Using the Water Measurement Interactive Map   Last updated March, 2016

Web address: http://maps.idwr.idaho.gov/map/WaterMeasurement   Questions? Contact GISInfo@idwr.idaho.gov
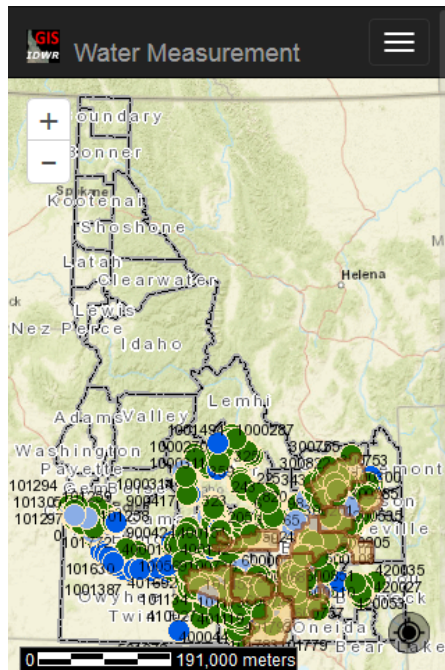
Initial Dialogs and Map

When you browse to the **Water Measurement** interactive map, you will see a conditions-of-use disclaimer and then a pop-up *Locate by…* dialog which allows you to find your area of interest on the map by entering a street address, legal description, etc. If you do not use the *Locate by…* dialog, you can navigate by using the "zoom" controls (+/-), in the upper, left corner of the map. You can click (or touch) and drag the map to position it. Pinch/pull gestures can be used on mobile devices.

Make the Map Faster

The background map on the initial screen is there to show major features to allow you to find your area of interest. You can make the map respond more quickly by turning the background off.

To turn off the background image, click *Change Layers* on the navigation bar. Click the "Background" checkbox to remove the checkmark, or click the drop-down list, beneath the checkbox, and change the value to "None selected."

Viewing WMIS Measurement-Point Details and Measured Volumes

Click on ("Identify") a WMIS site, represented by green "dots" on the map, to see a pop-up dialog containing details about that point. The WMIS site-characteristics, including metal tag names, measurement option, diversion name, etc. are shown. Measurements for the current site, for all methods (from 2010 to present), are shown at the bottom of the dialog. If more than was WMIS site was identified by the map-click, an indication – such as "(1 of 2)" – will be shown at the top of the dialog, along with a navigation button that will allow you to see other sites covered by the "Identify" operation.
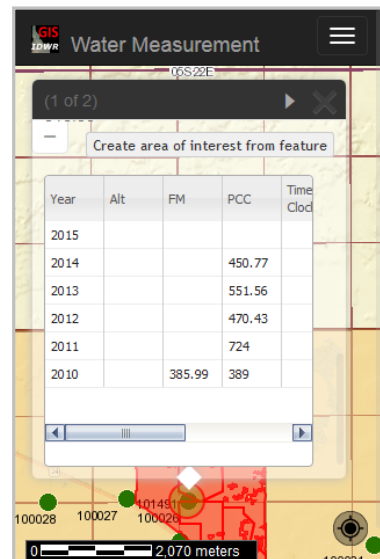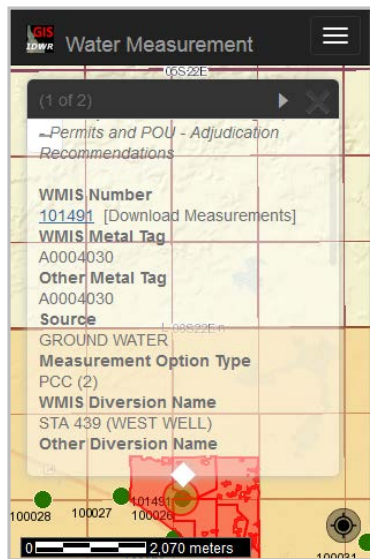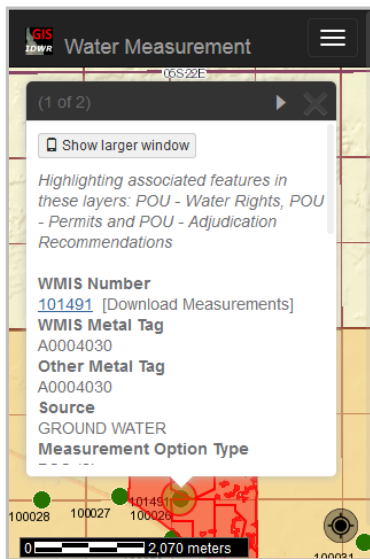
The 'Identify' window transparency as been set to "Mostly Transparent" in the center example – that setting is found by clicking the *Options* tool. Download a CSV-format summary of measurements for a single site, for all methods, by clicking the **WMIS Number** link, marked [Download Measurements]. In order to download the site characteristics for the current point, copy values from the dialog using your mouse (or search for the site and download from *Results* in the *Search* dialog).

