Compact Facts Nebraska v. Wyoming 325 U.S. 665 (1945) and 345 U.S. 981 (1953)

Equitably apportions water in the North Platte River between Colorado, Nebraska, and Wyoming. Limits total irrigation in Jackson County to 145,000 acres and 17,000 AF of storage for irrigation during any one irrigation season. Limits total water exports from the North Platte River in Colorado to no more than 60,000 AF during any 10-year period.

Wyoming v. Colorado, 260 U.S. 1 (1922) and 309 U.S. 572 (1940)

Establishes the rights of Colorado and Wyoming to water in the Laramie River Basin. Limits total diversions from the Laramie River in Colorado to a total of 39,750 AF, divided among specific water facilities, including 15,500 AF to out-of-basin uses through the Laramie-Poudre Tunnel; 18,000 AF through the Skyline Ditch; and 4,250 AF through various "meadow land appropriations."



Photo courtesy of Colorado State Parks

Major Storage Projects

Reservoir	Normal Storage (AF)
Lake John	7,092
MacFarlane Reservoir	6,951
Walden Reservoir	4,506
Meadow Creek Reservoir	4,400
Laune Reservoir	3,722
Pole Mountain Reservoir	1,905
North Michigan Creek Reservoir	1,730
Lower Big Creek Reservoir	1,434
Agua Fria Reservoir	550
Seymour Reservoir	525
West Arapahoe Reservoir	497
Buffalo Reservoir	351

Major Imports into the Basin

None

Major Exports into the Basin Averaging Greater than 1.000 AF

Name	Average Annual Diversions (AF)		
1 Laramie-Poudre Tunnel	18,580		
2 Michigan Ditch	3,294		
3 Wilson Supply Ditch	1,482		
TOTAL	23,356		

Source: Division 1 and Division 6 Engineer's 1998 Annual Report 10-year average.

North Platte Basin



North Platte Basin Overview

The North Platte Basin is located in north central Colorado in Jackson and a small portion of Larimer Counties. The basin covers an area of roughly 2,050 square miles. The population of Walden in Jackson County is 727 people.

The North Platte Basin in Colorado is bounded on the east by the Front Range, on the west by the Park Range, on the south by the Rabbit Ears Range, and on the north by the Colorado-Wyoming state line. The land surface elevation of the basin valley ranges between 8,000 and 9,000 feet.

Land use in the North Platte Basin includes forest (46 percent) located on the edges of the basin boundaries, shrubland (24 percent), and grassland (17 percent). The shrubland is concentrated in the central portion of the basin. Grassland is typically located near the basin edges just below the forested areas. Agricultural areas generally are concentrated in the central basin, but also follow the basin's streams and rivers.

Water Conservancy Districts Jackson County Michigan River

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



Bill Owens Governor

North Platte Basin Water **Management** Issues

The North Platte 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.

Russell George Department of Natural Resources **Executive Director**

Rod Kuharich Colorado Water Conservation Board Director

- Colorado's only basin with concern over lack of growth and economic development.
- There is a desire to ensure protection of existing water supplies, and a concern over the impact of the lack of forest management.
- It is important that Endangered Species issues on the Platte River in Central Nebraska are successfully resolved and in a manner that does not put pressure on water users to reduce existing uses.
- The equitable apportionment decrees on the North Platte and Laramie Rivers quantify the amount of available water and lands that can be irrigated.



Laramie River

North Platte Basin Growth

North Platte Basin Population Projections

The North Platte Basin is comprised of essentially one county. The small portion in Larimer County has very little development. Changes in population from 2000 to

Subbasin Designation	2000 Population	2030 Population	Increase in Population 2000 to 2030	Percent Change 2000 to 2030	Percent Annual Growth Rate
Jackson	1,600	2,000	400	25	0.7
TOTAL	1,600	2,000	400	25	0.7

2030, including percent annual growth rate on a county level, are shown in the table above. During that time, the population in the basin is expected to grow to 2,000 people, an increase of 25 percent.

North Platte Basin Water Demands

North Platte Basin Demand Projections

Subbasin Designation	2000 Gross Demand (AF)	2030 Gross Demand (AF)	Projected Conservatio n Savings (AF)	Increase in Gross Demand (AF)	Identified Gross Demand Shortfall (AF)
Jackson	500	600	<100	100	_
TOTAL	500	600	_	100	_

The North Platte Basin is projected to increase in municipal and industrial (M&I) and self-supplied industrial (SSI) water demand by 100 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 North Platte 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 North Platte Basin will need an additional 100 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.



Photo courtesy of Colorado State Parks

Wet and Dry Periods

Wet

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 North Platte Basin's most recent flood event was in 1984. The estimated total historic damages for this basin are \$110,000 to date.

North Platte 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



Source: Division 6 Engineer's Office

Dry

Irrigatio Storage Municina Commercia Domestic Stock Industrial Recreation Fishery Augmentatio Recharge



North Platte River