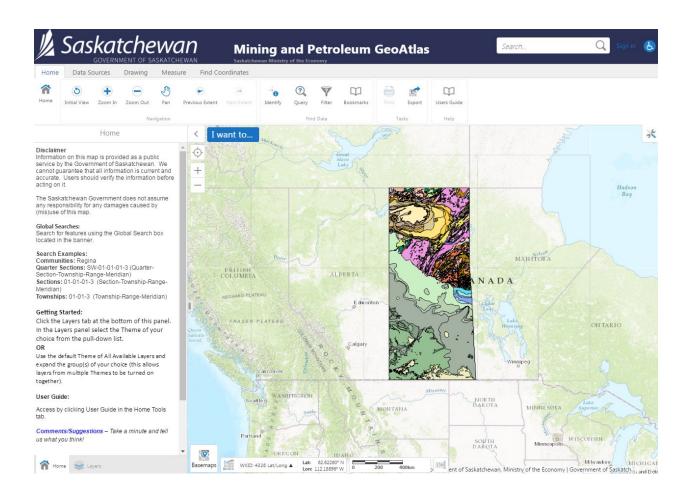


# Saskatchewan Mining and Petroleum GeoAtlas Web Mapping Tool User Guide



Second Edition 2018, Version 1.3 December 2018

## Saskatchewan Mining and Petroleum GeoAtlas Web Mapping Tool User Guide Second Edition 2018

Published by: Saskatchewan Geological Survey Ministry of Energy and Resources 1945 Hamilton Street Regina, Saskatchewan

## ACKNOWLEDGEMENTS

Thank you to the Ministry of Environment for providing the <u>SaskInteractive Users Guide</u> from which most pages were used directly to create this guide since much of the operational procedures are the same for both sites, only the contents differ.

CONTACT Email: geoatlas@gov.sk.ca

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### 1.0 Introduction

The purpose of this User Guide is to provide instruction on the use of the **Sask GeoAtlas** web mapping application (i.e., "app").

The focus of this User Guide is on providing directions regarding the customized functions and available map layers found in this app regarding provincial environmental information. You will find navigation around the **Sask GeoAtlas** is quite easy once you familiarize yourself with the app layout and terms found in the sections that follow.

While the guide shown below is specific to using the HTML5 version in a desktop environment the functions and tools demonstrated will be similar in function when using a mobile device.

## **1.1 Comments/Suggestions Link**

Do you have questions regarding the **Sask GeoAtlas** or are you having some technical difficulties with the app? Or do you simply want to provide feedback? Please use the **Comments/Suggestions link** on the Home panel and let us know.

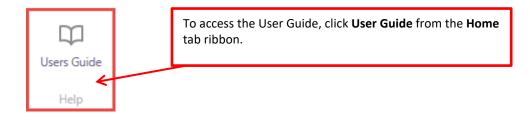


## <u>Comments/Suggestions</u> - Take a minute and tell us

what you think!



## 1.2 User Guide Button



2.0 Accessing the Sask GeoAtlas (Disclaimer)	
Home	1. Open an internet web browser.
Disclaimer	2. Enter the URL for the Sask GeoAtlas.
Information on this map is provided as a public service by the Government of Saskatchewan. We cannot guarantee that all information is current and accurate. Users should verify the information before acting on it.	3. Read the Disclaimer for the <b>Sask GeoAtlas</b> .
The Saskatchewan Government does not assume any responsibility for any damages caused by (mis)use of this map.	

## 3.0 WELCOME TO Sask GeoAtlas!

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## Home

### Disclaimer

Information on this map is provided as a public service by the Government of Saskatchewan. We cannot guarantee that all information is current and accurate. Users should verify the information before acting on it.

The Saskatchewan Government does not assume any responsibility for any damages caused by (mis)use of this map.

### Global Searches:

Search for features using the Global Search box located in the banner.

## Search Examples:

Communities: Regina Quarter Sections: SW-01-01-01-3 (Quarter-Section-Township-Range-Meridian) Sections: 01-01-01-3 (Section-Township-Range-Meridian) Townships: 01-01-3 (Township-Range-Meridian)

## Getting Started:

Click the Layers tab at the bottom of this panel. In the Layers panel select the Theme of your choice from the pull-down list.

## OR

Use the default Theme of All Available Layers and expand the group(s) of your choice (this allows layers from multiple Themes to be turned on together).

## User Guide:

Access by clicking User Guide in the Home Tools tab.

Comments/Suggestions – Take a minute and tell us what you think!

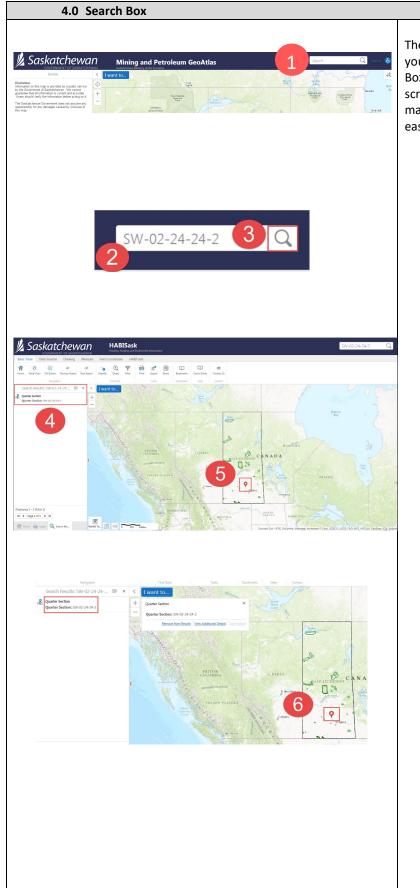


## 3.1 Sask GeoAtlas Screen Overview

On the full **Sask GeoAtlas** application screen you will find an **Information Panel** to the left of the main map window. The Information Panel includes an **Information** tab and the **Map Layers** tab. Any results will also typically appear in the Information Panel, once queries or analyses are completed. A map of Canada, which is centred on Saskatchewan, is shown in the map window.

The Welcome information covers the following topics:

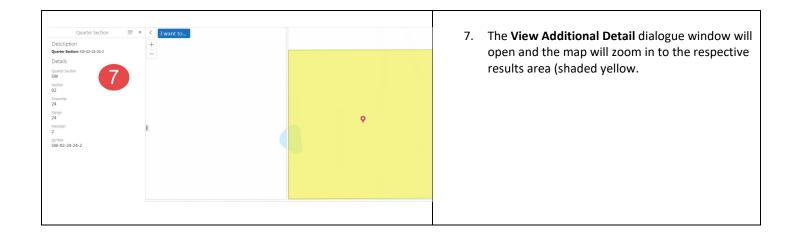
- o Disclaimer
- Getting Started using the Global Search box



The **Search Box** is a useful tool for quickly finding what you need from the map or map layer data. The Search Box is located at the top right of the **Sask GeoAtlas** map screen beside Sign In. If you wish to find a location on the map quickly (e.g., using a legal land description) the easiest way to find that location is to use the **Search Box**:

- 1. Click anywhere in the blank space of the **Search Box** to select.
- Type in what you want to search (in this case we will search a legal land description SW-02-24-24-2).
- Click the magnifying glass or press enter on your keyboard to search. Search time may vary depending on the dataset size.
- 4. Results of the search will show in the Information Panel to the left of the map.
- 5. The location that was searched will also be marked on the map.

 Click the point on the map and select View Additional Details if you wish to see more information, or click on the results (they will shade light blue when selected) in the Information Panel, to bring up the same information.



## 5.0 Sask GeoAtlas – Map Layers

Map Layers provide the information found in the **Sask GeoAtlas**. Map Layers are activated through a number of options identified in the following procedures. Metadata and the ability to download shapefile and/or geodatabase files are described.

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## 5.1 Accessing and Selecting Map Layers

- 1. Click **Data Sources** tab near the top of the page.
- 2. Click Layer List from the ribbon.
- 3. Alternatively, click the **Layers** tab at the bottom of the Information Panel beside the "Home" tab. NOTE: All tabs that are opened will appear on the bottom tab list. **Home** and **Layers** appear by default and additional tabs are added when they are opened, such as **Results**, **Queries**, etc.
- The app provides mapping information and tools through four themes – All Available Layers (default), Mineral Tenure, Oil and Gas, Geoscience – based on your intended use. Select one of the Layer Themes to pre-select respective map layers to help you quickly begin. Additional map layers can also be selected in that theme. If All Available Layers theme is selected, layers from multiple themes to be turned on together.

