A Review of the 1999 Water Year in Colorado

Nolan J. Doesken
Colorado Climate Center
Department of Atmospheric Science
Colorado State University
Fort Collins, CO 80523
(970) 491-8545

Michael A. Gillespie
Snow Survey Division
USDA - Natural Resources Conservation Service
655 Parfet Street, Room E200C
Lakewood, CO 80215-5517
(303) 236-2906

Abstract. Colorado experienced an unusual combination of warmer than average temperatures but with much more precipitation than normal during the 1999 water year (1 October 1998 through 30 September 1999). After a cool and stormy start in October and early November, and a brief but sharp cold wave in December, dry and unusually mild weather dominated statewide until April. Just when people began talking about wildfires, heat waves, dust storms and low stream flows, the weather pattern changed in April. By May 1, flooding was the big story as several inches of rain fell during the final days of April over relatively large watersheds causing severe flooding on Fountain Creek, the Arkansas River and the Poudre River. Precipitation in May and June was spotty, and temperatures were cool. July and August brought frequent and locally very heavy rains to much of the state. Several significant localized flash floods occurred including some at high elevations in the mountains. For the year as a whole, temperatures ended up about 1.5 degrees F above average. Statewide precipitation totaled 134% of average continuing the trend of predominantly wetter than average conditions that has been prevalent in Colorado since the late 1970s. Stream flow volumes were near to above average across the state ranging from about 80% of average on the Yampa River to close to 150% of average on the east slope of the Rockies. With the help of very generous summer rains, reservoirs remained surprisingly full. At the end of September, statewide reservoir storage was 137% of average.