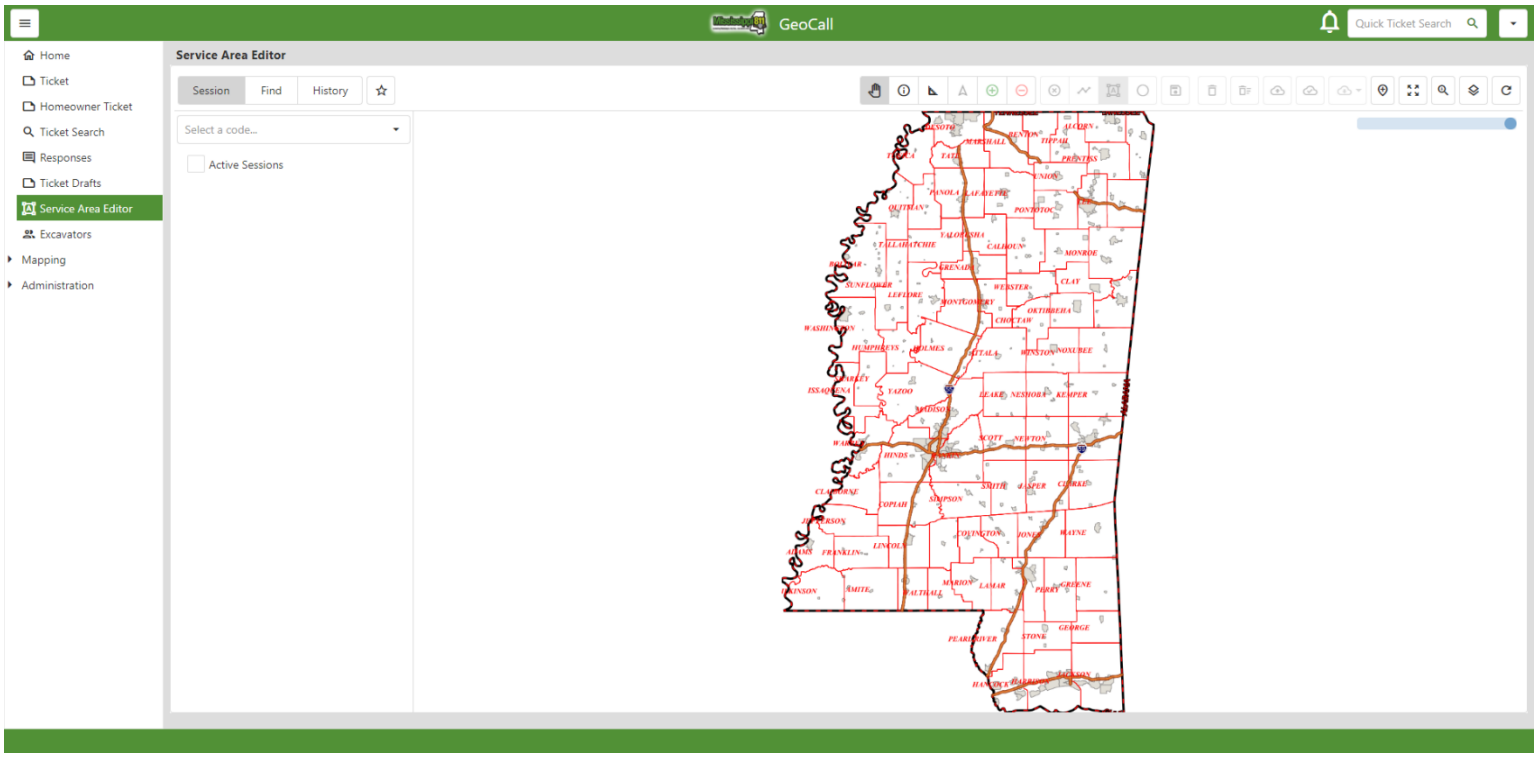
Mississippi 811

protecting Mississippi's vital flow...one call at a time

# Everything SAE – Data Preparation & User Guide




Revised 10/1/2023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# SERVICE AREA EDITOR OVERVIEW

Maintaining an accurate, up-to-date service area is an important part of MS811 membership. At a minimum, members are required to review and update their service area at least once per year; however, it is best to update service areas any time new facilities are acquired or installed outside of your current service area. Keeping your service area up-to-date helps to ensure that you are notified when an excavation is taking place near your underground facilities. The Service Area Editor (SAE) is a feature that is accessible within the MS811 Web Portal that allows members to view, create, maintain, and edit their underground service area information.

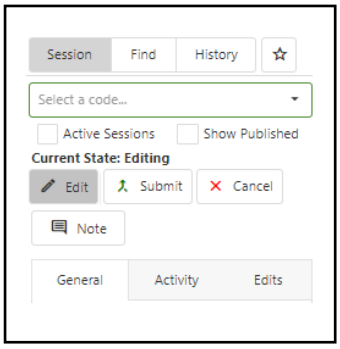
Things you should know:

- SAE can be accessed at https://geocall.ms811.org/ui/dashboard
- Contact Amy Williams at (601) 368-1160 or the GIS Team at (601) 368-1150, for assistance.
- You must **Save** and **Submit** your Service Area changes before they can be approved, denied, or published by MS811.
    - You will receive a notification when your updates have been submitted to MS811.
- Service Area changes submitted to SAE are not immediately added into the system.
- MS811 will review your updates and either approve or deny the changes.
    - Updates will only be denied if MS811 feels that the edits submitted will put your underground utilities in danger. In most cases, MS811 will contact you before denying updates. You will receive a notice of explanation if your updates are ever denied.
    - Updates will be published on the same day they are approved. You will receive a notice when MS811 approves your edits.
    - Updates submitted are normally processed by MS811 between 7 am and 4 pm Monday-Friday, excluding holidays, within the same week they are submitted. Please contact the GIS Team if you have not received a confirmation email within 5 business days of your submission.
    - It is recommended that you log in to SAE the day after your updates have been published to verify changes.
- The system **will not** automatically sign you out or stop your editing session. Therefore, we recommend you sign out of SAE when you are done with your session.

# DEFINITIONS

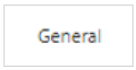
- **Service Area** – Area in which you have reported having underground facilities.
- **Published** – The published version of your service area is the version used by the production system to determine which locate request tickets are transmitted to your company. When toggled on, the published service area is displayed in yellow.
- **Current** – The current version of your service area is simply a copy of your “Published” service area that you can make edits to. The current version of the service area is always loaded by default and displayed in blue.
- **Code** – Dispatch Code assigned to you by MS811. It is used by MS811 to identify and manage your company’s service area and contact information.

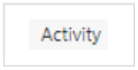
# SAE TOOLS QUICK REFERENCE GUIDE

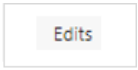



**Tools**

- Session **Session**
  - Default tab that gives you access to different session-related tools and menus.
- Find **Find**
  - Allows you to find and zoom to a specific street or address.
- History **History**
  - Allows you to view the history for any searches, sketches, and edits that you have performed.
- ☆ **Turn Off/On Reference Layer Visibility**
  - Allows you to turn your service area layer off and on.
- Active Sessions **Active Sessions**
  - When checked the dispatch code dropdown only displays codes that are currently in an active editing session.
- Show Published **Show Published**
  - When checked displays a read-only copy of the published service area on top of the current service area for the selected dispatch code.
- Edit **Edit**
  - Starts an editing session for the selected dispatch code.
- Submit **Submit**
  - Submits saved service area updates to MS811 for review.
- Cancel **Cancel**
  - Cancels the editing session.
- Note **Note**
  - Allows you to enter a note to be posted with your edits.

- 

**General**
  - Displays general information about the current editing session.
- 

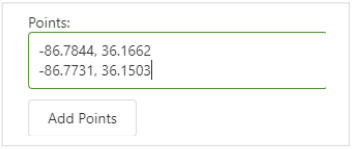
**Activity**
  - Displays current editing session transition and action date/time information.
- 

**Edits**
  - Displays information about every individual geometry manually drawn and saved in the current editing session. Click on an item in the list to zoom to the geometry.


**Tool Bar**

- 
**Pan**
  - Allows you to move around on the map. Select and drag the map in the direction you want to move it.
- 
**Zoom**
  - To zoom in, select the circle and drag to the left. To zoom out, drag to the right.
    - Note: The scroll feature on your mouse can also be used to zoom in and out.
- 
**Identify**
  - Click on map features to identify them.
- 
**Measure**
  - Single click area on the map where you wish to begin measuring, continue single-clicking along the map until you reach the end of the area being measured. Double-click to end measuring.
- 
**Add Geometry**
  - Allows you to add new areas to your service area.
  - Activates Draw  Point,  Line,  Polygon, and  Circle (Radius) tools.
  - Geometry drawn on the map while this tool is selected will be displayed in **green**.
- 
**Delete Geometry**
  - Allows you to remove areas from your service area.
  - Activates Draw  Point,  Line,  Polygon, and  Circle (Radius) tools.
  - Geometry drawn while this tool is selected will be displayed in **red**.
- 
**Draw Points**
  - Allows you to draw Point geometry to be added or deleted.
- 
**Draw Lines**
  - Allows you to draw line geometry to be added or deleted.

- **Draw Polygons**
  - Allows you to draw polygon geometry to be added or deleted.
- **Draw Circle (Radius)**
  - Allows you to draw radius polygon geometry to be added or deleted.
- **Select Drawn Geometry**
  - Allows you to select the geometry for removing a drawn item.
- **Delete Selected Geometry**
  - Select , click on the drawn geometry you want to delete, then click .
  - Use this tool when you draw a geometry in error.
- **Clear Unsaved Geometry**
  - Clears the map of all unsaved edits.
- **Upload Full Replacement**
  - Upload the GIS data file that you want to replace your entire existing service area with.
    - Data must be GeoJSON format.
    - Data must be Polygon or Multi-Polygon.
    - Data must be in WGS84 projection.
    - See the "**File Upload Requirements**" document for a complete list of data requirements.
- **Load File**
  - Upload a file containing geometries to be added or deleted from existing service area.
- **Save**
  - Saves all drawn or uploaded geometries. This tool does not submit changes.
- **Download Service Areas**
  - Download the current or published version of your service area in GeoJSON or shapefile format.
- **Add Reference Points**
  - Allows you to add temporary reference points to the map.
  - Select → → → Enter XY coordinates → Click add points




- **Zoom to Extent**
  - Zoom to the full extent of the service area.

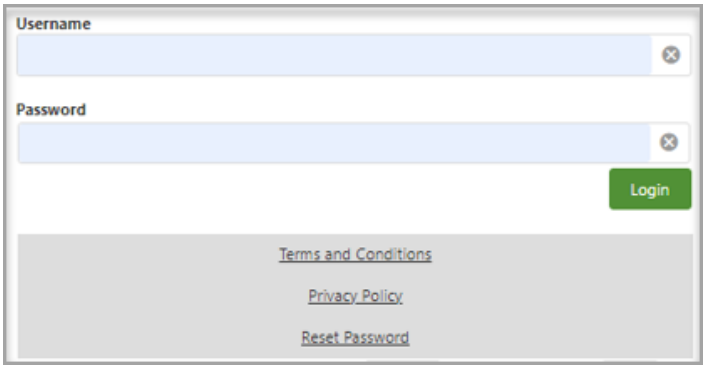
- **Zoom to Point (XY)**
  - Select → Enter X coordinate → Enter Y coordinate → Enter label (optional) → Click zoom to XY



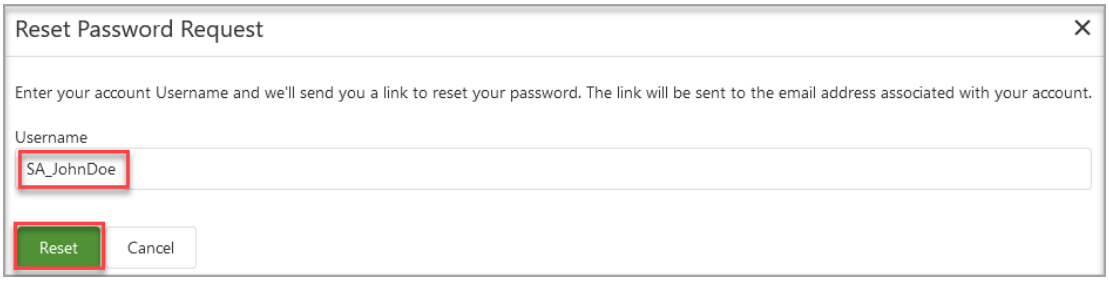
- **Map Layers**
  - Turn on aerial imagery, grids, etc.
- **Refresh Map**
  - Refreshes the map.

# ACCESSING THE SERVICE AREA EDITOR

SAE can be accessed by going to https://geocall.ms811.org/ui/dashboard or by going to the MS811 website at https://www.ms811.org/. You must have an MS811 Web Portal account to access SAE.




1. Select Terms and Conditions to view important information you should know when using the MS811 Web Portal and its features.
2. Select Privacy Policy to view the MS811 Privacy Policy.
3. Do the following if you need to reset your account Password:
    a. Select Reset Password → Enter your account **Username** (not your email address) → Click Reset.

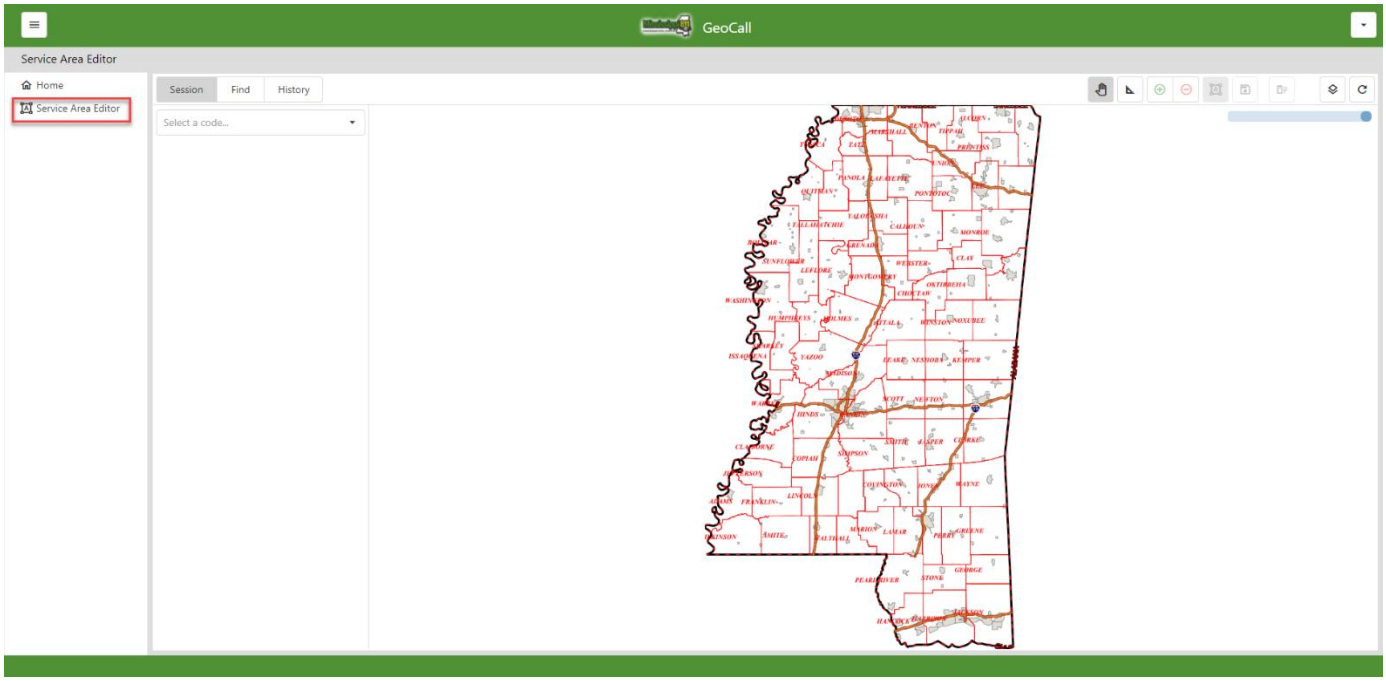


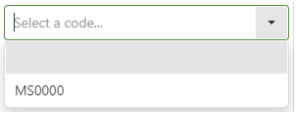

    b. A link will be sent to the email address associated with your account.
4. Enter your assigned username and password


→ Click Login

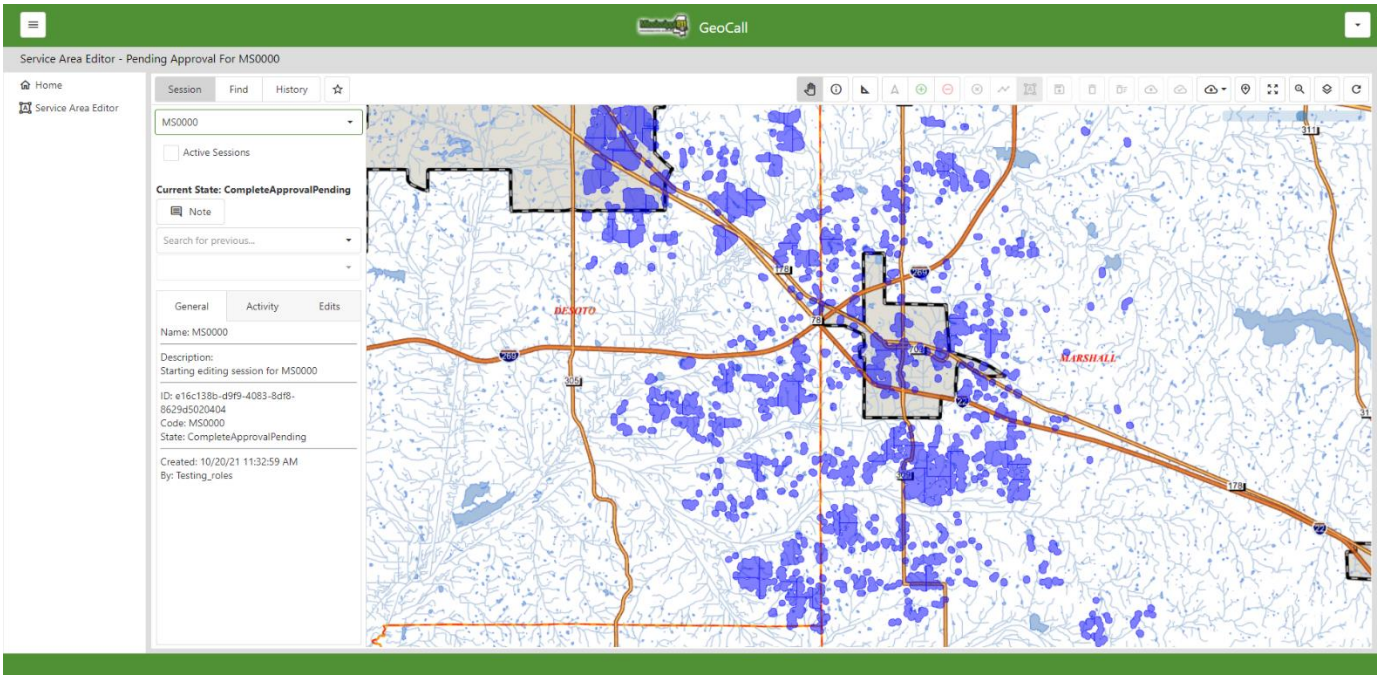
# VIEWING SERVICE AREA

1. Select Service Area Editor



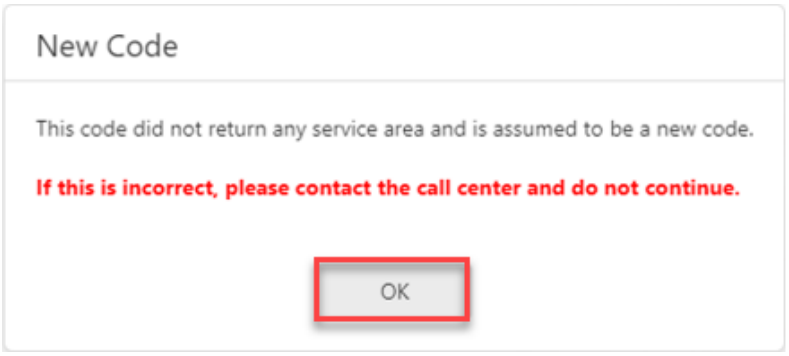




2. Select the dispatch code you want to view or edit.
3. The map will zoom to the current service area (area shown in blue) for the selected code.
   a. Please note that if you have a large service area it may take a few minutes to load.