- 5. Select a Layer Theme from the dropdown list.
- **NOTE**: It may be necessary to Zoom in on the map as map resolution may cause the map layer not to appear.

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- 6. Select additional layers on the map by clicking the checkboxes beside a map layer to either select or de-select the map layer.
- 7. The "+" beside a map layer means it can be expanded to show more map layers (a "-" icon means the section can be collapsed). There is a difference between the checkbox beside the group layer name and the checkbox beside the individual layers within the group. E.g., selecting the check box beside "Surface" turns on that layer within the group.

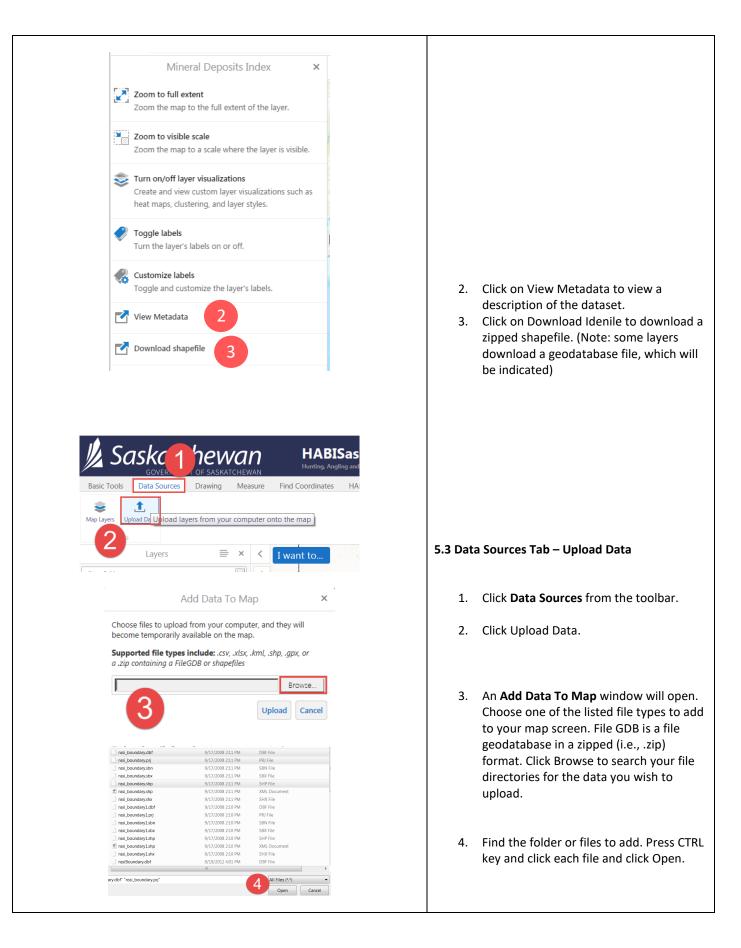
- 8. Some map layers have a transparency slider that can be adjusted by clicking and dragging the slider.
- 9. To view a legend of active map layers, select **Show Legend** from the panel actions menu.
- To view the legend of a map layer with a legend, click on the legend information button beside the layer name.

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- 11. **Please Note**: If a map layer name appears greyed-out, it means the map is not zoomed in to a scale at which the layer is set to be visible. To see the map layer's visible scale range, click on the map layer's action properties arrow (or simply zoom in on the map until the layer draws).
- 12. Click **Zoom to Visible Scale** to zoom in. The layer will no longer appear greyed out in the map layers menu.

## 5.2 Accessing Metadata and Downloading Shapefiles/Geodatabases

1. Click the layer action arrow beside the layer of interest.

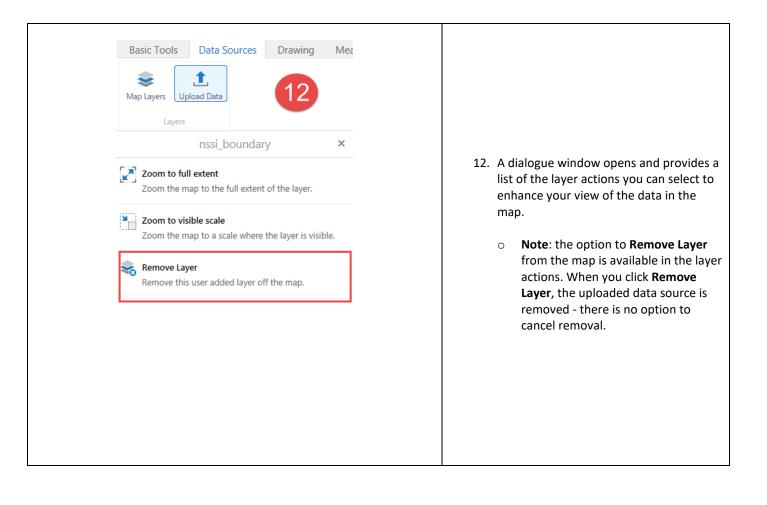


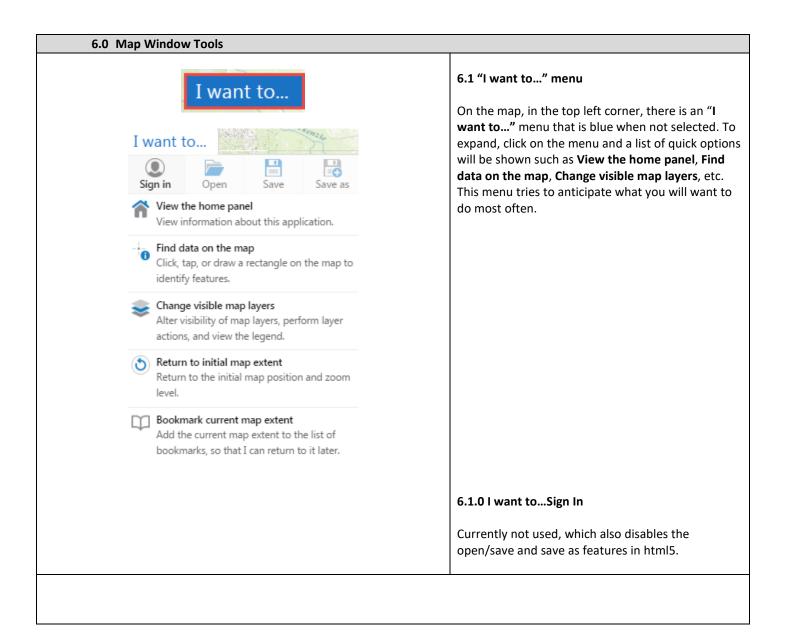
	Add Data To Map 🗙
	Choose files to upload from your computer, and they will become temporarily available on the map.
	Supported file types include: .csv, .xlsx, .kml, .shp, .gpx, or
	a .zip containing a FileGDB or shapefiles
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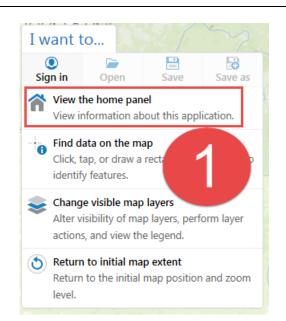
- Note 1: When adding a Shapefile, you <u>must</u> add at least the following file types: .shp, .dbf, .prj.
- 5. The **Add Data To Map** window will reappear with the file directory string in the browse window and the selected files listed (e.g., .dbf, .prj, .shp).
- 6. Click **Upload** to load the data from your file directory into the map in the Sask GeoAtlas.
- 7. A **Layer Details** window will open to provide you with an opportunity to add/edit the name of the map layer you will be adding.
- 8. Once you have entered the Layer Name, click Proceed.

9. A **Symbolize Data** window will open providing you with the opportunity to edit the symbolization of the data you ae adding. Edit the settings as you would like and click Proceed.

- 10. Your data will be added both to the map and to the Layers information screen.
- 11. To see layer actions available for the layer you just added, click the sub-menu button (shaded blue in the diagram).







Home

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#### Getting Started:

Click the Layers tab at the bottom of this panel. In the Layers panel select the Theme of your choice from the pull-down list.

#### OR

Use the default Theme of All Available Layers and expand the group(s) of your choice (this allows layers from multiple Themes to be turned on together).

#### User Guide:

Access by clicking User Guide in the Home Tools tab.

Comments/Suggestions – Take a minute and tell us what you think!



