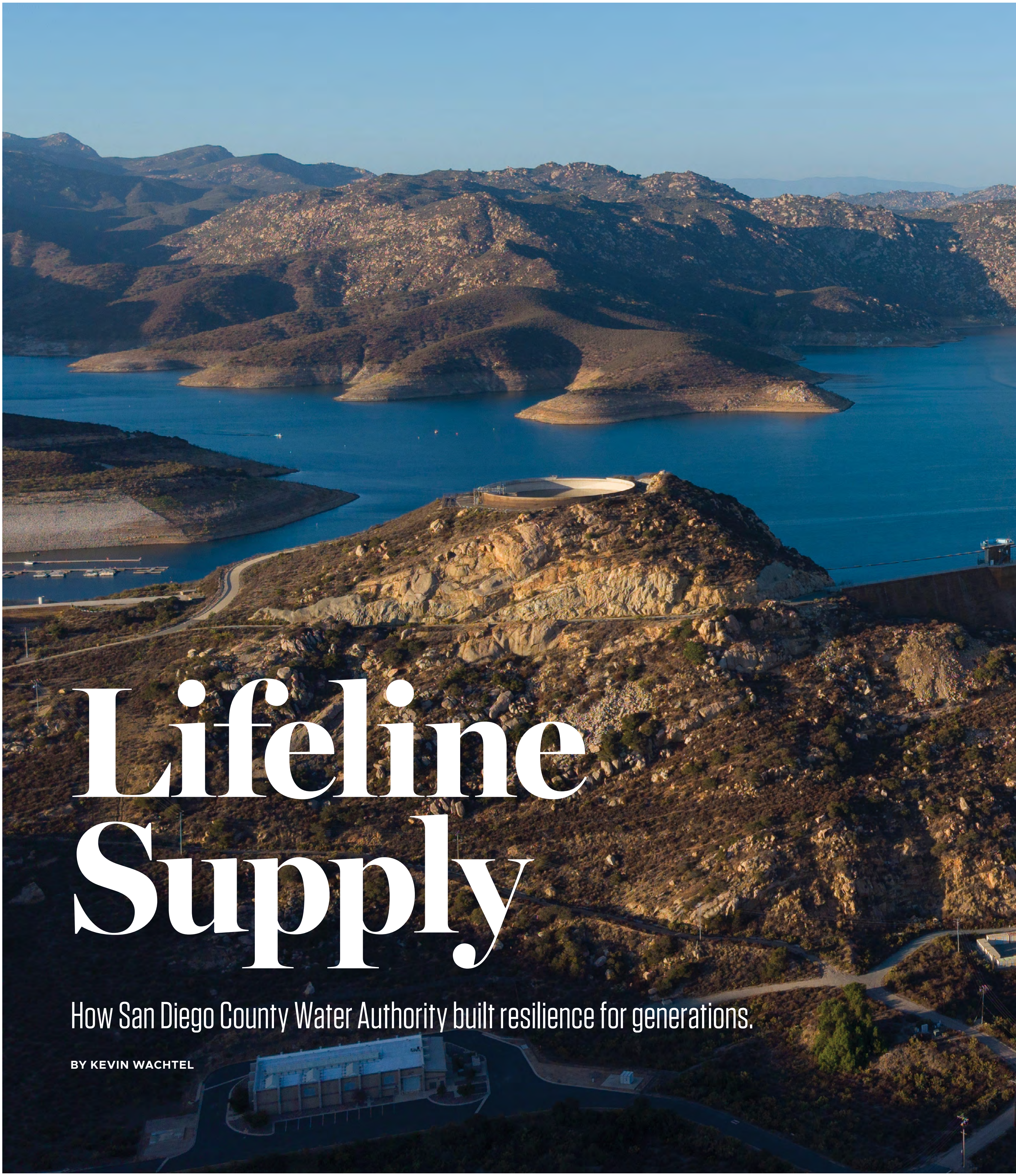
