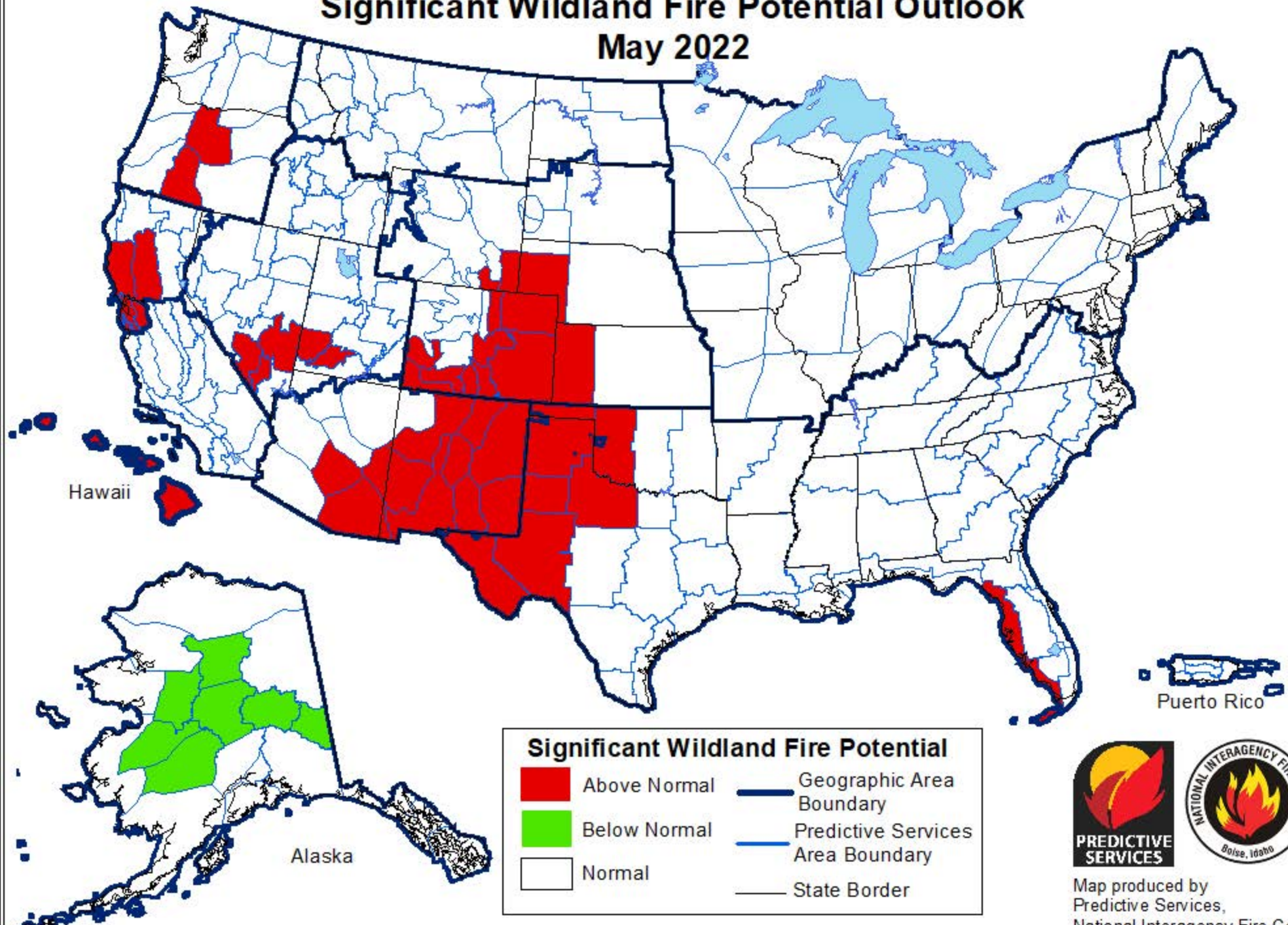
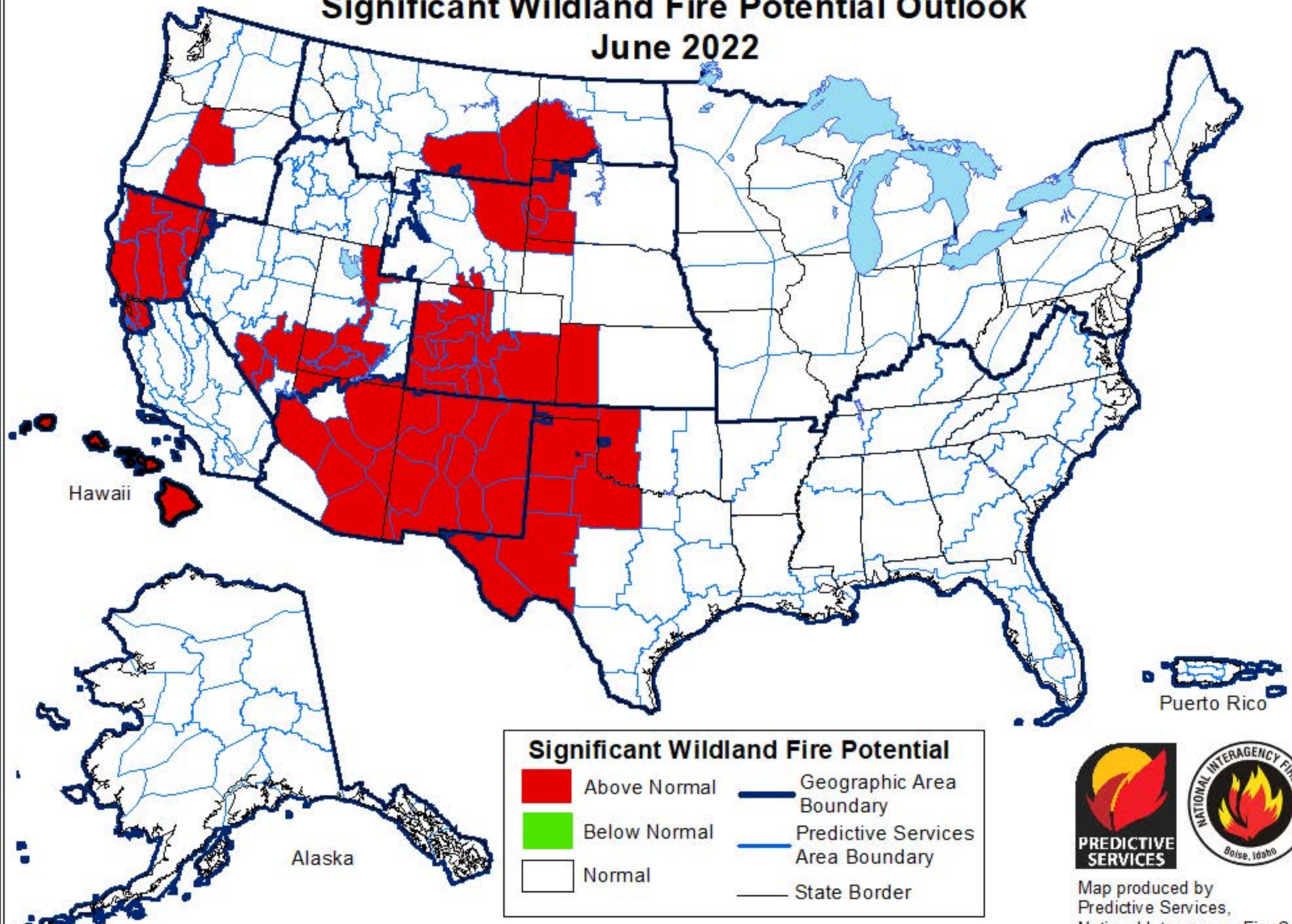
Significant Wildland Fire Potential Outlook
May 2022



Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur.
Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions.
Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

Map produced by
Predictive Services,
National Interagency Fire Center
Boise, Idaho
Issued May 1, 2022
Next issuance June 1, 2022