Searching for WMIS Measurement Points

Click **Search** on the navigation bar. You can search for the site by WMIS number, diversion name, metal tag number, etc., using *Select by text-string*. If you have a list of WMIS numbers, you can supply the identifiers for those wells using *Specify a list of features*, as shown below.

You may also select a group of features (wells) using *Select features by geometry* and digitizing a polygon enclosing your area of interest.

Double-click (or tap) to connect the last point to the initial point of the polygon.
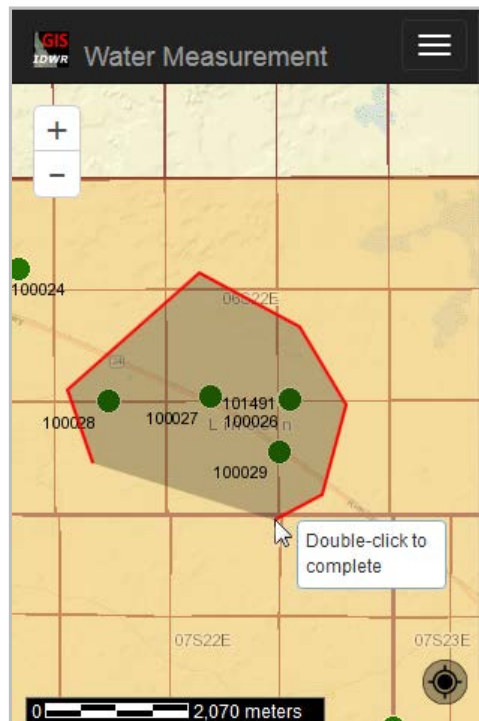
Note: The tooltips may not show on your mobile device.

Downloading Data for Multiple Sites

As mentioned in the *Searching for WMIS Measurement Points* section of the document, you can select multiple WMIS sites. In order to download WMIS site characteristics and time-series data for multiple sites, use the tools on the **Results** panel of the **Search for data…** dialog.

Download WMIS Site Characteristics

Click the "down arrow" icon above the upper, left corner of the table to create a CSV-formatted file of the WMIS site characteristics. These data will include the measured volume, preferred option and qualifier for the most recent five years of record.

Download WMIS Measurement Summary Data

Click the "link" icon above the upper, right corner of the table to create a CSV-formatted file of the groundwater levels time-series data. These data will not include the site charactacteristics (other than WMIS number). They will include measurements for the selected sites, for all methods (from 2010 to present).

