The Metropolitan Water District of Southern California

Agenda

The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

OW&S Committee
T. Quinn, Chair
S. Faessel, Vice Chair
L. Ackerman
D. Alvarez
J. Armstrong
G. Cordero
D. De Jesus
D. Erdman
L. Fong-Sakai
S. Goldberg
C. Kurtz
R. Lefevre
C. Miller
G. Peterson
B. Pressman
N. Sutley

One Water and Stewardship Committee

Meeting with Board of Directors *

January 8, 2024

3:00 p.m.

Monday, January 8, 2024 Meeting Schedule

09:30 a.m. EOT
11:30 a.m. EIA
01:30 p.m. Break
02:00 p.m. LRAC
03:00 p.m. OWS

Agendas, live streaming, meeting schedules, and other board materials are available here: https://mwdh2o.legistar.com/Calendar.aspx. If you have technical difficulties with the live streaming page, a listen-only phone line is available at 1-877-853-5257; enter meeting ID: 891 1613 4145. Members of the public may present their comments to the Board on matters within their jurisdiction as listed on the agenda via in-person or teleconference. To participate via teleconference 1-833-548-0276 and enter meeting ID: 815 2066 4276 or click https://us06web.zoom.us/j/81520664276pwd=a1RTQWh6V3h3ckFhNmdsUWpKR1c2Zz09

MWD Headquarters Building • 700 N. Alameda Street • Los Angeles, CA 90012

* The Metropolitan Water District's meeting of this Committee is noticed as a joint committee meeting with the Board of Directors for the purpose of compliance with the Brown Act. Members of the Board who are not assigned to this Committee may participate as members of the Board, whether or not a quorum of the Board is present. In order to preserve the function of the committee as advisory to the Board, members of the Board who are not assigned to this Committee will not vote on matters before this Committee.

1. Opportunity for members of the public to address the committee on matters within the committee's jurisdiction (As required by Gov. Code Section 54954.3(a))

A. Public Hearing on Metropolitan's Achievements in Conservation, Recycling, and Groundwater Recharge **21-2911**

Attachments: 01082024 OWS 1a Report
01082024 OWS 1a Presentation

**** CONSENT CALENDAR ITEMS -- ACTION ****

2. CONSENT CALENDAR OTHER ITEMS - ACTION

A. Approval of the Minutes of the One Water and Stewardship Committee for November 13, 2023 (Copies have been submitted to each Director, any additions, corrections, or omissions) **21-2884**

Attachments: 01082024 OWS (11132023) Minutes

3. CONSENT CALENDAR ITEMS - ACTION

NONE

**** END OF CONSENT CALENDAR ITEMS ****

4. OTHER BOARD ITEMS - ACTION

NONE

5. BOARD INFORMATION ITEMS

NONE

6. COMMITTEE ITEMS

a. Update on Delta Conveyance Project **21-2910**

Attachments: 01082024 OWS 6a Presentation

b. Update on Water Surplus and Drought Management **21-2908**

Attachments: 01082024 OWS 6b Report
01082024 OWS 6b Presentation

c. Update on Conservation **21-2909**

Attachments: 01082024 OWS 6c Presentation

7. MANAGEMENT ANNOUNCEMENTS AND HIGHLIGHTS

a. Bay-Delta Resources, Colorado River Resources, Sustainability, Resilience and Innovation, and Water Resource Management activities **21-2885**

Attachments: 01082024 OWS 7a Bay-Delta December Report
01082024 OWS 7a Colorado River Report
01082024 OWS 7a Bay-Delta November Report

8. SUBCOMMITTEE REPORTS AND DISCUSSION

a. Discuss and provide direction to Subcommittee on Bay-Delta **21-2886**

b. Discuss and provide direction to Subcommittee on Demand Management and Conservation Programs and Priorities **21-2887**

9. FOLLOW-UP ITEMS

NONE

10. FUTURE AGENDA ITEMS

11. ADJOURNMENT

NOTE: This committee reviews items and makes a recommendation for final action to the full Board of Directors. Final action will be taken by the Board of Directors. Committee agendas may be obtained on Metropolitan's Web site https://mwdh2o.legistar.com/Calendar.aspx. This committee will not take any final action that is binding on the Board, even when a quorum of the Board is present.

