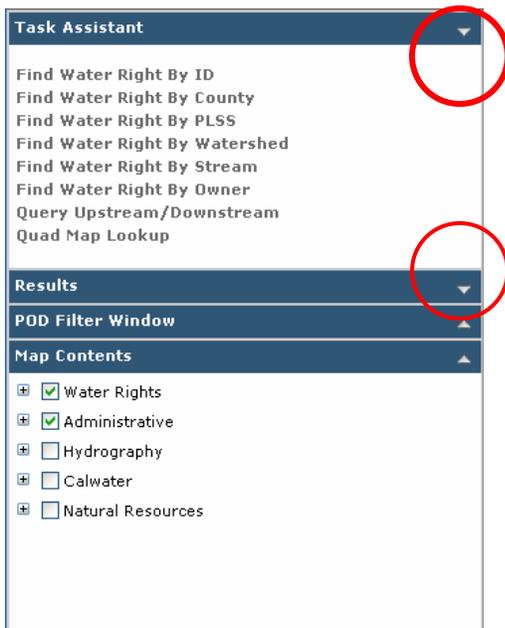
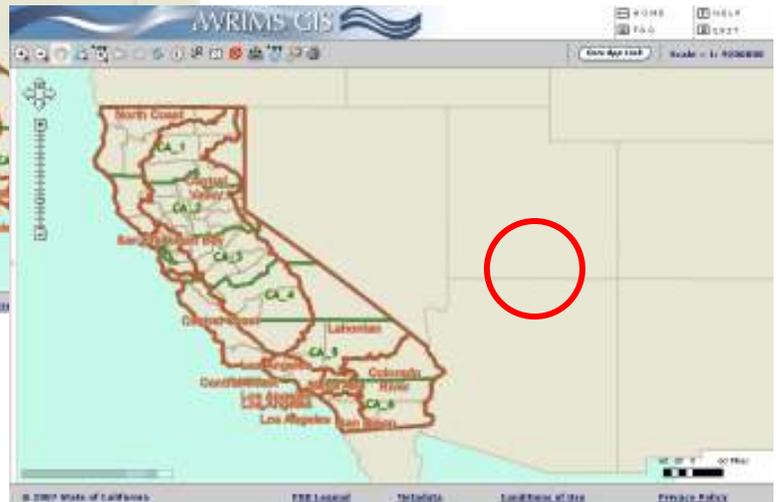
The control panel, located on the left side of the screen, is used to manipulate data on the display map using the functions within the control boxes. The control panel view may be customized.

Customizing the Control Panel

The control panel may be entirely collapsed (hidden). This expands the display map view. Click the **Collapse Arrow** to collapse the control panel.



Click the Expand Arrow to un-collapse (un-hide) the control panel.



Each control box may be shown or hidden. An up facing arrow indicates the section is shown. A down facing arrow indicates the section is hidden.

To expand a control box, click the **Show Arrow**.

To hide a control box, click the **Hide Arrow**.

Navigation



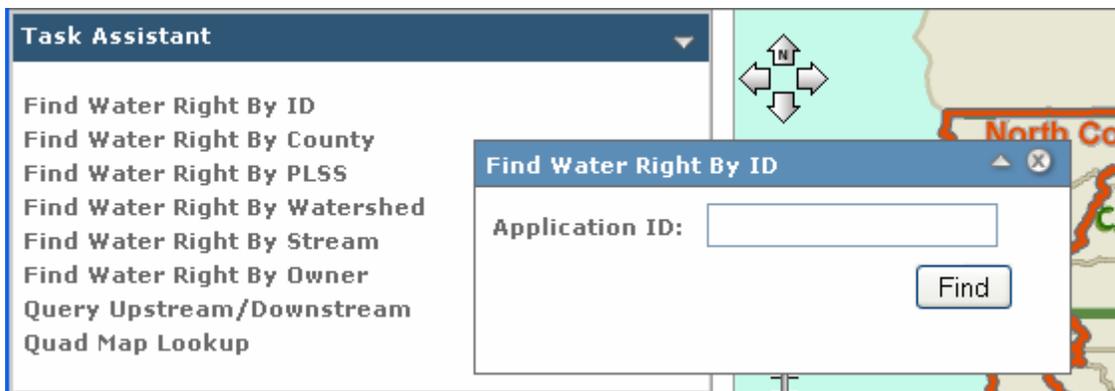
The Navigation control box is a quick way to pan and zoom. The system uses a set of redefined map images to allow a faster response time.

