

National Wildland Significant Fire Potential Outlook



National Interagency Fire Center
Predictive Services



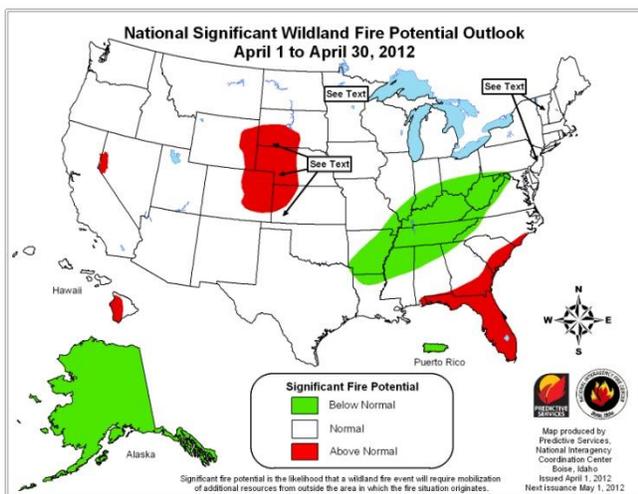
Issued: April 1, 2012

Next Issue: May 1, 2012

Wildland Fire Outlook – April through July 2012

The April through July 2012 significant fire potential outlooks are shown below. The primary factors influencing these outlooks are:

- **La Niña/El Niño:** Conditions in the equatorial Pacific continue to trend toward a neutral state with some hint of weak El Niño conditions developing in the summer months.
- **Drought:** Severe to extreme drought conditions continue for much of eastern New Mexico, western Texas, parts of the upper Midwest and much of the Southeast coast. Worsening drought was occurring over much of the Southwest including California and the Great Basin.
- **Fuel Dryness:** Heavy loadings of fine fuels across the central U.S. coupled with pre greenup conditions are causing control problems and leading to some increased fire behavior when coupled with wind events. Elsewhere, moisture and temperatures across the northern tier have helped reduce fuels concerns. In the southwestern quarter of the country a combination of prevalent fine fuels and the possibility of a drier than normal season could lead to significant fire concerns as the season progresses. In the southeast drought continues to create abnormal fuel dryness.



Note: Significant fire potential is defined as the likelihood that a wildland fire event will require mobilization of additional resources from outside the area in which the fire situation originates.

Past Weather and Drought

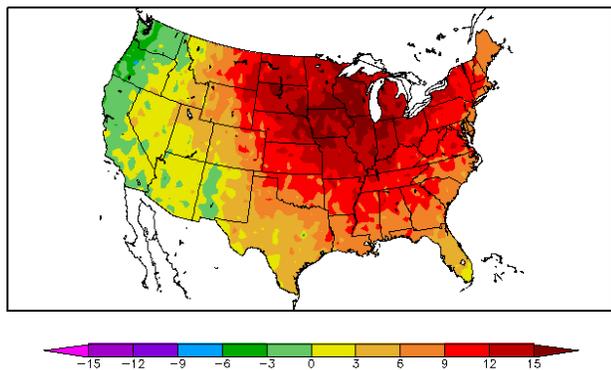
A very active trough pattern settled across the country, bringing several wet storms to the Northwest but dry and windy conditions to the Southwest and the east side of Rockies. Ahead of these systems, deep Gulf moisture spread rain from Texas to the Great Lakes. Significantly above normal precipitation fell across much of the Northwest from northern California to western Montana. The southern Plains, the upper Midwest and the Great Lakes/Ohio Valley region also had above normal precipitation. Elsewhere, much below normal precipitation plagued the Southwest, the central Rockies and the northern and central Plains with the hardest hit region along the Rockies' Front Range from Colorado to Montana. Other dry regions included the New England states and much of the Southeast. Western snow pack remained around normal for the northern Rockies and the Northwest with much above normal snow pack in western Oregon and Washington. However, snow deficits continued over California, the Great Basin, the Southwest and the central Rockies where snow pack was generally less than 60 percent of normal, less than 25 percent in parts of the Four Corners region.