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site https://mwdh2o.legistar.com/Calendar.aspx.

Requests for a disability-related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Date: December 27, 2023

To: Board of Directors

From: Adel Hagekhalil, General Manager

Subject: Transmittal of Draft 2024 Annual Progress Report to the California State Legislature on Achievements in Conservation, Recycling and Groundwater Recharge

Attached for your review is the draft Metropolitan report, *Annual Progress Report to the California State Legislature on Achievements in Conservation, Recycling and Groundwater Recharge*. On or before February 1st of each year, Metropolitan submits an annual report to the California State Legislature on our progress in achieving the goals of increased emphasis on cost-effective conservation, recycling, and groundwater recharge. This draft report presents these achievements during fiscal year 2022/23.

In conjunction with the report, Metropolitan will hold a public hearing at its regularly scheduled One Water and Stewardship Committee Meeting on January 8, 2024 to review our region's achievements. Metropolitan has invited knowledgeable persons from the fields of water conservation and sustainability to comment at the hearing. The public hearing will commence with a staff report reviewing the achievements. Next, invited experts will be requested to make comments on the report. Thereafter, the public will be invited to comment.

A copy of the final report will be distributed prior to the February Board and Committee meetings. Metropolitan will be submitting the final report to the California State Legislature by February 1, 2024.

