



**SCOPE NOTE**

This product provides an overview of the National Interagency Fire Center (NIFC) Predictive Services Unit's National Significant Wildland Fire Potential Outlook for June through September 2017. It examines the potential effects to U.S. critical infrastructure and is an update to the May 2016 Office of Cyber and Infrastructure Analysis (OCIA) Wildland Fires and Potential Impacts to Critical Infrastructure infographic. This update supports U.S. Department of Homeland Security (DHS) leadership; DHS Protective Security Advisors; and other Federal, State, and local agencies. This product was developed in coordination with the DHS/National Protection and Programs Directorate/Office of Infrastructure Protection/Sector Outreach and Programs Division, DHS/Federal Emergency Management Agency, U.S. Fire Administration, U.S. Department of the Interior/Office of Wildland Fire, and NIFC.

**KEY FINDINGS**

- For June through September 2017, the NIFC predicts above normal fire potential across parts of Arizona, California, Florida, Georgia, Hawaii, Nevada, and New Mexico as fine fuels (twigs, needles, and grasses that ignite and burn rapidly) become available to burn.
- Most areas of the United States are expected to see normal significant wildland fire potential throughout the fire season. It is important to note that normal fire activity still represents significant numbers of fires and acres burned.
- OCIA assesses the critical infrastructure Sectors most vulnerable to wildland fires are Emergency Services, Food and Agriculture, Healthcare and Public Health, Transportation Systems, and Water and Wastewater Systems.

**2017 WILDLAND FIRES OUTLOOK**

The June 1, 2017, NIFC Predictive Service Outlook for June through September 2017 indicates normal significant wildland fire potential is expected for Alaska and the eastern and northwest regions through the outlook period.

Above normal significant wildland fire potential will continue across southeastern Georgia and Florida into mid-June while below normal potential is expected across the remainder of the southeast through July before returning to normal for August and September.

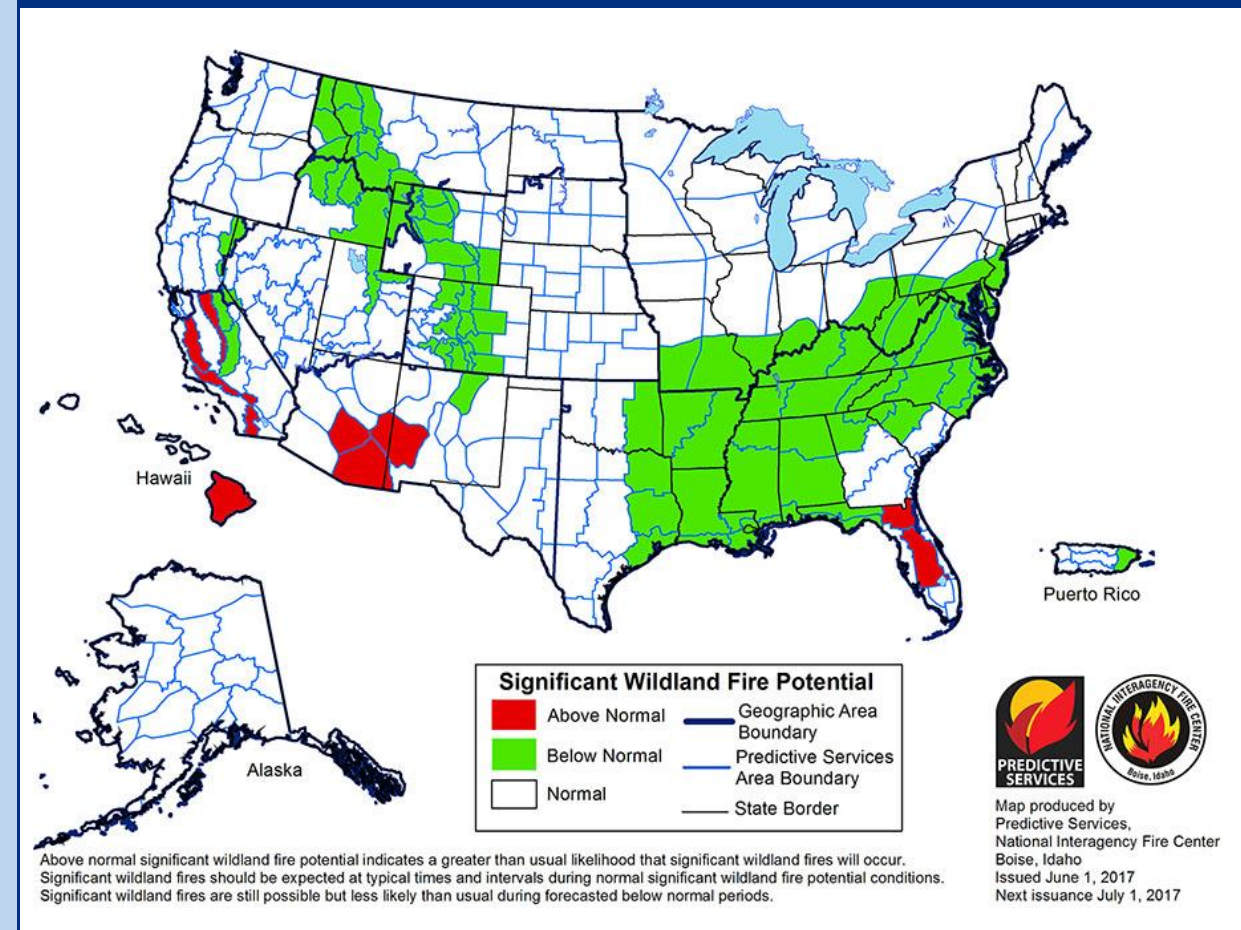
Recent dry conditions across the southwest will lead to above normal potential across many foothills and inland valley areas in southeastern Arizona and southern California. Below normal significant wildland fire potential is expected across the higher terrain of Idaho, Wyoming, and Utah in June and July, followed by normal fire potential for August and September. Above normal potential is expected across the western portion of the Great Basin (a geographical area east of the Sierra Nevada, which includes Idaho, Nevada, Oregon, Utah, and parts of California) and across the middle elevations in California in July and August, after grass crops dry out. A large portion of northern Nevada, mainly the lower and middle elevations in the grass and brush, will likely see a quick transition to above normal fire potential by the end of June when full curing or drying begins. Normal fire potential is expected across the remainder of the Great Basin.