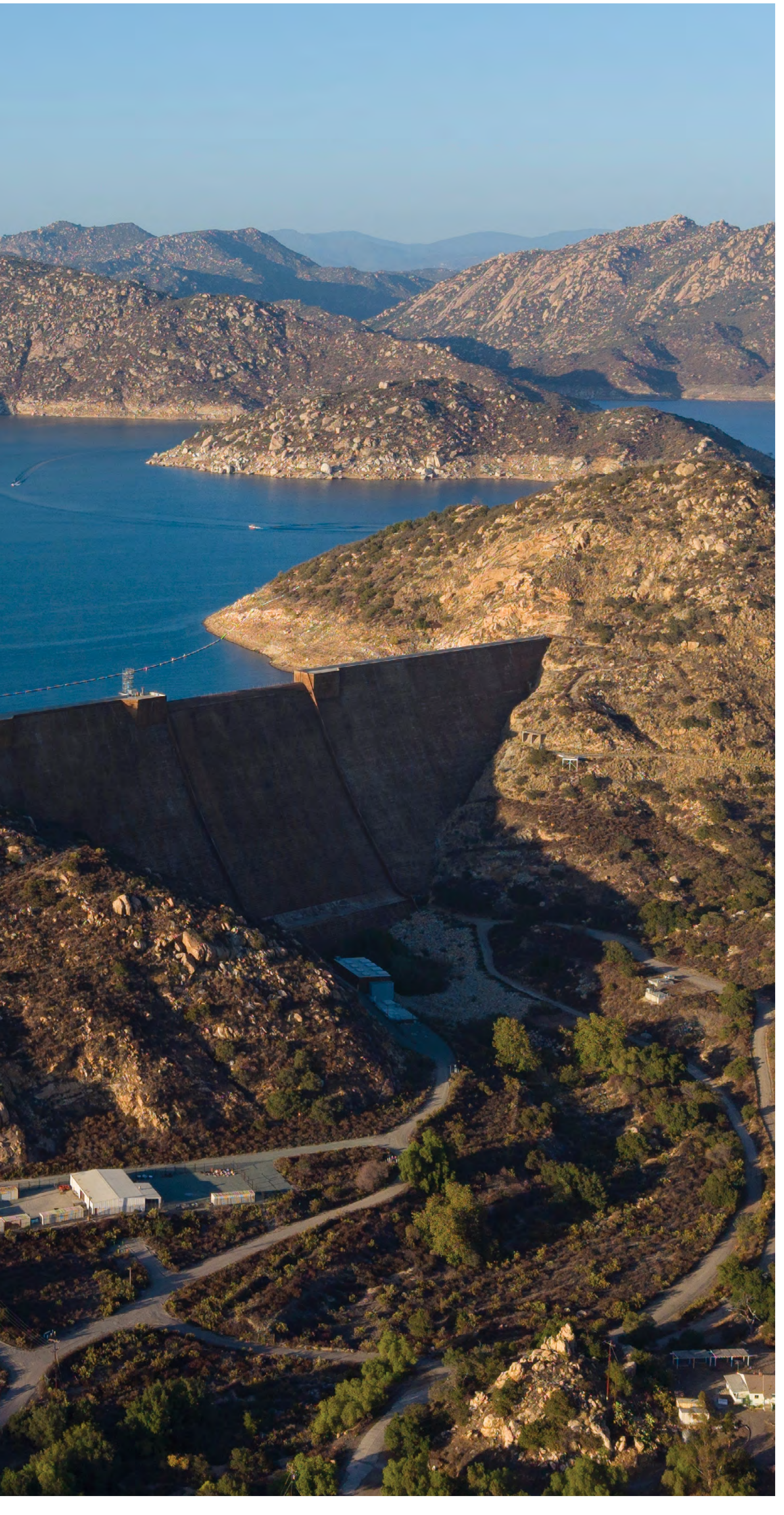


Lifeline Supply

How San Diego County Water Authority built resilience for generations.

BY KEVIN WACHTEL



In the early 1990s, a multi-year drought exposed a critical vulnerability in San Diego County's water supply. At the time, the region relied heavily on imported water from one supplier, and drastic cutbacks for more than a year made the risks of that approach obvious.

For a growing region with a strong agricultural sector and expanding economy, the drought-induced supply reductions became a turning point that eventually produced one of the most comprehensive water reliability strategies in the Western United States. Three decades later, $3 billion in regional investments in diversification and resilience continue to pay dividends in new ways—by driving revenues to San Diego County and providing much-needed water to other communities.

Today, the San Diego County Water Authority provides a safe and reliable water supply to 22 member agencies, including cities, water districts, irrigation districts, municipal water districts, and a large military base. In total, the authority's planning documents show it is well-positioned to support 3.3 million residents and a $267 billion regional economy through the 25-year planning horizon and beyond.

REGIONAL RESILIENCE

At left, San Vicente Dam and Reservoir play a key role in the San Diego County Water Authority's strategy to safeguard the region's water future—expanding local storage to weather droughts and ensure a resilient supply.

Crisis reshapes San Diego

The San Diego County Water Authority was created in 1944 to administer the region's Colorado River water rights and coordinate water deliveries across San Diego County. Over the following decades, imported water fueled economic growth, population expansion, and military development throughout the region.

But by the late 1980s, the situation was increasingly grim. Approximately 95 percent of San Diego County's water supply came from a single imported-water supplier, and one of California's periodic droughts shrank supplies. As the City of San Diego's water deliveries shriveled, the region's economy took a big hit and generated an iron-clad commitment by community leaders: Never again!

"That multi-year drought underscored the importance of sustaining a diversified and reliable water portfolio," said Lisa Marie Harris, finance director/treasurer for the San Diego County Water Authority. "It became clear that the San Diego region needed multiple sources of supply and greater flexibility to respond to changing conditions."

Over the next three decades, the authority and its member agencies pursued a strategy to improve water reliability through water storage, water transfer agreements, and supply diversification.

Conservation was also a cornerstone of the region's strategy—and water-use efficiency has remained an important component through wet years and dry years. One example: the San Diego County Water Authority sponsored state legislation—which later became a national standard—to require low-flow toilets. A suite of related water-efficiency efforts cut per-capita water use in half while supporting continued economic growth.

At the same time, the authority invested in emergency storage and infrastructure resiliency projects to ensure that water could be delivered during droughts, natural disasters, or other disruptions. Additional storage capacity and conveyance improvements strengthened the region's ability to withstand unforeseen challenges.

The City of San Diego also pursued long-term water transfer agreements and created new sources of supply. The completion of the Claude "Bud" Lewis Carlsbad Desalination Plant in 2015 marked a major milestone. As the largest seawater desalination plant in the nation, it provided a drought-resilient local supply capable of meeting approximately 10 percent of regional water demands. In addition, recycled water, local surface water, and member agencies' potable reuse projects created a resilient portfolio.

Together, these investments fundamentally transformed San Diego County from one of California's most water-challenged regions into one of its most diversified.

> "It became clear that the San Diego region needed multiple sources of supply and greater flexibility to respond to changing conditions."
>
> **LISA MARIE HARRIS, FINANCE DIRECTOR/TREASURER FOR THE WATER AUTHORITY**

LOCAL SOLUTION The Claude "Bud" Lewis Carlsbad Desalination Plant provides a drought-resilient local supply capable of meeting approximately 10 percent of regional water demands.