Click on the **Compass** to move the map by panning in a particular direction without changing the map Scale.

Click on the **Zoom Bar** to zoom in or out of the display map view while changing the map Scale.

Task Assistant

The Task Assistant control box is used for querying PODs. Click the desired query. A pop up box appears where the specific search may be entered. Enter the data and click the button. To close the pop up box click the x in the top right corner of the pop up. Query results are detailed in the Results control box described in the next section.



The Task Assistant control Box allows the following queries:

Find Water Right by ID: Enter the water right Application ID to search. Click **Find**. Wildcard searches in GIS require a %. Example: To search for all Application IDs beginning with A enter A% as the search query. To find Application ID with the string 2283 embedded, enter %2283%

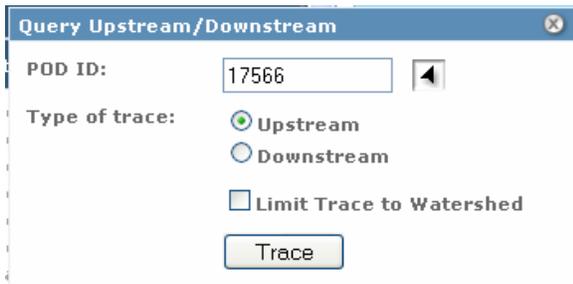
Find Water Right by County: Select the County from the dropdown list. Click Find.

Find Water Right by PLSS (Public Land Survey System): Select the Township / Range Number / Direction, Section, Quarter, Quarter Quarter and Meridian from the dropdown list. Click **Find**. If a value is unknown, select the blank (null) value from the dropdown.

Find Water Right by Watershed: Enter the CalWater Hydrologic Unit Name / Watershed Name. Click Find. Wildcard searches in GIS require a %. Example: To search for watersheds beginning with Carm, enter Carm%.

Find Water Right by Stream: Enter the Stream Name and select the County from the dropdown list. Click Find. Wildcard searches in GIS require a %. Example: To search for streams beginning with Un, enter Un%.

Find Water Right by Owner: Enter the Primary Owner's First and Last Name or the Company Name. The Last Name or Company is required to execute this query. Click **Find**. Wildcard searches in GIS require a %. Example: To search for all owners named Johnsen or Johnson, enter Johns%.



The screenshot shows a dialog box titled "Query Upstream/Downstream". It has a text input field for "POD ID" containing the number "17566" and a small arrow icon to its right. Below this is a section for "Type of trace" with two radio buttons: "Upstream" (which is selected) and "Downstream". There is also a checkbox labeled "Limit Trace to Watershed" which is currently unchecked. At the bottom of the dialog is a button labeled "Trace".

Query Upstream/Downstream: Click the select tool  and move your cursor to the map display. Select a POD. The POD ID appears in the text box. Select the type of trace and decide if you are going to limit the trace to the watershed or not then click **Trace**. When the trace is complete, it is shown on the display map with a graphic. All the PODs within the

trace are selected, shown in the Results control box and marked with a pushpin on the display map.

Obtain the POD ID from the Results control box after searching/locating the water right in GIS.

Quad Map Lookup: Enter the Quad Map Name. Click **Find**. The Quad Map Name displays in the results control box. Wildcard searches in GIS require a %. Example: To search for Quad Maps Cedar Mountain and Cedar Grove, enter Cedar %. To highlight the quad map area on the display map, select and check the box in front of the quad map name.

