



## STAFF REPORT

TO: County Council  
FROM: Bryce Boyer, Fire Warden  
Krachel Greenwood, Public Affairs Coordinator  
DATE OF MEETING: May 23, 2018  
SUBJECT: Fire Season Forecast for 2018

---

Attached, please find the National Interagency Fire Center's outlook for fire potential for the period of May through August 2018. For your reference, our region is the Great Basin area. Overall, this year's fire season is expected to be more active than the past two years due to the following conditions: (1) moderate drought returning to the area; (2) low snow year locally; (3) above normal temperatures; and (4) below normal perception.

Summit County has been preparing for the upcoming fire season by training the local Fire Districts. The following is a list of training activities that have been completed in anticipation of the 2018 season:

- Local fire crews have completed the required pre-season wild fire refreshers.
- The County's preseason reports and planning were completed in April.
- There is a Basic Wildland Firefighter Class June 11<sup>th</sup> through the 15<sup>th</sup> with approximately 15 students registered as well as County staff.
- North Summit has had one person complete the Incident Commander Type 5/Firefighter Type 1 position task book. (ICT5/FFT1)
- Park City Fire District has fire fighters working on Task Force Leader, Division Supervisor, Engine Boss and Advanced Firefighter Position Task Books.
- The State is requiring County dozer operators to be certified now. We are working on having the County operators previous fire experience count towards the certification requirements and be grandfathered in. I will keep up on this.

For your information, Federal resources for aircraft include the following:

- ***Fixed Wing Aircraft:***
  - 13 heavy air tankers on contract, with an additional 31 on-call.
  - 33 SEATs or small fix wing air craft with two in Cedar City and two in Tooele.
  
- ***Helicopters***
  - 111 helicopters are on contract this year.
  - Tooele will have 2 starting in June
  - Mountain Green Helibase in Morgan will have 3 starting in June, and a 4<sup>th</sup> larger helicopter arriving in July.
  - There will be three National Guard Blackhawk Helicopters available, which is down from previous years due to multiple units being deployed overseas.

In summary the outlook for 2018 is a potentially active wildfire season. At this time, it is being compared to the 2012 wildfire season in Utah, which was a big year with multiple big fires. As this is showing signs of an active wildfire year, I will keep elected officials updated on current and projected conditions to be able to mobilize and make decisions on restrictions or other appropriate actions.

Additionally, on June 4, 2018, a multi-agency, multi-jurisdictional planning meeting is scheduled between Summit County (Sheriff's Office), Wasatch County, Duchesne County, U.S. Forest Service, State of Utah, Park City Fire District, Emergency Management and Wildland Fire regarding fire evacuations. We will share with the Council the outcome of this meeting, including any decisions regarding planning and strategy.

### **2018 Wildfire Prevention/Awareness Campaign**

**Overview:** Given the extreme outlook of the 2018 fire season, Summit County must inform and educate citizens on the measures they can take to mitigate the chances of human-caused fires, property damage, and personal harm. This awareness campaign, #Wildfire Wednesday, will include weekly social media posts sent out by the County every Wednesday (and more frequently as alerts and situations warrant), consisting of statistics about fires occurring in the county/state, prevention reminders, memes, and success stories with photos, such as testimonials from the Rockport fire from several years ago.

In addition to social media content, the County's wildfire prevention/awareness campaign will also consist of community outreach, participation in local events, and outreach and coordination with local media outlets. Messaging will be developed from the Utah Interagency Wildfire Prevention and Communication guide.

**Outlets:**

- Radio
- Newspaper
- Television
- Social Media (#WildfireWednesday)
- Nextdoor
- Newsletters
- County Alert System

**Overarching messaging:**

- Sign up for the Summit County Alert System to be informed of fire restrictions and active fires – [summitcountyalerts.com](http://summitcountyalerts.com)
- *Ready, Set, Go!* and *One Less Spark* — fire preparedness, wildland fire public education, developing fire-adapted communities

**Example messaging from the Wildfire Prevention and Communication guide:**

- What if your home is threatened by a wildfire? Drones can slow firefighting operations and put communities at risk.  
#It'sNotWorthTheView #WildfireWednesday
- Lawn mowers, chain saws, grinders, welders, tractors, and trimmers can all spark a wildfire. Please remember to use all equipment responsibly. #PreventWildfire #WildfireWednesday
- One of the great things about Utah is that we live close to the mountains and can enjoy its scenic wild beauty. This is a wonderful privilege, but it comes with a responsibility: Be careful with your fireworks and remember, fireworks are illegal on public lands.