#### 6.1.1 I want to...View the home panel

1. Click the **View the home panel** to take you to the Information panel.

2. The **Home** tab will open to provide you with information about the Sask GeoAtlas application.



## 6.1.2 I want to ... Find data on the map

1. After opening the I want to... drop down menu, click Find data on the map. (Layers must be turned on for data to be found)

- 2. An instructional panel will open at the bottom of the map view directing you to draw a rectangle on the map in the area you want to learn more about.
- 3. The **Identify-Identifiable Layers** tool will also open under the Basic Tools tab which is the alternative way to access the same information for the data layers. Again, this menu tries to anticipate what you will want to do most often

4. Draw the rectangle on the map.

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Prill hole M-03
Wyoming Minerals Radioactive Zones 7 and 8
Wyoming Minerals Radioactive Zone 4 or Thomas Falls Uranium Occurrence
Getty Minerals Radioactive Zone 2-7
Getty Minerals Radioactive Zone 2-6
Wyoming Minerals Radioactive Zone 9 or Nuclear Lake Uranium Occurrence
Getty Minerals Uranium Zone 1-1
🔏 Grab Samples 23901 and 23902
Wyoming Minerals Radioactive Zone 1
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<ul> <li>View information about this application.</li> </ul>
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5. An **Identify Results** panel will open with results of the data layers found within the selected area.

## 6.1.3 I want to...Change visible map layers

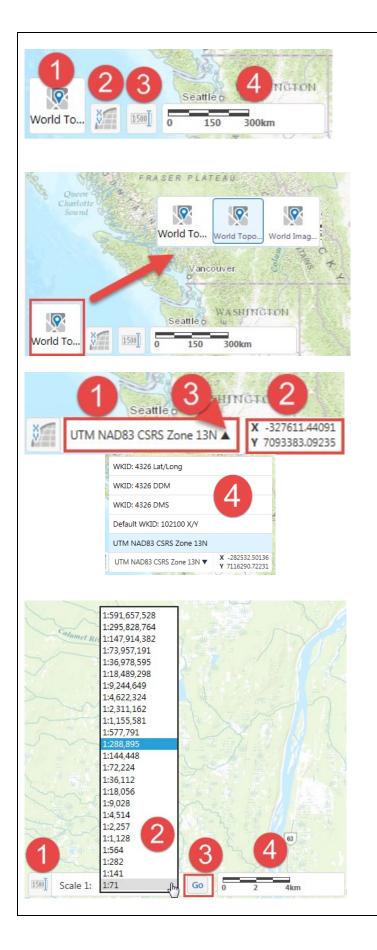
1. Click the **Change visible map layers**. This takes you to the Layers panel where you can select and de-select layers. See Section 5.1 for more details.

## 6.1.4 I want to ... Return to initial map extent

1. Click on the Return to initial map extent.

2. The map will return to the initial map extent showing Saskatchewan centred in western Canada.

World To.



## 6.2 Map Window Tools: Cartographic Tools

There are four map window tools in the lower left-hand corner of the map:

- 1. Basemap Menu
- 2. Coordinates Widget
- 3. Scale Input Box
- 4. Scale Bar

## 6.2.1 Basemap Menu

On the lower left of the map, the name of the basemap will be displayed (e.g., World Topographic Map – ESRI) - click to expand the options. From here, a new basemap can be selected.

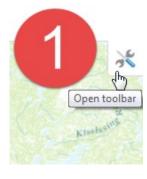
## 6.2.2 Coordinates Widget

After clicking the **Coordinates Widget** icon, coordinate system information will be displayed; the system in the left-hand box (1) and the coordinates in the right-hand box (2). The coordinate system can be changed using the drop-down menu arrow (3) and selecting one of the coordinate system options listed (4).

## 6.2.3 Scale Input Box

- 1. Click on the Scale Input Box to open or close it.
- 2. The scale is shown in the **Scale input Box** and can be set using the available values in the drop down list or can be manually typed into the **Scale Input Box**.
- 3. Click **Go** once a scale value has been selected or manually entered.
- 4. The **Scale Bar** (4) will reconfigure to show the proper scale dimensions for the map.









## 6.2.4 Overview Map

The **Overview Map** provides an image of the current map view and insets it within a view of the larger map extent.

- 1. Click the **Overview Map** icon (arrow symbol in the bottom right corner of the map display) to open or close the **Overview Map**.
- 2. Click and drag the cursor on the light blue box within the Overview Map or pan/zoom within the main map display to move the extent of the **Overview Map**.

## 6.2.5 Open toolbar

1. Click the **Open toolbar** icon in the upper righthand corner of the screen. This opens (and closes) the tool bar (i.e., Basic Tools, Analysis, etc.)

## 6.2.6 Zoom In/Out

1. Click the plus or minus icon to **Zoom in** or **Zoom out** on the map.

## OR

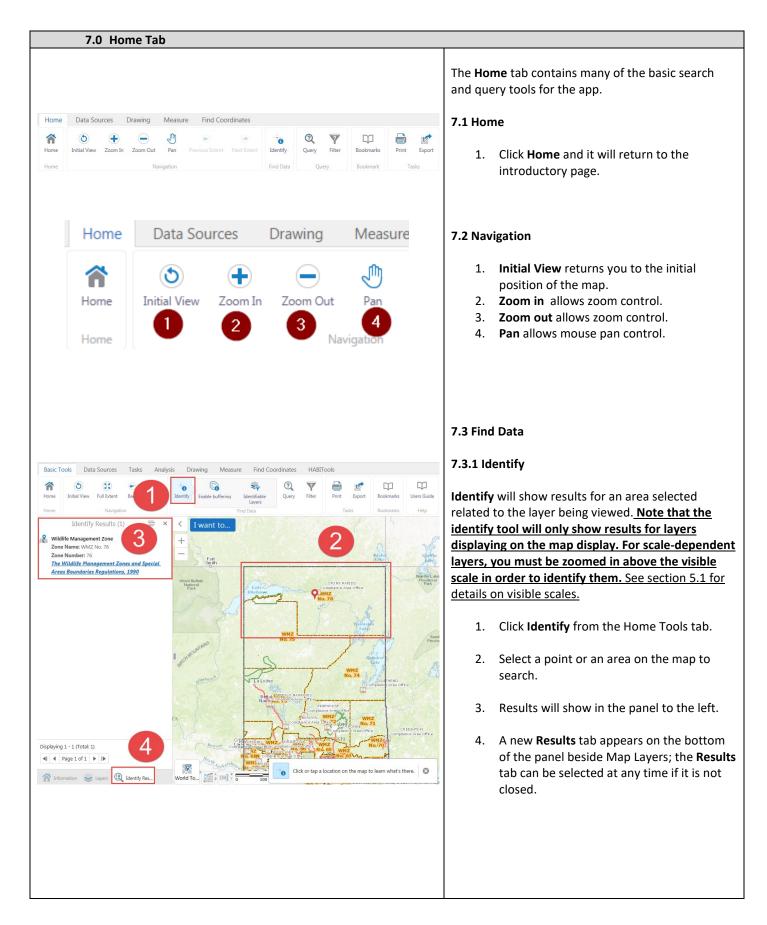
Click on the map display and use the scroll wheel on your mouse.

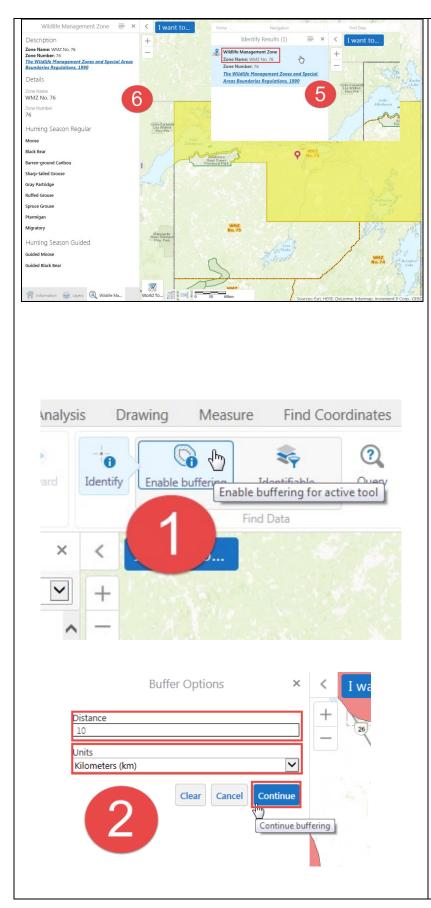
## OR

While holding the shift key on your keyboard, click and drag the mouse over an area to zoom in and centre on the selected location.