Temperatures were below normal along the West coast and higher elevations of the Southwest. Above normal conditions covered the rest of the country from the Rockies to the East coast. Persistent southerly flow brought much above normal warmth to most of the interior with temperatures exceeding normals by 10-20 degrees across the Great Lakes, the upper Mississippi, the northern and central Plains, and much of the Northeast.

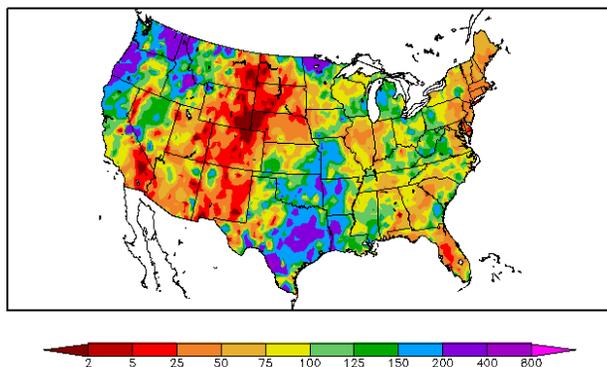
Central and eastern Texas received another month of relief from drought conditions. However, other parts of the southern U.S., including eastern New Mexico, western Texas, Georgia, Florida and South Carolina, remained in severe or worse drought. Parts of the Upper Midwest also remained in severe drought. Drought conditions continued to worsen across the Southwest.

Departure from Normal Temperature (top) and Percent of Normal Precipitation (bottom) (from High Plains Regional Climate Center)

Departure from Normal Temperature (F)
3/1/2012 - 3/31/2012

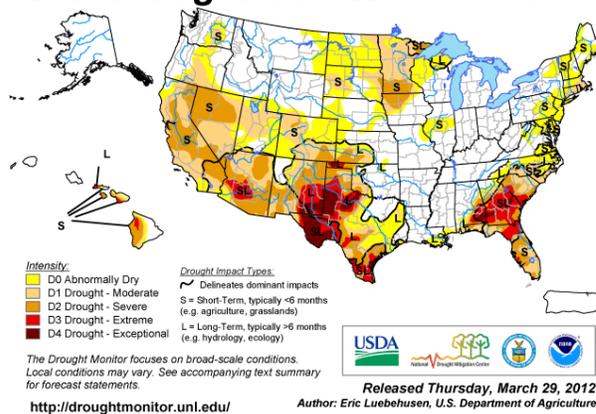


Percent of Normal Precipitation (%)
3/1/2012 - 3/31/2012

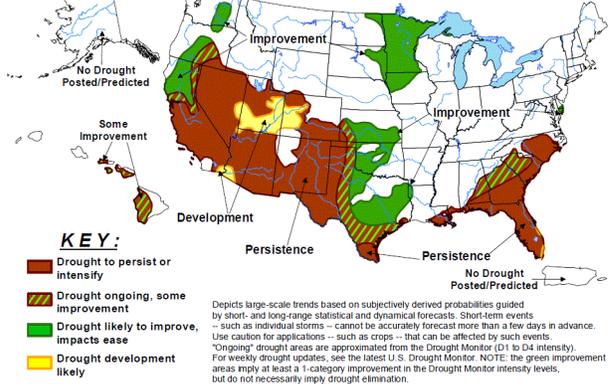


U.S. Drought Monitor (top) and Drought Outlook (bottom) (from National Drought Mitigation Center and the Climate Prediction Center)