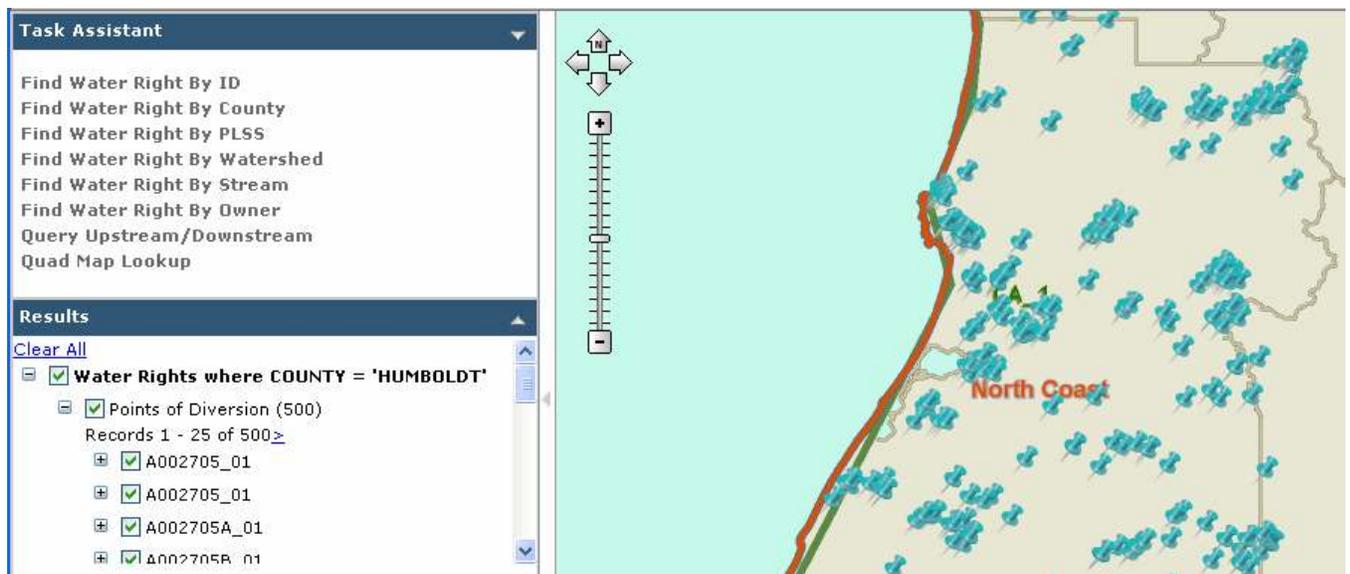
Results

When queries are complete, the Results control box will display information about the query results. Resulting PODs are sorted alphabetically and are always checked (selected). The checkbox indicates the POD is selected and displayed on the map with a pushpin. Using the **Core App Link** button in the Toolbar will send a list of **all** selected Application IDs to eWRIMS.

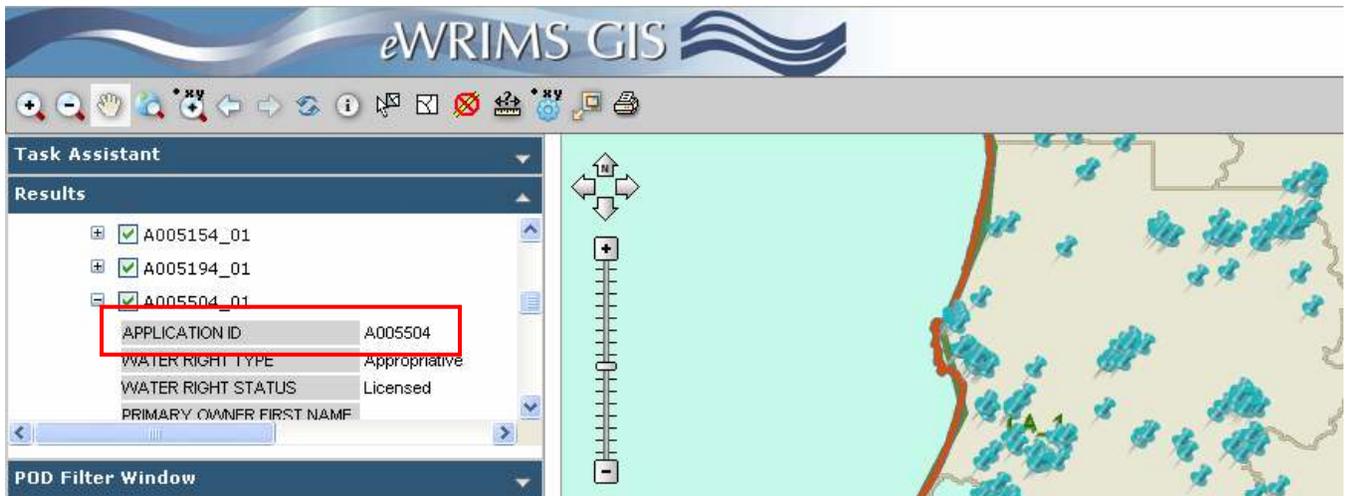
New query results are shown at the beginning of the Results list.