**June topics:**

- Previous season fire stats, 2018 outlook
- Defensible space — what to look for, potential hazards
  - Chipper Program
- End of burn season

**July topics:**

- Fireworks
- Open burning
  - Campfires, barbecues, etc.
- Evacuation Preparedness
- Drone dangers

**August topics:**

- Recognizing dangerous conditions and debris burning
- Evacuation Preparedness
- Target shooting/practice
- Equipment sparks, recreational vehicle use



# National Significant Wildland Fire Potential Outlook

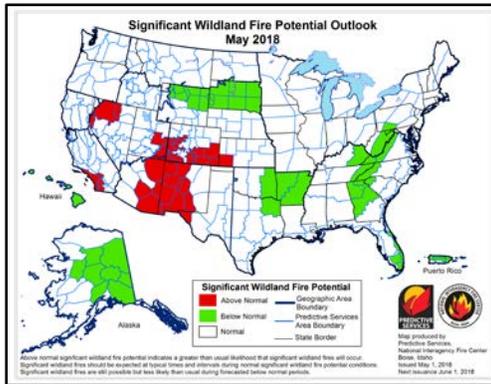
Predictive Services  
National Interagency Fire Center



Issued: May 1, 2018  
Next Issuance: June 1, 2018

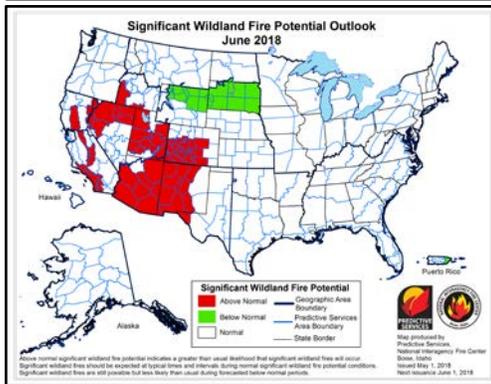
## Outlook Period – May, June, July and August 2018

### Executive Summary

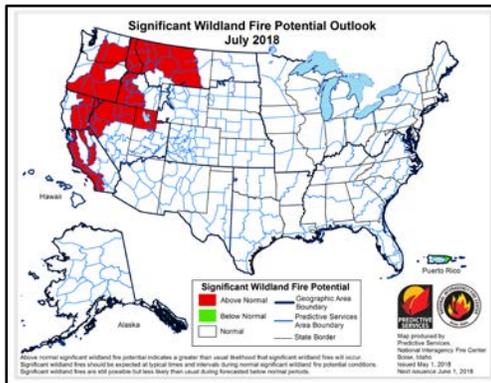


The significant wildland fire potential forecasts included in this outlook represent the cumulative forecasts of the ten Geographic Area Predictive Services units and the National Predictive Services unit.

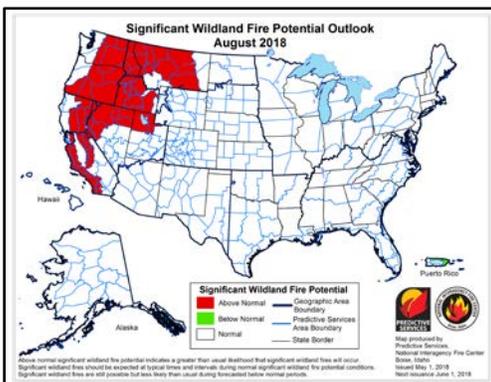
Preexisting drought conditions along with several wind events allowed for fire activity across the southern Great Plains and New Mexico to increase in April. By month's end, activity was beginning to spread westward into Arizona and southern California. Entering May, a normal progression of fire activity is being observed as the Great Plains begins to receive its spring rainfall while the Southwest continues to be dry. What is atypical is the drought severity that is in place across the Four Corners Region and now southern California. The drought coupled with the carryover of an above average fine fuel growth from last year is expected to lead to Above Normal Significant Wildland Fire Potential in May and June across portions of the Southwest, Great Basin, and southern California. In the East, the elevated potential across Florida and portions of Georgia will return to Normal potential as summertime convective patterns ensue.



The peak of the fire season in the Southwest is expected to occur by late June, just before the onset of the annual monsoon season which should gradually bring their season to a close. Data suggests that the monsoon's arrival should occur by early July. The projected focus of the monsoon's early surges will be across New Mexico and Colorado but will refocus westward as July progresses. A normal transition of fire season activity west and north is expected through July as warmer and drier than average conditions develop across the western states. Of concern is the preexisting grass crop from 2017 and the new growth which will cure by July across California, the Great Basin, and Oregon. Higher, timbered elevations in these areas will become a concern by July as the past winter's below average snowpack melts allowing for the high elevation fuels to become dry enough to support fire activity.