## 6.2.7 Information Panel

1. Click the **Expand/Collapse** icon to open or close the side information panel or data frame.



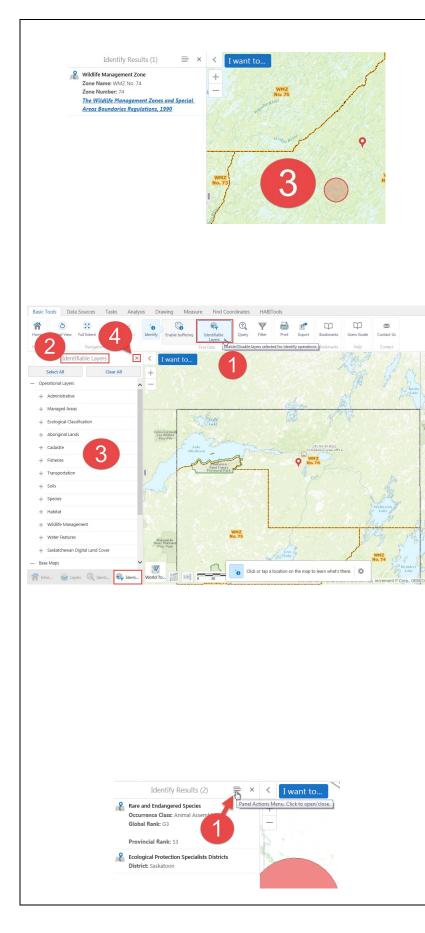


- 5. Click the result to view information of a given map layer.
- 6. An information window with additional details shows information regarding the selection.

## 7.3.2 Identify: Enable Buffering

1. Click **Identify Enable Buffering** to buffer the selected area by a distance you manually enter.

2. Enter the Distance and Unit that you would like the selection buffered by. Click **Continue**.



3. A buffered point will be applied to the map along with results of the point identified.

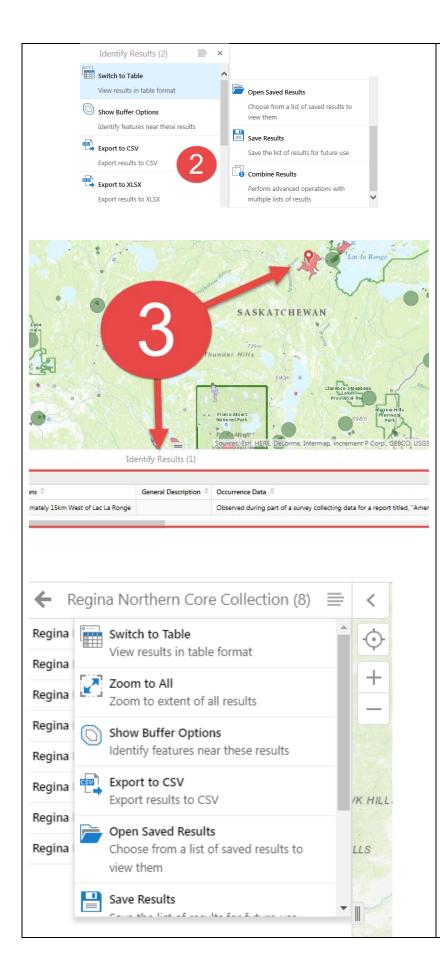
## 7.3.3 Identify: Identifiable Layers

The identifiable layers tool should be used if you wish to exclude a specific map layer from appearing in future identify results, but would still like it to display on the map. Otherwise, turning the map layer off in the layers pane so that it does not display will also exclude it from being in **Identify Results**.

- 1. Click **Identify Identifiable Layers** to provide a list of all map layers.
- 2. The **Identifiable Layers** list is found in the Information pane on the left-hand side of the app. Click the "+" to view the list of map layers under each group.
- 3. De-select a layer by clicking the check mark beside the layer name, or select it by selecting the empty box. If a layer has a check mark, it will only display in the results if it is also turned on in the layer pane and displaying on the map. If you wish to only have one or a few layers identifiable, select "Clear All" and then turn the desired layers on.
- 4. Click "x" to close the Identifiable Layers panel.

## 7.3.4 Identify: Results Panel Actions

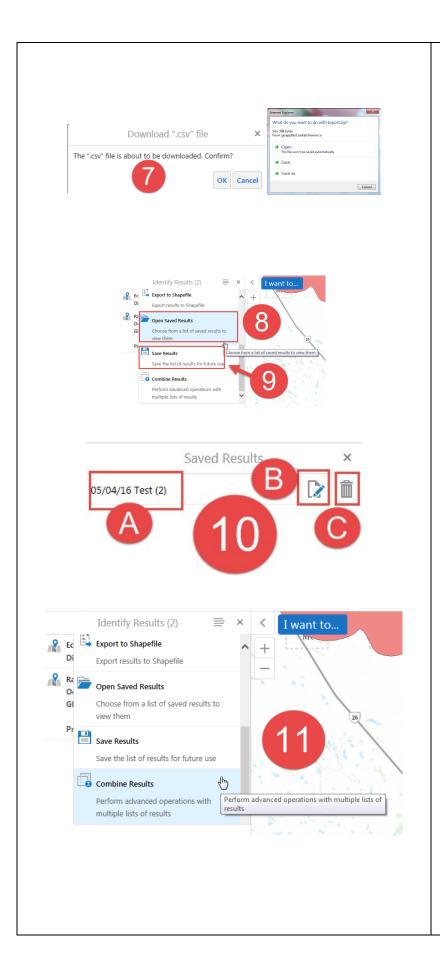
1. After identifying a point/area on the map, an Identify Results information panel will open. Further actions can be found by selecting the **Panel Actions Menu**.



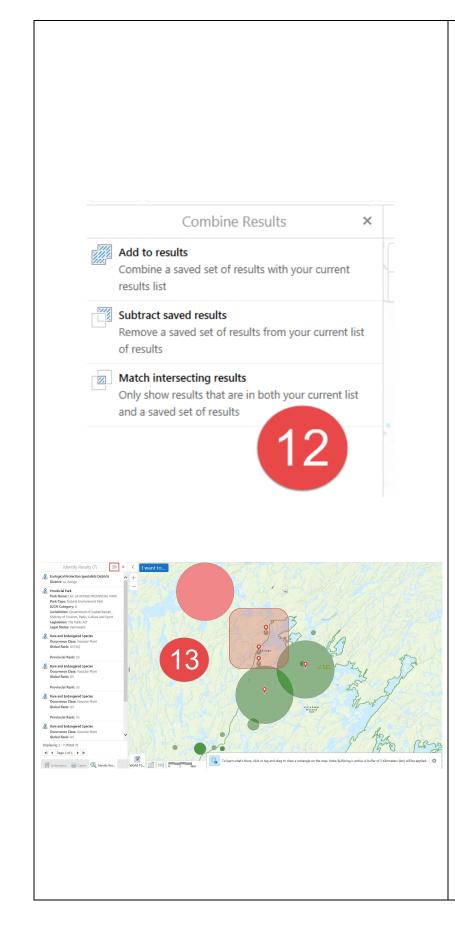
2. A Panel Actions Menu will drop down (menu shown side-by-side).

3. Switch to Table – results are provided in a table view beneath the map rather than a list view found in the information panel on the left-hand side of the map. The table can be resized by selecting the handle at the top-middle of the table and dragging up or down. If more than one layer was visible and selected to identify, each layer will have a separate tab in the results table.

- 4. Click the Panel Actions Menu to provide the drop-down menu; click **Switch to Table** to revert back to the list view for the results.
- 5. Show Buffer Options allows you to set the distance and units for buffering and identifying around each of the result items (see Identify: Enable Buffering).
- 6. Click **Export to CSV** (Comma Separated Values) to export the results to your computer.



- 7. A Download window will open to confirm download. This may be followed by a dialogue window asking if you would like to "Open", "Save" or "Save As" the file. If you have chosen to download a csv and there are multiple layers in the results, a zip file with each layer will be downloaded.
- 8. Click **Open Saved Results** to open a list of your saved results.
- 9. Click **Save Results** to save the results of your Identify efforts. Once you save your results, this option will not be available (greyed out).
- 10. Opening **Saved Results** provides three options:
  - a. Opening the results file;
  - b. Renaming the saved results file;
  - c. Deleting the save results file.
- 11. Click **Combine Results** to perform three advanced operations for multiple lists of results.

