

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Megan Holcomb, Sr. Climate Change Specialist

Kevin Houck, P.E., Chief, Watershed & Flood Protection Section

DATE: March 12, 2020

AGENDA ITEM: 25. Spring Drought and Flood Climate Report

Staff Recommendation:

This is an informational item only. No Board action is required.

Background:

Staff will present the latest information on both drought and flood current conditions and outlooks for the coming months. A review of last year's runoff season will be provided. Staff will share long-term regional forecasts and possible impacts from current weather patterns, snowpack, reservoir levels, stream flows, and related data.

The annual Joint Water Availability and Flood Task Force meeting will be held on March 17 from 9:00 am to 12:00pm at the Colorado Parks and Wildlife Headquarters. Daily flood threat bulletins will be available on the CWCB website during the Colorado flood season from May through September.

Overview //

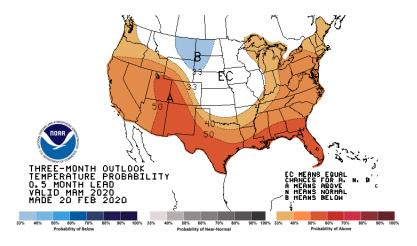
Thus far, the Colorado 2020 water year (Oct to Feb) shows business as usual, with statewide snowpack at 114% of record median (as of Feb 14) and statewide reservoir storage at 105% of average (as of Feb 18). Colorado is experiencing parallel winter patterns to the Intermountain West region as a whole, with an exceptionally warm January (except for South Park and the San Luis Valley) followed by a slightly colder than average February.

With the 2019 monsoon season nearly absent and September 2019 registering as the state's hottest September on record, the 2020 water year kicked-off below normal for much of the state. This February, statewide precipitation has been heaviest in the central and north mountain ranges. We are closing the gap on early precipitation deficits with snowpack running slightly above normal to date. This, however, does not guarantee an above average runoff given markedly dry soils throughout the state.



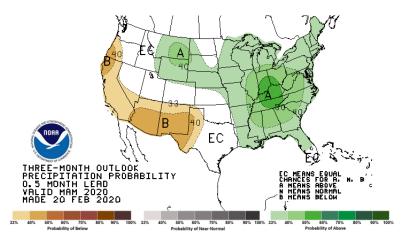
Temperature Outlook //

NOAA's Climate Prediction Center maps continue to show warmer than average temperature outlooks March through May for the southwest half of the state.



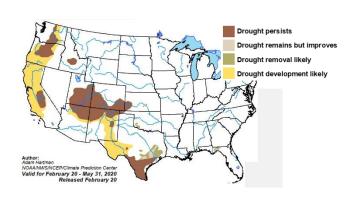
Precipitation Outlook //

Outlooks for the spring season do not show a clear direction with equal chances of near, above, or below average precipitation outlooks. Historically, March through May is an important period for annual precipitation accumulation. Many regions receive a large portion of total precipitation during spring months.



Drought Outlook //

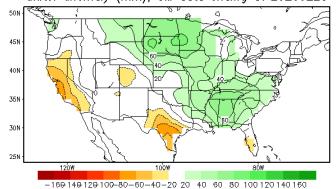
The U.S. Drought Monitor, released February 20, shows similar drought distributions to January 2020. D0 (abnormally dry) and D1 (moderate) conditions cover 68% of Colorado. D2 (severe) drought covers 3% of the southeast and southwest state corners, while 29% of the state (north-central) remains drought free.



Flood Outlook //

The long term ENSO forecasts are trending toward neutral conditions remaining for spring and summer 2020, while losing late 2019 El Niño conditions. This could mean reduced odds of southwest Colorado spring moisture. A reminder that above average snowpack does not guarantee an above average runoff given our dry soils.

Lagged Averaged Soil Moisture Outlook for End of MAR2020 units: anomaly (mm), SM data ending at 20200225



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