



Compact Facts

Colorado River Compact of 1922

Allocates 7.5 million AF of consumptive use annually to (1) the Upper Colorado River Basin (those parts of Arizona, Colorado, New Mexico, Utah, and Wyoming above Lee Ferry, Arizona), and (2) the Lower Colorado River Basin (those parts of Arizona, California, and Nevada below Lee Ferry, Arizona). This Compact requires the Upper Colorado River Basin to deliver an average of 75 million AF to the Lower Basin during any consecutive 10-year period. The Lower Basin is allowed an additional 1.0 million AF of consumptive use from the Colorado River system.

Rio Grande, Colorado, and Tijuana Treaty of 1944 between the United States and Mexico

Guarantees delivery of 1.5 million AF of Colorado River water per year to Mexico. If there is not adequate surplus water to satisfy the obligation, the Upper and Lower Basins are to equally share the burden of reducing uses to make up any deficiencies.

Upper Colorado River Basin Compact of 1948

Allocates the 7.5 million AF apportionment of consumptive uses available to the Upper Basin as follows:

Arizona	50,000 AF/year
Colorado	51.75%
Utah	23%
Wyoming	14%
New Mexico	11.25%

Additionally, the State of Colorado may not deplete the flow in the Yampa River below an aggregate of 5 million AF over any 10-year period.

Depending upon the interpretation of the Compacts, other laws, and the amount of water in the river, Colorado's right to the consumptive use of water under the Compacts may range from 3.079 million AF to 3.855 million AF per year. Colorado currently consumes an average of 2.3 million AF per year with facilities in place capable of using up to 2.6 million AF. Colorado's apportionment has not been divided among the various subbasins within the state. The Yampa and La Plata River Basins have specific delivery obligations under the Compacts. The allocation and administration of Compact waters within Colorado remains open to discussion but ultimately will be subject to rules and regulations for administration by the State Engineer.

Major Storage Projects

Reservoir	Normal Storage (AF)
Granby Reservoir	539,800
Dillon Reservoir	254,036
Green Mountain Reservoir	154,600
Ruedi Reservoir	102,369
Williams Fork Reservoir	90,640
Wolford Mountain Reservoir	66,000
Homestake Reservoir	43,600
Vega Reservoir	33,800
Shadow Mountain Reservoir	18,400
Rifle Gap Reservoir	13,602
Willow Creek Reservoir	10,600
Grass Valley Reservoir	5,806
Clinton Gulch Reservoir	4,372
Eagle Park Reservoir	3,148

Source: Colorado Division of Water Resources Office of Dam Safety Database

Major Imports into the Basin

None

Major Exports from the Basin

Name	Average Annual Diversions (AF)
1 Adams Tunnel	218,142
2 Roberts Tunnel	53,676
3 Moffat Tunnel	52,155
4 Boustead Tunnel	49,706
5 Twin Lakes Tunnel	39,204
6 Homestake Tunnel	24,764
7 Grand River Ditch	17,685
8 Continental Hoosier Tunnel ¹	8,747
9 Busk-Ivanhoe Tunnel	5,484
10 Wurtz Ditch	2,858
TOTAL	472,424

¹ Continental Hoosier Tunnel exports from the Colorado Basin to the Arkansas Basin through a portion of the South Platte Basin.
Source: Division 5 1998 Annual Report, 10-year average

Colorado Basin



Colorado Basin Overview

The Colorado Basin encompasses approximately 9,830 square miles. The largest cities in the basin are Grand Junction (population 45,669) and Glenwood Springs (population 8,301).

Elevations in the basin range from greater than 13,000 feet in the headwater areas to about 4,300 feet where the Colorado River exits the state. The basin's mountainous headwaters areas gradually give way to a series of canyons and gentler terrain as the river follows along the Interstate 70 corridor toward Grand Junction, the Grand Mesa, and the Utah border.

