Water Resources

Club 20 Winter Policy Meeting

Ute Water Conference Center Grand Junction, CO Thursday March 1, 2018

2018 WATER SUPPLY AND WATER ADMINISTRATION



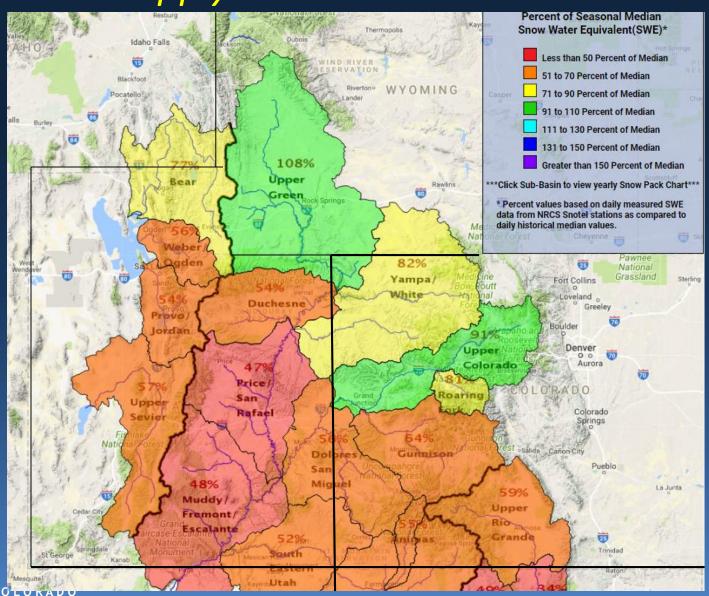
Presentation Outline

- Water Supply Update
- Water Rights in Colorado
- Water Rights Administration in Times of Shortage
- Strategies for Water Use During Times of Shortage





Water Supply in the Colorado River Basin





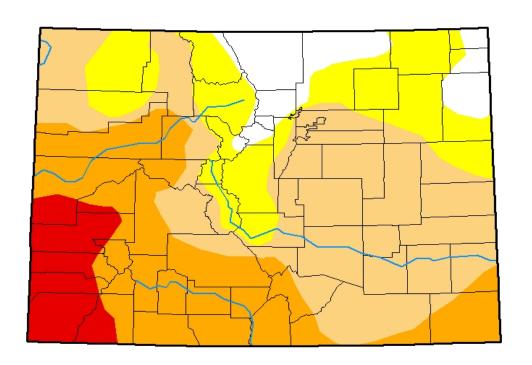
Division of Water Resources
Department of Natural Resources

Water Supply

U.S. Drought Monitor
Colorado

February 20, 2018

(Released Thursday, Feb. 22, 2018)
Valid 7 a.m. EST



Intensity:

D0 Abnormally Dry

D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Deborah Bathke National Drought Mitigation Center