# VIEWING SERVICE AREA

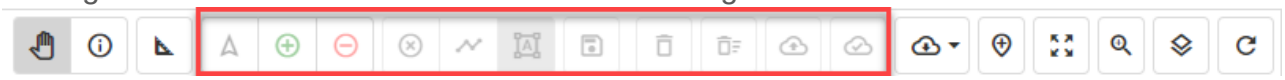
4. If the dispatch code entered is a new code, the following message will be displayed. Clicking OK will allow you to continue and begin creating a service area for the new code from scratch.

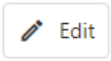


# STARTING & CANCELING AN EDIT SESSION

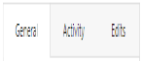
**Starting an Editing Session:**

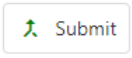
1. Editing tools are not accessible outside of an editing session.



2. Select the code you wish to make changes to → Click 

3. Several editing tools will become accessible.

    a. Notes:
        i. If you have a large service area it may take a couple minutes to load the editing session.
        ii. Once an editing session has been started, it will remain active until you either click 

to end the session or 

to submit your edits. This is helpful as it allows you to have an ongoing editing session.
        iii. You must save your changes before logging out of SAE or your edits will be lost.

**Canceling Editing Session:**

1. Click 

, if you wish to cancel an edit session without saving or submitting changes.

# MANUALLY EDITING A SERVICE AREA

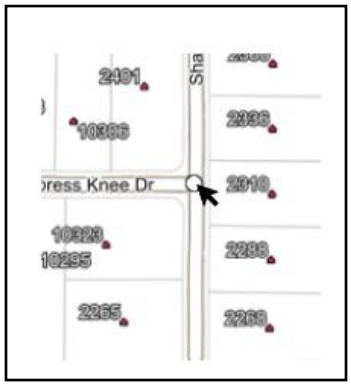
There are several different ways that you can update your service area in SAE. We recommend using the manual editing method if your company does not have GIS data for your underground facilities.

**Draw Addition & Draw Deletion:**

- The **Draw Addition** and **Draw Deletion** tools are enabled at the start of an editing session.
    - When is selected any geometry drawn will be added to your service area. The addition geometry drawn will be displayed in **green**.
    - When is selected any geometry drawn will be deleted from your service area. Deletion geometry drawn will be displayed in **red**.
- Selecting or will enable the draw geometry tools.

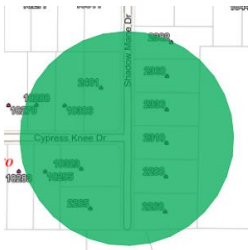
**Drawing Point Geometry:**

1. Select **Draw Points**
2. Single click the area(s) on the map where you want to add a point(s).

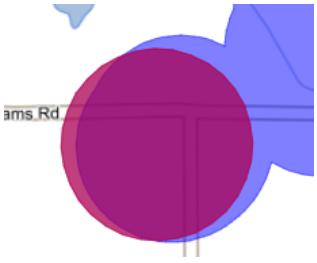



3. Repeat the steps above until you have drawn all the points needed.
    a. Note: A default buffer will be automatically applied around points drawn. The buffer size is specified by the member. If you have not specified a buffer size, 400 feet will be used.

Addition Point Buffer



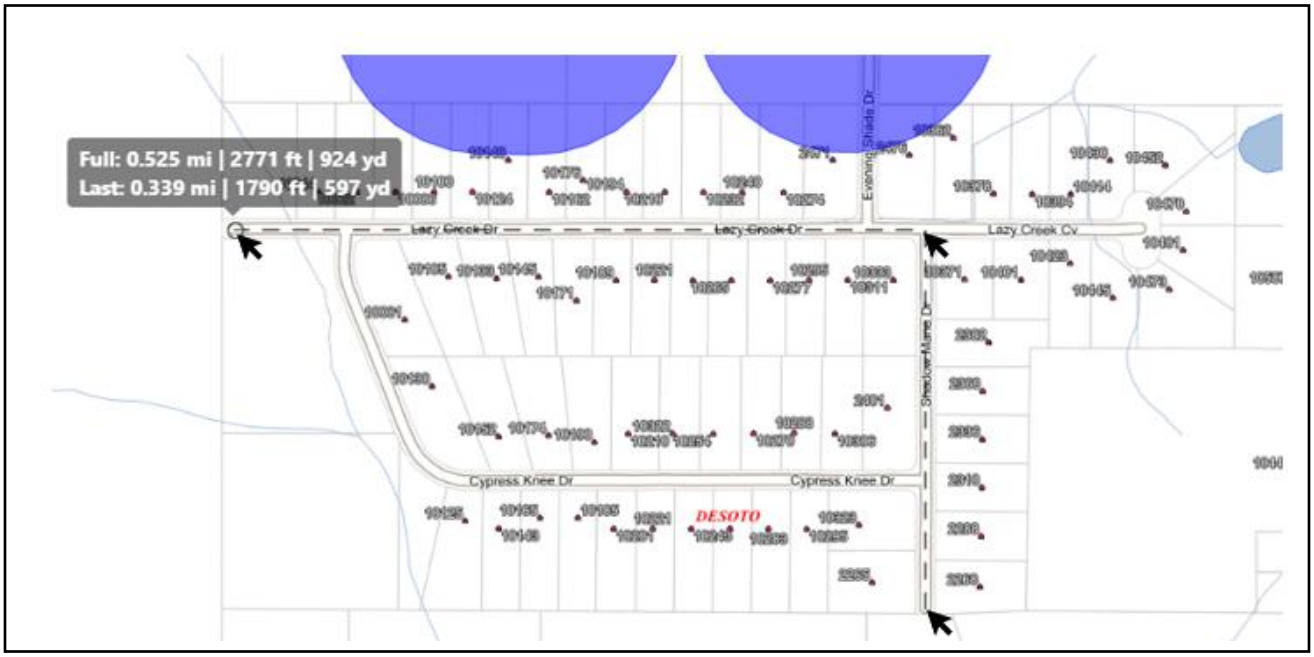
Deletion Point Buffer



# MANUALLY EDITING A SERVICE AREA

**Drawing Line Geometry:**

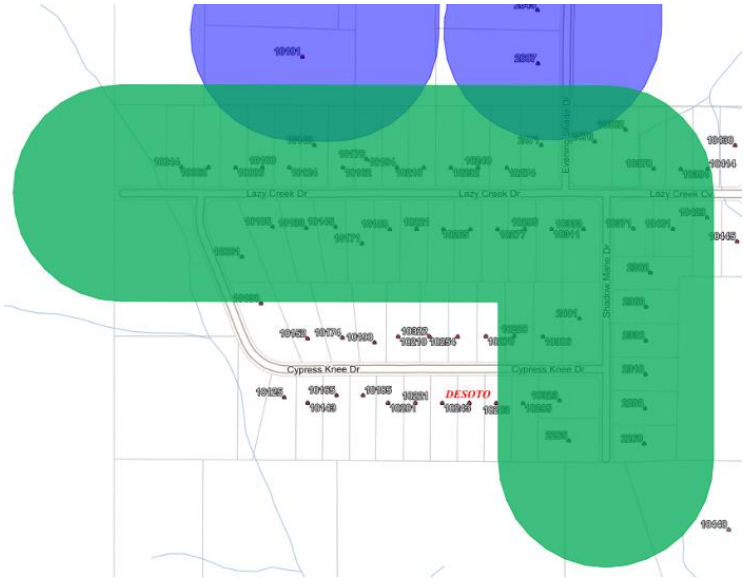
1. Select **Draw Lines**
2. Single-click the area on the map where you want to begin drawing → Move the mouse across the map single clicking as you go to shape the line. *Notice that the length of the line drawn is displayed.*
3. Double-click to end the drawing.



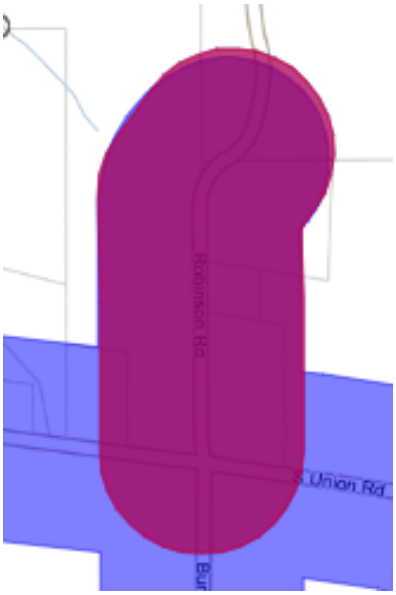
# MANUALLY EDITING A SERVICE AREA

4. Repeat the steps above until you have drawn all the lines needed.
    b. Note: A default buffer will be automatically applied to all lines drawn. The buffer size is specified by the member. If you have not specified a buffer size, 400 feet will be used.

**Addition Line Buffer**



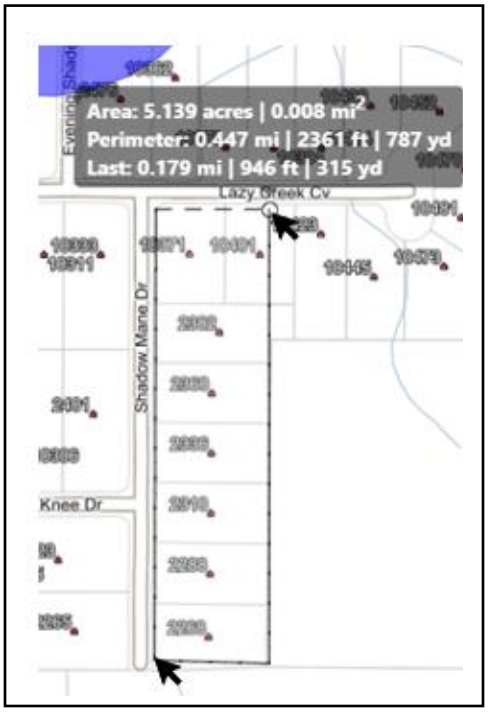

**Deletion Line Buffer**



# MANUALLY EDITING A SERVICE AREA

**Drawing Polygon Geometry:**

1. Select  **Draw Polygons**
2. Single-click the area on the map where you want to begin drawing the polygon → Move the mouse across the map single clicking as you go to shape the polygon.

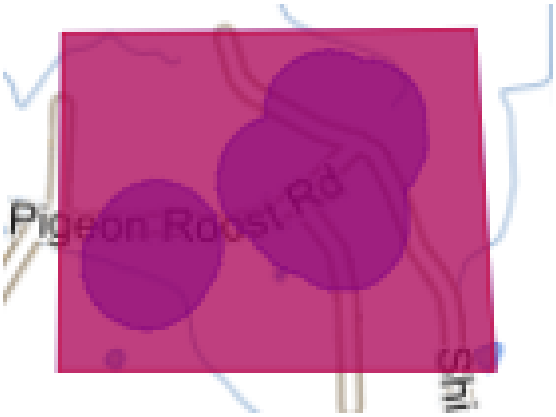


# MANUALLY EDITING A SERVICE AREA

3. Double-click to complete the polygon.
4. Repeat the steps above until you have drawn all the polygons needed.
    a. A buffer **WILL NOT** be applied to any polygon geometry drawn.

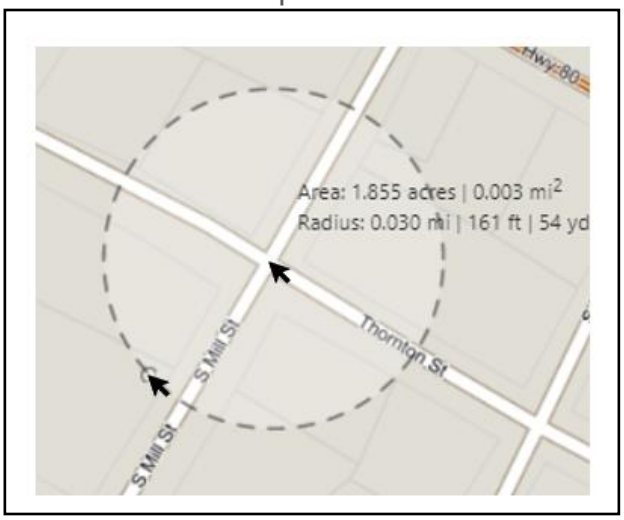
**Addition Polygon**


**Deletion Polygon**



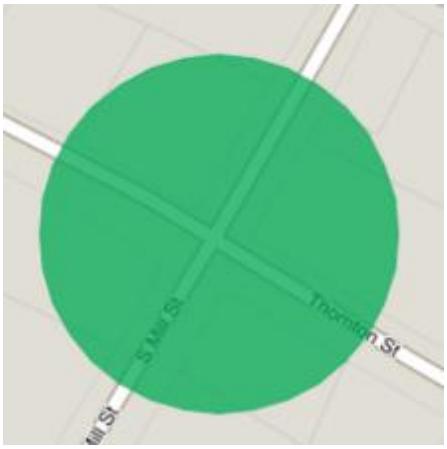
**Drawing <u>Circle (Radius)</u> Geometry:**

1. Select **<u>Draw Circle (Radius)</u>**
2. Single-click the area on the map where you want the center of the radius to begin. As you move your mouse away from the beginning point the size of the radius increases and the distance is displayed. Likewise, as you move your mouse toward the center of the initial point the radius decreases.
3. Double-click to complete the circle.

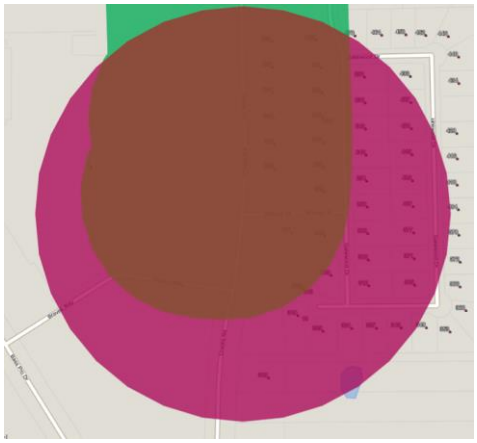



4. Repeat the steps above until you have drawn all the circles needed.
    a. A buffer **WILL NOT** be applied to any circle geometry drawn.

**<u>Addition Circle</u>**




**<u>Deletion Circle</u>**



# MANUALLY EDITING A SERVICE AREA

**Deleting Drawn Geometry:**

1. If you accidentally draw a geometry that you need to remove, select → Click on the drawn geometry you want to delete.
2. The geometry selected will turn hollow.
3. Click **Delete Selected** to delete the selected geometry.


**Clearing All Unsaved Geometry:**

1. If you want to start over and clear ALL geometries drawn, select **Clear Unsaved Geometries**.

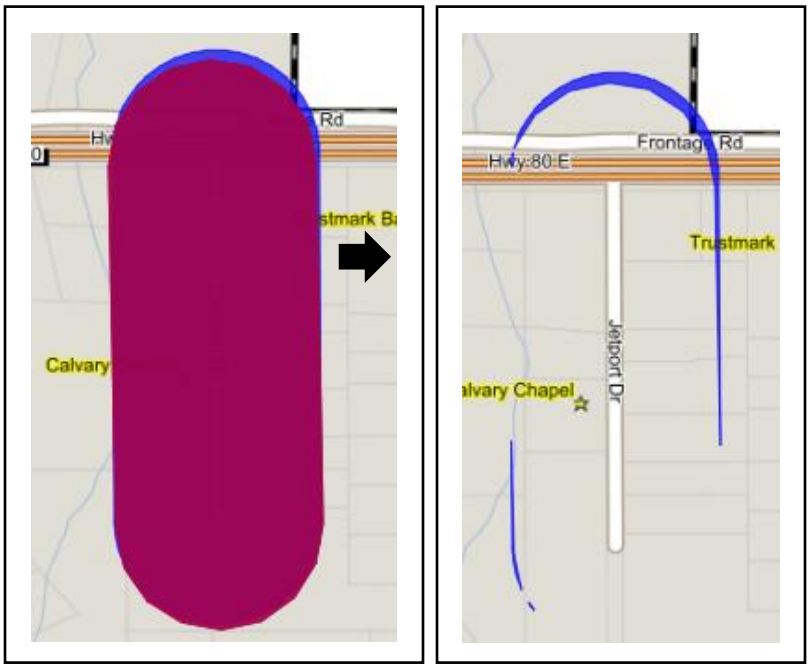
**Saving Changes:**

1. When you have completed adding addition and deletion geometry, select **Save Drawn Geometries** to save your work.

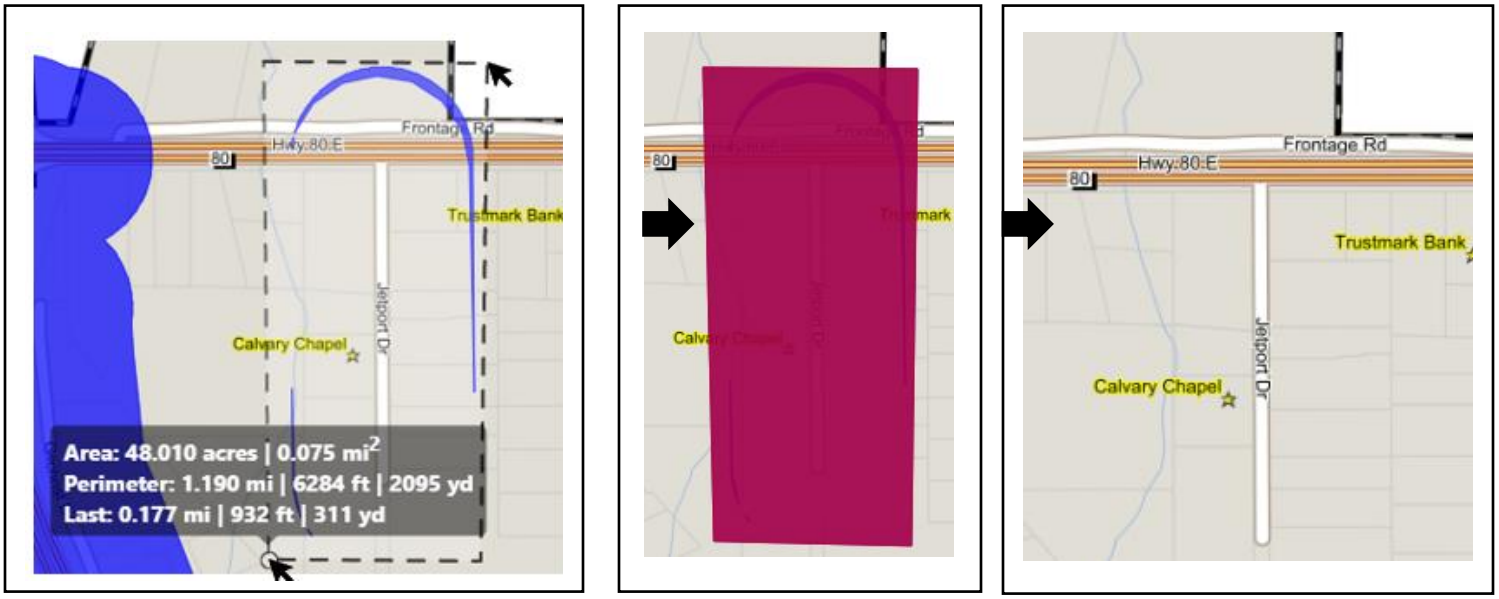
# MANUALLY EDITING A SERVICE AREA

**Removing Unwanted Slivers After Deletions:**

Drawing deletions can result in small unwanted slivers being left in your service area especially when drawing point or line deletions. It is recommended that you draw polygon deletions to avoid this. Use the following steps if you end up with unwanted slivers.

