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Memorandum

August 17, 2022

TO: Interested Persons

FROM: Alexa Kelly, Research Analyst, 303-866-3469

SUBJECT: Interstate Compacts, Decrees, Memoranda, and Treaties Governing Colorado's Rivers

Summary

This memorandum provides information about the interstate compacts, Supreme Court decrees, and international treaties that govern Colorado's use of interstate streams. Specifically, it gives a brief summary of the history of each of the compacts and outlines the specific components and requirements of each compact currently in state law. In addition, the memorandum discusses the two memoranda, the two Supreme Court decrees, and the two international treaties that govern rivers in Colorado. Appendix A outlines the technical components of the laws affecting Colorado's rivers.

Colorado Water Delivery Obligations

Colorado is party to two international treaties, one interstate agreement, two United States Supreme Court decrees, and nine interstate compacts. The combination of these determines how much water is allowed to flow out of and into the state. Colorado, also known as the Headwaters State, is home to the headwaters of several major river systems, including the Arkansas, Colorado, Platte, and Rio Grande. All of these water systems are vital to Colorado, as well as to downstream states. Three methods, all stemming from powers given by the U.S. Constitution, govern how states are able and permitted to solve water supply issues:

- 1) direct legislation by Congress;
- 2) a suit by one state against another in the U.S. Supreme Court; or
- 3) a compact between states approved, where necessary, by Congress.

How, when, and where water is delivered across states has long been a source of controversy between Colorado and the 18 other states, as well as Mexico and tribal nations, that all rely on the water that originates in Colorado. Over the last century, the U.S. Supreme Court has heard many conflicts over compact compliance. The negotiations, lawsuits, and struggles have all played a role in informing the current state of interstate water compacts in Colorado.

Colorado Interstate Water Compacts

An interstate compact is an agreement between two or more states that has been approved by their state legislatures and Congress. Specifically, a water compact sets the terms for sharing the waters of an interstate water system. Figure 1 shows the seven basins that are governed by interstate compacts involving Colorado.

Figure 1
Geography of River Basins Governed By Interstate Compacts



Source: *Water Education Colorado*.

Colorado River Compact. The first of its kind in Colorado, the Colorado River Compact came out of several water battles that Colorado faced in the early 1900s. In 1922, Herbert Hoover, the federal Secretary of Commerce at the time, created the Colorado River Compact Commission, which was made up of negotiators from Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming. Delph Carpenter, the negotiator from Colorado, laid out a plan to divide the waters between the upper and lower states of the river basin at Lee Ferry, Arizona. The negotiations led to the planning and eventual damming of Lake Powell (using the Glen Canyon Dam) and Lake Mead (using the Hoover Dam).

The compact required that the upper basin states not deplete the cumulative flow to the lower basin states below 75 million acre feet (MAF) at Lee Ferry, Arizona, over any period of ten consecutive years. This is measured by calculating an average of the annual flows at the gauge. Since signing the compact, the flow of the river has varied greatly, ranging anywhere from 3 MAF to 24 MAF in any given year. The last ten-year cumulative streamflow was about 92.5 MAF from 2011 to 2020.¹

Upper Colorado River Compact. After the 1922 compact was approved, Congress did not fund any water storage projects until the states agreed upon how to split the water. This led to the creation of the Upper Colorado River Compact, which was signed in 1948. Due to the obligation to keep the river at 75 MAF and the reservoir storage in the upper basin, the exact amount of water available for development was relatively unknown. This caused the Upper Colorado River Basin Compact to allocate water to each state in set percentages for consumptive use, rather than allocating specific quantities. The exception is for Arizona, which is allocated 50,000 acre-feet for consumptive use. Once the states settled on their share of water, the federal government established the Boulder Canyon Project Act in 1928 and the Colorado River Storage Project Act in 1956 to fund and build dams along the river for storage, all of which currently aid in meeting the obligations of the two compacts.

Administration and enforcement. Today, the state engineers, federal Bureau of Reclamation, and U.S. Geological Survey are authorized to administer the Colorado River Compact, and the Upper Colorado River Commission is authorized to administer the Upper Colorado River Basin Compact. Lake Powell and Lake Mead are two crucial pieces of infrastructure that allow Colorado to meet obligations under these compacts. However, in 2021, the Bureau of Reclamation declared an official water shortage due to the ongoing drought in the entire basin.² The official shortage declaration allows for downstream releases from Glen Canyon Dam and Hoover Dam to be reduced in 2022 due to declining reservoir levels. The declining levels and uncertainty of future river flow could leave upper basin states with the potential burden of curtailing use to comply with the compacts. In the event curtailment is necessary to maintain the flow at Lee Ferry required by Article III of the Colorado River Compact, Article IV of the Upper Colorado River Compact outlines how states shall determine any curtailment. The compact specifically describes a set of principles that the Upper Colorado River Commission must consider when determining the quantity of water that states must curtail to maintain flows at Lee Ferry.³

La Plata River Compact. After a drought in 1917 and 1918, New Mexico was ready to sue Colorado over water in the La Plata River Basin. Instead of going to court, the two states were able to resolve the dispute and sign the La Plata River Compact in 1922.⁴ Due to the highly variable flow of the river, the compact requires Colorado to maintain and operate gauging stations at Hesperus in La Plata County and the state line to record the flow from February 15 thru December 1 annually. In practice, the compact restricts Colorado's right to use La Plata River water to a certain amount during this time as long as New Mexico needs the water. From December 1 thru February 15, both states are entitled to unrestricted use of the water.