In August, seasonal transitions focus the fire activity over the northwestern quarter of the country, though central and southern California also continue to experience significant activity. With significant carryover of fine fuels from last year and average grass crop growth this year, elevated fire potential will continue into August across many of the lower and middle elevations from the central Great Basin and California northward to Canada. Higher elevations in the Cascades, Northern Sierras, and possibly the Northern Rockies may also see elevated fire potential as well should warmer and drier than average conditions develop as expected.

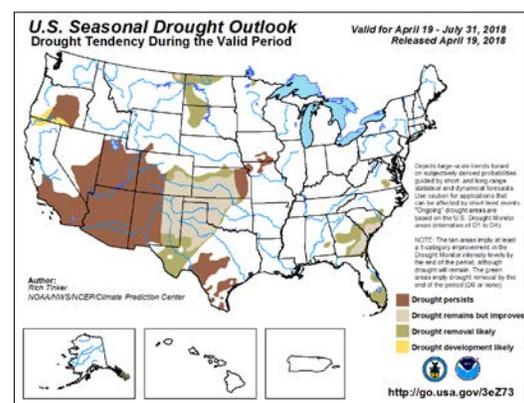
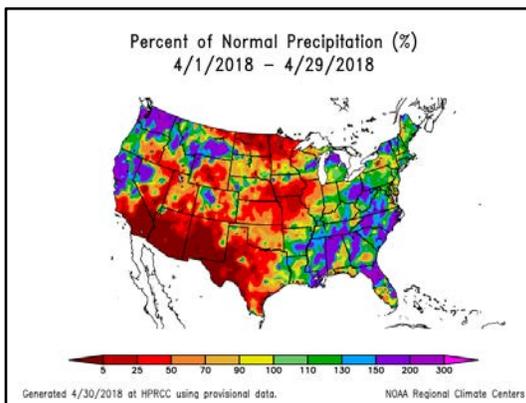
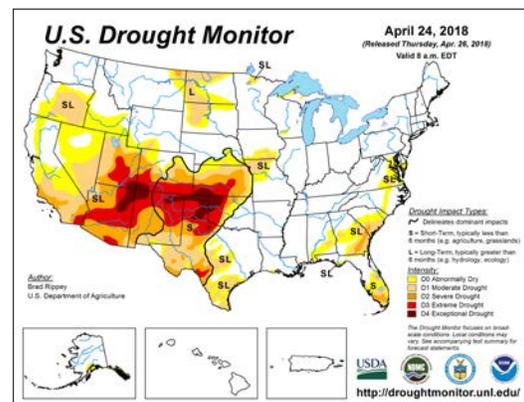
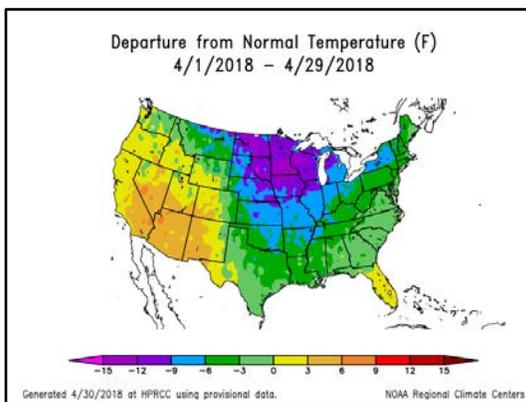


In Alaska, Normal Significant Wildland Fire Potential is expected as the state experiences a typical transition into fire season. Conditions across the state have been generally wetter than average while temperatures have been warmer than average. Since this pattern is expected to continue through the core of the Alaskan fire season, the potential for Above Normal Significant Wildland Fire Activity is low.

## Past Weather and Drought

The cooler than average conditions observed in March across the northwestern states expanded into the Great Plains and the Northeast in April. In the Southwest, temperatures were three to six degrees above average in April. Across the southcentral and southeastern portion of the nation, temperatures were near average. Minor changes occurred with the precipitation trends observed between March and April. Of particular concern was the continuance of much drier than average conditions across the Southwest where many locations continued to receive less than 25% of average precipitation. Central through Northern California, the Pacific Northwest, and the Northern Rockies generally received 130% of average or greater precipitation for the month. Portions of Nevada also received abundant rainfall as well. When compared with soil moisture anomaly maps for the same period, it became increasingly evident that the precipitation received was going directly into the growth of fuels in these areas.

The U.S. Drought Monitor showed four primary areas of drought across the nation. Of most concern was the worsening drought conditions across the western portions of the southern Great Plains and the Southwest. Several areas encompassed by drought intensified further into the highest category, Exceptional Drought. At month's end, the eastern fringes of this large area of drought were beginning to experience some minor relief. Another area of moderate drought conditions continued to persist across central Oregon. This area should be monitored closely in the coming months for possible intensification and expansion. The drought conditions across eastern Montana and the Dakotas continued to improve. In the Southeast the preexisting drought conditions are expected to experience relief as well.



