**FIRE WUI ZONES**

This data is a combination of fire perimeter data downloaded from GEOMAC and WUI data obtained from the Silvis Lab.

It consists of multiple variables. The first two columns are the incident ID number and fire name. The incident ID can be used to join this dataset with data from the SIT209 reports.

Total fire acreage was calculated from the fire perimeters. The Total non-WUI and Total WUI acreage figures were calculated after using fire perimeters to clip the relevant portions from the Silvis Lab WUI maps.

However, there are cases where adding the total non-wui and total wui acreages together will not equal the total fire acreage. One example is when a fire crosses international boundaries. The Silvis Lab data only covers the lower 48 states. Alaska and Hawaii are not included. Fires that cross over into Canada or Mexico will not have complete WUI data.

Another case where this can occur is when there is some sort of problem with the geometry of the fire perimeter or Silvis Lab data. I have not pursued this avenue yet to determine how to best fix it, but it should only be occurring on a low percentage of the fires and the gap between the fire acreage and the wui + non-wui acreage should be minimal.

Below is a breakdown of the fields and their definitions.

**Incident\_id**

Unique incident ID.

**Fire\_name**

Name of the fire or complex.

The below fields come from the Silvis Lab data. All figures are in acres.

**Water**

open water

**Uninhabited\_Veg**

Housing density = 0 and wildland vegetation > 50%

**Uninhabited\_NoVeg**

Housing density = 0 and wildland vegetation <= 50%

**Very\_Low\_Dens\_Veg**

Housing density < 6.177635 and wildland vegetation > 50%

**Very\_Low\_Dens\_NoVeg**

Housing density < 6.177635 and wildland vegetation <= 50%

**Low\_Dens\_NoVeg**

Housing density between 6.177635 and 49.42108 and wildland vegetation <= 50%

**Med\_Dens\_NoVeg**

Housing density between 49.42108 and 741.3162 and wildland vegetation <= 50%

**High\_Dens\_NoVeg**

Housing density >= 741.3162 and wildland vegetation <= 50%

**Low\_Dens\_Intermix**

Housing density between 6.177635 and 49.42108 and wildland vegetation > 50%

**Med\_Dens\_Intermix**

Housing density between 49.42108 and 741.3162 and wildland vegetation > 50%

**High\_Dens\_Intermix**

Housing density >= 741.3162 and wildland vegetation > 50%

**Low\_Dens\_Interface**

Housing density between 6.177635 and 49.42108 and wildland vegetation <= 50% and within 2.414 km of area with >= 75% wildland vegetation

**Med\_Dens\_Interface**

Housing density between 49.42108 and 741.3162 and wildland vegetation <= 50% and within 2.414 km of area with >= 75% wildland vegetation

**High\_Dens\_Interface**

Housing density >= 741.3162 and wildland vegetation <= 50% and within 2.414 km of area with >= 75% wildland vegetation

**Total\_Non\_WUI\_Acreage**

Calculated by adding all columns that do not end with interface or intermix together. Note that this means urban areas (ie Low\_Dens\_NoVeg, Med\_Dens\_NoVeg, High\_Dens\_NoVeg) as well as forested areas (Uninhabited\_Veg) are both counted as non-WUI.

**Total\_WUI\_Acreage**

Calculated by adding the columns ending in interface or intermix together.

**Total\_Fire\_Acreage**

Calculated from actual fire perimeters using QGIS.