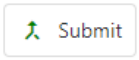



1. Select **Draw Deletion** → **Draw Polygon**
2. Draw deletion polygon around slivers → Click **Save** → Slivers are removed.



# MANUALLY EDITING A SERVICE AREA

**Submitting Changes:**

1. Refer to the "**CHECKING YOUR WORK"** section of this document before submitting your edits.
2. Select 

when you are ready to submit your changes to MS811 for review.
    a. You will see that all added areas have been merged into the blue current service area, and the deleted areas have been removed.
    b. You will receive an email confirming that your edits have been submitted.
3. MS811 will receive a notice that updates have been submitted for review.
    a. MS811 will review your updates and either approve or deny the changes.
        i. Updates will only be denied if MS811 feels that the edits submitted will put your underground utilities in danger. In most cases, MS811 will contact you before denying updates.
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        ii. Approved updates will be published to production on the same day they are approved.
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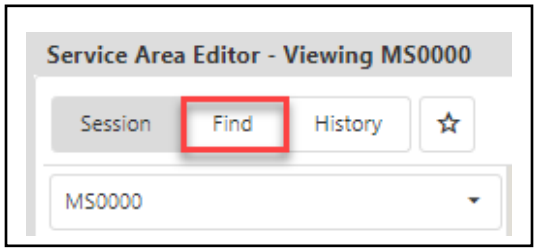
        iii. Updates submitted are normally processed by MS811 between 7 am and 4 pm Monday-Friday, excluding holidays, within the same week they are submitted. Please contact the GIS Team if you have not received a confirmation email within 5 business days of your submission.
        iv. It is recommended that you log in to SAE the day after your updates have been published and verify changes.
4. The system will not automatically sign you out. Therefore, we recommend that you sign out of SAE when you are done with your session.

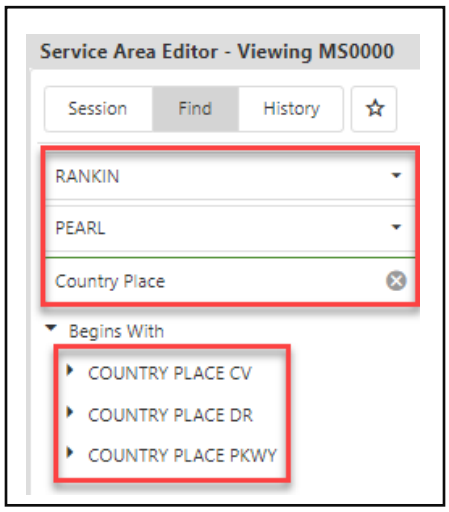
# STREET SEARCH

**Find:**

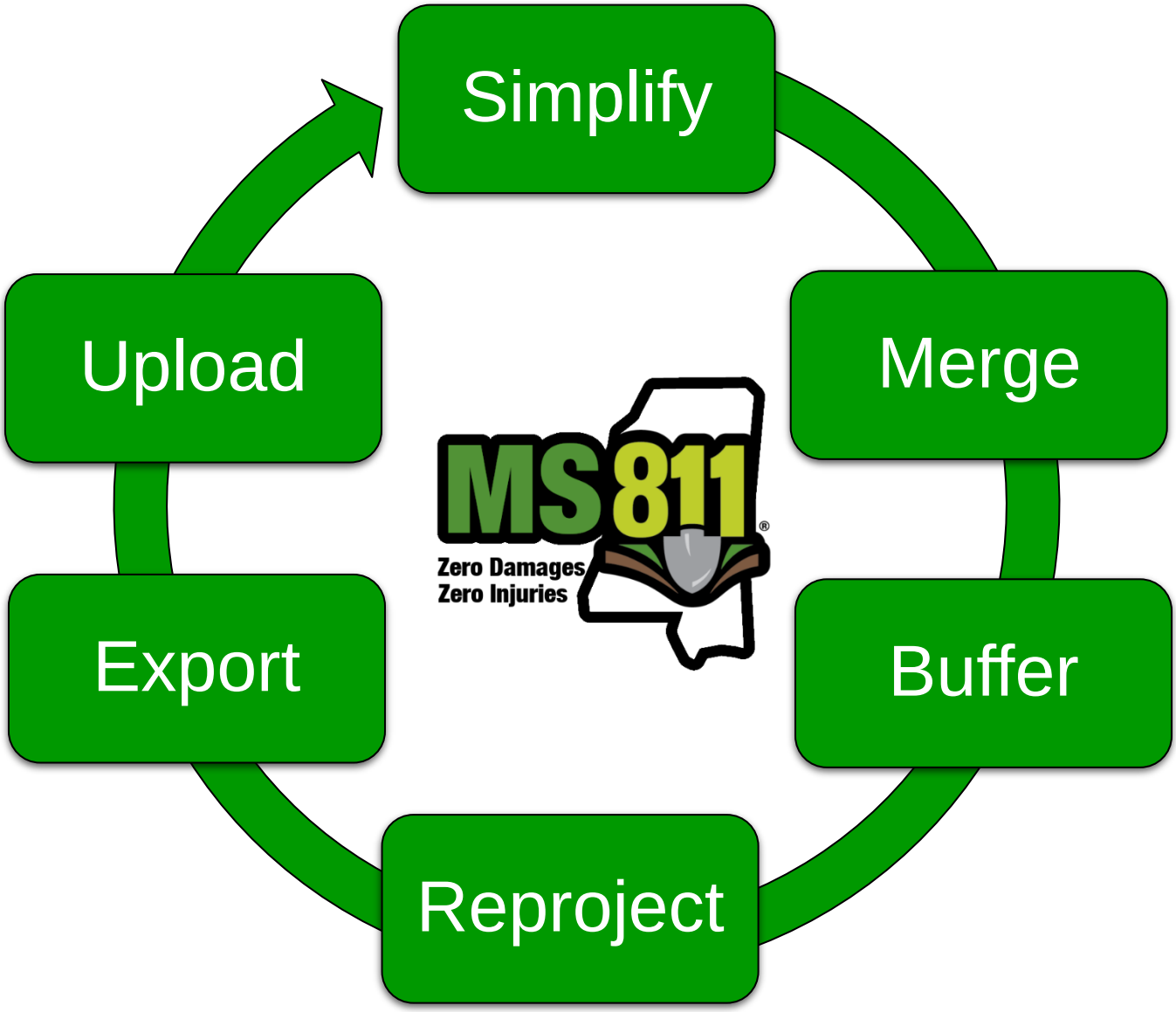
1. Select “Find” tab.




2. Select County → Select City/Place → Type a street name in “Search for locations” box (A list of suggested results will display as you type in the search box) → Select appropriate street from results to zoom to area on map.



## GIS DATA PREPARATION WORKFLOW

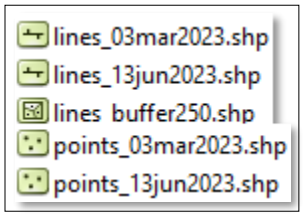


# *SAE Workflow Overview*

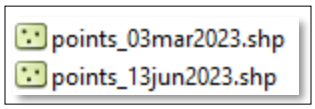
Before uploading to SAE, the GIS data should undergo a series of steps to ensure that the data is successfully uploaded during an SAE editing session. The following documentation includes a how-to guide for implementing the GIS steps in the GIS Data Preparation Workflow diagram (pg. 23) for various GIS mapping software. This guide does NOT encompass all steps or scenarios of data cleaning and uploading. For further questions or help, please reach out to the GIS Team.

### 1) Simplify

Multiple geometry types (points, lines, and polygons) within data ✓




Multiple layers of similar geometry types but different layer information ✓



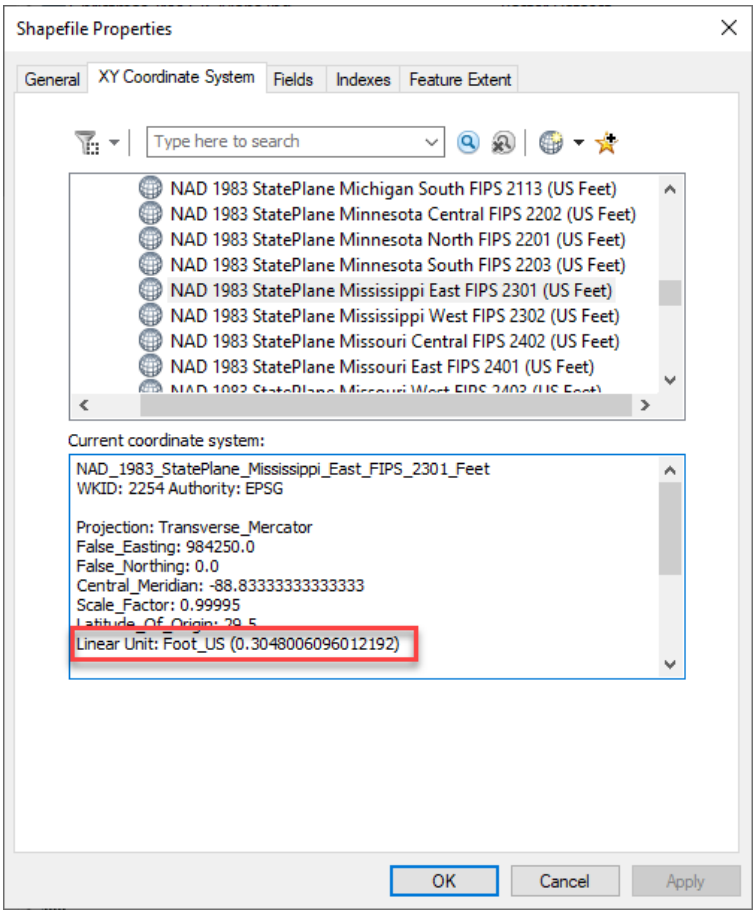

In the following scenarios, the multiple datasets **must** be simplified by consolidating and merging similar geometries into one file/layer per geometry type.

### 2) Merge


Merge similar geometry into one layer. See pages for step-by-step instructions (QGIS, ArcGIS, ArcPRO). For batch (multiple layers) processing see instructions (QGIS, ArcGIS, ArcPRO).

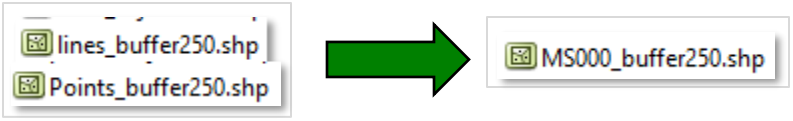
### 3) Buffer

All buffered layers must be merged into a single polygon with the member-specified buffer size. (QGIS, ArcGIS, ArcPRO). For batch (multiple layers) processing see instructions (QGIS, ArcGIS, ArcPRO). Buffering steps vary based on the mapping software chosen. A software example such as QGIS requires the data to be in a projection that is measured in linear feet prior to running the buffer tool. (ex. NAD_1983_StatePlane_Mississippi_East_FIPS_2301_Feet)



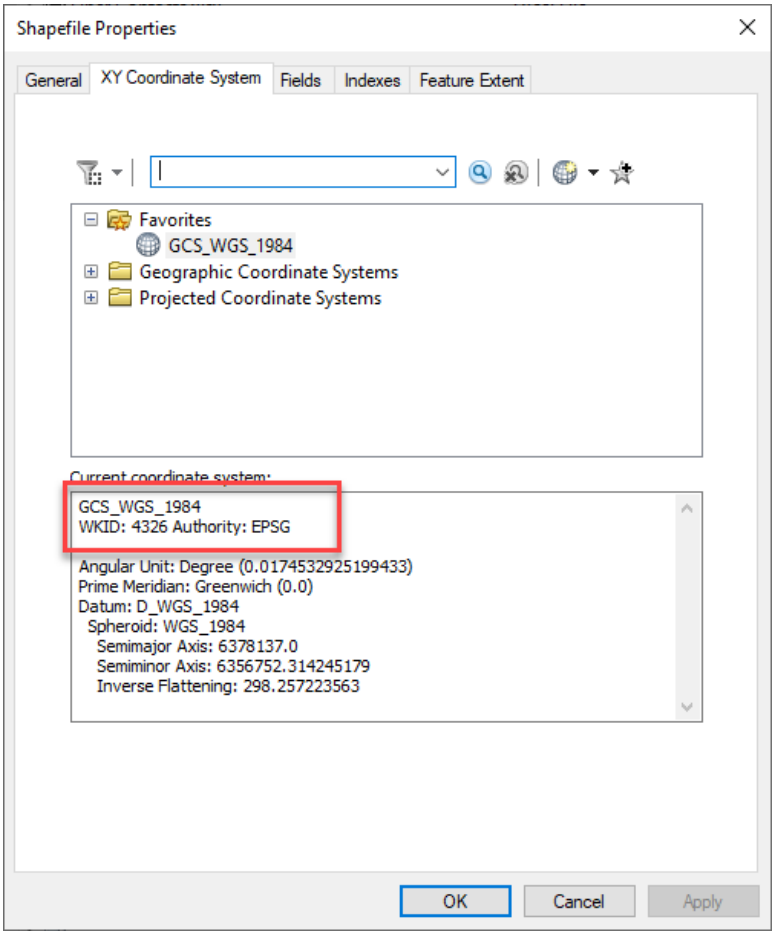

There is no projection restriction when using other mapping software such as ArcMap for Desktop or ArcPro. It is important to note that most members will likely have an alternate projection because it allows for distance to be measured in either feet or meters. Remember, the projection requirement for SAE is WGS-84 (EPSG:4326).

Therefore, the next step after merge and buffer is reprojection.



## 4) Reprojection

SAE requires that all data be projected in WGS-84.




See pages for step-by-step instructions (QGIS, ArcGIS, ArcPRO).

## 5) Export

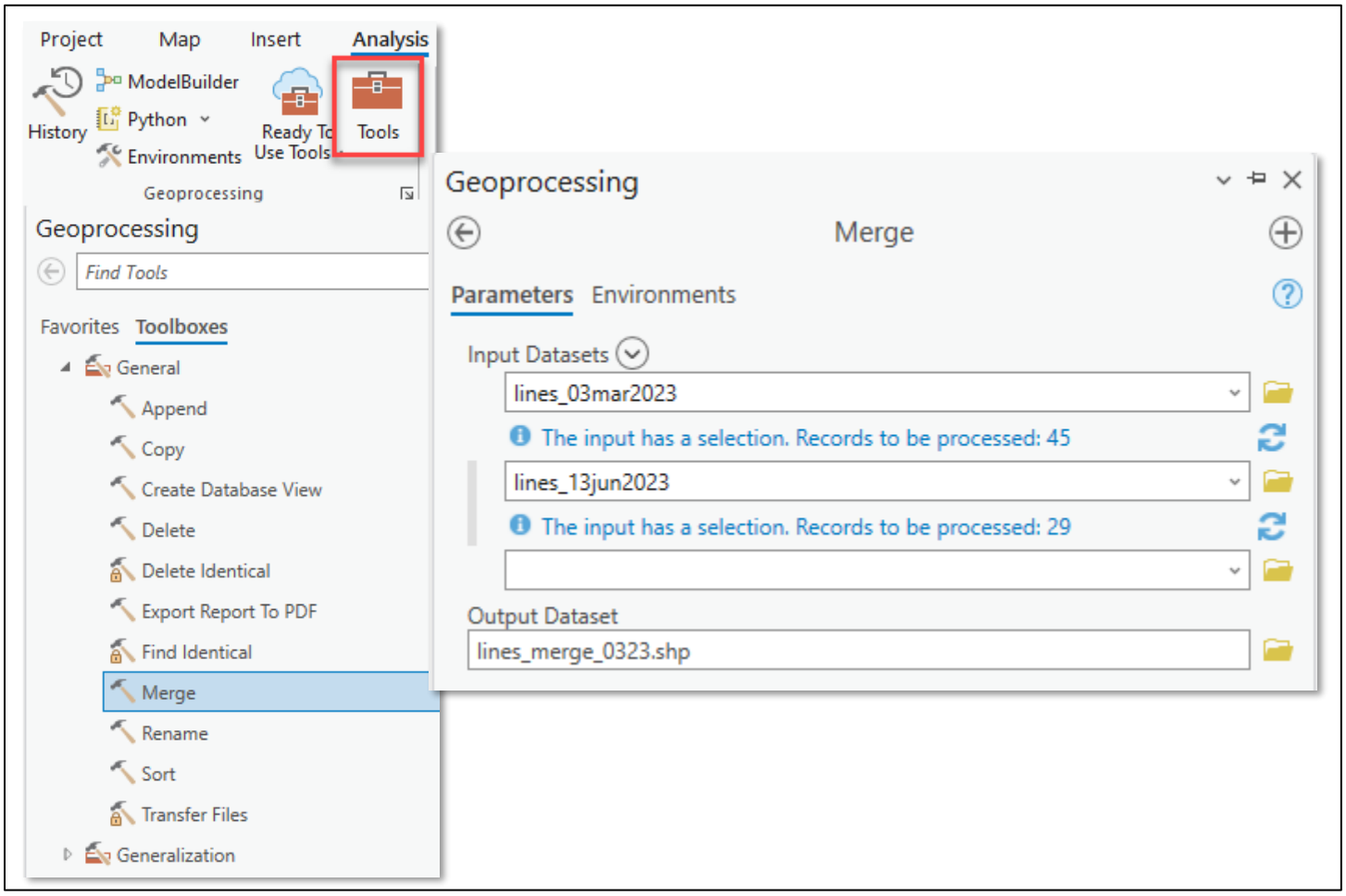
SAE submissions **must** be in GeoJSON or JSON file formats. See pages for step-by-step instructions (QGIS, ArcGIS, ArcPRO).

