Griffith Fires

Anam Mehta

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## Background on Griffith Park and WUIs

Home to the Hollywood Sign and the famous observatory, Griffith Park is one of the most well known parks in the US. It is often called the Central Park of LA because it is located right in the city in the Los Feliz neighborhood. It is one of the largest urban parks in the country, but is much more undeveloped and rugged than Central Park. If you live anywhere near Los Angeles, odds are you have walked up the path in the park to the observatory to see the city lights or watch the sunset. Griffith Park also marks the Eastern end of the Santa Monica Mountains. Due to its proximity to urban areas, Griffith Park is designated as a Wildland Urban Interface, or WUI, where human developed areas are next to or overlap with undeveloped areas. This WUI classification in California is notably important because of fire risk in the state and the shear number of homes that are built in WUIs. California has more homes in WUIs than any other state. These homes are more at risk of fire since the fuel for fire is closer to these houses and can even be in their backyards. But the risk is not all natural either—the more houses and people in WUIs, the more human created fires. As our need for housing increases, we expand more and more into WUIs, opening us up to more risk. An overwhelming majority of fires in the state are human started.

## Fire Management

So what do we do to reduce this risk? One way is to reduce the area of WUIs by changing zoning laws and where developers can build homes. However, there are already many established WUIs that are at a large risk of fire right now; what about those? Take Griffith Park for example. Even being so close to very populated areas of LA, major fires still burn in the park, and the California Department of Forestry and Fire Protection has designated the area as a place with a “very high” fire hazard. This means that there is greater than one percent chance of experiencing fires per year. This may seem like a small number, but fires in Griffith Park happen relatively frequently. How are these fires managed such that the least damage is done to homes, infrastructure, flora, fauna, and aesthetics? The method of prescribed burns is clearly harmful in this area, so what actually works?

The responsibility of Griffith Park falls to more than one stakeholder, and so the management of fire is not a singular problem. The park is owned by the City of Los Angeles, and within the city, the Department of Parks and Recreation have control over the park. Since Griffith Park is also has an important social and emotional value for many people, the recovery of the park after a fire is a collective effort between community organizations and the government agencies. In a wildfire situations, however, the park must rely on the City of Los Angeles Fire Department to contain and suppress the fire. This means that the relationship between the internal agencies that are in charge of the safety of the park is incredibly important in order to make effective management policies. The policies created must also be specific to Griffith Park because of the vegetation and landscape of park. Much of Griffith Park has very variable elevations. Canyons, hills, and mountains dominate the landscape. Wind has the potential to channel canyon fires very destructively and it the elevation changes make it hard for firefighters to access and keep up with the fire. Griffith Park is also mostly vegetated by chaparral plants. These plants are small, woody, and hug the ground, so in fire, they are completely burned. They are fire adapted to a point. The natural fire return interval is 30 to 150 years, and having fires more frequently than 20 years can completely eliminate the native chaparral plants and allow invasive grasses to populate the area. Large, high intensity fires are nothing new to the chaparral landscape. The frequency of these fires is the problem.

Fire management of forests is very different from the fire management of these chaparral scrublands. The key in Griffith Park is suppression, suppression, suppression. Due to the high population densities near the park, the consequences of a large fire that escapes the bounds of the park on human life could be monumentally horrific. So far, fires in Griffith Park have been dealt with relatively quickly because of its locality and danger, but fires in Griffith are far from over. While, on the map, the last fire logged is from 2007, more than 10 years ago, a 25 acre fire burned in Griffith just a few months ago. It was a brush fire that was about half a mile from the observatory. This fire prompted evacuations and road closures but was dealt with very quickly due to the weather and position of the fire.

Since almost all of the fires in Griffith Park have been started by humans, prevention can be targeted at human behaviors. Even something as small as a few sparks from skimming some piece of metal on a rock can start a huge blaze, especially if the climate conditions are right. So education and banning behaviors that could inadvertently start fires should be a major way to prevent human caused fires in the future.

## Data to Explore

Using geospatial data of Griffith Park’s fires, we created a story map showing where and when the park has burned in the past. [Link to storymap: http://arcg.is/1Ceb5C](http://arcg.is/1Ceb5C).

## Conclusions

While I have looked at a bunch of different datasets and ways to show the data on GIS, my ideas on the conclusion of the project have all fallen through for various reasons. The most recent idea that I thought was solid disappointingly won’t really work out, but that’s research I guess. My new idea that I hope will work out is to broaden the scope from Griffith Park to the Santa Monica mountains, then look at the overlap of fires along 20 year intervals to see when the chaparral ecosystems would have been hurt the most, and where restoration efforts should be concentrated. I still have to figure out how exactly how to go about doing this on GIS, but I am pretty confident it can be. So hopefully, for the final blog I can have something along those lines for a conclusion. The other sections would also have to be tweaked.

## Bibliography

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