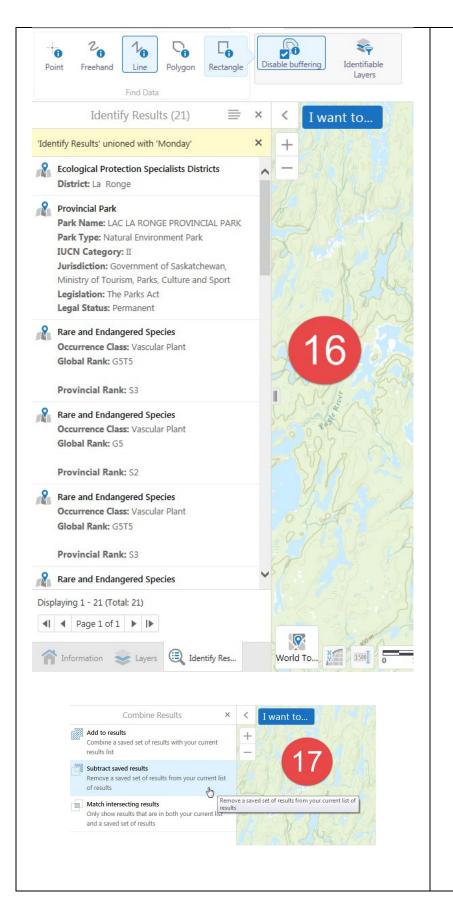


## 12. From the **Combine Results** sub-menu, select:

- Add to results
- o Subtract saved results
- Match intersecting results

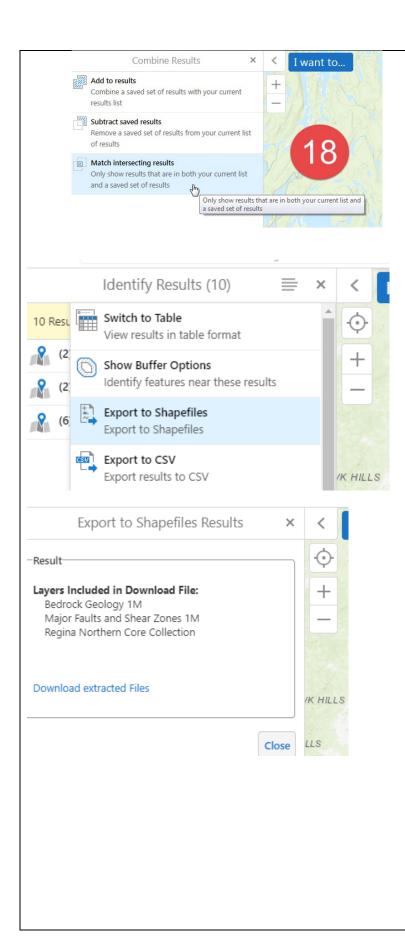
13. To Add to results, a set of results needs to be saved in order to add to them. To create a set of results, for this example, the Analysis function was used with a rectangular buffer of 2 km. The results can be seen on both the map and the information panel in the image. Save the results as per previous steps (i.e., steps 8-10). Click the Panel Actions Menu (outlined) to open the menu.

Combine Results × < I want to	14. Click the Add to results.
Add to results Combine a saved set of results with your current results list	
Subtract saved results Remove a saved set of results from your current results list of results	
Match intersecting results Only show results that are in both your current list and a saved set of results	
Combine Results ×	15. Select the previous results you wish to add your recent Identify results to and click OK.
Select Multiple	
Monday (16)	
OK Cancel	



16. The current results are combined (i.e., added) with a previous set of results. In this example, where some results exist in both sets, the two data sets were unioned i.e., results are not duplicated where the selection areas overlap.

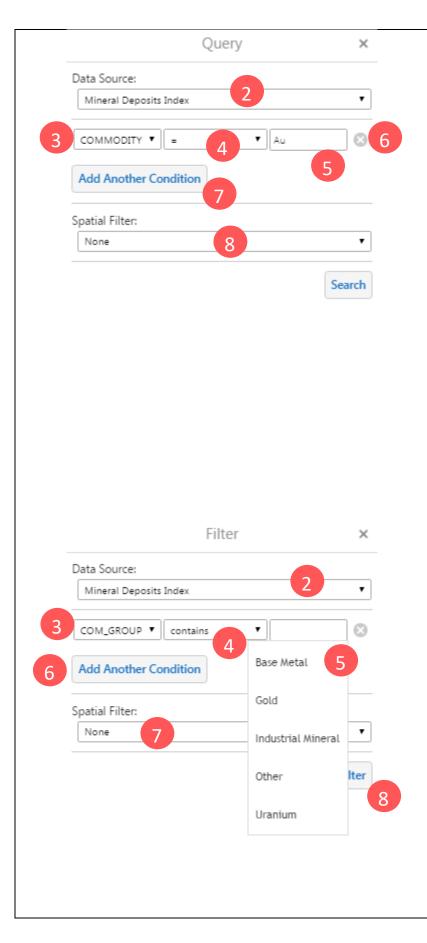
17. Subtract saved results is similar in steps to Add to results except a saved set of results is removed from your current set of results.



18. Match intersecting results uses same steps as adding and subtracting results but the results are those only in common between the saved and current data sets.

## 7.3.5 Identify: Extract Identified Results

- After identifying a points, lines or areas (or all three types at the same time) on the map, an Identify Results information panel will open. Using the Panel Actions Menu, choose the Export to Shapefiles tool. This tool will package your current selection into a ZIP format file containing shapefiles of each selection from each layer. (Note: Selection and extraction are limited to 1000 records, so if you require more than 1000 records in a single layer, you will need to download the entire shapefile to accommodate your request.)
- Once the tool has created the file for extract, it will show in the results box. Click the **Download extracted files** link shown. This will download the Zip folder to a location on your computer where you can unzip and add the files to your GIS project.
- 3. This same process can be applied to **Queries** (outlined in the next section.)

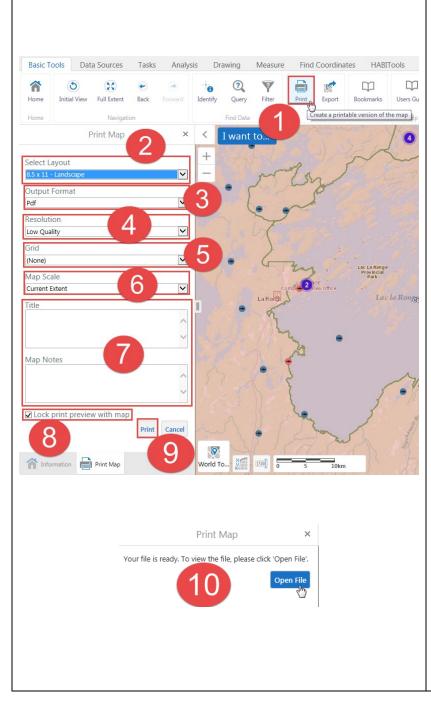


## 7.4 Query

- 1. Click **Query** from the **Home** ribbon.
- 2. Select a **Data Source** by expanding the dropdown list.
- 3. Based on the **Data Source**, select a record to search for from the drop-down list.
- 4. Select a condition for the search from the dropdown list.
- 5. Type in the value to search for. A dropdown list with available values will appear as you type.
- 6. To delete the search condition, click the "X" beside the condition.
- 7. To add another search to the query click Add Another Condition.
- 8. Select a **Spatial Filter** from the drop-down list. "Current Extent" will limit results to the current extent of the map display.
- 9. Click Search.

## 7.5 Filter

- 1. Click Filter from the Home ribbon.
- 2. Choose the layer to filter from the **Data Source** drop-down list.
- 3. Choose the field to filter on by selecting it from the drop-down list.
- 4. Select the desired operator from the dropdown list. "!=" means does not equal.
- 5. When you click in the text box, the possible options will appear, or you can type your own if one of the "contains" or "starts/ends with" operators was chosen.
- 6. Add Another Condition if desired. Both conditions must be met to return results.
- 7. Select the "Current Extent" **Spatial Filter** if you would like to limit results to the current map display.