## 6) Upload to SAE

Use the following section "Uploading GIS Files" from this guide if you wish to submit a file that contains your entire up-to-date service area.

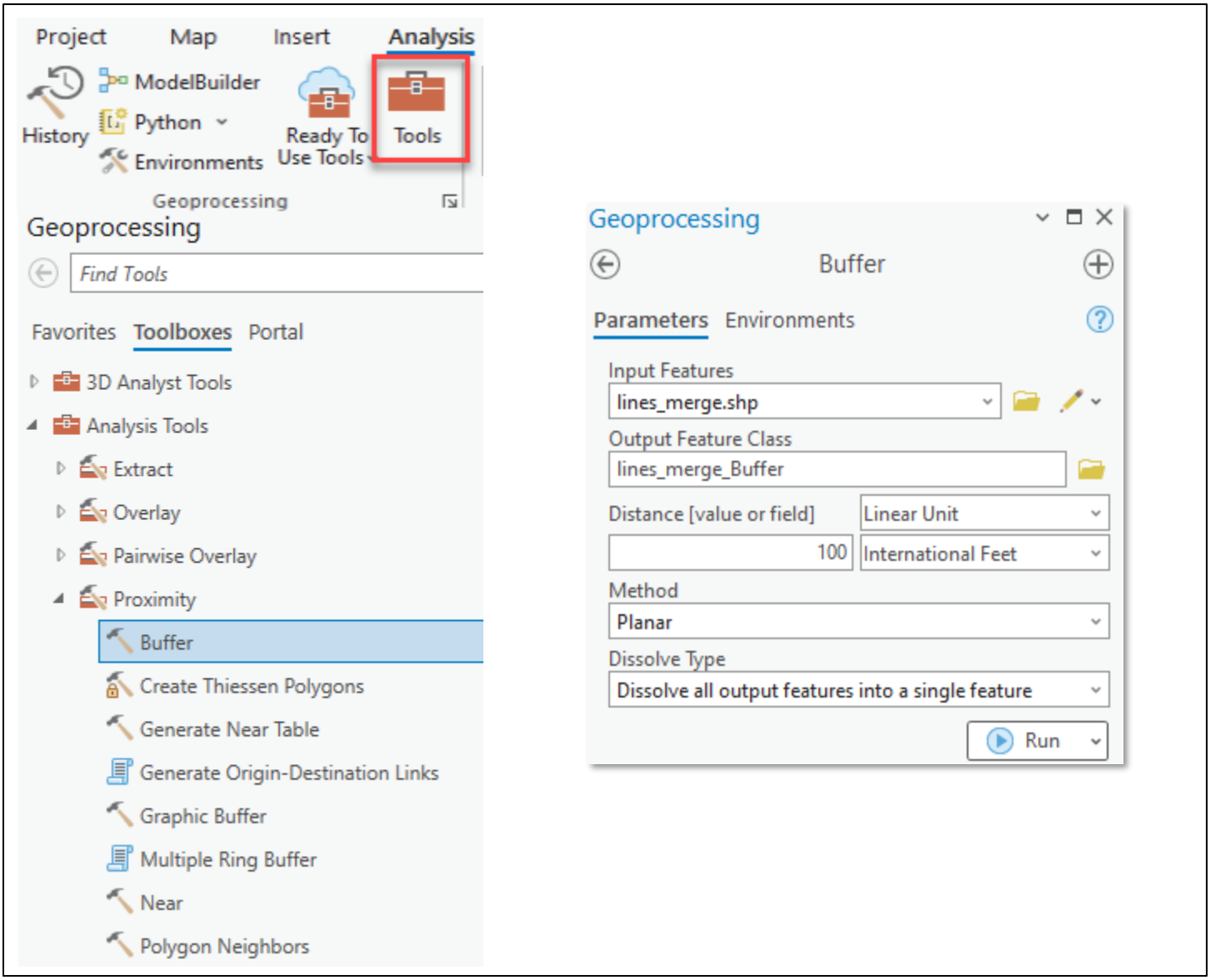
***Merge layers:***

Select ***Analysis*** Tab → Click ***Tools*** → Under the toolboxes tab, expand the toolbox for ***Data Management Tools*** → Expand ***General*** toolbox → Open ***Merge*** → Input layers to merge → Name output dataset → Click ***Run***



***Buffer layers:***

Select ***Analysis*** Tab → Click ***Tools*** → Under the toolboxes tab, expand the toolbox for ***Data Management Tools*** → Expand ***General*** toolbox → Open ***Merge*** → Input layers to merge → Name output dataset → Enter Distance value → Select International feet → Select ***Dissolve Type*** = *Dissolve all output features into a single feature* → Click ***Run***

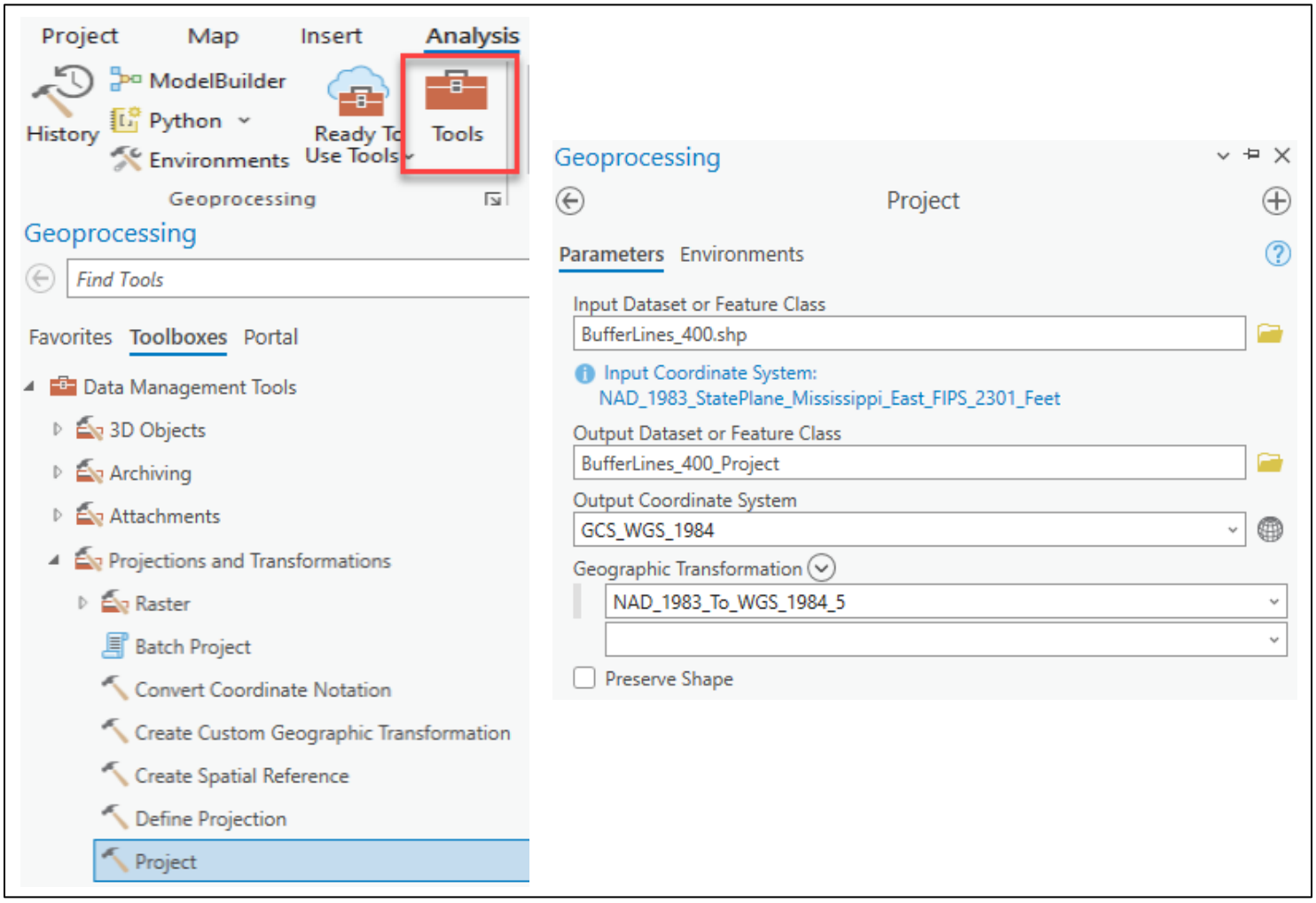


# ArcPRO

***Reproject layers:***

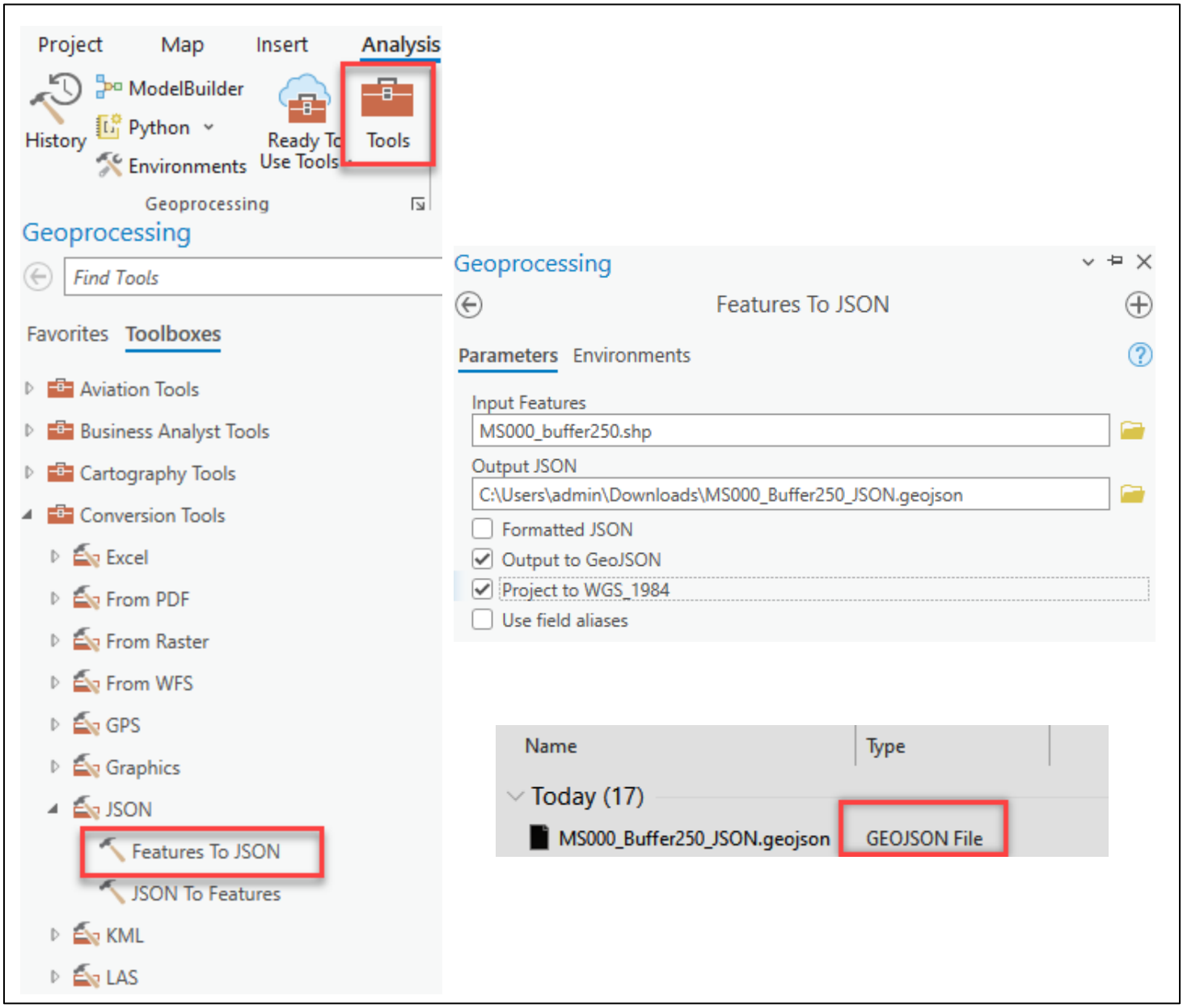
Select ***Analysis*** Tab → Click ***Tools*** → Under the toolboxes tab, expand the toolbox for ***Data Management Tools*** → Expand ***Projections and Transformations*** toolbox → Open ***Project*** → Input layers to reproject → Name output dataset → Select output Coordinate System = GCS_WGS_1984 → Click ***Run***

For NAD 83 State Plane projection users, follow above steps but additionally select → ***Geographic Transformation*** = select NAD_1983_To_WGS_1984_5 → Click ***Run***



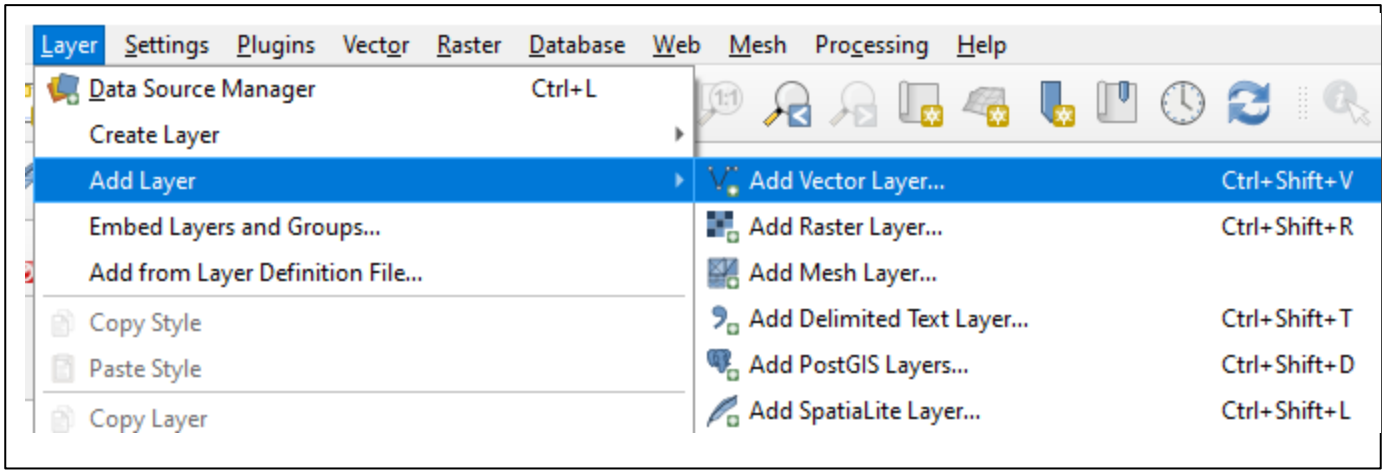
***Export layers:***

Select ***Analysis*** Tab → Click ***Tools*** → Under the toolboxes tab, expand the toolbox for ***Conversion Tools*** → Expand ***JSON*** toolbox → Open ***Features To JSON***→ Input layers to export → Name output dataset → Check boxes for 'Output to GeoJSON' and 'Project to WGS_1984' → Click ***Run***

