



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Taryn Finnessey, Sr. Climate Change Specialist
Kevin Houck, P.E., Chief, Watershed & Flood Protection Section

DATE: March 2, 2019

AGENDA ITEM: Agenda Item #14 Spring Drought and Flood Climate Outlook

Staff Recommendation: This is an informational item only. No Board action is required.

Background:

Snowpack, as of March 6th, is 122 percent of normal, and the areas of the state most heavily impacted by persistent drought have received significant and frequent storms over the last month that have helped to alleviate drought conditions. The San Miguel, Dolores, Animas & San Juan combined basins has the highest snowpack in the state at 133 percent, while the Arkansas basin is close behind with 131 percent of normal SNOTEL Snow Water Equivalent (SWE). Neighboring basins of the Upper Rio Grande and the Gunnison are at 127 and 129 percent respectively. The northern basins are all near normal ranging from 112 percent in the North Platte to 122 percent in main stem of the Colorado.

It is worth noting that as of March 4th, the statewide snowpack has exceeded the average maximum snowpack for the year over a month early. The normal peak date for statewide snowpack is April 7th. As recently as mid-January, the statewide snowpack was still below average. However, late January through early March snowfall has been particularly beneficial to all state watersheds.

As of March 5th, exceptional drought, D4, has been completely removed from the state and only small slivers of D3, extreme drought, remains along the southern border. Severe drought, D2, has also decreased significantly, and D1 moderate drought now represents the largest classification in the state. In some of the mostly heavily impacted areas of the state we have seen two and three category improvements over the last two months.

March through May is historically an important period for annual average precipitation in Colorado, many regions receive a large portion of total precipitation during these spring months. However, outlooks for the spring season do not show a clear direction. There is a slightly increased chance of above-normal precipitation for the spring across Colorado,



and equal chances of above, below, and near-normal temperature. El Niño conditions currently exist, however, its late development and weak strength mean that impacts to Colorado remain uncertain.

Staff will present the latest information on both drought and flood conditions and outlooks for the coming weeks and months. Information on snowpack, reservoir levels, stream flows, potential response actions, and related topics will be presented. A review of last year's runoff season will be provided. Staff will also present a long-term forecast for the region and discuss possible impacts from the current weather patterns.

Conditions such as those present this year often result in a heavy focus on the potential for snowmelt flooding in May and June. Staff will discuss how this has impacted spring runoff in past seasons and discuss the outlook for this year.

Of much greater concern, 2018 was an unfortunate year for wildfires with three major wildfires leaving burn scars upstream of populated areas along with numerous smaller fires. Hydrologic modeling has indicated that there is elevated risk downstream of the Lake Christine Fire (Basalt and El Jebel), the 416 Fire (Durango), and the Spring Fire (La Veta and Walsenburg, and unincorporated Costilla County), especially in the latter two. Staff will discuss the flood threat that exists in these locations.

A Joint Water Availability & Flood Task Force meeting will be held on March 19 from 9:00am-12:00pm at the Colorado Parks & Wildlife Headquarters. Daily flood threat bulletins will be available on the CWCB website during the Colorado flood season from May through September.

