

## Adapting Colorado’s Water Systems for a 21<sup>st</sup> Century Economy and Water Supply

November 2022

**Read the Full Report Here!**



**The Terry J. Stevinson Fellowship was established in honor of Terry J. Stevinson, a founding board member of CSI and champion of free enterprise. The fellowship is awarded annually to two individuals, with different backgrounds and perspectives, to research a critical public policy issue facing Colorado while also presenting achievable solutions. This year, the fellowship research topic selected was Water & Growth in Colorado.**



### 2022 Terry J. Stevinson Fellows



#### Jennifer Gimbel

Jennifer Gimbel is a Senior Water Policy Scholar at the Colorado Water Center. Jennifer has experience in law and policy on national, interstate and state water issues. Jennifer was the Director of the Colorado Water Conservation Board and worked for the Attorney General’s Offices in Wyoming and Colorado. Jennifer was named the 2022 Aspinall Water Leader of the Year by the Colorado Water Congress.



#### Eric Kuhn

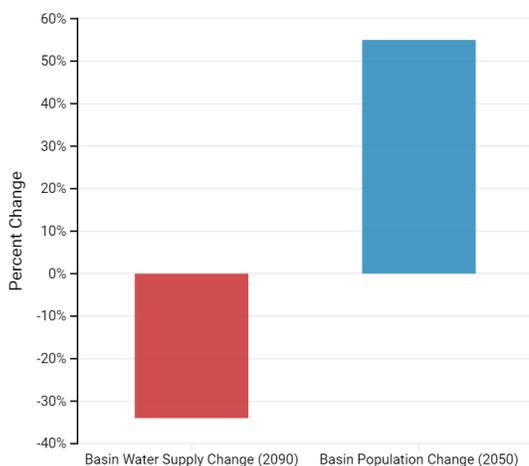
Eric Kuhn is the retired General Manager of the Colorado River Water Conservation District and co-author with John Fleck of *Science Be Dammed: How Ignoring Inconvenient Science Drained the Colorado River*, University of Arizona Press, 2019. In addition to *Science Be Dammed*, a book about Colorado River hydrology and politics, Eric has authored or coauthored numerous other articles and papers about the Colorado River.

Water has always been integral to the state’s prosperity, environment, and the quality of life of its residents. Coloradans know that water is one of the foundations of our unique mix of economic drivers: outdoor recreation, agriculture, high-tech industries and thriving cities.

### The Increasing Competition for Water Means We Will Have to Do More with Less

#### Outlook for Colorado’s Most Populated River Basin

The South Platte River basin is home to over 3.8 million Coloradans. It faces both significant population growth, and likely declines in water supply.



Source: Department of Homeland Security, Colorado State Water Plan

Driven by migration from other states, Colorado is expected to continue to grow at a significant rate, particularly along the Front Range, the I-70 corridor and in Southwestern Colorado. By 2050, Colorado’s population is expected to grow to 7.5 million; an increase of 1.7 million people.

At the same time, there is significant pressure on our water supply from climate change and resulting aridification. Colorado’s climate is getting hotter and drier, with longer and more severe droughts interrupted by periods of wetter and more severe storms.

The projections for Colorado’s most populated river basin, the South Platte which covers metro Denver,

bear this out. While water flows are projected to decrease by 34% by 2090, the State Water Plan projects the population could increase by 55% by 2050 under business as usual.

Already, reliable and affordable water service to homes has become a major expense that impacts the cost of housing. This cost is anticipated to escalate and become a driving factor in the housing market and rates of home ownership, particularly in workforce housing and for first-time homebuyers.

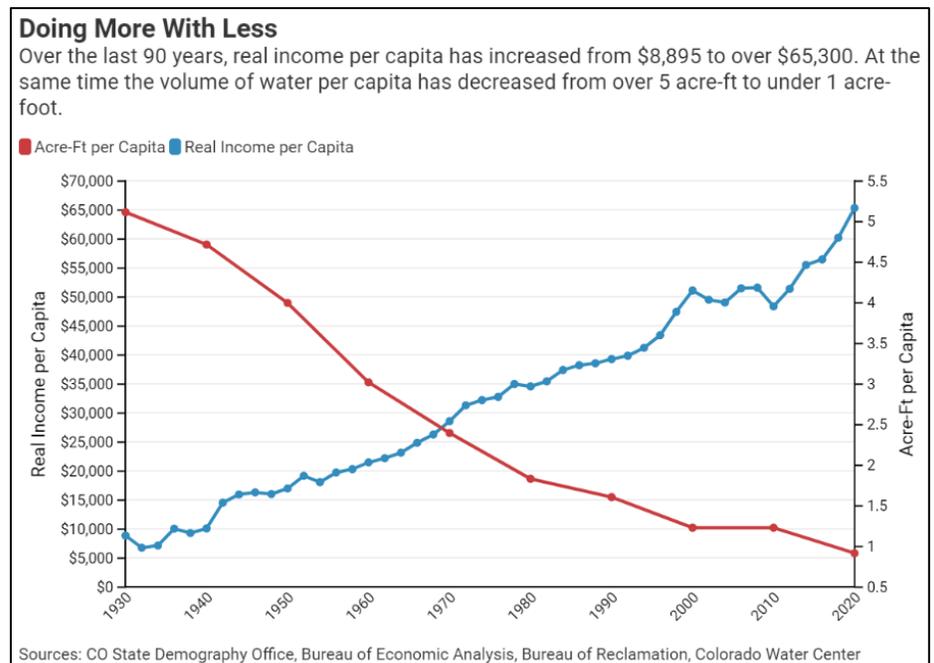
**While existing laws, compacts, and decrees present some structural barriers, collaborative actions can lead to needed adaptations for the 21<sup>st</sup> century.**

The stakes are high. 2019 analysis from the state of Colorado estimated the impacts of not meeting future water needs will ultimately cost the state between 355,000 and 587,000 jobs and reduce state and local tax revenue by between \$3.4 billion and \$6 billion by 2050.

Action is needed from the federal, state and local governments, along with businesses, municipal water providers, and private

citizens. **In the end, the solutions will come from regional collaborations and addressing existing barriers that prevent needed system changes.** Doing more with less is possible, as our state has proven. As shown in the figure, real income per capita has increased over the past 90 years, even as the volume of water per capita has decreased.

Between 1985 and 2015 the metro counties' population increased 71.2% while the rest of Colorado grew by 63.6%. At the same time, metro counties water usage increased 13.1% while the rest of Colorado counties water usage grew by 19.8%.



The full report details both statewide, and basin-specific recommendations that are meant to educate, inform, and empower citizens about what needs to be done. They should also serve as a tool to hold policymakers accountable for future water policy actions.

**The following six statewide collaborative calls to action should be front of mind for anyone interested in knowing what can be done.**

## Call for Collaborative Action

- 1. Colorado will have to do more with less** - Incentivize regional collaboration and reduce the competition for water.
  - Establish regional water authorities for the South Platte and Arkansas River Basins through collaboration with existing water authorities.
  - Fully fund the state water plan through federal, state, local and private funding.
- 2. The cost of water along the Front Range is going up at an exponential rate** - Increase demand management programs to reduce the need for acquiring additional water supplies.
  - Implement statewide or regional standards for turf management.
  - Incentivize sharing of surplus supplies among neighboring cities.
- 3. A large portion of our state's share of Colorado River supplies, including those used for transbasin diversions, are at risk** - The state must act to secure existing supplies and be prepared to use less from the river in the future.
  - Pursue intra and interstate strategies to increase reliability of Colorado River supplies.
  - Consider programs to retire marginally productive irrigated lands.
- 4. Preserving agricultural water supplies is becoming more challenging and yet more critical to the state's diversified economy** – Action is needed to prioritize long-term water supplies for agriculture.
  - Prioritize regional solutions that are set up to meet municipal uses while preserving agricultural supplies.
  - Increase financial assistance to farmers to invest in water saving technologies, thereby reducing water demands without impairing economic return.
- 5. Climate change is impacting more than just the supply of water** – Action is needed to increase resiliency of critical watersheds, aquatic habitats and the recreation industry.
  - Increase resources for forest and watershed management.
  - Increase project capacity to maintain flow levels for water recreation and environmental purposes.
- 6. Colorado's rivers are part of a much larger interconnected system** - Colorado must be a leader in the development of innovative cooperative projects both within Colorado and with its neighboring states.
  - That state and water leaders should be more open to allowing greater flexibility within the law to open the door for innovative projects.
  - Increase state investment in human capital to represent the state on intra and interstate water matters, and water related research.