Note that the number of sites for which you may download data (at one time) is limited to 1000. So, there may be times when you must tighten your search criteria.
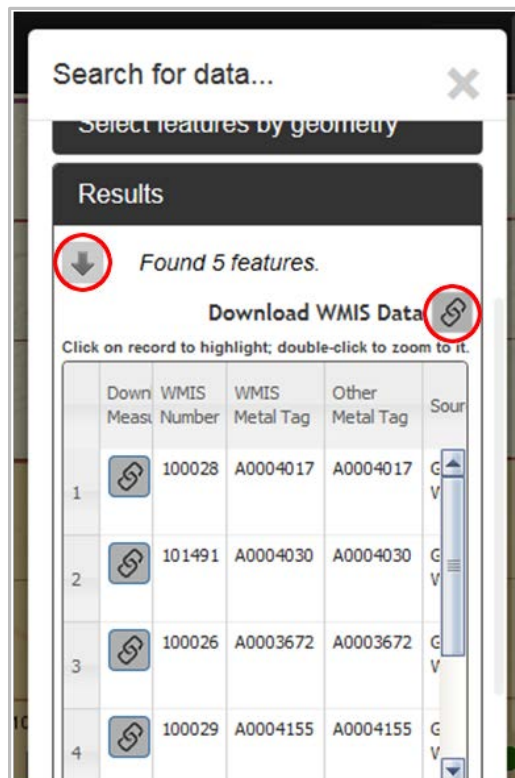

This application leaves it to the user to join those two datasets together, if necessary.

Viewing Related Water Rights Data

In order to view information about water rights, you must turn the layer on, using the **Change layers** tool.
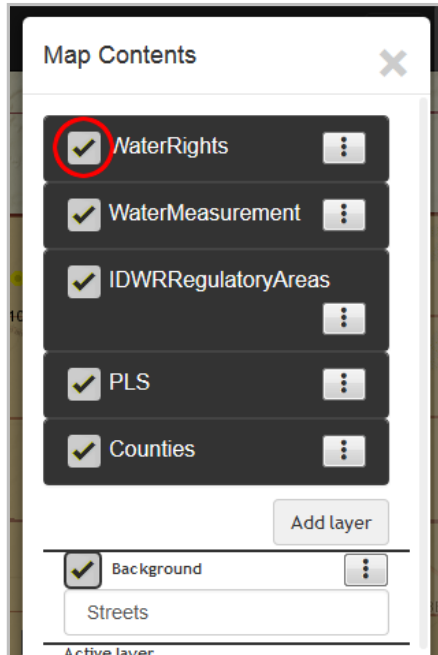
Make sure that the check-box next to the *WaterRights* map service is checked. You can view all of the layers shown in the *WaterRights* map service by clicking on the *WaterRights* text.
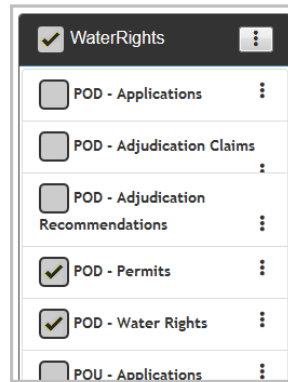

The map is configured to display the water rights and permits Points-of-Diversion (PODs). You can turn other layers on, as necessary. In order to make sure that all water rights PODs are visible it may be necessary to drag that map-service label to the top of the list of services – do so by clicking and holding the black panel header and moving it into position, above the other layers. That action changes the display of a WMIS site from [icon] to [icon], because the yellow "dot" representing a POD – Water Rights sets on top of the green WMIS point.