A substantial portion of the basin is comprised of federally owned land. Rangeland and forest are the predominant land uses in the Upper Colorado Basin (about 85 percent). Forested land is present throughout many parts of the basin. Livestock grazing, recreation, and timber harvest are the predominant uses of the federal lands. Active and inactive mines can be found in the basin. Coal mining occurs in the central portion of the Roaring Fork Valley and in the lower Colorado Valley.

Major Water Organizations

Water Conservation District
Colorado River

Water Conservancy Districts

Collbran	Battlement Mesa	Silt
Ute	Basalt	Middle Park
West Divide	Bluestone	

Colorado Basin Water Management Issues

The Colorado Basin will face several key points and challenges with respect to water management issues and needs over the next 30 years. The following provides an overview of some of the points and challenges that have been identified.

- Rapid growth in the headwaters areas and lack of available supplies and storage are significant challenges to meeting future water needs.
- Recreation and the environment are key drivers in the basin and are important for economic health and quality of life.
- Agriculture is important in the basin, especially in the lower basin (Grand Valley).
- The success of the Upper Colorado Recovery Implementation Program for Colorado River Endangered Fish is important. The Recovery Program is designed to address the recovery needs of the Colorado River endangered fish while protecting existing water uses and allowing for the future use of Colorado River water in compliance with Interstate Compacts, Treaties, and applicable federal and state law "the Law of the Colorado River."
- There is concern over the potential for a compact shortage during severe and sustained drought and potential impacts to in-basin supplies.
- The development of water rights associated with transbasin projects are a concern and their effect on in-basin supplies must be considered.



Dillon Reservoir (Photo courtesy of Linda Strand)

Bill Owens
Governor

Russell George
Department of Natural Resources
Executive Director

Rod Kuharich
Colorado Water Conservation Board
Director

Colorado Basin Growth

The Colorado Basin is comprised of all or part of six counties. Changes in population from 2000 to 2030, including percent annual growth rate on a county level, are shown in the table here. During that time, the population in the basin is expected to grow by almost a quarter million people, or 99 percent.

Colorado Basin Population Projections

County	2000 Population	2030 Population	Increase in Population 2000 to 2030	Percent Change 2000 to 2030	Percent Annual Growth Rate
Eagle	43,300	86,900	43,600	101	2.3
Garfield	44,300	97,000	52,700	119	2.6
Grand	12,900	28,800	15,900	123	2.7
Mesa	105,900	202,300	96,400	91	2.2
Pitkin	15,900	27,200	11,300	71	1.8
Summit	25,700	50,400	24,700	96	2.3
TOTAL	248,000	492,600	244,600	99	2.3

Colorado Basin Water Demands

The Colorado Basin is projected to increase in municipal and industrial (M&I) and self-supplied industrial (SSI) water demand by 61,900 acre-feet (AF) by 2030. M&I is defined as all of the water use of a typical municipal system, including residential, commercial, industrial, irrigation, and firefighting. Large industrial water users that have their own water supplies or lease raw water from others are described as SSI water users. M&I and SSI water demand forecasts for the Colorado Basin are shown in the table above.

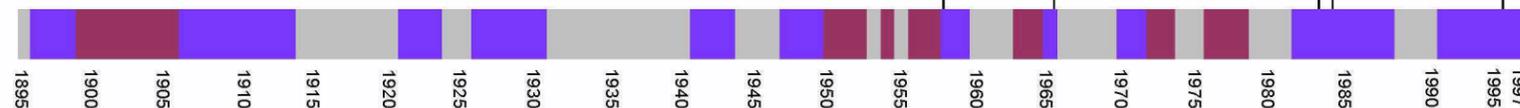
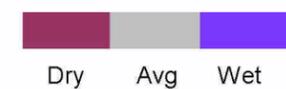
Colorado Basin Demand Projections