Alaska appears to be transitioning into a normal fire season for June and July with late summer rains ending the season across the interior in August. Above normal temperatures are expected across Alaska in June as the State enters its fire season and should continue into September. Extended dry conditions on the west side of Hawaii will lead to above normal potential that is predicted to last into September

Across the Lower 48 states, warmer than normal temperatures are expected across California, Oregon, and Washington. Below normal temperatures are expected to continue into July, especially across portions of the Great Basin, the southwest, and possibly the western Great Plains. Normal to above normal temperatures are expected across the eastern half of the nation through August.

Near normal precipitation is expected along the Pacific coast through the majority of the outlook period. Normal to above normal precipitation is expected across the Great Basin and Rocky Mountains. Across the Great Plains, expect normal precipitation through the summer months except along the eastern fringes of the region near the Mississippi River, where above normal precipitation is expected. Florida and southern Georgia will continue to see below normal rainfall into early July before tropical weather patterns begin to bring more consistent precipitation from mid-July onward. The remainder of the states along the East Coast should receive near-normal precipitation. Due to the precipitation, drought conditions improved overall in May, but previous areas of concern along the Southern border, southern Georgia, and Florida continue to experience drought intensification and expansion.

**Significant Wildland Fire Potential Outlook  
June 2017**



## POTENTIAL EFFECTS BY INFRASTRUCTURE SECTOR AND SUBSECTOR

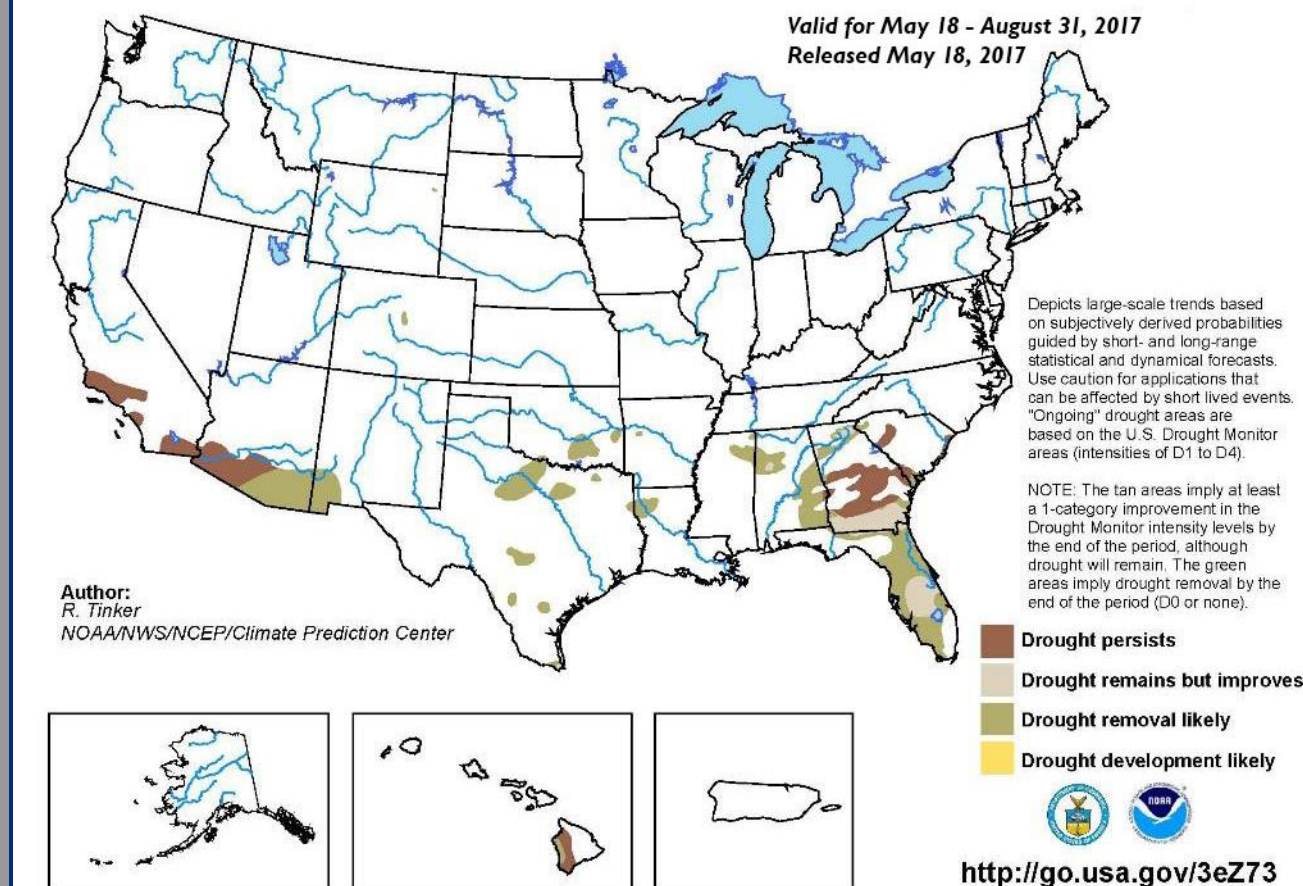
Infrastructure Sector and Subsector	Local or Regional Effects Level	National Effects Level	Effect: <span style="color: green;">●</span> = Low <span style="color: yellow;">●</span> = Medium <span style="color: red;">●</span> = High
Chemical: Plants	<span style="color: green;">●</span>	<span style="color: green;">●</span>	Regional or national effects to the Chemical Sector are unlikely because the majority of chemical production and storage facilities are located outside of wildland fire prone areas.
Commercial Facilities	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Local businesses can be affected by wildland fire in the form of damage to facilities, shipping delays caused by blocked or damaged transportation assets, loss of electric power, loss of water and waste water services, and disruptions to productivity.
Communications: Wireless and Wireline	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Wildland fires can disable landlines and wireless towers. Large numbers of emergency response personnel entering a wildland fire area create spikes in network demands. Wildland fires often occur in remote areas where wireless networks are weakest. When a wildland fire occurs, communications companies can deploy portable cell towers and network repeaters to boost wireless and data transmission coverage and capacity.