EXHIBIT 1 | San Diego County: 1990 vs. 2019

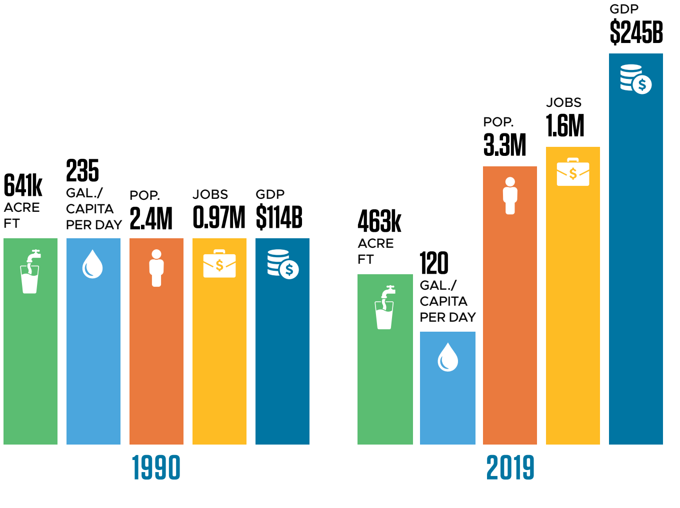


EXHIBIT 2 | Exchanges Create a Tool for Partnerships

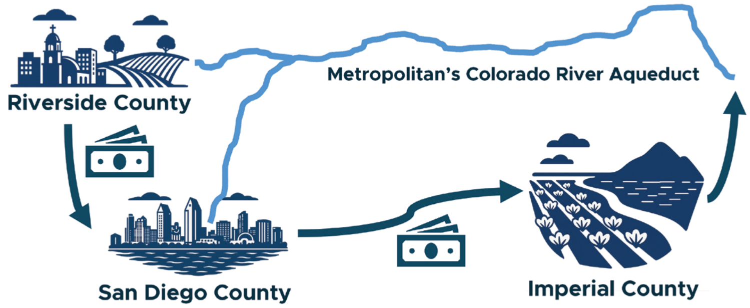


Image courtesy of the San Diego County Water Authority

New challenges emerge

Although these upgrades were highly beneficial for water security, they introduced financial challenges. Water deals created redundancy and reliability, but they also included "take or pay" provisions that required the authority to purchase minimum quantities each year, regardless of demand. Over time, that resulted in a mismatch between supply and demand, along with associated fiscal realities.

Higher fixed costs spread over fewer gallons sold, resulting in increased per-unit costs of water for wholesale customers—and those increases were passed on to residents and businesses. At the same time, it became clear that the San Diego County Water Authority had more water than it needed to meet demands, thanks to hard-wired conservation efforts, lower-than-projected population growth, and other factors.

By the early 2020s, the authority was at a crossroads: either find new sources of revenue or continue passing along rising costs that would place additional pressure on customers. The challenges spurred community-wide scrutiny that led to innovative water management strategies and immediately provided significant financial relief.

That strategy hinged on turning the authority's water security into an asset that could generate revenues to help pay for investments. To do that, the San Diego County Water Authority started by settling long-running litigation with one of its main water suppliers—the Metropolitan Water District of Southern California—in 2025. Settlement normalized relations with other water agencies across the region and opened the potential for creative partnerships.

In early 2026, the San Diego County Water Authority secured two 21-year agreements with the Eastern Municipal Water District and the and Western Municipal Water District in Riverside County, expanding opportunities to conduct water transfers and exchanges throughout Southern California. These agreements immediately helped the San Diego County Water Authority stabilize its budget, optimize the timing and use of stored water, and market excess water when it makes financial sense. Together, they are expected to generate $660 million in revenue over two decades.

The intrastate contracts also established the operational and contractual framework for interstate partnerships, demonstrating how existing infrastructure can be leveraged to improve flexibility across the Colorado River Basin. Building on this foundation, the San Diego County Water Authority signed a landmark memorandum of understanding (MOU) in June 2026 with the federal government and the Lower Colorado River Basin states to explore water exchanges with southern Nevada and Arizona.

At its core, the concept is simple: Agencies with available water supplies can make those supplies available to other agencies that have a need, while existing infrastructure is used to move water efficiently and participants retain their legal water rights. (See Exhibit 2.) A key principle of these agreements is that participating agencies retain their underlying water rights and the water exchanged would be supported by drought-resilient supplies such as desalinated seawater, recycled water, or other conserved supplies.

While details are being ironed out, the MOU paves the way for the first such water partnerships between states. And the effort could become a model for improving flexibility and efficiency in managing Colorado River water supplies across state lines.

For the San Diego County Water Authority, the strategic partnerships had other benefits as well: After reviewing the authority's financial and governance structure, the San Diego Local Agency Formation Commission (LAFCO) determined additional oversight was unnecessary. That decision gives the San Diego County Water Authority and other agencies time to navigate the complex regulatory and practical landscape of intrastate and interstate water management, as well as long-term regional governance and infrastructure planning.

The Balancing Act

Water Authority Finance Director Lisa Marie Harris offers advice for finance officers who may be balancing customer conservation, increasing rates, and other financial pressures:

1. **Look at your geography and economy—**who are potential partners?
2. **Understand the life cycle of other agencies—**what are their water and capital needs?
3. **Think outside the box—**you may be able to leverage existing infrastructure or capacity, which can save millions in capital outlay.

The San Diego County Water Authority's approach reflects a broader lesson for local governments: affordability, environmental sustainability, and infrastructure investment do not have to be competing priorities.

In the near term, these efforts will result in tangible cost savings as the San Diego County Water Authority prepares to issue $285 million in bonds to maintain existing infrastructure and assets. Further, LAFCO's decision, made by a body of civic leaders, validates the strategic business case for the authority's innovative water transfer partnerships for the San Diego region and the entire Colorado River basin.

Affordability, reliability, and stewardship

The San Diego County Water Authority's experience illustrates how public agencies can innovate in the face of significant changes to the business environment.

Because of shifts in environmental and market forces, the authority invested billions of dollars to diversify its water supply, resulting in long-term fixed costs. At the same time, conservation efforts and other factors greatly diminished demand. The authority found itself confronting a new financial reality: fixed costs spread across declining demand and the growing scarcity of water as a sustainable resource.

Rather than retreating from its infrastructure commitments or shifting costs to existing customers, the authority has taken an innovative approach by transforming excess capacity into an asset to be used to benefit many. Using existing infrastructure and agreements, the agency is exploring interstate and intrastate water transfer agreements that are mutually beneficial and more environmentally sustainable for all involved.

The San Diego County Water Authority is also broadening its revenue base and maximizing the use of existing infrastructure, which is a win for the agency and customers across the region. Water security and reliability are improved for the City of San Diego and the entire Colorado River Basin.

"In addition to winter storms and years-long droughts, we've had to weather financial storms as well. And it's been one of the most challenging jobs of my entire career," said Harris, who has been with the agency for 12 years. "Sometimes it is in your darkest moments that you can really create magic and innovate and create durable solutions."

The San Diego County Water Authority's approach reflects a broader lesson for local governments: affordability, environmental sustainability, and infrastructure investment do not have to be competing priorities. With thoughtful planning, strategic partnerships, and a willingness to rethink traditional service boundaries, public agencies can meet critical service needs while managing economic and environmental costs more effectively.

Innovation grounded in sound financial stewardship and regional cooperation can help governments deliver essential services in a way that is both sustainable and affordable for the communities they serve. By maximizing the value of existing infrastructure and water supplies, the authority is seeking to improve affordability while maintaining reliability and environmental stewardship.

Water Partnerships Offer Multiple Benefits

- Using existing infrastructure instead of relying on new debt-financed projects.
- Diversifying revenue sources, strengthening financial metrics, and improving long-term rate stability.
- Improving water security and management flexibility for Southern California and the Colorado River Basin.

Kevin Wachtel *is a senior manager in GFOA's Research and Consulting Center.*

Special thanks to GFOA staff including Tochi Madueke, Martin Feldmann-Olea, Evelyn Xing, and Gayatri Sreeram for helping write this article.