Processing Burn Severity Data

ArcPro

1. Reclassify burn severity tif file into High Severity, Mod-High Severity, Mod-Low Severity, Low Severity and Unburned
   1. Output formats are raster
2. Use Raster to Polygon to convert raster into vector polygons
   1. Output format is shapefile
3. Use Pairwise Intersect to crop burn severity polygons to the 1km x 1km boundary tiles representing extent of each point cloud tile
   1. Output format is geodatabase feature file
4. Use Dissolve to combine singlepart polygons into a multipart polygon (one row attribute)
   1. Output format is shapefile
   2. Used as input into R script

QT Modeler

1. Open LAS file that represents the 1km x 1km classified point cloud of interest
2. Click on model in layers window and note the histogram of model heights
3. Record the approximate minimum and maximum values, ignoring the extreme outliers which may be atmospheric returns
   1. Minimum and maximums will be used in R

R

1. Assign easting and northing values to the x, y, easting and northing variables based on the 1km x 1km UTM tile coordinates (from file name)
   1. Add 500m to easting and northing values to obtain the x and y values
2. Assign the minimum and maximum elevation heights to min\_elev and max\_elev variables
3. Assign the burn severity level being analyzed that will be used to name the output .csv file
4. Paste the name of the burn severity level shapefile that will be used to crop the point cloud data