Initial Dialogs and Map

When you browse to the **hydro.online** 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 it 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."

Reducing the Number of Wells on the Map

You can filter the number of wells shown on the map by clicking *Options*, on the navigation bar. The defaults are shown, at right.
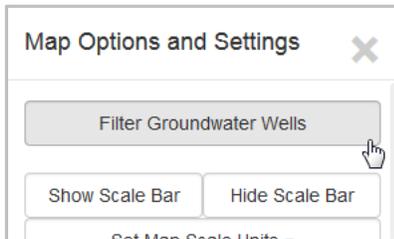

Note: if a single observation is available for the period requested, the well will be represented on the map. So, a well measured yearly from 1976 to 1980 would pass the filter and show on the map.
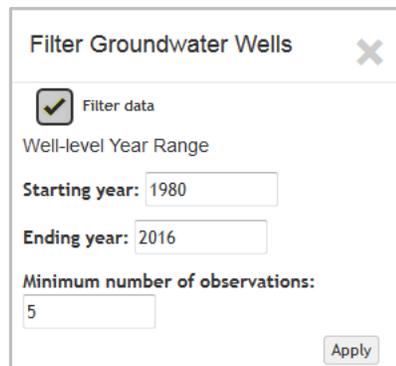
Searching for Wells

Click *Search* on the navigation bar. You can search for the well by well number, using *Select by text-string*. If you have a list of well numbers, you can supply the identifiers for those wells using *Specify a list of features*, as shown below.
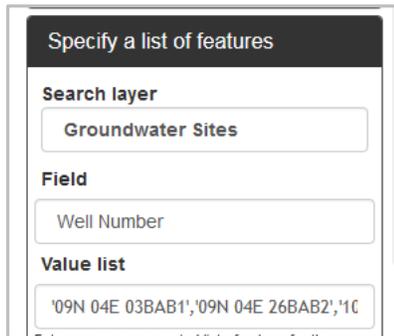
You may also select a group of features (wells) using *Select features by geometry* and digitizing a polygon enclosing your area of interest.

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.
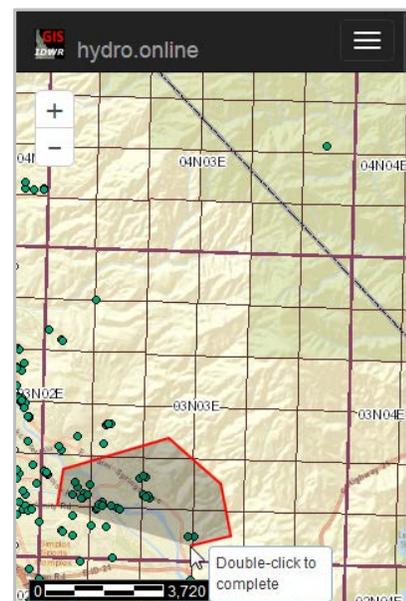
Viewing Well Details and Groundwater Levels

