



# National Significant Wildland Fire Potential Outlook

Predictive Services  
National Interagency Fire Center

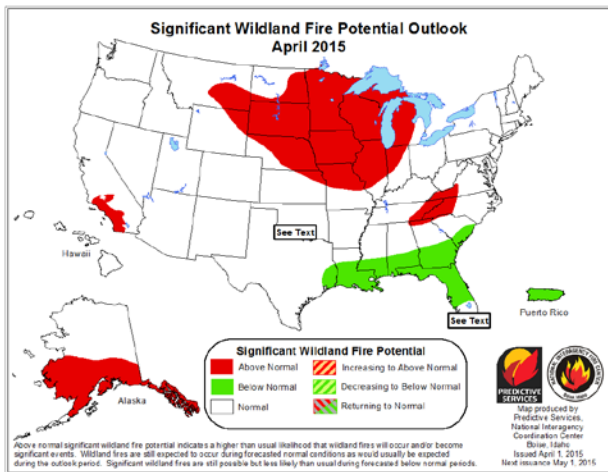
Issued: April 1, 2015  
Next Issuance: May 1, 2015



## Outlook Period – April, May & June through July 2015

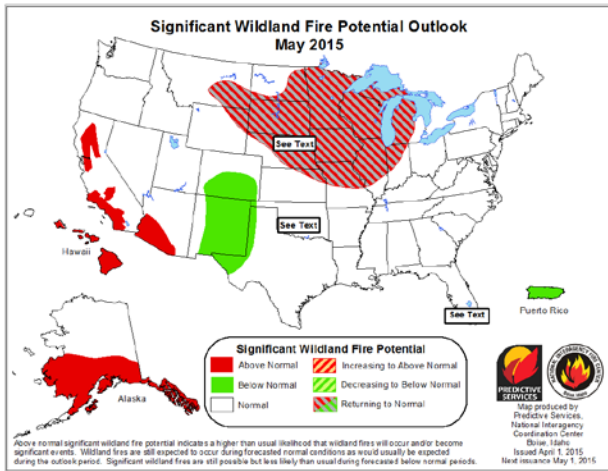
### Executive Summary

The April, May and June through July 2015 significant wildland fire potential forecasts included in this outlook represent the cumulative forecasts of the ten Geographic Area Predictive Services Units and the National Predictive Services Unit.



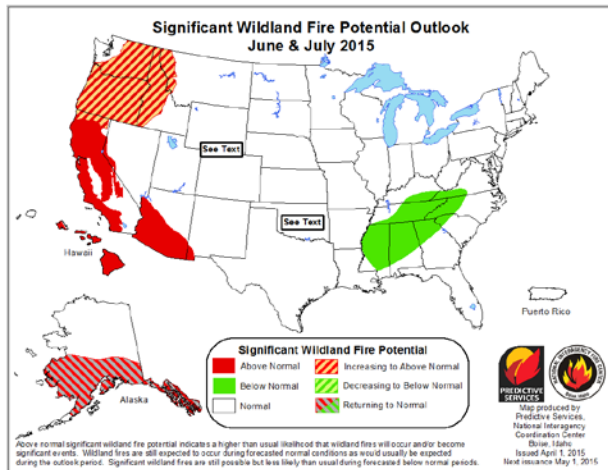
#### April

- Above normal wildland fire potential across the north central U.S. will expand.
- Above normal wildland fire potential will develop across portions of Southern California.
- Above normal wildland fire potential will become prevalent across southern Alaska.
- Below normal wildland fire potential will continue along the coastal plain of the Southeast as well as Puerto Rico.



#### May

- Wildland fire potential across the north central portion of the U.S. will return to normal in May
- Above normal wildland fire potential will expand across into northern California, southwestern Arizona, and much of Hawaii.
- Above normal wildland fire potential will persist across most of southern Alaska.
- Below normal fire potential will develop on the southern Rockies Front Range and persist in Puerto Rico.