Indentifying Water Rights

You must change the *Active layer* to POD – Water Rights, at the bottom of the dialog (which is displayed when the **Change layers** tool is clicked).
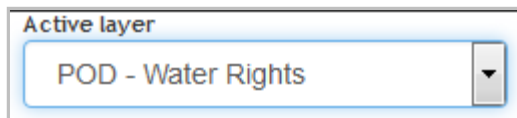
Note that the highlighted water rights Places-of-Use (POUs) differ from those shown in the example in the *Viewing WMIS Measurement-Point Details and Measured Volumes* section of this document. That is because the polygon(s) now highlighted are related to a single water right. The highlight in the first example pertains to water rights, permits and recommend-ations for all rights associated with the WMIS site. The Spatial Data ID (189535), shown in the dialog for both WMIS and water rights characteristics, can be used to join the two datasets.
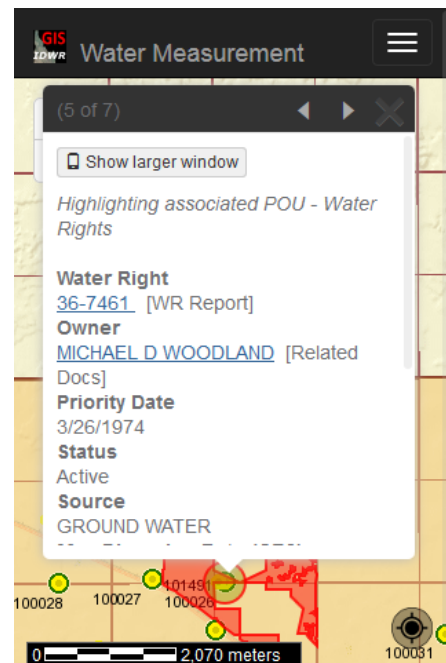

The *Water Right* link, marked [WR Report], can be used to get a print-out of the detailed Water Right Report for the given right.

Downloading Spatial Data

The WMIS data, as well as the water rights data, can be clipped to an area of interest and downloaded as an Esri-format shape-file, Esri file geodatabase, Google KML file, etc.

