

WANT TO LEARN MORE?

Water Diversions in Colorado Today

Transbasin diversions

Since settlement times, Coloradans have been diverting water from streams and rivers—removing it to be used somewhere else. Many diversions move water from one river basin into another basin. That's called a “transbasin” diversion. How many transbasin diversions exist in Colorado today?

Forty-four transbasin diversions (tunnels, ditches and projects—small to huge) move more than 39 trillion gallons of water every year (average annual figures).

Most of these diversions (35) are also “transmountain” diversions—meaning they move water across the Continental Divide from the West Slope into East Slope river basins. Colorado's diversion projects provide water for agricultural, municipal/residential and industrial uses.

Colorado River Compact

The Colorado River has its origins in Colorado, but all of its water does not “belong” to this state. The iconic river flows 1,450 miles, and its drainage basin covers parts of seven states (including all of Arizona). It supplies water to more than 30 million people!

A compact (legal agreement) from 1922 apportions the Colorado River's water among the seven watershed states:

- Upper Basin: Wyoming, Colorado, Utah, New Mexico
- Lower Basin: California, Arizona, Nevada

The Upper Basin states are required to deliver a minimum amount of water to Lees Ferry, Arizona, for use by the Lower Basin states. If that amount falls below 75 million acre-feet for any consecutive 10-year period, the Lower Basin states have the right to “make a call” on the river. That means that Upper Basin states (including Colorado) would have to cut back on their water use to meet obligations downstream.

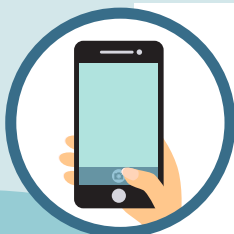
A “compact call” has never happened, but its likelihood is growing—and would leave many upstream water suppliers and users scrambling to find other sources. Or, face dry taps and possible lawsuits.

Leaving water in streams—not a legal right before the 1970s

Imagine this: Up until 1973, there was no mechanism within Colorado's water rights system to keep water in a stream for ecological benefits. Dry reaches of streams were a common sight.

Increased public awareness and activism in the 1960s and 1970s resulted in landmark legislation at the federal level (e.g., National Environmental Policy Act, Clean Water Act, Wild and Scenic Rivers Act). The Colorado state legislature passed the **Instream Flow Program** in 1973, which included a mandate to “correlate the activities of mankind with some reasonable preservation of the natural environment.”

The Colorado Water Conservation Board is the entity that can legally designate, acquire and hold water rights for instream flow. These rights exist alongside water rights for consumptive use (but are generally junior to them).



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Colorado = headwaters state

Each year, an average of 13.7 million acre-feet of streamflow originates in Colorado via precipitation (mostly snowfall). Over 60% of this water flows out of the state to meet legal obligations with other states and countries (Mexico).

The right to use Colorado's water goes well beyond this state through official agreements:

- Interstate compacts: 9 (including the Colorado River Compact)
- Supreme Court equitable apportionment decrees: 2
- Memoranda of understandings/agreements: 2
- International treaties: 2 (with Mexico, related to the Colorado River and Rio Grande)

Did you know? No rivers flow into Colorado. But more than 150 named creeks and rivers originate here!

Diverting water up high saves money, but hurts rivers

Taking water from high-mountain streams means it can run downhill longer, avoiding the need for expensive pumping stations. The result? Savings for water providers and consumers. But what's the result for rivers?

Water in high-mountain streams is just-melted snow. It's cooold! When this water gets diverted, rivers receive less cold water ... so rivers like the Fraser run warmer than they should. That's bad news for cold-water trout (and the bugs they feed on).

Saving water in the agricultural sector

Today, farmers and ranchers across the state are engaged in pioneering practices for greater water efficiencies and savings—despite a host of real conditions that make this challenging: economics, our water law system, and the over-appropriation of many rivers, to name a few. Despite these obstacles, dedicated individuals and agencies continue to seek novel, equitable solutions that result in water available for other uses.

Why is this so important? More than 80% of the water diverted in Colorado gets used for agriculture.

Note: The Fraser River water that's moved to the East Slope through the Moffat Tunnel is not diverted for agricultural use.

SOURCES

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3. "Colorado River Water Managers Can Imagine The Future And It Doesn't Look Pretty" by Luke Runyon (June 25, 2018): <https://www.kunc.org/post/colorado-river-water-managers-can-imagine-future-and-it-doesn-t-look-pretty#stream/0>
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