#### June through July

- Above normal wildland fire potential will expand to across the West Coast, part of the northern Rockies and Great Basin, and continue for most of Hawaii.
- Wildland fire potential will return to normal for southern Alaska.
- Below normal wildland fire potential will spread across the Tennessee and Lower Mississippi Valleys.

## Past Weather and Drought

March began with an active weather pattern that delivered beneficial rain and mountain snow to portions of the West but also a wintry mix of freezing rain and snow in the East; dipping south from Texas to Georgia. Several other significant precipitation events occurred across the eastern half of the nation, with back-to-back storms producing a swath of moisture from the southern Plains to the Ohio Valley. Northwest flow aloft brought several rounds of dry and windy conditions to the central Plains. Widespread severe weather developed the last week of March as a strong storms systems cross the southern Plains. West of the Rockies most areas saw record warmth and mostly dry conditions for the last half of the month.

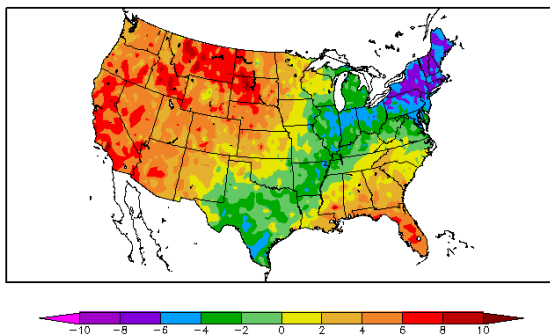
Temperatures were much above normal for much of the West, the Plains, and the Southeast. Well below normal temperatures persisted over New England, the Ohio Valley, the Mid-Mississippi Valley and Texas.

Most of the country received less-than-normal precipitation with less than 25 percent of normal precipitation across the Upper Midwest, much of the Plains, the northern Great Basin, and California. Much of West and South Texas, parts of the Lower Mississippi and Ohio Valleys were very wet with 150 to 400 percent of normal precipitation for the month.

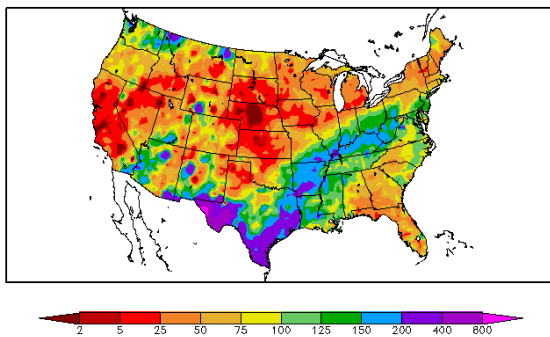
Extreme to exceptional drought remained over California, western Nevada, and southern Oregon. Extreme to exceptional drought continued across western Oklahoma and central Texas.

**Left: Departure from Normal Temperature (top) and Percent of Normal Precipitation (bottom)** (from High Plains Regional Climate Center). **Right: U.S. Drought Monitor (top) and Drought Outlook (bottom)** (from National Drought Mitigation Center and the Climate Prediction Center)

Departure from Normal Temperature (F)  
3/1/2015 – 3/30/2015

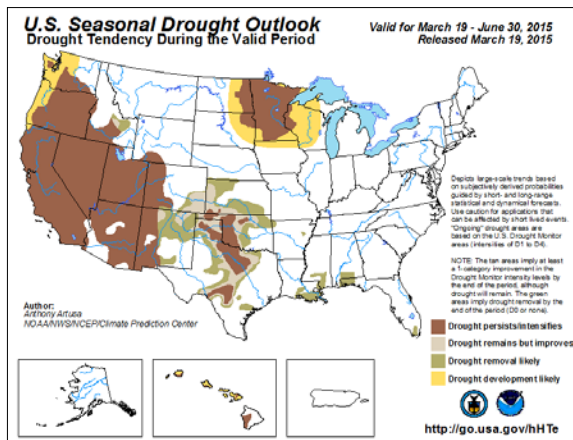
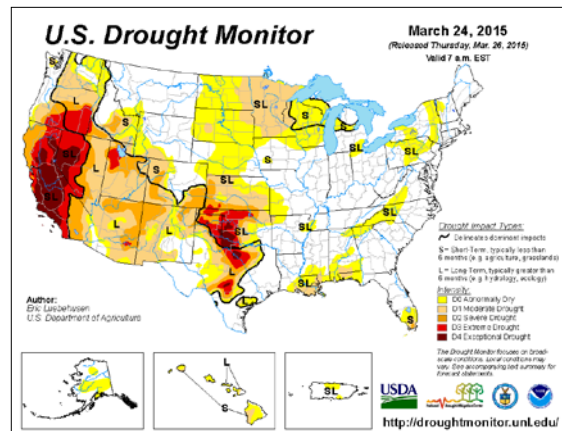