Dams	<span style="color: green;">●</span>	<span style="color: green;">●</span>	Wildland fires can damage the surface of dams or spillways, especially grass cover on embankment slopes, or grass-lined spillway channels. After a fire, the ground surface of earthen dams can be more vulnerable to erosion, leading to the possible failure of small dams on public and private reservoirs used for irrigation purposes.
Emergency Services	<span style="color: red;">●</span>	<span style="color: green;">●</span>	Unavailable water sources could complicate firefighting efforts in fire zones where standard wildland firefighting tactics, such as the use of chemical retardants and controlled burns, are less suitable. Any extensive damage to roadways can slow response time. For remote regions, aerial operations might be required to move firefighting personnel and the injured into and out of these locations.
Energy: Electricity	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Electric power assets most likely affected by a fire include aboveground transmission and distribution assets. However, transmission circuits that might be affected by wildland fires are normally taken out of service before encroachment of a wildland fire to a transmission corridor. Redundancies built into the power systems often compensate for any outages.
Energy: Oil and Natural Gas	<span style="color: green;">●</span>	<span style="color: green;">●</span>	Regional or national-level effects to the Oil and Natural Gas Subsector are unlikely because the majority of petroleum refineries and storage facilities are located outside of wildland fire prone areas.
Financial Services	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Fire damage to supporting electricity and communication assets could result in outages or disruptions. Electricity and communication outages are likely to have negative local or regional effects on the Financial Services Sector, potentially affecting local branches, ATM access and disruptions to online banking.
Food and Agriculture	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Effects to the Food and Agriculture Sector might result from damage and destruction of crops, livestock, and production facilities. Additionally, damaged transportation resources such as roads, bridges, and rail lines can result in negative cascading effects, since this Sector relies heavily on these assets to get its products to market.
Healthcare and Public Health: Hospitals	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Hospitals and related healthcare facilities could be affected by the cascading effects from disruptions in electric power and water and wastewater services, as well as road closures caused by wildland fires. Healthcare facilities generally have backup generation capacity to maintain essential functions in short-term power outages, but they might still have to evacuate if facilities cannot resupply because of road closures. Staffing could also become an issue because of road closures.