Adel Hagekhalil

Attachment

cc: Member Agencies

DRAFT

Achievements In Conservation, Recycling & Groundwater Recharge

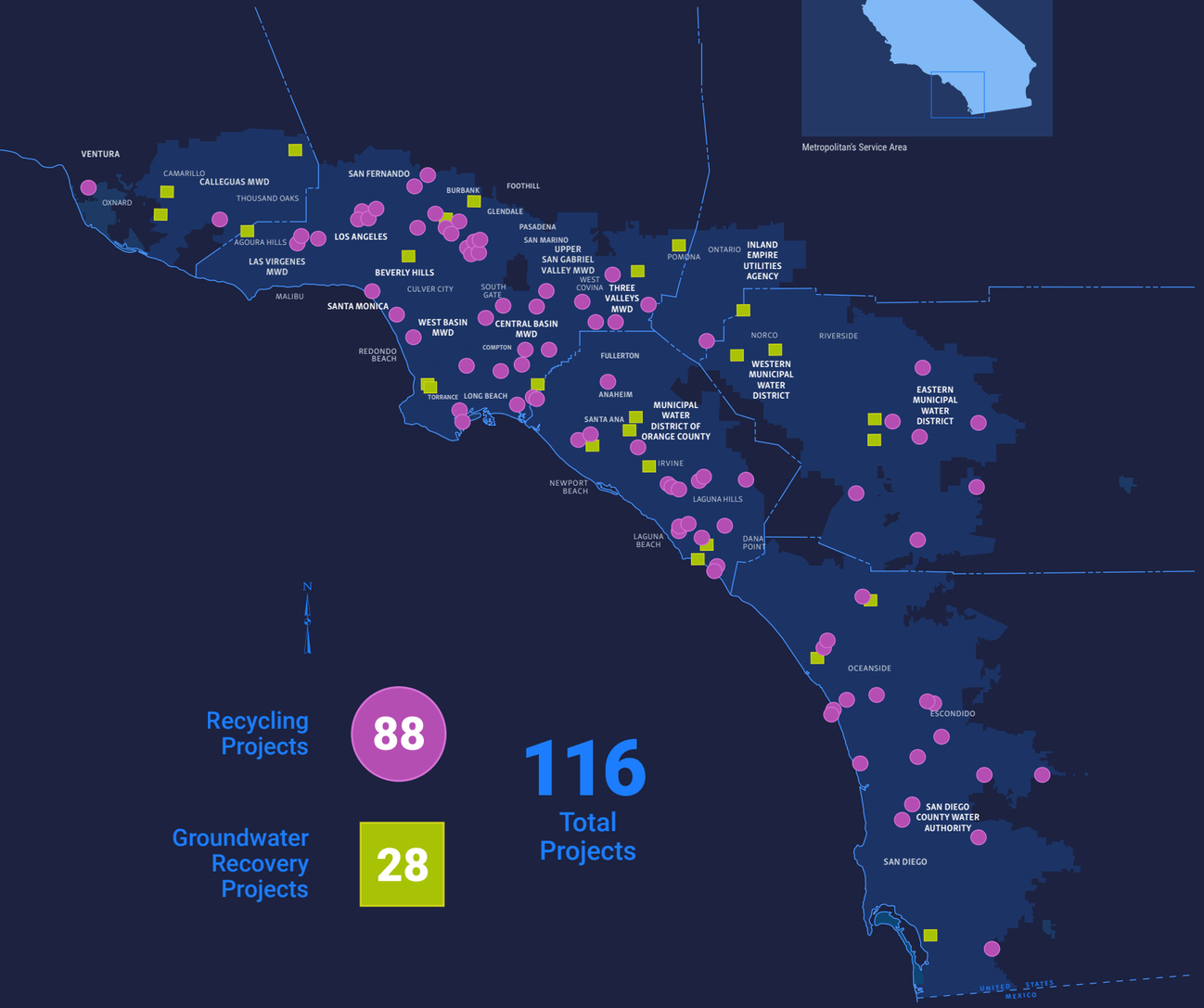
February 2024

Covering Fiscal Year 2022/23

THE METROPOLITAN WATER DISTRICT
of SOUTHERN CALIFORNIA

Metropolitan's Local Resources Program Projects

Metropolitan's Service Area



Recycling Projects 88

Groundwater Recovery Projects 28

116 Total Projects

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For more information about this report, contact Metropolitan's Legislative Office in Sacramento at 916.650.2600
Cover photo: A waterwise garden reminds us that saving water can be our legacy for the future.

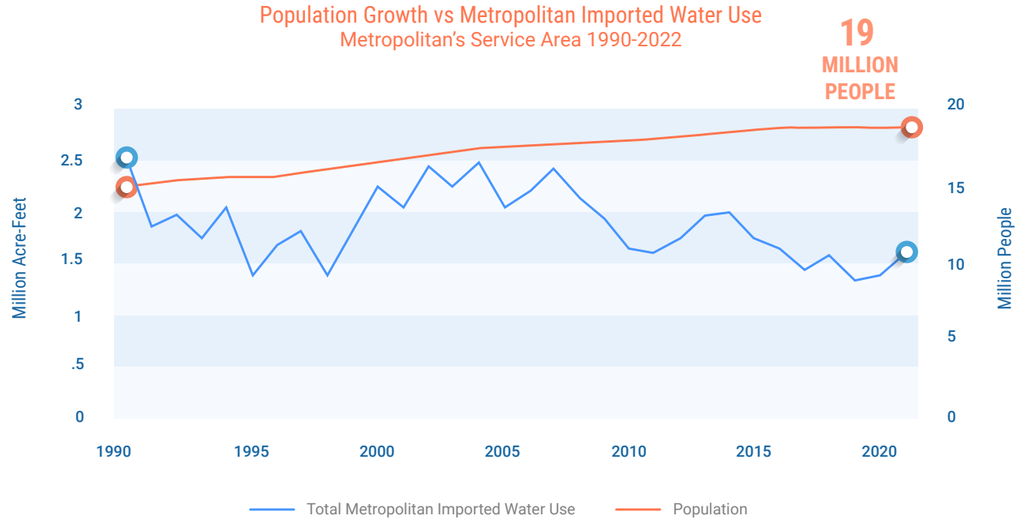
About Metropolitan & This Report

The Metropolitan Water District of Southern California was established in 1928 under an act of the state Legislature to provide supplemental water supplies to its member agencies in Southern California. This report details Metropolitan's progress in achieving the goals of increased emphasis on cost-effective conservation, recycling, and groundwater recharge and related recommendations.

Metropolitan is a public agency and regional water wholesaler. It is a voluntary cooperative of 26 member agencies that purchase some or all their water from Metropolitan. These member agencies directly or indirectly provide water for 19 million people across six Southern California counties. Metropolitan is governed by a 38-member board of directors made up of representatives from each of Metropolitan's member agencies. The mission of Metropolitan is to provide its 5,200-square-mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan draws on supplies from the Colorado River through the Colorado River Aqueduct, which it owns and operates; from Northern California via its participation in the State Water Project; from storage agreements and through transfer and exchange arrangements with other agencies both in California and in other western states. Demands on Metropolitan also are managed through conservation and local resource programs. An increasing percentage of Southern California's water supply comes from conservation, water recycling, and recovered groundwater.