¹72nd Annual Report of the Upper Colorado River Commission, <http://www.ucrccommission.com/wp-content/uploads/2021/06/UCRC-WY2020-Annual-Report-Final-June-10-2021.pdf>, last accessed on May 25, 2022.

²U.S. Bureau of Reclamation Announcement on 08/16/21, <https://www.usbr.gov/newsroom/#/news-release/3950>, last accessed on May 25, 2022.

³ Section 37-62-101(Article IV), C.R.S.

⁴ Citizen's Guide to Colorado Interstate Water Compacts, Third Edition, https://issuu.com/cfwe/docs/interstate_compacts_3rded_2021_final, last accessed on July 26, 2022.

Since there are no significant upstream reservoirs on this river system, the La Plata River regularly goes dry between Hesperus and the state line. This prevents the water from reaching New Mexico, and Colorado must invoke the “futile call” doctrine to allow upstream junior water diversions to use the limited streamflow. A futile call may only be invoked when the water cannot be delivered to the interstate gauge.

South Platte River Compact. The South Platte River has long been a source of disputes between the states that it serves. The river is currently governed by four agreements – including two U.S. Supreme Court equitable apportionment decrees, an interstate compact, and an interstate administrative agreement. As the river has served Colorado’s development along the Front Range, new challenges have included conserving endangered species and accommodating urban growth.

Before 1890, Colorado was using the full capacity of the South Platte River for irrigation; however, Nebraska was just starting its own irrigation activities on the river. In 1916, Nebraska sued Colorado claiming that irrigated farms in Colorado were depriving Nebraska of water. Extensive studies of the river during compact negotiations allowed for a greater understanding of the relationship between water use, return flows, and the needs of the two states. The compact that was signed between Nebraska and Colorado in 1923 reflected this understanding.⁵

When flow of the river is less than 120 cubic feet per second between April 1 and October 1 of each year, Colorado must curtail water delivery to any water rights junior to June 14, 1897, that impact the river flow at the state line. Colorado is entitled to the full use of the South Platte River in the lower part of the river basin between October 15 and April 1. However, a compact provision allows Nebraska to build the Perkins County Canal, which would divert water from Colorado. If the canal is built, Nebraska would be able to divert up to 500 cubic feet per second, after Colorado diverts 35,000 acre-feet, from October 15 to April 1. To date, the canal has not been built. However, the Nebraska Unicameral Legislature recently passed the Perkins Canal Project Act, which authorizes the construction and operation of the canal, and has authorized funding to purchase land for the project.

Platte River Recovery Implementation Plan. The river basin also provides temporary habitat for migratory birds and year-round habitat for the pallid sturgeon, which are on the federal threatened or endangered species list. In an effort to preserve entitlements of the compact and provide protections for the birds and fish, officials from Colorado, Nebraska, and Wyoming began discussions in 1993. Fourteen years later, the negotiations resulted in the Platte River Recovery Implementation Plan. The plan is aimed at restoring and protecting habitat, increasing streamflows, and preserving the ability to use and develop water in each state.⁶

Rio Grande River Compact. Recorded history of the Rio Grande River dates back to the 16th century, and by the late 19th century, tensions over supply and demand were rampant throughout the Rio Grande Basin. Similar to many other river basins, downstream users were experiencing shortages, and upstream users were blamed. This led to the creation of the Rio Grande Project, which includes the Elephant Butte and Caballo dams in southwest New Mexico. The two reservoirs created by the

⁵ Citizen’s Guide to Colorado Interstate Water Compacts, Third Edition, https://issuu.com/cfwe/docs/interstate_compacts_3rded_2021_final, last accessed on July 26, 2022

⁶ Platte River Recovery Implementation Program, <https://platteriverprogram.org/>.

dams serve irrigation districts in New Mexico and western Texas. In 1929, Colorado, New Mexico, and Texas signed a temporary compact to maintain the status quo of the river. This gave the states time to collect data to inform a more permanent agreement. A federal study revealed that reservoir development in Colorado would benefit the entire basin. The study was instrumental in forming the provisions of the Rio Grande River Compact, which was signed in 1938 by Colorado, New Mexico, and Texas. Uniquely, the compact even accounts for potential spills from Elephant Butte Reservoir.⁷

The amount of water delivered from Colorado to the downstream states varies greatly year to year. The compact covers two separate delivery schedules, one for the Rio Grande River and one for the Conejos River. As flows increase in the upper basin, the percentage of water that must be delivered downstream also increases. Colorado must manage the diversions by in-state surface water right holders in any given wet or dry year to maintain compact compliance. In an effort to manage water supply and demand, the compact:

- creates a system of credits and debits, and limits new storage in Colorado and New Mexico;
- recognizes the variability in water supply, which may cause under-deliveries and over-deliveries depending on the year;
- allows for excess water, up to a certain level, to be held in reservoirs in upstream states or released at the downstream state's demand;
- protects Colorado and New Mexico from water overuse by downstream states; and
- allows for debits to be erased when the Elephant Butte Reservoir spills over.⁸

Republican River Compact. Colorado, Kansas, and Nebraska began negotiating a compact governing the Republican River in 1940 after the Dust Bowl and a devastating flood in 1935. The three states agreed to a compact in 1941, but when sent to Congress for approval in 1942, President Roosevelt vetoed the bill. The President's veto was primarily because the Federal Power Commission objected to the compact's proclamation that the Republican River and its tributaries were not navigable. Due to this, the next round of negotiations included a federal representative. The final agreed-upon compact, which did not mention the issue of navigability, was signed and approved by Congress in 1943.

Recent tensions. A disagreement over groundwater and surface water allocations caused Kansas to sue Nebraska for violating the compact in 1998. Colorado was named as a party even though no specific claims were made against the state. In 2000, the U.S. Supreme Court ruled that the compact restricts a state's consumption of groundwater to the extent the consumption depletes the streamflow within the basin. This caused the states to re-enter negotiations, which led to a Final Settlement Stipulation in 2002. Among other things, the stipulation established a moratorium on new well development upstream of Guide Rock, Nebraska. Even with the compact and the stipulation, the states have continued to struggle over compliance.

⁷ Citizen's Guide to Colorado Interstate Water Compacts, Third Edition, https://issuu.com/cfwe/docs/interstate_compacts_3rded_2021_final, last accessed on July 26, 2022

⁸The reservoir has spilled over six times since completion, most recently in 1995.

Republican River Water Conservation District. In an effort to remain in compact compliance, the Colorado General Assembly created the Republican River Water Conservation District in 2004. Since then, the district has made efforts to reduce consumptive use within the basin; including by constructing the Compact Compliance Pipeline. However, in 2018, Colorado agreed to pay Nebraska \$4.0 million to settle claims involving the overuse of water in the Republican River Basin. In exchange, Nebraska agreed not to sue Colorado for any compact violations that may have occurred prior to 2014.⁹

Costilla Creek Compact. The struggle over the Costilla Creek dates back to the early years of Colorado's statehood. When the Union Congress created the Colorado Territory in 1861, a line was drawn through the Costilla Creek valley. Under the prior appropriation decree of Colorado and New Mexico, some of the earliest established water rights belong to acequias.¹⁰ However, the U.S. Freehold filed a lawsuit in federal court claiming that it had riparian rights attached to its land and the acequias used more water than the states needed. New Mexico, Colorado, and Dutch investors came to an agreement that allowed the Dutch investors to obtain part of the water decreed to the acequias. When the Dutch investors went bankrupt shortly after, the land and its water rights passed to the San Luis Power and Water Company in New Mexico.

The combined development done by the San Luis Power and Water Company and Mormon pioneers in Colorado created conflict over water diversion rights along the state line. The San Luis Power and Water Company filed a lawsuit against New Mexico, which led to the recommendation that the states enter into a compact. The original compact was signed in 1944, and an amended version was signed in 1963. The compact sets the amount of water to be delivered to water users in the two states and outlines how to allocate surplus flows and storage in reservoirs.

Arkansas River Compact. Colorado and Kansas have long disputed the water of the Arkansas River Basin. Years of court battles and one doctrine of equitable apportionment led to the creation of the Arkansas River Compact. After three years of negotiations, the two states signed the compact in 1948, which included how to share water in the John Martin Reservoir located in Colorado. The compact is unique compared to other interstate compacts in that it does not apportion the waters of the river between the states in specific amounts or as a percentage. Rather, the language is intended to protect existing uses in both states from future development. The compact allows the two states to use the water as long as the waters of the Arkansas River "shall not be materially depleted in usable quantity or availability for use to the water users in Colorado and Kansas."¹¹ The compact does not include any provisions for water that is imported into the Arkansas River Basin from other areas. The compact is governed and enforced by the Arkansas River Compact Administration, which sets procedures for operating the John Martin Reservoir and investigates any compact violations.

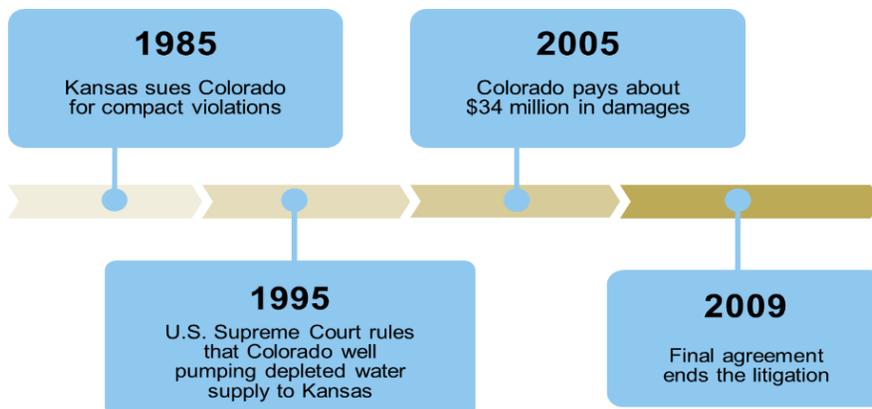
⁹"Colorado and Nebraska Settle Old Water Dispute", <https://www.courthousenews.com/colorado-and-nebraska-settle-old-water-dispute/>, last accessed on May 25, 2022.

¹⁰An acequia is a communal irrigation canal, from which other, smaller ditches flow. They were commonly used by the earliest settlers in the San Luis Valley coming from Mexican territories. The oldest continuous water right belongs to an acequia named the San Luis People's Ditch from 1852. They are still utilized in Colorado today. (available at [History Colorado](#), last accessed on May 25, 2022).

¹¹ Section 37-69-101, C.R.S. Article IV (D)

Kansas sued Colorado for Arkansas River Compact violations in 1985. The court case took decades to resolve, as outlined in Figure 2.

Figure 2. Timeline of *Kansas v. Colorado*



Animas-La Plata Project Compact. This compact is unique because instead of being an agreement about an interstate river, the compact governs storage and priority water rights under the Animas-La Plata Federal Reclamation Project (project). The original project was planned to be far larger than what was built. The original project outlined a system of five reservoirs and delivery through a transbasin diversion to the La Plata River. After over 20 years of project designs, tribal reserved water rights filings, lawsuits, and negotiations, the United States, Colorado, the Ute Mountain Ute and Southern Ute tribes, and water districts in Colorado settled on the Colorado Use Settlement Act Amendments of 2000, which describe the current federally authorized project. The latest rendition of the project includes one off-stream reservoir, which became Lake Nighthorse, located south of Durango. This was the only reservoir constructed to serve the entities that are allocated water from the original project. The federally owned reservoir currently serves the two Ute tribes, the Navajo Nation, the San Juan Water Commission, and the La Plata Conservancy District in Colorado and New Mexico. Other structures that were built as a part of the project include a pumping plant to the reservoir, Ridges Basin Dam, and the Navajo Nation Municipal Pipeline. The Animas-La Plata Project Operations, Maintenance, and Replacement Association operates the project. Association membership includes entities that are entitled to project water under the intergovernmental agreement.¹²

Supreme Court Decrees

In addition to the interstate compacts, two rivers in Colorado – the North Platte and the Laramie – are also governed by two Supreme Court decrees. The U.S. Constitution established that the Supreme Court of the United States has jurisdiction when it comes to controversies or disputes between two or more states.¹³ Most often, because of the intense complexity of water issues, the court will appoint a “Special Master,” typically a magistrate judge, to oversee the case. A Special Master usually hears the initial motions, evaluates and considers presented evidence, and makes a recommendation to the

¹² Citizen’s Guide to Colorado Interstate Water Compacts, Third Edition, https://issuu.com/cfwe/docs/interstate_compacts_3rded_2021_final, last accessed on July 26, 2022.

¹³U.S. Const., art. III, § 2.

Supreme Court. The Supreme Court will then evaluate the claims and evidence, consider the Special Master's recommendation, and make its final ruling. This section discusses the two Supreme Court cases that determine Colorado's right to waters in the North Platte and Laramie rivers.

Nebraska v. Wyoming, 325 U.S. 589 (1945). In 1945, Nebraska filed a suit against Wyoming for the equitable apportionment of the North Platte River. Colorado was named a defendant in the case since the river also flows through the state. The main controversy occurred over water use for irrigation. Nebraska claimed that Colorado and Wyoming were wrongfully diverting water from the North Platte River under the prior appropriation law, which deprived Nebraska of its share of water. Nebraska asked the court to apportion the water equitably between the states. Colorado argued that it should be dismissed from the case, but was unsuccessful.

The Supreme Court determined that water from the river used for irrigation would be split between Nebraska and Wyoming in flat percentages based on the natural flow of the river. Nebraska was given the larger percentage on the grounds that it had the senior water rights. The main provisions of the decree also prohibit Colorado from:

- diverting water from the North Platte River and its tributaries for irrigation of more than 135,000 acres in Jackson County during one irrigation season (this value was changed to 145,000 acres by the Supreme Court on June 14, 1953); and
- storing more 17,000 acre-feet of water for irrigation from the North Platte River and its tributaries in Jackson County from October 1 to September 30 of the following year.¹⁴

Wyoming v. Colorado, 353 U.S. 953 (1957). In 1957, Wyoming petitioned the Supreme Court with a motion to intervene against Colorado concerning the right to divert water from the Laramie River. A previous decree handed down by the court regarding rights to the Laramie River was subsequently vacated in this case. The court denied Wyoming's motion to intervene and instead granted a new decree governing the river. The decree held that Colorado may divert 49,375 acre-feet of water from the Laramie River and its tributaries, subject to specific limitations.¹⁵

Memoranda

Colorado has one memorandum of understanding and one memorandum of agreement with bordering states. In general, both types of written agreements are legal documents that outline the terms of a specific agreement between parties. The main difference between a memorandum of agreement and a memorandum of understanding is that an agreement can be enforceable by law, while an understanding cannot. This section discusses the two memoranda that Colorado has with Utah and Wyoming.

Pot Creek Memorandum of Understanding. Colorado and Utah have a memorandum of understanding governing Pot Creek, which originates in Utah and flows into Colorado's Green River. In 1958, the states agreed to distribute the water based on the prior appropriation doctrine and appointed a water commissioner with the authority to administer the agreement. The states agreed

¹⁴ Nebraska v. Wyoming, 325 U.S. 589 (1945), <https://supreme.justia.com/cases/federal/us/325/589/>, last accessed July 26, 2022.

¹⁵ Wyoming v. Colorado, 353 U.S. 953 (1957), <https://supreme.justia.com/cases/federal/us/353/953/#tab-opinion-1941527>, last accessed July 26, 2022.

to share the expense of the commissioner equitably, with Colorado bearing 20 percent of the expense and Utah bearing 80 percent. In 2005, the states revised the agreement to include a combined administration list, daily operations in accordance with the Pot Creek Operation Manual, the authority of the water commissioner, and assurance of proper maintenance of the gauging stations. The memorandum also restricts either state from utilizing direct flow diversions before May 1 of each year and establishes a schedule of priorities.¹⁶

Sand Creek Memorandum of Agreement. Colorado and Wyoming signed an initial memorandum of agreement in 1939, and then signed a revised memorandum of agreement in 1997, which is currently administered by the Colorado Division of Water Resources. The current, revised agreement corrected clerical errors concerning the amount of water appropriated to Wyoming. Today, the agreement requires Colorado to deliver 40 cubic feet per second (cfs) over a seven-day period, which is not required to be consecutive, at the beginning of irrigation season. Once Colorado has met this delivery requirement, the state must deliver 35 cfs for the remainder of the irrigation season whenever senior water right holders in Wyoming need the water. The agreement also limits diversions from Sand Creek by Colorado and the Divide Canal and Reservoir Company.¹⁷

International Treaties

Colorado is involved in two international treaties between the United States and Mexico that govern waters of the Rio Grande River. The United States and Mexico established the Rio Grande and the Colorado rivers as a natural border between the two countries through a combination of treaties in the late 19th century. The two countries established the International Boundary Commission in 1889, now known as the International Boundary and Water Commission (IBWC), to administer the rules associated with governing the two rivers. The IBWC prepared studies that were used by the United States and Mexico to develop the international treaties that determine how the waters of the Colorado and Rio Grande rivers are shared.¹⁸ Today, the IBWC provides binational support and facilitates resolution of issues concerning water quantity, sanitation, water quality, flood control, and boundary demarcation. This section will discuss the two treaties that impact Colorado.

Equitable Distribution of the Waters of the Rio Grande. The May 21, 1906, Convention between the United States and Mexico determined the equitable distribution of the waters of the Rio Grande for irrigation and to remove cause for controversy between the two countries over the river. The treaty allocated waters of the Rio Grande from El Paso to Fort Quitman, Texas. Except in times of extraordinary drought, Mexico is entitled to 60,000 acre-feet of the waters that must be delivered according to a set monthly schedule as outlined in the Convention.¹⁹

¹⁶Revised Pot Creek Memorandum of Understanding and Agreement.

https://www.waterrights.utah.gov/wrinfo/policy/compacts/pot_creek.pdf, last accessed on May 25, 2022.

¹⁷Addendum to Sand Creek Memorandum of Agreement and Correction of Clerical Errors.

https://dnrweblink.state.co.us/dwr/0/edoc/3405385/DWR_3405385.pdf?searchid=363b896d-d047-477b-8def-f9c720786a10, last accessed on May 25, 2022.

¹⁸ History of the International Boundary and Water Commission, https://www.ibwc.gov/About_Us/history.html, last accessed July 26, 2022.

¹⁹ Convention between the United States and Mexico Equitable Distribution of the Waters of the Rio Grande, <https://www.ibwc.gov/Files/1906Conv.pdf>, last accessed July 26, 2022.

Water Treaty of 1944. The Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande Treaty between the United States and Mexico determined the extent of Mexico's right to waters of the Colorado River and the Rio Grande. The treaty guarantees 1.5 MAF of Colorado River water to Mexico. In any instance where the river does not have adequate flow to meet this obligation, the Upper and Lower Colorado River Basins must share in efforts to make up for deficiencies. The treaty also addresses Mexico's right to Rio Grande water from Fort Quitman to the Gulf of Mexico.²⁰

²⁰ Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande Treaty between the United States and Mexico. <https://www.ibwc.gov/Files/1944Treaty.pdf>.

