



Bill Owens
Governor

Russell George
Department of Natural Resources
Executive Director

Rod Kuharich
Colorado Water Conservation Board
Director

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)
Blue Mesa Reservoir	940,800
Morrow Point Reservoir	117,190
Taylor Park Reservoir	106,200
Ridgway Reservoir	94,126
Crystal Reservoir	26,000
Paonia Reservoir	20,950
Crawford Reservoir	14,395
Silverjack Reservoir	13,520
Onion Valley (a.k.a., Gould) Reservoir	9,000
Overland Reservoir	5,828
Fruitgrowers Reservoir	4,540

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

Major Imports into the Basin

Name	Diversions (AF)
1 Leon Lake Tunnel	1,364
2 Mineral Ditch	138
3 Red Mountain	99
TOTAL	1,601

Major Exports from the Basin

Name	Average Annual Diversions (AF)
1 Redlands Canal	510,930
2 Hallenbeck Reservoir #1	4,324
3 Grand Junction FL + WW	2,484
4 Weminuche Pass Ditch	1,133
5 Divide Creek HL Ditch	1,011
6 Tabor Ditch	741
7 Tarbell Ditch	643
8 Larkspur Ditch	73
TOTAL	521,339

Source: Water Division 4 1998 Annual Report, 10-year average

Gunnison Basin



Gunnison Basin Overview

The Gunnison Basin stretches over 8,000 square miles of western Colorado, extending from the Continental Divide to the confluence of the Gunnison and Colorado Rivers near Grand Junction. The largest cities in the basin are Montrose (population 14,153), Delta (population 7,827), and Gunnison (population 5,271).

The Gunnison Basin is defined by the Elk Range to the north, the Sawatch Range in the east, the San Juan Mountains to the south, and the Uncompahgre Plateau to the southwest. Water traveling from the headwaters to Grand Junction encounters greater than 9,500 feet of elevation change.

The Gunnison Basin is largely forested. Forest area is distributed throughout the basin and covers approximately 52 percent of the total basin area. About 5.5 percent of the land in the basin is classified as planted/cultivated land and is concentrated in the Uncompahgre Valley between Montrose and Delta with additional concentrations near Gunnison and Hotchkiss.

Major Water Organizations

Water Conservation District
Colorado River

Water Conservancy Districts

Bostwick Park	North Fork	Fruitland Mesa
Crawford	Tri-County	Grand Mesa
Upper Gunnison River		

Gunnison Basin Water Management Issues

The Gunnison 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.

- Growth in the headwaters will require additional water management strategies.
- Addressing agricultural water shortages in the upper portion of the basin is an important goal of the community; lack of financial resources is an impediment.
- There is concern over possible future transbasin diversions and the effect this might have on the basin's future.
- Resolving federal issues is a priority. Federal issues include resolving the National Park Service claims for flows in the Black Canyon, completion of the Blue Mesa/Aspinall reoperations Environmental Impact Statement, and addressing Endangered Species issues in the Gunnison River near the confluence with the Colorado River main stem.
- The area between Ouray and Montrose is rapidly growing. Tourism is important in the headwater areas but agriculture is dominant in the Uncompahgre Valley. A rapid influx of retirees and growth in the Uncompahgre Valley may dramatically change the agricultural uses and land use in the area.



Taylor Park Reservoir (photo courtesy of Holley Noon)

Gunnison Basin Growth

The Gunnison 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 72,900 people, or 82 percent.

Gunnison Basin Population Projections

County	2000 Population	2030 Population	Increase in Population 2000 to 2030	Percent Change 2000 to 2030	Percent Annual Growth Rate
Delta	28,000	50,200	22,200	79	2.0
Gunnison	14,000	19,700	5,700	41	1.1
Hinsdale	800	1,200	400	50	1.4
Mesa	11,700	22,500	10,800	92	2.2
Montrose	30,300	61,500	31,200	103	2.4
Ouray	3,800	6,400	2,600	68	1.8
TOTAL	88,600	161,500	72,900	82	2.0

Gunnison Basin Water Demands

The Gunnison Basin is projected to increase in municipal and industrial (M&I) and self-supplied industrial (SSI) water demand by 14,900 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 Gunnison Basin are shown in the table above.

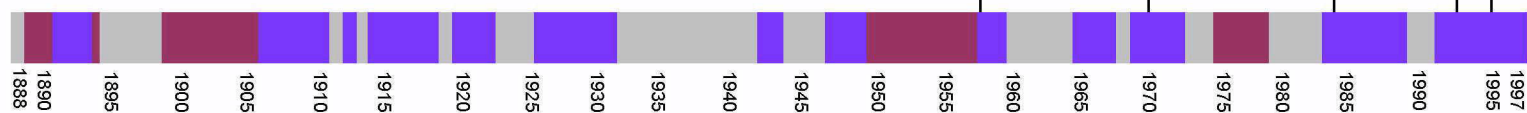
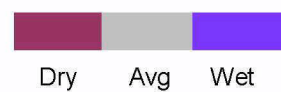
Gunnison Basin Demand Projections

Subbasin Designation	2000 Gross Demand (AF)	2030 Gross Demand (AF)	Projected Conservation Savings (AF)	Increase in Gross Demand (AF)	Identified Gross Demand Shortfall (AF)
Delta	6,600	11,100	700	4,500	500
Gunnison	2,900	4,400	200	1,200	1,100
Hinsdale	200	300	—	100	100
Mesa	2,000	3,900	200	1,700	100
Montrose	7,000	4,300	900	6,400	300
Ouray	1,600	2,700	100	1,000	300
TOTAL	20,300	37,600	2,100	14,900	2,400

The 2000 and 2030 gross demands are 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 Gunnison Basin will need an additional 14,900 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.

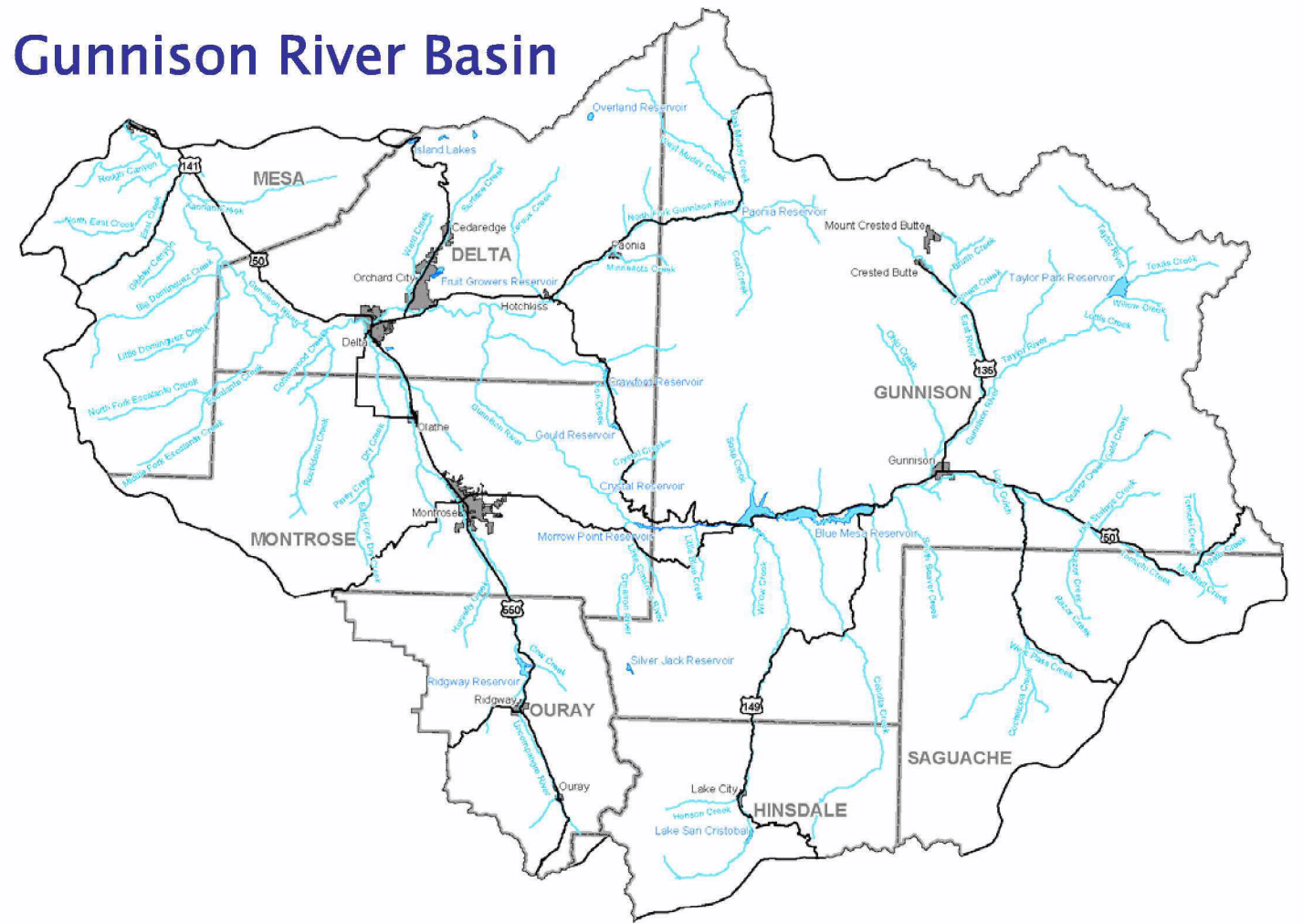
Wet and Dry Periods

Every year, there is at least one 100-year flood somewhere in the state. Colorado's total estimated flood losses to date are \$4.9 billion. The Gunnison Basin's most recent flood event was in June of 1995. The estimated total historic flood damages for this basin are \$13.2 million to date.

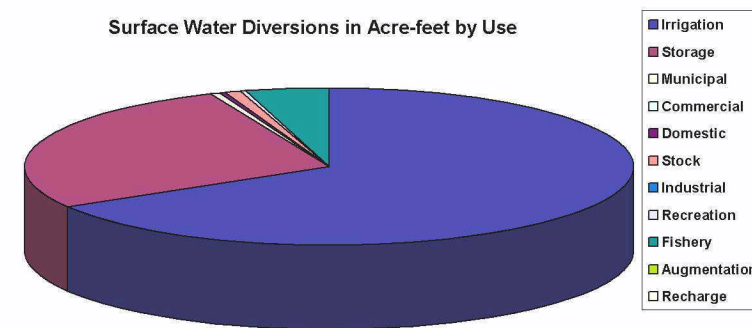


Source: Colorado Water Conservation Board and Division of Water Resources

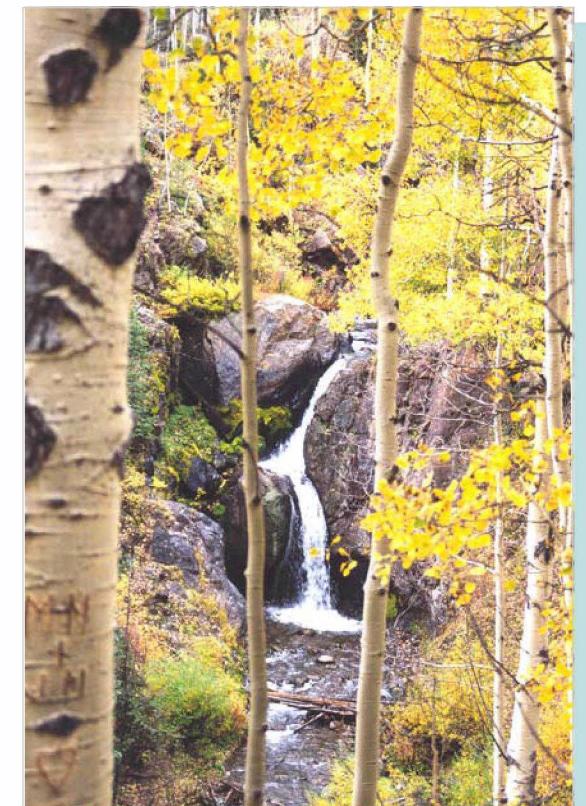
Gunnison River Basin



Surface Water Diversions in Acre-feet by Use



Source: Colorado Division of Water Resources, Cumulative Yearly Statistics of



Waterfall on Nellie Creek (photo courtesy of Dale Lough)