U.S. Drought Monitor March 27, 2012
Valid 7 a.m. EDT



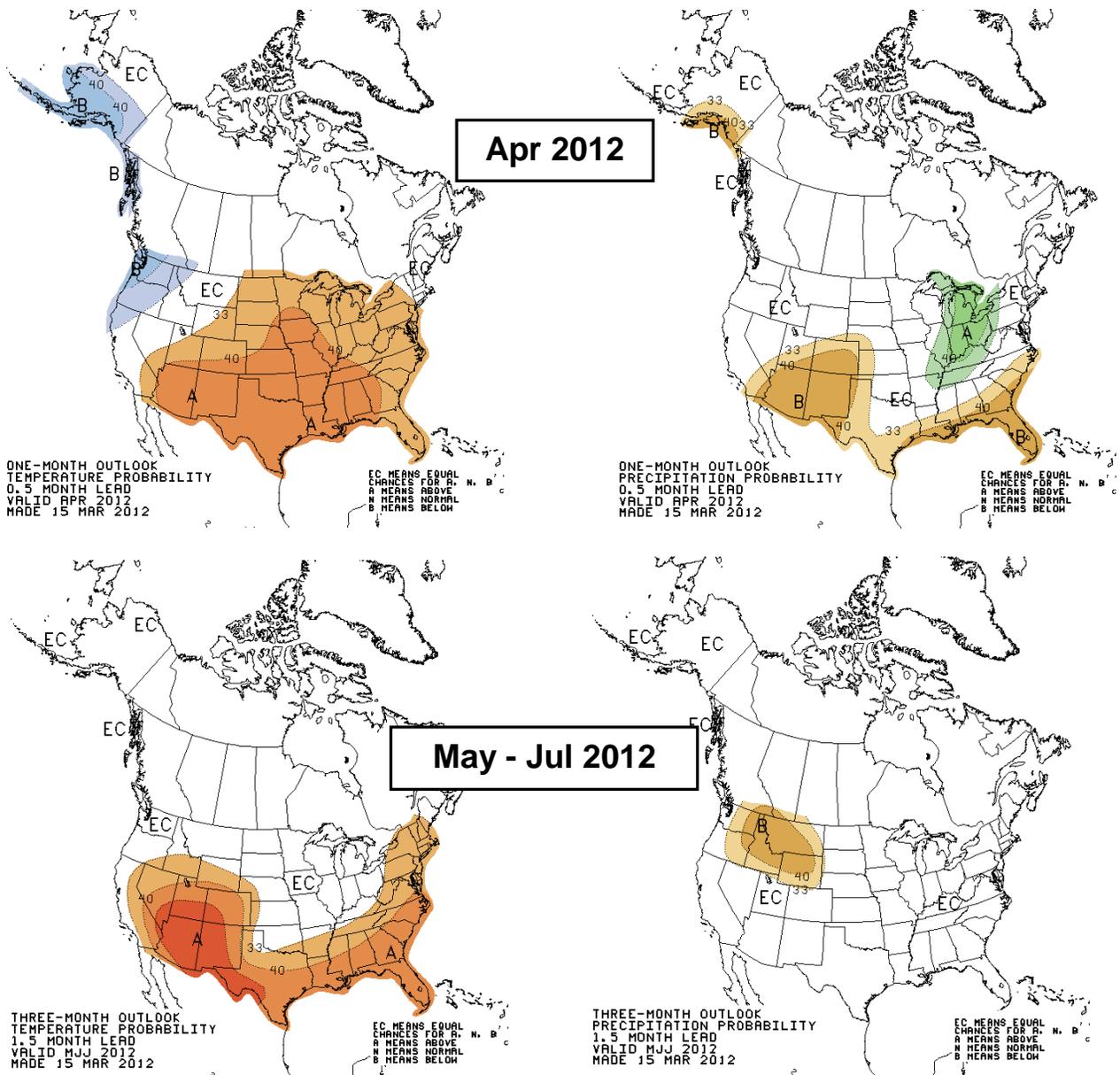
U.S. Seasonal Drought Outlook
 Drought Tendency During the Valid Period
 Valid for March 15 - June 30, 2012
 Released March 15, 2012



Weather and Climate Outlooks

Ocean and atmospheric circulations continue to evolve. Equatorial Pacific sea surface temperatures are transitioning toward neutral or possibly a slight warming by later in spring or early summer. As this evolves, weather patterns across the U.S. will become less typical of La Niña conditions and with less certainty during the spring and early summer months. Current climate projections for April indicate a likelihood of above normal temperatures across most of the eastern two-thirds of the country with cooler than normal conditions expected along the northwest coast and southern Alaska. Precipitation projections indicate a high likelihood of below median precipitation for most of the Southwest, the southern Alaska coast, and along the Gulf and Atlantic coasts from Texas to North Carolina. Above median precipitation is expected for Great Lake, and the mid and upper Mississippi Valley. During May through July above normal temperatures are likely across most of the Southwest and Great Basin, and the Gulf and East coast states from Texas to Maine. The odds lean toward below median precipitation for the northern Rockies.