Significant Wildland Fire Potential Outlook
June 2022



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Predictive Services,
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Issued May 1, 2022
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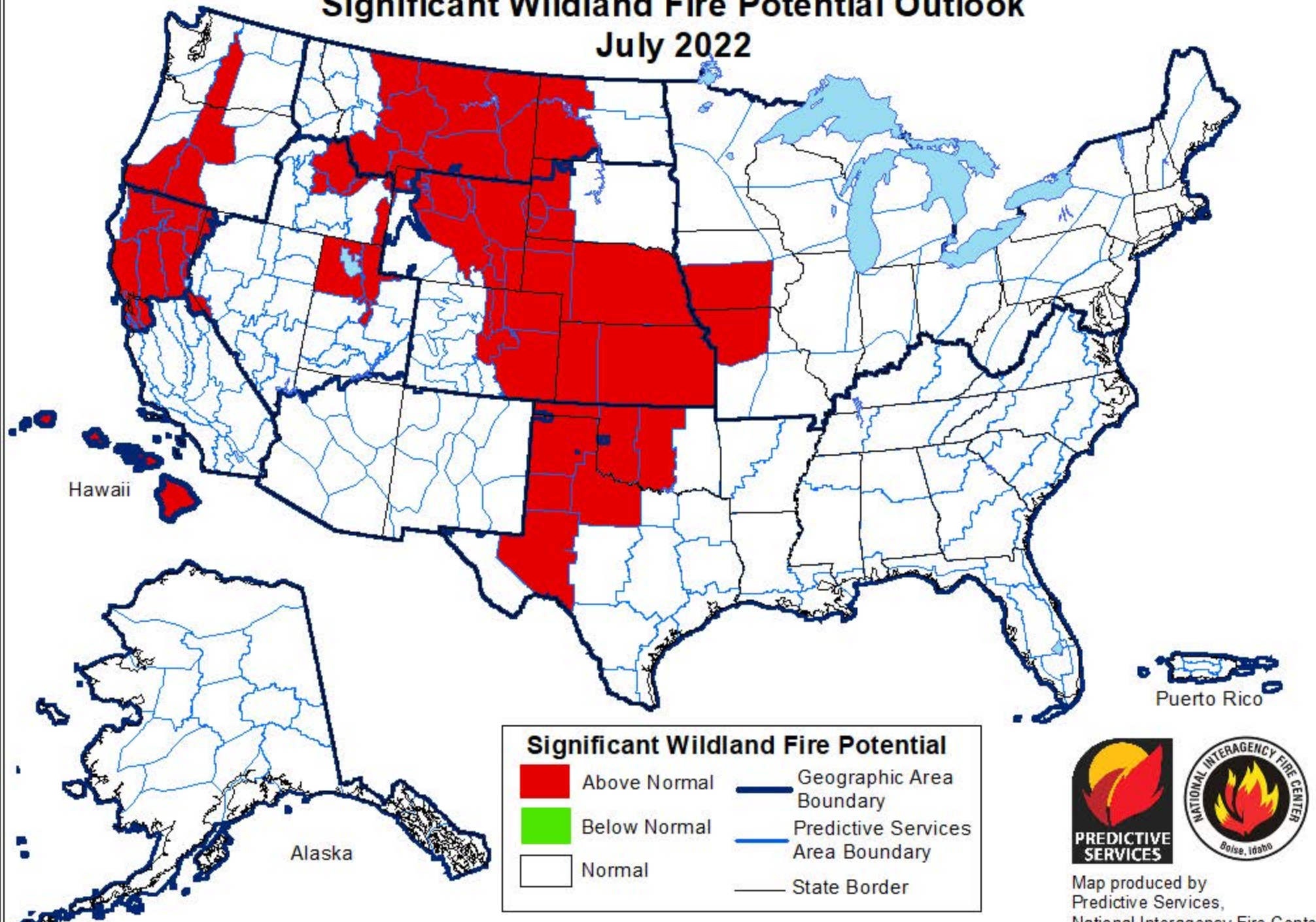
Significant Wildland Fire Potential Outlook
July 2022



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Predictive Services,
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Boise, Idaho
Issued May 1, 2022
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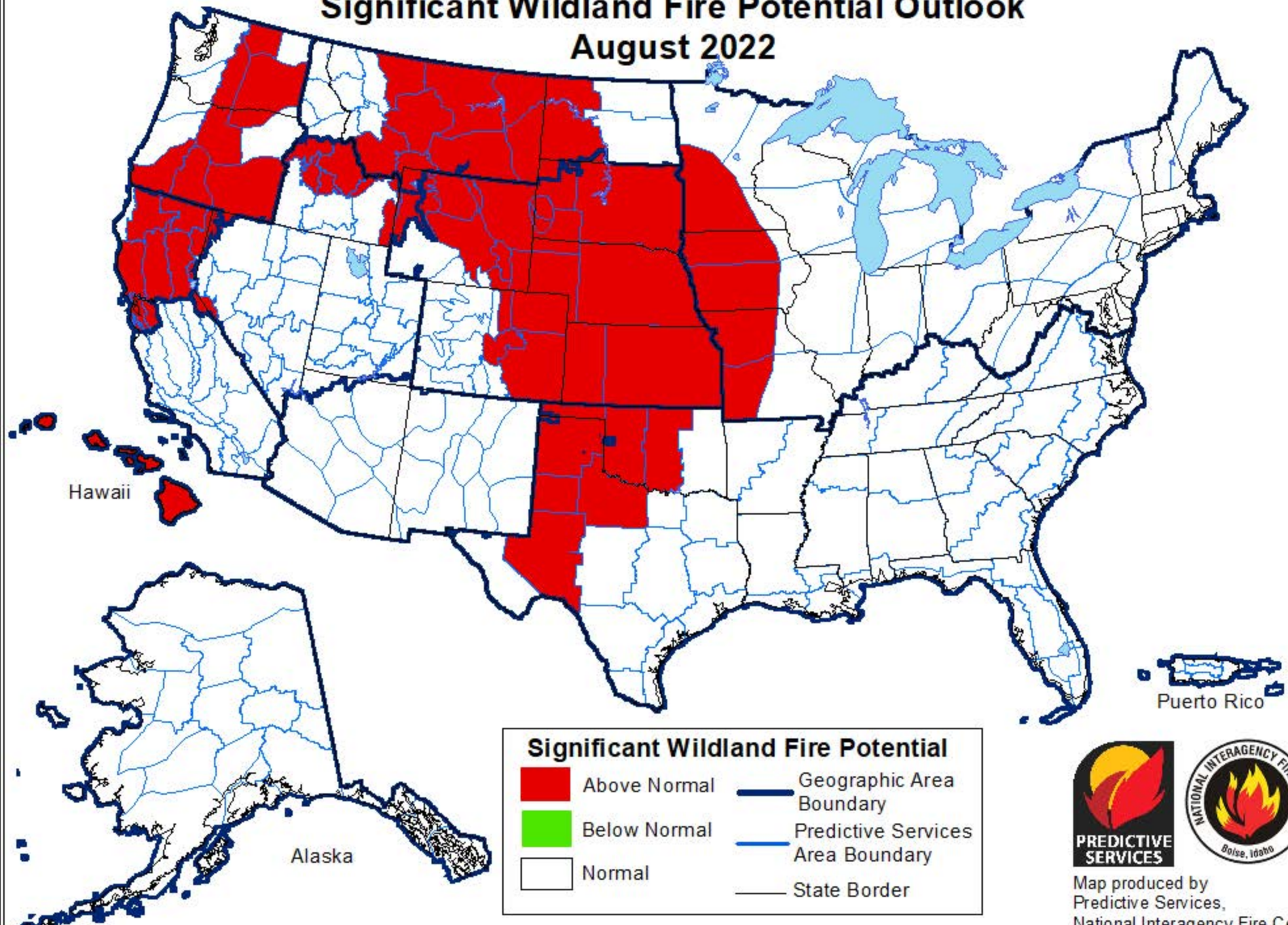
Significant Wildland Fire Potential Outlook
August 2022



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Map produced by
Predictive Services,
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Boise, Idaho
Issued May 1, 2022
Next issuance June 1, 2022

National Significant Wildland Fire Potential Outlook

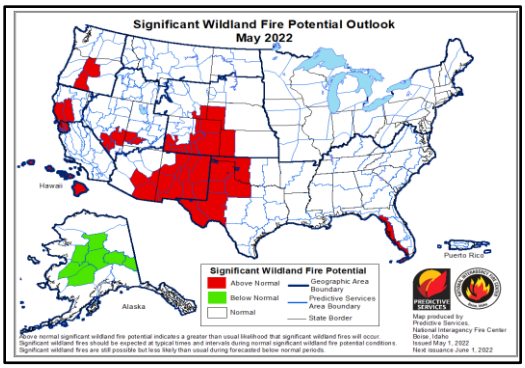
Predictive Services
National Interagency Fire Center

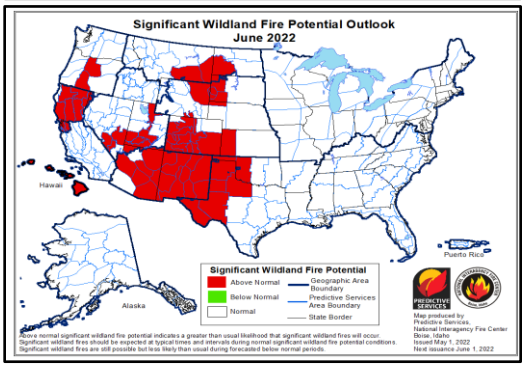
Issued: May 1, 2022
Next Issuance: June 1, 2022

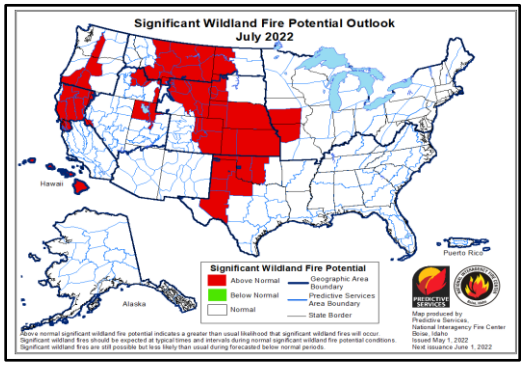
Outlook Period – May through August 2022

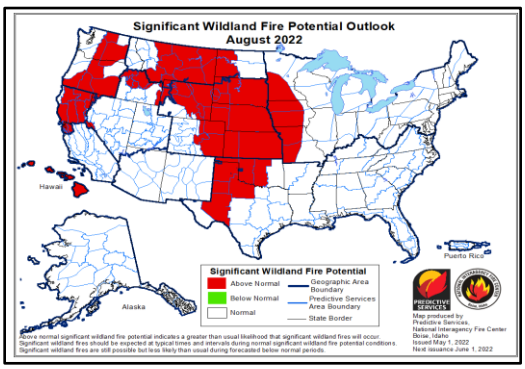
Executive Summary

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.