Click on the **Change Layer** tool and click on the *WaterMeasurement* map-service heading to show the *WMIS* layer. Click on the sub-menu button on the *WMIS* layer and then select *Clip and download*.
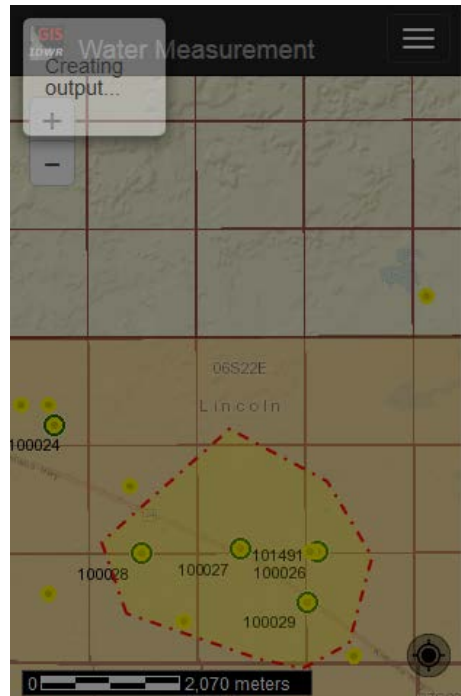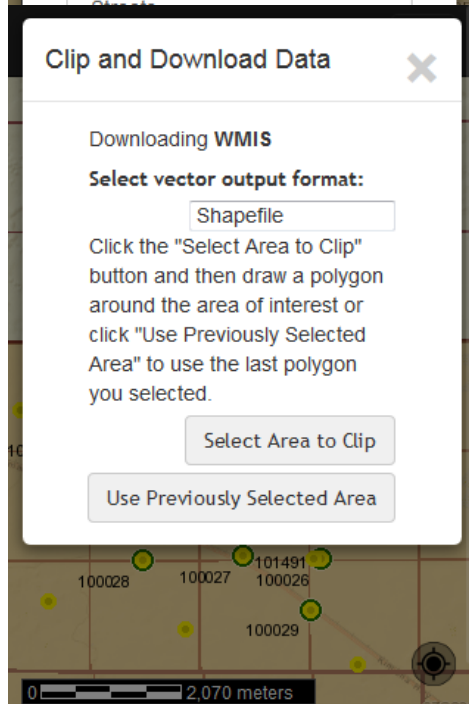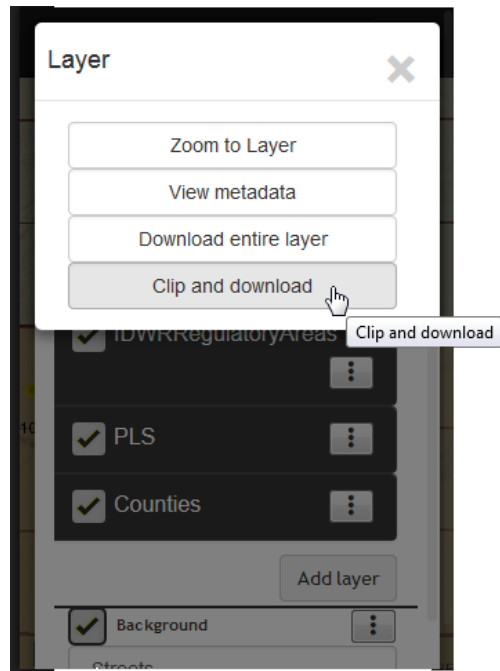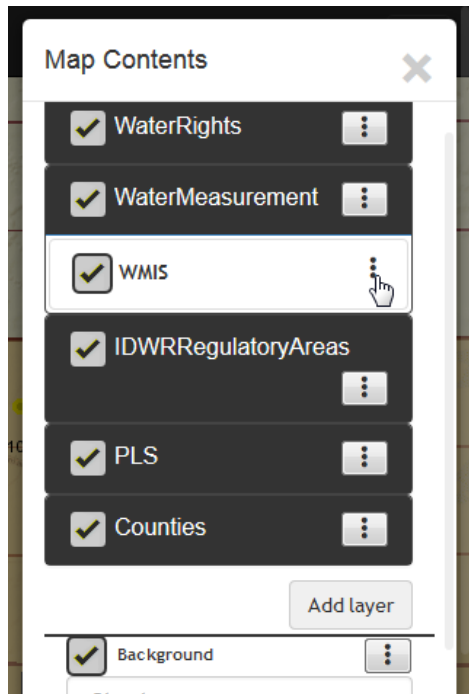
Depending on your device and browser, you will see a dialog like the following. That zip-file contains the shape-file.
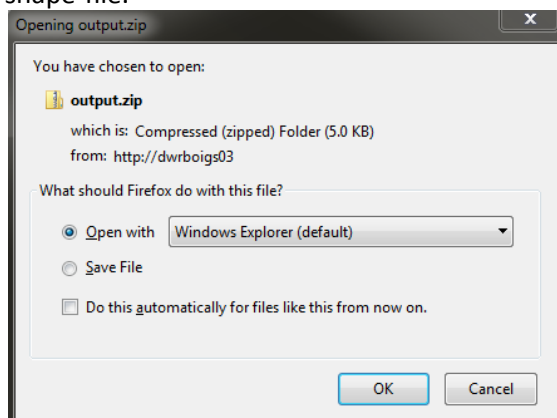
Downloading an Entire Feature Layer

The entire WMIS and Water Rights datasets are available as zipped shape-files, from our server. The WMIS shape-file is not very large. The water rights shape-files, depending on the actual layer, can be quite large.

## Downloading a Layer from the Map

This is an example of how to download the entire WMIS shape-file from the map (individual water rights layers can be downloaded in the same manner). Click on the ***Change Layer*** tool and click on the *WaterMeasurement* map-service heading to show the *WMIS* layer.

