



Buffer Compliance Guidance Document

Using the Buffer Compliance and Tracking Desktop Tool

Purpose: This document provides basic guidance on how to use the buffer compliance and tracking desktop tool to update or research buffer compliance data. The tool is used to indicate and track buffer compliance on a parcel-by-parcel basis. Use of the tool is voluntary, but collects data in a format that will integrate with BWSR's existing data.

Logging in to the System

As a user, you will receive an email invitation to join BWSR's ArcGIS Online group. Upon accepting the invitation, you will be provided with a username and prompted to create a password. You will use these credentials to log into both the web browser application and the ArcGIS Collector application. Contact Aaron Spence at aaron.spence@state.mn.us and Tom Gile at tom.gile@state.mn.us for account and log on support.

Many standard GIS interface tools are available. An overview of the available features in the interface is provided below, followed by instructions on how to review and edit parcels for compliance, and measurement and data output options.

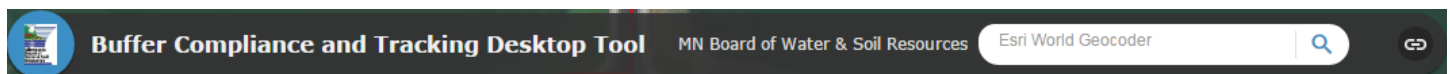
You can access the Buffer Compliance Desktop Tool through this link:


<https://goo.gl/UbdzKC>

Navigation Tools

Standard GIS navigation tools are located in the upper left corner of the interface. This includes Zoom ("+" and "-") and pan tools. Zoom in or out with mouse wheel, or double click on the map to zoom. Click and drag with the mouse to pan.

The header bar, found at the top of the interface, allows you to search and navigate external resources.



Use the link icon  within the header to navigate to BWSR's webpage for program and policy information, View the DNR Buffer Mapping Project website, or navigate to BWSR's ArcGIS Online Home Page to log out or download data.

Widgets

Widgets are tools used to edit the data or the view, and the widget menu is found at the bottom of the interface. Once you have opened any widgets, you can minimize the screen using the "—" in the upper right corner to save screen space. Close the popup window by clicking on the "X" in the upper right corner.



The **legend widget** shows the layers in the map and how they are symbolized. The **compliance layer** indicates compliance using the following colors:

- **Blue:** Yes – The parcel is compliant, based on user confirmation
- **Lavender:** – The parcel is compliant, based on local information provided to BWSR
- **Red:** No – The parcel is not compliant based on user confirmation
- **Yellow:** Needs review – the parcel is pending user confirmation
- **Grey:** Not applicable – Refers to parcels who are not subject to the buffer law based on preliminary GIS spatial analysis. These are symbolized as gray in the map. The initial parcels to be subject to buffer compliance tracking were selected based on their proximity to the DNR Buffer Protection Map GIS data. However, the line work within the DNR layer may not always be accurate. If you find, based on aerial photography, that the actual course of a waterway does not agree with the GIS spatial data, you may find that a parcel who's status is currently marked as not applicable, may in reality be subject to buffer compliance tracking. In this instance, you may switch the status of the parcel to something other than not applicable.



Layer list (green button): Allows user to turn layers on or off, control transparency, turn on or off, or move the drawing order up or down in the layer list. Note that you can blend the 2015 FSA imagery with the Hydrographic Position Index (HPI) or LIDAR hillshade layer by turning both layers on and increasing the transparency of the 2015 FSA imagery.




Query tool (brown button): search by township, range, & section (e.g. type TxxxRxxSxx), or by State PIN (County FIPS-Original PIN) then “apply”. It will zoom to the selected features. Use the Clear Results button to clear your results.



Edit Parcel Compliance Data: Buffer compliance data will be edited within the Edit Parcel Compliance Data widget. This widget is covered in greater detail below under ***Reviewing and Editing Parcels for Compliance***.

Reviewing and Editing Parcels for Compliance






Review and edit of parcel compliance is completed by clicking the Edit Parcel Compliance Data  button in the widget menu. Open the widget, then click on a parcel. This will open a popup to allow you to edit compliance data. The entered responses will be saved automatically. The color of the parcel will change automatically if the parcel compliance status has been edited (see the legend widget above regarding the color coding within the compliance layer).

BWSR's [Buffer Legislation page](#) and the [Buffer Law Frequently Asked Questions](#) document should be referenced for clarification regarding buffer compliance policy and program specifics, including the definition of alternate/alternative practices.

Measurement and Output Tools



Measurement and output tools are located in the upper right corner of the interface.


- **Measure:** Use the measurement tool  to measure features in the map. For instance, to estimate the current buffer, digitize polygon to display the acres of the polygon, digitize the line, and display the linear feet.
- **Print:** You can print the map at any time by clicking on the printer icon . There are several printing options to choose from, including the ability to print selected layers, and advanced printing options
- **Download** the data at any time using the down-arrow icon . Select the Buffer_Compliance_Parcels layer, and download either the entire layer by selecting “Same as Buffer_Compliance_Parcels”, or download a subset by selecting “Same as display” to download only the data currently displayed.


Additionally, you can select features using the draw tool to the right of the “Study Area” dropdown box. Click to start drawing, and create a polygon to define the area you wish to download. With “Drawn Boundary” now selected in the “Study Area” dropdown box, choose the “Select Features” radio button to select all parcels within or intersected by the polygon, or “Clip Features” to clip the parcel area to the digitized area and download those.


Select the download format, name the file to be downloaded, and click “**Run analysis**”. The file will be saved in your ArcGIS Online profile, where it will be available for you to access.

Tools for Measuring Required and Installed Buffers

The draw widget  and the buffer widget  can be used to estimate required and currently installed buffers.

 Use the draw tool in conjunction with the 2015 FSA aerial imagery and the HPI or LIDAR hillshade layer to digitize polygons around existing stream buffers to report the acreage of current buffer.

 Use the buffer tool in conjunction with the 2015 FSA aerial imagery and/or the LIDAR hillshade layer to create a 16.5ft, 50ft, or other size buffer polygon by digitizing a line along the stream bank.

The 2015 FSA aerial imagery and HPI or LIDAR hillshade layer can be used separately, or in conjunction by turning both layers on in the layer list, and then making the 2015 FSA imagery semi-transparent in the layer list  such that you can view the stream bank underneath from the HPI or LIDAR hillshade layer:

