Compact Facts

United States—Mexican Water Treaty of 1906

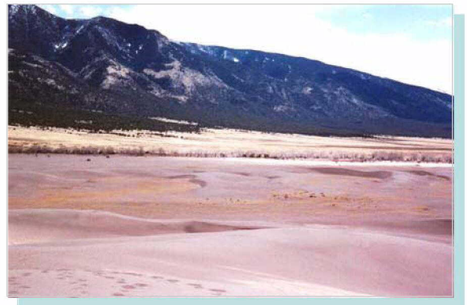
Guarantees the delivery of 60,000 AF of water annually at the International Dam at Ciudad Juarez, except during periods of extreme drought. Elephant Butte Reservoir in New Mexico was constructed partly to ensure the nation's ability to meet this obligation. The Rio Grande Compact provides that the allocations of water to the states shall not be increased or diminished by reason of changes in the delivery or loss of water to Mexico.

Rio Grande Compact of 1938

Establishes Colorado's obligation to ensure deliveries of water at the New Mexico state line and New Mexico's obligation to assure deliveries of water at the Elephant Butte Reservoir, with some allowance for credit and debit accounts. The obligations are calculated based on a schedule of deliveries, which are dependent on basin hydrology. The Compact establishes the Rio Grande Compact Commission to administer the terms of the Compact. The Commission consists of one representative from each state and a non-voting federal representative. Several tributaries to the Rio Grande are not subject to the Rio Grande Compact administration.

Amended Costilla Creek Compact of 1963

Establishes uses, allocations, and administration of the waters of Costilla Creek in Colorado and New Mexico. The Compact makes apportionments and allocations among specific facilities. It is administered by the Costilla Creek Compact Commission, which is composed of the water officials from Colorado and New Mexico.



Ephemeral stream in the Great Sand Dunes National Park (photo courtesy of Adam Bingham)

Major Storage Projects

Reservoir	Normal Storage (AF)
Sanchez Reservoir	103,114
Platoro Reservoir	59,571
Rio Grande Reservoir	52,192
Santa Maria Reservoir	43,826
Continental Reservoir	22,679
Mountain Home Reservoir	17,374
Terrace Reservoir	15,182
La Jara Reservoir	14,055
Smith Reservoir	5,808
Beaver Park Reservoir	4,758
Eastdale Reservoir No. 1	3,468
Eastdale Reservoir No. 2	3,041
Big Meadows Reservoir	2,436

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

Major Imports into the Basin

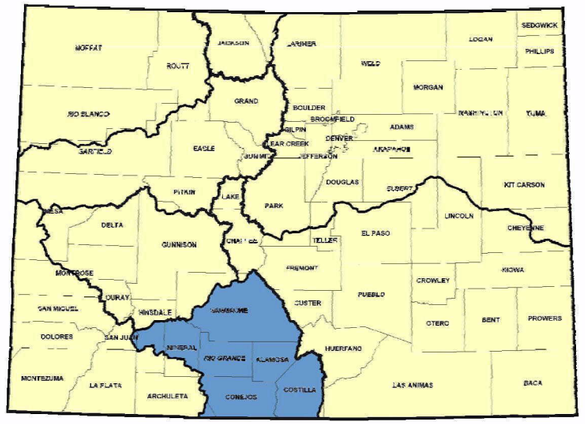
	Name	Recipient Stream	Average Annual Diversions (AF)
1	Tarbell	Saguache	370
2	Weminuche Pass Ditch	Weminuche	1,133
3	Pine River-Weminuche Pass Ditch	Weminuche	426
4	Wms Cr.-Squaw Pass D.	Squaw	221
5	Don La Font D. 1 & 2	Red Mountain	174
6	Treasure Pass Ditch	Pass	225
7	Tabor Pass Ditch	Spring	827

Major Exports from the Basin

	Name	Diversions (AF)
8	Hudson Branch Ditch	157
9	Medano Ditch	843

Source: Division 3 1998 Annual Report, 10-year averages

Rio Grande Basin



Rio Grande Basin Overview

The Colorado portion of the Rio Grande Basin, located in south central Colorado, encompasses approximately 7,543 square miles. The largest cities or towns in the basin are Alamosa (population 8,248) and Monte Vista (population 4,542).

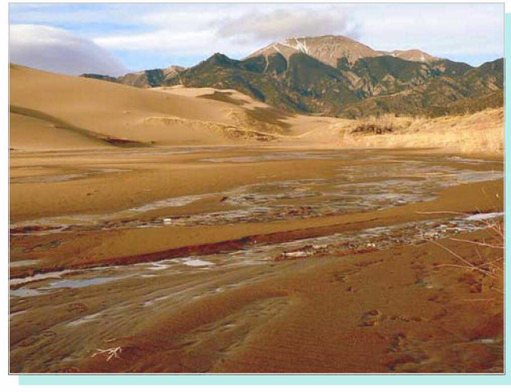
The San Juan Mountains in the west, the Sangre de Cristo Range in the north and east, the Culebra Range in the southeast, and the Colorado-New Mexico state line in the south define the Colorado portion of the Rio Grande Basin. The San Luis Valley, a primary feature of the Rio Grande Basin, extends from the foothills of the San Juan Mountains eastward to the foothills of the Sangre de Cristo range and has an average elevation of about 7,500 feet.

The majority of the San Luis Valley is privately owned. The primary land use of more than 600,000 acres of the irrigated land is agricultural operations in the central portion of the basin. Areas in the valley that are not irrigated are mostly classified as shrubland (24 percent) and grassland (31 percent). The San Juan and the Sangre de Cristo mountain ranges are largely forested. The northern one-third of the basin is considered to be a "closed basin" and does not contribute any surface flows to the Rio Grande.

Rio Grande Basin Water Management Issues

The Rio Grande 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.

- The Rio Grande Compact and the effects of sustained drought make new water development very difficult.
- In the Rio Grande Valley, agricultural water use is at unsustainable levels and economic impacts of reducing irrigation use of groundwater supplies will be difficult to address.
- Groundwater is a key component of water use in the basin.



Medano Creek

Conservation and Conservancy Districts

Water Conservation Districts
Rio Grande Colorado River

Water Conservancy Districts
San Luis Valley Trinchera Alamosa-La Jara
Conejos

Rio Grande Basin Growth

The Rio Grande 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 62,700 people, or 35 percent.

Rio Grande Basin Population Projections

Subbasin Designation	2000 Population	2030 Population	Increase in Population 2000 to 2030	Percent Change 2000 to 2030	Percent Annual Growth Rate
Alamosa	15,100	22,900	7,800	52	1.4
Conejos	8,400	10,000	1,600	19	0.6
Costilla	3,700	4,600	900	24	0.7
Mineral	800	1,100	300	38	1.1
Rio Grande	12,400	15,500	3,100	25	0.7
Saguache	6,000	8,600	2,600	43	1.2
TOTAL	46,400	62,700	16,300	35	1.0

Rio Grande Basin Water Demands

The Rio Grande Basin is projected to increase municipal & industrial (M&I) and self-supplied industrial (SSI) water demand 4,300 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 Rio Grande Basin are shown in the table above.

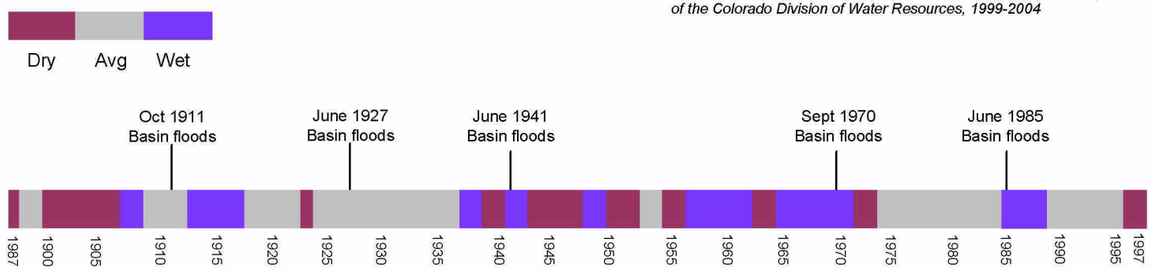
The 2000 and 2030 gross demands are presented in the table along with the projected conservation savings. Conservation practices include ordinances and standards that improve the overall efficiency of water use, such as installation of low water-use plumbing fixtures. As the table indicates, the Rio Grande Basin will need an additional 4,300 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.