The Results control box is cumulative and will hold data regarding all search queries until the results are removed. Depending on the query results size, the box will either grow to allow a scroll and / or display a list with a clickable next arrow allowing you to page thru the results.

Click the checkbox adjacent to the Application ID to de-select the POD which removes the pushpin from the map.



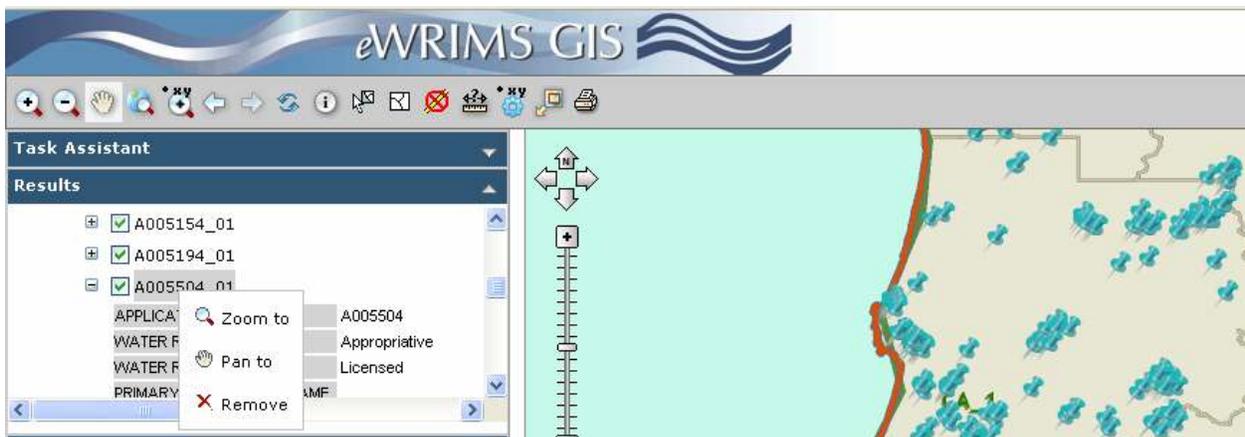
Clicking on the '+' or '-' will expand or shrink the results information.