Fire activity continued to increase in April, mostly across the Southwest Area and the plains of Rocky Mountain Area, but slowly decreased in the Southern Area. Year-to-date acres burned for the US is approximately 70% above the 10-year average, with nearly 70% of the acres burned coming from Southern Area, which is not unusual through April.

Most of the West, Plains, and Texas remain in drought, with areas of drought also along the Gulf Coast and South Florida. Temperatures were above normal across the Southwest into Texas with below normal temperatures across much of the northern US. Below normal precipitation continued in the Southwest into the central and southern Plains. Snowpack continued to rapidly melt in the Southwest, with the below normal snowpack in the Northwest and Rockies melting off at a slow rate.

Climate outlooks indicate below normal precipitation is likely across much of the Plains west through the central Rockies to the Northwest, with above normal temperatures likely across much of the contiguous US (CONUS) through spring into summer. Critically windy and dry periods are likely to continue through June for the Southwest and central and southern High Plains with an active severe weather pattern to the east over the eastern Plains and Ohio Valley. The North American Monsoon is likely to arrive on time and be robust this summer, but potential early moisture surges during June could result in periods of lightning across the Southwest, Colorado, and the southern Great Basin.

Above normal significant fire potential is forecast across the western Florida peninsula in May. The southern High Plains will retain above normal significant fire potential through August, with much of the Plains forecast to have above normal potential by July and spread into the western Mid-Mississippi Valley in August after green-up and subsequent curing occurs due to anticipated warmer and drier than normal conditions.

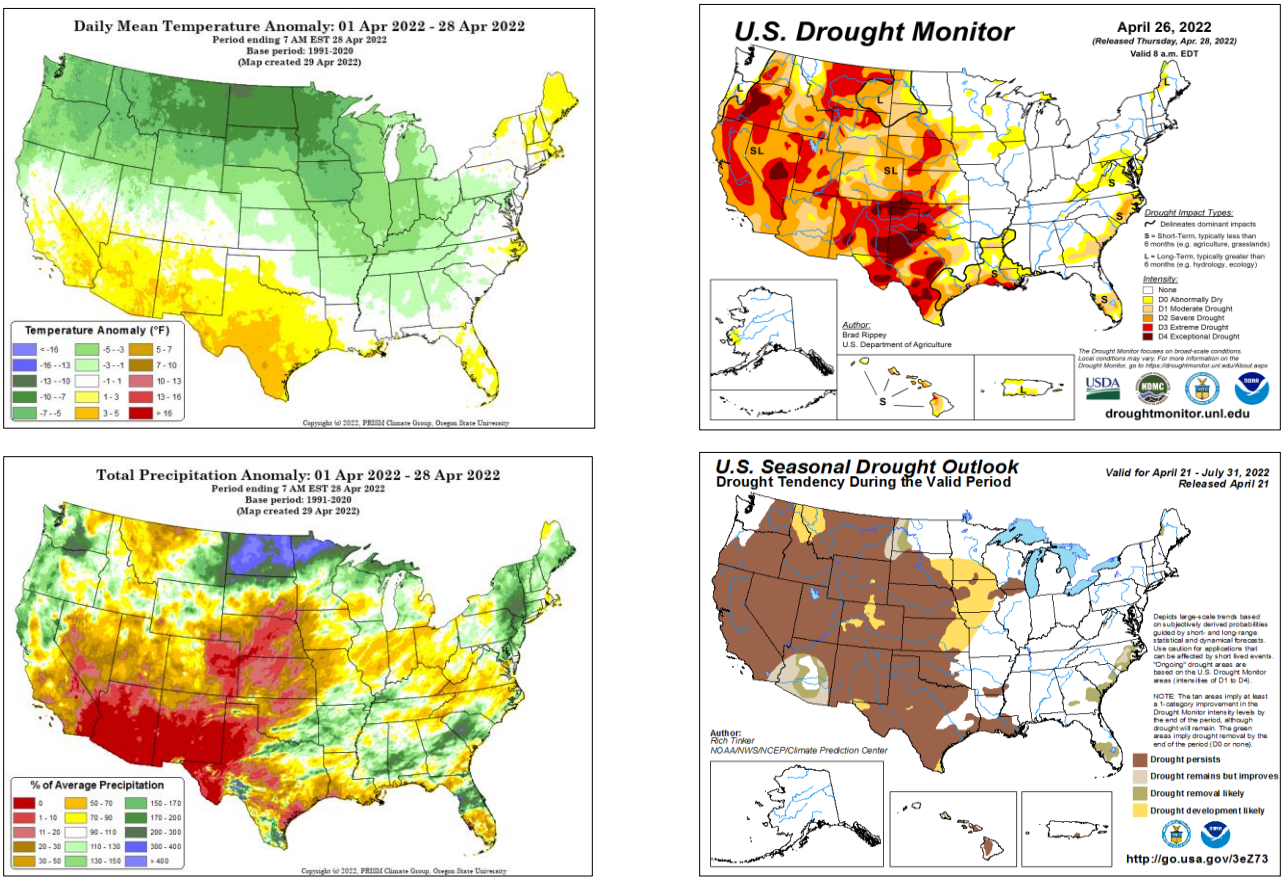
Most of the Southwest is forecast to have above normal significant fire potential in May and June, with potential increasing across southern and western Colorado and southern portions of the Great Basin before returning to normal in July. Above normal potential will likely expand from central Oregon to southwest Oregon and central Washington by July and much of the Northwest in August. Above normal significant fire potential is also forecast to increase across northern California from May into July, with rising potential likely along portions of the Sierra Front. Alaska is forecast to have below normal potential across the Interior in May, returning to normal in June. Leeward locations of Hawaii are forecast to have above normal potential during June and July.

Past Weather and Drought

Much of the Southwest, Great Basin and southern and central Plains received below normal precipitation in April. The most anomalously dry areas were across portions of the Desert Southwest, west Texas, eastern Colorado, Kansas, and Nebraska. Portions of the Southwest and west Texas received no precipitation in April. The Ohio River Valley into the southern Appalachians and portions of the Gulf Coast were also drier than normal. Much above normal precipitation was observed from eastern Montana through North Dakota and into northern Minnesota. Above normal precipitation occurred in much of the Northeast, northern California, and Northwest near and west of the Cascades. Additionally, near to above normal precipitation was observed from eastern Oklahoma through Arkansas and into Mississippi, Alabama, Georgia, and South Carolina. The Southwest into Texas observed above normal temperatures, with below normal temperatures from the Northwest east into the Great Lakes, Ohio Valley, and Appalachians.

Snowpack continued to melt in April, with very low to non-existent snowpack across the southern Great Basin, southern Colorado, and Southwest. However, snowpack melting was slower to the north due to the active snowpack with near to above normal snowpack in the Northwest and northern Rockies. Overall, drought continues across nearly 90% of the West and much of the Plains, with an intensification of drought in portions of the Plains, California, Arizona, and New Mexico. However, drought improved in much of east Texas and the Lower Mississippi Valley as well as the western Great Lakes and Northeast.

Fire activity increased markedly in the Southwest, with the geographic area now at preparedness level four. Fire activity also continued to increase in California, the Great Basin, Eastern Area, and across the plains of the Rocky Mountain Area. However, the Southern Area saw a decrease in fire activity in April. Generally, periods of increased activity coincided with widespread dry and windy conditions from the Southwest through the Plains, with the most intense critical fire weather conditions of the spring observed on April 22 across New Mexico and the southern and central Plains. Overall, over half of the Predictive Service Areas (PSAs) in the Southwest, eastern Colorado, and southern High Plains are reporting energy release component values near or above the 90th percentile. The national preparedness level remained at two with the increased fire activity in the Southwest and the forecast increased fire potential in May.



Left: Departure from Normal Temperature (top) and Percent of Normal Precipitation (bottom) *(from PRISM Climate Group, Oregon State University).* **Right: U.S. Drought Monitor (top) and Drought Outlook (bottom)** *(from National Drought Mitigation Center and the Climate Prediction Center)*

Weather and Climate Outlooks

La Niña conditions remain, with below average sea surface temperatures (SSTs) over much of the equatorial Pacific Ocean. SSTs cooled slightly in April, but are forecast to warm again into the summer, especially over eastern portions of the Niño region. The Climate Predicter Center (CPC) forecasts La Niña to weaken with neutral or weak La Niña conditions forecast into the summer. The strongly negative Pacific Decadal Oscillation (PDO) has weakened in recent weeks as well. The Madden-Julian Oscillation remains weak and is forecast to remain weak into June.

