Communities Threatened by Wildfires, 2000-2017
Methods and Data Sources, Spring 2018

Background

Wildfires today are larger, burn longer, cause more damage, and kill more people than ever before.

Headwaters Economics has developed an interactive map tool that identifies communities threatened by wildfires from 2000-2017, also showing the different sizes of wildfires and distances from nearby communities.
(Link: http://headwaterseconomics.org/dataviz/communities-wildfire-threat)

As the costs and dangers of wildfires have increased, many groups and communities are working to minimize wildfire risk through education, creation of defensible space around properties, fuel reduction efforts, peer-to-peer learning networks, adoption of planning, regulatory tools, and other efforts.

For those working to help communities become fire-adapted, this map tool may be useful in identifying frequently impacted areas. It is not a predictive model, however, of wildfire potential or probability.

Methods and Data Sources

The interactive tool shows which communities in the U.S. have had wildfires nearby of more than 100 acres, from 2000 to 2017.

COMMUNITY LOCATIONS

The interactive tool displays communities as point locations. Distance measurements were calculated using Census Designated Place boundaries from the Census Cartographic Boundary shapefiles. Census Designated Places include both incorporated communities, such as cities, towns, and villages, and unincorporated communities. The GIS files are available online at:
https://www.census.gov/geo/maps-data/data/tiger-cart-boundary.html

WILDFIRE PERIMETERS

The tool analyzes the proximity of communities to wildfires of more than 100 acres in size as published by the Geospatial Multi-Agency Coordination Group, or GeoMAC, in its "US Historic Wildfire Perimeters" GIS layer. Importantly, the GeoMAC "US Historic Wildfire Perimeters" layer only contains perimeter data submitted by field offices. While GeoMAC makes every

effort to provide accurate and complete information there are gaps in coverage, particularly for smaller and less destructive wildfires. The GIS files are available online at: http://rmgsc.cr.usgs.gov/outgoing/GeoMAC/historic_fire_data/

APPLICATIONS

For groups working to help communities become fire-adapted, this tool is useful in identifying frequently impacted areas. This tool is not a predictive model of wildfire potential or probability. It is designed only to show where wildfires have recently occurred, using GeoMAC's published database with GIS perimeters of wildfires from 2000-2017. Not shown are wildfires of less than 100 acres, wildfires that occurred but were not recorded in the data, or that occurred previous to 2000 or more recently than 2017.

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ABOUT HEADWATERS ECONOMICS

Headwaters Economics is an independent, nonprofit research group whose mission is to improve community development and land management decisions. https://headwaterseconomics.org/