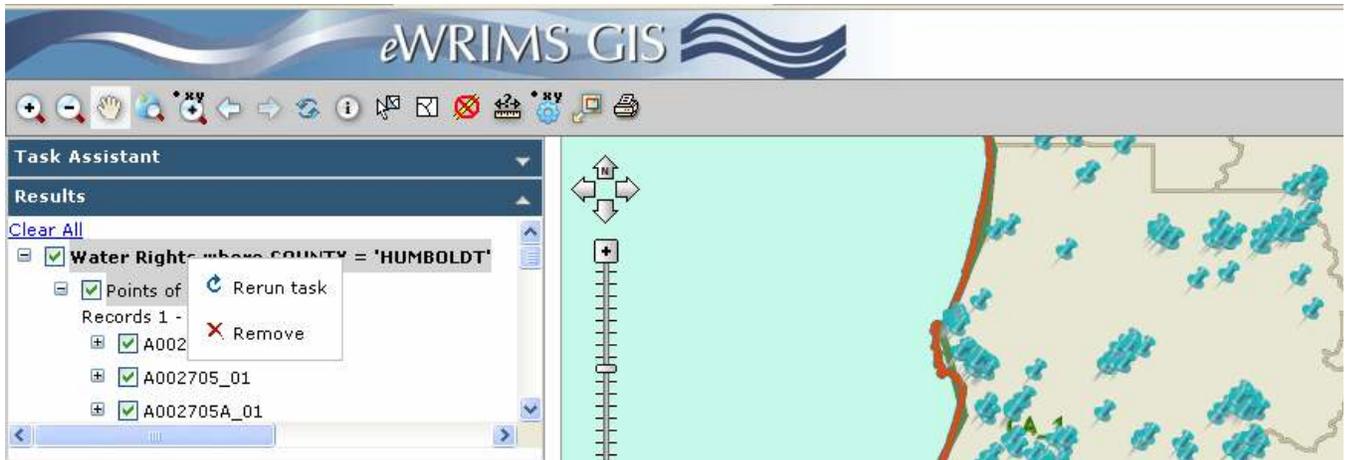
Each line prefaced with a '+/-' has the ability to be right clicked and manipulated. Some options include, re-executing the query, zooming the map to the selected POD or PODs, or removing the results.

Right clicking the first line, **Find Water Right by County** brings up the option to Rerun Task Again (re-execute Task Assistant function) or Remove item(s) from the Results box.

Right clicking an Application ID brings up the option to Zoom to, Pan to, or Remove the item from the Results box.

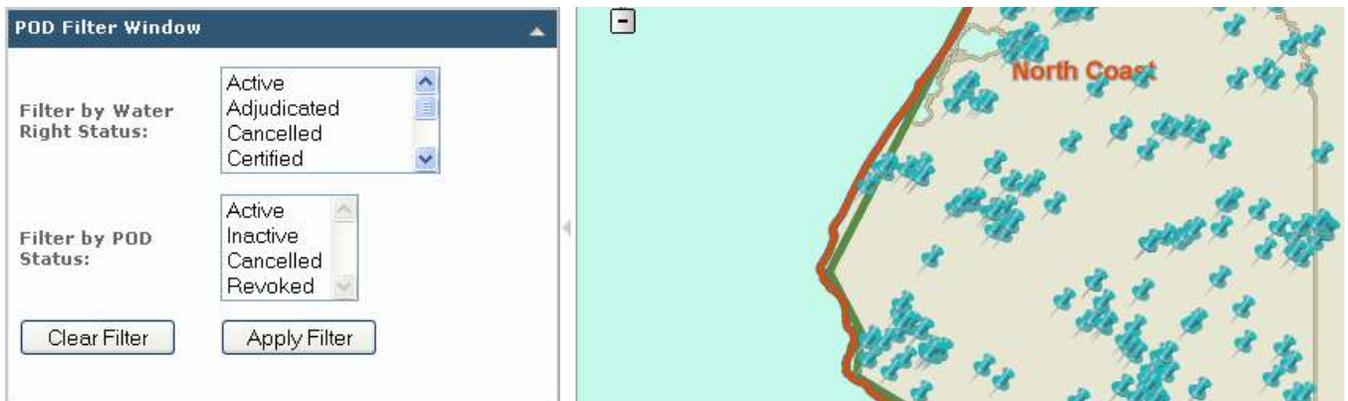


Right clicking the selection set of PODs will give you the option to Remove, Select All or Unselect All.



POD Filter Window

The **POD Filter Window** gives you the ability to apply filters to your query results by **Water right Status** or **POD Status**. You also have the ability to **Clear** any filters. A filter will limit the results of your query. For example if you **Find Water Right by County**, but you only want the Water Rights with an Active Water Right Status. This is where you would use the **Find Water Right by County** with the **Active Water Right Status** filter. Another example is you would like to find revoked PODs in a certain PLSS Section. You would use the **Find Water Right by PLSS** with a **Revoked POD Status** filter.



