Report puts numbers on massive gap in water costs in the West

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A new UCLA–NRDC report finds cities pay far more for water than agricultural districts, even as climate change exacerbates shortages across the Lower Colorado River Basin

As the Colorado River's reservoirs dry up and competition for water intensifies, a new report from UCLA and the Natural Resources Defense Council shows massive disparities in who pays for water across the Colorado River and Sierra Nevada systems.

The analysis reveals that numerous water districts in the three states making up the Lower Colorado River Basin, Arizona, California and Nevada, pay little to nothing for wholesale water supplies, with major agriculture users paying only a fraction — often zero — of what cities pay for the same water. Researchers say those prices weaken incentives to conserve, accelerate existing shortages and have pushed the Colorado River system to its lowest storage levels in decades.

“In the middle of a historic drought, the biggest water users in the West pay next to nothing while our water resources disappear at alarming rates,” said Noah Garrison, a water researcher at UCLA’s Institute of the Environment and Sustainability and an author of the report. “We can’t address the growing water scarcity in the West while we continue to give that water away for free or close to it. Without action, we risk depleting this essential resource beyond recovery.”

The study analyzed surface water prices at the wholesale level in the lower basin states, and reached three main conclusions:

- Water obtained through federal projects is dramatically cheaper than water obtained from state infrastructure or other suppliers. For example, water provided by the Bureau of Reclamation from the Colorado River is supplied at a weighted average price of $0.12 per acre-foot, compared with $853.15 per acre-foot for water acquired from other, non-state or non-federal sources.
- Agricultural districts pay far less than municipal utilities for the same volume of water. The weighted average wholesale price for districts that primarily provide agricultural supply is $30.32 per acre-foot, compared with $512.01 per acre-foot for primarily municipal utilities or providers.
- Californians, on average, pay the most for their water,

though several major exceptions in the state receive enormous volumes of free water. Due to higher conveyance and delivery costs, Californians pay more than double what Nevadans pay and seven times more than Arizonans for the same water, with California cities, particularly in coastal areas, by far paying the most for water.

The researchers emphasize that even these costs paid by districts and utilities, which remain relatively inexpensive given the growing scale of water scarcity, typically reflect only the cost for delivery of the water. The actual water itself, particularly when provided by the federal government, is free or nearly free.

The Colorado River Basin stretches across seven U.S. states, from Wyoming to Southern California and into northern Mexico. The river's water sustains some of the largest and fastest growing metropolitan areas in the nation, including Los Angeles and Las Vegas, as well as more than 5 million acres of farmland and a trillion-dollar economy.

The basin's water demands have shifted dramatically in recent decades. More than 40 million people now depend on Colorado River water for some portion of their water supply, a population that has more than doubled since the 1950s.

Decades of drought, record heat and groundwater loss have

sapped river flows — down about 13% compared with the previous seven decades, with numerous studies showing long-term declines in runoff. “Climate change is projected to further reduce river flows, increasing uncertainty for water managers and placing additional strain on already stressed water systems,” the researchers wrote in the study, which was published Thursday.

To help stabilize a system under mounting climate stress, the report recommends adding a Water Reliability and Security Charge on all federal deliveries of water from the Colorado River and California’s Central Valley Project. According to the analysis, a $50 to $100 per acre-foot surcharge would encourage more efficient use — particularly among large agricultural districts — and generate up to $750 million annually for each system.

“A small surcharge now means huge savings down the line,” said Isabel Friedman, senior advocacy associate at NRDC and an author of the report. “It provides the funding needed to fix broken and inefficient infrastructure and build resilience into our water supply systems. The water itself may be free but moving it isn’t, and fixing the system will save the public money over time.”

Revenue from the charge could be used to repair aging canals, address subsidence-damaged infrastructure, reduce leaks and evaporation, modernize irrigation systems, and

expand stormwater capture and water recycling. These steps, the authors note, would help safeguard the Colorado River as an essential source of water for the Western region while lowering long-term costs for both cities and farms.

The report also calls for a centralized, publicly accessible water database tracking wholesale water prices, volumes and rights. Greater transparency, the authors argue, would allow states and water managers to build more accurate water budgets, prioritize investments and make better-informed decisions as climate pressures intensify.

"The Colorado River system is heading to catastrophe and resilient management of the River requires the elimination of all wasteful and unreasonable use of shrinking supplies. When water supplies are essentially free, there are few incentives to use water sustainably," said co-author Mark Gold, director of Water Scarcity Solutions at NRDC and a UCLA adjunct professor.

The proposals arrive as the Colorado River approaches a major policy transition. The U.S. Bureau of Reclamation is preparing to negotiate new post-2026 operating rules — the framework that will determine how water shortages are allocated across the basin for decades to come. For more than two years, the seven basin states have been deadlocked over how to divide future cuts as the river's flows decline.

“The reforms proposed in the report offer a path to stabilize the water collection and distribution system while improving equity and efficiency across states and sectors,” Gold said.

The report, Free Water While It Lasts: An Analysis of Wholesale Water Pricing in the Lower Colorado River Basin States, is available online here.

Institute of Environment and Sustainability