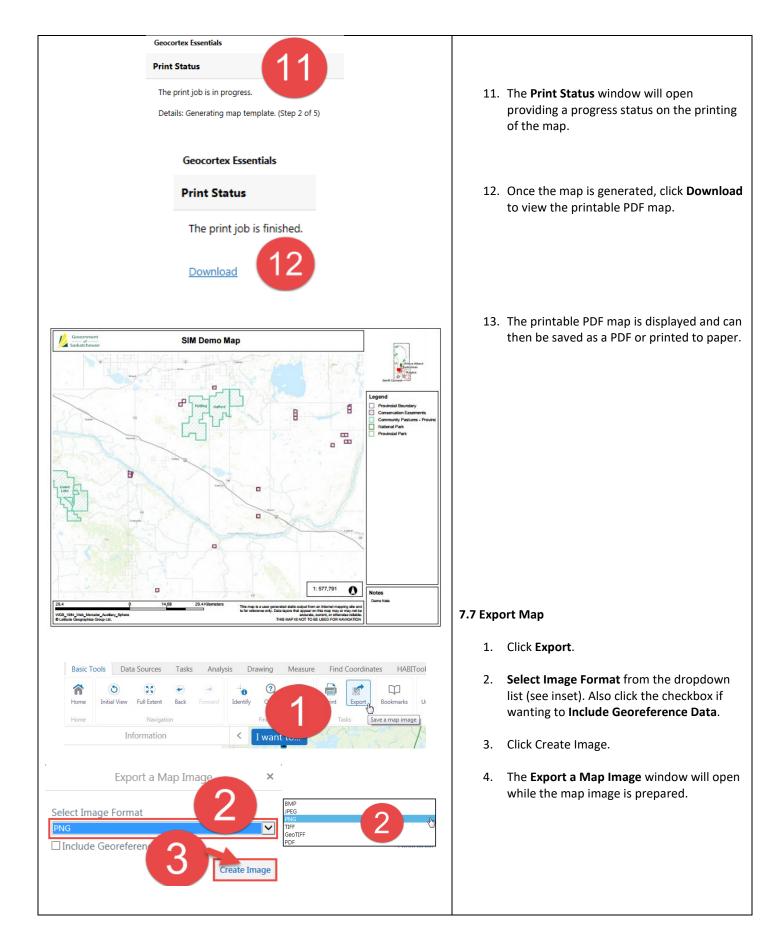
8. Click **Filter** to filter the results on the map. Note that the map layer must be turned on and you must be zoomed to a visible scale to view it on the map display. The **Clear** button will reset the results (note the filter conditions will still appear in the Filter pane).

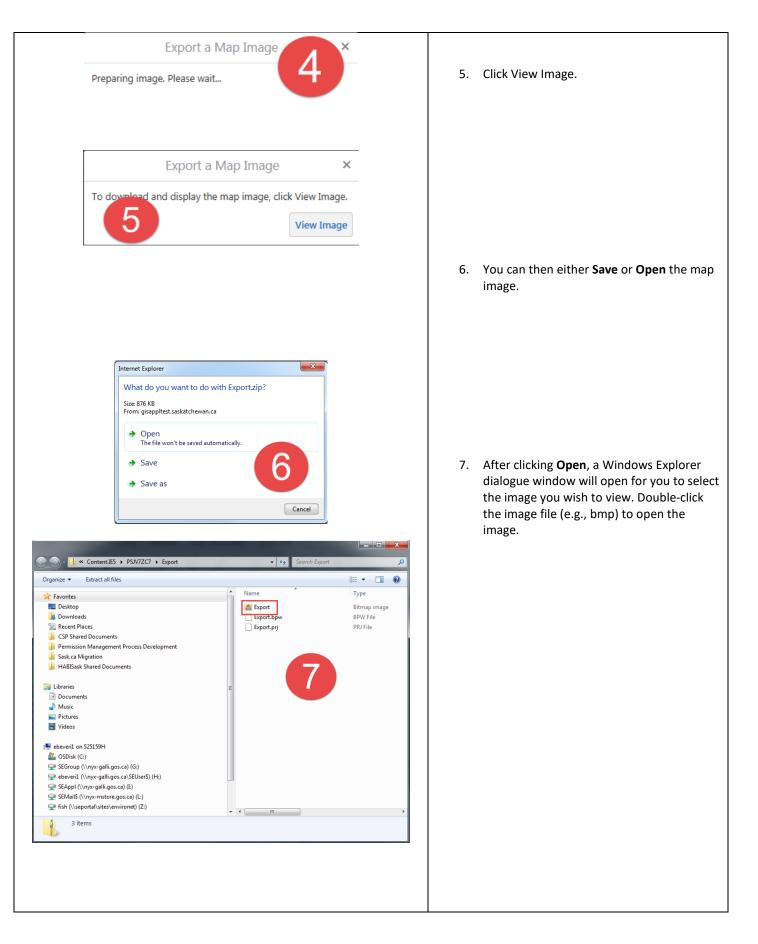
## 7.6 Print Map

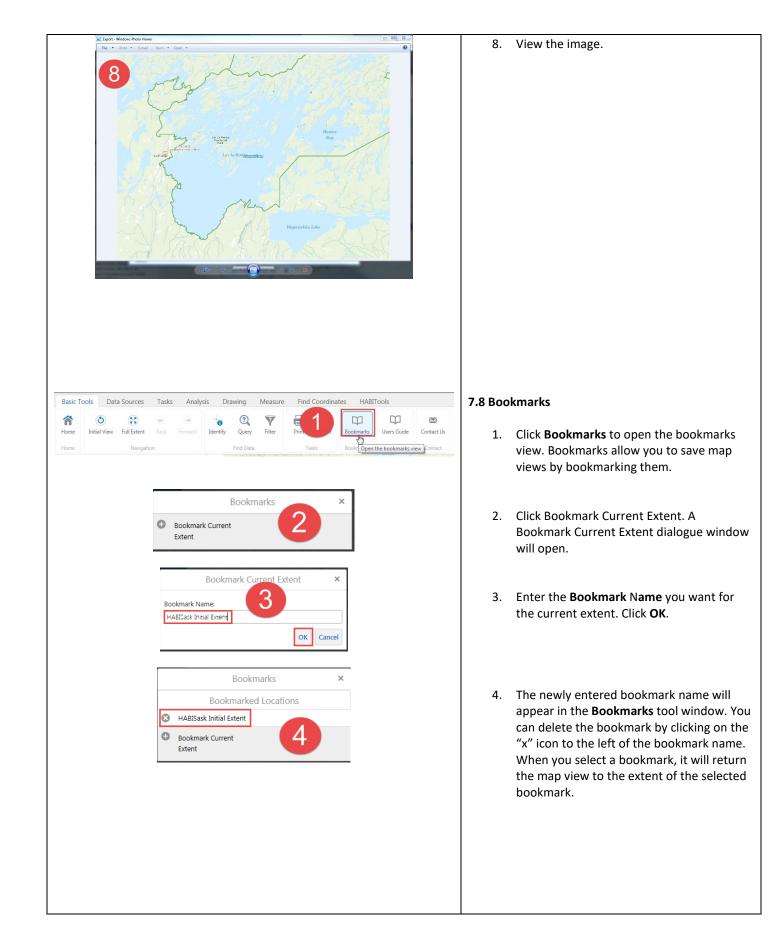
- 1. Select the **Print** button under the Basic Tools tab.
- Select Layout 8.5 x 11 Landscape or 11 x 17 Landscape.
- 3. Select the **Output Format** only PDF at this time.
- 4. Select the **Resolution** desired (low, medium or high).
- 5. Select the **Grid** type Latitude/longitude or UTM.

NOTE: The output print will show only WGS 1984 Web Mercator coordinates in either Lat/Long or UTM as defined in this step. It will not show the coordinates defined by the user in the map extents.

- 6. Select the Map Scale.
- 7. Title the map and add any Map Notes.
- 8. Click "Lock print preview with map" to lock the preview (pink box) on the current extent and allow panning around the map without changing the print extent. The Map Scale must be set to "Current Scale" for this function to work.
- 9. Print the map by selecting "Print".
- 10. The app will prepare the map for printing then open the **Print Map** window. Click **Open File**.

