

Appendix

6-1

SDCWA 2019-2023 Business Plan

Appendix to Attachment 6: Climate

San Diego 2022 IRWM Implementation Grant Proposal



Business Plan



2021-2025

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Business Plan

2021-2025

September 2020

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**Pioneering.
Visionary.
Agile.
Driven.**

*That's who we are.
That's what we do.*



San Diego County
Water Authority

Message from the General Manager

The past year has made it clear at the local, state and national level that change is a constant feature of our personal and professional lives. The pandemic, recession and social unrest have altered the places we work, the conditions of our work, the technology we use, and our perspectives about any number of issues. In short, it has been among the most challenging years in the agency's history going back to 1944.

It has also been among the most rewarding because the Water Authority has survived this roller coaster ride remarkably well, thanks to strong leadership from our Board of Directors, a diligent team of professionals across the agency, new partnerships and increased collaboration with our member agencies, and prudent internal financial and planning processes that have allowed us to stay on track despite the uncertainties.

One of those fundamental planning documents is the Business Plan, which provides a roadmap for Water Authority staff to communicate, coordinate, and focus efforts to meet organizational goals. Since its inception in 2004, the Business Plan has evolved, reflecting the addition of new challenges and changes to Water Authority policy and programs. Over the years, this document has helped us reach numerous important milestones, including completion of the Claude "Bud" Lewis Carlsbad Desalination Plant, the San Vicente Dam Raise and countless other initiatives.

In recent months, staff has updated the Business Plan for 2021-2025 with new objectives and tactics in three areas: **Water Supply**, **Water Facilities**, and **Business Services**.

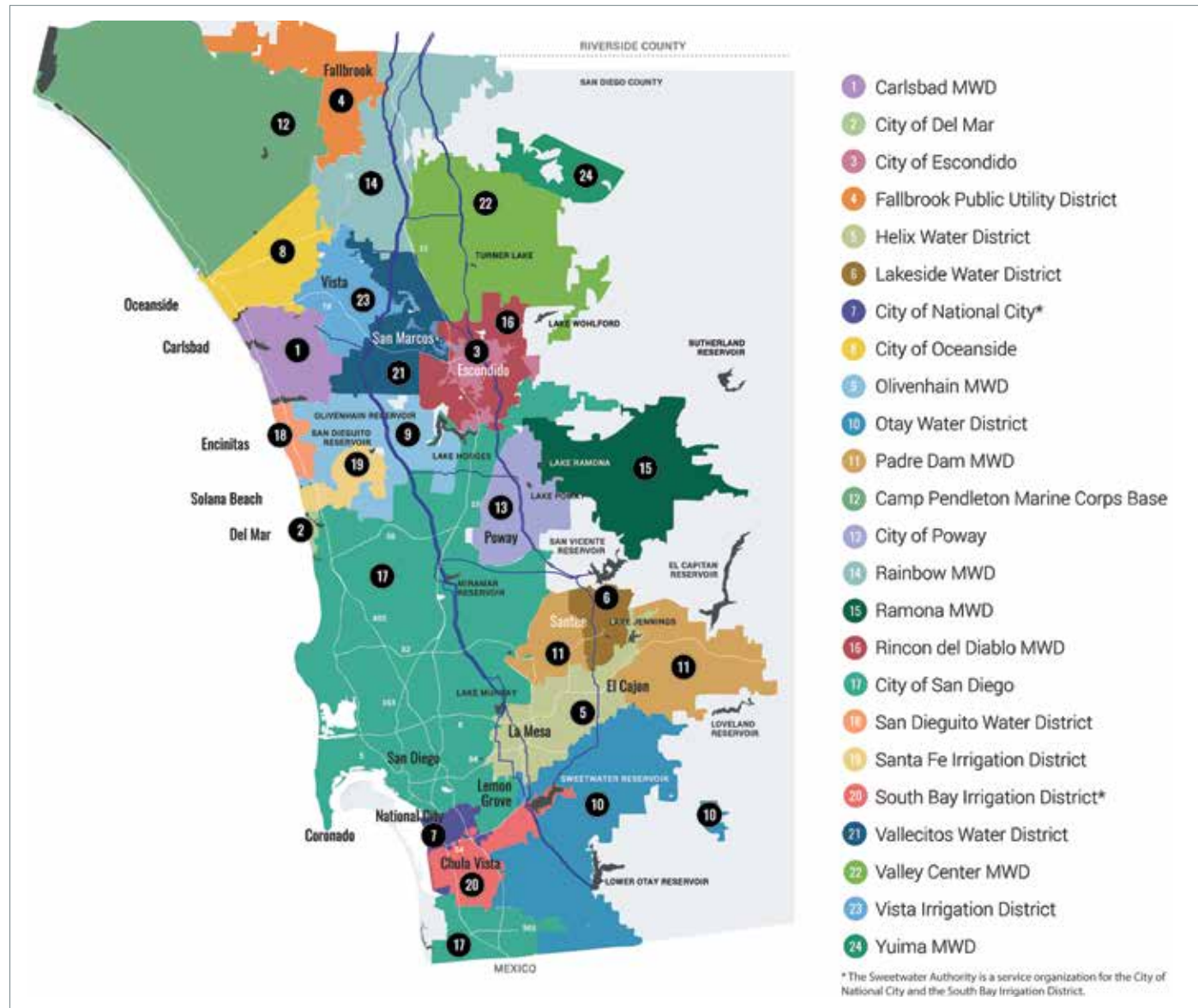


Sandra L. Kerl
General Manager

The plan contains refined program and management strategies that reflect our emphasis on water system and energy management, system reliability and innovation, regulatory compliance, financial stability, outreach and legislation, workforce mobility and safety related to COVID-19, cybersecurity, and workforce management. Near-term and long-term objectives and tactics – clearly linked to the management strategies – are supported by key performance indicators to promote and track continuous improvement.

The Water Authority has always been a forward-looking agency, striving to identify future challenges, anticipate opportunities, and respond quickly to our changing environment. This Business Plan update will help us carry that legacy into the future, no matter what it brings.

The San Diego County Water Authority Member Agencies & Service Area



Introduction

Business Plan Overview

The San Diego County Water Authority Business Plan describes the key focus areas, programs and program focus areas, management strategies, and objectives and tactics along with key performance indicators necessary to carry out the policies and strategic direction set forth by the Water Authority Board of Directors. Based on a five-year horizon, the plan is updated biennially in accordance with guiding policies and principles, related planning documents, and an analysis of current business trends.

The Water Authority's member agencies are represented through a 36-member Board of Directors. The Water Authority was formed by the California State Legislature under the County Water Authority Act, which established the Board of Directors as the agency's governing body. The County Water Authority Act authorizes the Water Authority to acquire water and water rights; construct, operate, and maintain facilities; tax; and incur bonded indebtedness.

The Board has adopted policies and principles that guide the Water Authority in our business practices. Among these are: the Debt Management Policy and Fiscal Sustainability Policy that ensure savings from refunded debt are maximized and financial stability for the agency, the Energy Management Policy that provides guidance on the development of energy related projects and programs, the Legislative Policy Guidelines that provide a framework

for evaluation of potential impacts to the Water Authority from state and federal legislation, and Delta Policy Principles that guide staff in evaluating the Bay-Delta initiatives. A complete list of the Water Authority's guiding principles and policies is provided in Appendix 1.



The Water Authority Board of Directors and staff met with California State Congressman Levin during a 2019 Legislative Roundtable event.

Business Plan Key Focus Areas & Programs

Business Plan programs are divided into three key focus areas. Each key focus area is divided into programs that contain the management strategies, objectives and tactics, and key performance indicators necessary to achieve the Water Authority's mission.

Water Supply

The Water Supply key focus area consists of three programs that support the Board of Directors' adopted level of water supply diversification.











Water Facilities

The Water Facilities key focus area consists of three programs that are designed to implement the Board of Directors' cost-effective asset management strategy.

Business Services

The Business Services key focus area consists of four programs that are essential, in that they include the majority of the Water Authority's business operations required to execute the activities of the previous two key focus areas.

Business Plan – Key Focus Areas and Programs

WATER SUPPLY	WATER FACILITIES	BUSINESS SERVICES
 Imported Water	 Infrastructure/ Capital Improvement Program	 Business Support
 Local Water	 Sustainability	 Communication and Messaging
 Resource Planning	 Water System Management	 Financial Management
		 Workforce Management

Related Planning Documents

The Business Plan serves as an overarching planning tool to assist the Water Authority in accomplishing our mission of providing a safe, reliable water supply to the region. At right is a table showing supporting planning documents, highlighting their impacts on each of the key focus areas of **Water Supply**, **Water Facilities**, and **Business Services** and their respective programs. A description of each plan is provided in Appendix 2.

- Primary planning document
- Secondary planning document

Planning Documents by Business Plan Programs

Focus Area	WATER SUPPLY			WATER FACILITIES			BUSINESS SERVICES			
Program	IMPORTED WATER	LOCAL WATER	RESOURCE PLANNING	INFRASTRUCTURE / CIP	SUSTAINABILITY	WATER SYSTEM MANAGEMENT	BUSINESS SUPPORT	COMMUNICATION AND MESSAGING	FINANCIAL MANAGEMENT	WORKFORCE MANAGEMENT
AQUEDUCT OPERATING PLAN		●		●		●	●	●		●
ASSET MANAGEMENT PLAN				●		●	●	●	●	●
CLIMATE ACTION PLAN					●		●	●		
COMPREHENSIVE ANNUAL FINANCIAL REPORT	●	●	●	●	●	●	●	●	●	●
GENERAL MANAGER'S MULTI-YEAR BUDGET	●	●	●	●	●	●	●	●	●	●
INTEGRATED REGIONAL WATER MANAGEMENT PLAN		●	●		●		●	●		
LONG-RANGE FINANCING PLAN	●	●	●	●	●	●	●	●	●	
QUANTIFICATION SETTLEMENT AGREEMENT	●	●	●				●	●	●	
REGIONAL WATER FACILITIES OPTIMIZATION & MASTER PLAN		●		●	●	●	●	●	●	●
URBAN WATER MANAGEMENT PLAN	●	●	●	●				●	●	
WATER SHORTAGE CONTINGENCY PLAN	●	●	●	●				●	●	●

Current Business Trends

The water utility industry is similar to other factions of the American economy. The industry is subject to, and must be agile in adapting to, changing economic conditions, societal perceptions, governmental regulations, environmental issues and sustainability, and technological security. The Water Authority faces an increasingly challenging future, and as a result must continue to develop pioneering strategies and execute a visionary approach to the management of water. Trends that are critical to the Water Authority's business operations are organized into the following categories: **Economic/Business, Societal/Political, Technological, and Environmental.**



San Diego's future economic development will increase the region's water demand by both residential and commercial users.

Economic/Business Trends

Fiscal Sustainability

The Water Authority has a long history of prudent financial management and financial planning. Identifying fiscal challenges well in advance, the Water Authority has successfully maintained its fiscal health despite the Great Recession (2007-2009), a recent multi-year drought event, and most recently the COVID-19 recession. One example of a proven success for crafting innovative solutions was the development of a Supply Reliability Charge, which further diversified the fixed/variable revenue mix and ensured equitable recovery of supply reliability investments. The Water Authority's reconstituted Fiscal Sustainability Task Force (2020) has looked forward to addressing the continued challenges facing water supply availability and development, providing affordable and reliable water to the region, providing smooth and predictable rates and charges, and funding the asset management program.

Economic Conditions

San Diego County has enjoyed economic stability in recent years, outpacing the State economy. Prior to the COVID-19 pandemic, unemployment levels in the County were at their lowest level in 18 years. Economic development and recovery will drive water demands up in the future for both residential and commercial users and increase the property tax related revenues the Water Authority receives. Growth related revenue from capacity charges, a highly volatile revenue stream, is also expected to remain stable over the next few years.

Workforce Planning

To handle the tough decision-making that comes with the rapid change of pace in economic, societal, and demographic events we are witnessing, it is essential to ensure our organization is agile enough to meet the demands of today, with the ability to pivot rapidly to make the right decisions for tomorrow. Getting the right people, in the right place, at the right time and cost will be central to success, and effective workforce planning will be critical to this. The focus areas of Workforce Management include: **Leadership**, **Safety**, **Culture**, **Talent Management**, and **Technology**, with strategies and objectives to move the organization to a higher level of performance and foster a truly connected and engaged workplace.

Societal/Political Trends

Intergovernmental Relations

The nexus between regional growth and water supplies is an ongoing and important discussion. While the San Diego region's growth rate has slowed, the population is still increasing. Between 2000 and 2015, the region's population increased approximately 15 percent. This equates to roughly 414,000 more people in the region. Reliable water supplies are also key to fueling economic growth and supporting the region's key industries, including agriculture, manufacturing, tourism and the military. The Water Authority continues to work closely with local and regional land-use agencies and continues to focus on state and federal level coordination. A significant portion of our water supply is integrated with large and complex water systems. Taking an active role in the intergovernmental arena and advocating for our region will continue to be necessary to ensure supply reliability.



The Water Authority's "Faces of the Water Industry" campaign was displayed at local educational institutions to recruit the workforce of the future.

Integrated Public Policies

The Water Authority's involvement with regional agencies and collaboration with partners throughout the state is key for the integration of public policies affecting energy, housing, local government finance, transportation, and water quality and supply. Advocating for policies that advance regional and local initiatives and protect ratepayers is in the public's best interest to ensure public agencies work in a consistent direction for the benefit of the region.

Transparent and Open Disclosure

The Water Authority strives to make decisions that positively contribute to the well-being of ratepayers today and in the future. Organizations with transparent and open, ongoing disclosure of performance information strengthen the water industry and communities.

The Water Authority will continue to be transparent and demonstrate a willingness to be forthright with information. This willingness stresses accountability, supports continuous improvement, builds stakeholder trust, reinforces credibility, and educates and serves the public.

Public and Private Partnerships

The Water Authority has successfully engaged in partnerships with our member agencies, the private sector, community organizations, and ratepayers. These partnerships have resulted in the construction of the Twin Oaks Valley Water Treatment Plant, Helix Water Treatment Plant, San Vicente Dam Raise, Carlsbad Desalination Plant, and the creation of innovative water use efficiency programs. When cost-effective and feasible, the Water Authority and our member agencies will identify and evaluate opportunities for collaboration with each other and private enterprises to provide services and water supplies and conveyance of those supplies.

Renewal and Replacement of Aging Infrastructure

Each year the American Water Works Association (AWWA) releases a state of the Water Industry report based on responses to an annual survey of industry professionals. The survey provides an industry-wide

self-assessment and gathers information to support the water community's major challenges. The 2019 report* identified that renewal and replacement of aging water infrastructure continues to be the number one issue. The Water Authority has remained vigilant with managing our infrastructure starting with pipeline rehabilitation in the 1980's, monitoring for early signs of aging beginning in 1992, and establishing a formal, consolidated, management program in 2009.

*Report available at: https://www.awwa.org/Portals/0/AWWA/ETS/Resources/2019_STATE%20OF%20THE%20WATER%20INDUSTRY_post.pdf



Pipeline rehabilitation is one component of the Water Authority's robust Asset Management program.

Overall, we continue to invest in our critical water conveyance infrastructure through the Asset Management Program. The overall goal of the program is to manage infrastructure assets by analyzing a broad spectrum of risks and optimizing the timing of infrastructure rehabilitation spending. Over the past decades, the program has completed 47-miles of pipeline rehabilitation, the comprehensive assessment of over 150-miles of pipelines using advanced technologies, and visually inspected all 310-miles of pipelines in the system.

Technological Trends

Technology

The Water Authority has been very successful at fostering innovation and the use of new technologies to help meet the changing needs of the water industry. Moving forward, the Water Authority will continue to leverage new technologies to support the areas of communication, planning and design, daily operations, and business services. The water industry, like many others, has seen an increase in cyber threats, and the Water Authority continues to collaborate with other organizations to promote coordinated security responses and adopt mitigation methods to protect and secure our technical infrastructure. The Water Authority is also optimizing our maintenance activities by using new technology and in-house developed inspection technologies. The innovation program, a relatively advanced idea for a public agency, will help the Water Authority continue to be a technology pioneer that pursues cost efficient solutions to help safeguard critical water assets and increase the value to customers.



Potable reuse water is projected to become nearly 20 percent of the Water Authority's water portfolio by 2035.

Potable Reuse Water

Reuse water is part of a natural cycle. The Earth's water supply is a closed loop system, with all the water on our planet being used over and over again. Water can be reused safely, efficiently, and in a sustainable manner. For these reasons, it is a viable part of the Water Authority's supply portfolio. To achieve the Water Authority's mission to secure a safe and reliable water supply for the region, it is important to beneficially reuse our water supply.

Environmental Trends

Climate Change

The climate is becoming increasingly warmer and drier, and ocean levels are on the rise. Snowfall in the Sierras, a major source of water for California, is occurring later and melting earlier, therefore, reducing the supply of water. In addition, the State of California now mandates that government agencies incorporate climate change into their planning efforts to address its impacts and reduce their carbon footprint.



Snowfall patterns in the Sierra Nevadas indicate an increasingly warmer and drier climate.

Energy Demand

The Water Authority recognizes that energy is a significant cost in treating and delivering water to our member agencies. The Water Authority is pursuing opportunities to reduce these costs and energy demands through a variety of energy initiatives that include agency-wide planning, regulatory and legislative engagement, operations of existing energy facilities, and diversification of our energy supply portfolio. These initiatives will ensure the Water Authority's success in helping to stabilize water rates, reduce greenhouse gas emissions, and address economic and electrical system reliability risks.

Environmental Sustainability

A commitment to support cost-effective sustainability programs that will benefit the environment and promote thoughtful stewardship of natural resources is essential to decreasing the impact to ratepayers, reducing the environmental impacts of Water Authority operations, conserving energy and water, and helping the Water Authority better anticipate and adapt to the impacts of climate change while reducing our greenhouse gas emissions. The Water Authority is engaged in a variety of sustainability initiatives, such as the development of renewable energy sources, the reduction in fleet emissions, and a decrease in waste production. These initiatives help to ensure the Water Authority is reducing our impact on the environment and making a positive contribution to a more sustainable future for the region.

Natural Disasters

The Water Authority recognizes our responsibility to be prepared and to respond quickly, safely, and effectively to emergency situations that arise within our jurisdiction. Building partnerships with other utilities and businesses for mutual aid, establishing clear public communication procedures, and having resources in place to effectively meet the needs at hand are evidence of our commitment to the well-being of the communities we serve.

Limited Local Water Supplies

Traditional sources of water supplies, such as local surface water and groundwater, are limited and becoming less reliable. While historically these supplies represent the least-costly source of water, climate change may negatively impact these already scarce water resources. As a result, they will continue to comprise a smaller percentage of our water supply portfolio and make the development of additional more resilient water supply sources, and increased water use efficiency essential.

Business Plan Performance Assessment

Water Authority Management will conduct periodic performance assessments of the Business Plan objectives and tactics, and key performance indicators. These assessments will be presented to the Board of Directors and the public annually. The performance report, as well as an electronic version of the Business Plan document, are available online at www.sdcwa.org/mission-vision-values-strategies.



The Carlsbad Desalination Plant produces up to 54 million gallons per day of locally controlled water for San Diego County.



The All-American Canal

Water Supply – Programs and Focus Areas

IMPORTED WATER	LOCAL WATER	RESOURCE PLANNING
● Bay-Delta	● Member Agency Supply	● Water Management Planning
● Colorado River	● Potable Reuse	● Water Shortage and Drought Resource Management
● Metropolitan Water District	● Seawater Desalination	● Water Use Efficiency

Water Supply

Water Supply Overview

The Water Supply focus area consists of three programs: **Imported Water**, **Local Water**, and **Resource Planning**.

Imported Water addresses the long-term viability, sustainability, reliability, and fiscal issues surrounding the Water Authority's imported water supplies. **Local Water** supports the ongoing execution of the Water Authority's and member agencies' water supply diversification strategy. **Resource Planning** guides the Water Authority as we strives to carry on our visionary planning and implementation of pioneering water resource management and water use efficiency programs and strategies.

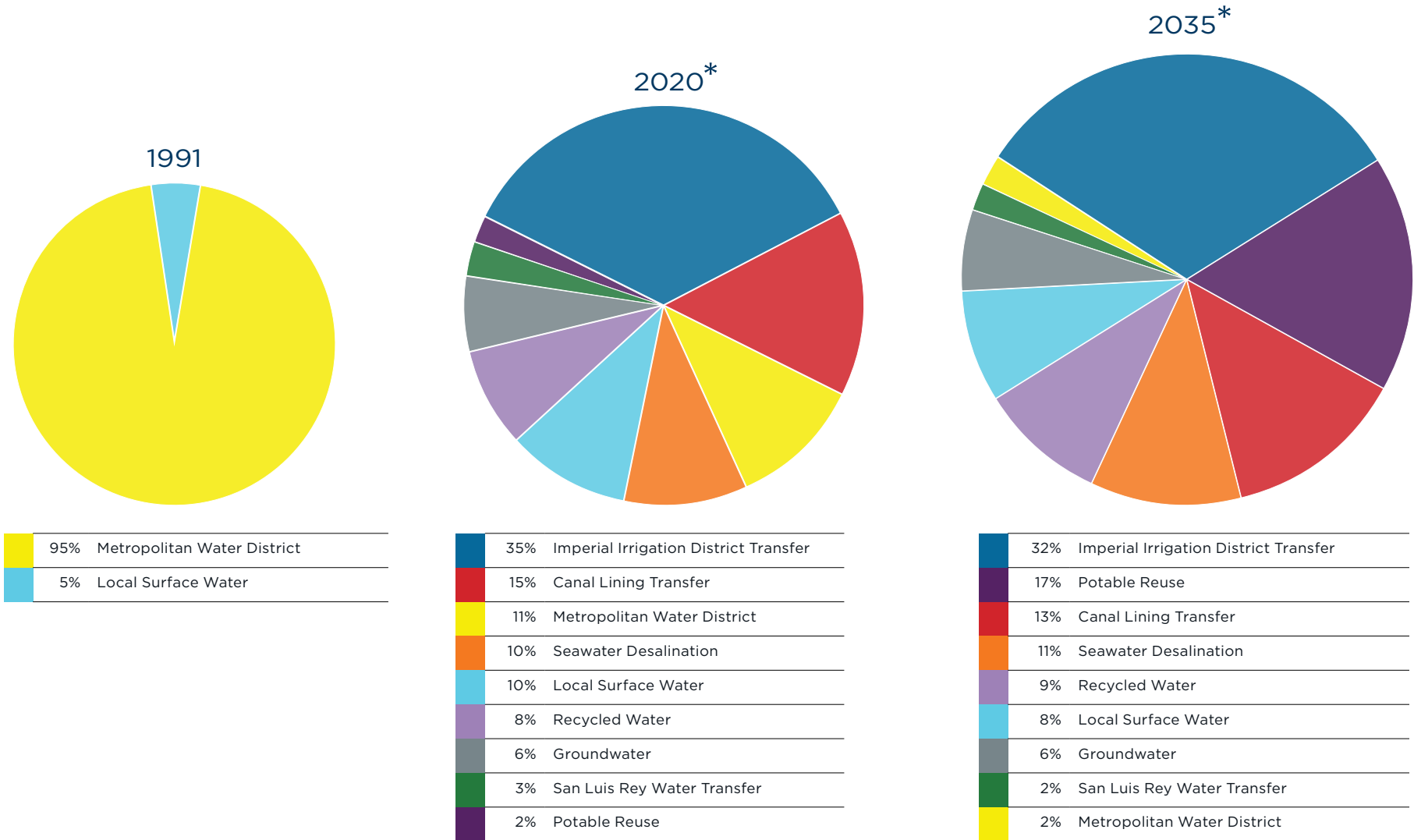
Ensuring a diverse water supply portfolio supported by the long-term sustainability of local and imported water supplies depends on close coordination and collaboration with our member agencies and the public. Engaging stakeholders and guiding regulatory and legislative policy will help the Water Authority and the region plan for the future, obtain necessary funding, develop the necessary infrastructure, and attain our water reliability objectives.