Subbasin Designation	2000 Gross Demand (AF)	2030 Gross Demand (AF)	Projected Conservation Savings (AF)	Increase in Gross Demand (AF)	Identified Gross Demand Shortfall (AF)
Eagle	14,300	28,400	1,600	12,500	0
Garfield	11,600	25,000	1,400	12,000	300
Grand	4,300	8,700	400	4,000	800
Mesa	18,700	35,600	2,100	14,800	0
Pitkin	14,200	23,900	1,200	8,500	0
Summit	11,000	22,200	1,100	10,100	1,900
TOTAL	74,100	143,800	7,800	61,900	3,000

The 2000 and 2030 gross demands are also presented in the table along with the projected conservation savings. Conservation practices include ordinances and standards that improve the overall efficiency of water use, such as installation of low water-use plumbing fixtures. As the table indicates, the Colorado Basin will need an additional 61,900 AF to meet the increased demands of M&I water use. The majority of the demand is expected to be met through existing supplies and water rights and through the implementation of various projects and processes. However, there are still some anticipated shortfalls expected in certain portions of the basin. This is also shown in the table.

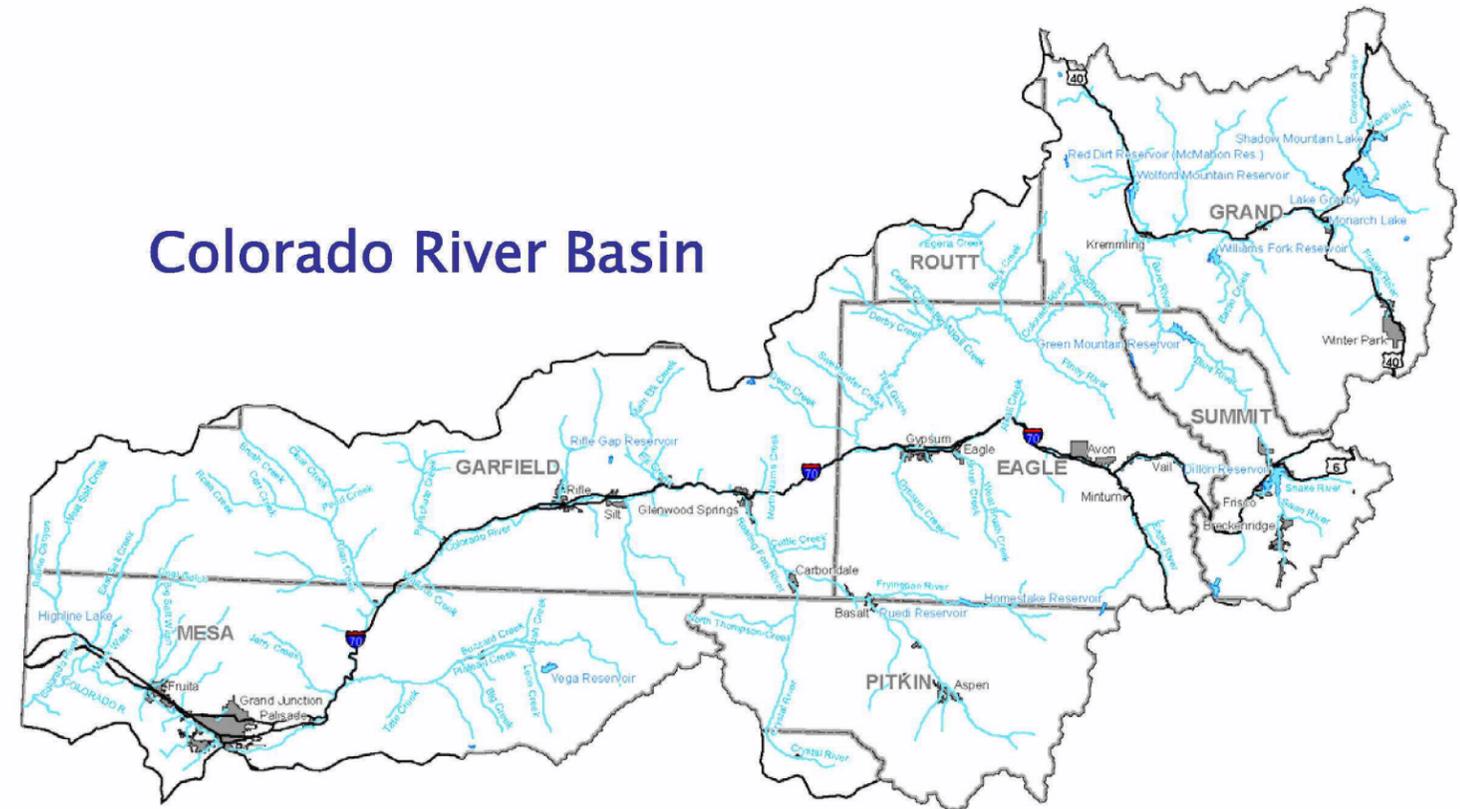
Wet and Dry Periods

Every year, there is at least one 100-year flood somewhere in the state. Colorado's total flood losses to date have been documented to be \$4.9 billion. The Colorado Basin's most recent flood event was June 1995. The estimated total historic damages for this basin are \$109.5 million to date.

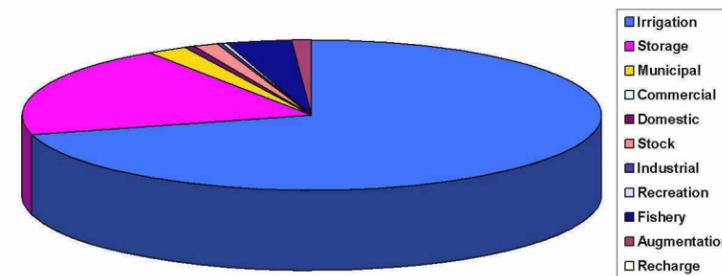


Source: Colorado Water Conservation Board

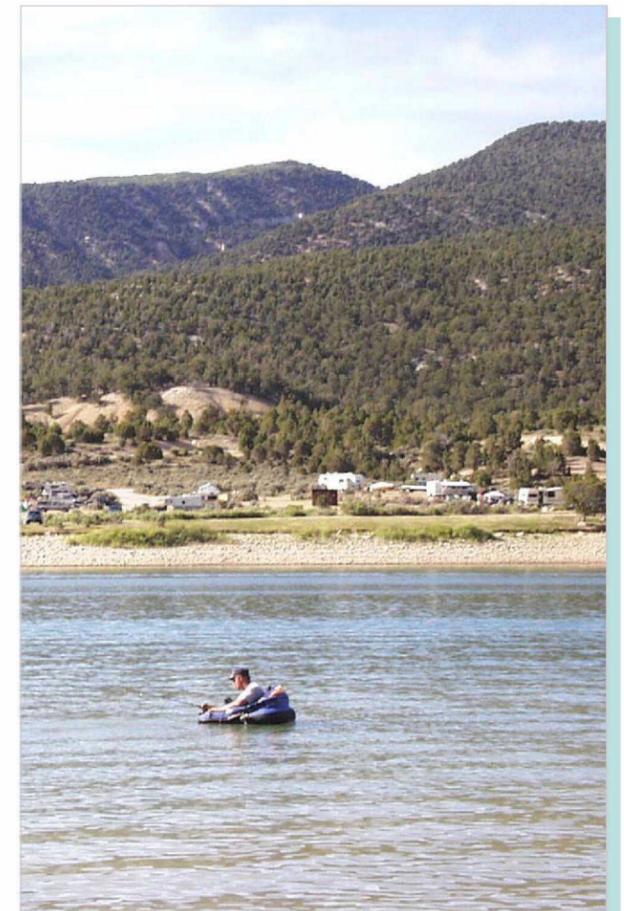
Colorado River Basin



Surface Water Diversions in Acre-feet by Use



Source: Colorado Division of Water Resources, Cumulative Yearly Statistics of the Colorado Division of Water Resources, 1999-2004



Rifle Gap Reservoir (photo courtesy of Colorado State Parks)