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)

## Weather and Climate Outlooks

El Niño-Southern Oscillation (ENSO) shows that the La Niña conditions in the equatorial Pacific Ocean have weakened into ENSO Neutral conditions. Latest model forecasts show a slow trend toward a weak El Niño conditions by mid-fall.

The fading La Niña continued to show typical weather patterns for the oscillation in April. By month's end, however, the beginning signs of its fading influence were beginning to show in forecast data. While drought conditions were expected to continue across the Southwest, the southern Great Plains and the Southeast were beginning to show signs of more typical, precipitation producing weather patterns for early May.

Looking further into the outlook period, warmer and drier than average conditions are expected to develop across the west June through August. However, the focus of the heat may become centered along the West Coast as the upper level ridge of high pressure migrates west. Precipitation trends should follow suit. Broad areas of drier than average conditions are expected across the west in late May and June, but should become focused along the west Coast states in July and August as the Southwest Monsoon gains a greater hold over the Intermountain West. In the East, a gradual return to warmer and drier than average conditions is expected by July across a majority of the Southeast. In Alaska, overall warmer but wetter than average conditions are expected through the peak of its fire season followed by a return to overall average conditions for mid-July through August.

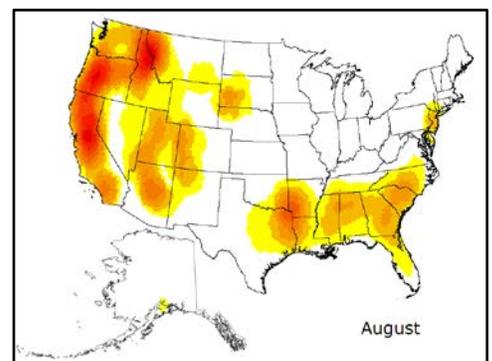
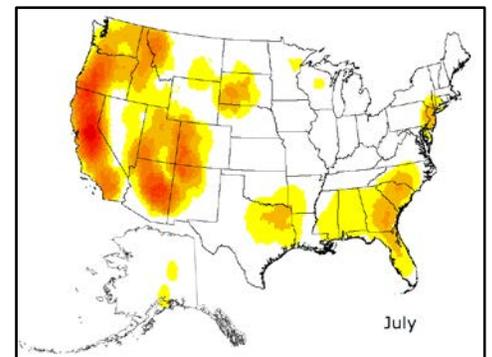
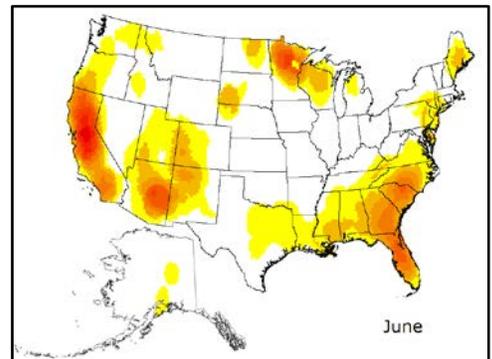
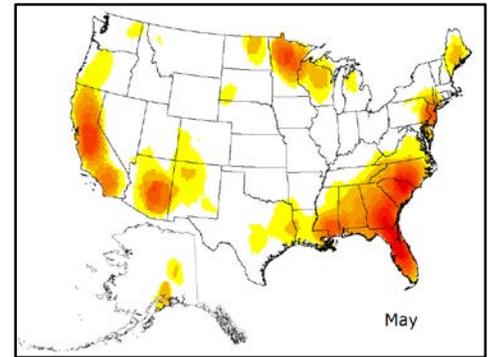
### Geographic Area Forecasts

**Alaska:** Below Normal significant wildland fire potential is expected across the Interior for May followed by Normal potential for the remainder of the outlook period for all areas.

The U.S. Drought Monitor shows an area of abnormally Dry conditions through the Anchorage area and the Kenai Peninsula, extending west across Cook Inlet and onto the eastern slopes of the western Alaska Range. There is also an area of abnormally Dry over the Panhandle. The rest of Alaska has had ample snowpack and will continue to slowly recharge ground water. Temperatures have been cool, but are forecasted to begin warming into the upper 40s and even low 50s for much of the state in the next couple of weeks. This will rapidly accelerate the melting process.

Long range outlook maps are forecasting warmer than average conditions for the entire state for the summer. Wetter conditions are also expected to be likely for much of the state, with the exception being the Panhandle and a small portion of the southeastern mainland. These forecasts seem likely since several forecast models indicate similar trends.