Appendix A

**Table 1
Technical Components of Colorado’s Interstate Compacts**

Compact	Year Finalized	Signatory States	Major Purposes	Major Provisions
Colorado River Compact ²¹	1922	Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming	Equitable division of the waters of the Colorado River System	Divides the Colorado River Basin into the Lower Basin (California, Arizona, Nevada) and Upper Basin (Colorado, Utah, New Mexico, & Wyoming) at Lee Ferry, Arizona.
			Establish relative importance of the different beneficial uses	Allocates 75 million acre feet to each basin.
			Promote interstate comity	Allows Lower Basin to increase its consumptive use by 1 MAF per year.
			Remove causes of present and future controversy	Subordinates navigation use to domestic, agriculture, and power purposes.
			Secure the expeditious agricultural and industrial development of the basin	Subordinates power use to domestic and agricultural purposes.
La Plata River Compact ²²	1922	Colorado and New Mexico	Equitable distribution of waters of the La Plata River	Requires Colorado to own and operate two gauging stations on the river; one at Hesperus and one at the state line (both gauges are to be operated February 15 to December 1).
			Remove causes for present and future controversy	Allows each state to have unrestricted use of water between December 1 and February 15.
			Promote interstate comity	Does not allow for New Mexico to receive any water not necessary for beneficial use within the state.

²¹Section 37-61-101, C.R.S

²²Section 37-63-101, C.R.S.

Table 1
Technical Components of Colorado's Interstate Compacts (Cont.)

Compact	Year Finalized	Signatory States	Major Purposes	Major Provisions
South Platte River Compact ²³	1923	Colorado and Nebraska	Remove causes for present and future controversy	Divides the river into the "Upper Section" and "Lower Section."
			Promote interstate comity	<p>Allows Colorado to have the right to full and uninterrupted use of all the waters in the "Lower Section" during the period of October 15 to April 1, except that should Nebraska construct the South Divide Canal with a heading near Ovid, Colorado, then that canal will bear an appropriation date of December 17, 1921, and Colorado shall have full use of the waters in the "Lower Section" plus 35,000 acre-feet, less the amount diverted by the South Divide Canal under its appropriation date during the period October 15 to April 1.</p> <p>Disallows Colorado from permitting diversions between April 1 and October 15, from the "Lower Section" by Colorado appropriators whose decrees are junior to June 14, 1897, or on any day when the interstate station shows a mean flow less than 120 cubic feet per second (cfs).</p> <p>Requires Colorado to waive any objection it may have to the diversion of waters in Colorado for use in Nebraska through the Peterson Canal or other canals in the Julesburg Irrigation District.</p> <p>Allows for minor irregularities in the delivery of water to be disregarded.</p>

²³Section 37-65-101, C.R.S.

Table 1
Technical Components of Colorado's Interstate Compacts (Cont.)

Compact	Year Finalized	Signatory States	Major Purposes	Major Provisions
Rio Grande River Compact ²⁴	1938	Colorado, New Mexico, and Texas	To remove all cause of present and future controversy between the states concerning the waters of the Rio Grande above Ft. Quitman, Texas	Obligates Colorado to deliver at Lobatos the amounts set forth in the delivery schedules for the Conejos River and the Rio Grande less 10,000 acre-feet. The Conejos Index Supply includes the San Antonio River and Los Pinos River flows for the months April through October. These schedules require zero delivery for an index of 100,000 acre-feet, up to 68% delivery for an index of 700,000 acre-feet on the Conejos; and 30% delivery for an index of 200,000 acre-feet, and up to 60% delivery for an index of 1,400,000 acre-feet on the Rio Grande.
			To promote interstate comity	Creates delivery credits and debits computed on the basis of each calendar year. Colorado's annual or accrued debit shall not exceed 100,000 acre-feet except as either or both may be caused by holdover storage in reservoirs constructed after 1937.
			To effect an equitable apportionment of the waters of the Rio Grande above Ft. Quitman, Texas	<p>Allows Colorado to retain water in storage at all times to the extent of its accrued debit when possible.</p> <p>Allows for accrued credits to be reduced in proportion to the amount of credit held by Colorado and New Mexico when an actual spill occurs, and both states do not have a delivery obligation. In any year in which there is actual spill of usable water, all accrued debits are canceled.</p> <p>Reduces debits in any year that accrued debits exceed the minimum unfilled capacity of project storage, proportionally to an aggregate amount equal to the minimum unfilled capacity.</p> <p>Disallows an increase in storage in reservoirs constructed after 1929 whenever there is less than 400,000 acre-feet of usable water in project storage.</p> <p>Allows for the Compact Commissioner for Texas or New Mexico to demand the release of water from reservoirs constructed after 1929 to the amount of the accrued debit of Colorado and/or New Mexico during January of any year.</p> <p>Does not allow the schedules of delivery in the compact to be changed as a result of an increase or decrease in the delivery of water to Mexico.</p>

²⁴Section 37-66-101, C.R.S.