Key issues of the Water Supply Focus Area include the following.

- ▶ Ensuring appropriate cost allocation and long-term viability of imported water supplies, including transportation of those supplies to the San Diego region
- ▶ Maximizing storage opportunities to provide operational flexibility
- ▶ Supporting regulatory efforts for potable reuse as the “next increment” of water supply for the region
- ▶ Advancing long-term water use efficiency practices in the region in line with the new 2018 Water Conservation Legislation



The Colorado River Aqueduct



*Based on interim demand forecast reset and includes verifiable and additional planned local supply projects from the 2015 Urban Water Management Plan, to be updated in the 2020 UWMP.

Imported Water Overview

The Water Authority receives imported water through our conservation efforts made possible under the Quantification Settlement Agreement (QSA) via water transfer with the Imperial Irrigation District (IID) and canal lining projects, as well as through water purchases from the Metropolitan Water District of Southern California (MWD). These imported supplies, primarily from the Colorado River and to a much lesser extent the Sacramento-San Joaquin Bay-Delta (Bay-Delta), are vital to providing a diversified and sustainable water supply to the San Diego region.

The Water Authority's government relations and Metropolitan Water District Program (MWDP) teams pioneer our advocacy efforts through active engagement of various governmental decision-making levels on Bay-Delta issues to ensure the Water Authority is an integral part of the Bay-Delta solution and that San Diego ratepayers' interests are protected. The teams collaborate and work closely with the Governor's office, state legislators, federal officials, state agencies, water agencies, and interested stakeholders to develop agile and visionary solutions that ensure the Bay-Delta project is properly allocated as a supply cost, the Water Authority's actions are supportive of the State's policy to reduce reliance on the Bay-Delta, and our efforts reflect and support the sustainability objectives outlined in the Governor's Water Resilience Portfolio.

The Water Authority's Colorado River Program (CRP) ensures the completion of QSA milestones for the timely creation and delivery of scheduled volumes of IID water transfer and canal lining supplies. A vital component of the program is safeguarding our QSA supplies by

advocating the Water Authority's position on developing state and federal issues associated with the seven Colorado River Basin States, including participation in projects and programs to support long-term sustainability of the Colorado River and addressing environmental issues at the Salton Sea. Additionally, CRP's Imperial Valley Office aims to maintain dialogue with our QSA partners on common issues and address stakeholder concerns. Finally, the CRP team continues to pursue initiatives that provide flexibility in transporting and storing the Water Authority's highly reliable QSA supplies, cost effectively.

The Water Authority's MWDP promotes creative and innovative solutions at MWD to ensure its sustainability as Southern California's supplemental imported water provider. The MWDP team advises and supports the Water Authority's Board Officers and MWD Delegates to advance the Water Authority's MWD policies and objectives, including working together and building alliances with MWD, its member agencies, the state, and other stakeholders. Building on the successes achieved in the rate litigation, the Water Authority is committed to resolving remaining issues in the litigation and working collaboratively with the MWD Board and member agencies to update MWD's long-term water supply plan, financing plan, and rate structure that are fair to all parties.

In 2020, beginning in March and extending into the summer, the teams adapted their efforts in the wake of the COVID-19 pandemic, which meant attending regular meetings virtually through video conferencing.

Such meetings include, but are not limited to, the QSA Joint Powers Authority (JPA), Colorado River Board, MWD Board, Colorado River Work Group, and stakeholder briefings. Further, the Imperial Valley office aided the Imperial County Public Information Office in ensuring information related to COVID-19 was released in a timely manner.

Imported Water Focus Areas

The focus areas of the Imported Water Program are **Bay-Delta**, **Colorado River**, and **Metropolitan Water District**. Within each focus area are management strategies to accomplish the major objectives and tactics over the next five fiscal years.

Bay-Delta

The Water Authority remains engaged in Bay-Delta activities even as the region continues to reduce its reliance on it, consistent with the State policy. Environmental conditions in the Bay-Delta are not suitable, causing the State to consider a single-tunnel Bay-Delta project intended to improve water supply reliability for State Water Project contractors.

On July 25, 2019, the Water Authority Board of Directors updated policy principles that convey the Water Authority's support for the Governor's resilience portfolio approach that meets the needs of California's communities, economy, and environment through the 21st century, including a single-tunnel project to move water through the Bay-Delta, on the condition that the

project's costs are properly allocated as supply charges. The Water Authority will pursue management strategies that ensure costs for fixing the Bay-Delta are equitably and fairly apportioned among water contractors and commensurate with the water supply quantity and water quality benefits received. Main objectives and tactics driving these management strategies include advocacy of programs and projects consistent with the Water Authority's policy principles, including our conditional support of the tunnel project, and ensuring that the tunnel's cost recovery does not disproportionately impact San Diego County ratepayers.



The Water Authority's Bay-Delta Program advocates for projects consistent with the Water Authority's policy principles designed to minimize impacts to local ratepayers.

Colorado River

The Water Authority's independent Colorado River supplies from our conserved water transfer with IID and canal lining projects are critical to our region's water supply because they meet a substantial portion of the region's demands, are cost effective, and are highly reliable. As such, the key management strategies and objectives of the Colorado River focus area include successfully implementing QSA milestones and environmental mitigation requirements, developing innovative options for flexibility in storing and delivering QSA volumes, and maintaining strong relationships with key stakeholders and partners. In 2017, the Water Authority Board of Directors approved the extension of the Exchange Agreement with MWD to match the 45-year term of the IID Water Transfer Agreement. On a parallel path, the Water Authority has continued to study direct conveyance of our QSA supplies incrementally, mainly as part of the master planning process. Building upon this past work, in 2019, the Water Authority Board approved a new Capital Improvement Project, the two-phase Regional Conveyance System Study, which aims to help inform decisions on the horizon in 2047 regarding the region's future supply resource mix.

The Water Authority actively participates in environmental efforts associated with our QSA water supplies through the Lower Colorado River Multi-Species Conservation Program and the QSA JPA. At the Salton Sea, mitigation water deliveries to the sea ended as scheduled in 2017, shifting the focus of mitigation

efforts to cost-effective on-the-ground air quality projects to ensure environmental impacts of the QSA water transfers are fully addressed. The Water Authority will continue to ensure all required environmental mitigation is implemented at the Salton Sea through the QSA JPA. The State of California's separate restoration obligation at the Salton Sea was updated in the State Water Resources Control Board 2017 Stipulated Order which added annual milestone requirements. The Water



Colorado River program efforts related to the Salton Sea are focused on environmental mitigation via the QSA JPA.

Authority will actively monitor the State's progress and work collaboratively with other stakeholders to advance implementation of the Salton Sea Management Plan (SSMP).

The 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead are the current set of rules for Colorado River Basin annual operations, Lake Mead storage criteria, and shortage cutbacks. The Bureau of Reclamation is conducting an effectiveness review of

these guidelines in 2020. As the 2007 Interim Guidelines terminate in 2026, this review will provide insight for negotiation of the next set of guidelines which will formally begin soon. Under the rules and agreements required for Lake Mead storage, the Water Authority's QSA supplies are qualified and eligible for storage in Lake Mead but the Water Authority currently lacks a storage account. The Water Authority will continue to work with QSA partners, the Colorado River Basin States, the Colorado River Board of California, binational stakeholders, and the government relations team to safeguard Water Authority Colorado River supplies through negotiations of the next set of operating guidelines for the Colorado River and obtaining a storage solution in Lake Mead.

Metropolitan Water District

The Water Authority currently relies on MWD to transport our independent Colorado River supplies and purchases supplemental imported water from MWD. The Water Authority has a vested interest in ensuring MWD's rates, charges, policies, and programs are fair and will ensure MWD's long-term sustainability. The MWD Program, working in conjunction with Board leadership and the MWD Delegates, strives to foster collaboration, understanding, and discourse of key MWD policy issues.



Colorado River water supplies obtained through the QSA qualify for storage in Lake Mead.

MWD is currently at a crossroads where it will need to make important decisions about new leadership, update to its Integrated Water Resources Plan, review of its rate structure, and potential major infrastructure projects. Engagement in these key decisions, which will determine MWD's future role in the region, through advocacy and coalitions are vital. Paramount to MWD's longevity and relevancy is the need for it to be forward-thinking, nimble, and adaptive in response to changing conditions. The MWDP strives to ensure these outcomes by developing and implementing strategies to achieve the Water Authority's long-term reliability and fiscal sustainability goals at MWD, in accordance with the Water Authority Board of Directors' strategic objectives. The Water Authority advances policies at MWD that embrace transparent governance, legal rate setting, fiscal responsibility, and predictable supplies; create equity and fairness among MWD member agencies; and facilitate the efficient and optimal use of resources and investments. The Water Authority's MWD management strategies aim to advance these types of policies at MWD to ensure the reliability, quality, and affordability of MWD's water supply and services, and MWD's long-term fiscal health. Major objectives and tactics focus on gaining support for and understanding of the Water Authority's positions on key MWD policy concerns.

As MWD corrected its calculation on the Water Authority's preferential right to MWD water, stopped imposing the Water Stewardship Rate on the transportation of the Water Authority QSA supplies, and awarded almost half a billion dollars to support San

Diego region water supply projects, the Water Authority is poised to continue productive dialogues with MWD and other stakeholders to advance policy objectives for the benefit of the region. The Water Authority is equally committed to trying to eliminate pending and future litigation with MWD.

BAY-DELTA	COLORADO RIVER	METROPOLITAN WATER DISTRICT
<p>A Advocate Board policies regarding Bay-Delta issues, funding initiatives, and the single-tunnel Bay-Delta project to federal, state, local, and other stakeholders.</p> <p>B Protect ratepayers from paying an inequitable share of Bay-Delta fix costs by ensuring project costs are properly assigned in MWD's rates and charges and are consistent with DWR's historic practice of assigning similar projects as "conservation" or supply charges.</p>	<p>C Develop flexibility in implementation of the QSA and related agreements.</p> <p>D Strengthen relationships with QSA partners and Colorado River stakeholders.</p> <p>E Continue to ensure completion of QSA environmental mitigation milestones and support State Salton Sea restoration activities.</p> <p>F Leverage opportunities to increase involvement in Colorado River Basin-wide programs.</p> <p>G Advance Water Authority QSA policy through continuing dialogue with governing bodies, elected officials, the farming community and the public.</p>	<p>H Support MWD Delegates in identifying, maintaining, and advancing Water Authority strategic goals at MWD.</p> <p>I Influence policy decisions at MWD to ensure its long-term sustainability as a supplemental imported water supplier.</p> <p>J Advocate for equity, transparency, and collaboration in MWD's decision making processes.</p>

Water Supply Imported Water | Objectives and Tactics

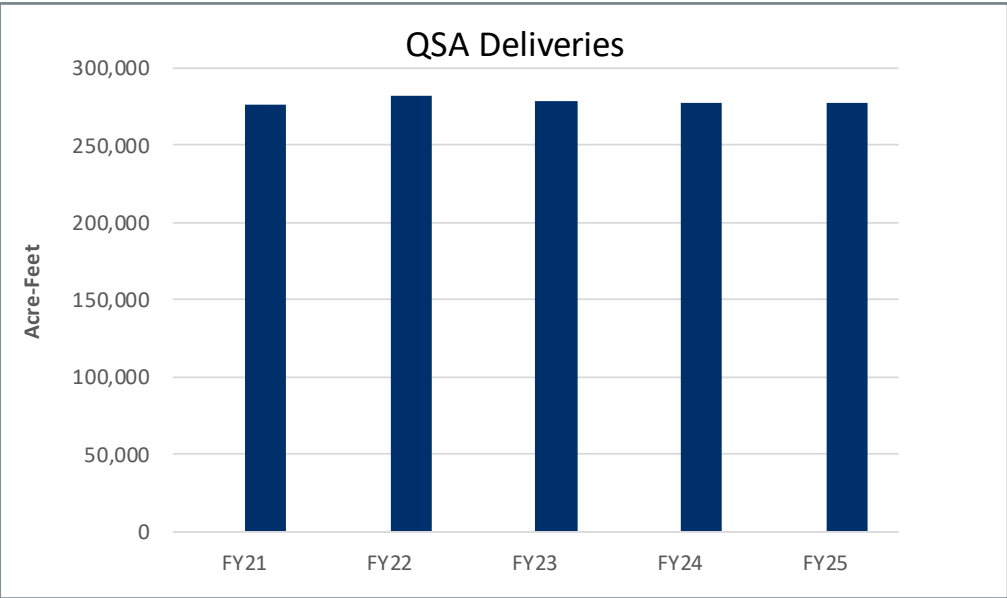
#	OBJECTIVE TACTIC	TARGET
1	Develop new and flexible water storage opportunities for the Water Authority's Colorado River supplies, including Lake Mead storage. (C, D, F, G)	Dec-2021
2	As authorized by the Board, continue to explore the viability of alternative conveyance of QSA supplies, including partnership and funding opportunities, through completion of Regional Conveyance System Study Phase B to help inform the region's impending decision on future supply resource mix. (C, D)	Dec-2021
3	Build awareness of and support for the Regional Conveyance System Study and solicit input through various stakeholder engagement opportunities. (C, D, G)	Dec-2021

Water Supply Imported Water | Objectives and Tactics continued

#	OBJECTIVE TACTIC	TARGET
4	Complete Canal Lining Post Construction Mitigation Projects. (D, E)	Dec-2023
5	In tandem with the Water Authority's MWD Delegates, advocate key policy solutions at MWD and to key stakeholders to ensure MWD's long-term financial sustainability and viability, and ultimately obtain support for MWD to adopt a long-term finance plan. (H, I, J)	Dec-2023
6	Work in concert with the General Counsel's office to achieve resolution of all pending rate cases, including obtaining a final judgment for the 2010 and 2012 cases by Fall 2020, and attain court decisions on the offsetting benefits and returning of Water Stewardship Charge overcharge on the Exchange Agreement by 2025. (H, I, J)	Jun-2025
7	Participate in Basin States and intrastate policy discussions on renegotiation of the 2007 Interim Guidelines. (C, D, F, G)	Jun-2025
8	Increase involvement and strengthen relationships on binational water and related issues between the U.S. and Mexico through participation in workgroups and other forums, and collaboration on potential partnerships. (D, F)	Jun-2025
9	Advance policies, programs, and projects that are consistent with the Water Authority Board's Bay-Delta and Project Policy Principles, including the conditional support of a single-tunnel Bay-Delta project, contingent on the proper allocation of project costs on MWD's rates and charges. (A, B)	Jun-2025
10	As authorized by the Board, continue to explore the viability of alternative conveyance of QSA supplies, including partnership and funding opportunities, through completion of subsequent phases of the Regional Conveyance System Study, to help inform the region's impending decision on its future supply resource mix. (C, D)	Jun-2025
11	Work with QSA JPA parties and Lower Colorado River Multi-Species Conservation Program stakeholders to ensure all required environmental mitigation is implemented. (C, D, E)	Jun-2025
12	Engage with the state Salton Sea Management Program, state policymakers, and opinion leaders to ensure the state meets its obligations for restoration at the Salton Sea. (D, E, G)	Jun-2025
13	Lead stakeholder briefings, annual tours, and manage the Imperial Valley Currents blog to enhance relationships and exchange perspectives on efficiency-based water conservation, Salton Sea issues, and water diversification in the San Diego region. (D, E, F, G)	Jun-2025
14	Work in concert with the Water Authority's Board Officers and MWD Delegates to collaborate with MWD staff, Directors, member agencies, and stakeholders to ensure long-term supply and facility reliability and fiscal sustainability, through the 2020 Integrated Water Resources Plan update, evaluation of the Regional Recycled Water Program, and other efforts. (H, I, J)	Jun-2025
15	Work in concert with the Water Authority's Board Officers and MWD Delegates to ensure collaboration, equity, and transparency through various MWD processes, including but not limited to the Rate Refinement and General Manager Selection processes. (H, I, J)	Jun-2025

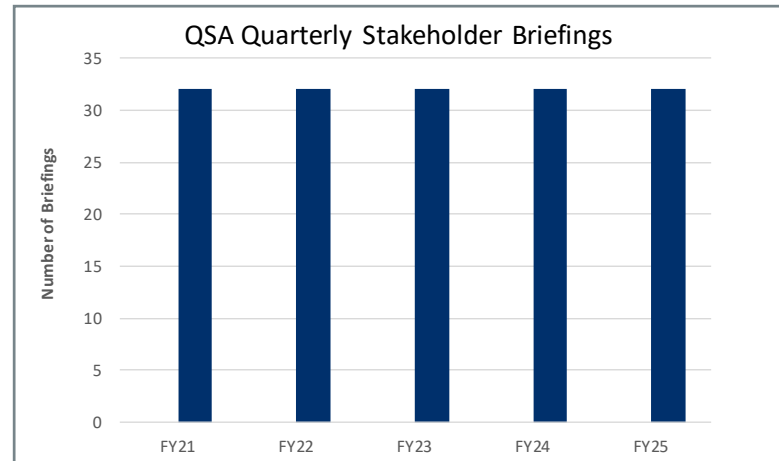
1

Ensure full amount of scheduled QSA water is delivered to the San Diego region each fiscal year.



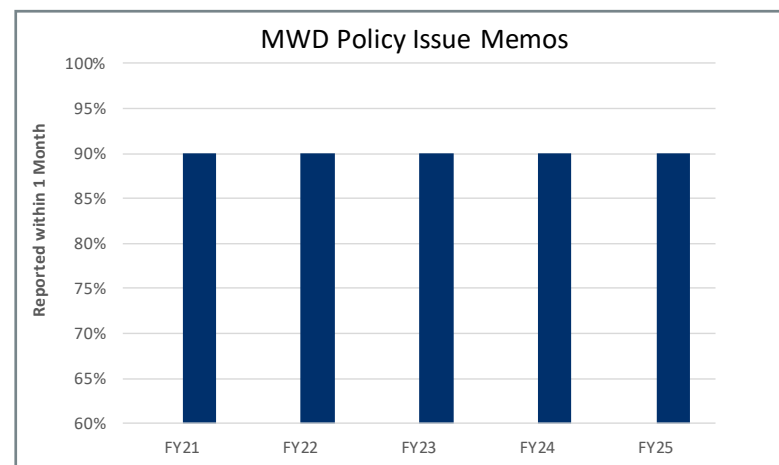
2

Perform 8 stakeholder meetings per quarter (32 annually) on emerging QSA issues to enhance legislative and community support for protection of Water Authority's Colorado River supplies each fiscal year.



3

Present 90 percent of key MWD policy issue memos within one month of MWD proposals through 2025 to increase awareness and understanding of key MWD policy issues.



Local Water Overview

Local water resources developed and managed by the Water Authority and our member agencies are critical to the success of the region's water supply diversification program. Local projects reduce the need for imported water and often provide agencies with a reliable, drought resilient supply. Local resources include recycled water, groundwater, surface water, potable reuse, and seawater desalination. The San Diego region has a long history of capturing local stormwater in backcountry and urban reservoirs for use as a surface water supply. Potable reuse and seawater desalination are new water supplies that have been realized or initiated, and reflect ongoing pioneering efforts to diversify the region's water supply portfolio.

As part of this program, the Water Authority is driven to work closely with our member agencies to foster and support development and optimization of local water supplies. This is accomplished by identifying, promoting, and obtaining outside funding opportunities to assist agencies in offsetting project costs; serving as a visionary leader and facilitator on various regulatory issues that affect the region; and providing technical assistance.

The onset of commercial operation of the Carlsbad Desalination Plant in December 2015 represents a significant local water supply accomplishment. It is the result of a twelve-year collaborative effort by the region to secure up to 56,000 acre-feet of local, drought-proof supply. Since the start of operations, it has produced over 60 billion gallons of high-quality drinking water and won numerous awards including Global Water Intelligence's Desalination Plant of the Year, San Diego County Tax

Payers Association's Grand Golden Watchdog award, and the Association of California Water Agencies Clair A. Hill Water Agency Award. In addition to the progress made in seawater desalination, the Water Authority has successfully supported member agencies on grant funding opportunities in the areas of potable reuse research and local supply development, the development of new regulations and regional planning efforts for potable reuse, recycled water and brackish water programs, and managed local project incentive programs.

Local Water Focus Areas

The focus areas within the Local Water Program support the development and management of **Member Agency Supply**, **Potable Reuse**, and **Seawater Desalination**. Each focus area identifies key management strategies to drive the execution of priority objectives and tactics over the next five fiscal years.

Member Agency Supply

Member agencies take the lead in developing and managing local supplies such as recycled water, potable water reuse, groundwater, and surface water. The Water Authority coordinates regional efforts with member agencies to promote a common vision across the region when engaging in statewide and regional forums. Management strategies in this focus area include improving and maintaining regulatory flexibility and source water quality for the San Diego region's water supply and supporting member agency efforts to obtain outside funding. Supporting objectives and

tactics include advocating for reasonable monitoring requirements and standards for constituents of emerging concern in potable and recycled water, participating in national efforts to evaluate permitting in support of local supply projects, and developing strategies for source water protection; all in support of the various existing and proposed local supply facilities and projects.



The heart of the Carlsbad Desalination Plant is a reverse-osmosis system designed by IDE Technologies.

Potable Reuse

The Water Authority's member agencies are moving forward with research and planning for cutting edge and innovative projects that set the standard for potable reuse in California. The Water Authority coordinates with member agencies on potable reuse to create a regional voice for reasonable and flexible regulations for approval of a new drinking water supply that will support the region in a time of climate change and unprecedented drought. For example, the Potable Reuse Coordinating Committee, comprised of Water Authority and member agency staff, provides a forum for regional collaboration on key potable reuse initiatives. Management strategies for this focus area over the next five fiscal years include regulatory and legislative support and educating the public on the benefits of potable reuse and associated water quality improvements.

Seawater Desalination

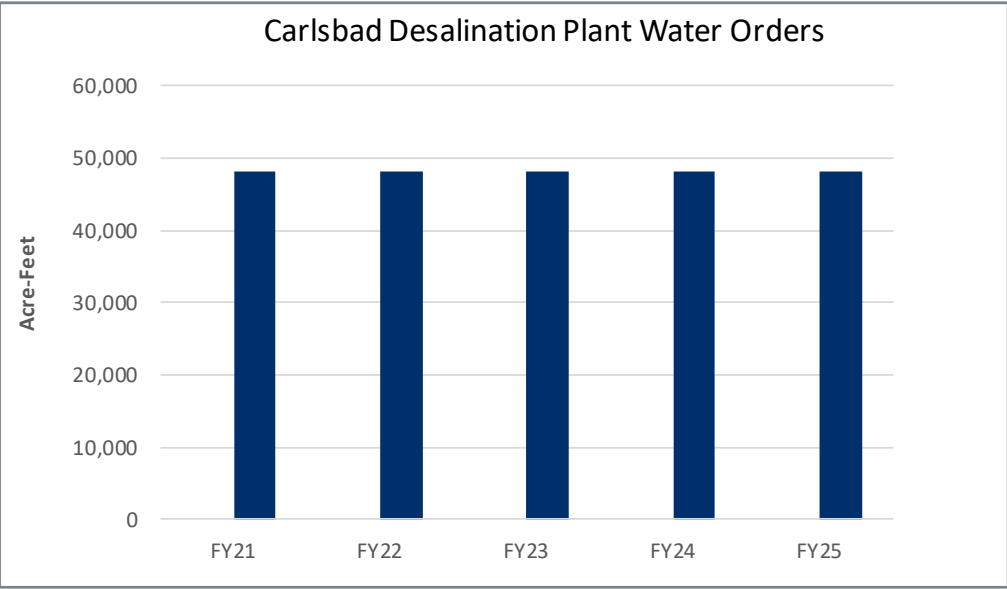
The Water Authority has taken a leadership role in the state by developing local seawater desalination through a public-private partnership for the largest desalination facility in the nation. Management strategies linked to seawater desalination over the next five years include the ongoing oversight of the Carlsbad Desalination Plant to ensure compliance with the Water Purchase Agreement and the Ocean Plan Amendment, which was adopted by the State Water Resources Control Board in May 2015 and addresses seawater desalination plant intake and discharge facility modifications.

MEMBER AGENCY SUPPLY	POTABLE REUSE	SEAWATER DESALINATION
<p>A Improve regulatory flexibility and streamlining for local supplies.</p> <p>B Protect and improve source water quality for water supply in the San Diego region.</p> <p>C Support funding from outside the region for local water supply projects.</p>	<p>D Engage in regulatory and legislative processes to ensure regulatory pathways are available for approval of local potable reuse projects.</p> <p>E Assess and recognize the benefits of water quality improvements associated with new local supplies.</p> <p>F Encourage public support, implement public outreach, and offer technical assistance to support reuse and recycled water projects.</p>	<p>G Ensure compliance with the Carlsbad Desalination Plant Water Purchase Agreement.</p> <p>H Ensure continued operation of the Carlsbad Desalination Plant for stand-alone operation and compliance with Ocean Plan Amendment.</p>

#	OBJECTIVE TACTIC	TARGET
1	Serve on the Consultation Committee for the San Dieguito Water Quality Improvement Plan to protect water quality at Hodges Reservoir. (B)	Jan-2021
2	Coordinate with member agencies and Water Research Foundation to evaluate the benefits of the Carlsbad Desalination Plant supply and new local supplies. (E)	Jun-2022
3	Complete Contract Administration Memoranda and any necessary Water Purchase Agreement contract amendments for the final phase of the new intake and discharge facilities at the Carlsbad Desalination Plant. (G, H)	Sep-2022
4	Advocate for state and federal funding opportunities applicable for the Carlsbad Desalination Plant Intake Modifications Project and apply as such programs are made available. (C, H)	Dec-2022
5	Participate on a national Water Reuse Action Plan workgroup to evaluate National Pollutant Discharge Elimination System (NPDES) permitting to support reuse projects. (A, D, F)	Jan-2023
6	Support Poseidon with development and implementation of the intake screen demonstration project to optimize the proposed intake technology. (G, H)	Mar-2023
7	Coordinate with member agencies to submit applications to MWD for LRP and other funding opportunities and advocate for criteria which is supportive of member agency projects. (C)	Jun-2023
8	Complete all submittal reviews within the Water Purchase Agreement required timeframe during oversight of the design, construction, and commissioning of the Carlsbad Desalination Plant's permanent intake and discharge facilities in compliance with the Ocean Plan Amendment. (G, H)	Dec-2023
9	Coordinate with the member agencies to provide comments to the State Water Resources Control Board on development of monitoring requirements and standards for constituents of emerging concern in potable and recycled water. (A, B)	Jun-2025

1

Exceed the Carlsbad Desalination Plant Water Purchase Agreement Minimum Demand Commitment of 48,000 acre-feet annually.



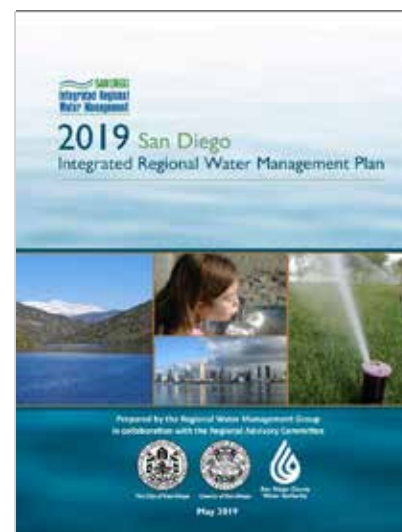
Resource Planning Overview

Resource planning is essential to ensuring a reliable water supply for the San Diego region and effectively managing potential supply shortages. Long-term supply planning at the Water Authority is accomplished with two major visionary plans – the San Diego regional Urban Water Management Plan (UWMP) and the San Diego Integrated Regional Water Management (IRWM) Plan. In collaboration with our 24 member agencies, the Water Authority completed the 2015 UWMP update, which was adopted by the Board in June 2016 and accepted by the State Department of Water Resources (DWR) in September of the same year. The Water Authority is currently preparing the 2020 UWMP for Board approval in early 2021, and submittal to DWR by July 2021.

The Water Authority Board adopted the 2019 IRWM Plan in July 2019, as part of the San Diego Regional Water Management Group (RWMG). Both plans were prepared such that they comply with state requirements and maintain the region's eligibility for state funding. Going forward, implementation of the new laws created by the passage of SB 606 and AB 1668, "*Making Water Conservation a California Way of Life*," signed in 2018 will impact water suppliers throughout the state. For the Water Authority, the new laws require state reporting in several areas, including activities related to strengthening local drought resilience. The 2020 UWMP will address that topic and many of the other new reporting requirements.

From 2008 to 2020, the Water Authority worked with our RWMG partners, the City of San Diego and County of San Diego, to secure \$111 million in IRWM funding from nine DWR grants to support 74 high-priority water projects that help achieve the goals of the San Diego

IRWM Plan. The Water Authority continues to fulfill ongoing obligations to both our RWMG partners and DWR to administer the IRWM grant funding obtained by the San Diego IRWM Program. This is achieved through the IRWM Grant Administration Program (GAP), which administers the awarded grant funds for individual IRWM projects. The cost of the GAP, which is part of the Water Resources Department, is offset by a portion of the awarded grant funds. The Water Authority and our RWMG partners will advocate for additional IRWM funding in the future, either through an appropriation in a future bond, or potentially through another dedicated revenue source.



The Integrated Regional Water Management Plan addresses resource management, water quality, and habitat in a region that includes a portion of San Diego County.

The Resource Planning Program also encompasses water shortage and drought response management. The Water Authority's primary planning document that addresses water supply shortages is the Water Shortage Contingency Plan (WSCP). The WSCP includes a series of orderly, progressive steps for the Water Authority and our member agencies to take during shortages to minimize impacts to the region's economy and quality of life. The WSCP was approved by the Board in August 2017, and will be updated and included as part of the 2020 UMWP to ensure compliance with the provisions of SB 606.

Another important aspect of resource planning is water use efficiency, which supports the Water Authority's long-term strategy to improve the reliability of the region's water supplies by promoting and facilitating the efficient use of water. Examples of our award-winning water efficiency initiatives include the publication "A Homeowner's Guide to a WaterSmart Landscape" and the WaterSmart Landscape Makeover Series for homeowners. Other innovative programs include the Qualified Water Efficient Landscaper (QWEL) program, which provides basic training in water use-efficiency for landscape professionals and the Sustainable Landscapes Program, which pioneered issuing incentives for landscape transformation projects that achieve water efficiency and other environmental benefits. The Water Authority's water use efficiency activities support a number of ongoing efforts identified as core needs by member agencies to help them meet their long-term water management goals in a manner that aligns with the Water Authority's Water Use Efficiency Policy Principles. These activities are primarily focused on market transformation towards products and services that achieve outdoor water savings.

Resource Planning Focus Areas

The focus areas of the Resource Planning Program are **Water Management Planning**, **Water Shortage and Drought Response Management**, and **Water Use Efficiency**. Each focus area includes management strategies designed to accomplish significant objectives over the next five fiscal years.

Water Management Planning

The Water Management Planning focus area includes management strategies for maintaining an IRWM plan, preparing a regional UWMP, and engaging in the San Diego Local Area Formation Commission (LAFCO) process on a proposed detachment/reorganization by Fallbrook Public Utilities District (Fallbrook) and Rainbow Municipal Water District (Rainbow). The IRWM plan addresses resource management, water quality, and habitat in a region that includes the portion of San Diego County that is tributary to coastal waters. The plan builds on local and regional management plans within the San Diego region with input from an array of key stakeholders. It also provides the basis for acquiring grant funding from the state. The UWMP identifies a diverse mix of water resources projected for development over the next 25 years to ensure long-term water supply reliability for the region. It is prepared in accordance with the state Urban Water Management Planning Act and includes conservation measures, programs, and policies. Together, these plans ensure a reliable regional water supply, and comply with evolving state requirements to maintain the region's eligibility to receive state funding and pursue other funding for projects that achieve San Diego IRWM Program goals. Strategies over the next five

fiscal years include an update to the regional UWMP to identify supplies necessary to meet future demands and secure the region's allocated share of IRWM grant funding from DWR's Proposition 1 grant program. Strategies for the Fallbrook/Rainbow proposed detachment include full engagement in the San Diego LAFCO process to ensure that all conditions outlined in Board Resolution 2020-06 are fully addressed.

Water Shortage and Drought Response Management

The Water Authority relies on the WSCP to effectively manage and respond to water supply shortages during droughts to avoid or minimize impacts to the region. The plan identifies regional shortage response actions to be taken at specific shortage levels by the Water Authority and, where appropriate, our member agencies. A critically important element of the plan is the municipal and industrial supply allocation methodology, which provides the Water Authority a method by which to allocate supplies to our member agencies, if the region were to be cutback. The plan also includes a basic methodology to prepare an annual municipal and industrial water reliability assessment to ensure that the Board, member agencies, the public, and state and local agencies are informed as to the region's water supply conditions and the likelihood of water shortages. In order to comply with recent changes to state laws, objectives include an update of the WSCP as part of the preparation of the 2020 UWMP, a revision of the 2008 Model Drought Response Conservation Ordinance to maintain consistency with updates to the WSCP, and preparation of annual water supply and demand assessments for submittal to DWR.

Water Use Efficiency

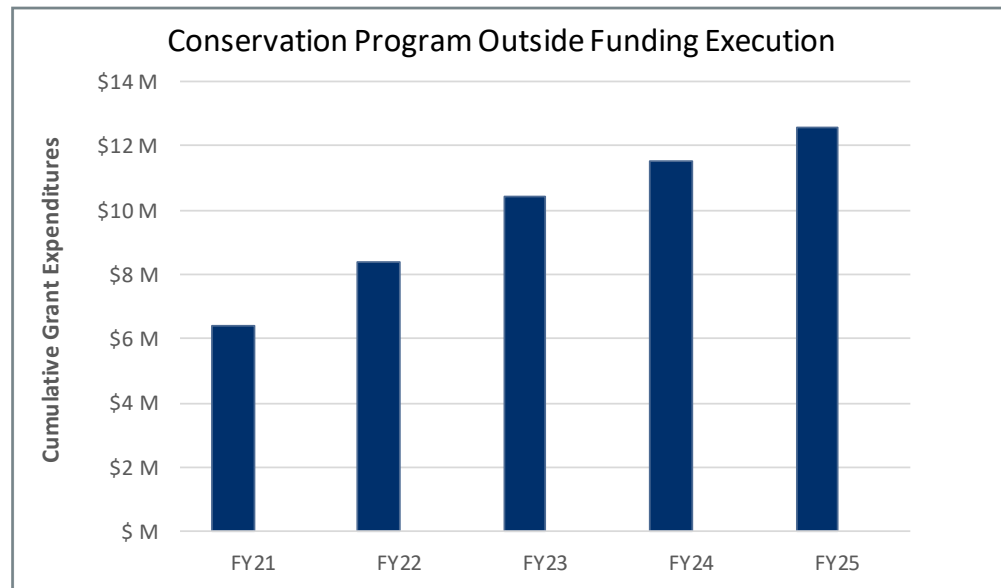
The WSCP responds to specific conditions by reducing water use in the short term via policies and ordinances that enforce temporary water use restrictions. The plan and other related measures adopted by the Board of Directors may trigger the accelerated implementation of conservation programs administered by the Water Authority. For instance, in 2015 the Board deployed \$1 million in new extraordinary water conservation programs. These near-term measures were commissioned in addition to the region's ongoing long-term water-saving activities, which are driven by the Board's Water Use Efficiency Program Policy Principles. Water use efficiency programs are a core element of the Water Authority's strategy to make the region's water supply more reliable in the long term. The Water Use Efficiency focus area utilizes several management strategies, including continuing to pioneer the advancement of sustainable landscapes, increasing program administrative efficiencies, and enhancing customer service and support to member agencies and program participants. Other strategies involve providing leadership at the state and local level to advocate for long term water use efficiency policies that benefit the San Diego region and obtaining external funding for Water Use Efficiency Program efforts. Objectives and tactics in this area include implementing and closing out four distinct Proposition 84 grant awards (Rounds 1, 2, 3, and 4); Proposition 1 grant award; leveraging regional programs available through the Metropolitan Water District; and enhancing a long-standing Water-Energy Nexus partnership with SDG&E.

WATER MANAGEMENT PLANNING	WATER SHORTAGE AND DROUGHT RESPONSE MANAGEMENT	WATER USE EFFICIENCY
<p>A Implement an Integrated Regional Water Management Plan that reflects stakeholder consensus and complies with evolving state requirements.</p> <p>B Pursue funding for implementation of projects that achieve San Diego Integrated Regional Water Management Program goals.</p> <p>C Develop a regional Urban Water Management Plan that complies with state requirements and ensures a reliable water supply for the San Diego region.</p> <p>D Update water management plans to maintain eligibility for state funding.</p> <p>E Engage in the San Diego Local Area Formation Commission (LAFCO) process on Fallbrook/Rainbow detachment.</p>	<p>F Ensure planning documents are consistent and relevant to properly manage and respond to supply shortages.</p> <p>G Ensure that proposed drought response actions are appropriate, progressive, and may be reasonably implemented by the Water Authority and its member agencies.</p> <p>H Ensure the public, along with state agencies, are kept informed of regional supply conditions and likelihood of shortages through preparation of annual water supply and demand assessments.</p>	<p>I Implement best-practices to manage and deliver water-use efficiency programs and services in a timely, convenient, and courteous manner.</p> <p>J Plan, develop, implement, or administer water efficiency programs and tools that meet the needs of member agencies and water users.</p> <p>K Support policies and actions that advance long-term water-use efficiency best practices, behaviors, and market transformations.</p> <p>L Leverage ratepayer investments by securing grants or other external funding sources and advocating for equitable benefits from MWD water-use efficiency programs.</p> <p>M Advocate for long term water use efficiency policies that benefit the San Diego region.</p>

#	OBJECTIVE TACTIC	TARGET
1	Complete the 2020 Urban Water Management Plan update to identify supplies necessary to meet future demands and comply with the Urban Water Management Planning Act. (C, D)	Jul-2021
2	Update the 2008 Model Drought Response Conservation Ordinance for inclusion in and consistency with the Water Shortage Contingency Plan. (F, G)	Jul-2021
3	Update the Water Shortage Contingency Plan to comply with state requirements and include the plan as part of the 2020 Urban Water Management Plan. (F, G)	Jul-2021
4	Secure \$2.5 million in external funding such as grant awards, utility funding, and in-kind contributions to support water-use efficiency programs. (I, J, K, L)	Jun-2022
5	Secure the San Diego Region's allocated share of approximately \$36 million in Integrated Regional Water Management grant funding, from the Department of Water Resource's Proposition 1 program. (A, B, D)	Jun-2022
6	Advocate with member agencies the equitable and reasonable development of statewide water use efficiency targets by the Department of Water Resources and State Water Resource Control Board. (J, K, M)	Jul-2022
7	Engage in the San Diego LAFCO process on Fallbrook/Rainbow detachment to ensure all conditions outlined in Board Resolution 2020-06 are fully addressed. (E)	Dec-2022
8	Work with member agencies to maximize water use efficiency funding from MWD for Member Agency Administered Programs (MAAP) (J, K, L)	Jul-2025
9	Prepare an annual water supply and demand assessment beginning in 2022, in coordination with the member agencies, that complies with state requirements. (H)	Jul-2025

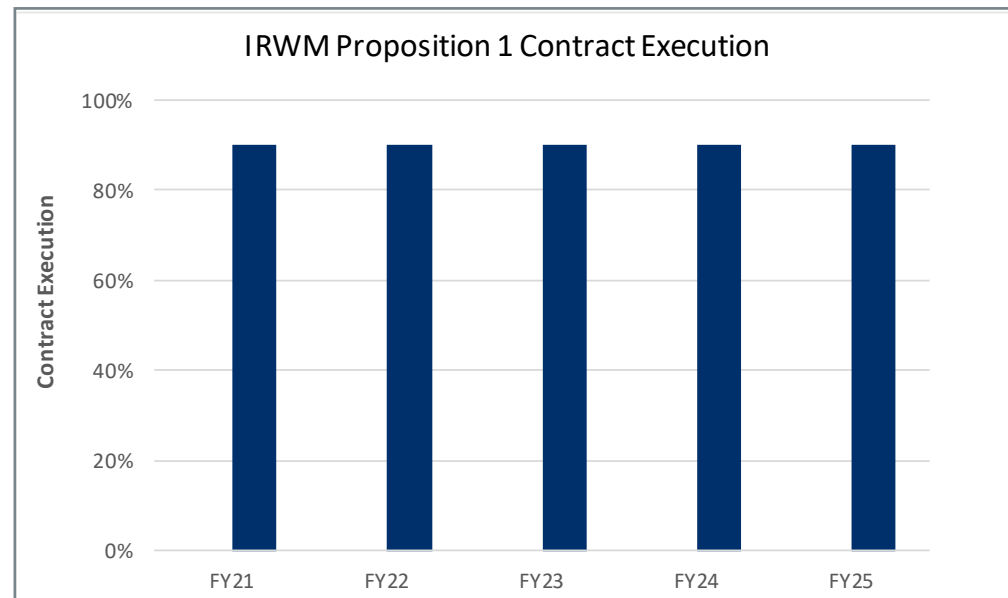
1

Implement regional conservation programs demonstrated by expending 95 percent of grants and external funding portfolio in accordance with the terms of each award.



2

Increase efficiency of awarding Proposition 1 IRWM grant funding by executing 90 percent of project sponsor contracts within 120 days of an agreement between the Water Authority and State Department of Water Resources.





Lake Murray Pipeline 2 Relining Project

Water Facilities- Programs and Focus Areas

INFRASTRUCTURE/ CIP	SUSTAINABILITY	WATER SYSTEM MANAGEMENT
● Asset Management	● Climate Change	● Energy Initiatives
● Infrastructure Planning	● Environmental Management	● Facilities Security and Emergency Response
● New Facilities		● Operations and Maintenance

Water Facilities

Water Facilities Overview

The Water Facilities focus area consists of three programs: **Infrastructure/Capital Improvement Program**, **Sustainability**, and **Water System Management**.

Infrastructure/Capital Improvement Program addresses the development of and execution of the Water Authority's capital projects. The **Sustainability** program focuses on implementing cost-effective and productive sustainability strategies that reduce environmental impacts, promoting thoughtful stewardship of nature resources, and enhancing facility and supply resiliency.

Water Systems Management ensures the Water Authority's infrastructure is reliable, complies with water quality standards, and meets member agency demands through optimized operations and cost-effective maintenance.

The Water Facilities focus area ensures the Water Authority's complex network of water transportation, treatment, and storage facilities are efficiently and sustainably operated and maintained, resulting in a safe, reliable water supply to support the region's economy and a good quality of life for its residents.

Key issues within the Water Facilities focus area include the following.

- ▶ Prioritizing a long-term capital improvement program and identifying efficiencies and reductions in operating costs while ensuring a reliable and safe water supply
- ▶ Balancing facility growth with water demands
- ▶ Managing facility operations, maintenance, and security to consistently and efficiently deliver a reliable water supply and meet member agency water demands
- ▶ Implementing cost-effective sustainability strategies that reduce environmental impacts, and promote thoughtful stewardship of natural resources within the Water Authority's aqueduct system



Infrastructure/CIP Overview

The Water Authority has built a reputation of being both pioneering and visionary in our execution of large and complex capital projects. Over the past two decades, the focus of the Capital Improvement Program (CIP) was to build new infrastructure to provide untreated and treated water to the region as well as implement the award-winning Emergency and Carryover Storage Project which continued the Water Authority's mission to provide a safe and reliable water supply to the region.



The Olivenhain Dam, Reservoir, Pipeline and Pump Station cornerstone of the Water Authority's Emergency and Carryover Storage Project

The \$1.5 billion Emergency and Carryover Storage Project is a system of reservoirs, interconnected pipelines, and pumping stations designed to make water available to the San Diego region if imported water deliveries are interrupted by an emergency event or periods of extended drought. Some of the key facilities of the Emergency and Carryover Storage Project include the Olivenhain Dam, Reservoir, Pipeline, and Pump Station; Lake Hodges Pipeline and Pump Station; and the San Vicente Pipeline, Pump Station, and Dam Raise. With the completion of the San Vicente Dam Raise in 2014, the major components of the Emergency and Carryover Storage Project were completed.

The current CIP budget of nearly \$2 billion, with an appropriation of \$162.2 million for Fiscal Years 2020 and 2021, reflects the shift from major construction projects to asset management and the optimization of the existing aqueduct system. One of the key strategies as we move forward is to use a risk-based approach to prioritize the long-term rehabilitation and/or replacement of our infrastructure. This will ensure that we build the projects needed most to ensure the safety and reliability of the water supply for the region

Infrastructure/CIP Focus Areas

The focus areas for the Infrastructure/Capital Improvement Program are **Asset Management**, **Infrastructure Planning**, and **New Facilities**. Within each focus area are management strategies that will drive the Water Authority to accomplish the major objectives and tactics set for the next five fiscal years.

Asset Management

In 2009, the Water Authority adopted an Asset Management Program for our infrastructure assets worth \$3 billion. Effective management of these assets yields savings from improved system reliability, effective rehabilitation, and lower increases to water rates over time. Several industry groups identify the Water Authority's Asset Management efforts as both visionary and pioneering, and recognize it as a leader in the field. Beyond established practices such as pipeline inspections, risk analysis, program monitoring, and long-term forecasting, the program continues to pioneer new technology to optimize maintenance, condition assessments, and prioritization of assets for rehabilitation or replacement.

Asset Management is comprised of two components: first, the Infrastructure Rehabilitation Project that consists of pipeline and facility assessments, repairs, and replacements; and second, the Relining and Pipe Replacement Program that includes rehabilitation efforts specifically related to pre-stressed concrete cylinder pipe. To date, 47 miles (or 57 percent), of the Water Authority's 82 miles of pre-stressed concrete cylinder pipe have been rehabilitated under this program. The Asset Management program recently completed condition assessments which will help prioritize the long term CIP needs as well as help determine the long term financing plan for the agency.

Infrastructure Planning

The Water Authority completed the 2013 Regional Water Facilities Optimization and Master Plan Update that focuses on optimizing the Water Authority's

existing system while being agile enough to adapt to a range of future operating and member agency water demand scenarios. These projects include local supply development that has both direct and indirect impacts to the operation of the Water Authority's system. Currently, studies are underway in preparation for a new 2023 Master Plan Update. Future infrastructure planning will be focused on the projects specifically identified in the upcoming 2023 Master Plan Update in addition to other projects subsequently identified that ensure a safe and reliable water supply is maintained for the region.

New Facilities

The focus for new facilities has shifted from major infrastructure projects to rehabilitating and or replacing our existing infrastructure based on the optimization of the existing aqueduct system. This new focus involves the implementation of small projects. As a result, the Water Authority must adapt by developing business policies, practices, and procedures that are conducive to completing efficient designs and the award and management of smaller contracts. Management strategies that employ pioneering technology, such as 3-D scanning, drones, and automated scheduling and controls can promote the most efficient and cost-effective delivery of projects. The Water Authority will continue to employ existing and new innovative best management practices such as performance metrics, quality control and quality assurance, value engineering, and comprehensive Gate reviews for all CIP projects, while continuing coordination efforts with both internal and external stakeholders and member agencies.