Calculations of the Canadian Forest Fire Danger Rating system have started for a few stations on the Kenai Peninsula and around the



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)

Matanuska Valley and Anchorage Bowl. Fuels remain fairly unburnable due to recent precipitation. Alaska is entering in the southern part of the state. Most of the northern two thirds of the state is snow-covered, with nighttime temperatures at or below freezing. By mid-May, expect many of the lower valleys of the Interior to be snow free, but many higher elevations will melt out more slowly, and will likely keep some snow until the end of the month. This is particularly true in areas with higher than normal snowpack this winter and will make for a later than normal start in those areas.

**Northwest:** Normal Significant Wildland Fire Potential is expected for the Northwest through June followed by Above Normal significant large fire potential for south southeastern Washington and southern and north central Oregon for July. Above Normal significant large fire potential is expected east of the Cascade Crest in Oregon and Washington in August and also for extreme southwestern Oregon as well.

The cool trend that settled over the region in mid-February continued through April. April's temperatures were generally below average across the region. Precipitation was at or above average for most areas as well. An exception was southeastern Oregon where warmer and drier than average conditions prevailed in April. Overall, much of Oregon has remained below average for precipitation through the winter.

Snowpack at the higher elevations across Washington is above average entering May. The cool and wet conditions in place since February have helped the state's snowpack considerably. For Oregon, however, almost all of the snow reporting basins report below average snowpack entering May. Only areas surrounding Mount Hood and northeastern Oregon are near average. Reporting basins across the remainder of Oregon report 30% to 70% of average entering May.

Outlooks for the region for May suggest no clear trend in temperature and conditions drier than typical for the month. For June, July, and August, the summer of 2018 is expected to be warmer and drier than average. Fire danger remains low for large fires that are naturally ignited for the geographic area. Fire danger will not likely rise to such levels until June of 2018.

**Northern California and Hawaii:** Normal Significant Wildland Fire Potential is expected in all areas in May. For June and July expect Normal Significant Wildland Fire Potential in most areas except: the far eastern side, Sacramento Valley Foothills, and East Bay Area where Above Normal significant large fire potential is expected. In July and August, the northern Sierra and northeastern portion of California will be added to the Above Normal category as well. Hawaii can expect Below Normal Significant Wildland Fire Potential in May followed by Normal potential June through August.

The outlook for May through August is for below average precipitation and above average temperatures. A semi-persistent low pressure trough may set up along the west coast this summer, and that may lead to less than average lightning in western areas, while active monsoon conditions in Nevada may be close enough to eastern areas to produce an average number of lightning events there. The spring has been wetter than average across much of the region, and that has led to a live fuel green up phase that is close to average. Overall, the majority of the region has a significant precipitation deficit since the beginning of the rain year on October 1, 2017. Additionally, the mountain snowpack peaked at only 48% of average in late March and has already dropped to below 25% of the average snow water content for late April.

The fuel moisture decline phase is expected to be steeper than average. We expect fuels to be available for wildfire at all elevations earlier than average this year. May will likely be quiet with live fuels still fairly green, but in June and July the warmer and drier than average weather will have a pronounced effect on the curing of fine fuels and drying of dead fuels. Typically, little to no large fire activity occurs within the region through May, and enough precipitation has fallen to hold off the onset of the active fire season until June. The Large Fire Potential for May 2018 is Normal. Cold weather in late February and early March produced areas of frost kill at lower elevations that could add to fire potential beginning in June. With dry and warm conditions expected in June it is expected that fire activity will ramp up, and this represents an earlier start than average by a few weeks. The areas expected to have Above Normal

Large Fire Potential in June are the Far East Side, the foothills of the Sacramento Valley, and the Diablo portion of the eastern Bay Area. In July-August the Northeast California and Northern Sierra PSAs are added to the Above Normal areas due to the potential of dry fuels, a bit more wind, and occasional lightning events.

Sea surface temperatures (SSTs) surrounding the Hawaiian Islands have warmed in the past month and average temperatures throughout the region have been above average in April. Rainfall has been above average throughout the islands, and at times excessive enough for flooding. The outlook for May through August calls for continued above average precipitation and temperatures, although confidence in above average precipitation beyond May is somewhat low. The Large Fire Potential in Hawai'i is Below Normal in May and Normal from June through August.

**Southern California:** Above Normal Significant Wildland Fire Potential is expected along the coast and foothills across Southern California in May and Normal potential elsewhere. The Above Normal Significant Wildland Fire Potential will expand north and east to include the foothills and portions of the southern Sierras in June through August in an increasing manner.

An active weather pattern continued to bring substantial wetting rains during April. But as is typically the case toward the end of "rainy season," most of the precipitation was confined to the northern half of the state. Areas south of a southern Monterey to Fresno County line experienced only light amounts of precipitation during the last 30 days. Additional rainfall for these areas appears remote due to the climatological norm of most seasonal rainfall ending by May 1<sup>st</sup>. The past month also continues the streak of days without significant offshore flow which is unusual for early spring. This allowed fuels to dry at a slower pace compared to recent years.