Percent of Normal Precipitation (%)  
3/1/2015 – 3/30/2015



Generated 3/31/2015 at HPRCC using provisional data.

Regional Climate Centers



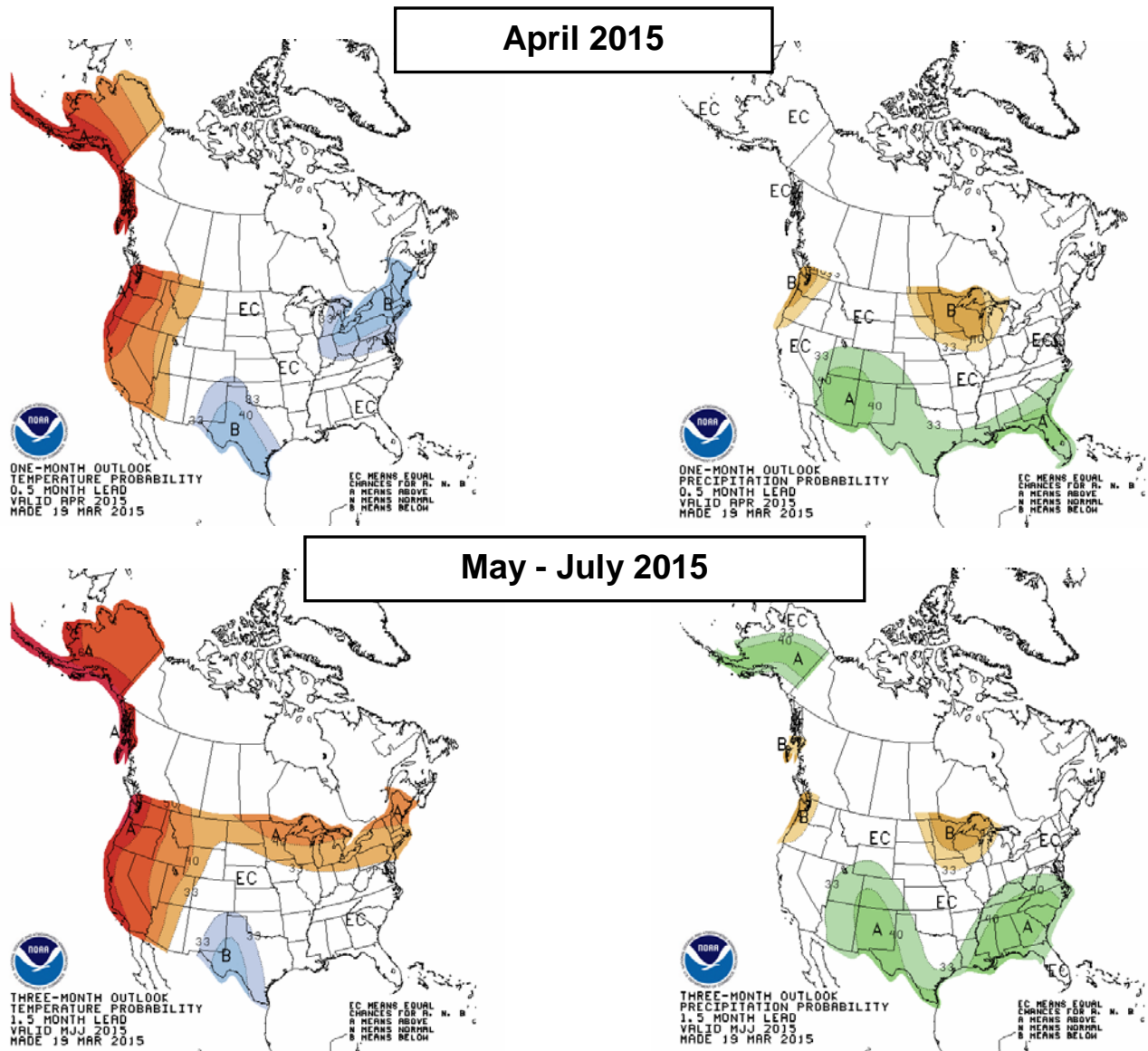
## Weather and Climate Outlooks

Weak El Niño conditions persist as equatorial sea surface temperature (SST) anomalies remain positive. There is an approximately 50-60% chance that El Niño conditions will continue through the Northern Hemisphere summer.

For April, NOAA's Climate Prediction Center (CPC) indicates a higher probability of warmer-than-normal conditions in Alaska and all of the western U.S. Below normal temperatures are anticipated in the Northeast and across much of Texas and New Mexico. Precipitation is expected to be above median in April for the Four Corners region and along the coast from Texas to the Carolinas. Below median precipitation is forecast for the Northwest and the Upper Midwest and Great Lakes region.

For May through July, above normal temperatures are expected to continue for Alaska and across the West. Above normal temperatures are also favored across the northern third from Maine to the Dakotas. Below normal temperatures are expected for eastern New Mexico and western Texas. Precipitation is expected to remain above median for the Four Corners region and the southeast quarter of the U.S. from the Gulf Coast through the Ohio Valley. Alaska is also expected to have above median precipitation. Below median precipitation is forecast to linger along the Northwest coast and the Upper Midwest and Great Lakes region.

**Top row: One-month (April) outlook for temperature (left) and precipitation (right). Bottom row: Three month (May-July) outlook for temperatures (left) and precipitation (right).** (from Climate Prediction Center/NOAA)