Water Facilities Infrastructure/CIP | Management Strategies

ASSET MANAGEMENT	INFRASTRUCTURE PLANNING	NEW FACILITIES
<p>A Ensure prioritization, optimal maintenance, and rehabilitation of assets.</p> <p>B Pioneer and utilize new and innovative technology to reduce risk and increase productivity and efficiency.</p>	<p>C Coordinate and align project scope and schedules within the Master Plan Update and the Asset Management Program to achieve the optimal balance between regional water reliability, safety, and cost.</p> <p>D Optimize use of existing treatment, storage, and conveyance facilities to meet projected member agency water demands.</p>	<p>E Employ pioneering technology, innovation, and best management practices for all Capital Improvement Program projects.</p> <p>F Develop innovative business policies, practices, and procedures that are aligned with smaller contracts.</p> <p>G Collaborate with member agencies and other external stakeholders on the Capital Improvement Program.</p> <p>H Coordinate with internal functional groups and stakeholders to promote the most efficient and cost-effective delivery of projects.</p>

Water Facilities Infrastructure/CIP | Objectives and Tactics

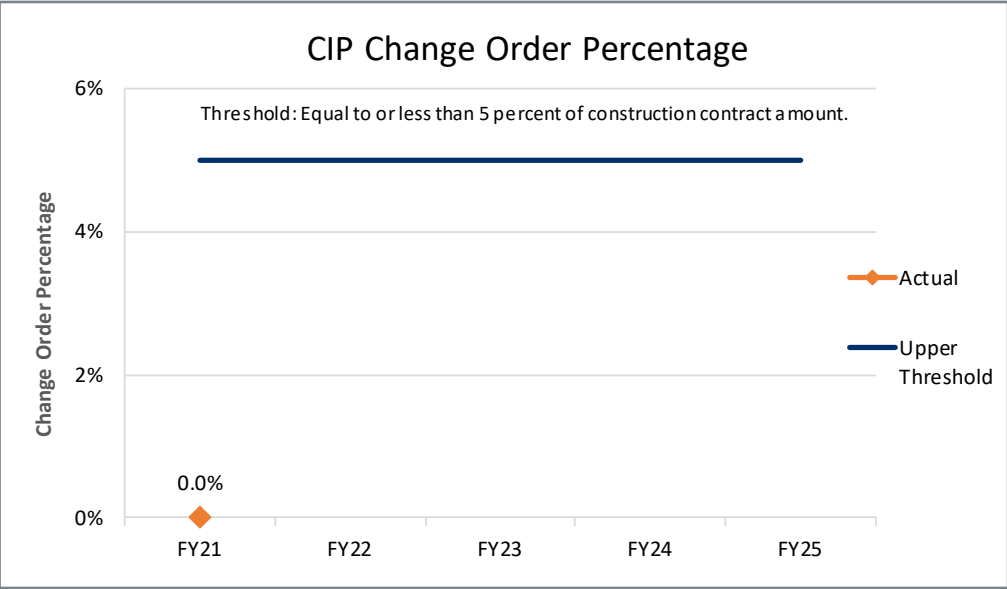
#	OBJECTIVE TACTIC	TARGET
1	Complete the San Diego 5A/5B/5C Flow Control Facility Planning Study and identify a preferred rehabilitation approach with sufficient engineering analysis to initiate detailed design. (A, C, D, G, H)	Mar-2021
2	Complete the Northern First Aqueduct Structures and Lining Rehabilitation project to improve operations and the reliability of First Aqueduct treated water deliveries. (A, C, E, F, G, H)	Jun-2021
3	Complete a detailed study for the repair time estimates of the Water Authority's aqueduct and pipeline system-based changes in seismic hazard evaluation and pipeline response to earthquakes. (A, C)	Dec-2021

Water Facilities Infrastructure/CIP | Objectives and Tactics continued

#	OBJECTIVE TACTIC	TARGET
4	Complete the Moosa Canyon Planning Study and related preliminary engineering analysis to develop long-term pipeline protection and repair alternatives for the Second Aqueduct pipelines crossing the canyon. (A, C, D, G, H)	Dec-2021
5	Complete the Mission Trails Flow Regulatory Storage II and Flow Control Facility project to mitigate existing operational risks and meet future untreated water demands for the central and south county service areas. (C, D, E, G, H)	Apr-2022
6	Complete the design for the Southern First Aqueduct Structures Rehabilitation project to improve operations and the reliability of First Aqueduct untreated water deliveries. (A, C, E, F, G, H)	Jun-2022
7	Complete the Hauck Mesa Storage Reservoir and Pipeline Surge Protection project to provide operational flexibility on the First Aqueduct and long-term surge protection for the Valley Center Pipeline. (C, D, E, F, G, H)	Dec-2022
8	Complete the Valley Center ESP Improvements project to provide treated water deliveries to VCMWD and YMWD during an emergency event. (C, D, E, G, H)	Jun-2023
9	Complete the Alvarado Hydroelectric Rehabilitation project to provide an estimated \$600k of annual revenue. (B, C, H)	Jun-2023
10	Complete a Master Plan Update that evaluates facility needs based on projections from the 2020 Urban Water Management Plan and other system strategies that address anticipated lower flows and associated water quality challenges. (C, D, G)	Jun-2024
11	Complete the design for the Carlsbad 5 Flow Control Facility project to allow desalination water delivery directly from the Carlsbad Desalination Plant to the Carlsbad Municipal Water District. (E, F, G, H)	Jun-2025
12	Explore opportunities to strengthen the regional collaboration on asset management and implement strategies in support of our member agencies. (A,B,G)	Jun-2025
13	Using the latest proven and innovative pipeline assessment technologies, perform comprehensive condition assessment of the untreated water portion of the First Aqueduct. (A, B)	Jun-2025
14	Formulate industry partnerships to determine cost effective solutions for re-evaluation (supplemental to initial baseline assessments) of large-diameter welded steel pipelines. (A, B, E)	Jun-2025
15	Complete the rehabilitation and/or replacement of three priority flow control facilities, extending the facilities' service life. (A, C, D, F, G, H)	Dec-2025
16	Complete an additional 4 miles of priority pipeline relining, extending the service life of the identified segments of the aqueduct system. (A, E, G, H)	Dec-2025

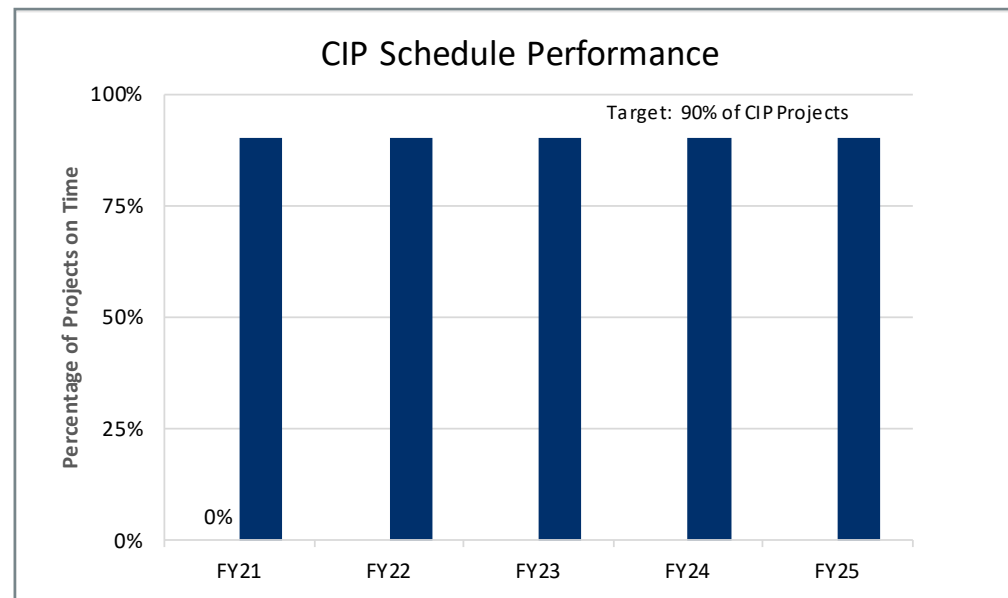
1

Maintain an overall Construction Change Order Percentage equal to or less than 5 percent of the construction contract amount.



2

Maintain 90 percent of all Capital improvement Program projects within four (4) months of their baseline schedule.



Sustainability Overview

The Water Authority is committed to being a model agency for sustainability. This is demonstrated through our continued support of cost-effective sustainability strategies that reduce environmental impacts, promote thoughtful stewardship of natural resources, and enhance facility and supply resiliency. These strategies save ratepayers money, reduce and manage the environmental footprint of Water Authority facilities and operations, conserve energy and water, and help the Water Authority better anticipate and adapt to the impacts of climate change.

The Water Authority's Environmental Management Program is designed to reduce short- and long-term environmental impacts and streamline the permitting process. The Water Authority's Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which became effective in 2011, provides a 55-year permit for future projects and includes goals, guidelines, and specifications that comprise the Water Authority's conservation strategy for biological resources. The NCCP/HCP also provides a description of the Water Authority's mitigation lands and preserve area management guidelines. In addition to the 50-year Clean Water Act Section 404 permit known as the Programmatic Master Plan Permit (PMPP 2015), the Water Authority obtained a Stream and Lakebed Alteration Agreement (SLAA) for the Programmatic Routine Operations and Maintenance Project in 2019.

The Water Authority recognizes the challenges that climate change poses to the San Diego region and is dedicated to proactively addressing these issues. Our regional climate change initiatives include both

mitigation and adaptation strategies. The Water Authority voluntarily developed and adopted the agency's first Climate Action Plan (CAP) in March 2014. The Water Authority is planning to complete the 2019 CAP Update during this Business Plan period to serve as an interdisciplinary guide intended to promote, facilitate, and coordinate implementation of climate change mitigation strategies. The plan focuses on greenhouse-gas emission reduction measures to ensure our water supplies, infrastructure, and services will accommodate projected impacts of climate change. It evaluates greenhouse-gas emissions against targets for voluntary compliance with the State of California's policies and goals to reduce emissions of greenhouse gases including Assembly Bill 32 and Senate Bill 32. The Water Authority has already made great strides in reducing our emissions, with projected levels falling below our emissions goals. In addition, efforts to help the Water Authority adapt to future impacts of climate change were addressed in the Water Authority's 2015 Urban Water Management Plan and will be addressed in the 2020 UWMP.

The Water Authority has pursued partnerships with researchers like the Scripps Institution of Oceanography and other climate change practitioners to advance actionable climate science focused on adaptation strategies. Additionally, as a pioneering leader in the climate change arena, the Water Authority is a founding member of the Water Utility Climate Alliance (WUCA). Formed in 2007, WUCA is comprised of 12 of the nation's largest water providers that supply drinking water to more than 50 million people throughout the United States. WUCA provides leadership in assessing and adapting to the potential effects of climate change. Projects funded through WUCA, such as the Best

Practices in Climate Adaptation project intended to define climate adaptation for a water utility context and identify, document, and synthesize lessons and practices associated with adapting to climate change. The Water Authority continues to make a positive contribution to a more sustainable future for the region by implementing cost-effective adaptation and mitigation strategies that support efficient resource management, decrease greenhouse-gas emissions, and promote actionable climate change research.

Sustainability Focus Areas

The focus areas of the Sustainability Program are **Climate Change** and **Environmental Management**. Within each focus area are specific management strategies that establish the Water Authority's sustainability vision of maintaining a leadership role in advancing climate science research and collaborating on approaches to mainstream adaptation strategies into business practices.

Climate Change

The climate of the San Diego region is increasingly warmer and drier, with recent prolonged record-breaking temperatures – as demonstrated by 71 out of 77 months (between November 2014 and May 2020) having hotter than normal temperatures at Lindbergh Field. Heat wave frequency, intensity, and duration are anticipated to increase. Precipitation patterns are also anticipated to experience changes with more frequent and severe droughts punctuated by more intense individual precipitation events. The Water Authority's agile management strategies and associated tactics for the Climate Change focus area include implementing cost-effective measures to reduce greenhouse-gas

emissions, updating the CAP, and collaborating on leading-edge climate science research to evaluate potential impacts of climate change on the quantity and quality of local water supplies and its effect on water demands.

Environmental Management

The Environmental Management focus area is central to the sustainability of long-term facility planning and operations. It is driven by regulatory compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), State and Federal endangered species acts, clean water act, and other natural resources regulations. Other environmental management activities include mitigation planning and implementation, land management, permitting support for Capital Improvement Program projects, and legislative review. Management strategies and objectives of the Environmental Management Program include advanced planning, projecting mitigation needs, and proactively obtaining mitigation lands and/or credits at a mitigation bank. These strategies will give the Water Authority the ability to move projects forward as mitigation acreage (credits) are debited from already established mitigation properties. This includes utilizing proactive methods to ensure sustainable mitigation in advance of capital and operational project needs; developing a plan to manage mitigation land credit inventory; evaluating the potential to market excess mitigation land credits; reassessing NCCP/HCP covered species list to consider additions or reductions to the list, proactively participating in regulatory agency's five-year review of PMPP, evaluate the need and request an extension of the SLAA, and distributing the environmental awareness training program.

CLIMATE CHANGE

- A** Implement cost-effective opportunities that mitigate greenhouse-gas emissions in compliance with emission targets contained in the Climate Action Plan.
- B** Support climate science research and evaluate opportunities to mainstream adaptation strategies into business practices.
- C** Ensure resiliency of infrastructure and supplies to adapt to climate change impacts.

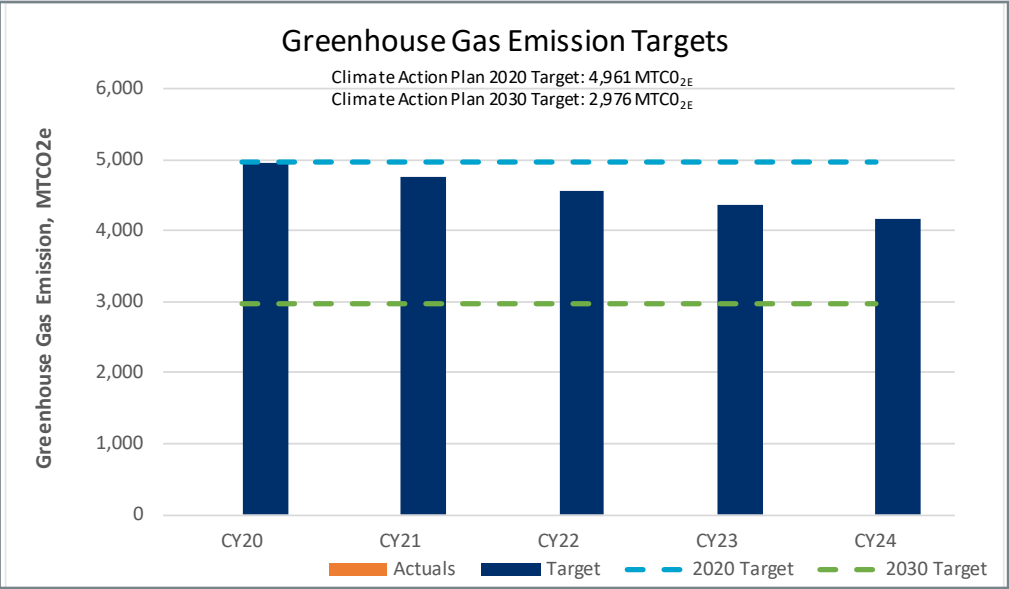
ENVIRONMENTAL
PLANNING

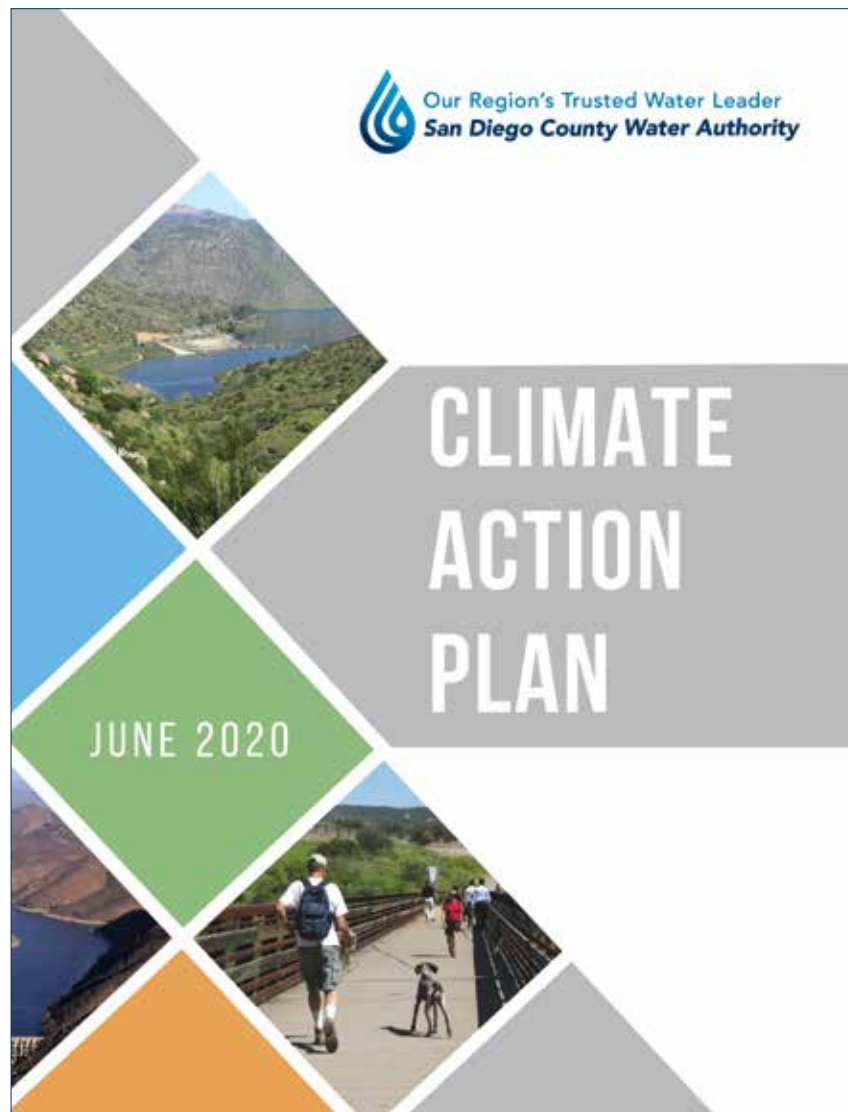
- D** Incorporate advanced planning to ensure Water Authority compliance with environmental regulations.
- E** Strengthen inter-departmental coordination of environmental compliance.
- F** Ensure sustainable mitigation is obtained in advance of project needs.

#	OBJECTIVE TACTIC	TARGET
1	Implement the environmental awareness training video on the California Environmental Quality Act and current environmental permitting requirements for relevant staff and include a process to track completion. (E)	Jan-2021
2	Evaluate NCCP/HCP covered species list to determine if desirable to seek a major amendment to the NCCP/HCP, its implementing agreement, and State and Federal incidental take permits to revise the Covered Species list. (D, F)	Jun-2021
3	Complete a minor amendment to the NCCP/HCP to add the Communications Master Plan as a covered activity. Develop and circulate, for public review, a Supplemental Environmental Impact Report/ Environmental Impact Statement for the Water Authority Subregional NCCP/HCP. (D, F)	Mar-2022
4	Develop a minimum of three acres of wetland mitigation at the San Luis Rey Kendall site to mitigate impacts of near-term Capital Improvement Program projects. (D, F)	Jun-2022
5	Evaluate the need for and, if applicable, request an extension of the Stream and Lakebed Alteration Agreement for the Programmatic Routine Operations and Maintenance project in accordance with Fish and Game Code 1605, subdivision (b). (D)	Jun-2024
6	Pursue partnerships on leading-edge climate science projects and evaluate opportunities to incorporate climate research into planning processes. (B, C)	Jun-2025
7	Update the Army Corps of Engineers Programmatic Master Plan Permit and review, and update as necessary, the Programmatic Master Plan Permit to ensure the analysis is current. (D)	Jun-2025
8	Complete the 2024 Climate Action Plan Update to track progress toward meeting the 2023 and 2045 greenhouse-gas targets, which include the state's adopted greenhouse-gas target for carbon neutrality by 2045. (A, B)	Jun-2025

1

Ensure compliance with 2020 and 2030 greenhouse-gas emission targets identified in the Water Authority's Climate Action Plan.





The Water Authority will complete a five year update to the Climate Action Plan during this Business Plan period to serve as an interdisciplinary guide intended to promote, facilitate, and coordinate implementation of climate change mitigation strategies.

Water System Management Overview

The Water Authority operates and maintains a complex water system including large diameter pipelines, flow control facilities, flow regulatory structures, pump stations, a large dam, and hydroelectric facilities. The Water System Management program ensures this complex infrastructure is reliable, complies with water quality standards, and meets member agency demands through optimized operations and cost-effective maintenance.



Energy generation and storage is amongst the initiatives identified in the Water Authority's Energy Management Policy.

The program is engaged in several ongoing initiatives, including developing and maintaining a skilled workforce, monitoring hydroelectric performance, resolving right of way encroachments, enhancing physical security and the operations communication network, and improving the work management system.

Past accomplishments of this focus area include securing a business arrangement for the Rancho Penasquitos Hydroelectric Facility to maximize the value of energy generated at the facility and successfully implementing a cost-effective option for in-house operation and maintenance of the Lake Hodges Hydroelectric Pumped Storage facility. In addition, physical security assessments were conducted resulting in the development of improvement plans for critical facilities for continued water system protection against potential threats, while a battery storage system was installed at the Twin Oaks Valley Water Treatment Plant to optimize the use of energy and reduce costs associated from energy demand charges.

Water System Management Focus Areas

The focus areas of the Water System Management Program are **Energy Initiatives**, **Facilities Security and Emergency Response**, and **Operations and Maintenance**. Within each focus area are management strategies that will drive staff to accomplish major objectives and tactics over the next five fiscal years.

Energy Initiatives

The Water Authority's Energy Program seeks opportunities to lower the Water Authority's energy costs and use existing and new infrastructure to maximize energy revenue opportunities. The Board approved the 2019 Energy Management Policy that concentrates on six areas: energy supplies, existing system operations, energy generation and storage, energy efficient equipment and features, collaborative relationships, and government relations. The Energy Initiatives focus area aligns with the Energy Management Policy and the Water Authority's Climate Action Plan.

Facilities Security and Emergency Response

The Water Authority operates critical infrastructure to ensure a safe and reliable water supply for the region. Security and emergency response efforts support the need for physical and cybersecurity, business continuity, and emergency preparedness. This focus area emphasizes the protection of critical facilities and the operations control system against risks and vulnerabilities from all potential threats, such as terrorism and cybersecurity threats. The Water Authority plays a critical dual role during emergencies, as a provider of water to the region and as a first responder. The ability to respond quickly during a security or emergency incident is crucial to ensure water supply availability to our member agencies and to minimize potential injury, loss of life, and property damage.



An Operations and Maintenance technician attends to repairs at the Lake Hodges Pump Station.

Operations and Maintenance

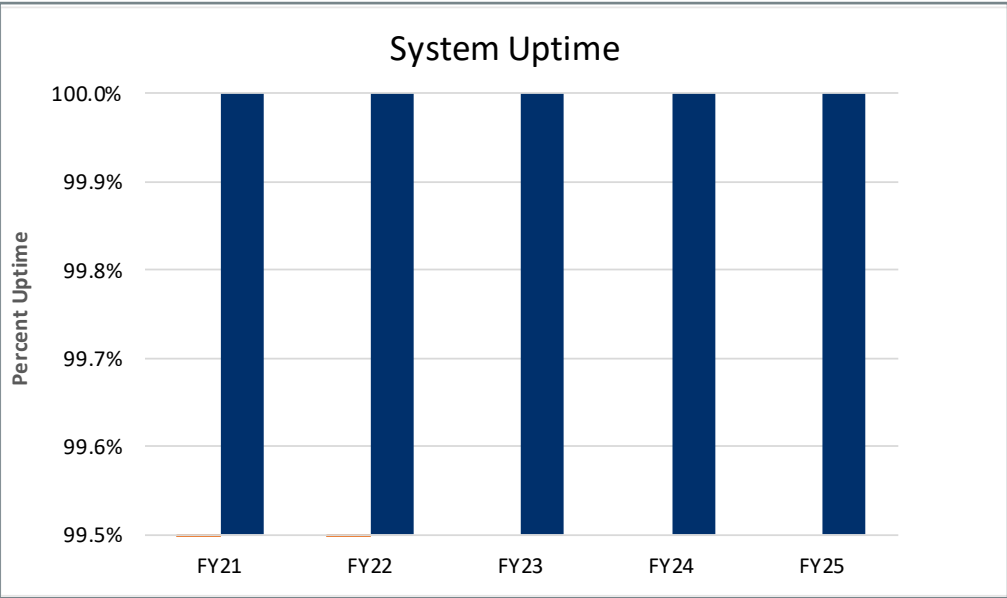
The Operations and Maintenance area focuses on efficiently maintaining system reliability and continuing to develop staff that are driven to excellence in their fields of expertise. The Water Authority's complex water system requires staff to continuously develop their knowledge, skills and abilities. In addition, efficient operations and enhanced proactive maintenance sustains a reliable water system and increases the Water Authority's ability to efficiently support and supply our member agencies.