Field surveys indicate fine fuel moisture continues to support green seasonal grasses across most foothill and coastal areas across central California. Only the interior valleys of San Luis Obispo into Kings and western Kern County have seen substantial curing in the central part of the state at the time of this writing. However, conditions remain very dry over portions of Southern California, particularly from Orange County south and eastward which missed most of the significant rainfall this spring. These areas will see the first emergence of Above Normal large fire potential in May with large fire potential climbing to Above Normal from south to north progressively through the spring into the summer. Fuel loading may be quite heavy this year in the Sierra Foothills and from Big Sur northward along the central coast. Once grasses cure in these areas, large fire potential will climb to significantly Above Normal levels due to the effects of the five year drought resulting in poor health of many native brush and shrubs. Bark beetle-killed pines will continue to present a significant risk of extreme fire behavior during hot and windy periods of the Sierras again this year.

Long range models continue to indicate that the summer monsoon season may be active this year over the southern Plains and the Southwest. But lingering troughs over the Pacific Ocean may keep most of this moisture suppressed to our east. Last year was one of the least active summers in years in terms of number of thunderstorms. With the possibility of a stronger subtropical moisture fetch this year, there will likely be a bit more activity across the Area this year, but the majority of storms may remain over the deserts. Temperatures are expected to be above average again this spring and summer across the entire area.

**Northern Rockies:** Normal Significant Wildland Fire Potential is expected for the Northern Rockies in May and June. For July and August, Above Normal Significant Wildland Fire Potential is expected from central Montana west through the Idaho Panhandle, excluding the Beaverhead Deer Lodge National forest. In this and other, eastern locations Normal Significant Wildland Fire Potential is expected.

Similar to what occurred over the previous fall and winter, spring across the region was colder and more moist than average during April. All of North Dakota was more than ten degrees colder-than-average, while the northeast half of Montana was also well below average as well. Northern and central Idaho were slightly colder than average for the month.

For April, precipitation was well above average for northern/central Idaho and most of Montana. Mountain snowpacks reflect this, in the southern portion of the Idaho Panhandle where spring temperatures have been somewhat warmer, current snow water equivalent basin-averages area are about 115% of normal. In contrast, the western half of Montana remains at 150% to 175% of normal snow water equivalent, with the highest amounts near Glacier National Park. In Northeast Montana and most of North Dakota precipitation was less than half the average until the last week of the month. As a result, far northeast Montana continues in an extreme drought according to the US Drought Monitor, while western and northern portions of North Dakota remain in moderate drought. The remainder of the region is drought-free.

This transition to ENSO Neutral conditions is forecasted to persist through the summer. This will lead to a drying pattern in May with near average temperatures. Long range outlooks continue to depict above average temperatures and below average precipitation in June for most of the region. For the latter part of July through the month of August, long range outlooks depict above average temperatures region-wide, with below average precipitation in Idaho and western Montana. This is consistent with climate patterns from previous ENSO Neutral summers. Mountain snowpack in the western areas continues to be much above average according to the latest basin snow water equivalent maps, especially across western Montana and Yellowstone National Park. The lowest elevations below 5,000 feet are already melted out, and higher elevation snowpack are beginning to decrease as well. Any new snow that falls during late spring storms in May will likely melt shortly after accumulating. Snowmelt will continue at average rates through May, and accelerate in June.

Green-up is underway at lower elevations throughout the region as a result of moist conditions during the preceding fall and winter months and the melt off in late April. This is particularly true across the Camas Prairie of Idaho and to a lesser extent in northwestern and southeastern Montana according to the latest RTMA Growing Season Index from the Missoula Fire Lab. Mid-and upper elevations are still snow-covered in the mountainous regions. With drought conditions lingering in northeastern Montana and much of North Dakota, green-up may lag behind in those areas, but healthy levels are expected across the rest of the region through June. Temperature and precipitation outlooks forecast to be near average levels for May and June should lead to fine fuels curing at average rates at lower elevations but slower at higher elevations where snowpack moisture will persist. Thereafter, by late July and continuing through August fuels conditions are expected to be much drier than average due to the expected temperature and precipitation outlooks associated with the ENSO Neutral conditions. Heavy fine fuels loading is expected across central Montana from the well above average precipitation that has occurred there over the winter and early spring.