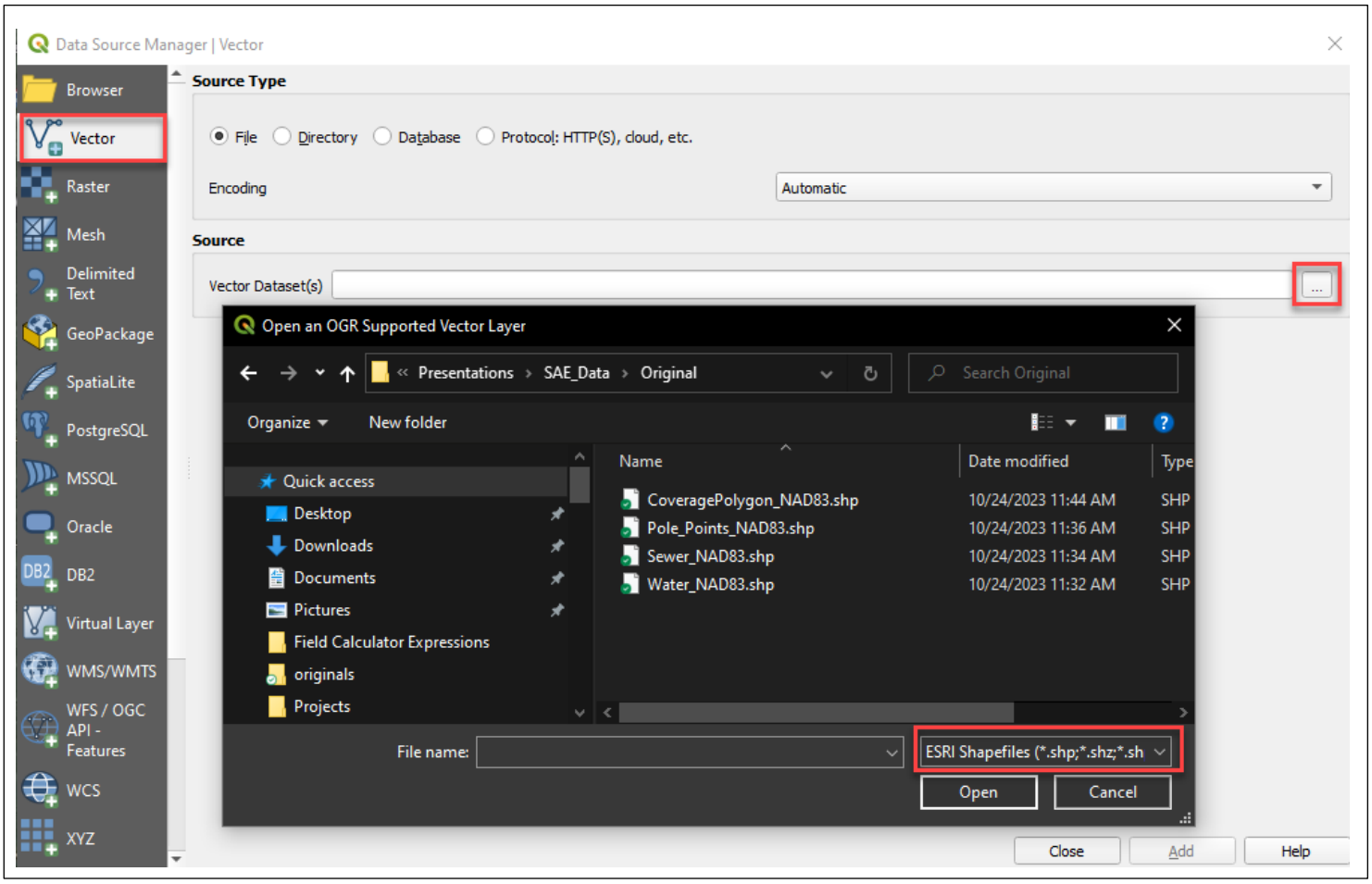


***Add Data layers:***

Select **Layer** → **Add Layer** → **Add Vector Layer**

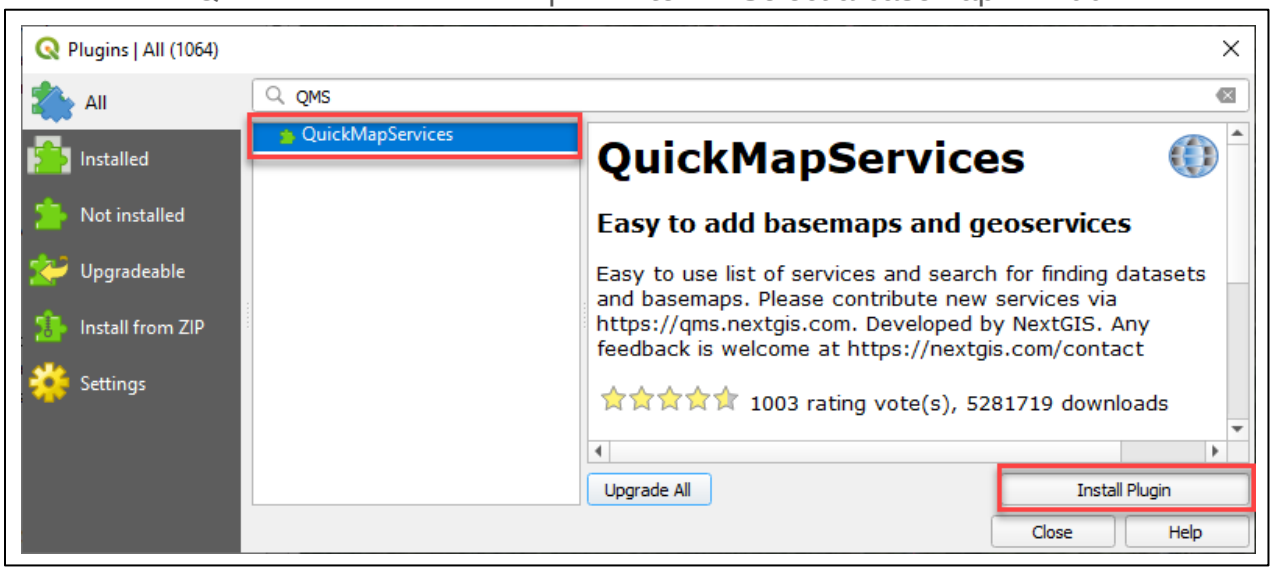


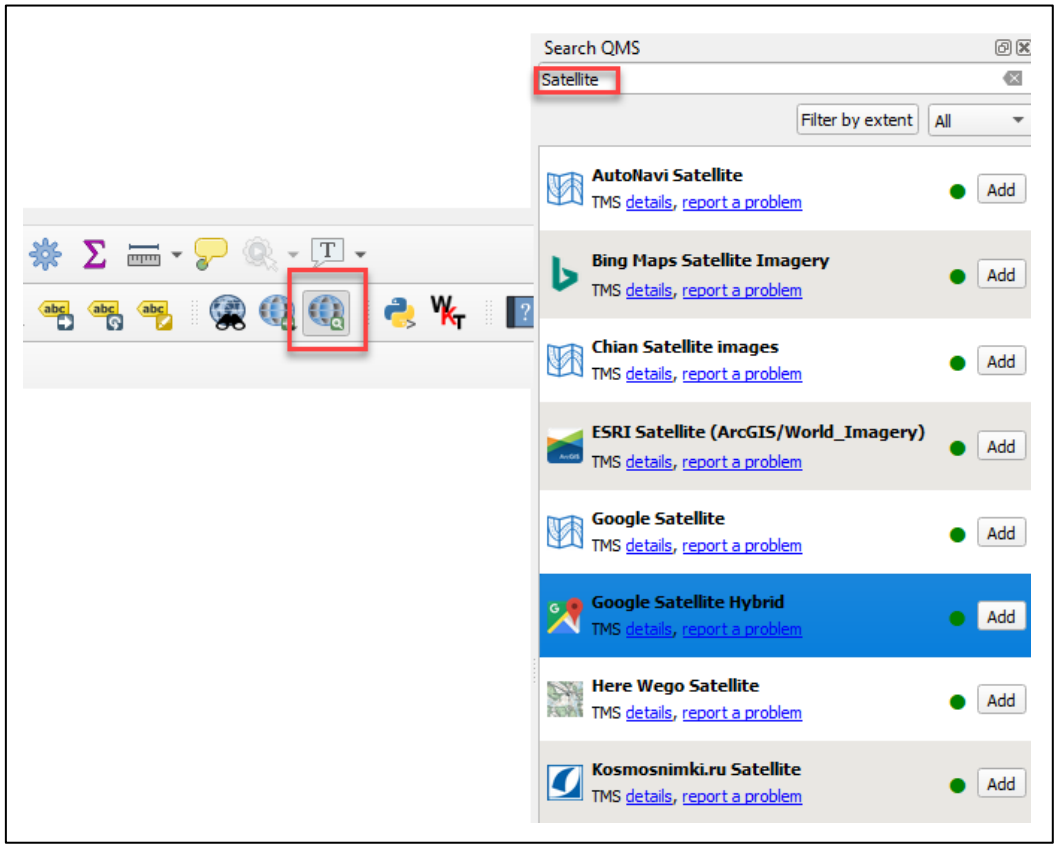

Select **Vector** → [...] → Select data file format of layers to import → Select layers → **Open** → **Add**→ **Close**



***Add Basemap Imagery: (internet connection is needed to install plugins)***

Select **Plugins** from top toolbar→ **Manage and Install Plugins** →Type 'QMS' in search bar →Select **Quick Map Services** in the left window→ **Install Plugin** → In toolbar, find QMS plugin  → Type 'Satellite' in search QMS box to add basemap→ **Enter** → Select a basemap → **Add**

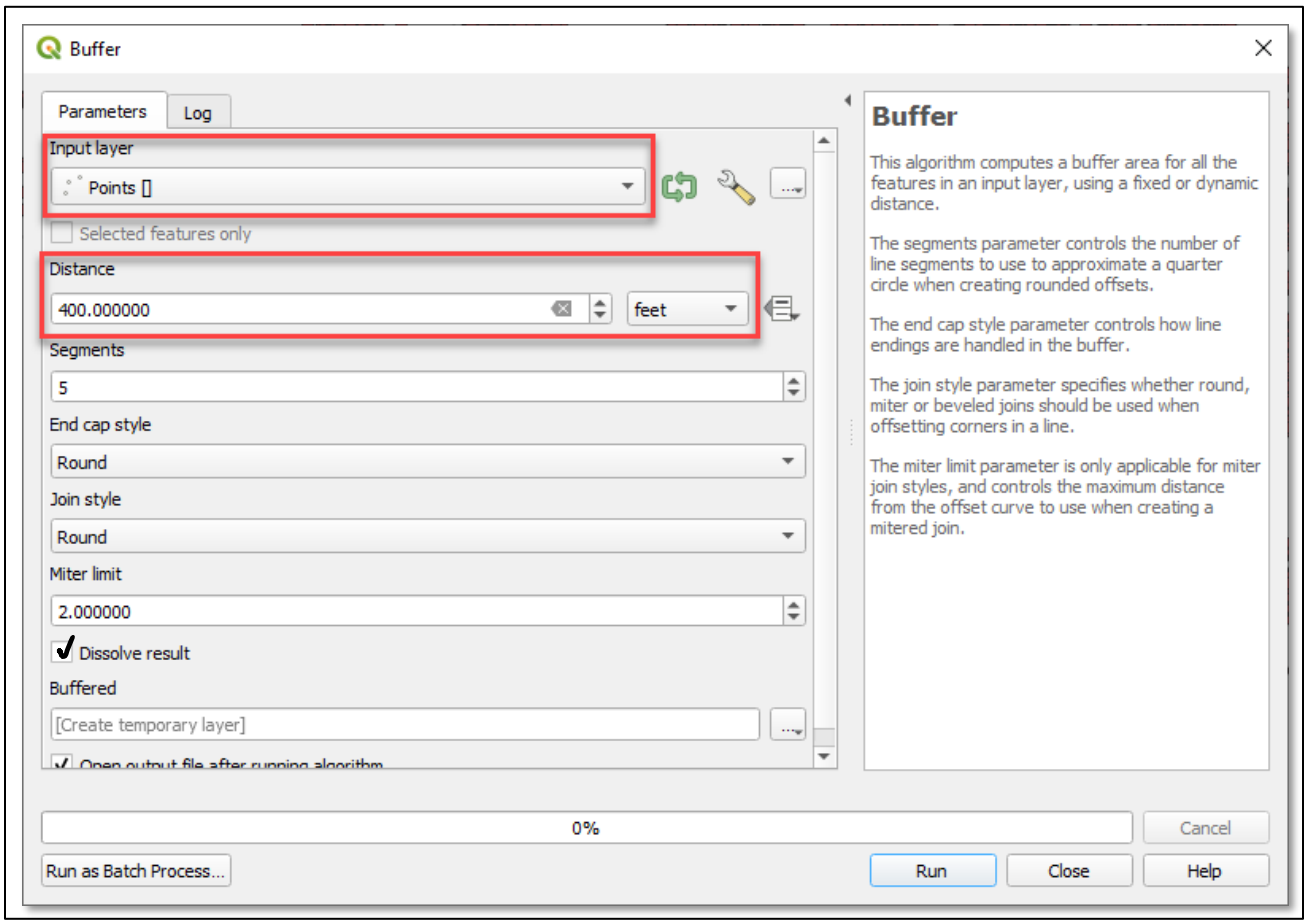


### *Buffer Layers:*

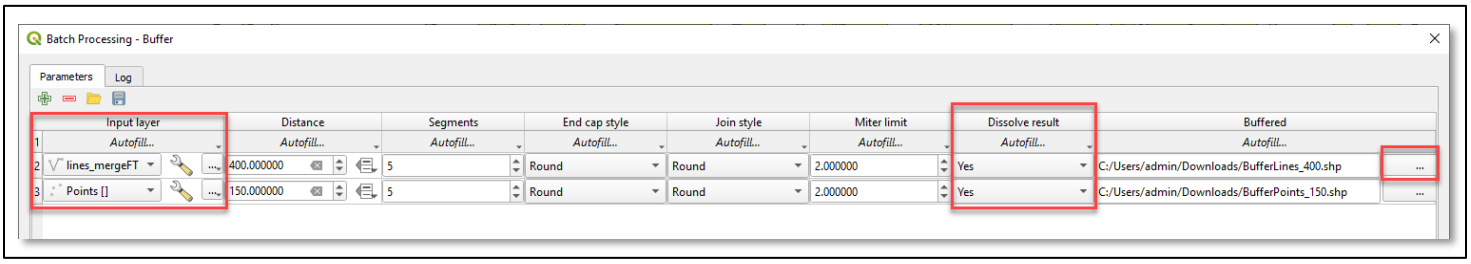
Select ***Vector*** from top toolbar → ***Geoprocessing Tools*** → ***Buffer*** → Select your input layers → Input buffer distance → Check box for dissolve result → Check box for 'Open output file after running algorithm'

****NOTE:** Layer projection must be in a projection that allows linear feet****



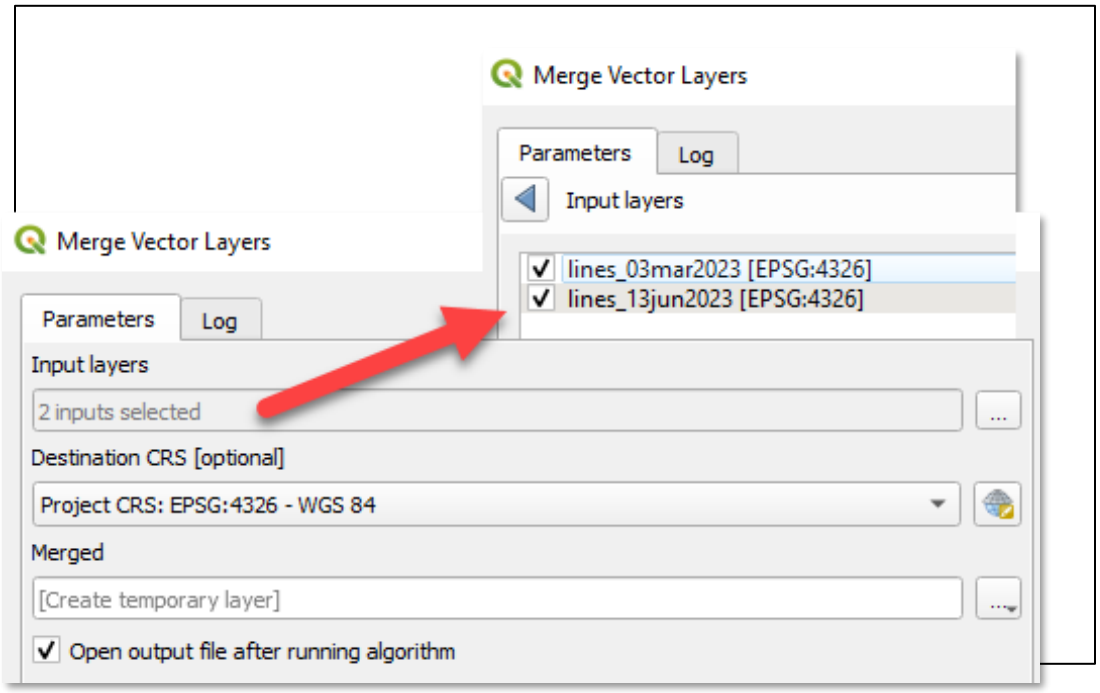

****TO RUN A BATCH MERGE PROCESS ON MULTIPLE GEOMETRY TYPES****

Click ***Run as Batch process*** → Select layer → Enter Distance → Select 'YES' under dissolve result → Select … under Buffered tab to name saved layer → Select the ⊞ to add another row → Select 2nd feature layer → Repeat above steps until all layers are complete → Click ***Run***



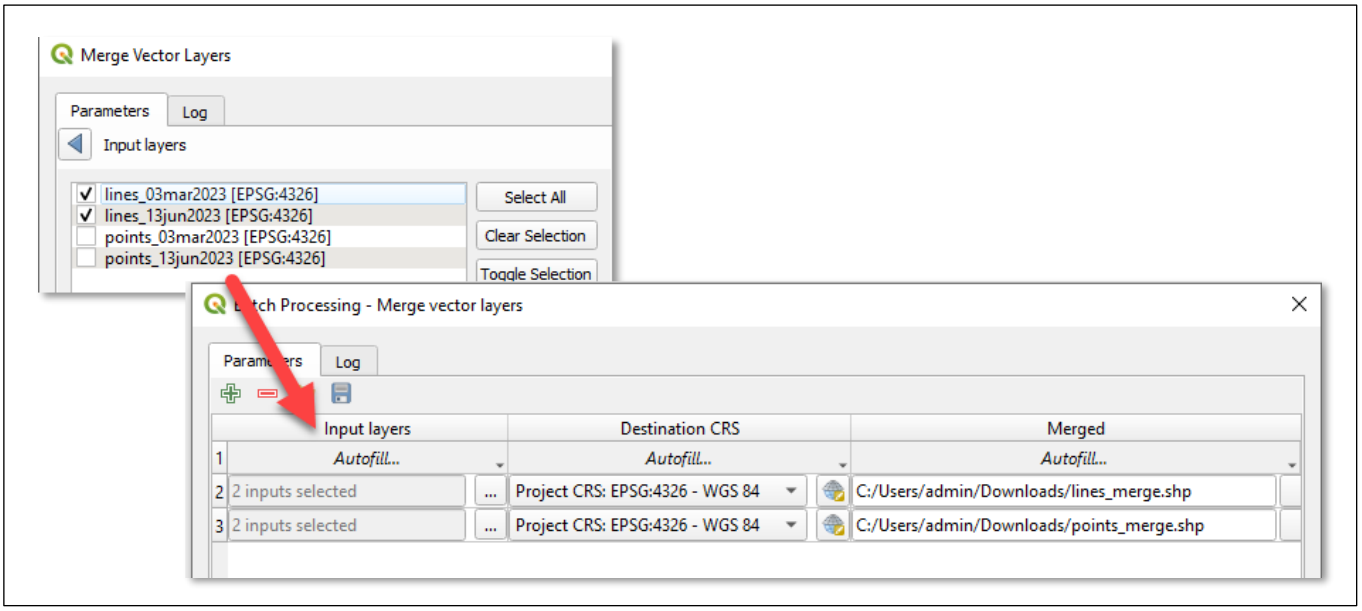
***Merge layers:***

Select **Vector** from top toolbar → **Data Management Tools** → **Merge Vector Layers** → Select your input layers → Select **EPSG: 4326** → Check 'Open output file after running algorithm'



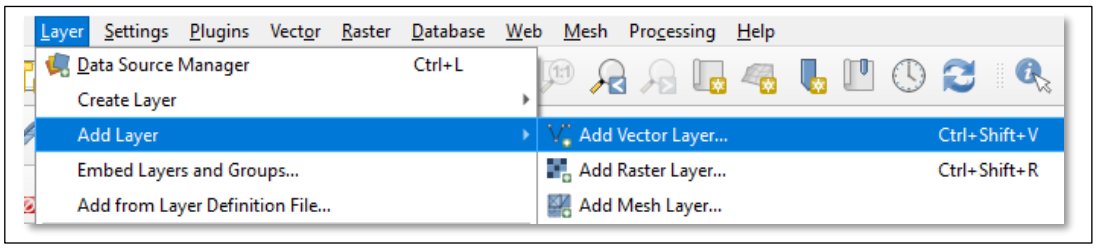

*****TO RUN A BATCH MERGE PROCESS ON MULTIPLE GEOMETRY TYPES*****

Click **Run** as Batch process → Select layers of like geometry (ex. all line features) → Select CRS Projection → Select the  to add another row → Select 2nd feature layer of like geometry → Click **Run**