Conservation and local resource development occur at the local and regional levels; regional approaches have proven to be cost-effective and beneficial for all Metropolitan member agencies. These programs increase water supply reliability and reduce the region's reliance on imported water supplies to meet future demands. They decrease the burden on Metropolitan's infrastructure, reduce system costs, and free up conveyance capacity to benefit all system users. The region is helped by these programs to adapt to the impacts of climate change and advance the legislative intent that Metropolitan increase "sustainable, environmentally sound, and cost-effective water conservation, recycling, and groundwater storage and replenishment measures." Local conservation programs may be more limited in scope and target, but can also benefit the region, which is why Metropolitan makes conservation funding available to all of its member agencies to implement programs that benefit their respective service areas.



Demand on Metropolitan Imported Water includes consumptive and replenishment demand

The simplicity of a drip irrigation system provides water to exactly where it is needed.

Ensuring sustainability of Colorado River water supplies requires the 40 million people and 6 million acres of farmland that depend on this water source to reduce their reliance on the river.

While Metropolitan is involved in many other beneficial programs and initiatives, this report describes our successes in the areas of local resource development, local storage efforts, and improvement of the watersheds that provide our imported and local supplies. Plans for managing the impacts of a changing climate are also part of our resource management discussion.

Metropolitan was founded nearly a century ago to build and operate the Colorado River Aqueduct. Later, we contracted with the state of California for a share of the State Water Project to meet the supply needs of growing Southern California. With a mission to deliver adequate and reliable high-quality water, Metropolitan expanded our infrastructure to include a vast network of distribution lines, treatment facilities, reservoir storage, and groundwater banking programs to meet and anticipate the needs of our service area.

Today's vision calls for encouraging sustainable local resource development, water-use efficiency, and innovative storage initiatives. This report details the significant steps Southern California continues to undertake to manage our demands for water in the face of climate change and extreme fluctuation in weather patterns, which factors in a greater percent of unpredictability to managing our resources for the long-term. We are working in partnership with communities to make our system more flexible and our customers more resilient to climate extremes through conservation initiatives and local resource development programs. This strategy reduces demand and keeps water in storage for the next drought. We have been very successful in managing demands even in the face of significant population growth. In fact, the graphic on the previous page shows that our region has seen population grow by almost 30 percent since 1990, but that Metropolitan imported water use over this same period has dropped by almost 40 percent. This exemplifies the region's advances in conservation and local resource development.

Resource Management in Extraordinary Times

The word "extraordinary" usually has a positive connotation. Something rare and special, like the extraordinary conservation efforts shown by Southern Californians over the past several drought years. Or the extraordinary rainfall that brought us relief last winter. But the word can also mean something that stands out from the norm and raises concern, like the extraordinary weather patterns resulting from climate change, which make it more difficult to manage water supplies.

This annual report highlights the extraordinary efforts and achievements in the areas of conservation, recycling, and groundwater management in the past fiscal year. These initiatives demonstrate Metropolitan's success in navigating the unpredictable impacts of climate change.

The year started with drought conditions and continued stress on both sources of imported supply for Southern California – the State Water Project and Colorado River. In 2021, the final SWP allocation was 5 percent. Dry conditions persisted into 2022 resulting in another final SWP allocation of 5 percent. Faced with consecutive dry years, the California Department of Water Resources took an unprecedented step by providing supplemental water for essential human health and safety needs. With the prospects of another dry year in 2023, the initial SWP allocation was 5 percent. However, hydrologic conditions markedly improved with the arrival of multiple atmospheric rivers. Consequently, the final SWP allocation reached 100 percent — a milestone not achieved since 2006.

This increase allowed Metropolitan and other agencies receiving SWP water to meet their water demands and, in some cases, store surplus water. As a result, reserve levels that had been significantly drawn down saw a sharp increase at state reservoirs and in groundwater basins.

The dramatic change in conditions also moved Metropolitan's board in March 2023 to end its Emergency Water Conservation Program, which had been in effect since June 2022 and had required deep cuts for member agencies reliant on Metropolitan's access to SWP water.

