Fire Hazard and Vegetation in California

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Introduction and Objective

- California wildfires have continued to become more extreme and devastating.
- Wildfires impact air quality, health, ecosystems, and property.
- It is important to understand the underlying causes to mitigate in the future as wildfire severity increases because of climate change and drier conditions.
- Objective: Compare vegetation type to fire hazard risk using data from Cal Fire website

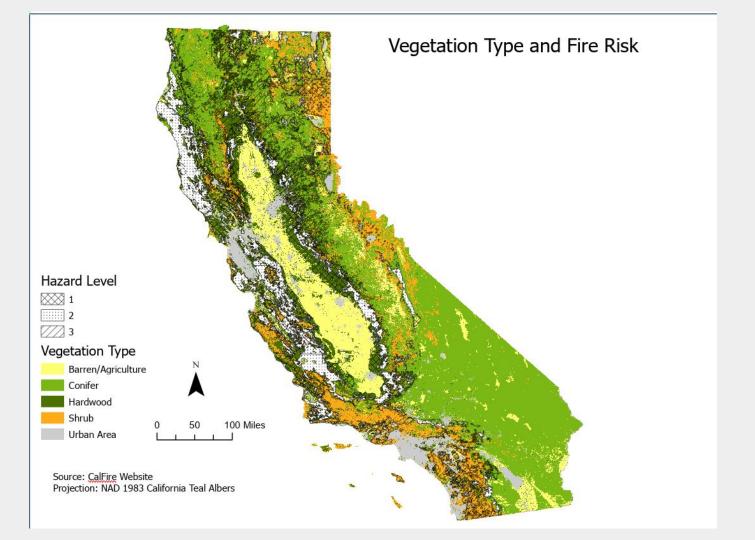
Objective: Show urban areas and bodies of water in relation to fire hazard

zones.

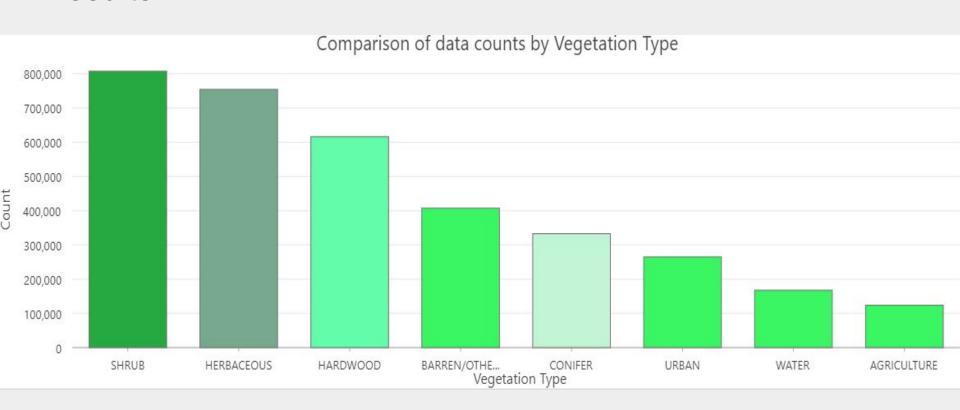


Methods

- Use geodatabase set for vegetation type, size, and density and shapefile mapping out fire risk zone, both from Cal Fire.
- Use ArcGIS to overlay vegetation type onto fire hazard risk.
- Vegetation geodatabase was given as raster, we converted this to a polygon using raster to polygon tool
- With the two datasets projected onto each other, we can see what type of vegetation is in a certain area using "select by attributes"
- We used the NAD 1983 California Teal Albers Projection



Results



Conclusion

- Most at risk areas were most likely to have conifer trees.
- Fire risks were still present around urban area and bodies of water
- Shrubland in Southern California had a higher fire risk compared to shrubland in Northern California.
- Urban areas and farm land did not have a fire risk.
- Hardwood had low fire risk throughout the state.