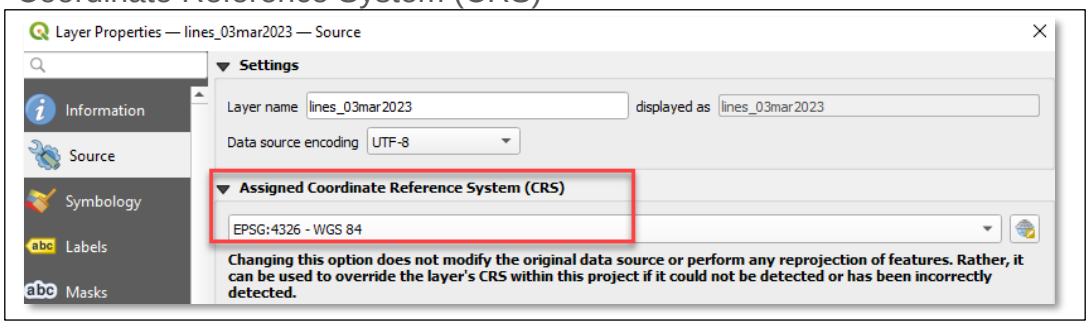


### *Check projection: EPSG: 4326 – WGS-84*

- *Load data*

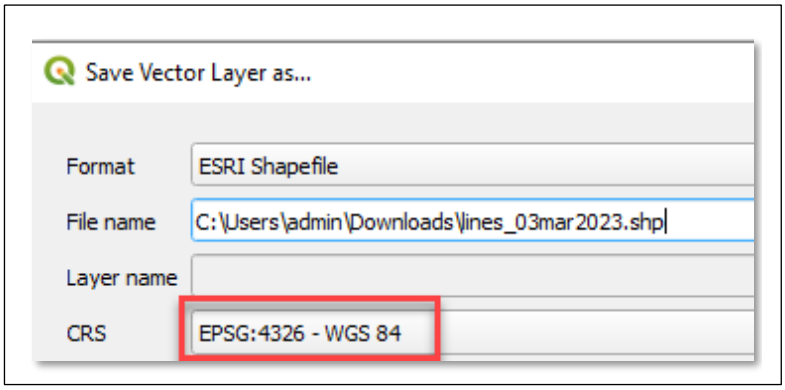



- Right click on the data layer → Select **Properties** → Select **Source** → Check Assigned Coordinate Reference System (CRS)



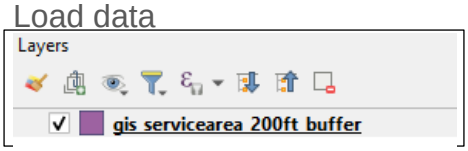

*****IF DATA IS NOT PROJECTED IN EPSG: 4326 WGS – 84*****

- Right click on the data in the Layers Panel → Select **Export** → Select Save Features As

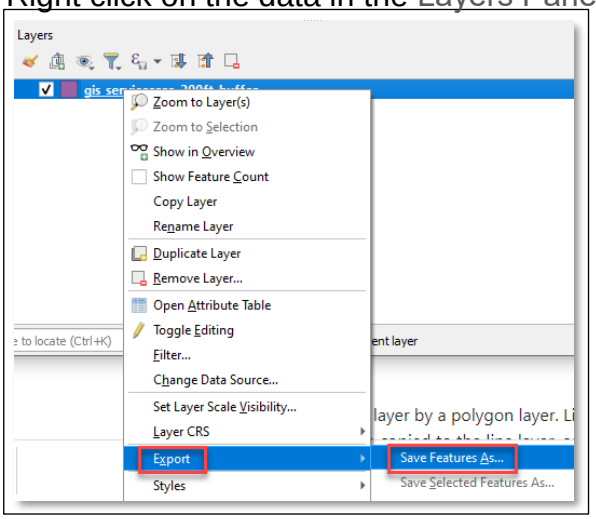


### *Convert to GeoJSON:*

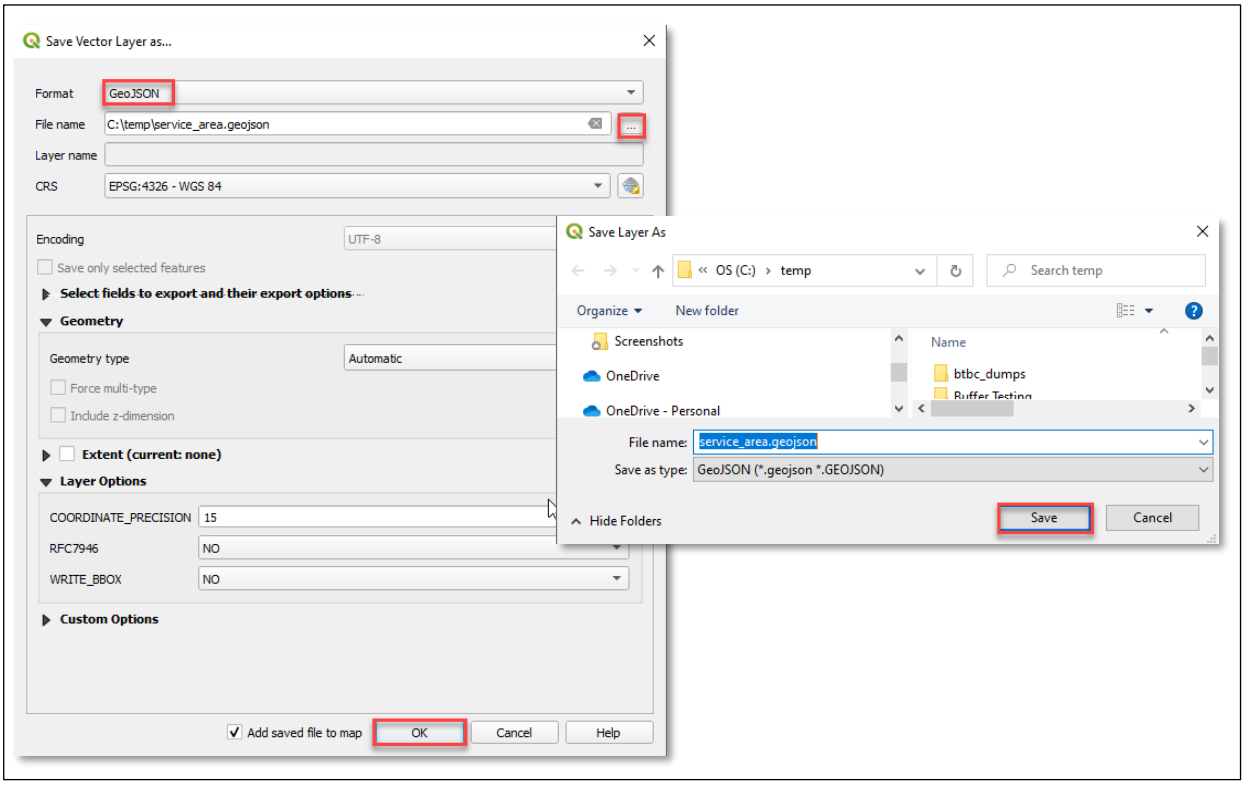
- Load data




- Right click on the data in the Layers Panel → Select **Export** → Select Save Features As

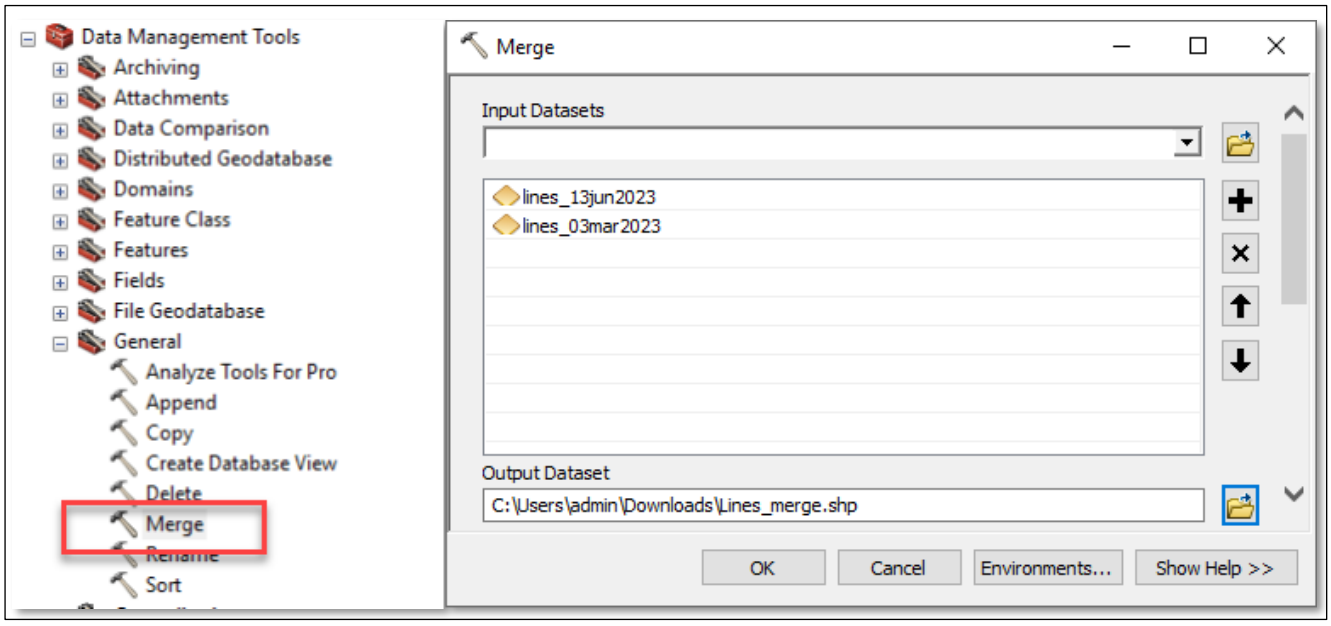



- Select **GeoJSON** as the format → Click  → Choose the directory to save to and enter a file name that is applicable → Click **Save** → Click **OK**



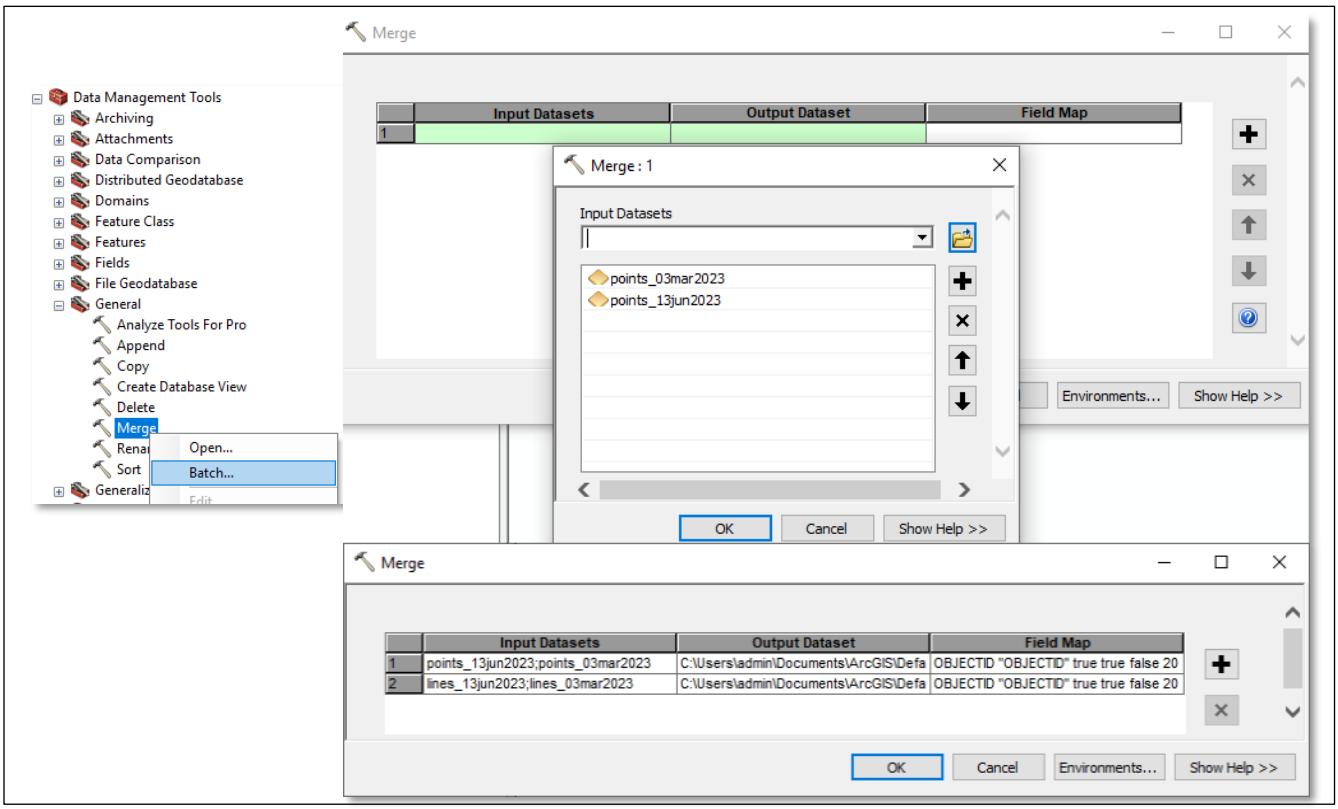
***Merge Layers:***

- In ArcCatalog Select **Data Management Tools → General → Merge**



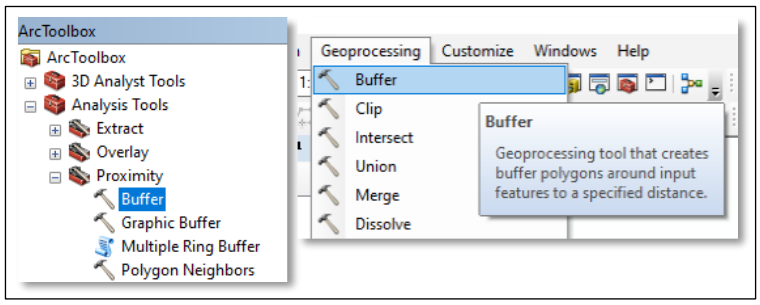

******TO RUN A BATCH MERGE PROCESS ON MULTIPLE GEOMETRY TYPES******

- Right Click **Merge → Batch →** Select the layers to merge → Click **Run**

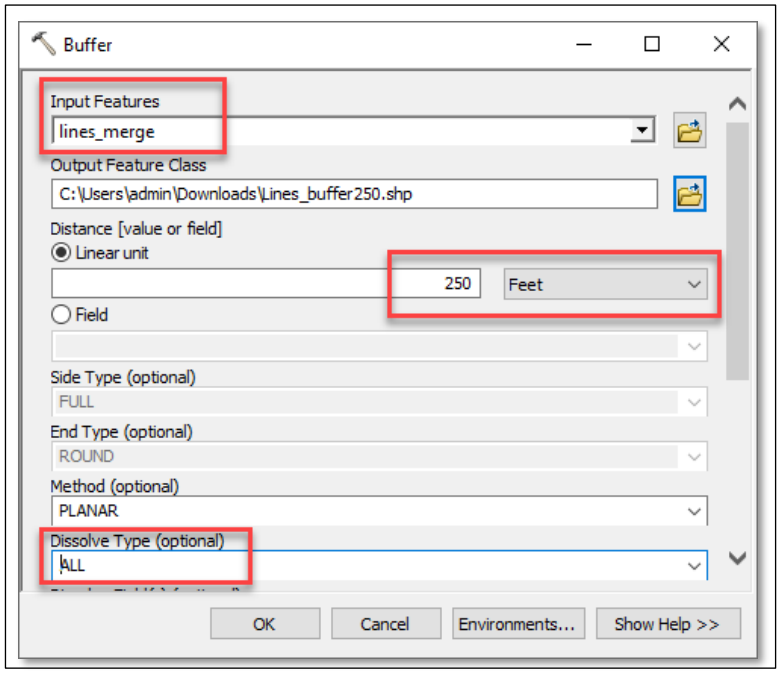


***Buffer Layers:***

- In ArcToolbox Select **Analysis Tools** → **Proximity** → **Buffer** OR Geoprocessing Tab → **Buffer**




- Input feature layer → Save layer in Output Feature Class location → Type buffer distance (feet) → Select 'ALL' for Dissolve Type → Click **Ok**



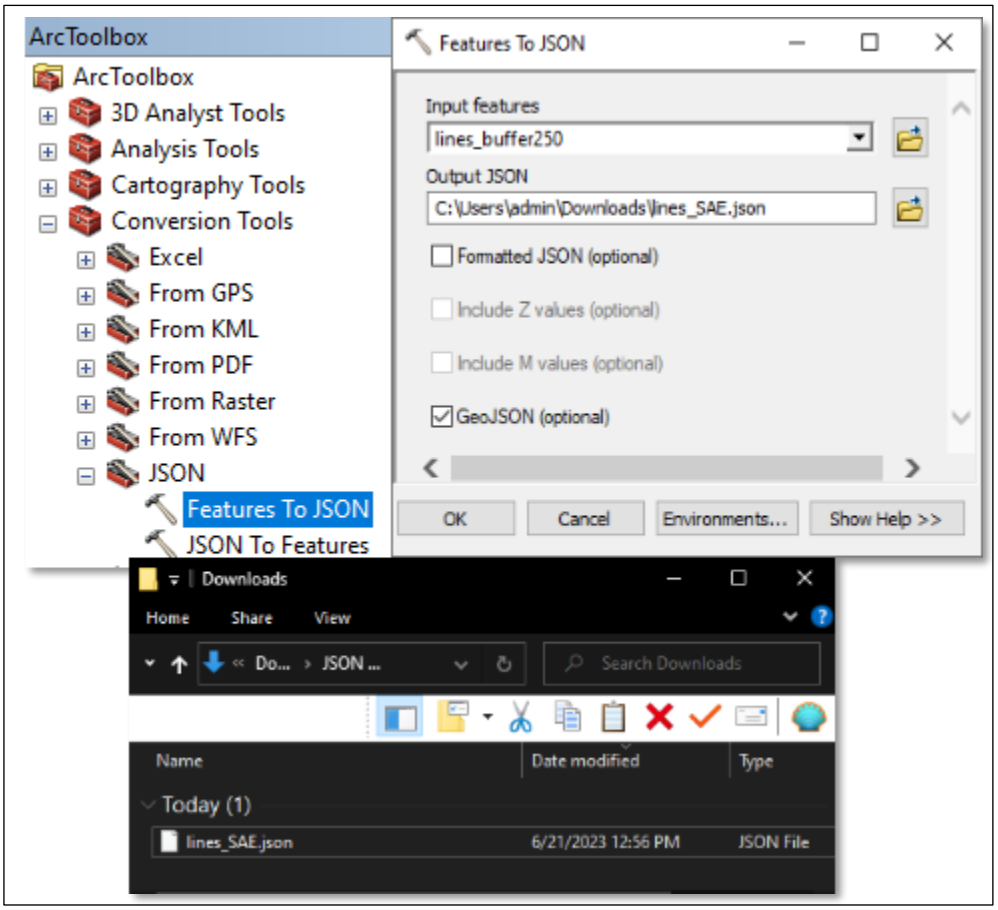
***Reproject Layers:***

- In ArcToolbox, expand the toolbox for ***Data Management Tools*** → Expand ***Projections and Transformations*** toolbox → Open ***Project*** → Input layers to reproject → Name output dataset → Select output Coordinate System = GCS_WGS_1984 → Click ***OK***