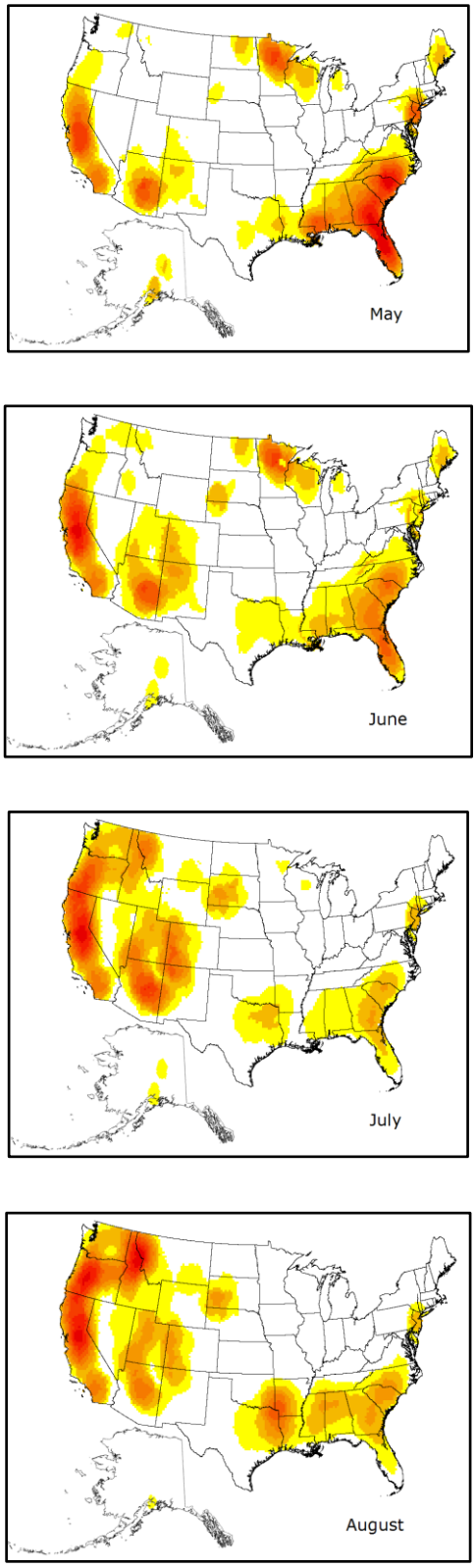
Geographic Area Forecasts

Alaska: Below normal fire potential is expected in portions of Interior Alaska during May, with a return to normal conditions in June that will continue through August.

The near record-breaking snowpack is rapidly melting around the state, but the late melt means a slow start to the fire season. Parts of the Interior will not be snow-free for another one to two weeks, then the gradual defrosting of ground fuels begins. The U.S. Drought Monitor shows no drought in Alaska, and snow water equivalent since October 1, 2021 remains well above normal in most areas. The excessive winter snowfall will allow the fire season to start off with a thorough recharge of moisture into all fuel layers, particularly throughout the Interior and higher elevations of south-central Alaska and the Panhandle. There are no early indicators regarding the severity of fire season in June or July. Activity during this part of the season depends on the convergence of dry fuels, weather, and ignition sources. Therefore, the forecast is for a return to normal conditions during June. Normal fire potential is forecast for most of southern Alaska throughout the spring and summer.

Through May, temperatures will continue to warm, with overnight lows remaining above freezing becoming more frequent by mid-month. Climate Prediction Center forecasts indicate increased chances for warmer than normal temperatures for parts of northern and eastern Alaska this summer, and a likelihood of wetter than normal conditions in the northwest and east. The temperature forecast is typical of the last few summers; however, the precipitation forecast is less certain.

Fire activity in Alaska is still minimal, though there has been an uptick in small human starts along the road corridors of south-central Alaska. One large fire in southwest Alaska burned over 10,000 acres, which is remarkable for this time of year. It is burning in dead grass and dry tundra between pockets of snow in a remote area and is buffered by areas of substantial snowpack.



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)

Northwest: The potential for significant fires in the Pacific Northwest is generally low through May. However, elevated risk continues in central Oregon, continuing into June, and will mainly be associated with dry and windy weather rather than lightning. with similar potential forecast for June. For July, the elevated risk will expand into southwest Oregon and central Washington before significant fire potential increases to encompass most of the geographic area in August. The risk of fires in central Oregon in May and June will mainly be associated with dry and windy weather rather than lightning.

In contrast to February and March, a steady procession of Pacific cold fronts lashed the region in April. Precipitation accumulated above average for much of the Northwest Geographic Area, including wide sections of the Columbia Basin. Some dry spots continue to persist in central Oregon and the Okanagan region of eastern Washington. Temperatures across the geographic area were consistently below average through April.

Snowpack, which had been falling below normal through February and March, was boosted by the cooler temperatures and precipitation accompanying Pacific frontal systems. By the end April, upper elevation snow reporting basins reported snow water equivalent had risen to at or above average for Washington, northwest Oregon, central Oregon, and northeastern Oregon. Snowpack also improved in southwest and south-central Oregon, but both those areas continue to lag well behind normal for late April.

Due to the repeated dips in temperatures to near freezing the green-up process slowed down at the lower and middle elevations. Large fuel moisture remained at average or above average levels. Some relief for the larger fuels in south central Oregon finally occurred with a few waves of moisture rolling in from the west. The heavy fuels in northeastern Oregon also improved in the Blue and Wallowa Mountains. The cloud cover, cooler temperatures, and snowfall lowered the snow level across the mountain ranges briefly which slowed runoff and improved moisture retention in many areas. While not enough moisture has been received to curtail the deep drought effects in central Oregon, local conditions for human caused ignitions as improved with fuels trending upward in moisture values. The live to dead fine fuel ratio is improving and will continue to limit spread potential.

The geographic area experienced approximately 90 wildfires which were determined to be mostly human caused. The acres burned tallied to 533 acres with one large fire in northeastern Washington which burned 442 acres, but most fires were less than an acre. Over half of the fires were in Washington. In addition, the overall wetter and cooler pattern limited agricultural and broadcast burning at lower elevations.

Climate outlooks for May suggest no clear tendency for temperatures to be above or below normal for most of the Northwest Geographic Area. Precipitation is most likely to be below average for Oregon with no clear tendency expected for Washington. For June through August, outlooks from NOAA and other sources suggest temperatures are most likely to be above normal for virtually all the contiguous United States, including the Pacific Northwest. Precipitation over the Pacific Northwest is most likely to be below normal, particularly east of the Cascades.

Northern California and Hawai'i: Significant fire potential is expected to be above normal across the Bay Area, Mid Coast-Mendocino, and Sacramento Valley-Foothill PSAs for May. Normal in May is defined as less than 1 large fire per PSA. A further expansion of above normal significant fire potential is forecast across most elevations during June through August. Normally during June and July 1 to 3 large fires occur within each PSA. During August 2 to 5 large fires occur within most PSAs although the Bay Area PSAs average less than 1. Hawaii significant fire potential is above normal from May through August across the leeward sides of the islands.

The weather pattern during April began with unusually warm and dry conditions the first week followed by two weeks of cool and moist weather as the jet stream dipped farther south. Precipitation anomalies were near to above normal across most of the geographic area except for portions of the Sacramento Valley-Delta which were below average. Temperatures were near to below normal with the cooler anomalies near the Oregon border. Snow water equivalent (SWE) fell as low as 15-25% in early April but jumped to 35-40% following the two weeks of unsettled weather. Dead fuel moistures experienced significant fluctuations with 8 out of 9 PSAs experiencing record low values following record temperatures on the 7th and 8th. Fuel moistures improved significantly thereafter with values across most PSAs near to above normal by the end of the month. The abundant precipitation was too late for most annual herbaceous species across the lowest elevations since they were already curing but some re-greening occurred within perennial species and the moisture benefited peak herbaceous growing conditions found above 1500-2000 feet. The growing season and green-up was evident as high as 5500-6000 in a few areas. Live shrub fuel moisture experienced mix trends during the month and was species dependent. Chamise, which is dominant across the greater Bay Area, peaked during the month and has started to cure while manzanita and sage were moistening. Dry northerly or easterly gusty wind events were mainly front loaded through the first 10 days while gusty westerly, but moist, winds dominated the middle of the month. The most notable gusty wind and low humidity period occurred April 9-10 and prompted the first Red Flag Warning of the season by the

National Weather Service office in Sacramento. It was NWS Sacramento's earliest issuance of a Red Flag Warning in their historical records. Daily wildfire ignitions fluctuated wildly due to the changeable weather patterns with as many as 24 new ignitions on April 9 but dropped to less than 10 per day from April 13-23 due to the cool and moist conditions. No large wildfires occurred, and a mix of pile and landscape prescribed burns were conducted during April as well.

The weather outlook from May through August is for near to above normal temperatures and near to below normal precipitation. The weather pattern during May and June look to be quite dry with periods of warmth as the jet stream shifts farther north, and the geographic area is on the drier southern side of the jet with periods of high pressure aloft. Critically dry wind events, whether they be westerly or northerly, should occur with normal frequency during May and June. Pacific trough passages may also lead to periods of lightning with potential ignitions. A robust Southwest Monsoon season is expected to start by July and favor the Four Corners states including more frequent moist intrusions into southern California and Nevada. However, northern California is likely to be on the fringe of these moisture surges resulting in periods of heightened lightning ignition potential. July is likely to be more favorable for these monsoon surges versus August.