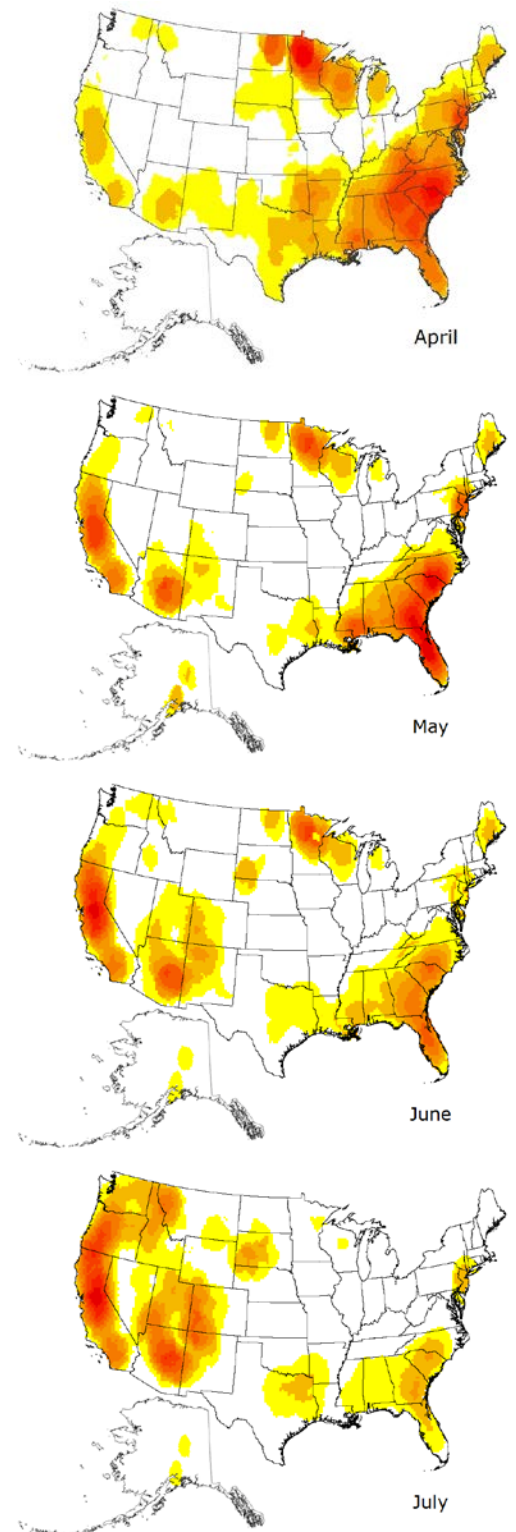


## Fuel Conditions and Fire Season Timing

Fuels in northern Alaska are snow covered and frozen but much of southern Alaska has fuels that are virtually snow free. Alaska is moving into early fire season, which mainly consists of human-started fires along the road corridor and in developed areas. It is expected that fire activity will start nearly a month earlier than normal in south-central and southwestern Alaska due to the limited snowpack and forecast for warm temperatures. The southern Interior is likely to melt off one to two weeks early, as well. In the Northwest, many reporting stations are experiencing green up at least a month earlier than usual. Recent observations show that fire danger remains generally below values needed to sustain significant wildland fires. However, the Area appears poised to begin fire season earlier than normal as fire danger indices will be elevated when summer begins. Low snowpack and drought mean that upper elevations will dry quickly and become exposed to lightning ignitions earlier than usual. It is anticipated that June will become busier than usual for fire activity, especially if lightning is involved. Overall, the potential for a busy fire season appears to be increasing.

In northern California, fuels have modified a bit from recent shower activity in some areas, but heavier dead fuels remain near record dry levels, more typical of mid-June than late March. Snowpack is the lowest it has ever been at this time of year, less than ten percent of normal across the higher terrain. A robust grass crop in the valleys and foothills west of the Sierra Crest has greened up early in most areas. Green up of brush up to 5000 feet has begun which is about six to eight weeks ahead of schedule. For the southern half of California, annual grasses below 3,000 feet have already cured along the south facing slopes south of Point Conception. Elsewhere around the Area, grasses should be fully cured within the next two to three weeks. Energy