CLIPPING GEOSPATIAL DATA IN ARCMAP 10.1

Geospatial data often comes in geographies larger than what is required for a given project. For example, you may want only boundary files for a small area but your only choice may be to download boundary files for all of Canada. Clipping the extent of larger geographies to your study area reduces the file size of your data and the amount of work for ArcGIS to do since any further analyses will be performed only on your clipped data.

Clipping Vector Data

Follow these steps to clip your area of interest from a vector dataset with a larger spatial extent.

1. Open ArcMap: **Start** > **Programs** > **ArcGIS** > **ArcMap**. Open a new or existing map.
2. Open **ArcToolbox** by clicking the **ArcToolbox** icon. 
3. In the **Toolbox** menu expand **Analysis Tools** > **Extract**.
4. Double-click on **Clip**. When the **Clip** dialogue box opens, click on **Show Help** to see instructions for each entry you will need to make. Instructions will show on the right as you progress through the form.
5. In the **Input features** box, click **Browse** to navigate to the location of the .shp file that you want to clip and click **Open**. (*Note:* this is the file that goes beyond your study area)
6. In the **Clip** features box, click **Browse** to the location of the .shp file that you want to use to clip the input feature and click **Open**. (*Note:* this is the file that is your study area).
7. In the **Output** feature class box, browse to the folder to which you are saving your data and name your new file something meaningful. Click **OK**.
8. The new shape file is added to the view.

Clipping Raster Data

1. Open ArcMap: **Start** > **Programs** > **ArcGIS** > **ArcMap**. Open a new or existing map.
2. Turn on the **Spatial Analyst** extension: **Customize** > **Extensions**, check **Spatial Analyst**. Click **Close**.
3. Open **ArcToolbox** by clicking the **ArcToolbox** icon. 
4. In the **Toolbox** menu expand **Spatial Analyst Tools** > **Extraction**.
5. Double-click on **Extract by Mask**. When the dialogue box opens, click on **Show Help** to see instructions for each entry you will need to make. Instructions will show on the right as you progress through the form.
6. In the **Input raster** box, click **Browse** to navigate to the location of the raster file that you want to clip and click **Open**. (*Note:* this is the file that goes beyond your study area)
7. In the **Input raster or feature mask** box, click **Browse** to navigate to the location of the file that you want to use to clip the input raster and click **Ope**n. (*Note:* this is the file that is your study area).
8. In the **Output raster** box, **Browse** to the folder to which you are saving your data and name your new file something meaningful. Click **OK**.
9. The new raster file is added to the view.