Drought conditions are expected to intensify into the summer with extended periods of unusual dryness in the dead fuels. Live fuels will also become more flammable starting with the lower elevations during May. Due to the early start to the growing season and ongoing long-term drought, typical seasonal curing across all elevations will occur earlier, resulting in an early start to the main portion of the fire season. Herbaceous fuels should be mostly cured by mid to late May across the lower elevations with shrub fuels becoming increasingly more flammable and dead fuels dry to near critical levels during May. This early curing process combined with unusually dry dead fuels will continue to move further up the slopes during June and July and open most areas to increased significant fire potential. This trend will continue into August as shrub fuels become quite flammable at all elevations. The overall grass fuel loading is likely to be mixed with some areas near to a little below normal while other areas are near to a little above normal. The Northeast California and Far Eastside PSAs will likely observe the strongest correlation between the above normal April moisture and herbaceous growth. Other wildcards that impact significant fire potential include large areas of blow-down due to the December storms across the greater Lake Tahoe area as well as the possibility that tree mortality has increased compared to recent years due to the extended drought.

Sea surface temperature (SST) anomalies surrounding the Hawai'ian Islands are near to above normal. April temperatures were near to above normal across most of the islands with below normal temperatures across the northern islands such as Ni'ihau and Kaua'i. Temperatures throughout the region are expected to be above average from May through July due to above average SST anomalies with equal chances for above or below normal temperatures in August. Precipitation during April was mixed with some areas like the Big Island receiving above normal amounts while other islands like O'ahu, Moloka'i, and most of Maui receiving below normal precipitation. Forecast precipitation through August is near to a little above normal precipitation during May, especially along the windward side of the islands as the trade winds are typically enhanced during La Nina. Precipitation will likely trend drier than normal during June through August as the dry season fully sets in and the potential for La Nina continuing into the summer months. Significant fire potential is projected to be above normal May through August across the leeward sides of the islands due to cured and curing herbaceous fuels, intensifying drought, and periods of enhanced trade winds.

Southern California: Significant fire potential will be near to slightly below normal across the area from May through August.

The dominant area of high pressure that was just off the California Coast from January through March moved off to the south and west in April. As a result, the weather pattern became progressive in April with a series of weak upper-level ridges and troughs moving into California from the Pacific Ocean. While temperatures most of the month were within 5 degrees of normal, strong upper-level high pressure over California brought record heat to much of southern California April 6-8. Overall, temperatures averaged 2 to 4 degrees above normal. Aside from widespread showers that moved across the area April 21-22, scattered showers with light rainfall occurred periodically throughout the month with the snow level averaging between 6,000 and 7,000 feet. Despite the periodic light precipitation, most of the region

received well below normal rainfall for April. The snowpack in the Sierra continues to aggressively melt and it is currently less than 40% of normal. There were several weak Santa Ana wind events throughout the month while periodic strong westerly winds occurred across the mountains and deserts ahead of and with each trough.

The drought continues to worsen across the area, with extreme drought in the San Joaquin Valley expanding into the Sierra and the interior portions of the central coast. Otherwise, severe drought continues across most of the area, except for moderate drought south of Los Angeles County from the mountains westward. Periodic light shower activity throughout the month resulted in dead fuel moistures increasing from record low levels seen in March. The 1000-hr dead fuel moisture was near to a little below normal and the 100-hr dead fuel moisture was near to a little above normal most of the month. The curing of fine fuels at lower elevations continued throughout the month and fine fuels are now mostly cured. The live fuel moisture in shrubs and timber dropped quickly in April and is now well below normal.
Sea surface temperatures across the Gulf of Alaska, West Coast, and Equatorial Pacific remain a little below normal. Forecast tools show that these anomalies will slowly warm through August. High pressure in the Pacific Ocean will likely shift east to just off the California coast again in May and June. This will cause temperatures to remain above normal with precipitation below normal. This dominant area of high pressure will also cause the marine layer over the coastal areas to be shallower than normal. Strong high pressure will set up over the interior West and likely be further north than usual in July and August. This will cause more monsoonal shower and thunderstorm activity than usual while temperatures remain above normal in July and August. Near to below normal large fire activity is expected from May through August due to well below normal fine fuel loading. Above normal monsoonal shower activity will also help keep large fire activity near to below normal during July and August.

Northern Rockies: Significant wildland fire potential in the Northern Rockies Geographic Area is forecast to be normal in May. In June, PSAs along the southern edge have the potential to increase to a moderate risk if spring rains do not materialize and temperatures are higher as climate outlooks suggest. Areas east of the Divide are likely to have above normal potential in July and August due to ongoing drought, and the potential for it to continue or worsen this summer. Areas west of the Divide are more uncertain and may have enough precipitation for normal chances of significant fire this summer.

La Nina has continued to be a driving factor in the weather this past month. Snow water equivalent (SWE) is near or above normal for most of northern Idaho and Montana, west of the Divide. East of the Divide, SWE is lower, 80-90% of average, which is an improvement from March. With the current snowpack, drought conditions are holding steady for most of the area east of the Divide, except for North Dakota, where conditions have improved significantly. Areas of north Idaho and most of northwest Montana have improved and have been removed from drought status, although some of the area is marked as abnormally dry. However, SWE is well above normal in much of northern Idaho and northwest Montana. The end of April has seen temperatures fluctuate greatly with multiple low-pressure systems moving through. Additional rain will continue to help reduce the chances of significant fire east of the Divide for at least May, and possibly into June.

Eastern portions of the Northern Rockies Geographic Area have fuel moistures below average. Live fuels are covered with snow in most locations in the Rocky Mountain area. East of the Rockies, multiple systems have produced extensive snow cover, which only persisted for the following week. However, the snowfall has helped moisten fine and 10-hour fuels and reduced the threat of fire for April, although some smaller fires were still reported. No significant fire activity is ongoing, currently. There is periodic initial attack, with most fires less than an acre.

The ongoing La Nina pattern should continue for at least another couple months, gradually trending towards neutral. This trend causes some uncertainty in the temperature and precipitation outlooks, which leads to greater uncertainty in the significant fire potential outlook. With uncertainty in the pattern for June through August, there is still a chance for at least a portion of the area to see a near normal season, especially if SWE remains above normal well into May. If La Nina begins to weaken as some models suggest, this may allow for a more moderate spring season with precipitation for a good portion of the area, which has been the case for April. While drought persists, cooler temperatures and periods of even

light rain on the fine fuels of southern Montana, east of the Rockies, and possibly into North Dakota, should help to keep the season outlook normal for May and for most of the area in June. However, if there is a lack of rainfall or if temperatures are warmer than outlooks suggest, this could allow for an early fire season once again. For now, May remains normal, while June likely sees an increase to above normal potential for PSAs 14 and 16. The beginning of peak fire season in July will be marked by ongoing drought, previously dry fuels, possible above normal temperatures, and below normal precipitation, brining above normal significant fire potential for Montana, east of the Divide. The exceptions are PSAs 15 and 16, in which only the Montana portions, and possibly far western North Dakota and northwest South Dakota, would see above normal probability of significant fire.

Great Basin: Normal fire potential is expected across the Great Basin through early May. Drought conditions have improved but persist across the region. In areas where drought is still prevalent in the higher terrain of Utah, fire potential is likely to increase to above normal if the snow melts off early by May and June. Farther west into Nevada, some areas of southern or eastern Nevada that have carryover grasses may see increasing fire potential by May and June. By July and August, the higher terrain of northern Utah, the Sierra and parts of Idaho and Wyoming will likely see above normal fire potential.

Significant wildfire potential will remain normally low through early May and will be increasing from mid-May through June from south to north. Significant long-term drought has improved but remains across much of the Great Basin. Despite late fall and early winter precipitation that could have increased the likelihood of a greater fine fuel crop in western Nevada and into southern Idaho, drier conditions the last few months have stunted some of the grass growth. Therefore, shorter grass overall will limit fire potential in the lower elevations. Fire activity will likely be increased in western Nevada and southern Idaho from what occurred in 2021, but still only near normal. After weak storms move through the region in early May, drier and warmer conditions are expected later in the month. Increased fire potential is expected through May and June over parts of southern Nevada that have standing dead fuel from last year, and over the higher terrain of southern Utah into the Arizona Strip that have continued to be plagued by drought and well below normal snowpack. Snow is expected to rapidly melt from mid-May through June, which will lead to a more rapid and slightly early start to fire season in the higher terrain further north.

Temperatures over the last thirty days have been near to just below normal across the northern half of the Great Basin and above normal over southern areas. Precipitation has been below normal in most areas, but pockets of near to just above normal precipitation occurred across eastern Nevada into western Utah, eastern Utah, eastern Idaho, and Wyoming. Over the past sixty days, nearly all the Great Basin has seen below normal precipitation. Wetter storms occurred in November and December across Nevada, Utah, Idaho, and Wyoming, which brought the early season snowpack to above normal. However, drier conditions and periods of warm temperatures over the last few months have caused the snowpack to decrease. Recent weak storms moving across northern areas have allowed the snowpack to remain across Idaho and Wyoming, but the snowpack continues to diminish farther south. The snowpack has dropped to 25-70% across Nevada and Utah but remains 80-100% over northern areas. The snowpack is similar to where it was in April 2021 over the southern Great Basin but is slightly higher in the north due to recent storms. The drought has improved across Nevada, Utah, and the Arizona Strip from this time last year, but remains a concern. Severe to extreme drought is ongoing across the southern two thirds of the Great Basin, with severe drought across Idaho and western Wyoming. There remains an area of exceptional drought in eastern Nevada as well. The drier and warmer weather expected in late May into June will likely allow the drought to persist or worsen over the next few months.