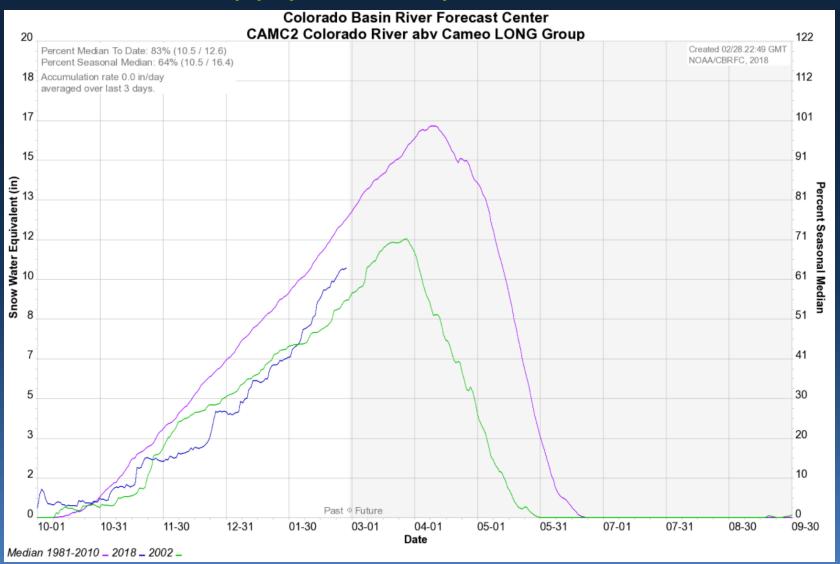




http://droughtmonitor.unl.edu/

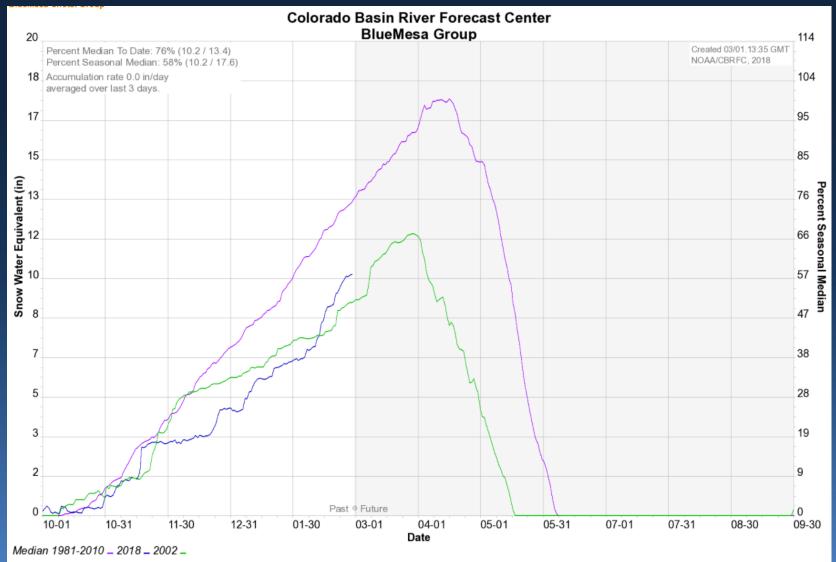


Water Supply - Snowpack Above Cameo



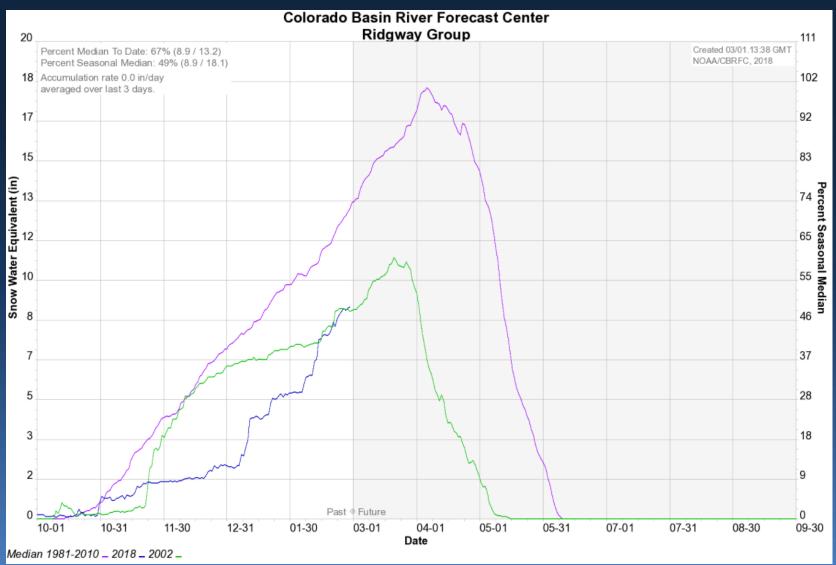


Water Supply - Snowpack Upper Gunnison



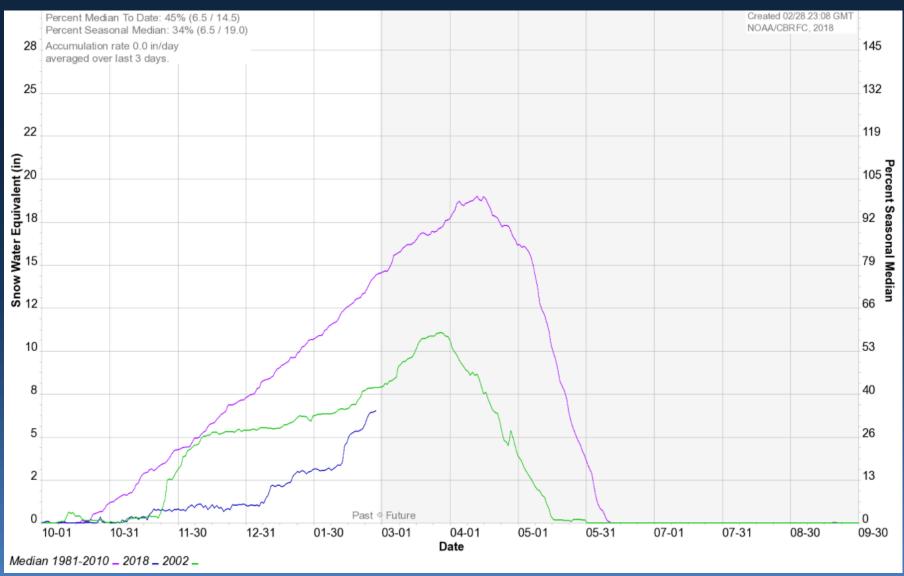


Water Supply - Snowpack Uncompangre





Water Supply – Snow Pack, Grand Mesa





Lake Powell Stats

- Lake Powell is 54.91% of Full Pool (24,322,000 af)
 - -Full = 3700 ft elevation
 - -Current = 3616.12 ft
 - Minimum Power Pool elevation = 3490 ft (currently 126.12 ft above)
- Snowpack above Lake Powell is 54% of April 15 average peak
 - -73% of average to date, March 1st
- 28 Reservoirs above Lake Powell are at 74% full
 - -9.2 MAF of storage capacity
 - −7.1 MAF of current storage available