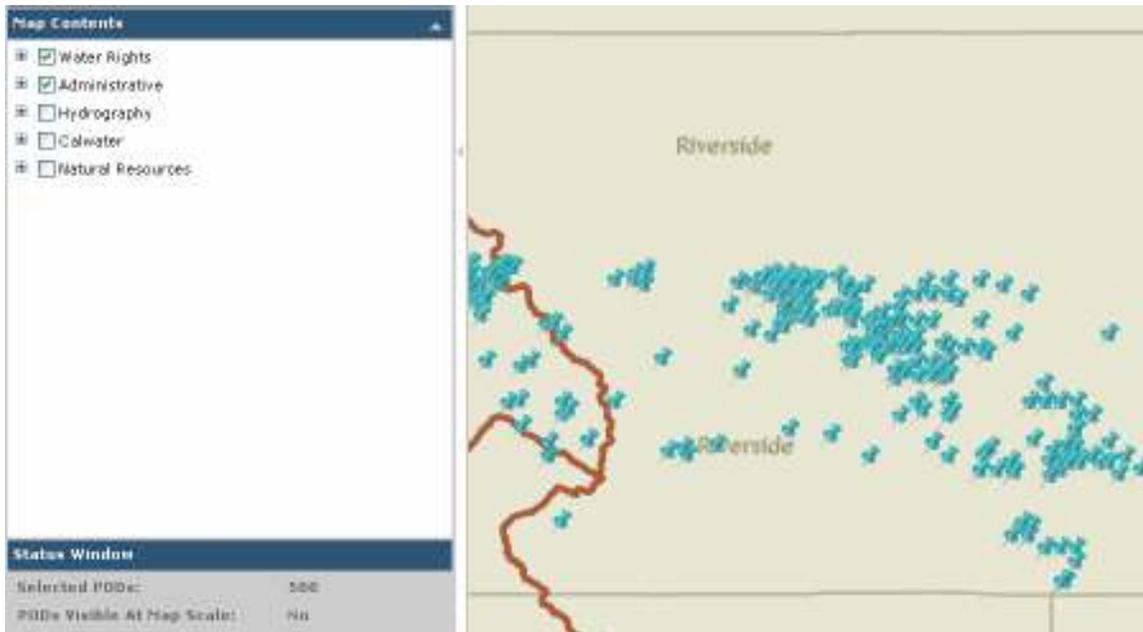
Map Contents

The Map Contents control box allows for customization of the displayed Map Layers. Map Contents also defines the legend used within the map. Map layers are scale dependant. The following table shows the scales required for specific layers. For example: the POD Layer is viewable at any scale less than or equal to 1: 250,000. If the scale is higher than 250,000 the POD layer is not represented on the map.

Scale Dependency Table (Courtesy of SWRCB's GIS Unit)

LAYER NAME	SHOW LAYER AT ALL SCALES	LAYER DISPLAYS WHEN ZOOMED:	
		OUT BEYOND	IN BEYOND
Water Rights			
Points of Diversion		1:250,000	
Fully Appropriated Streams		1:100,000	
Calwater - Watersheds			
Planning Watersheds		1:100,000	
Super Planning Watersheds		1:250,000	1:100,000
Sub-Area		1:500,000	1:250,000
Areas			1:500,000
Units			1:1,000,000
Regions			1:3,000,000
Natural Resources			
CNDDDB	X		
Wild Scenic Rivers		1:500,000	
NWI (Lines)		1:500,000	
NWI (Areas)		1:500,000	
Soils		1:500,000	
USGS Quad Maps			
1:24K		1:24,000	
1:100K		1:100,000	1:25,000
1:250,000		1:250,000	1:150,000
Administrative Boundaries			
PLSS		1:100,000	
Quad Map Outlines (1:24K)		1:500,000	
Regional Board Boundaries	X		
State Plane Zones	X		

To display a layer it must be selected (checked). To remove a layer from the display, uncheck the box.



To view legend details click the '+' to expand the detail. Continue to expand detail until the legend is displayed.



Status Window

The Status Window control box provides a summary of selected PODs from the Results control box and the display map POD filter.