Click on the sub-menu button on the *WMIS* layer.   Select *Download entire layer*.
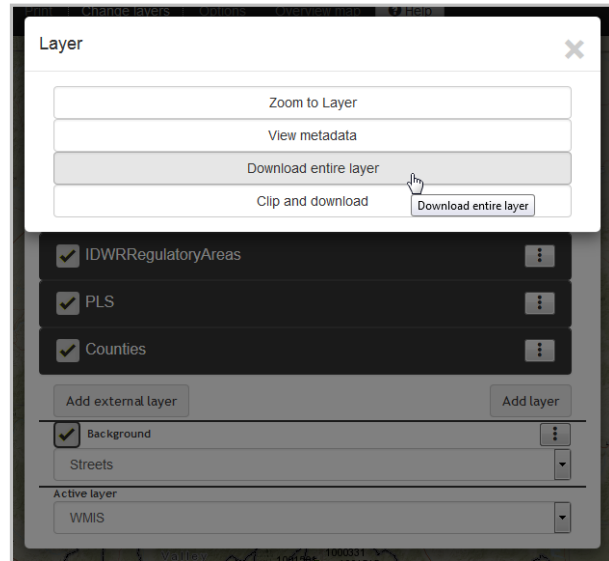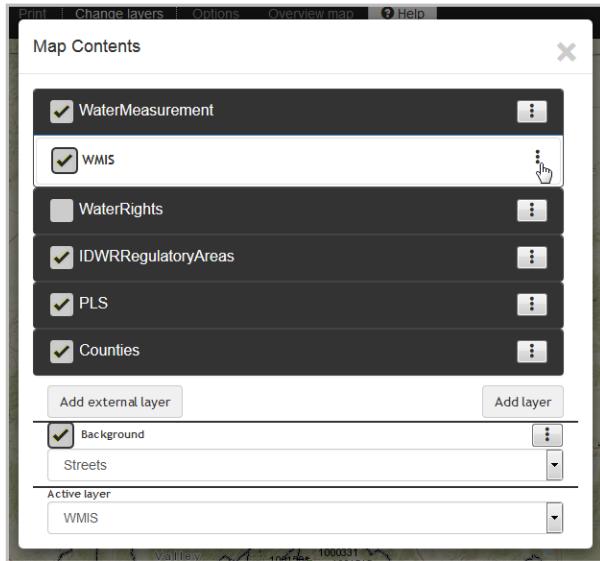
Downloading a Layer from IDWR's Research Web-Page

Go to IDWR's main web page, https://idwr.idaho.gov, hover over the ***Maps/Spatial Data*** button (or touch that button on mobile devices) and click the ***Geographic Information System Data*** button.
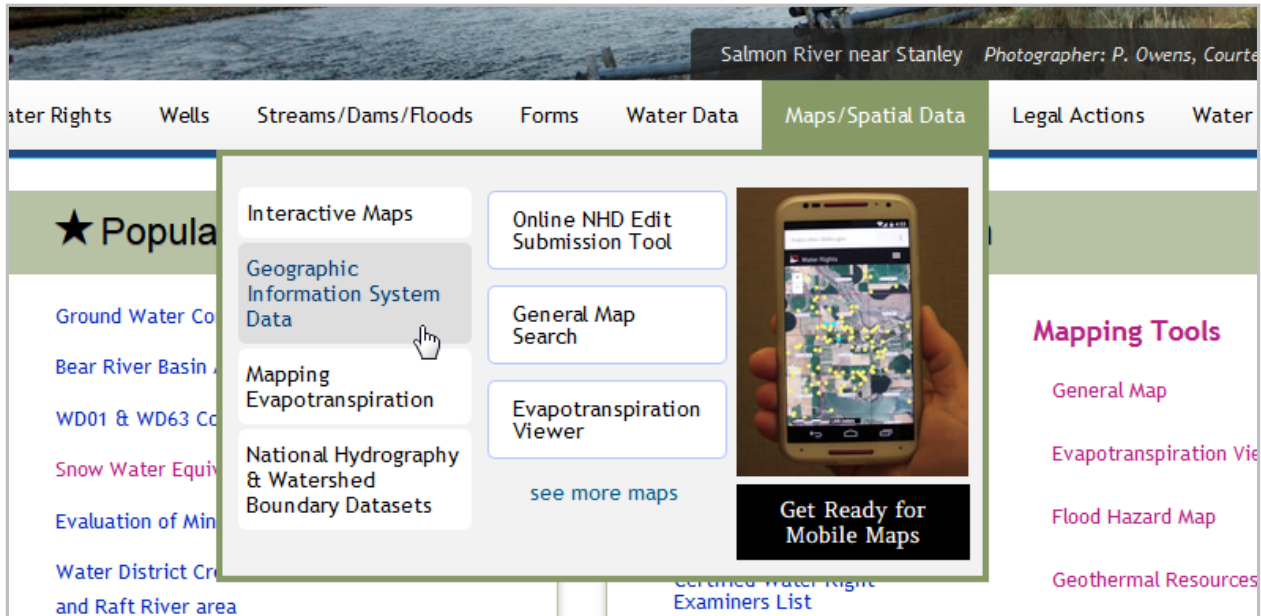
In the ***GIS Data*** panel, enter **WMIS** in *the Search:* text-box. Click on the *Download link for Water Measurement Information Systems (WMIS)*. Use this tool to search for other layers shared by the IDWR.