Water Rights in Colorado

Types of Water Rights

General	Unique	Other
Surface Water Right	Federal Reserve Water Right	Change of Water Rights
Storage Water Right	Recreational In-Channel Diversion	Exchange Decree
Underground Water Right	Minimum Instream Flow Water Right	Augmentation Plan*

^{*}Not and actual water right but a plan approved by the court to use junior water rights when out of priority.





Water Rights in Colorado

Right of Condemnation

- Colorado Constitution, Article XVI Section 6.
 - ...preferred priority uses in times of shortage
- Domestic over all other uses
- Agriculture over industrial





Water Rights in Colorado

Right to Place a "Call" for Water

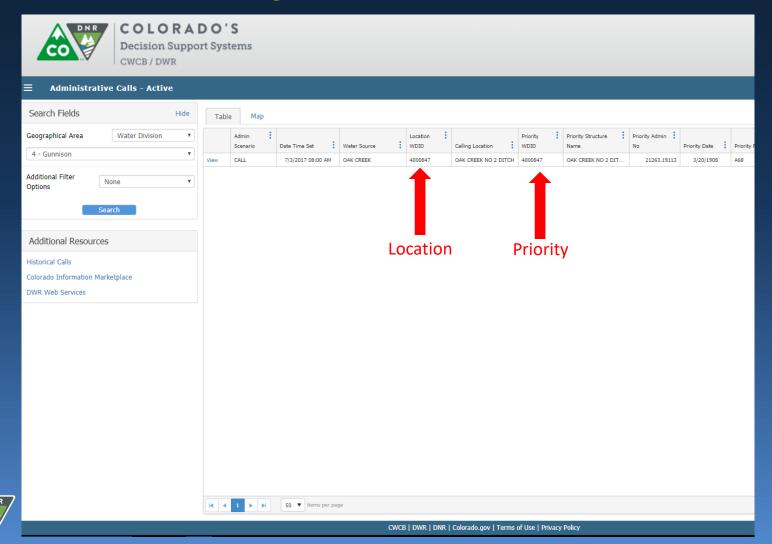
- Free River the supply of water in the river exceeds the demand for water by all decreed water users
- Call the demand for water by a user
- Call Recognized and Administered by Division of Water Resources – the determination by the Water Commissioner of the most junior right that may divert when the supply of water in the river is less than the demand on the river by all decreed water users (also known as "the Call")

Note: These definitions are not found in statute, but are working definitions in Division 4. The primary statute that water administration occurs under is 37-92-502 C.R.S.



Water Administration in Colorado

Call Manager Tool on DWR Website



Water Administration in Colorado

Setting the Call on the River

- Determine river conditions (supply) from stream gaging stations
- Determine the demand (calls) by various water right holders from water user contacts
- Sets the valid call based on a comparison of river conditions (supply) and demand (calls) and knowledge of water gains or losses and water travel times between points on the river
- Call is set at the most junior water right in priority that can still take water. This is also called the swing right.

Water Administration in Colorado

Conditions for Placing a Valid "Call"

- User must be in priority
- Water diverted by user must be beneficially used in accordance with the decree terms and conditions
- Water cannot be wasted
- User must have an acceptable headgate and an accurate measuring device
- User must be taking all the water that is available at their headgate
- Must determine whether user will get the water they are calling for by curtailing upstream junior rights (futile call determination)



Strategies for Water Short Years

- Administrative Exchange
- Emergency Substitute Water Supply Plan: 37-92-308(7)
 - For Domestic/Municipal only
 - Applications processed by State Engineer's Office.
 - Amounts to a temporary change of water right.
- Loan of Irrigation Water Rights: 37-83-105
 - Formal request in writing
 - noticing requirement
- Lease of Storage Water
- Efficiency Improvements to on and off field delivery systems
- Court Approved Augmentation Plan





Strategies for Water Short Years

Augmentation: Sources of Replacement Water

- Fully Consumable Water (Trans Mountain Diversion)
- Reservoir Releases
 - Contract or Lease Water
 - New Storage
- Change of Irrigation Rights (HCU credits)
- Recharge Credits





Strategies for Water Short Years Augmentation: A Simple Example 1888 Irrigation Righ 1964 Well Filler Ditch (fills during run off) 7 AF Pond

Large reservoir with contract water