Click on a well-site, represented by green "dots" on the map, to see a pop-up dialog containing details about that well. The characteristics, including depth, year drilled, well openings and a link to the original well driller's log are shown. The hydrograph and table representing the well-level data are shown, as well.
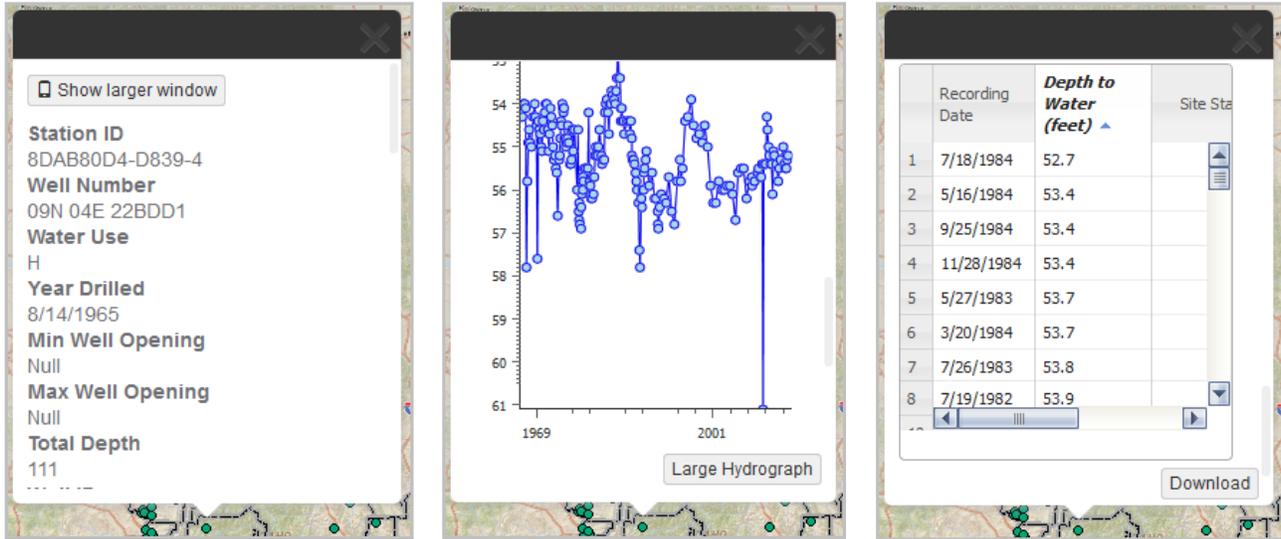
Note: if there are more than 200 observations in the dataset, the hydrograph will show a subset of the data. A message will be written above the hydrograph to explain that a subset of the data is shown.

06N 25E 33AAB1 -- Too many points to draw. Only one in 3 values are displayed.

Download groundwater levels data for a single well-site by clicking the **Download** button, located just below the tabular data. While hydrographs may show a subset of the data, the **Download** button will send you the entire dataset. In order to download the well-site characteristics for the current well, you must copy values from the dialog using your mouse (or long-touch on mobile devices).

Downloading Data for Multiple Sites

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

Download Well Characteristics

Click the "down arrow" icon at the upper, left corner of the table to create a CSV-formatted file of the well-site characteristics.

Download Well Levels

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.

Note that the number of sites for which you may download well-levels (at one time) is limited to 1000. So, there may be times when you must tighten your search criteria. You can use compound queries and filter settings to do so.
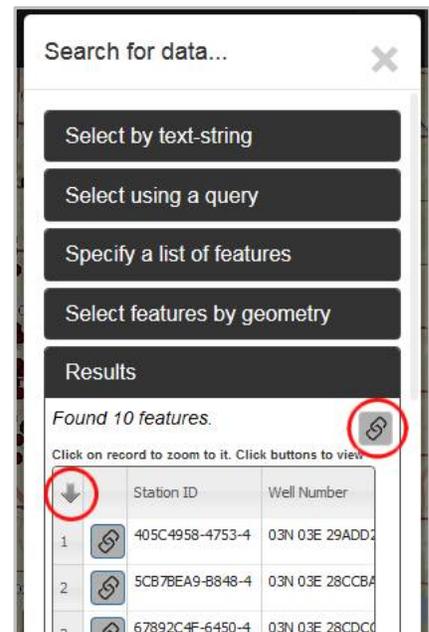
This application leaves it to the user to join those two datasets together, if necessary.

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
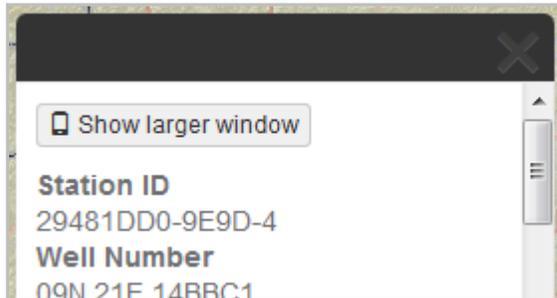
Scrollable dialog

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 Wells* 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.