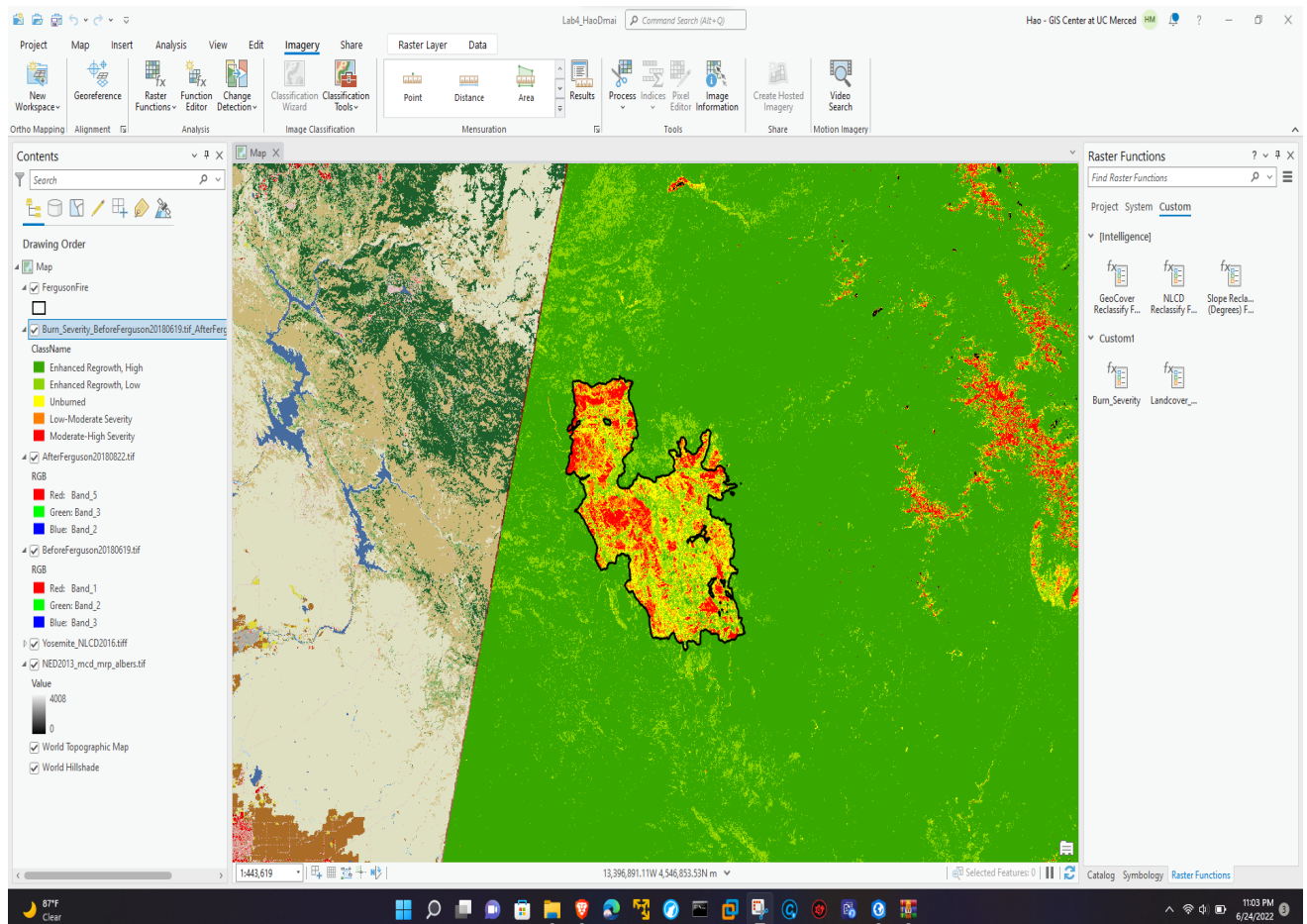


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May 20, 2022  
Case Study 4

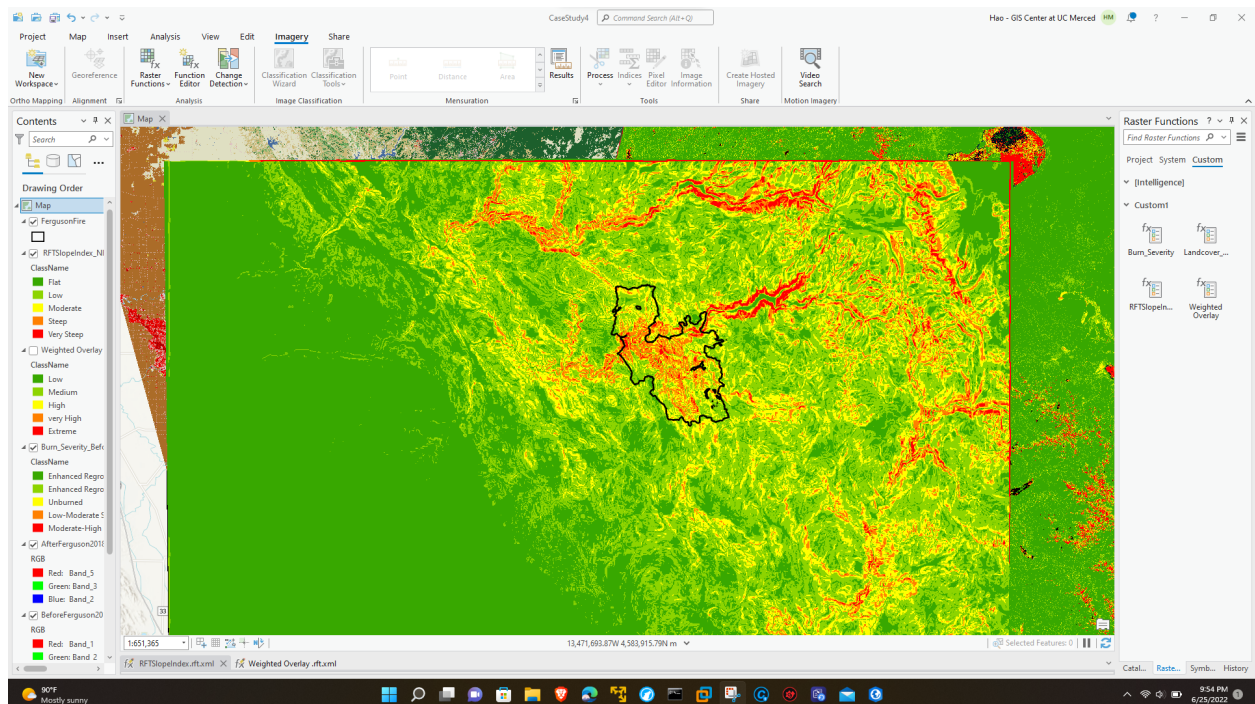
## Case Study 4: “Wildfires and Landslide Risk”

### Analysis and Employment of Raster Functions to Create Slope and Weighted Overlay

- Screenshot of Ferguson burn severity:



- **Screenshot of Ferguson new slope index compilation from raster function:**

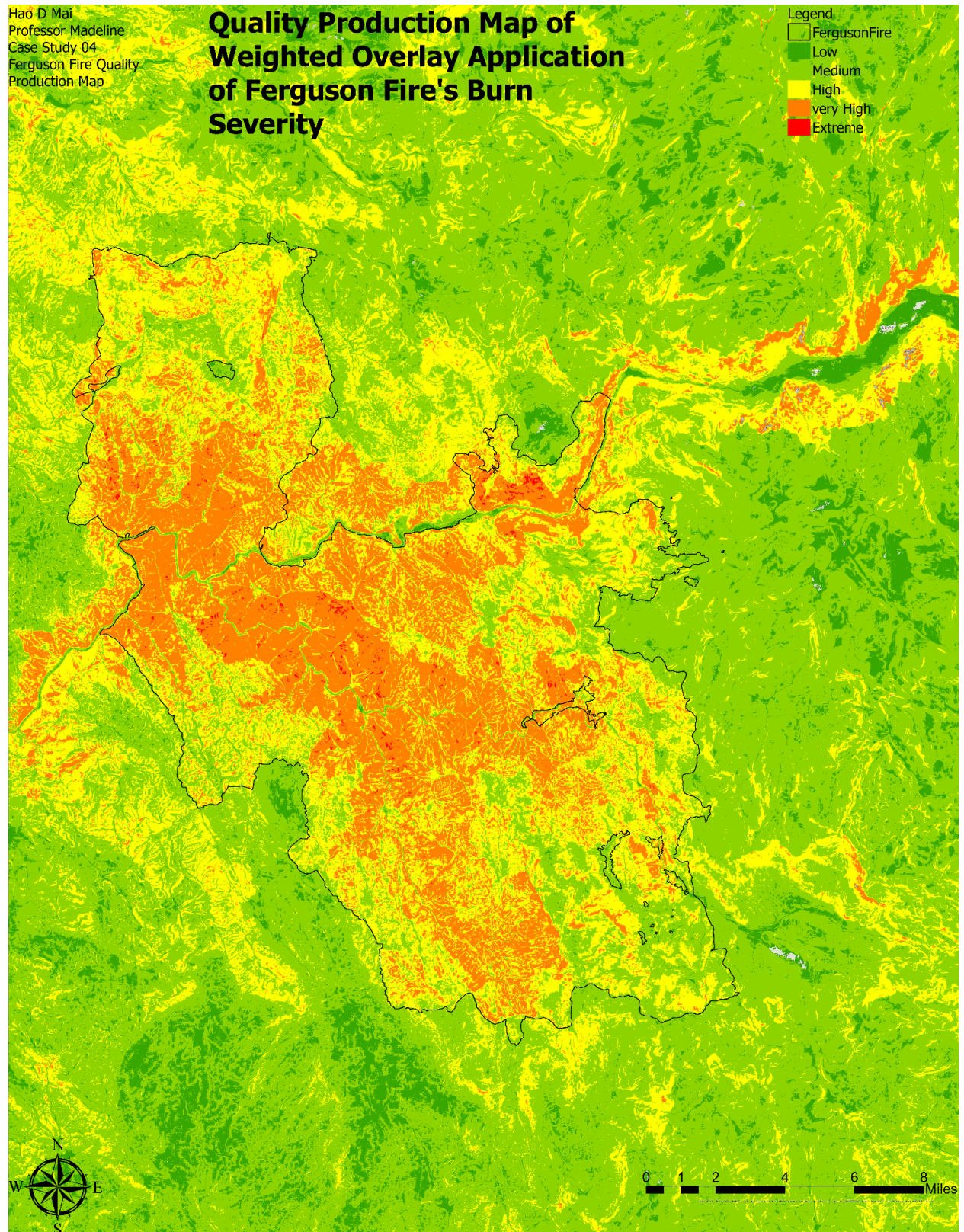


- **Responds: “What is NLCD?” :**

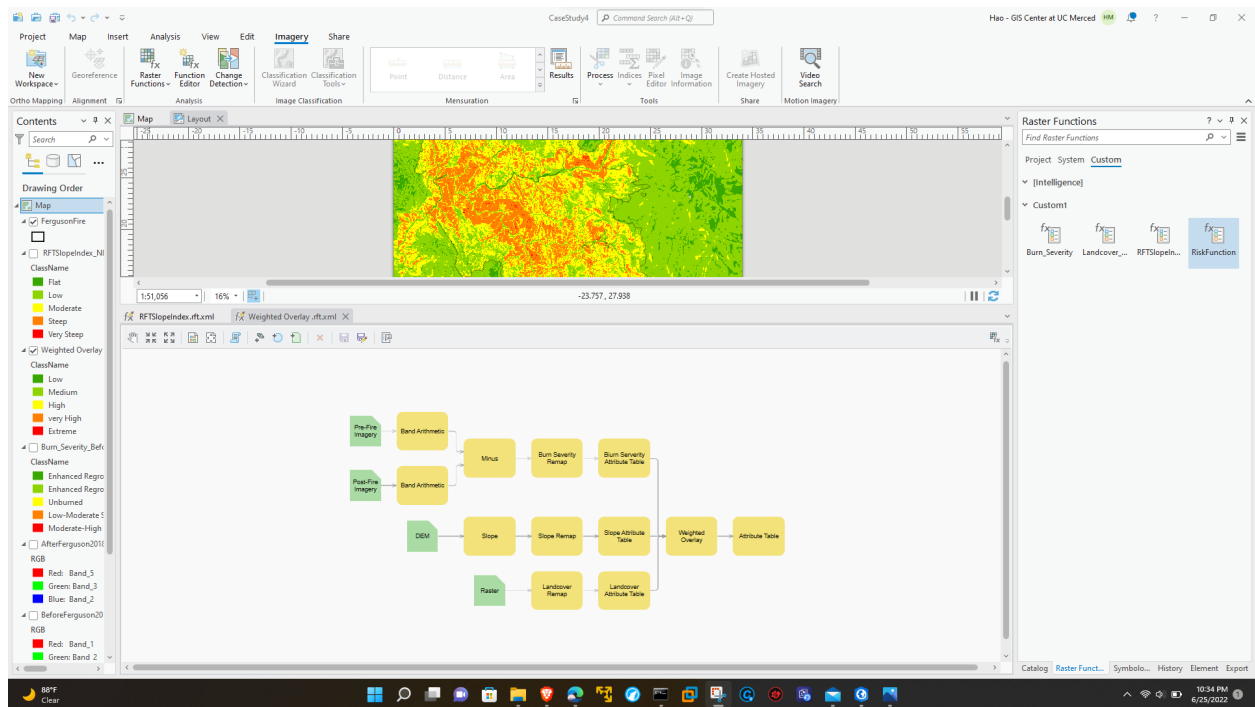
NLCD is an acronym for NATIONAL land base cover database. It is a public domain of land survey data funded by the United States government. The project is updated every five years using geographical information system gathering tools via satellite and datums compiled through surveying expeditions. The project allows the computations of raster files into pixel-by-pixel map projection. In order to retrieve data from the source, it is very similar to that of ArcGIS online - the retrieval process is almost spontaneous with high speed internet given that the desired data is present within the database. As presented within this lab, we have compile and computed varies raster image files using raster function edited and various tools within the operant’s features in order to compile slopes of terrain, burn severity and landcover remap for desired aftermath of Ferguson’s fire; thereby, the employment from the NLCD resources would greatly benefit the result of the map production process. However, as I strolled the site it seems that some data is presented in ‘.csv’ file and other excel’s format which we must rasterize and transform it into a map’s layer projection before being used.



- Production quality map of Ferguson fire with all key elements:



- **Screenshot of raster function model layout:**



Citations:

- Explore search: National land cover database. (n.d.). Retrieved June 25, 2022, from <https://www.usgs.gov/search?keywords=National+Land+Cover+Database>
- Brown, M. (n.d.). Wildfires and Landslide Risk. Retrieved June 20, 2022, from [https://catcourses.ucmerced.edu/courses/24848/files/5138511?wrap=1&fd\\_cookie\\_set=1](https://catcourses.ucmerced.edu/courses/24848/files/5138511?wrap=1&fd_cookie_set=1)