A healthy snowpack in the Rocky Mountains gave water officials some breathing room to manage the Colorado River Basin in the short term but did not erase the serious long-term challenges facing the Colorado River supply. With more than two decades of drought and very dry conditions, Colorado River reservoirs today remain at very low levels, which jeopardizes the water supply and power generation for several Southwest states. To ensure the sustainability of the River, the 40 million people and 6 million acres farmed that depend on this source must reduce their use and reliance.

Everyone plays a role in water reliability. For Metropolitan, this means promoting sound resource management policies, supporting local resource development, promoting innovation, maintaining infrastructure, and securing funds and new partners to help fund these investments. In calendar year 2022, Metropolitan was successful in securing $130 million in state funding for drought mitigation programs and is working to secure millions more to support infrastructure investments that will help prevent severe water shortages for the next extraordinary weather cycle.

Lake Oroville, January 2023.

Lake Oroville, July 2023.

Key accomplishments for Fiscal Year 2022/23 include:

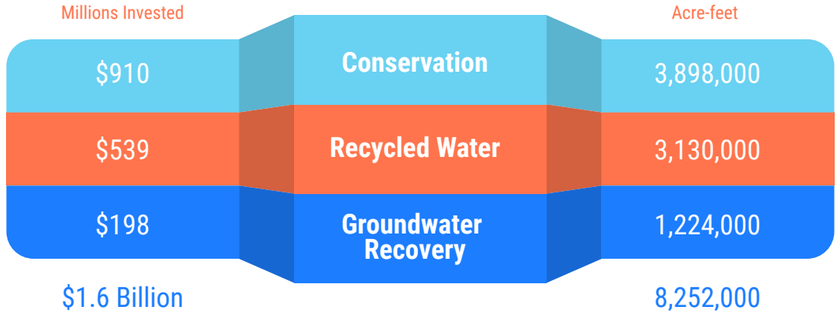
- Metropolitan provided about $46 million in rebates, landscape and irrigation classes, research, and outreach to promote conservation awareness with resources at bewaterwise.com.
- Pure Water Southern California, the proposed water recycling project that could be one of the largest in the world, entered the environmental review phase and launched a major public outreach effort to secure community input.
- Through its LRP program, Metropolitan provided $5 million of incentives to projects that produced 44,000 acre-feet of recycled water and $8 million of incentives to projects that produced 56,000 acre-feet of recovered groundwater.
- Metropolitan launched a Climate Action Plan for Water (CAMP4W), a collaborative effort to create a roadmap for future capital investments and business decisions to prepare for a changing climate and its impact on water reliability.
- A new zero-emission vehicle task force was launched to guide Metropolitan's vehicle fleet transition from fossil fuels to ZEV to reduce greenhouse gas emissions and help to meet Metropolitan's climate goals and regulatory requirements.

Achievement Scorecard

Conservation		
FY 2022/23 Total Water Saved[1]	**1,083,000 acre-feet**	
New Water Saved From Metropolitan Conservation Credits Program[2]	4,400 acre-feet	
Water Saved From Existing Metropolitan Conservation Credits Program[3]	207,000 acre-feet	
FY 2022/23 Investment		
Metropolitan Conservation Credits Program Investment[4]	$46 million	
Member Agency Conservation Investment[5]	$11 million	
Metropolitan Outreach & Education	$7 million	
Cumulative Savings Since 1990		
Water Saved From Metropolitan Conservation Credits Program Only[6]	**3,898,000 acre-feet**	
Metropolitan Conservation Investment (excluding funding by member agencies)[7]	$910 million	
Recycled Water		
FY 2022/23 Production[8]	**466,000 acre-feet**	
Water Produced From Projects Receiving Metropolitan Funding	44,000 acre-feet	
Water Produced From Projects Without Metropolitan Funding (incl. Santa Ana River base flow)[9]	422,000 acre-feet	
FY 2022/23 Investment		
Metropolitan Funding	$5 million	
Cumulative Production & Investment Since Inception[10]		
Production With Metropolitan Funding	**3,130,000 acre-feet**	
Metropolitan Investment	$539 million	
Groundwater Recovery		
FY 2022/23 Production	**120,000 acre-feet**	
Water Produced From Projects Receiving Metropolitan Funding	56,000 acre-feet	
Water Produced From Projects Without Metropolitan Funding	64,000 acre-feet	
FY 2022/23 Investment		
Metropolitan Funding	$8 million	
Cumulative Production & Investment Since Inception[11]		
Production With Metropolitan Funding	**1,224,000 acre-feet**	
Metropolitan Investment	$198 million	
Conjunctive Use Program[12]		
Metropolitan Cumulative Capital Investment	$27 million	
Proposition 13 Grant Funds Administered by Metropolitan	$45 million	
Water Stored Since Program Inception through June 2023	360,000 acre-feet	
Water Extracted Since Program Inception through June 2023	346,000 acre-feet	
Groundwater Replenishment[13]		
FY 2022/2023 Delivery	49,000 acre-feet	
Cumulative Replenishment Delivery since 1984 through 2023	**4,256,000 acre-feet**	
Regional Summary		
	FY 2022/23	**Cumulative**
Metropolitan's Investment in Water Conservation, Recycled Water, and Groundwater Recovery[14]	$59 million	$1.6 billion
	311,000 AF	**8,252,000 AF**

