Rocky Mountain Area 120 Day Large Fire Potential Outlook...Issued 11/25/19
120 Day Fire Potential Outlook
Considerations and Discussion

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Considerations and December-March Fire Potential Outlook
Fire potential across the RMA continues in the average range after moderating conditions occurred during the second half of October through November resulting from early season cold temperatures and snowfall. Warm, dry, and windy periods are at a climatological (seasonal) lull this time of year; however, an increase in these events typically occurs during February and especially March as the pre-green fire season expands mainly across the eastern plains. Although large fire activity for the December-March period across the geographic area is expected to be average, the emergence of drought coinciding with areas of heavy fuel loading across southeast Colorado and southwest Kansas will need to be monitored for the possibility of an early and extended pre-green fire season in February and especially March.
Large fire potential is predicted in the average range December March across the RMA.
Warmer than average temperatures expanded during September across the RMA, most especially in southeast CO and KS. During October a cooler than average cycle emerged, especially the second half of the month, and persisting east of the divide in November.
The dry pattern intensified in September across southern CO, and to a lesser extent northwest portions of the state.

Persisting dry pattern west of the divide and south-central CO, with precipitation the second half of the month east.

Wet conditions prevailed in the north and into the central to northern CO front range, with dry conditions mainly from northwest CO into southwest WY, and southeast CO and southern KS.
Precipitation for the last 60 days was above average for a large portion of the RMA in the north into the central to northern CO front range, with deficits mainly in west-southwest CO and the southeast corner of CO into southwest KS.
Precipitation for the last 90 days was above average for a large portion of the RMA in the north into the central to northern CO front range, with deficits mainly in west-southwest CO and the southeast corner of CO into southwest KS.
The Drought Mitigation Center portrays drought continuing to intensify in Colorado mainly in the west and south into southwest Kansas.
CPC/IRI forecasts favor a neutral phase through the winter and early spring (63%-78% probability neutral vs. 23% el-nino).
Short term model forecast precipitation November 25th-December 10th is indicating an active pattern with occasional low pressure systems and frontal passages keeping wet conditions in the forecast in all but portions of southeast CO and western KS. Most of the precipitation is expected to be in the form of snow with the exception of rain in southern and eastern KS. *Amounts in inches.

Nov 25th-Dec 10th
Precipitation

Nov 25th-Dec 10th
Snowfall
This long range outlook indicates average to above average precipitation and average to cooler than average conditions in the north portion of the RMA, with average to drier than average conditions and average to warmer than average conditions in the south.
CPC shows a persistent wetter than average regime with average to cooler than temperatures over northern portions of the RMA during winter into early fall. Dry conditions are mainly indicated south of the geographic area.
Historically, there is a seasonal minimum in number of large fires and acres burned for the December-January and to a lesser extent in February as the pre-green fire season emerges, especially by March across the eastern plains.
Large fire activity across the eastern plains is shown in a seasonal lull historically during December-February, except for an increase in the February pre-green period across the southern plains, and especially in March.

The December-January period shows acres burned at a seasonal lull, then an increase in acreage burned in the February-March pre-green period.

The December-February period shows acres burned at a seasonal lull before an increase by March.

The December-January period shows acres burned at a seasonal lull, with an increase February-March.
Historical fire data 1992-2015 (large fire clustering analysis) shows December fire activity continuing to decrease with the greatest concentration of large fires across the Black Hills.
Historical fire data 1992-2015 (large fire clustering analysis) shows January fire activity in a continued seasonal lull, with the greatest concentration of large fires across the Black Hills.
Historical fire data 1992-2015 (large fire clustering analysis) shows February remaining at a seasonal lull, except for an increase in large fire activity across eastern KS.
Historical fire data 1992-2015 (large fire clustering analysis) shows an increase in large fire activity in the eastern plains into portions of the CO front range.
Large fire potential is predicted in the average range December-March across the RMA.
**Current Climatology**

Warmer than average temperatures expanded through the early fall most notably across CO and KS, but during October and especially the second half of the month a cooler than average cycle emerged before readings moved closer to average in November. A dry pattern persisted through October and to a lesser extent November west of the continental divide into portions of south-central CO and southwest KS. Otherwise conditions were wetter than average from northern portions of the RMA into the central portion of the CO front range. The Drought Mitigation Center portrays drought continuing to intensify in Colorado mainly in the west and south into southwest Kansas.

**Fuels**

There is a robust grass crop in the lower elevations east of the divide with significant fuel loading aided by the early season hard freeze during October. These fuels are most likely available to burn during the February-March period when pre-green conditions coincide with a climatological increase in warm, dry, and windy periods.

**Weather Predictions**

Short term weather models for late November through the first week or two of December indicate an active pattern with occasional low pressure systems and frontal passages keeping wet conditions in the forecast in all but portions of southeast CO and western KS. Most of the precipitation is expected to be in the form of snow with the exception of rain in southern and eastern KS. The consensus of long range weather forecasts for December-March in northern portions of the geographic area is average to wetter than average with average to cooler than average temperatures; while in the south, average to warmer and drier than average indications are evident, especially in the southwest portion of the geographic area.

**Considerations and December-March Fire Potential Outlook**

Fire potential across the RMA continues in the average range after moderating conditions occurred during the second half of October through November resulting from early season cold temperatures and snowfall. Warm, dry, and windy periods are at a climatological (seasonal) lull this time of year; however, an increase in these events typically occurs during February and especially March as the pre-green fire season expands mainly across the eastern plains. Although large fire activity for the December-March period across the geographic area is expected to be average, the emergence of drought coinciding with areas of heavy fuel loading across southeast Colorado and southwest Kansas will need to be monitored for the possibility of an early and extended pre-green fire season in February and especially March.