

# **Frequently Asked Questions for the Surface Water Data Viewer and Water Condition Viewer**

## **Contents**

What web browsers can I use to access the viewers? .....	1
Do I still need the Silverlight plug in to use the viewers?.....	1
What devices can I use to access the viewers? .....	2
Do I need to sign in? How do I sign in?.....	2
Can the Surface Water base map be turned off separately from the Cities, Roads, & Boundaries base map? .....	2
What is the difference between the Surface Water base map and the map layers in the Surface Water folder? .....	2
Can I draw an area shape without the internal shading?.....	3
How can I access the map services found in the viewers for my own project?.....	3
How do I add my own data and map layers into the viewers? .....	4
What datum and projection do DNR spatial data use?.....	4
How do I extract and download data from the viewers?.....	4
How does the Address Locator work? Why am I getting unexpected results?.....	5
How do I create and print a map? .....	5
Why are some layers not showing up when I print a map? .....	5
What resources are available for learning more about the viewers?.....	6

## **What web browsers can I use to access the viewers?**

The Surface Water Data Viewer (SWDV) and Water Condition Viewer (WCV) can be accessed in all major web browsers (Chrome, Safari, Firefox, Internet Explorer, and Edge). However, because Internet Explorer is the only browser fully supported at DNR, we are only able to test and fully support functionality for IE.

## **Do I still need the Silverlight plug in to use the viewers?**

No. The Silverlight plug in is no longer needed to use the viewers. The viewers were transitioned from Microsoft Silverlight to the more universal HTML5 viewer architecture in 2016.

## What devices can I use to access the viewers?

In general, the HTML5 viewer architecture supports accessing web map applications (viewers) on desktops, tablets, and handheld devices. However, the Surface Water Data Viewer and Water Condition Viewer were developed as desktop applications and have been configured for this purpose. Given the large number of available layers and tools, performance may be limited on tablets or handheld devices.

## Do I need to sign in? How do I sign in?

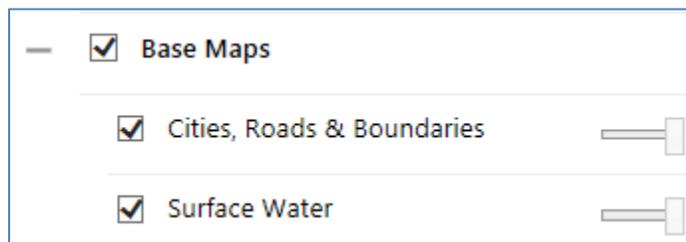
You do not need to sign in to use the viewers. However, if you wish to save a project for later use, you will need to sign in by clicking on “Sign In” in the upper right corner of the viewer.

DNR staff logged into their work computers will be automatically signed in by clicking the “DNR Staff Access” option. Non-DNR staff can sign in by clicking the “Public Access (WAMS)” option, followed by entering their WAMS user name and password. Instructions for creating a Web Access Management System (WAMS) account can be found [here](#).

For more information on saving projects, refer to the section “Working with projects” in the [Surface Water Data Viewer User Guide](#).

## Can the Surface Water base map be turned off separately from the Cities, Roads, & Boundaries base map?

Yes, it is now possible to control the visibility of these separately. There are now separate base maps for surface water features and other base map features (cities, roads, counties, tribal lands).



## What is the difference between the Surface Water base map and the map layers in the Surface Water folder?

The Surface Water base map is a cached map service, or series of pre-drawn images (tiles), which promotes faster drawing speeds. The features in the base map cache are entire waterbody features, defined by Waterbody Identification Code (WBIC).

Map layers in the Surface Water folder in the Layer List are from a dynamic map service, meaning they are rendered in real time. For rivers and streams, features in these layers are individual reaches (i.e. inter-confluence segments). For lakes and open water, features are typically equivalent to those in the cache.

Note that available feature attributes differ between the cache and the dynamic layers.

## Can I draw an area shape without the internal shading?

There is currently no way to draw an area shape (e.g. circle or polygon) without the internal shading (fill), but this functionality is expected to return with the next software release from our vendor.

For now, you can mimic a transparent polygon by drawing a line that loops back on itself.

## How can I access the map services found in the viewers for my own project?

Nearly all map layers that you see in the viewers are available online as map services.