Rio Grande 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)
Alamosa	4,600	6,500	400	1,900	—
Conejos	4,000	4,500	300	500	—
Costilla	600	700	—	100	100
Mineral	300	400	—	100	—
Rio Grande	5,700	6,600	500	900	—
Saguache	2,200	3,000	200	800	—
TOTAL	17,400	21,700	1,400	4,300	100

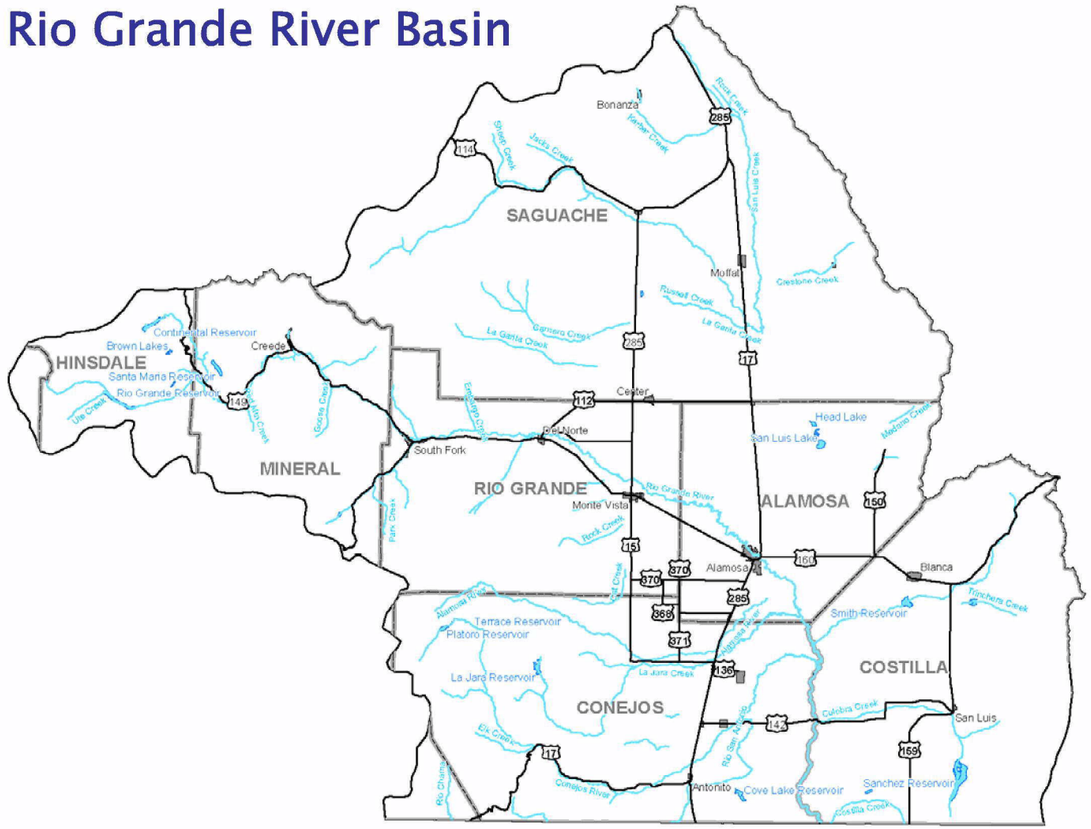
Wet and Dry Periods

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 Rio Grande Basin's most recent flood event was June 9, 1985. The estimated total historic flood damages for this basin are $12.1 million to date.

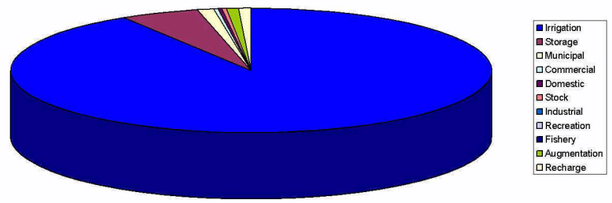


Source: Colorado Water Conservation Board; and McKee, Doesken, and Kleist, Historical Dry and Wet Periods in Colorado, Figures, Colorado Climate Center, Colorado State University, 1999

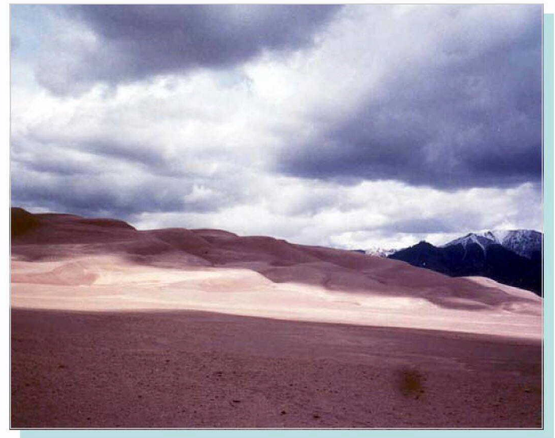
Rio Grande River Basin



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



Great Sand Dunes National Park (photo courtesy of Adam Bingham)