ENERGY INITIATIVES	FACILITIES SECURITY AND EMERGENCY RESPONSE	OPERATIONS AND MAINTENANCE
<p>A Leverage power market opportunities that maximize the value of new and existing energy facilities.</p>	<p>E Provide necessary facilities, staffing, and funding to support security and emergency response requirements.</p>	<p>G Maintain water system reliability and efficient operations through staff development and facility improvements.</p>
<p>B Pursue new energy initiatives that reduce energy costs.</p>	<p>F Comply with applicable state and federal regulations regarding security.</p>	<p>H Enhance proactive maintenance practices.</p>
<p>C Coordinate with local, regional, state and federal agencies to best position Water Authority energy exchanges.</p>		
<p>D Influence energy rule-making by engaging in legislative and regulatory processes.</p>		

#	OBJECTIVE TACTIC	TARGET
1	Advocate for legislative or regulatory action allowing for cost of service, large-scale pumped energy storage model. (A, B)	Dec-2021
2	Implement energy dashboard for tracking and centralizing energy generation and usage data. (B)	Dec-2022
3	Identify potential properties for the new Operations and Maintenance Department Facility for Board consideration. (G)	Jun-2023
4	Implement identified physical security assessment recommendations for critical facilities. (E, F)	Jun-2023
5	Implement phased recommendations from the Aqueduct Communication System Master Plan to enhance security and control of the Water Authority's Aqueduct Control System. (G, H)	Jun-2023
6	Evaluate the feasibility of improving electric system resiliency at Water Authority facilities. (G)	Dec-2024
7	Evaluate and incorporate new technology in collaboration with water quality equipment manufacturers to enhance the online water quality monitoring capabilities within the aqueduct system including both untreated and treated pipelines. (G, H)	Jun-2025
8	Identify innovative opportunities for energy procurement to reduce energy costs and identify schedules for economically viable alternatives. (A, C, D)	Jun-2025
9	Participate in Federal and State regulatory proceedings to reduce energy costs and comply with California energy goals. (D)	Jun-2025
10	Develop major maintenance and replacement plans for Escondido, Valley Center, Twin Oaks Area 10, Miramar, San Vicente and Olivenhain Pump Stations, and the Rancho Penasquitos Pressure Control and Hydroelectric Facility. (G, H)	Dec-2025

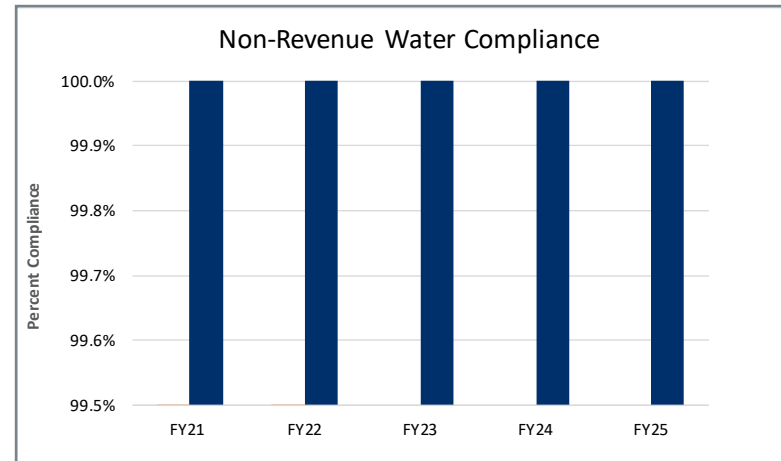
1

Eliminate unplanned service interruptions to member agencies by maintaining 100 percent system uptime each fiscal year.



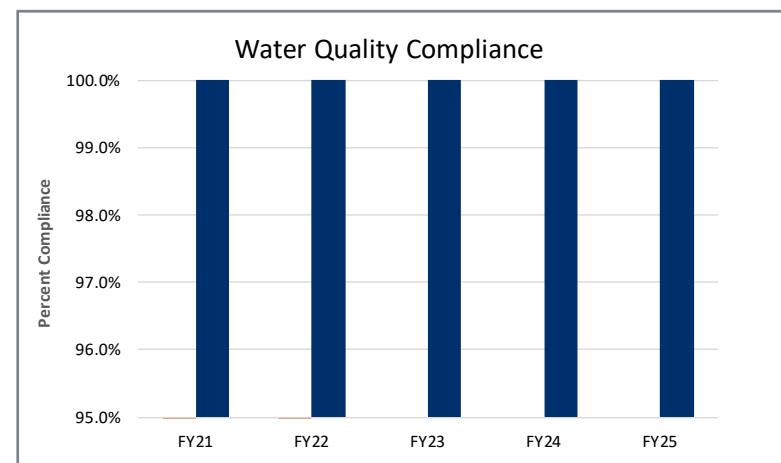
2

Minimize non-revenue water by managing system water loss within established standards 100 percent each fiscal year.



3

Meet all federal and state drinking water regulations by maintaining 100 percent compliance each fiscal year.





Kearny Mesa Headquarters

Business Services – Programs and Focus Areas

BUSINESS SUPPORT	COMMUNICATION AND MESSAGING	FINANCIAL MANAGEMENT	WORKFORCE MANAGEMENT
● Cybersecurity	● Government Relations Outreach	● Accounting	● Leadership
● IT Services and Operations	● Public Outreach	● Debt and Investment Management	● Safety
● Facilities	● Regulatory Policy Support	● Financial Planning	● Culture
● Administrative Support			● Talent Management
			● Technology

Business Services

Business Services Overview

The Business Services focus area consists of four programs: **Business Support**, **Communication and Messaging**, **Financial Management**, and **Workforce Management**.

The **Business Support** program encompasses the areas of cybersecurity, technology, records management, and facilities, and supports efficient and productive agency operations. **Communication and Messaging** supports and maintains strong relations with regulators, legislators, and other stakeholders through effective communication. **Financial Management** focuses on near-term and long-term financial planning, management and reporting. **Workforce Management** bridges the workforce of today with the workforce of the future.

Collectively, the programs within the Business Services focus area serve as the foundation for all aspects of the Water Authority's business operations and is an essential component of the Business Plan.

Key issues within the Business Services focus area include the following.

- ▶ Adopting pioneering technology and protecting against cybersecurity threats
- ▶ Continuing effective communications with external stakeholders
- ▶ Implementing long-term financial plans to provide rate and charges guidance
- ▶ Attracting, retaining, and developing a high-performing workforce



Business Support Overview

All aspects of the Water Authority's operations, including short and long-term planning, engineering, design, communication, and public engagement, depend on high-quality business support services. The Business Support Program helps the organization meet our business goals and objectives by providing excellent information technology systems, implementing cybersecurity best practices, and performing a range of critical administrative functions such as records management, facility management, risk management, and centralized procurement support.



Public health control protocols have been implemented in response to the pandemic.

Recent accomplishments for the Business Support Program include the following.

- ▶ Enabling greater workforce mobility through upgrades our Microsoft Office licensing; updates to the user interfaces for financial and human resources enterprise applications; and the development of new web-based applications and dashboards to facilitate program reporting and transparency;
- ▶ Securing our crucial business systems through implementation of critical cyber and information security measures, such as multifactor authentication and enhanced file backup solutions in accordance with the CIS-20 framework;
- ▶ Ensuring a safe, secure, and functional office environment through completion of several vital maintenance, repair, security and sustainability projects at the Kearny Mesa headquarters, as well as procurement of cost-effective insurance coverage to mitigate risk from the addition of new water system facilities or new technical initiatives such as the addition of drone use for monitoring our right-of-way;
- ▶ and, engaging in the Water Authority's response to the COVID-19 pandemic. This includes providing the equipment and technical support necessary to transition most of the agency's workforce to remote-work status to comply with regional stay-at-home orders; enhancement of enterprise software systems to account and track resources for potential federal economic relief; and physical adaptations to the Kearny Mesa headquarters to reflect public health control measures and social distancing requirements.

The Business Support Program is driven to remain adaptable to new and evolving circumstances and to continue providing solutions to the agency's business needs. Information Systems hardware and software will continue to transition to a cloud-based environment; IS Help Desk staff will continue to support the workforce by providing high-level technical services, Web/GIS staff will continue to develop applications for customer departments to suit specific operational needs, and Business Systems staff will continue to install enterprise software updates. The program will also continue to implement cost-effective measures at the Water Authority's headquarters to protect employees, Board members and visitors in the wake of COVID-19, and continue to pursue administrative initiatives, such as improving file management systems designed to bolster staff efficiency and productivity.

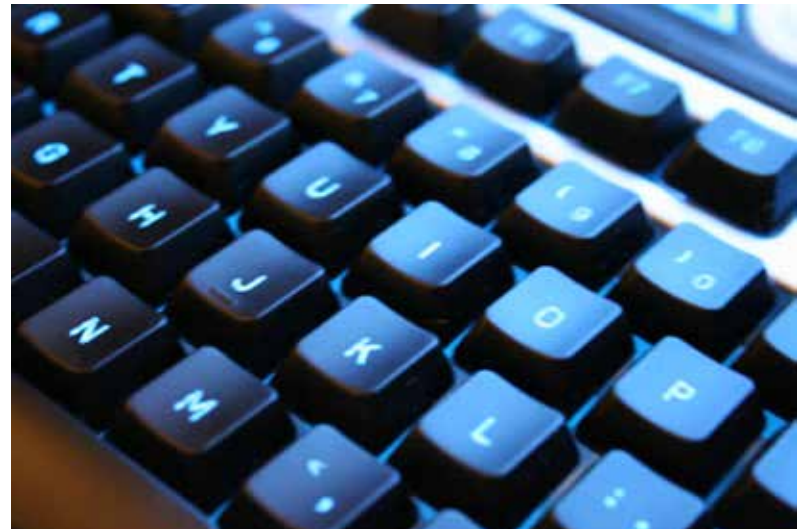
Business Support Focus Areas

The focus areas of the Business Support Program are **Cybersecurity, IT Services and Operations, Facilities,** and **Administrative Support**. The focus areas support the vision of the program to protect, enable and improve the ability of the organization and our employees to perform their duties effectively and efficiently.

Cybersecurity

Comprehensive network security remains a high priority for the agency and is critical to providing stable business operations. Best practice technical and administrative controls were enhanced as part of an overarching program to ensure the organization is well-protected

against cyber threats. The multi-layered security model is consistently updated to reflect current trends and respond to emerging threats. In fiscal year 2020, staff coalesced these efforts with the creation of a comprehensive Information Security Program. The Program specifies strategies and policies to guide the Water Authority's ongoing coordination and implementation of information security measures for the business information system. Over the next five fiscal years, staff will continue to follow the implementation and maintenance of internationally recognized best practices for securing our systems and data.



Multifactor authentication is one of the many best practices in use by the Water Authority to secure its network.

IT Services and Operations

The Water Authority continually updates our technology infrastructure and tools to support enhanced business operations, such as providing specialized software and robust databases that deliver essential financial reporting and budgeting tools. It also maintains a specific suite of software applications to help meet agency-wide business needs and manages critical network infrastructure, allowing Water Authority employees to operate effectively and to deliver high-quality service to member agencies and stakeholders. This focus area will continue to support customer departments with improved databases, dashboards, websites and other applications, by making timely upgrades and enhancements to financial management, human resource and asset management enterprise software, and by ensuring equipment and technical tools are available to employees when and where needed.

Facilities

The Facilities focus area covers the operation and maintenance of the Kearny Mesa headquarters building and associated facilities. It works to enhance the efficiency of these facilities and ensure employees, Board members and visitors have a safe, secure and comfortable environment for their official business. In recent years, the Water Authority has implemented many improvements, such as energy-saving lighting and window tinting, a major roof relining project, COVID-19 protection measures such as upgraded HVAC filters and no-touch door openers, automatic lobby doors to enhance Americans with Disabilities Act (ADA) access, and enhanced physical security measures. Now that the

headquarters facility is passing 20 years of operation, many building components are approaching the end of their service life. Over the next five fiscal years staff will focus on prioritizing and implementing appropriate replacements of these components to maintain a safe and productive working environment and to minimize the risk of encountering costly repairs. Staff also will continue to carry out proper maintenance while pursuing cost-effective opportunities to enhance the sustainability and security of the headquarters facility.



Work crews lift construction materials during a major roof rehabilitation project at the Kearny Mesa headquarters.

Administrative Support

The Administrative Support focus area provides a variety of services crucial for carrying out the agency's business affairs, from records management to risk management to purchasing and other processes that support employee productivity and agency objectives.

The Water Authority maintains a comprehensive records management program that effectively manages agency records from creation to ultimate disposition so the Water Authority can reliably access documents when necessary to meet our legal, operational or other obligations as a public agency. Over the next five fiscal years, staff aims to implement enhancements to our records management software platform and support transitioning the agency to an improved file classification system in the cloud to make successful records management easier and more efficient.

Historically, the Water Authority has employed innovative and cost-effective solutions to manage risk and reduce exposure to liability. An example is implementing an owner-controlled insurance program during the height of the Capital Improvement Program. More recently, new lines of insurance have needed to be secured to cover areas such as drone use and cybersecurity. Given constantly changing laws and regulations, new facilities and technologies, as well as recent market-based challenges, staff will continue to remain agile and ready to adapt the Water Authority's insurance portfolio over the next five fiscal years to control costs and maintain appropriate coverage.



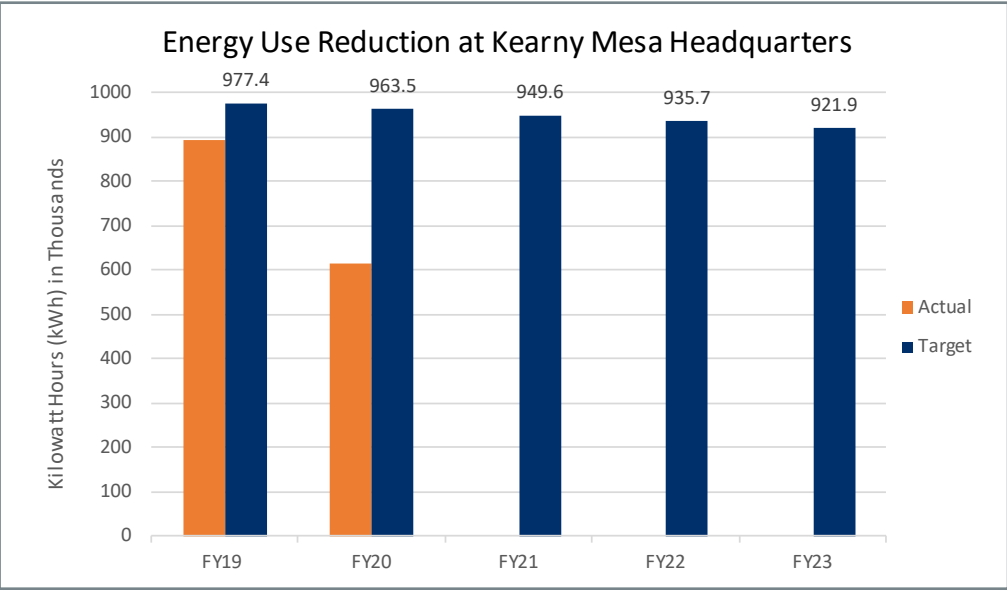
The use of drones to assist with right of way patrol required a new line of coverage in the Water Authority's insurance portfolio.

CYBERSECURITY	IT SERVICES AND OPERATIONS	FACILITIES	ADMINISTRATIVE SUPPORT
<p>A Provide back-up and recovery capability to protect data and critical information systems for business continuity.</p>	<p>D Maintain and upgrade critical software and business applications and hardware to meet business needs.</p>	<p>G Implement measures that maintain or enhance a safe, secure and productive working environment.</p>	<p>I Obtain cost-effective business insurance policies that appropriately manage risk and support evolving business needs.</p>
<p>B Implement cybersecurity measures to provide a safe and secure computing environment.</p>	<p>E Continually improve business processes by increasing automation, flexibility, ease of use, and mobility.</p>	<p>H Improve the efficiency of water and energy use at the Kearny Mesa headquarters to reduce long-term costs and conserve resources.</p>	<p>J Maintain and upgrade records management practices and electronic document management systems.</p>
<p>C Educate employees to be technically skilled, well informed, alert, and vigilant.</p>	<p>F Upgrade, enhance, and support critical software applications to leverage new functionality, maintain compliance and compatibility, improve productivity and promote timely and informed decision making.</p>		<p>K Support and improve tools and processes that enhance business efficiency and productivity.</p>

#	OBJECTIVE TACTIC	TARGET
1	Complete transition of all departments from the L drive to Sharepoint for primary reliance for file creation and maintenance. (A, B)	Dec-2021
2	Implement new mobile computing strategy that increases organizational flexibility, resiliency, and mobility. (A, B, C, D, E, F, K)	Jun-2022
3	Replace Kearny Mesa headquarters interior paint and carpeting. (G)	Jun-2023
4	Conduct independent re-assessment of Water Authority's physical security measures at Kearny Mesa headquarters. (G)	Jun-2023
5	Reduce energy use of the Kearny Mesa headquarters from fiscal year 2018 baseline by 7 percent by the end of fiscal year 2023. (H, K)	Jun-2023
6	Implement at least 30 additional measures based on best practices from the Center for Internet Security (CIS), National Institute of Standards and Technology (NIST), Department of Homeland Security (DHS) or other nationally recognized cybersecurity authorities. (A, B, C)	Jun-2025
7	Adapt business insurance policies to cost-effectively meet the evolving needs of the Water Authority. (I)	Sep-2025
8	Migrate electronic document management system to the cloud to improve systems resilience. (A, B, D, E, J, K)	Sep-2025
9	Upgrade existing phone technology to complete the "unified communication" system (combined messaging, presence, phone, video conferencing, voicemail, and email) to expand organization-wide communication capabilities. (D, E, F)	Dec-2025

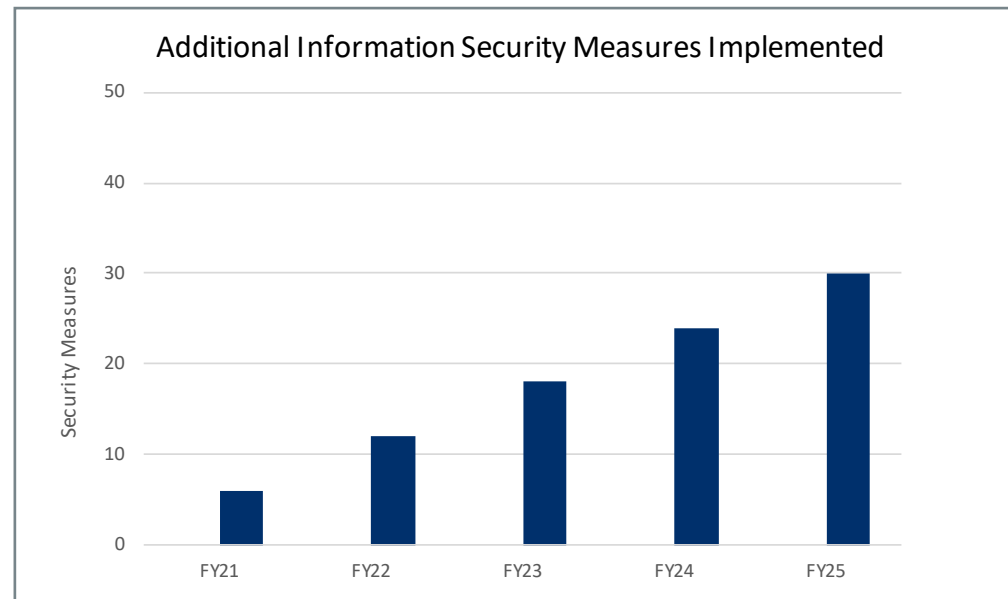
1

Reduce energy use of the Kearny Mesa headquarters from the FY2018 baseline of 991,235 Kilowatt hours (kWh) by 7 percent by the end of FY2023.



2

Implement at least 30 additional measures based on best practices from the Center for Internet Security (CIS), National Institute of Standards and Technology (NIST), Department of Homeland Security (DHS) or other nationally recognized cybersecurity authorities by the end of FY2025.



Communication and Messaging Overview

The Communication and Messaging Program supports the organization's vision in multiple ways. Effective relationships with regulators, elected officials, media, community leaders, and the general public are imperative for meeting critical Water Authority goals. Regulatory and legislative requirements can have a significant impact on the Water Authority's and our member agencies' ability to maintain operational flexibility and fiscal sustainability. Public trust and support are also necessary to ensure the successful implementation of endeavors ranging from short-term maintenance projects to long-term supply reliability investments. Engaging in these areas has become increasingly challenging in recent years as rapidly changing hydrologic conditions, climate change effects, and other complex water issues have dominated headlines and heightened public and regulatory interest in how water is secured, used, and funded.

Recent accomplishments in the Communication and Messaging Program include the development and deployment of the *Brought to You by Water* outreach and education program, which was judged to be one of the top five communications campaigns statewide in 2019; the development and deployment of the Water News Network, a reliable source of water agency information across the region; the rapid growth of social media followers and engagement over the past two years as a way to amplify the Water Authority's public voice; and advancement of legislative and administrative action, in collaboration with the City of San Diego, to support opportunities to secure an off-take procurement agreement for energy storage services from the proposed San Vicente Energy Storage Facility project.

Government relations outreach efforts have resulted in the successful passage of Water Authority-sponsored and co-sponsored bills that significantly advance the San Diego region's strong water conservation ethic into statewide policy and practice, and improved opportunities for individuals leaving military service and transitioning into civilian water and wastewater treatment occupations. Additionally, the Water Authority has played an instrumental role in administrative and legislative efforts to secure robust funding for implementation of the Salton Sea Management Program.



Water News Network

Public outreach efforts have helped the San Diego region maintain a strong water efficiency. Water Authority-branded communications, including the WaterSmart campaign, help to remind the public of the ongoing need to practice efficient and sustainable water use. Outreach efforts have also helped maintain high levels of public support for the Water Authority's supply diversification strategy, water-use efficiency, and the value of public water services. Outreach has also bolstered engagement of community leaders on important water issues through initiatives such as the Citizens Water Academy and the Brought to You by Water outreach and education program.

Communication and Messaging

Focus Areas

The focus areas of the Communications and Messaging Program are **Government Relations Outreach**, **Public Outreach**, and **Regulatory Policy Support**. The focus areas support the vision of the program to maintain the Water Authority's leadership position in these areas into the future. Staff will remain driven to build and maintain strong relations with regulators, elected officials, and other stakeholders.

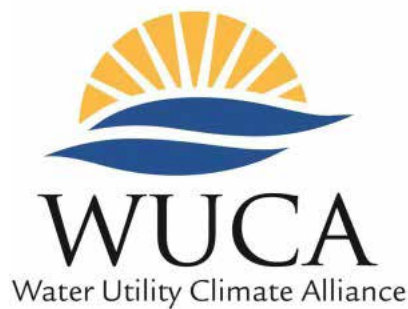
Government Relations Outreach

The Government Relations focus area increases the Water Authority's political influence in Washington, D.C., Sacramento, and local entities to secure favorable legislation, funding, or other outcomes that help ensure continued safe and reliable water supplies for the region.



The Water Authority's Brought to You by Water outreach, shown here on full display at the San Diego International Airport.

Objectives include delivering legislative outcomes that protect the interests of the San Diego region's water agencies and their ratepayers, including the identification of opportunities to partner with one or more Water Authority member agencies each year on a legislative, administrative, or regulatory initiative that would provide mutually beneficial outcomes.



The Water Authority values its collaborative partnerships, such as with the agencies shown above.