Release Component values are well above normal in most areas. Live fuel moisture values have recently peaked, and are now starting to descend. Portions of California will likely see increased activity earlier than usual thanks to the dryness from the long term drought. Fire activity across the lower elevations of northern and southern California is expected to increase in the coming weeks, especially during periods of warm, dry, and windy weather.

The lower elevations of north Idaho and western Montana are free of snow cover, although adequate precipitation over the winter has kept moisture levels near normal. Central and eastern Montana have dried out considerably, as well as western North Dakota. Wind events through April before full green up occurs would present grass and brush fire potential in these areas. Some areas of the Great Basin have seen some greening up of perennial plants due to the continued warm conditions and occasional precipitation. A return to some cooler and intermittent wet weather will continue to promote new grass growth. Despite an earlier start to green up in some areas, curing of fuels may still occur on time considering showers may linger into May and possibly June. The Great Basin is typically out of fire season through May, and 2015 looks to be no exception. Little fire activity typically occurs during this period as nighttime temperatures remain cooler and fuels are dormant. With green up starting early in some areas and additional showery periods



Normal fire season progression across the contiguous U.S. and Alaska shown by monthly fire density (number of fires per unit area). Fire size and fire severity cannot be inferred from this analysis. (Based on 1999-2010 FPA Data)

expected in April and throughout May, this may further inhibit concerns of an early start to fire season. However, during strong wind events, after dry periods there is still the possibility of short term significant fires. This scenario would be a localized threat, and strongly weather dependent.