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



Area Discussions

Alaska: Due to the ample snowpack and forecasted cooler temperatures in the south, fire season is expected to start later than normal. Expect below normal fire potential for April, transitioning to normal by the end of May and continuing for the remainder of the season. Snowpack is near to above normal in northern Alaska and well above normal in south central Alaska. Long range forecasts indicate colder than normal conditions will continue across the southern half of the state and drier than normal along the Gulf of Alaska coast.

Southwest: Normal significant fire potential is expected across the entire Southwest Area for April. Overall, expect a generally mild and dry period although confidence is not high, especially during the second part of the month. Occasional windy periods could lead to increased potential during the month across southern, central and eastern sections while northern sections receive some late season snow and brief cold temperatures. This pattern could be intact through about mid month but a return to generally normal to above normal temperatures for the western half to two thirds of the Area, less significant wind Area wide, and few moisture intrusions into the west are expected. In this type of pattern, brief cool downs would occur via backdoor cold frontal activity from east to west. Expect normal precipitation across the far north and eastern third of the Area with generally below normal precipitation farther west and south. Volatility in weather patterns this time of year coupled with a weakening La Niña hold confidence in the outlook at moderate. A small possibility of a weak El Niño developing by early summer further complicates the picture, lessening overall confidence.

Above normal significant fire potential is expected to gradually expand northwestward to encompass the western half of the Area. The most likely condition during this period is continued moisture intrusions across the eastern third of the region with periodic surges westward across New Mexico and into Arizona, increasing the possibility of lightning ignitions. There is a reasonable amount of confidence that the weather pattern will not be as conducive to large-scale, wind-driven fire events as the fine fuels available in the eastern half to two thirds of the Area are not as widespread or as continuous as a year ago. There remains a considerable amount of uncertainty in the overall forecast, mainly revolving around the possibility of developing El Niño conditions. A slower weakening of La Niña to only neutral conditions would likely point towards hotter temperatures across the east and more moisture across the southeastern while much drier conditions develop across the northwestern half during this timeframe. A quicker, more definitive transition to El Niño would mean cooler and wetter conditions across the northwestern half of the Area and the far northeast with more normal temperatures and drier conditions across much of the southeastern half of the Area.

Northern Rockies: The Northern Rockies normally has no significant fire potential in April. However, unusually dry conditions across central and eastern Montana and all of North Dakota may produce short periods of above normal significant fire potential until greenup of fine fuels in late April or early May. The La Niña winter has produced normal to slightly above normal snowpack in the mountains. Current projections of a cooler than normal spring should translate into a normal to slightly later than normal snow melt. Near normal precipitation is expected across western Montana and northern Idaho during April. The cooler than normal temperatures along with normal precipitation should keep the potential for the development of significant fires in the lower elevations and mainly valley bottoms. Eastern Montana and the Dakotas have had abnormally warm and dry conditions with much below normal precipitation. Several large grass fires were reported in March when the ground was snow free. Current climate guidance suggests that April will be cooler and wetter. The resulting higher humidity values and increased precipitation frequency should allow for the region to decrease to a normal level of significant fire potential.

Weak El Niño to neutral conditions in the equatorial Pacific both tend to produce cooler than normal conditions so an accelerated melting of the snowpack is not expected this year. There is no clear precipitation trend for these types of conditions in the Area. Look for the snowpack to be mostly gone by mid June. As a result, the higher elevations should not enter fire season until mid July at the earliest. Spring greenup typically begins by early May across eastern Montana and North Dakota. Given the absence of long term drought conditions and an expectation of cooler than normal

conditions with possible near normal precipitation, eastern Montana and North Dakota should remain out of season until the grasses cure in mid July. If current trends hold, fire season should begin during the second half of July for the entire region starting with southeast Montana and spread west through the remainder of the month as would normally be expected.