Public Outreach

The Public Outreach focus area builds community understanding and support for the Water Authority's strategies, programs, and projects through building and maintaining relationships with key audiences such as business, community, labor, civic organizations, the media, school-age children, and the general public. Outreach activities include media relations; online and social media communications, publications and other printed materials; tours and events; school education programs; community presentations, and more. This focus area also oversees efforts to help small businesses participate in Water Authority procurements. Objectives include increasing social media followers and engagement, along with redesigning sdewa.org and "microsites" on an updated, integrated operating system.

Regulatory Policy Support

The Regulatory Policy Support focus area enables the Water Authority to engage and collaborate with state and national organizations, groups, and other agencies to maximize our impact on various regulatory policies related to water supply and quality, energy, and the environment. The Water Authority actively partners with various entities, such as WaterReuse, Association of California Water Agencies, the California Municipal Utilities Association, American Water Works Association, Water Utility Climate Alliance, Western Urban Water Coalition, Cal Desal, Southern California Salinity Coalition and California Urban Water Agencies, to gain support on regulatory policy issues. In addition, the Water Authority fosters relationships with state and federal agencies, such as regional and state Water Boards,

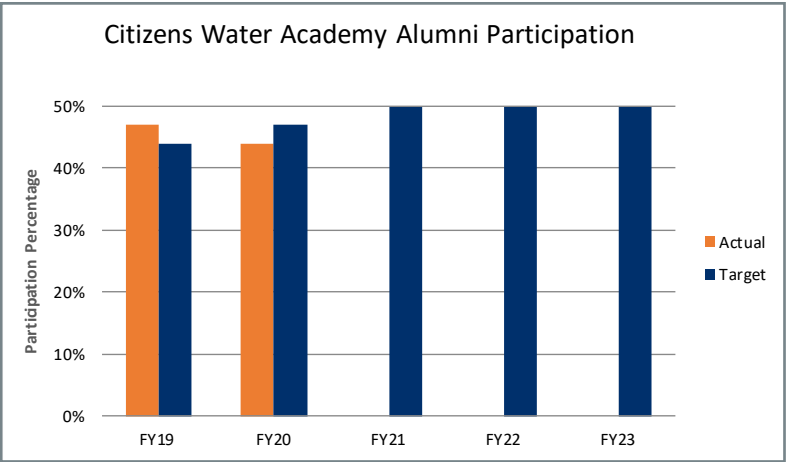
Division of Drinking Water, California Public Utilities Commission, California Department of Water Resources, and the U.S. Environmental Protection Agency. Other objectives include working with supporters to develop a visionary, long-term strategy to support potable reuse in California and collaborating with urban water interests throughout the state to achieve a fair, equitable and reasonable implementation of long-term water use efficiency statutes and requirements.

GOVERNMENT RELATIONS OUTREACH	PUBLIC OUTREACH	REGULATORY POLICY SUPPORT
<p>A Strengthen relationships with the San Diego local, state, and federal legislative delegations, other key legislators, legislative staff, and the state and federal administrations.</p>	<p>D Enhance public understanding and support for Water Authority and member agency strategies, policies, and programs.</p>	<p>H Maximize flexibility and sustainability in water supply development and management, water use efficiency, and water quality protection.</p>
<p>B Engage and influence relevant legislation, regulatory matters, and funding requests in the Legislature, Congress, and state and federal administrations.</p>	<p>E Implement innovative and effective public outreach programs and tools that deliver Water Authority messages to key stakeholders.</p>	<p>I Foster collaborative relationships with regulatory agencies.</p>
<p>C Sponsor, co-sponsor, and promote legislation that positively impacts the region and conveys San Diego's role as a statewide water community leader.</p>	<p>F Promote greater public awareness of local water issues and wise water use by building relationships and partnerships with compatible organizations and institutions.</p>	<p>J Engage in regulatory requirements and standards development under local, state and federal water, energy, and environmental laws.</p>
	<p>G Support member agencies with shared outreach development, training and resources.</p>	<p>K Inform and obtain feedback from Water Authority departments and member agencies on regulatory and permitting issues.</p>

#	OBJECTIVE TACTIC	TARGET
1	Redesign sdcwa.org and microsites on an integrated, up-to-date operating system. (E, F)	Jun-2021
2	Participate on a Southern California Water Coalition task force to provide input into development of a regional outreach video on recycled water. (D, E, F)	Jun-2021
3	Execute effective advocacy strategies to defeat all legislation that the Water Authority Board opposes each year. (B)	Jun-2021
4	Conduct communications and outreach activities that result in at least 80 percent of poll respondents agreeing that a reliable water supply is essential for a healthy economy and quality of life. (D, E, F)	Jun-2023
5	Grow total social media audience by 10 percent annually through Fiscal Year 2023. (F)	Jun-2023
6	Grow Water News Network page views by 10 percent annually through Fiscal Year 2023. (D, E, F, G)	Jun-2023
7	Provide member agencies with at least two outreach toolkits for current issues or campaigns annually through Fiscal Year 2023. (G, F)	Jun-2023
8	Partner with five organizations serving disadvantaged communities to promote tap water as safe, convenient and affordable. (G, F)	Jun-2023
9	Engage in outreach efforts that result in at least 50 percent of Citizens Water Academy alumni engaging in at least one alumni activity through Fiscal Year 2023. (E, F)	Jun-2023
10	Convene the Potable Reuse Coordinating Committee to advocate for direct potable reuse criteria that supports potable reuse in the San Diego region. (H, I, J, K)	Jun-2023
11	Identify opportunities to partner with at least one or more Water Authority member agencies annually to co-sponsor legislation, collaborate on an administrative or regulatory request, or pursue a funding initiative. (A, B, C)	Jun-2025
12	Provide at least one briefing annually to each member of the San Diego state legislative delegation to enhance support for advancing and protecting the Water Authority's legislative interests. (A, B)	Jun-2025
13	Increase awareness and understanding of the Water Authority's interests by providing at least one briefing annually to each member of the San Diego congressional delegation in Washington, D.C. and the San Diego district office. (A, B)	Jun-2025
14	Strengthen relationships with state and federal legislators by conducting at least two legislative roundtable events at the Water Authority headquarters during each calendar year. (A, B)	Jun-2025

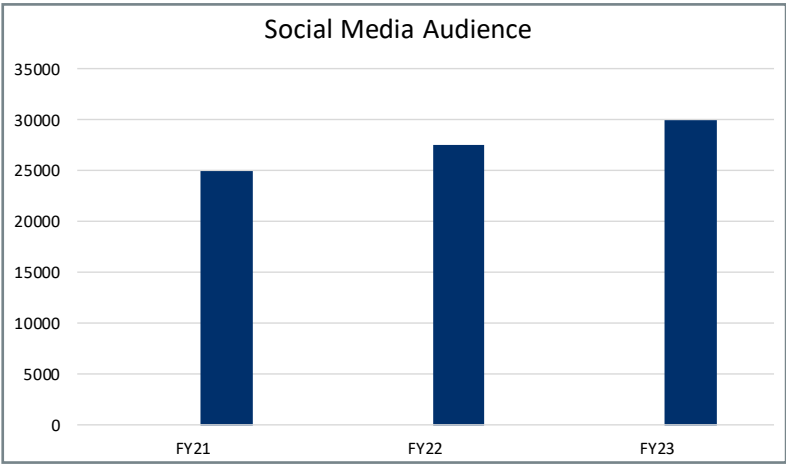
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Engage in outreach efforts that result in at least 50 percent of Citizens Water Academy alumni participating in a least one alumni activity through FY2023.



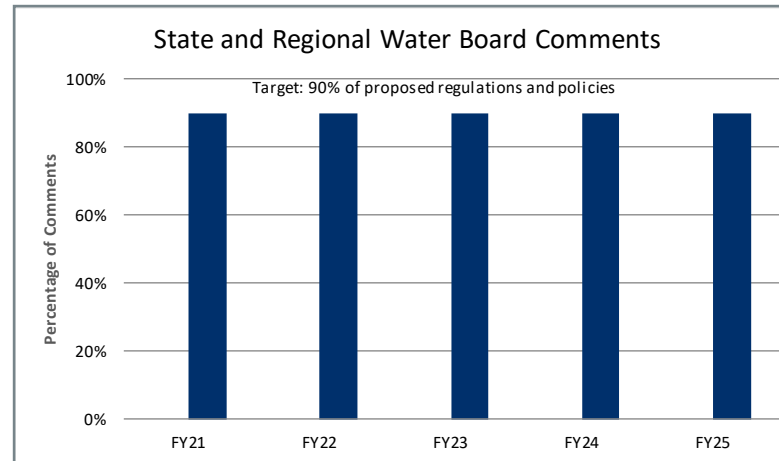
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Grow total social media audience (followers) from 23,000 to 30,000 across core platforms (Twitter, Facebook, Instagram, YouTube and LinkedIn) by the end of FY2023.



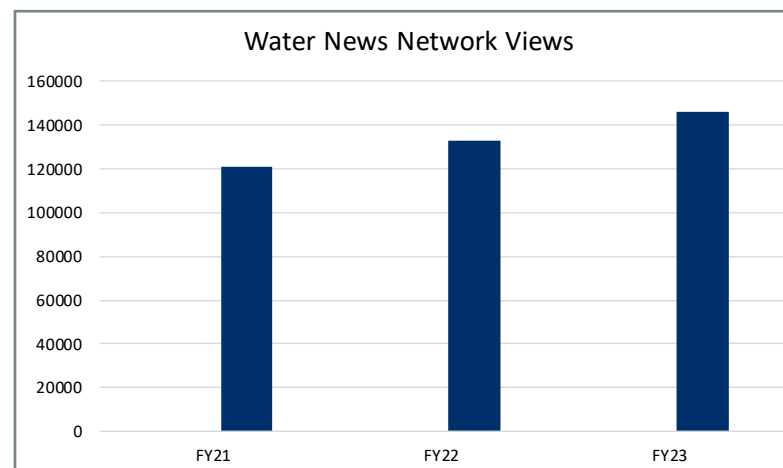
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Provide comments on a least 90 percent of the proposed State or Regional Water Board regulations and policies that directly impact the Water Authority or the member agencies.



4

Grow Water News Network page views from 110,000 in FY2020 to more than 146,000 in FY2023



Financial Management Overview

The Water Authority maintains a comprehensive financial management plan that focuses on both near-term and long-term planning to provide smooth and predictable rates and charges. A key ongoing component of near-term planning and reporting is the Water Authority's Multi-Year Budget. The last Multi-Year Budget, adopted in June 2019, successfully executed the financial policies and objectives as determined by the Board of Directors. The Multi-Year Budget document conforms to the highest standards and has received awards for Distinguished Budget Presentation from the Government Finance Officers Association (GFOA) every year since 1995. The Multi-Year Budget will be presented for adoption every other June during the five-year planning period of the 2021-2025 Business Plan.

An additional and equally key component of our near-term planning and reporting is the preparation of the Comprehensive Annual Financial Report (CAFR). The CAFR is produced to report the results of the financial operations each fiscal year. The report for the prior fiscal year, ending on June 30, is presented to the Audit Committee and Board of Directors during the last meeting of each calendar year. The CAFR preparation has received the prestigious GFOA Certificate of Achievement award for the past twenty years.

Central to long-term planning is the development of the Long-Range Financing Plan, which was most recently updated and adopted by the Board of Directors in January 2016. An update to the plan is being conducted and will be presented to the Board in February 2021.

The Long-Range Financing Plan is a 10-year guiding document that incorporates the Water Authority's financial policies and goals. It includes an optimized funding and Capital Improvement Program strategy, water sales and rate projections, and sensitivity analyses of selected variables.

Financial Management Key Focus Areas

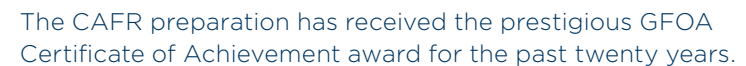
The key focus areas of the Financial Management Program are **Accounting**, and **Debt and Investment Management**, and **Financial Planning**. Within each focus area, management strategies are identified to determine the vision for accomplishment of significant objectives and tactics over the next five fiscal years.

Accounting

The Accounting focus area centers on delivering accurate, meaningful, and timely information to all of our customers. This group has the important responsibility of recording the financial activities of the Water Authority using various accounting platforms and summarizing the financial activities into levels of information important to our internal and external users. Management strategies for Accounting include providing financial data and other key information, monitoring revenue and expense trends, and assessing industry best practices to apply to Water Authority financial operations.

Effective debt and investment management help to minimize costs. By optimizing the debt portfolio, the Water Authority's cost of funds can be reduced. Effective management of the investment portfolio maximizes the revenues generated from the Water Authority's cash balances and offsets other costs. Management strategies under Debt and Investment Management include maintaining solid credit fundamentals and optimizing the capital financing mix.

The Water Authority's prudent financial planning and sound financial policies are aligned to achieve long-term fiscal sustainability. Financial planning involves accurately projecting both near-term and long-term operating and capital costs so rates and charges can be set to achieve the financial policy goals (i.e. the Board of Directors' Senior Lien Coverage Ratio target of 1.5 times). Financial planning strategies include ensuring financial policies are aligned with the long-term fiscal sustainability of the Water Authority.

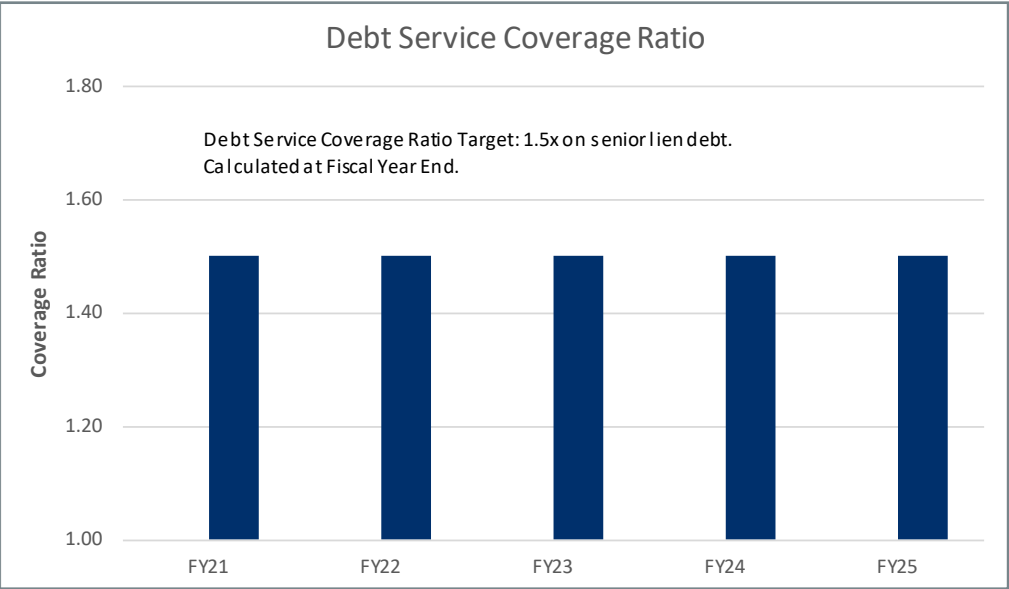


ACCOUNTING	DEBT AND INVESTMENT MANAGEMENT	FINANCIAL PLANNING
<p>A Provide relevant, accessible, and useable financial data and other key information.</p>	<p>D Ensure Water Authority credit ratings through sound financial management.</p>	<p>H Develop detailed cost projections for Capital Improvement Program projects and operations to develop long-term rate projections.</p>
<p>B Analyze revenue and expense trends proactively to anticipate early budget variances and formulate actions to ensure fiscal sustainability.</p>	<p>E Ensure strong financial industry presence for the Water Authority.</p>	<p>I Analyze and recommend an updated rates and charges model resulting in the goals of cost efficiency, predictable rates, and intergenerational equity.</p>
<p>C Assess and recommend as appropriate industry best practices and new accounting standards for applicability to Water Authority financial operations for enhanced financial reporting.</p>	<p>F Strategically optimize the resources of the debt and investment portfolio to execute future bond and investment transactions successfully.</p>	<p>J Provide high level of service to member agencies while ensuring equitable rates and charges.</p>
	<p>G Optimize the capital financing mix to achieve the lowest cost of funds and minimize interest rate risk.</p>	<p>K Ensure financial policies are aligned with the long-term fiscal sustainability of the Water Authority.</p>

#	OBJECTIVE TACTIC	TARGET
1	Complete updated Long-Range Financing Plan to support the long-term fiscal sustainability of the Water Authority. (B, D, E, F, K)	Feb-2021
2	Coordinate with the Fiscal Sustainability Task Force to review and provide input to planning and financial reports, including the Long-Range Financing Plan, the Asset Management Plan, and the Urban Water Management Plan. (A, H, I, J, K)	Feb-2022
3	Advocate Water Authority position through participation in two industry conferences per year via speaking engagements and achieve membership in industry committees and boards, such as California Society of Municipal Finance Officers, Government Finance Officers Association, Bond Buyer, and the California Municipal Treasurer's Association. (E, K)	Jun-2023
4	Evaluate and implement new budget and financial planning software. (A, B)	Jun-2023
5	Develop a repository of the Water Authority's financial policies along with evaluating and republishing them as necessary to ensure they are current, understandable, and reflect best practices. (A, C, K)	Jun-2023
6	Leverage PeopleSoft reporting to develop the Budget Status Report of the Controller's Report within the software thereby reducing dependence on manual steps. (A, B, C)	Jun-2024
7	Identify and implement electronic record keeping solutions for financial documents. (A, C)	Jun-2024
8	Implement Debt Management Strategy to achieve net present value savings on outstanding short-term and long-term debt, including refunding of medium-term for new 5-year note, bond issuance for the Capital Improvement Program, the Desalination Plant Refunding, and evaluation of future refunding on a current or advance basis. (D, E, F, G)	Jun-2025
9	Identify and implement budget development and forecasting efficiencies each year in support of long-term planning and fiscal sustainability. (A, H, K)	Jun-2025

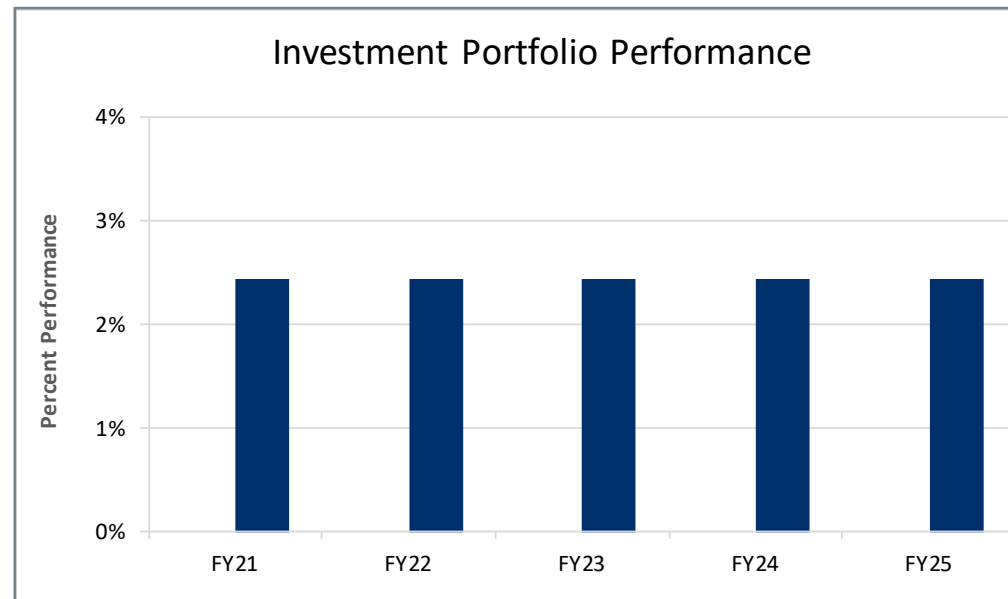
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Maintain debt service coverage ratio of 1.5 times on senior lien debt in accordance with the Water Authority’s Board policy target. (Source: Water Authority Board and Long-Range Financing Plan)



2

Monitor the Water Authority's investment portfolio performance using the ICE Bank of America 1-3 Year U.S. Treasury & Agency Index market yield and total return as a performance benchmark.



Workforce Management Overview

Perhaps there is no greater example of why a modern, agile workforce management plan is critical to the success of the organization than the first six months of 2020. In response to a global pandemic, the Water Authority immediately transitioned more than 75 percent of employees to temporary telework. In response to national unrest relating to issues of racial and social injustice, the Water Authority continued to reevaluate our recruitment, development and training practices. Ongoing economic uncertainty has required us to have an understanding of the short-term and long-term costs associated with our employee salaries and benefits to be able to make thoughtful choices and changes. And rapidly changing state and federal mandates have required us to move quickly to implement and comply with changing regulations while understanding how those changes impact the larger organization. This rapid change of pace is expected to continue for the foreseeable future, and the Water Authority must have an effective workforce management strategy in place to succeed. In the next five years, we must take a more fluid approach to the workforce objectives and tactics if we are to remain agile, competitive, and effective. This overview focuses on key areas with an overarching theme of strategies that remain constant as we continually shift our priorities to address the rapidly changing world. The goal remains the same – to move the organization to a higher level of performance and foster a truly connected and engaged workplace.

Workforce Management Focus Areas

The focus areas of Workforce Management include, **Leadership, Safety, Culture, Talent Management,** and **Technology**. Within each focus area are the management strategies to accomplish the overall objectives and tactics planned for the next five fiscal years.

Leadership

The Water Authority emphasizes organization-wide knowledge of our mission, vision, values, and priorities of our leadership to prepare for and manage the ‘workforce of tomorrow’. Effective workforce management requires targeted leadership development, skill-based training, and a flexible approach to employee development to ensure the workforce can demonstrate the competencies and leadership skills necessary for the immediate and long-term success of the agency. Leadership training and employee development at all levels of the organization fuel the Water Authority’s succession planning efforts to ensure the development of visionary leaders who will continue to cultivate an innovative spirit across the entire organization.

Safety

The primary aim for workplace safety is to protect our most valuable assets – our employees. Workplace safety is achieved through a variety of methods, including policies, procedures, and specific hazard control techniques. Policies and procedures are devised and integrated into the Water Authority’s overall management and administrative processes. They include specific job task procedures established for working with or around

equipment, or hazardous environments. The Water Authority's safety procedures and policies also include accountability requirements to ensure that prescribed practices are followed.

Culture

Organizational culture captures the 'personality' of an organization and how it functions and expresses itself. Culture is a key factor in determining how effectively the Water Authority's goals and objectives will be achieved. Objectives of a positive organizational culture focus on developing policies, programs, and practices that support the physical, social, and mental well-being of the workforce, support an environment of trust and transparency, and allow employees to bring their best selves to their roles in the organization. A healthy organizational culture can also facilitate improved professional development, career agility, and knowledge transfer to ensure the Water Authority's succession planning needs are met through acknowledging the values of creativity, continuous process improvement, and an agile organizational structure. As the Workforce Management program partners with the General Manager and employees to embark on a long-term assessment of Water Authority culture, it is important to ensure inclusive leadership methods are employed, including a commitment to open dialogue and consideration of innovative solutions and diverse points of view.

Talent Management

Ensuring there is a high performing workforce in place to execute and meet desired results is paramount to workforce management. Assuring the Water Authority has the right people, in the right place, at the right time, with the right set of skills, will allow the organization to continue to move forward. Creating an integrated systems approach to talent management that includes effective recruitment efforts, development of existing employees, succession planning, and identifying areas of opportunity for future development and growth improves our ability to fulfill evolving needs of the agency and our workforce.



Water Authority internships offer students hands-on experience at participating water agencies throughout the San Diego region.

The demographics of the workforce are changing. Millennials are now the largest generation of the U.S. workforce. Workforce trends predict that by 2025 over 70 percent of the global workforce will consist of Millennials and Generation Z, the new generation that consists of people born after 1997. Generation Z is the most diverse and multicultural of any generation in the country and will shape new workforce strategies for recruitment and retention.

New approaches to attracting and retaining a talented workforce must be constantly revisited due to new talent networks, new technology, and changing views of careers. To address the constantly evolving workforce, the Water Authority will continue to adopt and promote innovative practices for attracting and retaining employees who possess the desired skillset and aptitude necessary to deliver water to the region.

