Contour Steps:

- 1. Load the individual Bare Earth tiles into QGIS, then do a Raster Merge on the tiles to get the county into 1 mosaicked tile. Once the merge is completed, we do a Raster Calculator on the merged mosaic to convert it to feet.
- 2. Then run the Raster Tool-Extraction-Contour tool: Settings Interval 2ft and save the file as a QGIS .gpkg.
- 3. Once it is extracted, open in ArcMap and save the contours to an ArcGIS .gdb (#_County_2ft)
- 4. Removed all geom_Length that was less than 1.0 to help eliminate small features that slow down the processing of the layer
- 5. Original file is then exported to same .gdb to run ArcGIS tool <u>Generalize</u> on the line segments. Each File Geodatabase Feature Class is an export from the original and processed with this tool with varying Tolerance options.
- 6. A separate geodatabase was created to run the ArcGIS tool <u>Smooth</u> to give an example of what that would do with the contours.

Here are the descriptions for each layer provided, both counties should have the same number of files in each geodatabase and named the same for the tolerance levels:

KDA_Clay_Contours.gdb (same for KDA_Cloud_Contours.gdb)

Clay_County_2ft: Original file from QGIS .gpkg saved into ESRI .gdb

Clay_2ft_minus1: Original file with geom_Length < 1.0 removed

Clay_2ft_minus1_50: Original file with geom_Length < 1.0 removed and Generalized tool tolerance of .50

Clay_2ft_minus1_1: Original file with geom_Length < 1.0 removed with Generalized tool tolerance of 1.0

KDA_Clay_Contours2.gdb (same for KDA_Cloud_Contours2.gdb)

Clay_2ft_minus1_smooth: Original file with geom_Length < 1.0 removed and Smooth tool tolerance of 1.0

Clay_2ft_minus1_smooth: Original file with geom_Length <1.0 removed and Smooth tool tolerance of .50