For NAD 83 State Plane projection users, follow above steps but additionally select → ***Geographic Transformation*** = select NAD_1983_To_WGS_1984_5 → Click ***OK***

***Convert to GeoJSON:***

- In ArcToolbox Select **Conversion Tools → JSON → Feature to JSON**



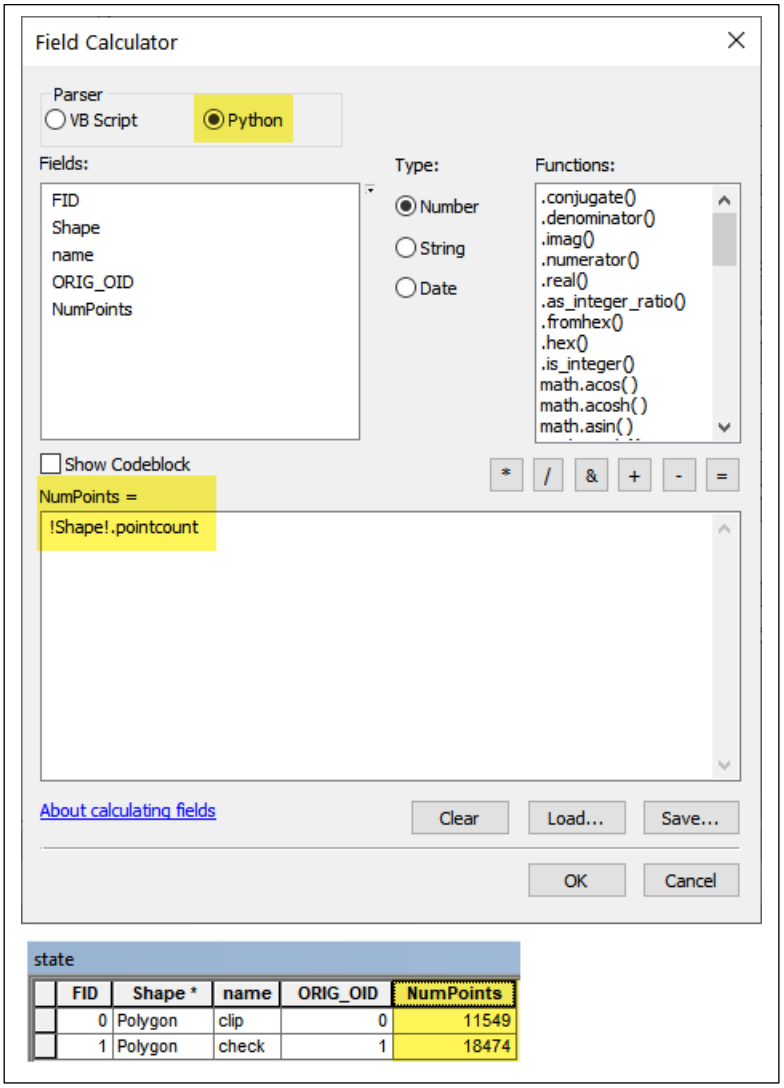
***OPTIONAL*** ***Complex GIS data will take time to upload in SAE. To determine complexity of data, run a vertices count on merged line features. Contact the GIS Team if you think your data has a high vertices count so we can assist you with uploading in SAE.***

***Get Vertices Count:***

- Load data
- Add a field → "NumPoints" → Field Type = Long Integer

Field Calculate the new field:

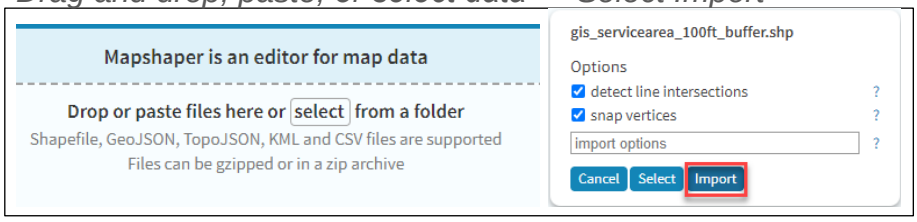
!Shape!.pointcount



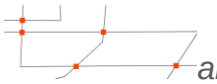
# Mapshaper

***Importing Data:***

- *Mapshaper supports Shapefiles, GeoJSON, TopoJSON, KML, and CSV files.*
- *Drag and drop, paste, or select data → Select Import*




***Cleaning & Dissolving:***

*Run the following commands if numerous red intersections markers*  *are displayed when you import data into Mapshaper. Some of these commands remove insignificant holes, etc. which can help make your geometry more efficient. This technique won't fix 100% of data issues especially if your data has lots of geometry errors.*

- *Select* **Console**
- *Run commands in the order listed below. Type a command and press Enter ↵→ Repeat for each command.*
  - ***clean***
    - *Fixes geometry issues, such as polygon overlaps and gaps*
  - ***dissolve***
    - *Merges features within a layer (If this command returns "Dissolved 1 feature into 1 feature", skip the dissolve2 command)*
  - ***dissolve2***
    - *Merges adjacent polygons (repairs overlaps and gaps)*
    - *Type a command and press Enter ↵→ Repeat for each command.*
      - *Some of these commands remove insignificant holes, etc. which can help make your geometry more efficient. This technique won't fix 100% of data issues especially if your data has lots of geometry errors.*
    - *Check the data for validity between each command.*

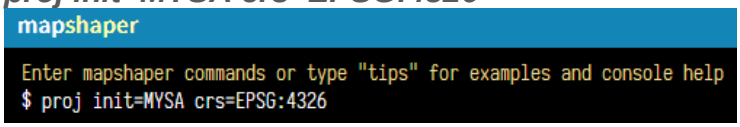
```
Enter mapshaper commands or type "tips" for examples and console help
$ clean
[clean] Removed 54 / 166 slivers using 4+ sqm variable threshold
[clean] Retained 1 of 1 features
$ dissolve
[dissolve] Dissolved 1 feature into 1 feature
```

  - ***help*** *- Displays the complete list of map shaper commands.*
- Export data to GeoJSON.

# Mapshaper

***Reprojecting:***

- *Select* Console
- *Use the console command "proj" as follows to reproject data from its projection to WGS84.*
  - *Type:* ***proj init=<name> crs=EPSG:4326***
  - *Replace* ***<name>*** *with the name of the file imported (DO NOT include the file extension). Ex: MYSA.shp, MYSA.prj, MYSA.dbf have been loaded in mapshaper use:*
    - ***proj init=MYSA crs=EPSG:4326***

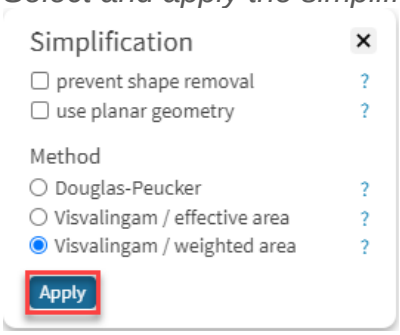



- Export data to GeoJSON.

***Simplifying:***

*Files that are extremely large or that have extremely high vertices count can result in file upload issues. Simplifying can be beneficial because it lessens the number of vertices in a shape, which ultimately reduces the file size. Simplify can be done using the Simplify tool or by the Console command line. Refer to the Vertices Counts section for this document to learn how to verify the number of vertices your data contains.* *https://github.com/mbloch/mapshaper/wiki/Simplification-Tips*

- *Select* Simplify
- *Select and apply the simplification method you wish to use.*



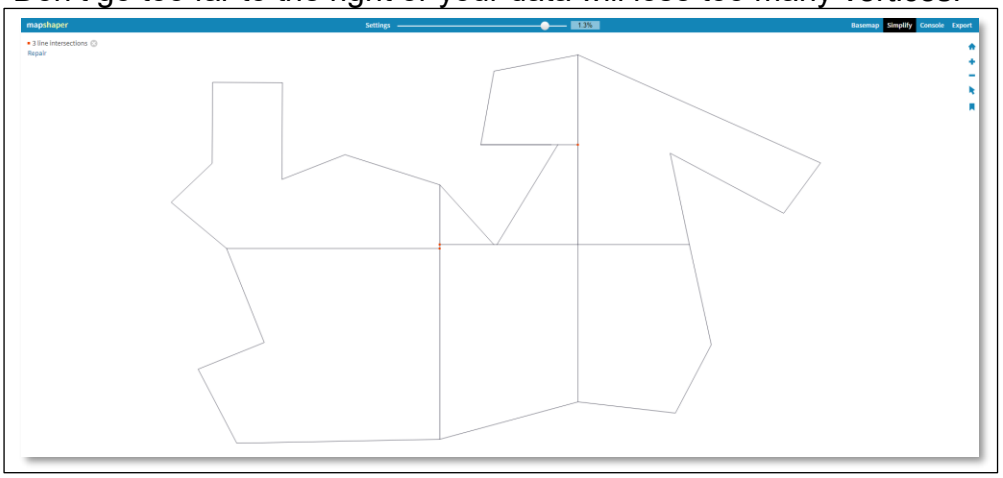

- Slide the settings bar to the right to set the simplify percentage.


- As you slide the bar you will start to see the data begin to change.

# Mapshaper

***Simplifying:***


- Don’t go too far to the right or your data will lose too many vertices.



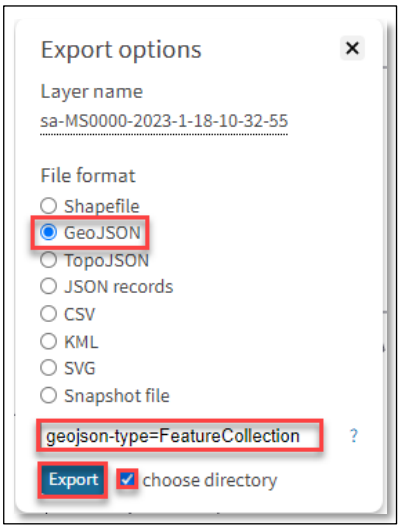

- Export the data when you are satisfied with the results.

# Mapshaper

***Exporting:***

Export your data to GeoJSON after the completion of: clean, reproject, simplify, dissolve functions

- Select **Export** → **GeoJSON** → Type: **geojson-type=FeatureCollection** → Check choose directory → Select **Expor**t → Change file name (optional) → Choose save directory → Click **Save**



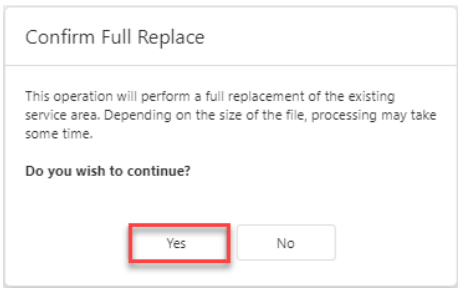
# UPLOADING GIS DATA FILES

GIS files uploaded to SAE, must meet certain requirements. The file **MUST** be GeoJSON format and **ONLY** contain geometries that are either POLYGON or MULTIPOLYGON. The data must be in EPSG:4326 projection (WGS84). For a complete list of upload requirements see the "File Upload Requirements" document located on our website.

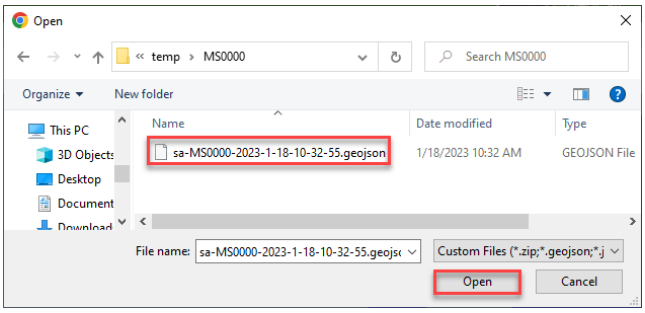
**Upload Full Replacement:**

Use the following steps if you wish to submit a file that contains your entire up-to-date service area.

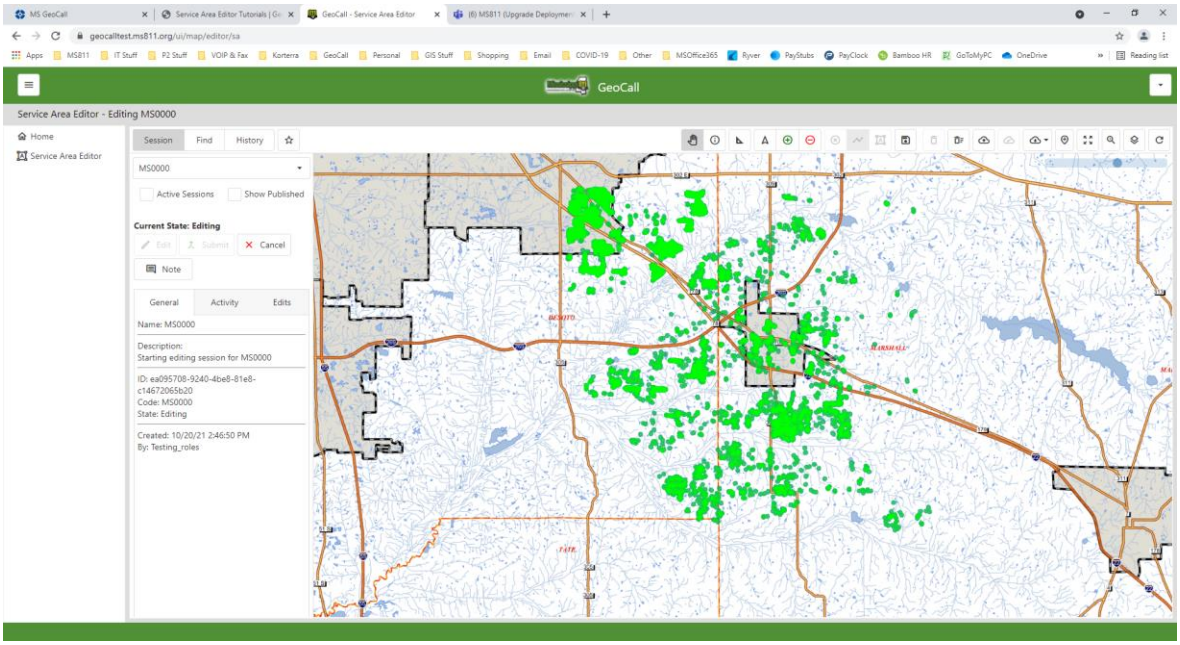
1. Select **Upload Full Replacement**
2. Click Yes to continue with the full replacement.




3. Select the file to be uploaded → Click Open.




4. The file will be uploaded, and the new service area will be displayed in **green**.



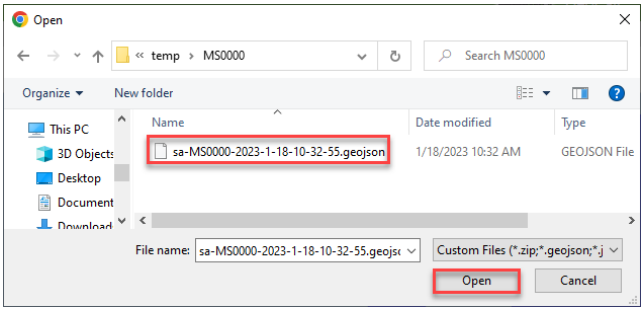
a. Note: If you are uploading a large service area file it may take a few minutes to load. Refer to the "File Upload Requirements" document if the file has not been uploaded within 10 mins. Contact the GIS Team if you continue to have data upload issues.

5. Click **Zoom to Extent** to zoom to the full extent of the updated area.

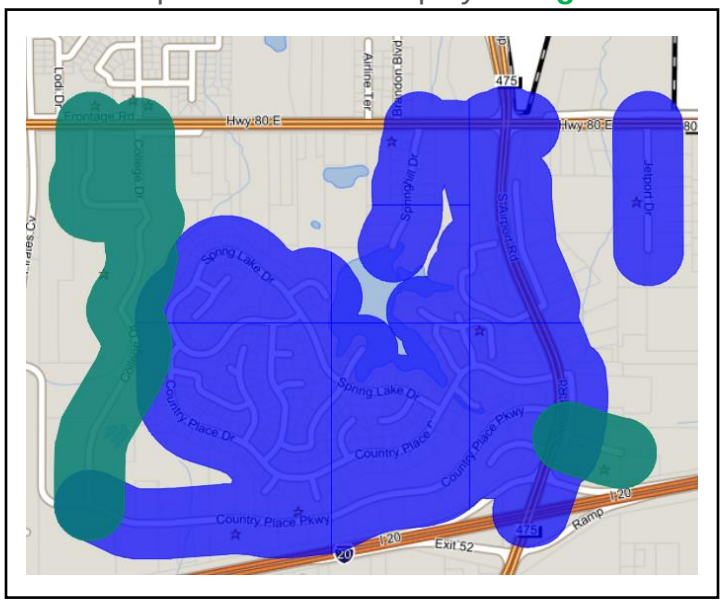
### Upload File (Append):

The ***Upload File*** option allows you to upload a GIS file that contains an area to be appended or removed from your service area.

1. To upload a file to be appended, select **Draw Addition** → Select **Load File**
2. Select the GIS file containing the area to be appended to your service area → Click Open




3. The area uploaded will be displayed in **green**.



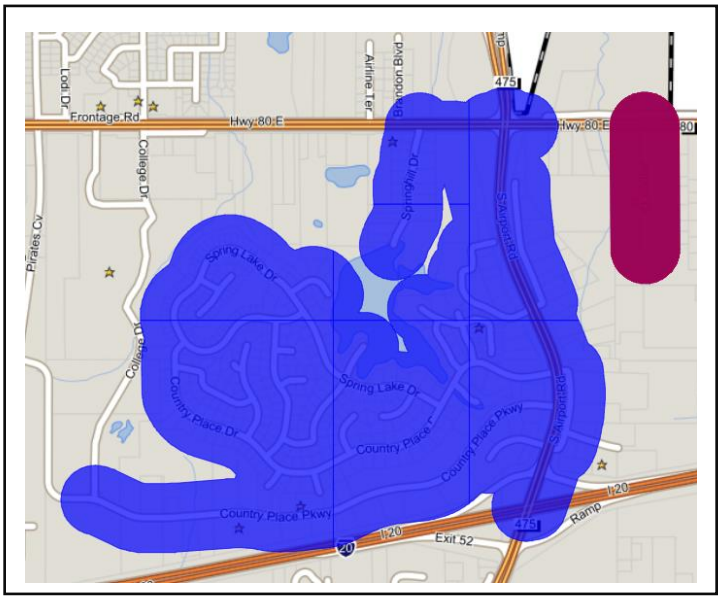

4. Click **Save** to commit your edits.

# UPLOADING GIS DATA FILES

**Upload File (Delete):**

The ***Upload File*** option allows you to upload a GIS file that contains an area to be appended or removed from your service area.

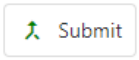
1. To upload a file to be deleted, select **Draw Deletion** → Select **Load File**
2. Select the GIS file containing the area to be appended to your service area → Click Open
3. The area uploaded is displayed in **red**.