To address the hiring gaps of entry level water/wastewater positions among member agencies, the Water Authority has facilitated the Regional Water/Wastewater program for over ten years and continually revisits the program structure and goals to ensure it addresses the needs of stakeholders, including local community colleges and member agencies.

In addition, the Water Authority is addressing a critical regional need to replace skilled employees retiring from the water industry. It is estimated 30-50 percent of the current workforce is eligible to retire in the next 10-15 years and water agencies recognize the need for a

consolidated effort to ensure there is a sufficient pipeline of available talent for water industry careers. A taskforce of General Managers from various member agencies have led the way to establish San Diego Water Works, a regional consortium of 24 water and wastewater member agencies working together with local educational institutions with the mission to coordinate education and training programs and improve outreach in water industry careers.

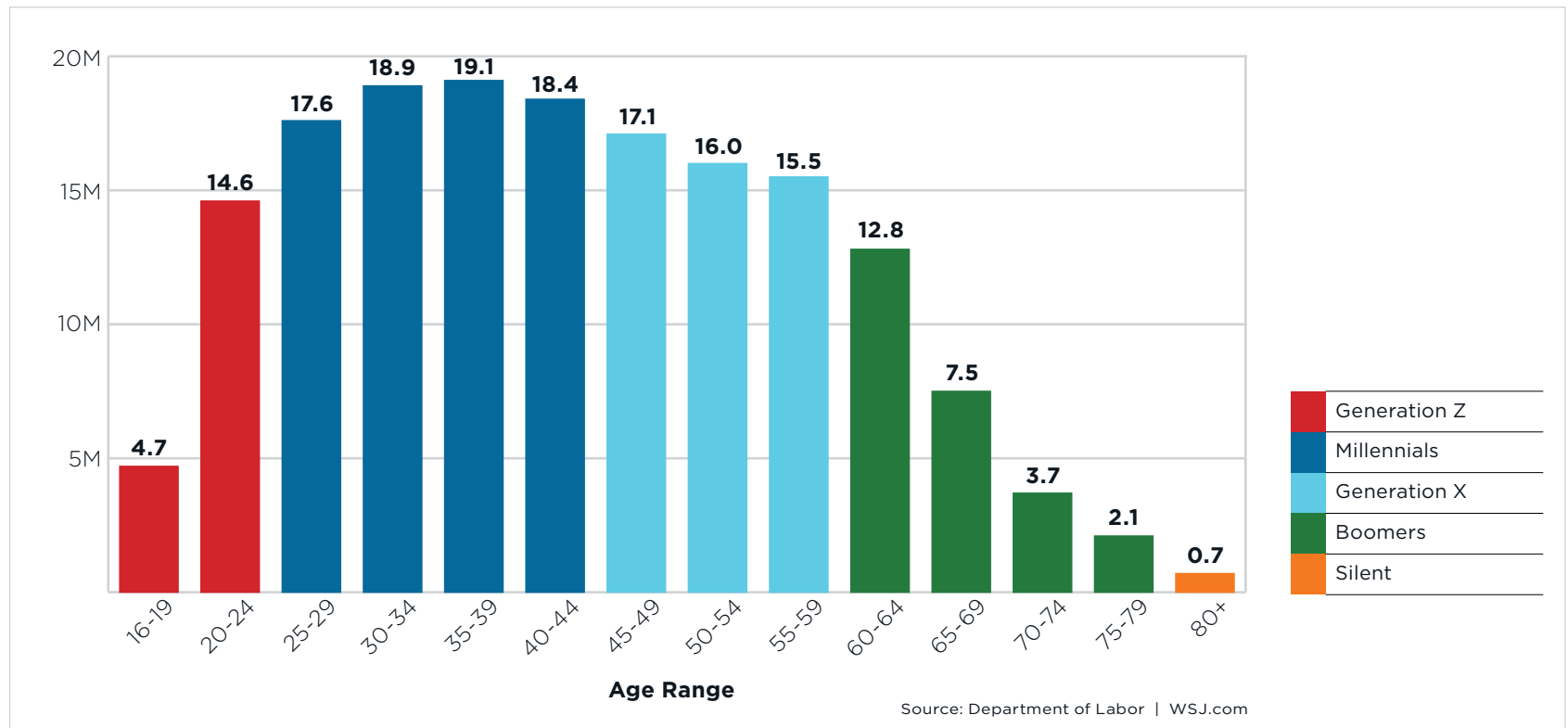


Technology

Technology continues to play a critical role in workforce management, not only for automating processes for efficiency, and appealing to potential applicants as a modern agency, but also for the analytics that can be derived from such tools. Evaluating and developing new tools for employee engagement, training and performance will ensure more efficient, effective feedback at more regular intervals to address issues or highlight successes. Technology will also continue to assist in streamlining standardized human resources practices to improve accuracy, speed, transparency, and relevance to the overall workforce management strategies.

The Workforce in 2025

Projected size of U.S. labor force (in millions) by age, for the year 2025



LEADERSHIP

- A** Provide targeted leadership development, skill-based training, and a flexible approach to employee development to ensure the workforce can demonstrate the competencies and leadership skills necessary for the immediate and long-term success of the agency.

SAFETY

- B** Continue to advance our primary workplace safety goal — to protect our most valuable assets – our employees through a variety of methods, including policies, procedures, and specific hazard control techniques.

CULTURE

- C** Foster a healthy organizational culture to facilitate improved professional development, career agility, and knowledge transfer through a commitment to open dialogue and consideration of innovative solutions and diverse points of view.

TALENT MANAGEMENT

- D** Continue to adopt and promote innovative practices for attracting and retaining employees who possess the desired skillset and aptitude necessary fulfill evolving needs of the agency and its workforce.

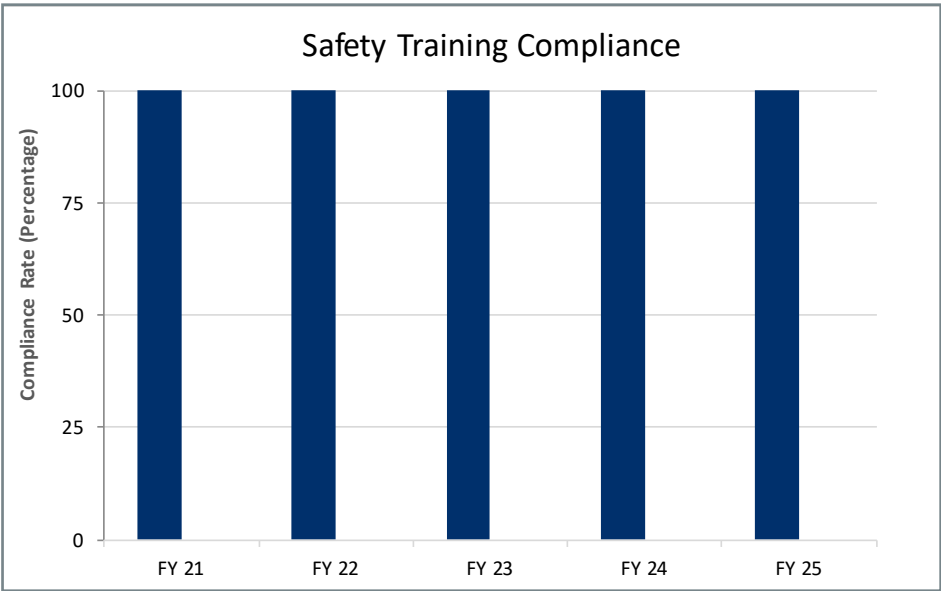
TECHNOLOGY

- E** Evaluate and facilitate tools that will streamline processes and provide more relevant and effective information.

#	OBJECTIVE TACTIC	TARGET
1	Gain agreement to future Memorandum(s) of Understanding with bargaining groups in accordance with Board direction. (A, C)	Jun-2021
2	Identify remote options for employee wellness initiatives. (C)	Jun-2021
3	Survey employees regarding wellness initiatives to continue supporting the health and wellness of employees. (C)	Dec-2021
4	Develop training resources to provide support, guidance, and training to managers to assist in building and maintaining effective working relationships with labor groups. (A, C)	Jun-2022
5	Survey member agencies regarding the Regional Water/Wastewater Internship program to ensure it continues to meet the needs of stakeholders, including local community colleges and member agencies. (D)	Jun-2022
6	Conduct a follow-up employment engagement survey to continue General Manager's culture change efforts. (C)	Jun-2022
7	Ensure 100 percent compliance with required safety training. (B)	Jun-2025
8	Evaluate and recommend technology to streamline standardized human resources practices. (E)	Jun-2025
9	Promote San Diego Water Works and SkillBridge resources to member agencies and potential candidate pools. (D)	Jun-2025

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Ensure 100 percent compliance with required safety training.





Safety training ensures we protect our most valuable assets — our employees.

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Appendix 1 - Guiding Policies and Principles

The Water Authority's 24 member agencies are represented through a 36-member Board of Directors. The Water Authority was formed by an Act of the California State Legislature establishing the Board of Directors as the agency's governing body. Below are highlights of the Board's adopted policies and principles that guide the Water Authority in our business practices.

County Water Authority Act – Sets forth the organization, incorporation, and government of the Water Authority, including authorizing the agency to acquire and own water rights, construct and maintain facilities, tax, and incur bonded indebtedness.

Debt Management and Disclosure Policy – Ensures the Water Authority's debt portfolio is optimized to minimize cost of funds and maximize savings from refunded debt.

Delta Policy Principles – Guides staff in evaluating Bay-Delta initiatives and the Water Authority's advocacy to ensure a successful implementation of a Bay-Delta solution.

Energy Management Policy – Provides guidance to the Board when it is considering energy related issues, and provides guidance to staff in the development of projects and programs. Areas of focus include inter-agency cooperation; the design, construction, maintenance, and operation of facilities; and public education.

Fiscal Sustainability Guiding Principles – Provides guidance to the Board when it is considering changes or additions to the Water Authority's rates and charges structure or financial policies with the objective of ensuring long-term fiscal sustainability.

Legislative Policy Guidelines – Provides policy guidance to Water Authority staff and its government relations team for advocacy on issues of critical importance to the Water Authority, its member agencies, and the San Diego region. Provides a policy framework for evaluation of potential impacts and benefits to the Water Authority and its member agencies from state legislative and regulatory initiatives, and in conjunction with the Federal Legislative Priorities, provides a framework to engage on federal legislative and regulatory initiatives.

Water Shortage and Drought Response Plan Allocation Methodology – Establishes policies and procedures for administering the Municipal and Industrial (M&I) water supply allocation methodology to member agencies during times of water shortage or drought.

Water Supply Diversification Strategy – Guides Water Authority staff to enhance regional water supply reliability through a diversified water supply portfolio.

Water Use Efficiency Policy Principles – Provides Water Authority staff with long-term strategic direction for planning and implementing regional water use efficiency initiatives and programs.

Appendix 2 - Related Planning Documents

1. **Aqueduct Operating Plan** – Reflects ongoing efforts to optimize the delivery, treatment, and storage of water in the San Diego region through coordination between the Water Authority, its member agencies, and the Metropolitan Water District of Southern California. Prepared by the Operations and Maintenance Department.
2. **Asset Management Plan** – Documents the actions necessary to derive the most value from each Water Authority asset through its life cycle. Prepared by the Operations and Maintenance Department.
3. **Climate Action Plan** – An inter-disciplinary effort that promotes, facilitates, and coordinates implementation of climate change strategies and related activities within the Water Authority. Prepared by the Water Resources Department.
4. **Comprehensive Annual Financial Report** – Details the results of operations each fiscal year and includes the Continuing Disclosure, which is a required communication to investors. Prepared by the Finance Department.
5. **General Manager’s Adopted Multi-Year Budget** – Based on the Board of Directors’ financial and operational policies, and provides the resources necessary to achieve the Water Authority’s Business Plan management strategies, objectives, and tactics. Prepared by the Finance Department.
6. **Integrated Regional Water Management Plan** – Addresses resource management, water quality, and habitat in a region that includes the portion of San Diego County that is tributary to coastal waters. Prepared under the direction of the Regional Water Management Group.
7. **Long-Range Financing Plan** – Calculates the cost of service and projects the Water Authority’s financial position. It provides a solid financial foundation on which to build and operate the Water Authority’s infrastructure. Prepared by the Finance Department.
8. **Quantification Settlement Agreement** – Provides California the means to implement water transfers and supply programs that allow California to live within the state’s 4.4 million acre-foot basic annual apportionment of Colorado River water. Prepared by various parties.
9. **Regional Water Facilities Optimization and Master Plan** – Provides a comprehensive evaluation of the infrastructure required for meeting the Water Authority’s mission to provide a safe and reliable water supply to its member agencies. Prepared by the Water Resources Department.
10. **Urban Water Management Plan** – Identifies a diverse mix of water resources projected for development over the next 25 years to ensure long-term water supply reliability for the region. Prepared by the Water Resources Department.
11. **Water Shortage Contingency Plan** – Provides the Water Authority and its member agencies with a series of potential actions to take when faced with a shortage of imported water supplies from Metropolitan Water District due to drought conditions. Prepared by the Water Resources Department.

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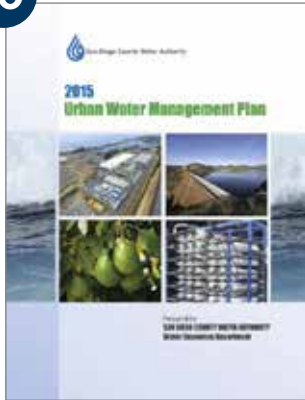
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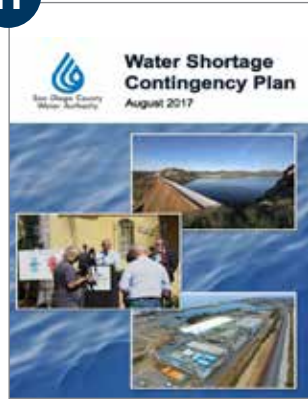
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Appendix 3 - Glossary

A

Acre-foot – The measurement by which large amounts of water are measured. One acre-foot is about 326,000 gallons, or enough water to cover one acre to a depth of one foot. An acre-foot can supply the household needs of two four-person families for one year.

Adaptive Management – A management approach whereby strategies are adapted to changing circumstances.

Agricultural Water – Water used mostly for irrigating groves and crops.

Aqueduct – An artificial man-made pipeline constructed to convey water from one location to another.

Asset Management – The combination of management, financial, economic, engineering, and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner. It includes the management of the entire lifecycle including design, construction, commissioning, operating, maintaining, repairing, modifying, replacing, and decommissioning/disposal of infrastructure assets.

B

Basin Plan – Water Quality Control Plan for the San Diego Region - A planning document prepared and managed by the California Regional Water Quality Control Board, San Diego Region that recognizes and reflects the regional differences in existing water quality, beneficial uses of ground and surface waters, and local water conditions.

Battery Systems – One or more batteries that store energy during off-peak periods where energy costs are lower, and discharge energy for use during peak demand periods when energy costs are higher.

Bay-Delta – The Bay-Delta is formed by the confluence of California's two largest rivers: the Sacramento and San Joaquin. Joined by the Mokelumne and Cosumnes rivers, they comprise the Bay-Delta's watershed, which drains nearly 50 percent of the state's water runoff. Pumping stations move a portion of Bay-Delta water throughout the state, while the remainder flows to farms and communities within the Bay-Delta itself and then out to sea through a series of bays.

Best Management Practices – Practices, methods, or techniques agreed upon by industry professionals found to be the most effective and practical means in achieving an objective while making the optimum use of resources.

Brackish Groundwater – Somewhat salty water, often found in groundwater aquifers. The water has a mineral content between freshwater and seawater.

C

California WaterFix – WaterFix is a science-driven upgrade to the aging water system. It will provide clean, reliable water while protecting the environment. WaterFix covers five main areas: water security; environmental protection; reduced risk from earthquakes and climate change; system upgrades and new technology; and increased efficiency.

Capital Improvement Program (CIP) – A major building program initiated in 1989 to plan and implement projects required to meet the region’s current and future water demands. Projects in the CIP include: constructing new facilities to improve operational flexibility and capacity to deliver water, particularly during times of peak usage; rehabilitating existing facilities; and replacing or relining aging pipelines.

Carryover Storage – A volume of storage dedicated to water storage during a wet year for future use in a dry year.

Claude “Bud” Lewis Carlsbad Desalination Plant (Carlsbad Desalination Plant) – This seawater desalination plant meets approximately 10 percent of the region’s water demand by producing an average of 50 million gallons per day of locally controlled water for the region as part of a Water Purchase Agreement between Poseidon, the owner/operator of the plant, and the Water Authority.

Colorado Lower Basin States – The three states that are fed from the lower basin of the Colorado River: California, Arizona, and Nevada.

Conservation – The preservation of a physical quantity of water, or the deferral of use of that same amount of water.

Conveyance – The movement of bulk commodities such as water.

D

DDW – The Division of Drinking Water of the State Water Resources Control Board.

Direct Potable Reuse Water – Water that is distributed directly into a potable water supply distribution system downstream of a water treatment plant or in the source water supply immediately upstream of the water treatment plant.

Distribution Tariff – The rate charged by an electrical utility to customers wishing to use the infrastructure owned by the electrical utility to deliver wholesale power to itself or others.

Drought – A prolonged period of below-average precipitation.

Dry-year – A year in which rainfall is less than the long-term average.

E

Emergency Storage – Additional water that is stored during a water year, for emergency use, should an emergency occur.

Emergency Storage Project (ESP) – A set of Water Authority Capital Improvement Program projects. The ESP is a system of reservoirs, interconnected pipelines, and pumping stations designed to make water available to all communities in the San Diego region in the event of a disaster that interrupts imported water deliveries.

Energy Facilities – As it pertains to the Water Authority, any systems or facilities that generate or store energy.

Environmental Impact – The direct and indirect physical changes to the environment that are caused by a project. Impacts can be classified in four general categories: 1) beneficial impact; 2) less than significant impact; 3) less than significant impact with incorporation of mitigation measures; or 4) significant and unavoidable impact.

F

Facilities – As it pertains to the Water Authority, any pipelines, pump stations, flow control facilities, reservoirs, or dams that enable the transport of water throughout San Diego County.

First Aqueduct – The eastern-most of two San Diego County Water Authority pipeline aqueducts which conveys water from Metropolitan Water District's system throughout San Diego County. The First Aqueduct contains Pipeline 1 and 2.

G

Gate – A hold point in a project schedule where the project team certifies to a select committee of senior managers that predetermined work deliverables have been completed for specific project milestones.

Groundwater – Water that is found below the Earth's surface within aquifers and extracted for potable use, either for demineralization treatment or directly through residential wells.

H

Hydraulic Transient – A pressure surge that is created when sudden changes in flow rate occurs in pumping and pipeline systems. The pressures created may be high enough to damage or even cause catastrophic failure of

pipelines. Specialized hydraulic transient analysis provides the basis for designing surge control measures to protect important infrastructure.

Hydroelectric Facilities – A power plant that produces electricity from the power of rushing water turning turbine-generators.

I

Imported Water Supply – A water supply that lies outside the region of San Diego County and requires transport into San Diego County.

Indirect Potable Reuse (IRR) – Water that is blended with other environmental systems such as a river, reservoir, or groundwater basin, before the water is reused.

Irrigation – A water supply used for agriculture by artificial means, such as pumping water onto crops, in an area where rainfall is insufficient.

L

Local Water Supply – A water supply that is not imported from outside of San Diego County. Local resources for the San Diego region are recycled water, groundwater, local surface water, and conservation.

M

Member Agency – An agency that is a direct purchaser of water from the Water Authority. The Water Authority has 24 member agencies. The Water Authority's member agencies are comprised of 6 cities, 5 water districts, 3 irrigation districts, 8 municipal water districts, 1 public utility, and 1 federal agency (military base).

MGD – Million gallons per day

Mitigation – A way in which an agency may offset negative environmental impacts from a project, or make the impacts less serious.

Mitigation Monitoring Plan – A written document, adopted when the lead agency approves a project, to ensure that mitigation measures, or other project revisions identified in the certified final environmental impact report, to reduce or avoid impacts are implemented. Inspectors/monitors may be placed on-site during construction to record proper implementation of mitigation measures. The plan remains active until all mitigation measures have been satisfactorily completed.

Municipal and Industrial (M&I) Water – Water for residential and commercial uses, accounting for approximately 80 to 85 percent of Water Authority demand. Does not include agricultural water, which makes up the remaining 15 to 20 percent.

N

Non-potable Water – Water not treated to a level for drinking water purposes.

O

Ocean Plan Amendment – The May 6, 2015 amendment to the State Water Resources Control Board's Water Quality Control Plan for Ocean Waters of California regarding construction and operation of seawater desalination facilities.

P

Potable Reuse Water – Recycled water that has been purified to meet or exceed federal and state drinking water standards and is safe for human consumption.

Potable Water – Water suitable for drinking.

Pre-stressed Concrete Cylinder Pipe – A type of pipe that consists of a concrete core, a thin steel cylinder, high tensile pre-stressing wires, and a mortar coating. The pre-stressing wires are prone to early failure, which can cause a pipe segment to break. There are 82 miles of this type of pipe within the Water Authority's aqueduct system.

Preferential Rights – An antiquated formula used by Metropolitan Water District of Southern California to calculate the amount of water to which each of its member agencies is legally entitled.

Pumped Storage – A hydroelectric technology that stores and generates energy by moving water between two reservoirs at different elevations.

Q

Quantification Settlement Agreement (QSA) – An agreement between the San Diego County Water Authority, Coachella Valley Water District, Imperial Irrigation District, and the Metropolitan Water District of Southern California signed in 2003. The QSA provides California a transition period to implement water transfers and supply programs that will reduce California's over-dependence on the Colorado River, and reduces the state's draw to its 4.4 million acre-foot annual apportionment.

R

Recycled Water – Municipal wastewater that is treated and disinfected to a level suitable for non-drinking purposes. The beneficial reuse of recycled water reduces the need to import or develop other water supplies.

Reservoir – A pond or lake where water is collected and stored until it is needed.

Runoff – Water that travels over the surface of the earth, moving downward due to the law of gravity. Runoff is one way in which water that falls as precipitation returns to the ocean.

S

Seawater Desalination – A reverse osmosis membrane technology employed to separate fresh water from seawater.

Second Aqueduct – The western-most of two San Diego County Water Authority pipelines which convey water from Metropolitan Water District's system throughout San Diego County. The Second Aqueduct contains Pipelines 3, 4, and 5.

State Water Project – A water supply and delivery system of reservoirs, aqueducts, power plants, and pumping plants which extends over two-thirds of California.

Surface Water – All water, fresh and salty, on the earth's surface.

Surge Protection – A facility designed and constructed for the purpose of controlling hydraulic transient pressures created by a sudden change in flow rate within a pipeline.

T

Treated/Filtered Water – Water that meets the Department of Health Services standards for potable drinking water use.

U

Untreated/Raw Water – Water that has not yet been treated to meet the Department of Health Services standards for potable drinking water use.

Urban Water Use – Same as Municipal and Industrial (M&I) Water. Water for residential and commercial uses, accounting for approximately 80 to 85 percent of Water Authority demand. Does not include agricultural water, which makes up the remaining 15 to 20 percent.

V

Value Engineering – A systematic and structured approach used to analyze and improve design and construction of projects. It helps to achieve an optimum balance between function, performance, quality, safety, and costs. The proper balance results in the maximum value for the project and the reliable performance of functions to meet customer needs at the lowest overall cost.

W

Wastewater – Water containing waste material.

Water Demand – The amount of water, at present, that is required to meet the needs of a specified group.

Water Facilities – As it pertains to the Water Authority, any pipelines, pump stations, flow control facilities, reservoirs, or dams that enable the transport of water throughout San Diego County.

Water Purchase Agreement (WPA) – Agreement that governs the purchase of between 48,000 and 56,000 acre-feet of desalinated seawater per year from the Claude “Bud” Lewis Carlsbad Desalination Plant.

Water Recycling – The treatment and disinfection of municipal wastewater to provide a water supply suitable for non-potable reuse.