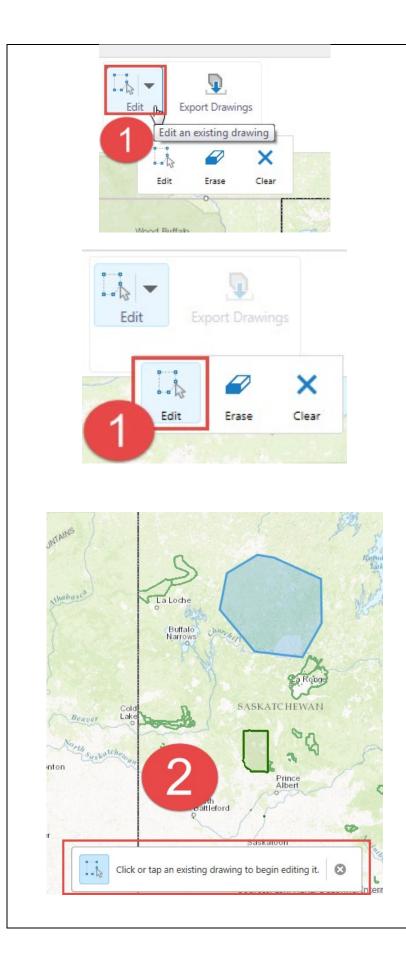






Basic Tools     Data Sources     Tasks     Anal       Image: Source of the s	Ivsis Drawing Measure Find Coordinates HAE	Image: Contact Us Guide       7.9 User Guide         Image: Contact Us Gorded Us       1. The User Guide has been developed to provide you with step-by-step instructions in the use of the Sask GeoAtlas.
Basic Tools D Map Layers Upload Layers	Data	8.0 Data Sources Tab See Section 5.1 Map Layers and Section 5.3 Upload Data for details.

8.0 Drawing Tab	
Basic Tools     Data Sources     Tasks     And Tasks     Drawing     Measure     Find Coordinates     HABITools       •     T     1     2     C     0	<ol> <li>Click the Drawing tab.</li> <li>Select one of the drawing tools from the toolbar ribbon. Note that additional drawing functions become available once the drawing tool is selected.</li> <li>The Edit and Export Drawings functions are not available until a drawing has been created.</li> </ol>
Basic Tools       Data Sources       Tasks       Analysis       Drawing       Measure       Find Co         •       T       1       2       •	<ul> <li>9.1 Draw Tools</li> <li>1. Point (Snapping)</li> <li>2. Text (Snapping)</li> <li>3. Line (Snapping)</li> <li>4. Freehand (No Snapping)</li> <li>5. Freehand Shape (No Snapping)</li> <li>6. Ellipse (No Snapping)</li> <li>7. Circle (Oval) (No Snapping)</li> <li>8. Polygon (Snapping)</li> <li>9. Rectangle (No Snapping)</li> </ul>



### 9.2 Edit Drawings Multi-Tool

The **Edit Drawings Multi-Tools** are available for all draw tools once a drawing has been added to the map.

1. Click **Edit** to open the various edit tools.

## 9.2.1 Edit Tool

1. Click the **Edit** tool to make changes to your drawing.

2. Click or tap on the existing drawing to begin editing it.



 The drawing will change and an instructional panel will open in the map to explain how to complete edits using the Edit Tool. Close the instructional panel by clicking the "x" icon.

#### 4. Use:

- a. Keyboard arrows to move the drawing;
- b. R key to rotate the drawing;
- c. S key to scale the drawing, and;
- d. V key to select a vertex (moves from vertex to vertex).

Combine the letter keys with the ALT key for finer control. Combine letter keys with the SHIFT key to reverse edits.



# 9.2.2 Erase Tool

1. Click Erase to remove one or more drawings from the map. NOTE: Once a drawing is selected for erasing, this action cannot be undone.

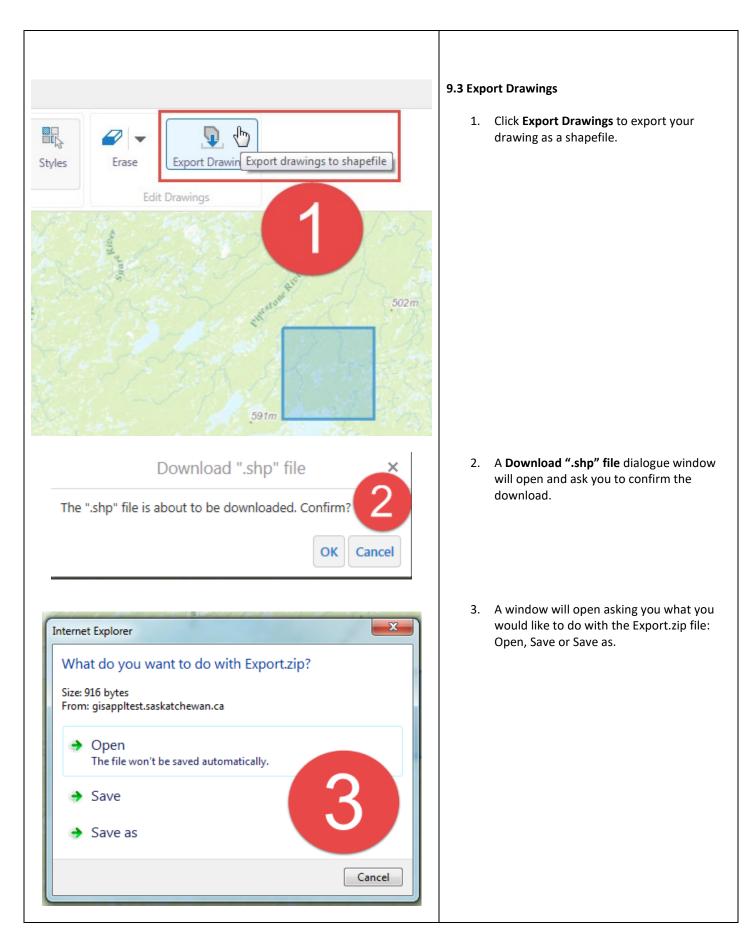
2. The drawing is deleted.

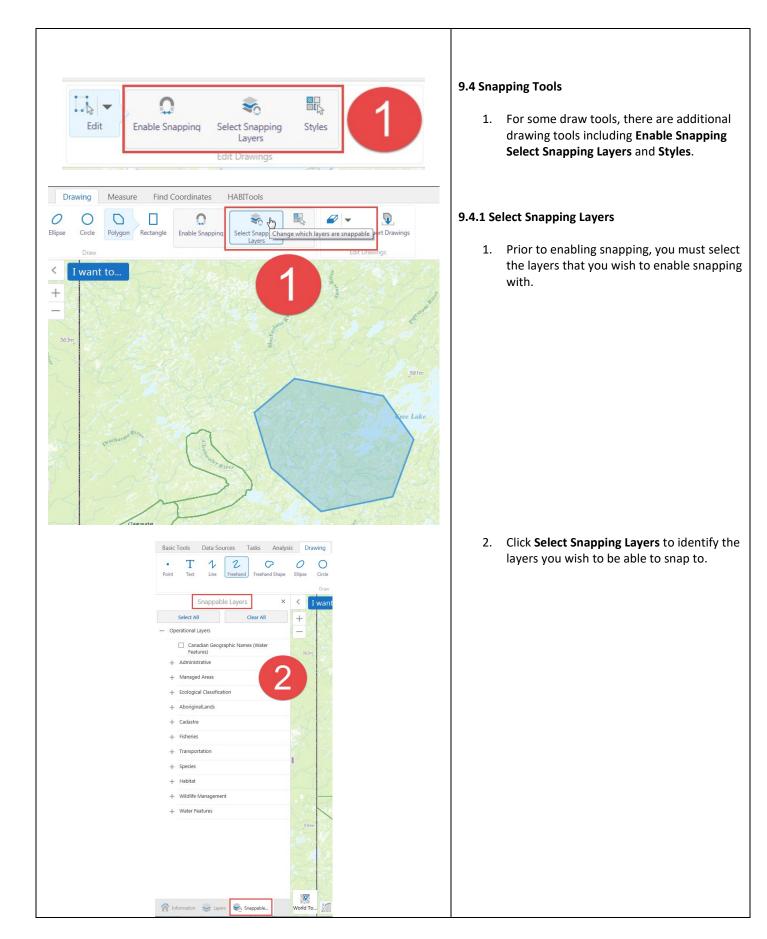


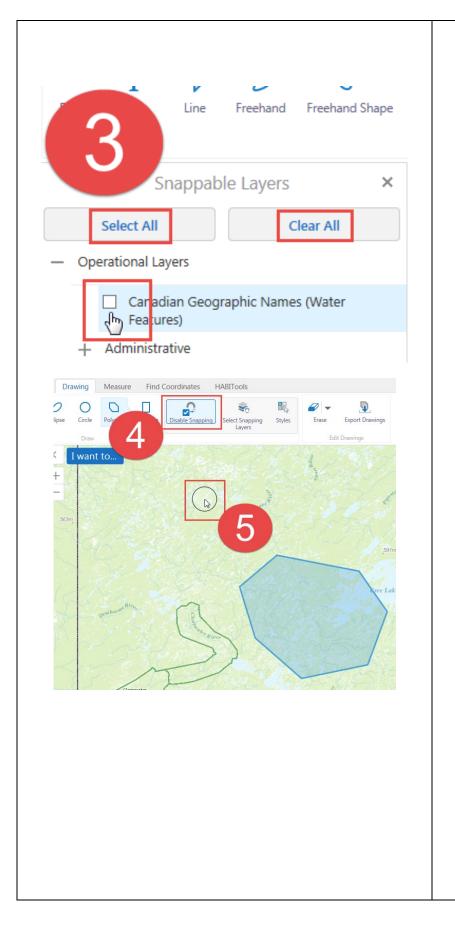
# 9.2.3 Clear Tool

1. Click **Clear** to remove all drawings from the map view.

2. A Clear All warning window will appear asking you to confirm you want all drawings cleared from the map. Click OK to continue or Cancel. NOTE: Once you clear all drawings, this action cannot be undone.