**Table 1
Technical Components of Colorado's Interstate Compacts (Cont.)**

Compact	Year Finalized	Signatory States	Major Purposes	Major Provisions
Republican River Compact ²⁵	1942	Colorado, Kansas, and Nebraska	Provide for most efficient use of water for multiple purposes	Bases the allocation of waters on a computation of average, annual virgin water supply in the respective streams.
			Remove all present and future controversy	Allocates Colorado the beneficial use of the entire supply of Frenchman Creek and Red Willow Creek on an annual basis and restricts it to the following: <ul style="list-style-type: none"> • North Fork: 10,000 acre feet; • Arikaree River: 15,400 acre feet; • South Fork: 25,400 acre feet; and • Beaver Creek: 3,300 acre feet.
			Promote interstate comity	Makes provisions for the readjustment of historical, annual virgin flows should they vary more than 10% from those set forth in the compact. Reallocations can be made on these readjusted flows.
			Recognize that the most efficient utilization of waters in the basin is for beneficial consumptive use	Allocates 190,300 acre feet of beneficial consumptive use to Kansas and 234,500 acre feet to Nebraska on an annual basis.
			Promote joint action between the U.S. and the states in the efficient use of water and in the control of floods	

²⁵Section 37-67-101, C.R.S.

**Table 1
Technical Components of Colorado's Interstate Compacts (Cont.)**

Compact	Year Finalized	Signatory States	Major Purposes	Major Provisions
Costilla Creek Compact ²⁶	1944, amended 1963	Colorado and New Mexico	Equitable division of the waters of Costilla Creek	Provides for the calculation of a safe yield prior to delivery of water each year.
			Remove present and future causes of interstate controversy	Defines the irrigation season as May 16 - September 30 and the storage season October 1 - May 15.
			Assure the most efficient utilization of water	Establishes a duty of water of one cubic-foot per second for each 80 acres of land irrigated.
			Provide for integrated operation of existing and prospective irrigation facilities in the two states	Required the relinquishment of pre-compact storage and diversion water rights from Costilla Creek.
			Adjust conflicting jurisdictions of the two states over irrigation works diverting and storing water in one state for use in both states	Requires specific deliveries to Colorado from Costilla Creek.
			Equalize benefits of water from Costilla Creek	Allocates a certain percent of storage from the Costilla Reservoir to Colorado (36.5%) and New Mexico (63.5%).
			Place the beneficial application of water on an equal basis in both states	Establishes schedules of delivery to each state based on water available.
				Prohibits direct flow diversions during the storage season

²⁶Section 37-68-101, C.R.S.

**Table 1
Technical Components of Colorado's Interstate Compacts (Cont.)**

Compact	Year Finalized	Signatory States	Major Purposes	Major Provisions
Upper Colorado River Basin Compact ²⁷	1948	Colorado, New Mexico, Utah, Wyoming, and Arizona	Provide for the equitable division of the waters of the Upper Basin allocated by the terms of the Colorado River Compact	Apportions of waters of the Upper Basin as follows by giving Arizona 50,000 acre feet per year and dividing the remaining apportionment as follows: <ul style="list-style-type: none"> • Colorado 51.75%; • New Mexico 11.25%; • Utah 23.00%; and • Wyoming 14.00%.
			Establish the obligations of each state of the Upper Basin with respect to required deliveries at Lee Ferry, as set forth in the Colorado River Compact	Bases the apportionment upon the allocation of man-made depletions, and establishes beneficial use as the basis, the measure, and the limit of the right to use.
			Promote interstate comity	Recognizes the provisions of the La Plata River Compact, and consumptive use of water as it shall be charged to the respective states under Article III of the compact.
			Remove causes of present and future controversies	Determines the extent of curtailment by each state if a call is placed at Lee Ferry by the Lower Basin; the extent and times of curtailment must assure compliance with Article III of the compact.
			Secure the expeditious agricultural and industrial development of the Upper Basin	If any state exceeds its call in the 10-year period, it shall make up that overdraft before demand is placed on any other state.
				Proportions curtailment among the states in the same ratio as beneficial use of waters occurred during the preceding year (rights that predate November 24, 1922 are excluded).
				Apportions the waters of the Yampa River between Colorado and Utah, requiring Colorado to ensure that the flow of the Yampa at Maybell must not fall below 5 MAF for any consecutive 10-year period.
	Apportions the waters of the San Juan River system between Colorado and New Mexico in such a way that Colorado agrees to deliver enough water in the San Juan and its tributaries to meet New Mexico's entitlement under Article III considering the water that originates within New Mexico.			

²⁷Section 37-62-101, C.R.S.