Green-up is well underway over the southern two thirds of the Great Basin and will increase farther north through May. Fuel moisture is below normal across the southern half of the Great Basin due to warmer and drier weather. Rains that occurred in August into September 2021 over the eastern half of the Great Basin triggered areas of fine fuel growth. These fine fuels could add to the fine fuel load for the 2022 fire season in areas that were not compacted by snow. However, with minimal new fine fuel growth due to drier conditions and long-term drought, this would likely take the fine fuel loading to only near normal in some areas. Otherwise, carryover fine fuel loading remains low across most of Nevada, Idaho, and Wyoming it is not expected to be an issue heading into fire season. The only exceptions will be over parts of southern Nevada where standing dead fuels will carry over from last year, and over portions of northwest

Nevada and northwest Utah. Concerns about significant fine fuel growth over western Nevada have diminished due to very dry conditions the last few months. Any grass that does grow will likely be short and patchy.

Overall fire activity remains low across the Great Basin. A few small fires occur at times, but they have been easily extinguished. Fire activity is expected to remain low through early May but is expected to increase from mid to late May through June from south to north. This would be considered a normal progression at the onset of fire season. However, due to significant warming from mid to late May, fire activity may increase rapidly in the higher terrain over the southern half of the Great Basin and over portions of the lower elevations that have standing dead fuels such as southern Nevada. Considering the monsoon is expected to start on time and be robust, moisture will likely diminish the fire potential threat in far southern areas of the Great Basin by July, pushing the above normal threat north into the higher terrain of northern Utah and into the higher terrain of the Sierra. Parts of central and eastern Idaho into Wyoming will also see above normal potential by July and August once the snow melts.

Southwest: Above normal significant fire potential is expected in May, except normal significant fire potential is anticipated for portions of the western part of the geographic area. Areas of above normal potential are expected to expand farther north and west during June and then lower to normal area-wide with the arrival of the monsoon during July.

Except for portions of both central New Mexico and the Four Corners region, the Southwest Area has been experiencing much drier than normal conditions over the past ninety days. As spring continues, the expectation is for the continuation of a drier trend, with some potential for larger storm systems to impact the geographic area from the west and northwest at times. Backdoor cold frontal intrusions into the east and northeast are likely become more regular through May as well. Despite this, high temperatures are expected to remain generally above normal with drier than normal conditions overall. Some periods of cooler weather could arrive at times across both the northern tier of the region, via storm system passages, and into the northeastern and eastern sections of the region, via the aforementioned backdoor cold fronts. These backdoor cold fronts will be increasingly coincident with moisture pushes from the east and southeast through the next few weeks, gradually leading to more regular lightning events further west towards the divide region. Although relative humidity values will likely be on the rise during these periods, overall precipitation coverage will likely remain scattered.

When not impacted by backdoor cold fronts and storm system passages, the region will see increasing significant fire potential which will begin to be of longer duration. This is consistent with the warmer than normal temperatures, continued drier than normal conditions, and periods of downslope winds in the east. Green-up will provide a barrier to fire spread for a few weeks at varying elevations but will eventually give way later in May to cured fuels. Near record-to-record amounts of fine fuels in southeastern Arizona and across sections of southern New Mexico into the eastern plains could lead to significant wind driven fire activity this spring. Much of the rest of southern Arizona will rise into above normal significant fire potential during May, with areas along and north of Interstate 40 in Arizona more than likely having the lowest potential regionally as both May and June arrive.

Heavier fuels will begin to become more prone to being available to burn later in May into June for most areas as significant fire potential expands further north & west across the region. The arrival of the summer monsoons by late June-mid July will herald the end of the large fire season for the Southwest Area. Some significant drier periods and warmer than normal temperatures are more than likely across the eastern plains during the July into August period. However, significant fire potential should remain closer to normal overall although some localized more active periods could occur.

Rocky Mountain: Above normal significant wildland fire potential is expected to continue across portions of the Rocky Mountain Area from May through August due to the persistence and expansion of above normal temperatures and below normal precipitation during the outlook period. In conjunction with long-term precipitation deficits and ongoing drought, the warmer and drier pattern will continue to promote receptive fuels as well as rapid fire spread potential during wind events. There could also be a period in late June with more than average lightning ignitions preceding the timely onset of a robust monsoon.

Expect above normal significant fire potential across southern Colorado and western Kansas, extending north along the Front Range into southeast Wyoming and the Nebraska Panhandle in May, with an expansion northward across Colorado that will also include eastern Wyoming and the Black Hills for the month of June. Above normal significant fire potential will remain across northern and eastern Colorado, Kansas, and Nebraska in July, encompassing most of Wyoming and portions of the Black Hills and South Dakota for July and August. With the onset of the monsoon, storms may produce more significant precipitation amounts and facilitate a return to normal potential across portions of western Colorado in July and August.

A weak La Niña climate signal continued to influence precipitation patterns across the Rocky Mountain Area in March and April but overall, temperatures were slightly cooler than climatology. Episodes of strong downslope wind events off the Laramie Mountains and Front Range eastward across the High Plains were much more frequent and intense. The northerly track of storm systems left the area in a drier regime with multi-day periods of single digit to teens afternoon relative humidity and high wind events bringing gusts over 50 mph. The National Weather Service offices in Wyoming and Colorado reported record numbers of High Wind Warnings. In April, Colorado observed 19 consecutive days with Red Flag Warnings, which is unprecedented.

The springtime transition of upper-level troughs moving across the area also brought periods of stronger southwesterly flow. Below-average precipitation continued across southern portions of South Dakota extending southward into Nebraska, western Kansas, and eastern Colorado. Since the beginning of April, precipitation deficits have become more pronounced across southwest Colorado as well.

Snow cover was absent across the High Plains throughout the winter and early spring months with fuels exposed. The much drier conditions led to precipitation deficits area-wide with continued snowmelt across most of Wyoming and western Colorado until a resurgence of moisture in late April boosted snow water equivalent back to where it was at this time in 2021, but it remains slightly below average.

Some pockets in the eastern half of the area are currently experiencing severe to extreme drought. Soil moisture anomalies are extremely low due to evaporation and long-term precipitation deficits observed since the 2020-2021 season. This has created a negative feedback loop with a cycle of increasing evaporation rates and dryness that has expanded across Nebraska, southwest Kansas, and southeast Colorado since last year. In comparison, western Colorado has seen improvement in drought since last year due to the combination of last year's wet spring, monsoonal thunderstorms, and sufficient late winter snowpack. The western half of the area is in moderate to severe drought whereas last year it was exceptional. There has also been significant improvement in drought in South Dakota and northwest Nebraska.

For the late spring and summer months of 2022, the La Niña signal is expected to maintain a warm and dry influence over the Rocky Mountain Area. Climate models now indicate the demise of La Niña in July and a return to a more neutral state by August. Even though the first part of May is expected to display a tendency for near normal temperatures and precipitation events across most of the area, the latter half of May into June are forecast to become increasingly warm and dry, with expansion north and westward across the entire RMA. Thus, an earlier than normal snow melt is still anticipated, with exposure of high-elevation fuels earlier than average for the season.

The high frequency and intensity of the winds over the winter and spring have continued to bring persistently high fire danger to the eastern half of the area with many places seeing fire danger indices and dead fuel moistures exceeding the 97th percentile. Spotty and infrequent precipitation has provided short-term improvement at times, but fire danger indices in these areas remain elevated near the 90th percentile. Expectations are that fire danger indices will once again elevate as fuels become critically dry with the return of warmer, drier weather as we go into the last part of May and curing of the lower elevation fuels ensues. Areas of very dry fuels with a large carryover of dead component persist across southeastern Colorado, Kansas, and Nebraska. The fine fuels in many of the aforementioned areas are not compacted but have remained standing due to lack of snow cover during the winter and early spring. Importantly,

Fuels and Fire Behavior Advisories were issued in mid-April for western Kansas and Nebraska and were recently extended into May.

Expectations are that seasonal temperatures, residual snow cover, and occasional wetting rains will continue to keep fire danger and significant fire potential low in most areas west of the Divide through the first half of May. May is normally the wettest month of the year east of the Continental Divide along and adjacent to the Front Range Foothills and onto the High Plains. During the first two or three weeks of May that is anticipated to bring some beneficial rain and encourage fine fuel growth. Thereafter, in late May and into June, lower elevation sites across southern Colorado and most areas east of the Divide will resume drier-than-normal conditions with fine fuels expected to display more of a mosaic in green-up conditions. Some areas will exhibit patchy, new growth while others will see delayed growth interspersed with denser and drier fuels. Given the previously dry conditions, any new grass growth will likely be short, patchy, and quick to cure with the above normal temperatures expected across the area during late May and June. With the warmer temperatures and the persistence of receptive fuel beds, lightning ignitions will likely increase over the next two months, especially over southern and western Colorado during late June and July preceding the early arrival of monsoon thunderstorms.