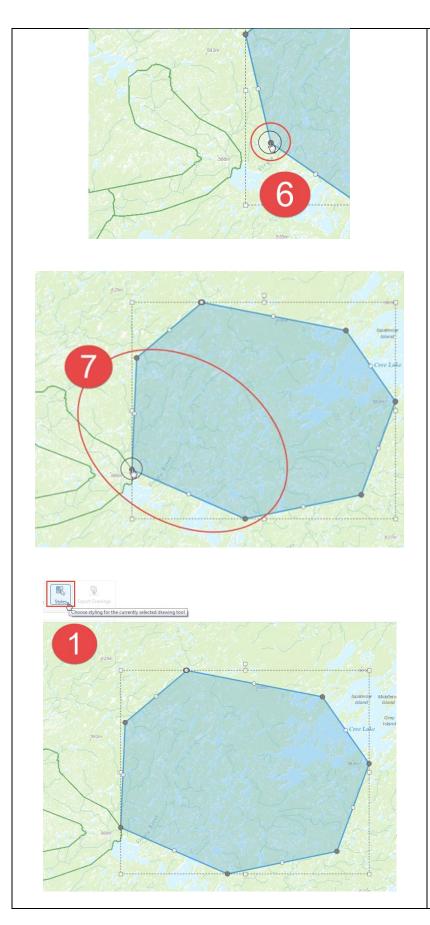




3. A **Snappable Layers** information panel will open and you can select the map layers you wish to make Snappable. You can **Select All** map layers or one-by-one or **Clear All** selected map layers. Selection of a map layer is confirmed with a checkmark placed in the selection box.

- Once layers have been selected, click Enable Snapping. The Enable Snapping will switch to Disable Snapping to turn snapping off.
- 5. The cursor will now have a circle associated with it to enable the snapping of vertices between map layers.

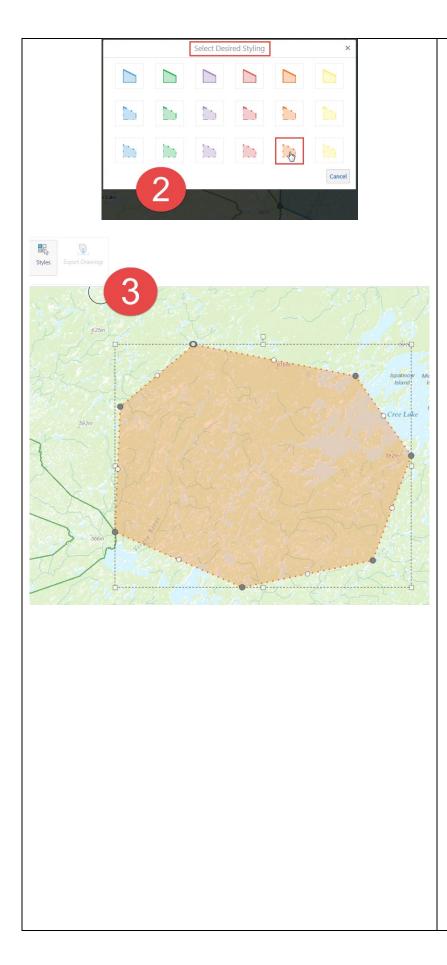
6. Click **Edit** to view the vertices associated with the drawing you've made. Select the vertex you wish to snap and drag it to the map layer you wish to snap to (e.g., Clearwater River Provincial Park).



7. The selected vertex from your drawing is then snapped to an aligning vertex in the selected map layer (e.g., Clearwater River Provincial Park).

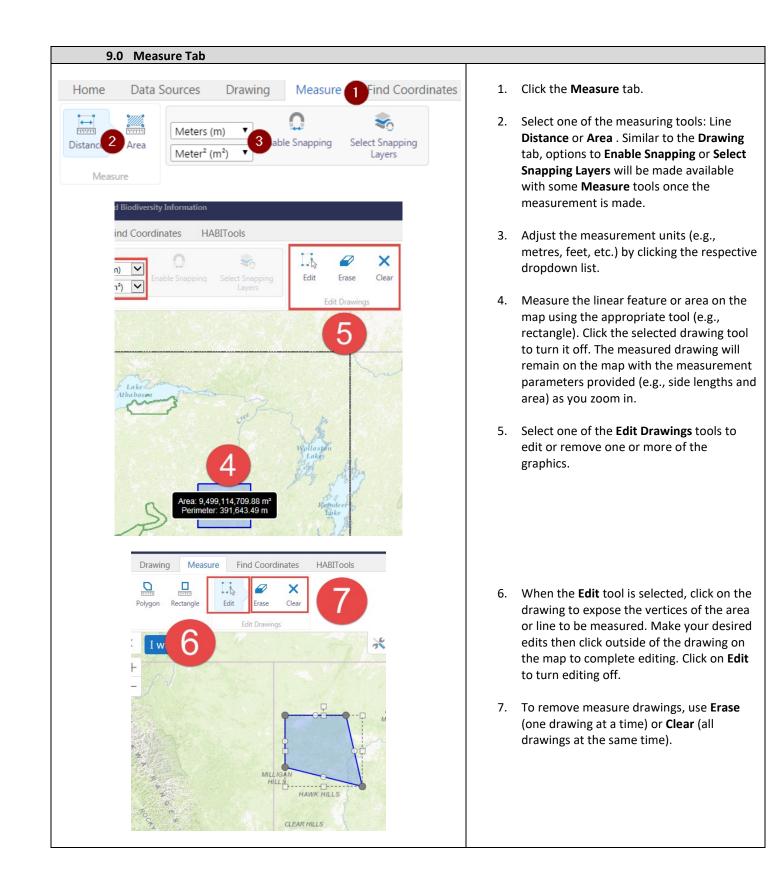
### 9.4.2 Styles

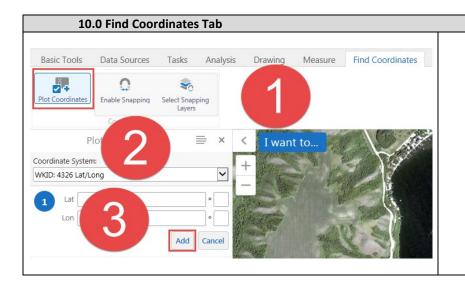
1. Click **Styles** to select a different style for the currently selected drawing tool.



2. A **Select Desired Styling** palette will open and you can then select one of the styles offered.

3. Your drawing will then show the alternate style selected.





- 1. Click **Plot Coordinates** to manually enter coordinates. Note that Snapping also becomes enabled.
- 2. Click **Coordinate System** to select a coordinate system on the map from the dropdown box.
- 3. Select **Add or Cancel** if you wish to add or cancel coordinates entered.

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Current Version: 10.51	To Access the Saskatchewan REST Services Webpage, click the
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Agriculture	to download files.
Economy     Education	to download files.
Environment     EnvironmentalProtection	
GPServices	To add REST Services to your GIS Software, consult with your
Highways     Imagery	software's User Guide.
<u>Utilities</u>	software s oser Guide.
WGS84Cached     Wildfire	
<u>Wildlife</u>	Should you require help in connecting, please contact
Services:	geoatlas@ gov.sk.ca and our staff will attempt to help you
<u>AboriginalLands</u> (MapServer)	
<u>Administrative</u> (MapServer) <u>Allocated Outfitting Areas</u> (MapServer)	connect.
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