Western Great Basin: There are typically no significant fires during April, but parts of western Nevada have potential for a large fire under windy conditions. This area has been exceptionally dry this winter. During windy conditions, the current crop of fine fuels has shown the ability to carry fire if an ignition occurs. Despite temperatures cooling to just below normal over the last month over northern Nevada with higher humidity and some precipitation over mainly the northern half of Nevada, fuels throughout the state are still quite dry. In addition, long-range forecasts show low amounts of precipitation during the first two weeks in April over western Nevada. ERCs have also returned to well above normal for western Nevada due to the dry and windy weather. Average temperatures over the last 30 days have been near to slightly above normal over parts of western, northeast and southern Nevada, with temperatures up to three degrees below normal over central and northwest Nevada. Precipitation for the same time period has been generally less than 50 percent of normal over western, northeast and southern Nevada, with a section of central and northern Nevada 100 to 200 percent of normal. Snowpack has improved over the last two weeks, but still remains well below normal with snowpack 40 to 60 percent across northern Nevada and the Sierra. The Climate Prediction Center outlook for April calls for above normal temperatures and below normal precipitation over far southern Nevada with near normal conditions elsewhere. However, other climate anomalies indicate possibly below normal precipitation extending further north into western Nevada through April.

The Western Great Basin typically has no significant fires through most of May but small fires start to appear by late May, transitioning into full fire season in June. However, due to the abundance and dryness of the fuels over western and parts of northern and central Nevada, above normal significant fire potential is still possible, depending on the weather pattern heading into summer. Current long range forecasts shows above normal temperatures and near normal precipitation. Even though La Niña continues to weaken, a continuation of our current dry trend appears to be a reasonable forecast for at least the southern half of the state as we head into summer. The only caveat appears to be the transition to neutral or even a weak El Niño by this summer. El Niño conditions may bring more precipitation to parts of southern Nevada, which would decrease the chances of seeing an above normal significant fire potential. However, the dryness is still expected to continue into at least May. Across the northern half of Nevada, a switch to El Niño may also signify wetter conditions, reducing significant fire potential. However, when the transition to El Niño takes place will strongly influence when the wetter period emerges.

Eastern Great Basin: The Eastern Great Basin typically has little significant fire potential in April. Overall precipitation totals have been somewhat below normal for March, especially across the lower elevations. The La Niña winter has produced below normal snowpack area wide. Typical La Niña patterns are expected to continue across the area during April meaning slightly cooler and wetter than normal conditions across Idaho and slightly warmer and drier than normal conditions across southern Utah. Dead carry over grasses and some potential for warm and dry conditions may present some potential for fires during pre- and early greenup area wide.

For May through July significant fire potential is expected to be generally normal with a small area of above normal developing in the far southern portion of the area. The May through July period is expected to have near normal temperature and precipitation trends, with the exception of southern Utah where warmer and drier than normal conditions are possible. Greenup should be underway during this time period, but carryover grass crops from 2011 may increase fire potential across the low elevations during pre- and early greenup area wide. The area of greatest concern lies across southern Utah where dead carryover grasses and warm and dry conditions may overlap during May. A shift in the overall weather pattern is expected to occur sometime in the late spring from La Niña to neutral or possibly to a weak El Niño pattern. This could mean a wet late spring for the southern two

thirds of the area. If this transition happens, the current forecast for above normal along the southern border of the Area could no longer be valid.

Northwest: As anticipated, March turned out to be cold and wet for the majority of the Northwest. Incoming Pacific cold fronts pelted the Area with several heavy storms bringing wind, heavy rain and snow to unusually low elevations during the month. Precipitation amounts were well above average for much of the Area except for a few spots in eastern Oregon and central Washington. Temperatures were unusually below normal west of the Cascades and below normal for much of the east side as well. Snowpack which had been lagging for much of 2012 improved considerably in March. Basin averages are nearly 150 percent of seasonal normal in western Washington trailing off to 90 to 100 percent of normal in sections of Oregon and eastern Washington. Only southeastern Oregon remains below average. Projections for April indicate unusually cool weather continuing, mainly on the west side. However, the very wet conditions are unlikely to repeat themselves in April. So, increases in the snowpack are unlikely to continue at their present rate. A rapid warm up and melt off does not appear likely in April.