In the Southwest, unusually high amounts of fine fuels and increased continuity across the southwestern portion of the Area will provide the primary concern for significant fires beginning in May. For the Rockies, higher elevation fuels are mainly under snow-cover and typically undergo spring melting and run-off during the second half of April into May. Lower elevation grass fires ordinarily become more common during April prior to the full green up in May. Fire season for the Rocky Mountain Area usually occurs during late May or early June in southern portions of the Area, and gradually progresses northward during June into July. An earlier than usual onset of fire season is possible from the southwest corner of Wyoming through northwest Colorado if precipitation deficits aren't alleviated during the spring months. An anticipated vigorous green up in the southern Colorado Front Range and surrounding areas during May is expected to delay the normal core fire season onset in those locations.

Portions of the Mississippi and Missouri Valleys as well as the Great Lakes states are likely to see somewhat above normal activity during the early season thanks to persistent dryness through the winter. For April, the trend of below normal precipitation is expected to continue across the heart of the South, increasing the risk of wildfire as the transition to green up occurs. Wetter-than-normal trends in the southern Plains are expected to reduce the wildfire threat through the period. For the central Southern Area, green up will end the season with increasing rain potential returning from May into June.

## ***Geographic Area Forecasts***

**Alaska:** Significant wildland fire potential is expected to be above normal in April and May over southern and southwestern Alaska. The June-July forecast is for significant wildland fire potential to return to normal.

This winter has been extremely warm across the state. Northern Alaska has 80 to 100% of normal snowpack. Southern Alaska has very little snow except in higher elevations, leaving wind-blown valleys virtually snow-free. Many parts of the southern Interior, the Anchorage Bowl, the Kenai Peninsula, and the Southwest are abnormally dry with less than 50 percent of normal snowpack for the time of year. It is likely that this low snowpack will lead to a vigorous early fire season in South Central and Southwest Alaska.

Long range forecast models indicate that significantly warmer-than-normal temperatures will continue to dominate the state, particularly over Southern and Southwest Alaska, through the spring and into the summer months. With little additional snowfall expected and the warm temperatures in the forecast, a rapid snowmelt is likely statewide.

**Northwest:** Normal significant wildland fire potential is expected for April and May. For June through July all areas except northwestern Washington will be increasing to above normal significant wildland fire potential.

The first half of March continued the unusually warm and dry trend over the Northwest seen through much of the winter. The second half of March brought some Pacific frontal systems which provided needed precipitation to sections of northwestern Oregon and eastern Washington. Nevertheless, much of the geographic area has been generally dry since the beginning of autumn.

While a few areas in the region have totaled near normal precipitation over the winter, the warm temperatures have resulted in unusually low snowpack in the Cascades, the Blues and other high terrain in the region. From December through February, some climate zones recorded the warmest average temperatures since record-keeping began in the late 1800s. As a result, snow amounts measured at higher elevation reporting points across the region are dismally low. Many reporting basins are totaling less than 25 percent of normal as of late March with little chance of improvement before the onset of fire season. These amounts appear to be even lower than the 1976-1977 drought year. Drought continues to expand over Oregon and Washington despite some rain in the latter half of March.

Climate outlooks suggest little change from the warm and relatively dry weather for the Northwest geographic area through July.

**Northern California and Hawaii:** Normal significant wildland fire potential is expected for April in Northern California and Hawaii. By early May plentiful grass in the lower elevations surrounding the Sacramento Valley should cure rapidly which should produce above normal significant wildland fire potential in these areas. Above normal potential will expand in June and July to include most areas, with the exception of far northeastern California where significant wildland fire potential will remain normal due to a lower-than-normal grass crop. Above normal significant wildland fire potential is expected for most of Hawaii from May through July.

Only 20 to 50 percent of normal precipitation has been received over the Area during the previous three months. April should continue to be warmer- and drier-than-normal with any precipitation being more showery in nature. In between weather systems many days could record temperatures 10 to 15 degrees above normal.

For Hawaii: Recent wet weather should minimize significant wildland fire potential in the short term for April but as a weak El Niño scenario unfolds, drought conditions could rapidly intensify. As a result, above normal significant wildland fire potential is expected across most areas from May through July.

**Southern California:** Significant wildland fire potential is expected to be above normal for April across the coastal and valley areas, expanding into many of the National Forests by June and remaining above normal through July.