With near average temperatures and precipitation expected in May and June, Normal Significant Wildland Fire Potential is anticipated across the region as fuels will still be transitioning to drier levels, especially at higher elevations west of the Continental Divide. In early July, higher elevations may still be relatively moist due to the enhanced snowpack in the western areas. By the last half of July, however, heavy cured fine fuel loading and drier larger fuels are expected to elevate potential to "above-normal" in the Idaho and western/central Montana areas since the temperature and precipitation outlooks favor warmer and drier conditions. Above Normal potential with warmer and drier than average conditions will continue in August in those locations depicted on the maps. Southwestern Montana, Yellowstone National Park, and the Absaroka-Beartooth mountains/plateau, southwest Montana will remain near normal based on anticipated monsoonal moisture bringing adequate precipitation to these areas through the entire outlook period.

**Great Basin:** Above Normal Significant Wildland Fire Potential is expected across northwestern Nevada and southeastern Utah in May. Above Normal Significant Wildland Fire Potential is expected across northern Nevada, southwestern Idaho, and most of Utah in June. Above Normal Significant Wildland Fire Potential is expected across northern Nevada, southwestern Idaho, and northern Utah in July and August. Elsewhere, expect Normal Significant Wildland Fire Potential during the outlook period.

A prolonged warm/dry period has developed over the last several weeks across the southern half of the region. This has combined with a dry water year to produce severe to exceptional drought across much

of Utah, with Abnormally Dry to Moderate Drought conditions across much of Nevada. Further north, slightly above average precipitation and snowpack has occurred across the mountains of Idaho, with even more moist conditions being observed across western Wyoming. There are strong indications that above average warmth and dryness will continue into the early summer months for most areas. In addition, data shows that the monsoon Season could begin slightly earlier than normal for southern Utah.

Two areas of concern heading into the early part of fire season exist. Across southeastern Utah, despite lack of finer fuels, thousand hour fuels are much drier than average, affecting timbered areas above 7500 ft. There has already been an increase in small fire activity in those areas. The other area of concern is across northwestern Nevada, where many areas that did not burn last year still have the remnants of last year's fine fuels bumper crop. These finer fuels extend into parts of southern Idaho. Elsewhere, heavier fuels are moist across the mountains of central Idaho and western Wyoming, but the anticipated above average warmth for the next one to three months should have a significant effect on the heavier fuels in Idaho, especially the western areas.

**Southwest:** Above Normal Significant Wildland Fire Potential is expected across the central third of the region in May while other locations can expect Normal potential. The Above Normal Significant Wildland Fire Potential will expand northwestward into northwestern Arizona in June while other areas across the region experience normal potential. Normal Significant Wildland Fire Potential is expected in July and August in all areas.

La Niña-like conditions have been a factor for months in both the eastern and central tropical Pacific ocean but there are now some indications that La Niña is reverting to a neutral state. Despite this, the expectation is for overall temperatures to generally remain warmer than average with drier than average conditions to remain intact for much of Southwest Area through June. Confidence in this overall outlook is slightly above average.

The recent more active pattern should continue to oscillate back and forth with a West Coast or eastern Pacific upper level ridge setting up in May before the subtropical high associated with the summer monsoonal begins to push north from Mexico with more consistent heat developing by late May and June. Moisture has begun to move into the eastern plains. This trend is expected to continue in May and June as more lightning is observed further west or near/along the divide region.

Data suggests either a slightly early or on-time arrival of the monsoonal season in late June or early July with a good burst of moisture initially perhaps followed by a stronger focus along/east of the divide as summer progresses.

**Rocky Mountain:** Above Normal Significant Wildland Fire Potential is expected across southwestern portions of Kansas and southern and western Colorado in May. Below Normal Significant Wildland Fire Potential is expected across northern Wyoming, northern Nebraska, and southern South Dakota in May and June. Other locations can expect Normal potential in May. For June, Above Normal Significant Wildland Fire Potential is expected across extreme western Kansas and the northern two thirds of Colorado. For July and August Normal Significant Wildland Fire Potential is expected in all areas.

Long/medium range precipitation deficits are greatest across southern portions of the geographic area, especially with below 25% of average in portions of south central and southwestern Colorado. Extreme to Exceptional drought exists across southern portions of the region. Drought improvement has occurred across northern portions of the region where precipitation has been significantly above average.

Fuels available to burn this time of year are primarily categorized by dry grass and brush in the lower elevations of the geographic area. Unusually dry conditions have resulted in a late/stunted green-up across southern Colorado and Kansas. Average green-up conditions are expected across the remainder of the area from south to north as spring progresses. Wetter than average spring months in 2017 have resulted in significant fuel loading across the plains, especially where green-up struggles to overtake existing dead grasses from central to south-central and southwestern Kansas into southeastern Colorado. Fuel loading in the mountains of southern Colorado are expected to exhibit above average

loadings as a result of above average 2017 snowpack, especially considering compaction of these dead fuels is limited due to this year's very low to historically low snowpack. Sno-pack deficits in the southern Colorado mountains are resulting in exposed fuels that are typically under snow this time of year.