DNR map services can be accessed online from their REST endpoints (i.e. web addresses):

<http://dnrmaps.wi.gov/arcgis/rest/services/>

Browse through the available folders\* to locate the map service of interest. Then use the links provided to view the map service in the application of your choice (e.g. ArcGIS Online, Google Earth, ArcGIS Explorer):

### **WT\_SWDV/WT\_Inland\_Water\_Resources\_WTM\_Ext\_v2 (MapServer)**

**View In:** [ArcGIS JavaScript](#) [ArcGIS Online map viewer](#) [Google Earth](#) [ArcMap](#) [ArcGIS Explorer](#)

DNR map services can also be accessed from within an ArcMap session:

- Open ArcMap
- Click the Plus sign (Add Data) button in the Standard toolbar
- Select GIS Servers from Look in: drop down menu
- Dbl-click on Add ArcGIS Server → Use GIS Services → Next
- Enter: <http://dnrmaps.wi.gov/arcgis/rest/services> for the Server URL. No user name or password are required. Click Finish.
- Dbl-click on arcgis on dnrmaps.wi.gov (user) → dbl-click on a folder to view associated map services\*
- Click on map service of interest and → Add

\*WT\_SWDV has services associated with the Surface Water Data Viewer, WT\_Condition\_Viewer has services associated with the Water Condition Viewer, DW\_Map\_Cached contains base map caches, etc.

## How do I add my own data and map layers into the viewers?

You can add your own data and map layers into the viewers using the **Upload Data** tool, found in the **Maps & Data** tab. The currently supported file formats are:

- .csv and .xlsx for tabular data (with latitude and longitude coordinates)
- .shp for shapefiles
- .zip for compressed (zipped) folder containing one or more shapefiles

For a detailed description of the **Upload Data** tool, please refer to the section “Upload a dataset into the viewer” in the [Surface Water Data Viewer User Guide](#).

## What datum and projection do DNR spatial data use?

Virtually all Wisconsin DNR spatial data use the following map projection and datum:

Projection: Wisconsin Transverse Mercator (WKID = 3071)

Datum: NAD\_1983\_HARN

The Wisconsin Transverse Mercator projection is similar to Universal Transverse Mercator (UTM), but is centered on 90 degrees West. The projection is based on the NAD 1983 HARN (North American Datum 1983, High Accuracy Reference Network adjustment of 1991) datum.

The viewers provide coordinates in WTM northings and eastings in meters, as well as geographic latitude and longitude in degrees/minutes/seconds (DMS), and decimal degrees (DD).

## How do I extract and download data from the viewers?

Most map layers in the viewers support downloading features as tabular data (Excel files) and spatial data (shapefiles). Downloads can consist of a single feature, a collection of features from a single map layer, or a collection of features from multiple map layers.

Raster datasets and features contained in cached map services cannot be extracted and downloaded from within the viewers.

For a detailed description of how to extract and download data, please refer to the section “Extracting and downloading data” in the [Surface Water Data Viewer User Guide](#).

## How does the Address Locator work? Why am I getting unexpected results?

The **Find Address** tool in the SWDV uses the [ESRI](#) World Geocoding Service, which is a third party product and is not maintained by DNR.

There are a few things to keep in mind when interpreting the results from this tool:

- The tool returns a *street location* for a given address, not a *rooftop location* (i.e. physical location of a building associated with that address)
- The tool is searching for all addresses in the entire U.S., which may produce unexpected results
- The tool will not be able to find every address. For example, searches for some rural addresses or atypical address formats (e.g. N96 W15630 County Line Rd or 3200 Old County K Rd) may produce unexpected results

## How do I create and print a map?

There are a few map templates to choose from. There are 8.5" x 11" portrait and landscape layouts and an 11" x 17" landscape layout.

- Zoom to area of interest
- Turn on the layers you wish to have printed, including any base maps
- Add graphics as needed (e.g. text, measurements, shapes, etc.)
- Click the **Print** button, found on most tabs
- Select the desired layout
- Select the output format (e.g. PDF, JPG, PNG)
- Select the resolution – the larger the DPI, the better the clarity (as well as larger file size)
- Select your scale – the default value, Current Scale, is the scale of the current map frame
- Enter a Map Title and Notes as needed
- Click the Print button
- Click the Open File button once the map has been created

## Why are some layers not showing up when I print a map?

The viewers contain a number of cached map services—pre-drawn tiles (images) that improve the drawing speed for layers with a lot of features, such as the various base maps and the Wisconsin Wetland Inventory. Layers in cached services typically will not print at high resolutions (>96 DPI) when zoomed in beyond a certain level.

If layers are not showing up in your printed maps, you may need to use a lower resolution (all layers should print at 96 dpi).

Also, some layers in cached services have a counterpart in a dynamic (not cached) map service and should draw at all scales and resolutions. For example, if the hydrography layers are not printing, you can try turning off the Surface Water base map and turning on the dynamic layers (e.g. Surface Water group at the top of the Layers list in the SWDV).

## What resources are available for learning more about the viewers?

A variety of help documents for learning more about the viewers can be accessed [here](#). Available resources include:

- A user guide providing information on common tools and functions available in the viewers, including newly available functionality introduced with the latest version of the Geocortex software
- A tutorial providing a detailed introduction to using the Surface Water Data Viewer (SWDV) web mapping application
- A changelog documenting the history of SWDV releases and corresponding updates