**Table 1
Technical Components of Colorado's Interstate Compacts (Cont.)**

Compact	Year Finalized	Signatory States	Major Purposes	Major Provisions
Arkansas River Compact ²⁸	1948	Colorado and Kansas	Settle existing and future controversy between the states concerning the utilization of the waters of the Arkansas River	Requires the conservation pool at John Martin Reservoir to be operated for the benefit of water users in Colorado and Kansas, both upstream and downstream from the dam.
			Equitably divide and apportion the waters of the Arkansas River between Colorado and Kansas as well as the benefits which arise from the construction of John Martin Reservoir	States that the compact does not intend to impede development of the Arkansas Basin in either state provided that the waters of the Arkansas River shall not be materially depleted in usable quantity or availability.
				Requires releases of stored water to be made upon concurrent or separate demands by Colorado or Kansas at any time during the summer storage period. Limitations imposed are: <ul style="list-style-type: none"> • separate releases by Colorado shall not exceed 750 cfs and separate releases by Kansas shall not exceed 500 cfs, unless specifically authorized by the Compact Administration; • concurrent releases shall not exceed 1250 cfs; and • releases to Kansas shall not exceed 400 cfs and concurrent releases shall not exceed 1000 cfs when water stored in the conservation pool is less than 20,000 acre-feet.
				Requires Colorado users above the dam not be affected by priorities located below John Martin Reservoir when water is available in the conservation pool.
				Approves the 1980 Operating Plan, which modifies Article V by establishing separate volumetric accounts for each state that can be released from John Martin Reservoir when directed by each state. The Colorado account is 60% and the Kansas account is 40% of any water stored pursuant to the compact.

²⁸Section 37-69-101, *et seq.*, C.R.S.

Table 1
Technical Components of Colorado's Interstate Compacts (Cont.)

Compact	Year Finalized	Signatory States	Major Purposes	Major Provisions
Animas-La Plata Project Compact ²⁹	1968	Colorado and New Mexico	Implement the operation of the Animas-La Plata Reclamation Project Promote interstate comity	Provides New Mexico with the right to divert and store water from the La Plata and Animas River systems under the project with the same validity and equal priority as those rights granted by Colorado courts for Colorado users of project water, providing such uses are within New Mexico's allocation in the Upper Colorado River Compact.

²⁹ Section 37-64-101, C.R.S.

Table 2
Technical Components of Colorado’s Supreme Court Decrees

Decree	Year Finalized	Major Provisions affecting Colorado
Nebraska v. Wyoming and Colorado ³⁰	1945 (amended in 1953 and 2001)	<p>Colorado is not permitted to do any of the following on the North Platte River or its tributaries:</p> <ol style="list-style-type: none"> 1) irrigate more than 145,000 acres of land during any irrigation season; 2) store or permit the storage of more than 17,000 ac-ft of water for irrigation in Jackson County from October 1 – September 30; and 3) export more than 60,000 ac-ft of water in any consecutive ten-year period to any other stream basin or basins.
Wyoming v. Colorado ³¹	1957	<p>Colorado has the right to divert 49,375 ac-ft of water from the Laramie River in each calendar year.</p> <hr/> <p>Colorado is not permitted to do any of the following on the Laramie River and its tributaries:</p> <ol style="list-style-type: none"> 1) divert or permit the diversion of more than 19,875 ac-ft of water in any calendar year for use outside of the river basin; and 2) divert or permit the diversion of more than 29,500 ac-ft of water in any calendar year for use within the drainage basin (no more than 1,800 ac-ft can be diverted after July 31).

³⁰ Nebraska v. Wyoming, 325 U.S. 589 - <https://dnrweblink.state.co.us/cwcb/0/edoc/203440/North-Platte-River-Settlement-Decree.pdf?searchid=c1c709df-090e-4e6d-8691-a34c4af88ae2>

³¹ Wyoming v. Colorado, 353 U.S. 953 - <https://dnrweblink.state.co.us/cwcb/0/edoc/209438/1957WyomingVCO.pdf>

Table 3
Technical Components of Colorado's Water Memoranda

Memorandum	Signatory States	Year Finalized	Major Provisions
Pot Creek Memorandum of Understanding	Colorado and Utah	1958 (amended 2005)	Colorado covers 20% of the cost of the water commissioner and Utah covers 80%. Neither state can exercise direct flow diversions before May 1 of each year.
Sand Creek Memorandum of Agreement	Colorado and Wyoming	1939 (amended 1997)	Colorado must deliver 40 cfs over a seven-day period at the beginning of the irrigation season, and 35 cfs after that period as long as it is needed by senior water rights holders in Wyoming.

Table 4
Technical Components of Colorado's International Water Treaties

Waters Affected	Signatory Countries	Year Finalized	Major Provisions Affecting Colorado
Rio Grande	United States and Mexico	1907	United States must deliver 60,000 ac-ft of water to Mexico annually at the International Dam at Ciudad Juarez (exceptions are made for periods of extraordinary drought).
Rio Grande, Colorado, and Tijuana Rivers	United States and Mexico	1944	United States must deliver 1.5 MAF of water from the Colorado River each year. Upper and Lower Colorado River Basins must share the obligation to make up for any deficiencies if the river does not have enough flow to meet obligations. Establishes the International Boundary and Water Commission.