Warm and dry weather is expected to persist across the southern and central portions of the state during the remainder of the spring and into the early summer. Warmer-than-normal ocean temperatures immediately off the coast will limit the marine influence across the coastal areas with less fog and stratus expected this spring. A few more offshore wind events will be likely through the end of May.

Very little additional precipitation is anticipated through June, with drought conditions expected to worsen and expand to encompass more areas of the state.

**Northern Rockies:** Significant wildland fire potential is expected to be above normal in southeastern Montana for the month of April, and increasing to above normal in eastern North Dakota. Elsewhere, potential will be near normal in April. For May and June all of the geographic Area is expected to see normal potential for significant wildland fires. North central Idaho will increase to above normal significant wildland fire potential in July while the remainder of the area will continue to have normal potential.

Precipitation over the past 30 days has been very low over the southern portions of Idaho, Montana and all of North Dakota. In addition moderately above normal temperatures have continued during this time over Idaho and Montana, so low to mid elevation mountain snowpack has decreased markedly. Current snow water equivalent measurements from SNOTEL sites are showing only 38 to 61 percent of normal snowpack in northern Idaho and far northwestern Montana, and 70 to 91 percent of normal over western and central Montana.

Drought signals are still generally absent from the region, with the exception of short-term drying over eastern North Dakota.

**Great Basin:** Normal significant wildland fire potential is expected for the outlook period April through June, with some areas of southeastern Utah seeing below normal fire potential in May. Portions of Idaho and areas of the Sierra Front will increase to above normal in July, especially in the higher elevations.

Average temperatures over the last 30 days were several degrees above normal over much of the Great Basin including Idaho, western Wyoming and northern Utah. The only area that was near to just below normal was southern Utah. Precipitation remained well below normal over the northern half of the Great Basin throughout March, but was 125 to 200 percent of normal over southern Utah and southern Nevada. The snowpack continued to decrease in March with minimal precipitation in most areas and well above normal temperatures. The snowpack dropped below 30 percent of normal over western and northern Nevada, and was 50 to 70 percent of normal over much of the rest of the Great Basin. Precipitation since October is still well below normal across most of the Great Basin, with the exception of central and southwestern Idaho and parts of southern Utah, where precipitation is 100 to 130% of normal.

The extended weather outlook still points toward more low pressure systems moving through the Great Basin in April and May bringing periods of slightly cooler temperatures and precipitation. Temperatures will still likely remain above normal overall through June. The amount of spring precipitation will be monitored closely as drier conditions would increase fire potential in the higher elevations, and wetter conditions may increase grass growth in lower elevations. At this time, models still point to some wetness occurring through May, with lesser confidence into June and July.

Extreme to exceptional drought continues over western and central Nevada with moderate drought over much of the rest of the Great Basin. The drought has expanded over southern Idaho and northern Utah. The drought conditions are expected to persist through the end of June 2015.

**Southwest:** Normal significant wildland fire potential is expected for April. For May into July significant wildland fire potential will be above normal across the western and southern desert areas of Arizona into far southwestern New Mexico. Elsewhere significant wildland fire potential will be near normal with the exception of below normal in May for portions of New Mexico.

During the winter season, temperatures averaged below normal across the southeastern half of New Mexico eastward into West Texas with slightly above normal temperatures across the remainder of the region. Precipitation was a mix of above and below normal scattered across the region. The driest area overall has been across far western and far northern Arizona as well as south central Arizona. Snowpack has been below normal region-wide with the lowest amounts across eastern and central Arizona into southwestern New Mexico.

A general pattern of a western U.S. ridge and an eastern U.S. trough has been the overall weather pattern since December. This is expected to change for the ever-important April to May period with an active jet stream frequently positioned from the north central Pacific toward the West Coast and southeastward over the Southwest geographic Area. This is expected to be a generally more active pattern with semi-frequent storm systems impacting the region. As far as precipitation there is an expectation of an overall wetter tilt for many areas, especially along and east of the Continental Divide, with the active jet stream arriving into the region from the west and northwest.