Fire danger indices remain well below what is needed to sustain the risk of significant fires. Fire danger is unlikely to rise significantly until late June. Weather through June over the Pacific Northwest is usually too cool and moist for significant fires to be prevalent, with 2012 not expected to be any different despite the fact that the current La Niña event is ending. Cooler than usual conditions are likely to persist over much of the west side as well as the higher elevations east of the Cascades into May. Lower elevations east of the Cascades in Oregon will continue to remain in mild drought but still not dry enough to sustain the risk of significant fires.

Northern California and Hawaii: A very wet and cool March brought fuel moisture levels up dramatically. Snowpack across the mountains, especially over the Cascades and Siskiyou expanded and deepened significantly with unsettled and cool conditions expected to linger into at least early April. Significant fire potential is expected to remain normal.

Most of the Hawaiian Islands experienced near to above normal precipitation last month, especially over the northern and western islands. Moderate to locally severe drought conditions continue across some of the drier, leeward sides. Overall, expect near normal significant fire potential across most areas, except for above normal significant fire potential across the most extreme drought stricken areas of The Big Island.

Normal significant fire potential is expected for most areas from May through July. However, areas across the east side and into parts of the Sierra continue to experience lingering drought conditions along with snowpack levels only near 50 percent of normal. There is some indication of a warmer and drier pattern developing during this period, so by June onward we do see the possibility of above normal significant fire potential.

With little confidence in the overall longer term weather we expect above normal significant fire potential to continue across the leeward side of The Big Island.

Southern California: Normal significant fire potential will persist for Southern California through April. Slightly below normal precipitation and near normal temperatures are expected over the entire Area.

Significant fire potential will be increasing to above normal in the Sierras, Sierra Foothills, interior central coast and north and east aspects of the Southern California mountains from May through July. Near normal temperatures are expected for this period as well.

Rocky Mountain: Above normal significant fire potential is forecast over portions of the Rocky Mountain Area during April, mainly during the early portion of the month. Specifically, early in April look for above normal significant fire potential across east central to northeast Colorado below 8500 feet, northwest Kansas, eastern Wyoming, western South Dakota and western Nebraska. An active

weather pattern is anticipated to continue during the early portion of the month with dry and warm conditions in conjunction with periodic high wind events. Although precipitation opportunities are expected as well, amounts are not anticipated to be enough to compensate for the abnormally dry and warm conditions that have depleted snowpack and stunted greenup thus far. In the latter portion of the month it is expected that diminishing La Niña conditions in the equatorial Pacific will translate gradually into a more normal precipitation and temperature pattern and a corresponding moderation in significant fire potential.

Above normal significant fire potential is anticipated to reemerge over western Colorado below 8500 feet by June through July, while normal significant fire potential is predicted across the remainder of the Area during the May through July period. Precipitation amounts during the late April through May periods is predicted to keep significant fire potential normal, greenup is not expected to be robust enough to keep significant fire potential from moving quickly back to above normal over western Colorado. Meanwhile for the remainder of the Area, closer to average precipitation amounts are forecast to result in normal significant fire potential during the May through July period.

Eastern Area: Drought conditions which developed across the western Great Lakes through the fall and winter were alleviated somewhat through the latter portion of March. However, moderate drought was still present across portions of Minnesota and also developed across parts of the Northeast and eastern mid-Atlantic States through the late winter months.

The overall weather pattern is expected to shift to a cooler trend into the early summer months across much of the eastern U.S. In addition, a more progressive weather pattern is forecast to set up across the northern tier with a more regular frequency of low pressure systems advancing through. While mop up may be more prolonged across the drier portions of the western Great Lakes, Northeast, and Mid-Atlantic States into the spring and early summer, the increased frequency of precipitation events should keep overall fire potential into the spring and early summer near normal overall. However, any dry and windy periods will create increased significant fire potential across the drier portions of the Eastern Area, especially prior to greenup. Above normal precipitation and soil moisture anomalies were in place at the end of March across much of the southeastern Big Rivers eastward into the southwestern mid-Atlantic States. The wetter than normal trend is forecast to linger into the spring across these areas, keeping overall significant fire potential below normal.