Above normal significant wildland fire activity that began in late December continued through the winter and early spring, with additional large fires reported during periods of warm, dry, and windy conditions. One notable spring event occurred April 22 when strong winds and very low relative humidity resulted in multiple ignitions and rapid fire spread in eastern Colorado, Nebraska, and Kansas. Temperatures reached 90 degrees, with relative humidity in the single digits, and wind gusts exceeding 50 mph were observed over a large area.

Eastern Area: Near normal significant fire potential is forecast across most of the Eastern Area from May into August. Significant fire potential may increase to above normal through July and August.

30 to 90-day soil moisture and precipitation anomalies were near to above normal across much of the Eastern Area toward the end of April. Drier than normal conditions remained in place over western Iowa, and northwestern Missouri.

Below normal temperatures are expected to persist across the Great Lakes down into the Lower Ohio Valley in May, lingering over the Upper Mississippi Valley into June. Above normal temperatures are forecast over the eastern tier of the Eastern Area in June and much of the area heading into July. Above normal precipitation is expected over the northwestern and eastern tiers of the Eastern Area in May and across much of the geographic area in June. Below normal precipitation may develop across the western half of the region in July and spread farther eastward in August.

Near to above normal fuel moisture is forecast over the majority of the Eastern Area through the late spring into the summer season. The spring fire season will likely begin later than normal and be shorter in duration across parts of the Eastern Area where above normal precipitation and cooler than normal conditions persist. Above normal fire potential may develop over the western Mississippi Valley as the summer progresses as drier than normal conditions are forecast to develop.

Southern Area: Above normal significant wildfire potential is forecast to persist across most of western Texas and Oklahoma throughout the period given a continuation of extreme to exceptional drought conditions. Confidence in this scenario is higher than average due to solid agreement on a ridge of high pressure over the Intermountain West and Plains this summer, along with its associated above normal temperatures and below normal rainfall. Portions of central Texas have improved since several rounds of heavy rainfall during April should allow for a transition to effective green-up as cured grasses begin growing. The new growth may come into play later in the summer and fall depending on the location of higher grass loading, especially if La Niña conditions persist into fall. Eastern Oklahoma and western Arkansas will improve into July due to widespread heavy rain over the past month and an expectation for continued active weather. Despite this, it is prudent to watch for any expansion of the Plains drought, as the large-scale pattern may favor thunderstorm complexes trending farther north and east with time into

the summer months. Meanwhile, forecasts for an active and early monsoon should allow for the Texas mountains to trend wetter, so this forecast maintains a reduction of above normal activity by July.

While short-term dryness has been prevalent from Virginia and eastern Kentucky into portions of the Appalachians and Southeast, the anticipated weather pattern during May should allow for some recovery of soil moisture in many of these areas. Green-up is one to two weeks behind schedule for its northward extent, which could allow for slightly above normal wildfire activity during the first part of May, especially over the higher terrain. Overall, near normal significant fire potential is expected in most of the Southeast through August. The western Florida peninsula will have an above normal risk for large fires into May given that a large area has Keetch-Byram Drought Index values at or above 600 and evaporative demand in the 98th percentile over the past month. The rest of the peninsula has been removed from the previously forecasted above normal potential due to a high likelihood for repeated thunderstorm activity heading into the first week of May. Thereafter, warmer than normal sea-surface temperatures and an anticipated on-time rainy season should allow for the return of daily thunderstorm chances by June and beyond.

Whether or not La Niña extends into its third year, there would appear to be a higher chance than not of above normal tropical cyclone activity over the Southeast, including Florida and the Southeast Coast later this year. Current long-range forecast guidance supports previous analog years in showing increasing chances for below normal precipitation along the western Gulf Coast, such that the Texas coast and at least portions of the Louisiana coast see below normal precipitation through summer. This is concerning given the ongoing drought in the region. When considering both this and the trees felled by Hurricane Laura in August 2020, there is perhaps a risk for above normal significant fire potential to develop across southwestern Louisiana during late summer or fall. While confidence is low at this time, any tropical systems missing to the east could bring heat, low humidity, and high winds to the region. At the same time slow-moving tropical systems could wipe out the drought along the western Gulf Coast, therefore normal significant fire potential is forecast for southwestern Louisiana at this time.

Outlook Objectives

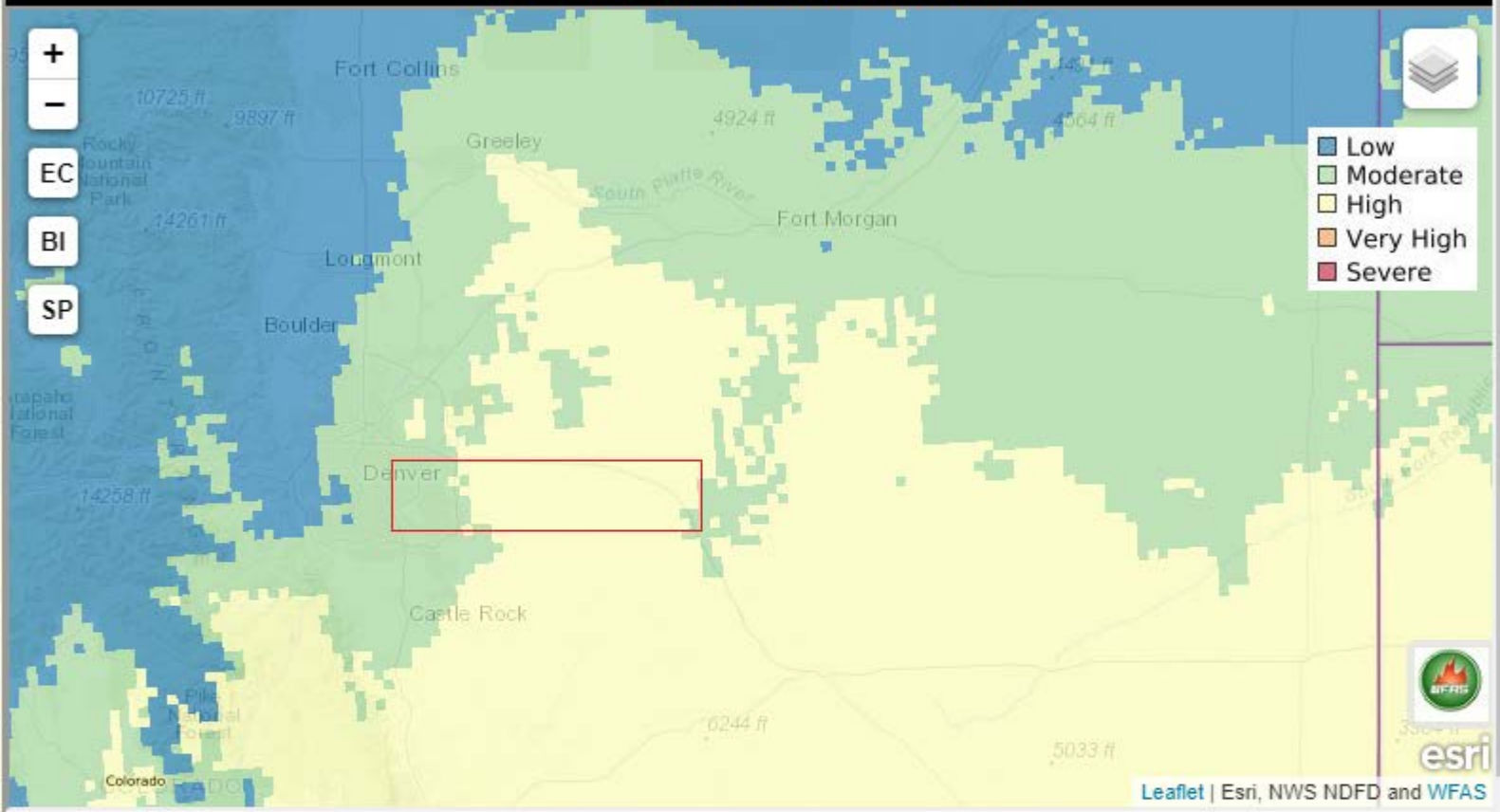
The National Significant Wildland Fire Potential Outlook is intended as a decision support tool for wildland fire managers, providing an assessment of current weather and fuels conditions and how these will evolve in the next four months. The objective is to assist fire managers in making proactive decisions 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

WFAS - Severe Fire Danger Mapping System

Forecast Reference Time: 05/02/2022 10:00:00 UTC



Derived by WFAS using the National Digital Forecast Database and RAWS surface weather observations