Information Technology	<span style="color: green;">●</span>	<span style="color: green;">●</span>	Fire damage to electricity and communication assets might result in outages or disruptions; electricity and communication outages are likely to result in negative effects to the Information Technology Sector at local or regional levels.
Transportation Systems: Aviation	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Airports might close and reroute air traffic because of visibility problems, such as smoke and haze, unstable air currents caused by the fires, or damage to aviation facilities and runways.
Transportation Systems: Maritime Transportation Systems	<span style="color: green;">●</span>	<span style="color: green;">●</span>	Regional or national-level effects to the Maritime Transportation System Subsector are unlikely because the majority of maritime ports are located outside of wildland fire prone areas.
Transportation Systems: Road and Rail	<span style="color: red;">●</span>	<span style="color: green;">●</span>	Roads and rail lines could close because of fire damage, fires blocking access, or poor visibility caused by smoke and ash in the air. Road and railway bridges could be damaged or destroyed. The closing of transportation assets can result in cascading effects across a number of other critical infrastructure sectors, e.g., Food and Agriculture, Critical Manufacturing, Emergency Services, and the Energy Sector, Oil and Natural Gas Subsector.
Water and Wastewater Systems: Drinking Water	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Damage to electric power assets can result in drinking water service disruptions. Increased turbidity and pollutants caused by the fire and fire retardants can cause qualitative effects on watersheds and reservoirs.
Water and Wastewater Systems: Wastewater	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>	Damage to electric power assets can result in wastewater treatment interruptions.

## 2016 WILDLAND FIRE STATISTICS

According to the 2016 National Interagency Coordination Center Wildland Fire Summary and Statistics Annual Report:

- In 2016, 1,251 large or significant wildland fires were reported. Significant wildland fires represented about 1.8 percent of total wildland fires reported nationally in 2016.
- The 2016 fire season was below normal for the number of wildland fires reported nationally. In 2016, 67,743 wildland fires occurred (92 percent of the 10-year annual average).
- 2016 was below normal with 5,509,995 acres burned (79 percent of the national 10-year average) compared with 10,125,149 acres burned (145 percent of the national 10-year average) in 2015. The Southern States led the Nation with 1.6 million acres burned (109 percent of its 10-year average).

## U.S. SEASONAL DROUGHT OUTLOOK Drought Tendency During the Valid Period



## CURRENT DROUGHT CONDITIONS

According to the NIFC, overall drought conditions improved in May 2017. Southern Georgia and Florida saw preexisting extreme drought conditions worsen while abnormally dry conditions along the Mexico border with Arizona and New Mexico developed into a moderate drought. Abnormally dry conditions were also observed across portions of central and southern Texas as well as across portions of the Alaskan interior.