This link is a shortcut to that layer:
https://research.idwr.idaho.gov/gis/Spatial/WaterMeasurementData/WMIS.zip

Adding External Layers to the Map

See the section entitled *Adding External Layers* to the Map in the full manual for the interactive map. A link to that manual can be found by clicking the [Full manual](#) link from the **Help** dialog.

Mobile Devices and Browsers

This application is designed to be used on any "personal computer," from large desktops to small smart phones. However, the interaction between the user and the interface varies widely with the size, resolution and type of hand-held, touch-capable devices, be they cell phones or tablets. It has been tested on Android tablets and phones. For Android devices, the native browser and Chrome work the best; Firefox is not recommended. It works on iOS devices from the iPhone 3, forward. The Opera browser is not recommended on iOS devices. The application has not been tested on Windows phones except to ensure basic functionality – displaying and navigating the map and identifying wells sites.
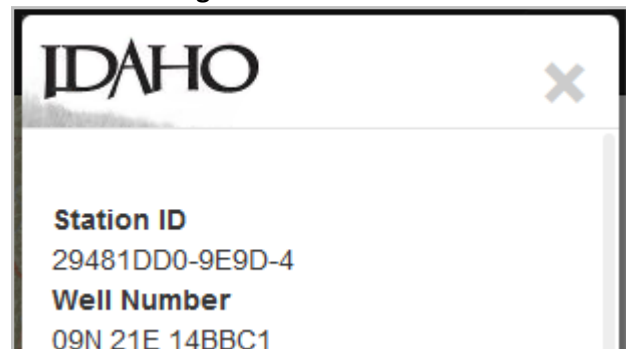
Improper Scrolling on Mobile Devices

If you cannot get the pop-up window to scroll on your phone or tablet, click the **Show larger window** button; the well characteristics, chart and data-grid will be moved to larger window.

Default dialog
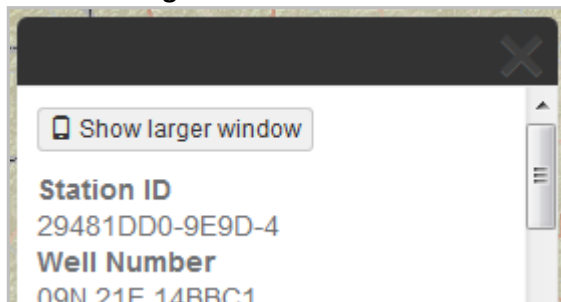
Scrollable dialog

Hiding the Dialog

In order to dismiss the pop-up dialog that shows details/hydrograph for a well you must use a long-touch gesture on the "X" in the upper, right hand corner of the dialog. Just tapping the "X" will cause the map to act as if you meant to get details about a well positioned where the "X" is located.

Drawing on the Screen

As mentioned in the *Searching for WMIS Measurement Points* section, if you digitize a polygon or line on the screen, the tooltips may not show or may not reflect the state of the edit – this is due to the wide variation of device/browser combinations.