4. Click **Save** to commit your edits.

# UPLOADING GIS DATA FILES

**Submitting Changes:**

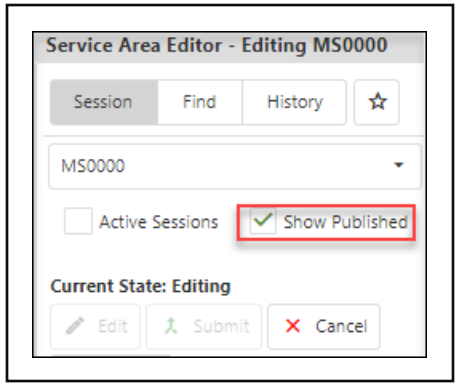
1. Refer to the "**CHECKING YOUR WORK"** section of this document before submitting your edits.
2. Select 

when you are ready to submit your changes to MS811 for review.
    a. You will see that all added areas have been merged into the blue current service area and the deleted areas have been removed.
    b. You will receive an email confirming that your edits have been submitted.
3. MS811 will receive a notice that updates have been submitted for review.
    a. MS811 will review your updates and either approve or deny the changes.
    b. Updates will only be denied if MS811 feels that the edits submitted will put your underground utilities in danger. In most cases, MS811 will contact you before denying updates.
    c. You will receive a notice with an explanation if your updates are ever denied.
    d. Approved updates will be published to production on the same day they are approved.
4. You will receive a notice when MS811 approves your edits.
5. Updates submitted are normally processed by MS811 between 7 am and 4 pm Monday-Friday, excluding holidays, within the same week they are submitted. Please contact the GIS Team if you have not received a confirmation email within 5 business days of your submission.
6. It is recommended that you log in to SAE the day after your updates have been published and verify changes.
7. The system will not automatically sign you out. Therefore, we recommend that you sign out of SAE when you are done with your session.

# CHECKING YOUR WORK

After editing and saving, it is good practice to compare the **Current** to the **Published** service area before submitting to MS811.

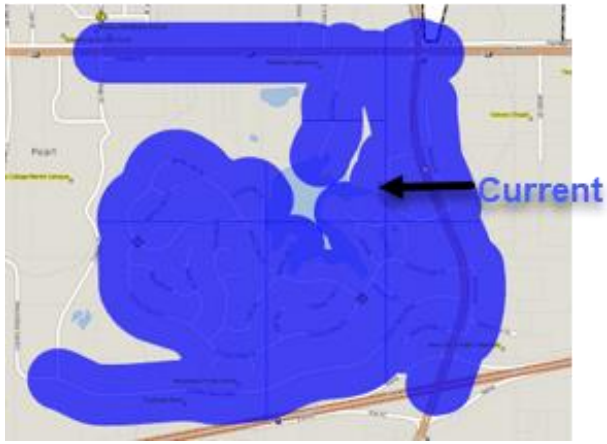
1. ☑ Check the box to the left of show published.



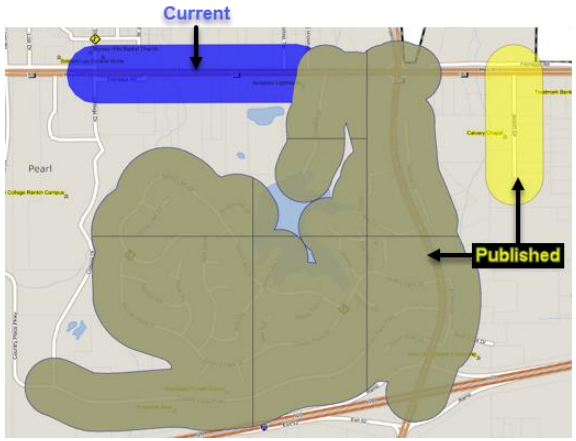

2. The **Published** service area (before edits) is displayed in yellow on top of **Current** service area (after edits).

***The user has drawn areas to be added and deleted in the following example.***


***When the user saves, the areas drawn are added or removed from the Current service area.***




***The geometry that appears light green/brown below is the visual effect of the Published and Current service areas overlapping.***

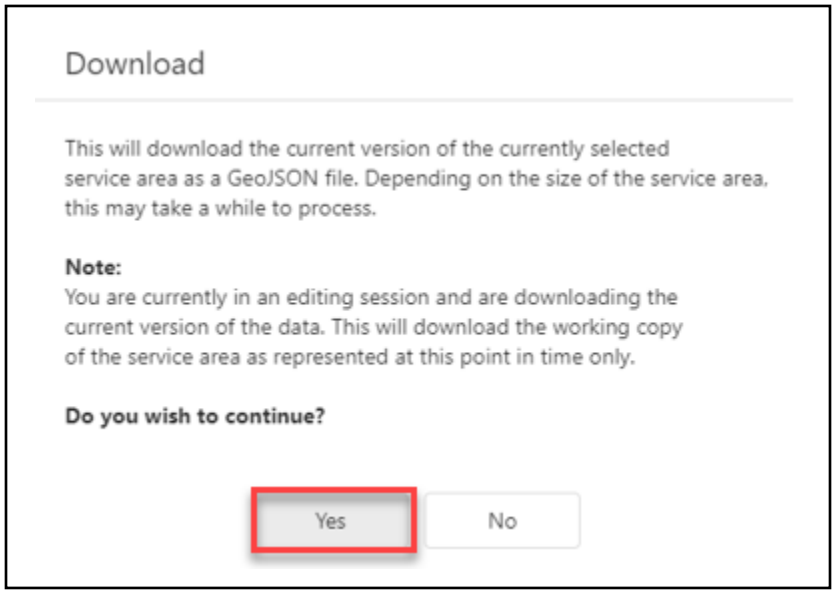


# DOWNLOADING SERVICE AREAS

**Downloading Service Area:**

1. Select **Download**
2. Select the format you want to download the data as.

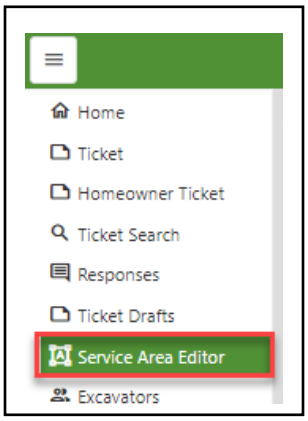

3. Click Yes

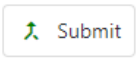


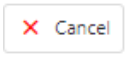
# UPDATE HISTORY

**Reviewing Service Area Update History:**

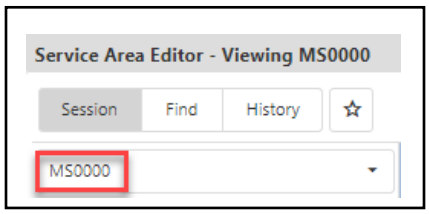
1. Log into your Portal account → Select “Service Area Editor”.



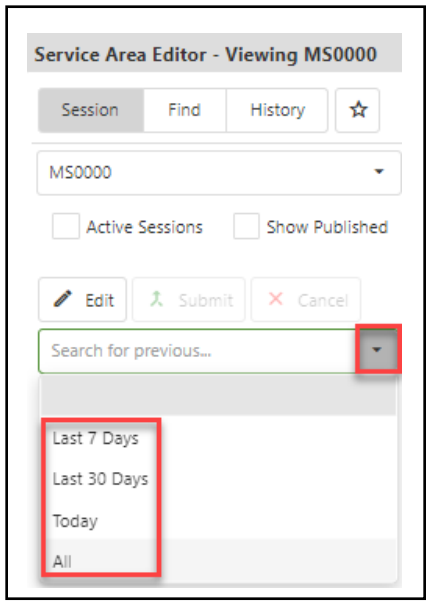

2. Select dispatch code to be reviewed. (If in an active editing session, you will need to save  and submit 

changes or cancel 

the session before you will be able to view update history.)

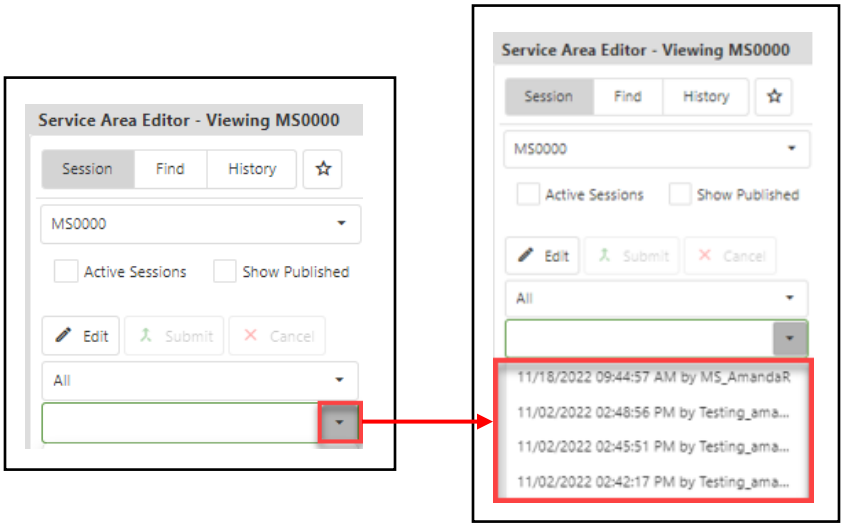



3. Click dropdown arrow to right of “Search for previous…” → Choose time frame to review.

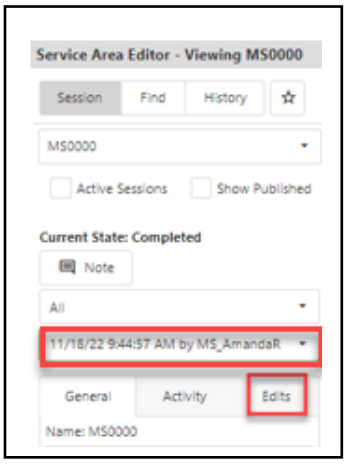


# UPDATE HISTORY

4. Click dropdown arrow below “Search for previous…” box to view a list of editing sessions for selected time frame.



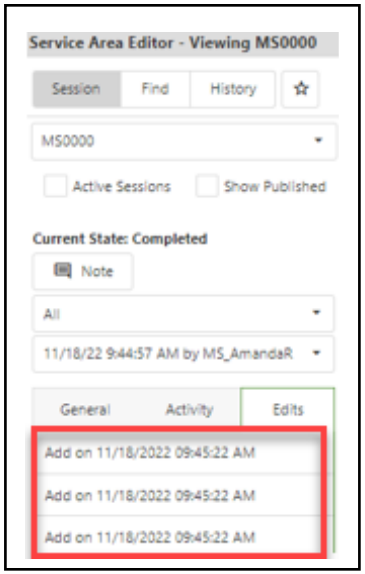

5. Select edit session in question → Click “Edits” tab.

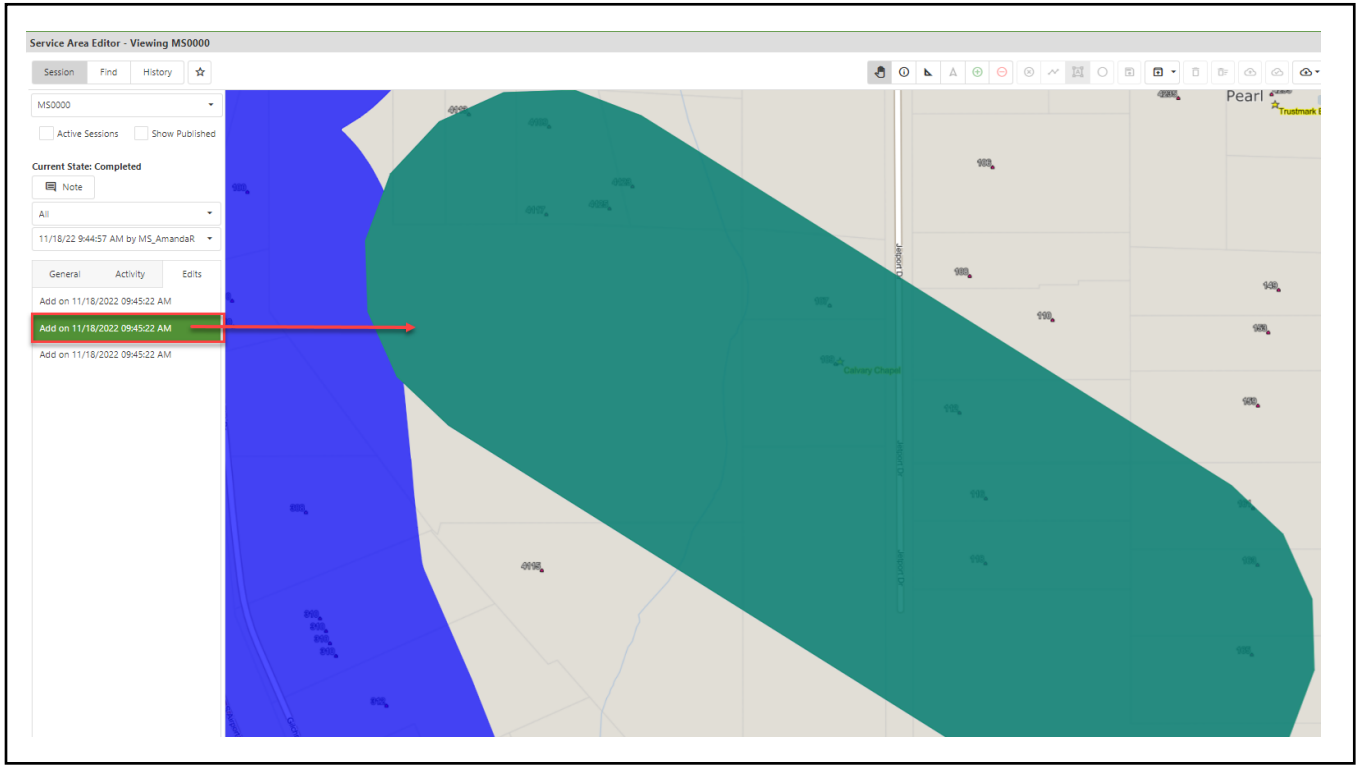


# UPDATE HISTORY

A list of every edit made during the session will be displayed. Click on an individual edit to zoom to area on the map where that change was made.

**Example:** The type of edit made will be indicated by the words “Add” or “Delete” before date/time the edit was made.

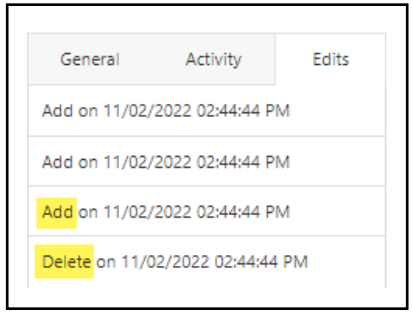


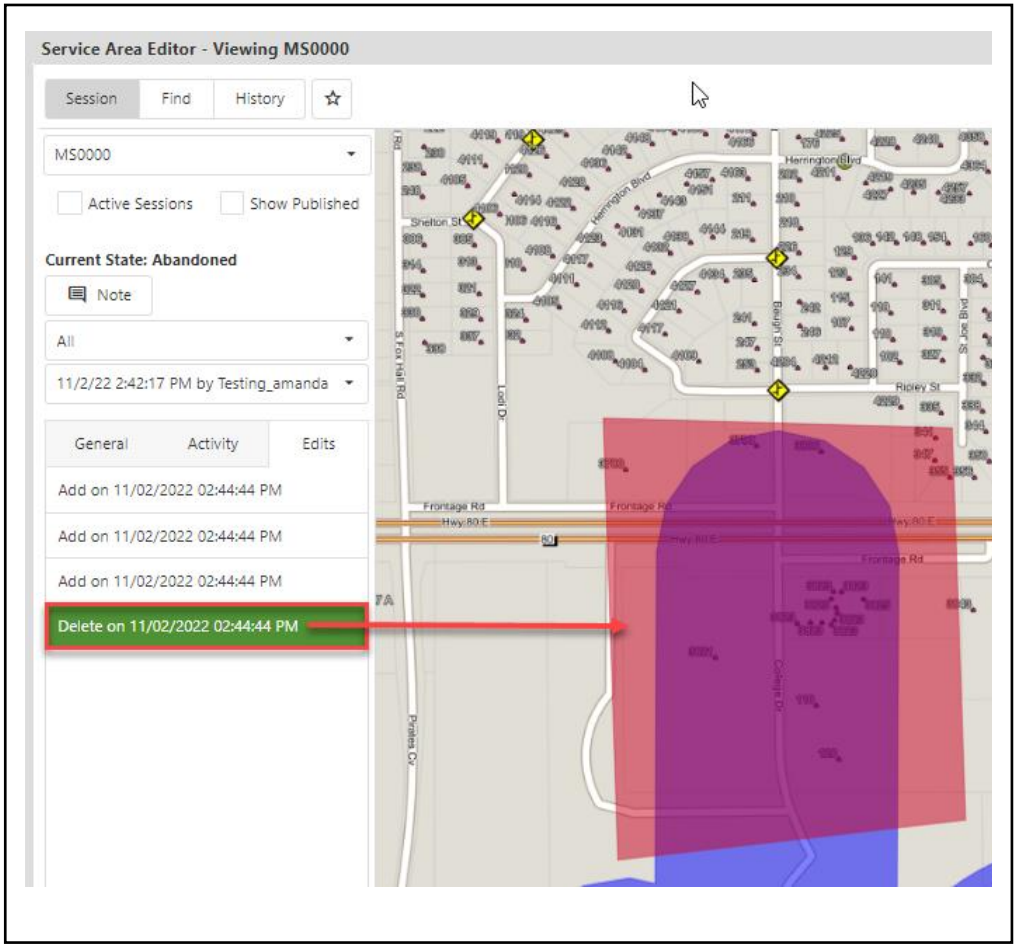



# UPDATE HISTORY

A list of every edit made during the session will be displayed. Click on an individual edit to zoom to area on the map where that change was made.

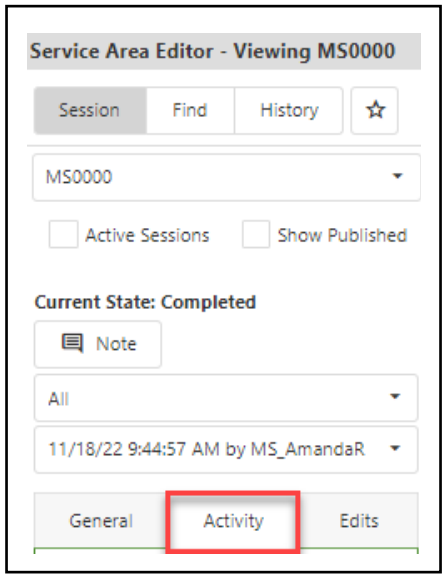
**Example:** The type of edit made will be indicated by the words “Add” or “Delete” before the date/time the edit was made.



# UPDATE HISTORY

1. Click “Activity” tab.




2. Editing session Action and Transition information will be displayed.