Short term model forecast precipitation for late April into early May are reflective of an active storm track across the geographic area generating rain and mountain snow at times, which could help with short-term green up, but little with long term drought. In the southern portion of the RMA, long range forecasts favor above average temperatures in combination with drier than average conditions for May and June. Moisture from the Southwestern Monsoon is expected to moderate fire potential over southern Colorado after the early portion of July, and continuing through August.

Above Normal significant large fire potential is expected to continue through May across southeastern portions Colorado into southwestern Kansas, and expand across much of west central and southern Colorado as a result of forecast trends, extreme to exceptional drought, late/stunted green-up, very low snowpack, and areas of above average fuel loading. Conversely, well above average snowpack and a wetter than average spring in combination with average precipitation and temperature forecasts points toward below average large fire risk across northern portions of the region through June. Although large fire risk across in all but the southwestern portion of Kansas is predicted to gradually decrease closer to average as May progresses, heavy fuel loading will still be noticeable across central, south-central, and southwestern portions of the state as a delayed green-up struggles to overtake heavy dead grass fuels. During June above average fire risk is predicted to expand across much of central to southern Colorado due to continued drought with persistent warm and dry forecasts. Snowpack is near historical minimums over the mountains of southern Colorado, and above average large fire activity in June is highly correlated to years with very low spring snowpack. A seasonal increase in moisture from the southwest monsoon is predicted to moderate large fire risk closer to average during July and August across central to southern Colorado. Regional acreage burned from large fires during the June-August core fire season is forecast to be above average for the first time since 2012.

**Eastern Area:** Normal Significant Wildland Fire Potential is expected over the majority of the Eastern Area through the rest of the spring and through the summer of 2018. Portions of eastern West Virginia can expect Below Normal Significant Wildland Fire Potential in May followed by a return to Normal potential thereafter. Periods of Above Normal fire potential may persist/develop over portions of the western Mid-Mississippi Valley from May into June and again in July with and warm and dry periods.

Soil moisture anomalies were generally average to above average across most of the region in April. The greatest 30 day soil moisture/precipitation deficits towards the end of the month were observed across northwestern Minnesota, the west central Mid-Mississippi Valley and the southeastern corner of the Mid-Atlantic Compact. Temperature anomalies were well below average across the region through mid-April with the coldest temperatures occurring over the Great Lakes and the northwestern Big Rivers. Temperatures warmed up closer to average levels through the last ten days of April.

Overall cooler than average conditions are forecasted over the Great Lakes down into parts of the Mid-Mississippi Valley this summer. Warmer than average conditions are forecast in May over the eastern states possibly lingering into June over the eastern Mid-Atlantic States. Drier than average trends may develop/persist over portions of the western Mississippi Valley May into June. A transition toward wetter than average conditions is expected across parts of the Great Lakes down into the Mississippi Valley in August. Wetter than average trends are expected over the Northeast down into parts of the Mid-Atlantic States into the summer season.

100 and 1000 hour fuel moistures are near seasonal averages over the majority of the region entering May. The region was relatively drought-free at the end of April except for northwestern Minnesota and the west central Mid-Mississippi Valley. Energy Release Components or Canadian Build-Up Indices were beginning to increase over portions of the Upper Mississippi Valley through the end of April due to warming temperatures and a drying trend.

The 2018 spring fire season began later than average across portions of the northern tier of the Eastern Area due to colder and wetter than average conditions through the first half of April. Green-up was delayed over much of the region due to the late winter cold/wet weather pattern which occurred through the late winter/early spring season.

**Southern Area:** Normal Significant Wildland Fire Potential is expected across all areas during the outlook period except for the following areas where Below Normal Significant Wildland Fire Potential is expected. In May Arkansas, eastern Oklahoma, northeastern Texas, the Appalachian Mountains, eastern Kentucky, the Georgia Piedmont, southern Florida and portions of Puerto Rico can expect Below Normal potential. With the exception of Puerto Rico, these areas will return to Normal significant large fire potential July through August.

With full green-up finally reaching our most northern GACC border areas, along with what should be a continuing cooler than average temperature pattern and an active weather pattern, significant large fire potential should range from Normal to Below Normal levels with the Below Normal areas expected in areas receiving the greatest rainfall.

For the summer months, and with the ENSO state evolving into a more neutral condition, fire danger should track within average seasonal ranges. Precipitation trends over summer should follow those generally expected by the ENSO neutral condition over summer with patterns not appearing to show any particular atypical fire danger heightening trends.

What will yet to be determined is what the impact of the tropical Atlantic storm season will have regional rain patterns. At this time forecasts vary widely from below to above average. Thus the assessment is for an average to below average season with our southeast/Florida area seeing the greatest weather impacting potential.

### ***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 contact 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>