Southern Area: Forecasted weather, fuel moisture, and drought risks in the Southern Area combine to create above normal significant fire potential in across southern Georgia and Florida, and along the coastal plain of the southeast coast. In addition, a moderate wind threat still remains across a limited area in the west covering the Oklahoma and Texas panhandles and the Trans-Pecos region of Texas. Greenup and elevated fine fuel moistures along with some continuing precipitation into April will normalize significant fire potential in the west with much earlier than average greenup elsewhere across the Area aiding in increasing live fuel moistures and reducing higher wind speed effects. In Florida very high drought indices and little rainfall will continue to worsen drought conditions. Fire has already been occurring and low water tables have exposed normally wet fuels. Current stream flows in many areas are less than the tenth percentile.

Florida will remain the highest fire risk area into May, where the traditional fire season is May through June. The trend for a weakening La Niña condition has the potential to reduce the significant fire potential, though it is likely to remain above normal.

Historic and Predicted Wildland Fires and Acres Burned Data

Based on data reported year-to-date in 2012, nationally there were 72 percent of the average numbers of fires burning approximately 40 percent of the average acres. Nationally, as of March 31, the 10 year average number of fires is 14,393 and the 10 year average acres burned is 451,872. The following table displays 10 year historical, current and predicted information pertaining to fire statistics.

	Mar Reported Year-To-Date	AVG reported for Apr	Projection for Apr YTD+Forecast	Average Reported YTD Apr	10 Yr Low YTD Apr	Year of Low	10 Yr High YTD Apr	Year of High
ALASKA								
Fires	0	25	19	30	9	2006	49	2003
Acres	0	429	322	501	3	2006	2,228	2010
NORTHWEST								
Fires	2	44	15	62	13	2003	127	2004
Acres	88	347	377	422	3	2003	1,699	2008
NORTH OPS								
Fires	316	60	435	115	17	2002	259	2004
Acres	521	87	546	1,430	20	2010	3,262	2000
SOUTH OPS								
Fires	462	112	687	293	21	2005	637	2002
Acres	790	290	936	3,014	3	2005	11,106	2006
NORTHERN ROCKIES								
Fires	227	214	761	242	49	2011	515	2011
Acres	21,959	6,018	37,004	8,577	112	2002	20,127	2003
EAST BASIN								
Fires	70	26	135	40	11	2005	86	2002
Acres	670	858	2,814	934	5	2011	4,806	2008
WEST BASIN								
Fires	36	3	44	19	0	many	59	2007
Acres	3,373	350	4,248	510	0	many	3,436	2007
SOUTHWEST								
Fires	226	355	567	625	277	2001	1,129	2002
Acres	9,521	56,077	22,722	114,372	8,277	2001	314,003	2011
ROCKY MOUNTAIN								
Fires	447	156	758	253	90	2001	406	2002
Acres	27,111	22,528	40,366	47,330	2,398	2001	144,724	2011
EASTERN AREA								
Fires	1,875	3,808	8,114	5,125	2,187	2011	7,951	2006
Acres	20,762	44,915	40,355	63,065	35,127	2005	138,992	2003
SOUTHERN AREA								
Fires	6,690	4,512	9,210	16,916	8,708	2005	25,328	2006
Acres	97,622	335,604	206,054	679,548	153,358	2005	1,883,381	2011
NATIONALLY								
Fires	10,351	9,338	20,177	23,732	15,407	2003	35,102	2006
Acres	182,417	468,069	333,021	919,941	267,689	2005	2,382,694	2011

Prepared April 1, 2012 by the National Interagency Coordination Center Predictive Services Staff. The information above was obtained *primarily* from Incident Management Situation Reports from 2002-2012, however some inaccuracies and inconsistencies have been corrected. Therefore, the data may not reflect other historic records and should *not* be considered for official statistical purposes.

Note: This national outlook and some geographic area assessments are currently available at the NICC and GACC websites. The GACC websites can also be accessed through the NICC webpage at: <http://www.nifc.gov/nicc/predictive/outlooks/outlooks.htm>