**Rocky Mountain:** Above normal significant wildland fire potential is predicted for April from northeastern Wyoming into South Dakota, much of Nebraska, and northeastern Kansas, with conditions falling back to normal during May. East of the Continental Divide in south central and southeastern Colorado below normal potential is forecast for May. Elsewhere across the Rocky Mountain geographic Area significant wildland fire potential will be normal for the period.

Precipitation amounts for the month were above normal, mainly east of the Continental Divide in the central to southern portions of Colorado. Elsewhere, aside from cold and wet conditions in early March, it was drier- and warmer-than-normal for this time of year. Higher elevation snowpack was near to slightly below normal east of the Divide in Colorado and across central to northern Wyoming, while west of the Divide snowpack ranged from 73 to 83 percent of normal. The exception was in southwestern Colorado with only about 65 percent of normal snowpack. The Black Hills in South Dakota were well below with 25 to 55 percent of normal.

Forecasts for the early portion of April indicate a possible shift out of the dry and warm period and into a more seasonably normal temperature and precipitation profile. Longer range predictors for the remainder of spring through June point toward normal temperature and precipitation from central to southern Wyoming into Colorado, with warmer temperatures and near normal to below normal precipitation across northern Wyoming into South Dakota, Nebraska, and eastern Kansas.

Long term drought is most extensive in the region of far southern Colorado through much of Kansas with less intense drought covering much of Nebraska and South Dakota. Moderate long term drought covered much of western Colorado and southwestern Wyoming.

**Eastern Area:** Above normal significant wildland fire potential is expected across the Great Lakes and the northern half of the Mid-Mississippi Valley in April. Potential will return to normal in May and remain normal through the rest of the outlook period. Elsewhere in the geographical Area normal significant wildland fire potential is expected.

Thirty to ninety day soil moisture and precipitation anomalies were below normal through much of the winter and early spring across portions of the Upper and Mid-Mississippi Valley as well as western New England. Abnormally dry conditions were indicated across portions of Minnesota, Wisconsin, northern Iowa, northern Pennsylvania, and western New York.



Above normal temperatures are forecast over the Great Lakes April into May spreading southward into the Mid-Mississippi Valley in May. Drier-than-normal conditions overall are expected to persist into April across the Great Lakes and Mid-Mississippi Valley. The drier-than-normal conditions are expected to advance eastward into Ohio River Valley and western New England as May progresses. Drier-than-normal conditions overall may persist over parts of the Mississippi Valley into June 2015. If the warmer- and drier-than-normal trends persist or develop over the aforementioned areas, periods of above normal fire potential will occur across the Great Lakes and Mid-Mississippi Valley April into May; possibly spreading eastward through May prior to green up.

**Southern Area:** Above normal significant wildland fire potential is expected in the eastern portion of the Tennessee Valley in April. Below normal potential is expected in April from the Gulf Coast through mid-Atlantic. Below normal potential is also forecast in the Tennessee Valley for June and July. Otherwise, near normal potential is expected across the remainder of the geographic Area for the outlook period April through July.

Conditions remain very wet overall for the vast majority of the Southern geographic Area due to above normal rainfall and the high frequency of storm events that have been a weekly occurrence. In contrast, it has been persistently drier-than-normal across western Oklahoma, the Texas Panhandle and southern Florida. This drier trend will likely continue for the upcoming period for this part of Florida.

For Puerto Rico, below normal significant wildland fire potential is expected for the outlook period April through July.

### ***Outlook Objectives***

The National Significant Wildland Fire Potential Outlook is intended as a decision support tool for wildland fire managers, providing an assessment of current weather and fuels conditions and how these will evolve in the next four months. The objective is to assist fire managers in making proactive decisions that will improve protection of life, property and natural resources, increase fire fighter safety and effectiveness, and reduce firefighting costs.

***For questions about this outlook please contact the National Interagency Fire Center at (208) 387-5050 or your local Geographic Area Predictive Services Unit.***

**Note:** Additional Geographic Area assessments may be available at the specific GACC websites. The GACC websites can also be accessed through the NICC webpage at: <http://www.nifc.gov/nicc/predictive/outlooks/outlooks.htm>