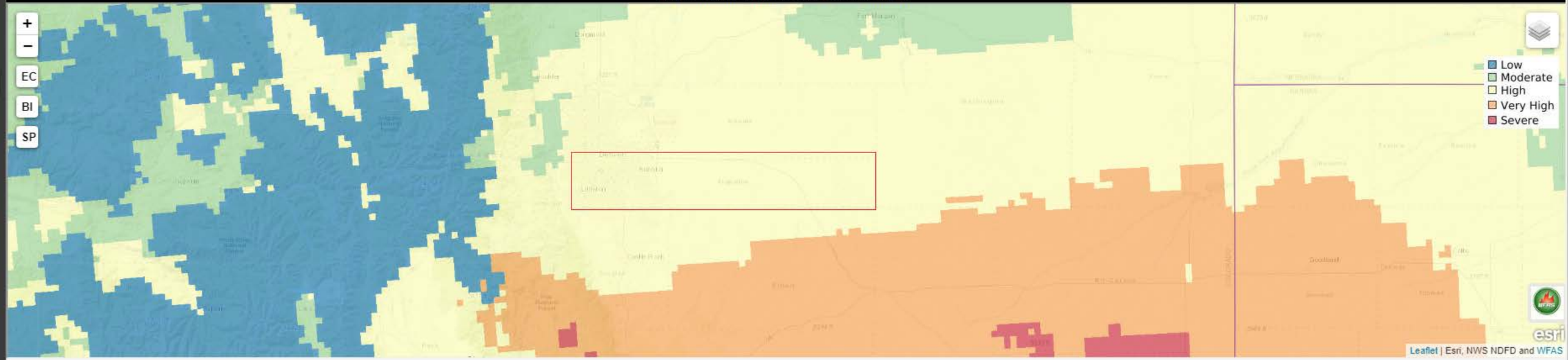
Legend

Severe Fire Weather Potential

- Low
- Moderate
- High
- Very High
- Severe

WFAS - Severe Fire Danger Mapping System

Forecast Reference Time: 05/09/2022 10:00:00 UTC



WFAS - Severe Fire Danger Mapping System

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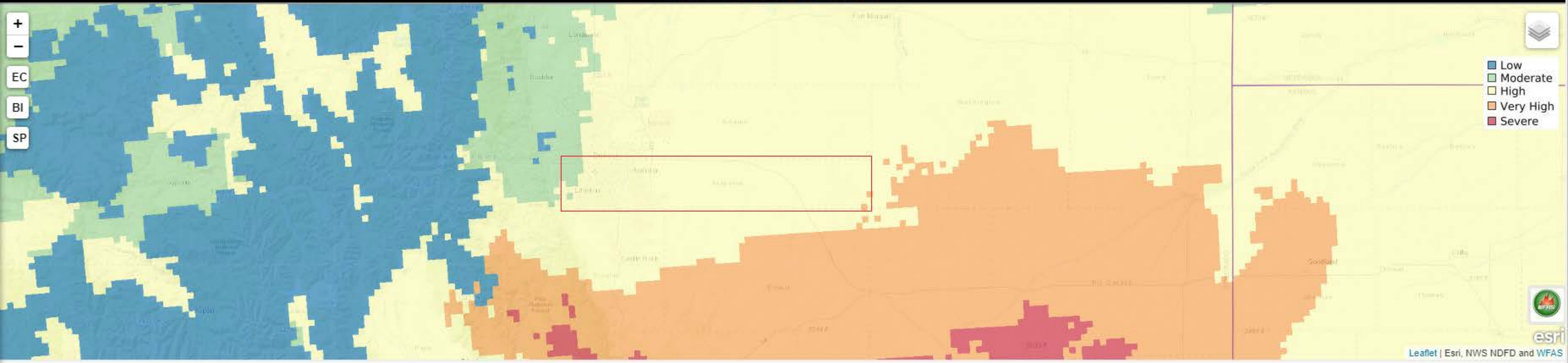

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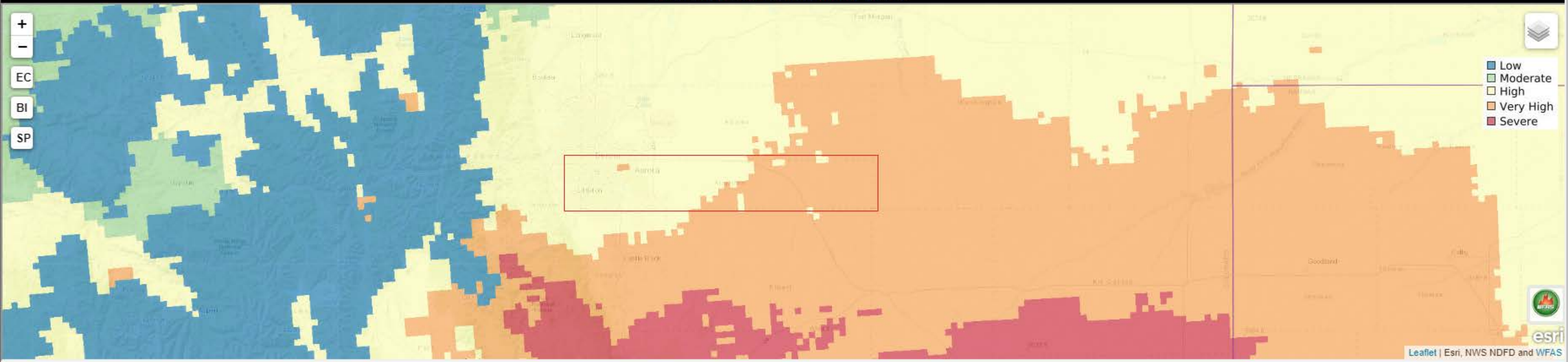


Derived by WFAS using the National Digital Forecast Database and RAWS surface weather observations

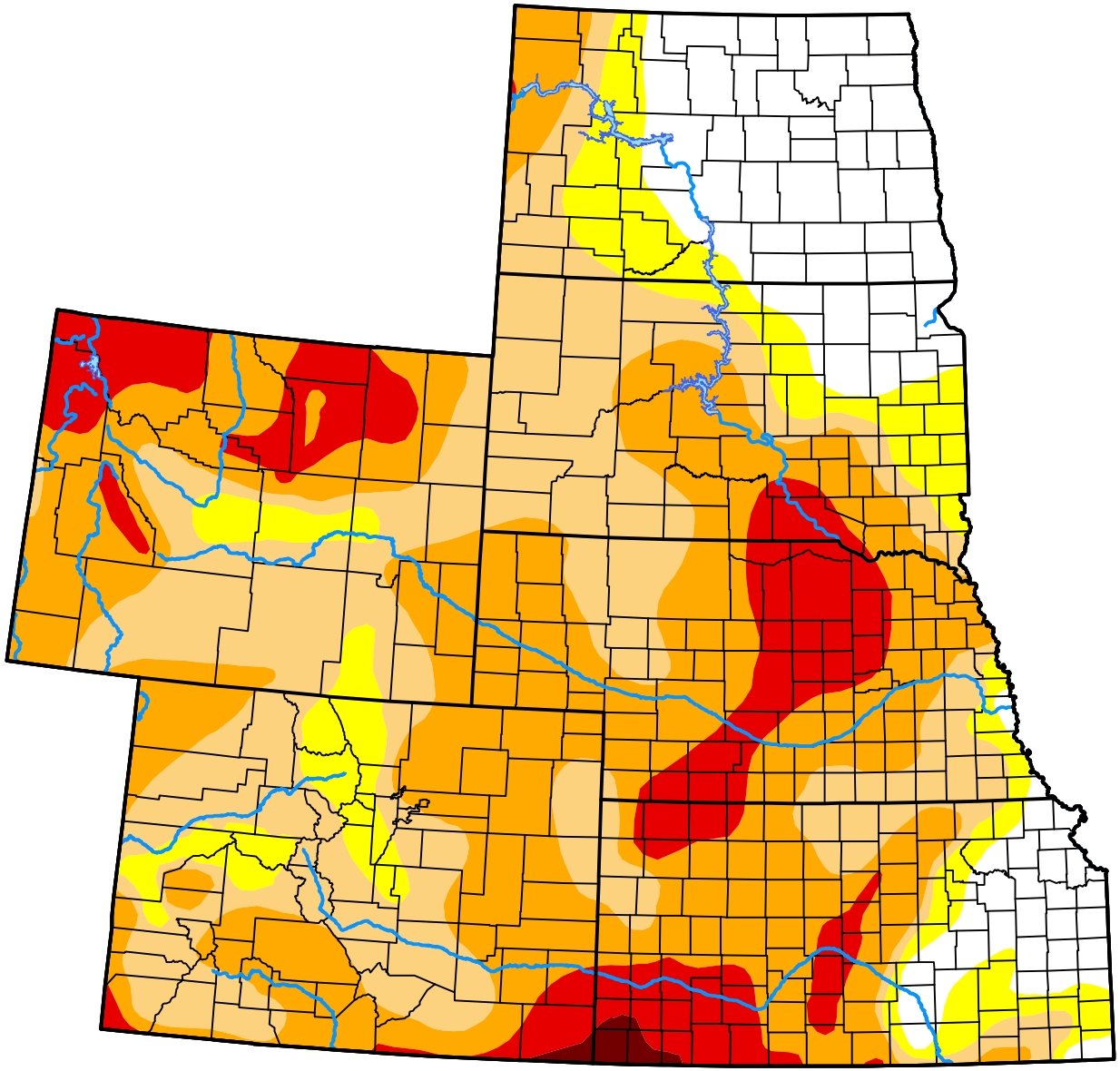
U.S. Drought Monitor

High Plains

April 26, 2022

(Released Thursday, Apr. 28, 2022)

Valid 8 a.m. EDT



Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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droughtmonitor.unl.edu