

Two apps were developed for the “Hot Spotted” project. First, the Hot Spotted App displays a map showing where wildfires have occurred in Alberta between the years 2006 and 2018. With increasing concerns surrounding climate change, fire regimes have been moving towards patterns of higher frequencies and severities, and this is only going to get worse. This web app includes 4 widgets for the user to explore past wildfire events and report new ones across the province of Alberta.

This smart editor feature allows for the editing of current features as well as the addition of new features. This means that if the user comes across a wildfire, they are able to report information regarding the fire type, size, and cause (other information is available to be filled out, but is not required). Once the user reports the wildfire, the app will update the wildfire layer for everyone to see, thereby ensuring that both users and the province have up-to-date wildfire data and can respond accordingly. The Hot Spotted app also comes with a filter feature that can be used to examine Alberta’s modern wildfires using criteria such as the fire’s years, cause, and type. This is useful since it increases clarity since the user now has the ability to efficiently display only the data they are interested in, rather than having to manually navigate through a clutter of points. Furthermore, the bookmark feature allows the user to add bookmarks to keep track of their own additions to the web app and save areas of interest, again further making this app a useful education tool along with its ability to report. Lastly, Hot Spotted also includes a share feature that can be used to share any analysis, results, or maps the user has produced through a variety of social media platforms, as well as URLs. This tool can be used to both notify fellow Albertans about an active wildfire the user just reported, or for personal research that could result in valuable insights being made toward further understanding the trends in Alberta’s fire regime.

Secondly, for the Alberta Wildland Urban Interface Experience Builder, this app allows the user to learn more about the wildland-urban interface (WUI) in Alberta. The builder displays a map that shows the population density of Alberta’s Census subdivisions along with communities along the WUI, which are moderate-highly densely populated, further contributing to ignition-related human activities. For ease of use, a bookmark feature was included to help the user swiftly navigate to the various wildfire hotspots in Alberta (indicated by green pins for further clarity). These hot spots were found to have statistically significant high occurrences of anthropogenic wildfires, hence why drawing the user’s attention to them is helpful since it lets them quickly observe the most significant data. Furthermore, because Hot Spotted aims to educate the user on both the proactive and reactive forms of wildfire safety, the Alberta WUI app uses button features to direct the user to the other components of the ‘Hot Spotted’ project depending on what aspect of Alberta wildfires they are interested in, letting them efficiently navigate the Hot Spotted StoryMap collection.