Water Supply Diversification – A strategy to meet regional water demands with a diverse range of water supplies and tactics including imported water, local supply development, and water use efficiency.

Waters of the United States – A document that defines the waters that fall within the jurisdiction of the Environmental Protection Agency and the Army Corp of Engineers.

Watershed – A region or area of land bounded peripherally by a water parting and draining ultimately to a specific watercourse or body of water.



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SDCWA Formal Policies and Public Statements
Appendix to Attachment 6: Climate
San Diego 2022 IRWM Implementation Grant Proposal

POLITICS

Mayor Gloria and other leaders urge water conservation, warn of 'collapse of Colorado River' system



(California Natural Resources Secretary Wade Crowfoot, Mayor Todd Gloria and other local officials speak about water conservation amid California's "unprecedented drought.")

BY DEBORAH SULLIVAN BRENNAN

JUNE 23, 2022 6:36 PM PT



The San Diego Union-Tribune

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SAN DIEGO — San Diego County's water supplies are in good shape in the face of severe statewide drought, but local and state leaders said San Diegans should still take steps to avoid water waste and limit outdoor irrigation.

"We're here on a somber note, and that is as we move into summer... we are navigating across the American West, an unprecedented drought," California Natural Resources Secretary Wade Crowfoot said.

On Thursday afternoon, the San Diego County Water Authority's Board of Directors unanimously adopted a resolution reaffirming the agency's commitment to conservation, pledging to "sustain our most precious natural resource and protect the human right to water" and work with other agencies to achieve water savings.

San Diego Mayor Todd Gloria said the city has adopted more stringent water restrictions, including limiting irrigation to three days per week before 10 a.m. or after 6 p.m., using shutoff nozzles or handheld containers for watering areas without irrigation systems, and ceasing to wash cars at home.

"I think these are small ways we can make a big difference when it comes to conserving this precious resource of water, and we are asking San Diegans to take these steps now so that we can avoid a more dire situation in the near-term future," Gloria said.


ADVERTISING



He said the city has invested in water conservation projects including Pure Water San Diego, which will provide about 50 percent of the city's water while cutting flows of sewage to the ocean in half. San Diego also works with various agencies to provide rebates for home conservation measures such as turf replacement, gray water systems and rain barrels.

“We are here in the arid Southwest, we’ve made smart investments, we’ve found additional in-region resources that are going to protect us, but we have to do even more,” Gloria said.

Water Authority Board Chair Gary Croucher said that “being at the end of the pipeline” for California’s water systems has forced San Diegans to be resourceful over the past 30 years. In addition to water efficiency improvements in urban areas, he said San Diego farmers have refined agricultural practices to produce 30 percent more crop with 30 percent less water.



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Since the 1990s, San Diego County has reduced water use by 43 percent while diversifying its resources, said Kelley Gage, director of water resources for the Water Authority. Just over half the region’s water comes from a transfer agreement with Imperial Irrigation District, while the Poseidon Water desalination plant in Carlsbad provides another 10 percent.

“Simply put, nothing is more important than maintaining our water supplies; they’re absolutely essential to all of our communities,” said Jerry Sanders, president and CEO of the San Diego Regional Chamber of Commerce. “Our efforts have been recognized at the national level as a model for the arid West.”

Other areas of the state seek to replicate some of San Diego’s advances, Crowfoot said. Two other desalination plants are under consideration in Dana Point and Monterey, he said, and officials are finalizing regulations that would make San Diego’s Pure Water project the first direct potable reuse project in California. Its success would allow other areas without underground water tables to pipe purified water directly into water systems instead of using it to recharge aquifers.

Despite that progress toward sustainability, Crowfoot said California faces an urgent water crisis. The state’s major reservoirs, Powell and Lake Mead, are at 28 percent of capacity, he said, while the Sacramento and San Joaquin water systems are experiencing severe shortages and many agricultural acres will likely go fallow for lack of water.

“We experience cycles of drought in California; we’re no stranger to drought,” Crowfoot said. “But if this drought feels different than other droughts, it’s because it is.”

Eight of the past 10 years have been drier than average, and changing snowfall patterns due to climate change have made it harder to capture that limited water, he said. Higher temperatures fueled by climate change have

reduced the snowpack that the West depends on to fill reservoirs in spring, and caused much of the runoff to evaporate or absorb into soil before it ever reaches reservoirs he said.

Despite San Diego’s relative water security, he said California and other states may need to adopt “extraordinary, never-before conservation measures across the Southwest including California, to avoid the collapse of the water supply system on the Colorado River.”

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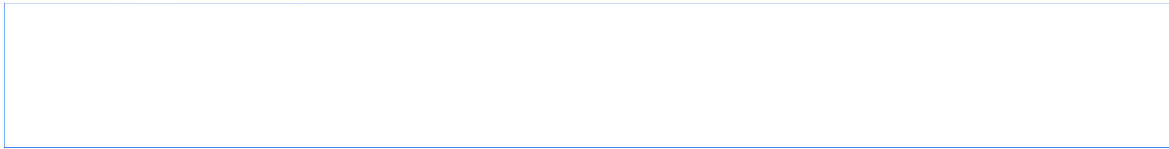
Do Your Part to be WaterSmart

MAY 19, 2022

San Diego county Water Authority - Geena The Latina of Channel 93.3 (v2)



Studies show that the West is in the worst megadrought of the past 1,200 years, but San Diego County continues to have enough water due to long-term investments in water sources and infrastructure, coupled with extensive water conservation efforts. Per capita potable water use in the San Diego region has decreased by 45 percent since 1990 as residents and businesses continue to adopt WaterSmart practices. The Water Authority's strategic approach has been chronicled widely and serves as a model for dealing with the impacts of climate change.



San Diego remains responsive to water conservation calls

By [Erik Anderson](#) / Environment Reporter

Published May 25, 2022 at 4:48 PM PDT



[LISTEN](#) • 5:56



Associated Press

Sprinklers water a lawn in California, July 15, 2014.

California Gov. Gavin Newsom wants to cut back water use across the board around the state.

“California is facing a drought crisis and every local water agency and Californian needs to step up on conservation efforts,” said Newsom in a statement this week.

State Water Board officials, this week, approved rules starting next month that ratchet down residential water use and keep commercial customers from watering ornamental lawns.

“These conservation measures are increasingly important as we enter the summer months,” Newsom said. “I’m asking all Californians to step up, because every single drop counts.”



Local

Related: Environment Report Card offers mixed grades for local officials

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The San Diego County Water Authority’s Jeff Stephenson said the local region has access to enough water. Investments in a major desalination plant, a planned water purification plant in San Diego and water deals with Imperial County have secured local supplies, even as the rest of the state deals with drought.

“Despite the fact that we’ve developed the supplies and have the water available, it’s never okay to waste and we’re always moving toward becoming more efficient with that water that we do have,” Stephenson said.

Water managers say more than half of the water consumed in San Diego is used for outdoor watering.

That is one reason the San Diego County Water Authority helps subsidize the transition to landscaping that requires less water.

Climate change is not helping the situation.

call for 15%.”

If the state hits those water-use reduction goals, that may help hold off more onerous mandatory reductions in the future.

San Diego remains responsive to water conservation calls

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Erik Anderson

I focus on the environment and all the implications that a changing or challenging environment has for life in Southern California. That includes climate change, endangered species, habitat, urbanization, pollution and many other topics.

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How is climate change impacting your everyday life?

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NEWS RELEASE

Water Authority Earns Gold Status for Climate Initiative

DECEMBER 16, 2021

Agency named a 'climate leader' for tracking greenhouse gas emissions

The San Diego County Water Authority has earned Climate Registered gold status from The Climate Registry for verifying and publicly reporting its greenhouse gas emissions. The effort fosters transparency for the agency's climate mitigation initiatives and will help the Water Authority track and validate emissions reductions in the future.

The Climate Registry operates North America's largest voluntary registry for greenhouse gas (GHG) emissions. The Water Authority's 2019 and 2020 inventories were verified and published in The Climate Registry's public database in November, earning the agency gold status for both years.

"Reducing greenhouse gas emissions in the face of climate change is a critical part of our commitment to environmental stewardship," said Water Authority Board Chair Gary Croucher. "We take our responsibility as a climate leader seriously, and we are developing forward-thinking resource solutions to ensure a sustainable environment for generations to come."

The Water Authority works with its 24 member agencies to deliver water affordably and efficiently across San Diego County, and the agency has championed energy efficiency and environmental sustainability for decades. For instance, about half of the agency's water is from the nation's largest [conservation-and-transfer program](#), and the agency is a leader in developing pumped energy storage to maximize the use of renewable wind and solar resources.

As a centerpiece of its sustainability efforts, in 2014 the Water Authority voluntarily developed a Climate Action Plan and updates it every five years, comparing GHG emissions against a baseline and tracking progress toward State of California goals. Since the Plan's adoption, the Water Authority has conducted annual GHG inventories and provides updates to the board of directors. Verification of the annual inventory by a third-party was another step toward validating the Water Authority's climate mitigation efforts for stakeholders.

to manage and reduce it. The registry also builds capacity for emissions reductions among government agencies, and spearheads innovative projects such as the Water-Energy Nexus Registry. More information is at www.theclimateregistry.org.

“Organizations that become Climate Registered are the leaders in a growing movement to address climate change by managing and reducing emissions at the subnational level,” said Amy Holm, executive director of The Climate Registry. “We have just over a decade to take action that will ensure we avoid the worst effects of climate change. This kind of leadership is needed now more than ever.”

[**BACK TO ALL NEWS**](#)

The San Diego County Water Authority sustains a \$240 billion regional economy and the quality of life for 3.3 million residents through a multi-decade water supply diversification plan, major infrastructure investments and forward-thinking policies that promote fiscal and environmental responsibility. A public agency created in 1944, the Water Authority delivers wholesale water supplies to 24 retail water providers, including cities, special districts and a military base.

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NEWS RELEASE

Fall Back and Adjust Irrigation Systems to Save Water

NOVEMBER 04, 2021

Seasonal adjustments to irrigation controllers reduce water waste

The end of daylight saving time on Sunday offers residents a reminder to assess their outdoor watering needs and adjust their irrigation systems to reduce water waste – an especially important step after more than two years of statewide drought. Plants simply don't need as much water during cooler months, and they typically don't need irrigation at all after heavy rains.

"This is a great time to make sure irrigation systems are working properly and delivering the right amount of water," said Jeff Stephenson, a water resources manager for the San Diego County Water Authority. "After two years of drought, using water efficiently and eliminating water-wasting practices is a critical part of preserving more of our precious supply."

Outdoor watering accounts for more than half of a typical household's water use in California. Making seasonal adjustments to irrigation controllers can help reduce water waste and lead to healthier landscapes. Water-saving practices include turning off irrigation systems when rainstorms are predicted and leaving them off for at least a week after significant rainfall.

Using water efficiently indoors and outdoors is easier than ever thanks to online resources offered by the Water Authority at www.watersmartsd.org. The site is filled with information about conservation incentives, and it includes tools and programs designed to make the most of the region's most precious natural resource. Saving water is easier than many people realize. A few simple changes can make a big difference – especially outdoors.

The 2021 water year was the driest in California in more than a century, but San Diego County continues to have reliable water supplies due to long-term investments in water sources and infrastructure, coupled with extensive water conservation efforts. Per capita potable water use in the San Diego region has decreased by nearly 50% since 1990 as residents and businesses continue to adopt WaterSmart practices.

[BACK TO ALL NEWS](#)

Features



San Diego County is prepared for multiple dry years through water supply planning and diverse water supplies. Photo: San Diego County Water Authority

Drought, Water Supply and Climate Change in the San Diego Region

August 24, 2021

An update on San Diego's water supply during the current drought, and how climate change affects regional weather, was the main focus of a recent event sponsored by several organizations.

The Citizens Water Academy, Leaders 20/20 and San Diego Green Drinks hosted a lunch and learn session August 17 that also provided details on how weather and climate impacts water supplies, and how prepared the San Diego region is for drought impacts.

San Diego County Water Authority General Manager Sandra L. Kerl and National Oceanic and Atmospheric Administration Warning Coordination Meteorologist Alex Tardy spoke to nearly 90 participants via Zoom [\[https://sandiego.zoom.us/j/89iCxyW5_IXxBMUFYgDEFa0ADMz0qSMO19OhzfjNLCADn2lYfNOIXKx.I_EdDyVcHXgQ1XnM?startTime=1629229114000&x_zm_rtaid=OhxjUl6pRmm_4fxZ5ETjca.1629738125105.44450d\]](https://sandiego.zoom.us/j/89iCxyW5_IXxBMUFYgDEFa0ADMz0qSMO19OhzfjNLCADn2lYfNOIXKx.I_EdDyVcHXgQ1XnM?startTime=1629229114000&x_zm_rtaid=OhxjUl6pRmm_4fxZ5ETjca.1629738125105.44450d)

Climate change impacts and drought

EDUCATION



**Helix Water District
2022 Student Poster
Contest Winners
Highlight 'Water is Life'**

May 26, 2022



**San Diego County
Students Discover
Practical Water
Solutions**

May 5, 2022



**High School
Students Invited to
Enter Special
Districts Video Contest**

April 6, 2022



**College Scholarships
Offered for Water
Industry Education**

January 20, 2022



**Sweetwater
Authority Opens
2022 High School
Photo Contest**

January 18, 2022

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WATERNEWSNETWORK

"just here in Southern California, we have experienced both extreme precipitation and extreme drought," said Tardy. "In talking about climate and climate extremes, we are

not just talking about the obvious ones like temperature, we are also talking about other impacts like more intense storms, more frequent return of droughts and less normalcy."

His presentation included highlights of how the past several years have included multiple weather extremes, ranging from wettest single days on record to the hottest and driest years. These included precipitation extremes of varying types and impacts, many of which were fueled by El Niño and La Niña weather patterns. Lack of precipitation and increased evaporation have led to record low water supplies in many reservoirs.




Regional drought preparedness

Kerl spoke about drought concerns throughout the Southwest, which include reduced local water supplies, reduced state supplies and Colorado River supply concerns. Governor Gavin Newsom has asked for voluntary 15% reductions in water use and commonsense conservation measures, which are habits already hard-wired in most San Diego County residents.


"The really good news here in our community is that we are prepared for multiple-year droughts – we have sufficient supplies for 2021, and that's what water bills go to pay for: safe and reliable supplies," said Kerl. "It's also important to note that residents and businesses are hard-wired to conserve – the practices are ingrained in the community. Today we use 50% less per capita per day than we did 30 years ago."

Kerl also highlighted that our region's diverse water supplies include drought-resistant [<https://www.waternewsnetwork.com/san-diego-region-is-drought-safe-this-summer-2/>], sources such as desalinated water, and that the San Diego region is prepared and has enough supplies for multiple dry years [<https://www.sdcwa.org/investments-protect-san-diego-region-from-drought/>].

Southern California Weather Impacts years of extremes from 2015 to 2020

June 2021 – hottest in mountains/deserts
June to October 2020 – hottest in California including Riverside County and Palm Springs (all-time is July 2018 at 79.6F)
2012-16 – warmest and driest for California
2017-18 – 2nd driest water year on record
2018 – hottest summer on record
2014-15 – hottest years on record
2014-2018 – top 5 hottest years on record
February 2019 coldest on record many areas



February 2019 – wettest 1-day on record for Idyllwild and Palomar mountain
2016-2017 – damaging winds over coastal and valleys in winter storms – 2nd wettest season for California
2017 – 3rd highest San Diego river level at 14 feet
December 6, 2018 – 2-3 inches of rain in San Diego and Costa Mesa in 2 hours!
April 10, 2020 – record 3-5 inches in north San Diego County (24 hour period)

Throughout recent years, Southern California has experienced different types of weather extremes that have impacts on water supplies. Photo: Alex Tardy, NOAA/NWS.

on Hodges Dam, to reseal parts of the dam wall.

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How San Diego Secured its Water Supply, at a Cost

Plan For Success: ...

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WATER AUTHORITY FACEBOOK



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The San Diego County Water Authority is taking strategic steps to minimize rate increases for its 24 m ... see more [#]

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[<https://www.sdcwa.org/in-the-community/citizens-water-academy/>].

Leaders 20/20 is a young professionals network that aims to drive civic engagement to ensure a high quality of life in the San Diego region. Leaders 20/20 provides education on important issues affecting the environment and economy and helps professionals build connections to industry leaders: [sandiego.edu/soles/hub-nonprofit/initiatives/leaders-2020.php](https://www.sandiego.edu/soles/hub-nonprofit/initiatives/leaders-2020.php) [<https://www.sandiego.edu/soles/hub-nonprofit/initiatives/leaders-2020.php>].

San Diego Green Drinks [<https://www.facebook.com/SanDiegoGreenDrinks>] is a social networking group of professionals in the environmental field who attend events to meet industry professionals, find employment or employees, develop new ideas, discuss issues and solve problems.

Watch a recording of the event, starting with Alex Tardy: <https://bit.ly/385EGCP> [https://sandiego.zoom.us/rec/play/ucl6OlgsZSOWp3Kx9ZogMnfW5VEcw_Qg69YEFZPmBO9LstartTime=1629229114000&x_zm_rtaid=Un1XHq42Tju-WWNNigohtw.1629759358825.559587ff974f48dbfa8402c03cf6eab5&x_zm_rtaid=385]

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October 20, 2021

Attention: Engineering & Operations Committee

Energy Program Status Update (Presentation)

Purpose

This presentation provides an update on key components and current activities of the Water Authority's Energy Program.

Discussion

The Water Authority's Energy Program seeks opportunities to reduce the Water Authority's energy costs and maximize energy revenue opportunities. This presentation will review policy goals outlined in staff's recommended 2021 Energy Management Policy. Staff will also provide information on the Water Authority's energy supplies, impacts to hydropower revenues from the drought and water demands, and upcoming work to improve Water Authority facilities' energy resilience.

Prepared by: Brent J. Fountain, Engineering Manager
Reviewed by: Gary W. Bousquet, Director of Engineering
Approved by: Dan Denham, Deputy General Manager

October 20, 2021

Attention: Engineering and Operations Committee

2021 Energy Management Policy (Action)

Staff recommendation

Adopt the 2021 Energy Management Policy.

Alternative

Direct staff to modify the 2021 Energy Management Policy and return at a future Board meeting.

Fiscal Impact

There is no fiscal impact.

Executive Summary

- The 2019 Energy Management Policy focused on reducing energy costs at the Claude “Bud” Lewis Carlsbad Desalination Plant and continuing progress on the proposed San Vicente Energy Storage Facility.
- Since 2019, the Water Authority experienced decreased energy supply reliability resulting from electric grid outages and Public Safety Power Shutoff events to mitigate wildfires and extreme heat conditions.
- The 2021 policy focuses on four areas: energy supplies, generation, and storage; energy resilience; collaborative relationships; and government relations.

Background

The San Diego County Water Authority adopted an Energy Management Policy in 2013 in recognition of the interdependent relationship between water and energy. The policy provided guidance when considering energy related issues and developing energy projects. When the 2013 policy was adopted, the Water Authority used a relatively small amount of energy. Therefore, the policy focused on realizing energy efficiencies and exploring self-generation opportunities.

The Water Authority adopted an updated policy in 2019 with a focus on lower cost energy supplies and increased coordination between renewable energy generation and energy storage due to two factors. First, the completion of the Claude “Bud” Lewis Carlsbad Desalination Plant (Desalination Plant) in 2015 resulted in a Water Authority financial interest in reducing the cost of energy as a component of the unit price of desalinated water. Second, the passing of SB 100, the 100 Percent Clean Energy Act of 2018, requiring 100 percent of electric retail sales in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045.

Highlights of accomplishments over the past two years include:

- Staff worked with San Diego Gas & Electric to obtain approval from the California Public Utilities Commission to credit power produced at the Rancho Peñasquitos Pressure Control and Hydroelectric Facility (RPPCHF) at the Desalination Plant. This is estimated to save the Water Authority an average of \$1 million annually.
- Staff identified an opportunity to monetize 2,670 MWh of Renewable Energy Credits produced by the RPPCHF resulting in \$38,048 of unbudgeted revenue.
- Staff evaluated Community Choice Aggregator membership to ascertain the lowest cost and risk profile for the Water Authority's energy needs. As a result, the Water Authority joined San Diego Community Power for 30 electric meters.
- The Water Authority's government relations efforts resulted in the San Vicente Energy Storage Facility receiving \$18 million in the state budget to advance the project through initial design, environmental reviews, and the federal licensing process. The Water Authority, along with its partner, the City of San Diego, issued a Request for Proposals seeking a full-service private partner to begin environmental permitting and licensing.

Previous Board Action: On June 27, 2019, the Board adopted the 2019 Energy Management Policy with the addition of language to include environmental benefits.

Discussion

Since 2019, the Water Authority experienced decreased energy supply reliability resulting from electric grid outages and Public Safety Power Shutoff events to mitigate wildfires and extreme heat conditions. Therefore, the proposed Energy Management Policy recommends an energy resilience focus to maintain water system reliability. Additionally, two focus areas of the 2019 policy were combined and two focus areas were removed. Energy generation and storage was combined with energy supplies as they jointly focus on lowering the unit cost of energy and maximizing revenue. Minimizing energy costs through efficient system operations and facility equipment and features are part of standard procedures; therefore, no longer require a policy level focus.

The recommended policy targets lowering costs for energy supplies, integrating renewable energy generation and pursuing storage opportunities; improving water system energy resilience; developing collaborative relationships with strategic partners; and supporting the Water Authority's energy legislative policies.

The attached recommended 2021 Energy Management Policy focuses on four areas: energy supplies, generation, and storage; energy resilience; collaborative relationships; and government relations. Staff will continue to evaluate the policy biennially and, if needed, return to the Board with recommended changes.

Prepared by: Brent J. Fountain, Engineering Manager
Reviewed by: Gary W. Bousquet, Director of Engineering
Approved by: Dan Denham, Deputy General Manager

Attachment:

Attachment 1 – Recommended 2021 Energy Management Policy

Recommended 2021 Energy Management Policy

(Adopted by the San Diego County Water Authority Board of Directors on XXXXX, 2021)

Background

The San Diego County Water Authority adopted an Energy Management Policy in 2013 to reduce energy costs and help stabilize water rates for its 24-member retail water agencies. The Water Authority adopted an updated policy in 2019 with a focus on lower cost energy supplies and increased coordination between renewable energy generation and energy storage due to two factors. First, the completion of the Claude “Bud” Lewis Desalination Plant in 2015 resulted in a Water Authority financial interest in reducing the cost of energy as a component of the unit price of desalinated water. Second, the passing of SB 100, the 100 Percent Clean Energy Act of 2018, requiring 100 percent of electric retail sales in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045.

The Water Authority continues to pursue measures to minimize energy costs by evaluating alternatives to procure lower cost energy supplies and integrate renewable energy generation and storage opportunities. After the adoption of the 2019 Energy Management Policy, the Water Authority experienced decreased energy supply reliability resulting from electric grid outages and Public Safety Power Shutoff events to mitigate wildfires and extreme heat conditions. These events magnify the need for energy resilience at Water Authority facilities to maintain water system reliability.

Purpose

The 2021 Energy Management Policy provides guidelines to implement a dynamic Energy Program that supports the Water Authority’s mission of delivering safe and reliable water by minimizing energy costs, integrating renewable energy generation and storage, and maintaining an energy resilient water system. This policy supports regional environmental benefits such as reducing greenhouse gas emissions associated with energy usage tracked through the Water Authority’s Climate Action Plan.

Policy

The 2021 Policy objectives focus on four areas: energy supplies, generation and storage; energy resilience; collaborative relationships; and government relations. This policy will be reviewed and updated biennially.

1. Evaluate economically and operationally sound opportunities to procure or develop **energy supplies, generation, and storage**.
2. Improve water system **energy resilience** to maintain reliability during grid outages and Public Safety Power Shutoff events.
3. Foster **collaborative relationships** with compatible federal, state and local agencies or private organizations to maximize energy program benefits.
4. Support **government relations** energy goals as outlined in the current Legislative Policy Guidelines and Federal Legislative Priorities.