The numbers above have been rounded to present a topline view of conservative achievement. More precise numbers are included in the report narrative. Cumulative investment is reported in nominal dollars.

Metropolitan's Cumulative Investment



Footnotes for the Achievement Scorecard

Numbers are based on the best available information during the production of this report and are subject to revision for accounting reconciliation. All cumulative investment figures are in nominal dollars.

1. Annual total savings include Metropolitan's Conservation Credits Program, code-based conservation achieved through Metropolitan-sponsored legislation; building plumbing codes and ordinances; reduced consumption resulting from changes in water pricing; and pre-1990 device retrofits.
2. New water savings achieved through Metropolitan's Conservation Credits Program and from member-agency-funded programs initiated in fiscal year 2022/23.
3. Includes water savings initially achieved through Metropolitan's Conservation Credits Program and maintained through plumbing codes.
4. Active conservation investment includes administrative fees for contracted program vendors. The investment also includes $6.9 million of outreach that was budgeted through the Conservation Credits Program.
5. In addition to Metropolitan's Conservation Credits Program, member agencies and retailers also implemented local water conservation programs within their respective service areas. Member agency investment figures include rebate funding beyond rebates already provided by Metropolitan's Conservation Credits Program.
6. Cumulative water savings since 1990 that include water savings initially achieved through Metropolitan's Conservation Credits Program and maintained through plumbing codes.
7. Metropolitan's cumulative conservation investment for fiscal year 2022/23 reflects a revision in total cumulative expenditures due to a reconciliation audit. This does not include outreach and education expenditures.
8. Figures reflect actual and estimated deliveries for all Metropolitan-assisted projects and payments reported for fiscal year 2022/23; cumulative production and investment reflect accounting reconciliation as data become available; annual regional production for recycled water includes an estimated 67,753 acre-feet of treated wastewater discharged to the Santa Ana River base flow that percolates into downstream groundwater basins. Total may not sum due to rounding.
9. Projects accounted for here include some that received funding at the outset through Metropolitan's Local Resources Program. Once the term of the funding agreement expires and the projects continue, further production is not factored into program totals.
10. Metropolitan initiated its Local Resources Program in 1982 to encourage production of recycled water for municipal purposes. Cumulative production and investment figures are subject to annual accounting reconciliation.
11. Metropolitan initiated its Groundwater Recovery Program in 1991 to encourage treatment and use of degraded groundwater for municipal purposes. Cumulative production and investment figures are subject to annual accounting reconciliation.
12. Construction of the conjunctive use storage programs was completed in 2008. Proposition 13 refers to Chapter 9 of the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act of 2000. Water extracted since the program inception includes losses.
13. Figure is cumulative since 1984. Prior to 2013, Metropolitan provided replenishment water at a discounted rate to encourage long-term recharge and maintenance of groundwater basins and local reservoirs. Although the discounted replenishment rate was discontinued Jan. 1, 2013, Metropolitan continues to provide water for replenishment purposes at full-service rates.
14. Metropolitan's cumulative conservation investment for fiscal year 2022/23 reflects a revision in total cumulative expenditures due to a reconciliation audit. Cumulative conservation investment does not include outreach and education expenditures.

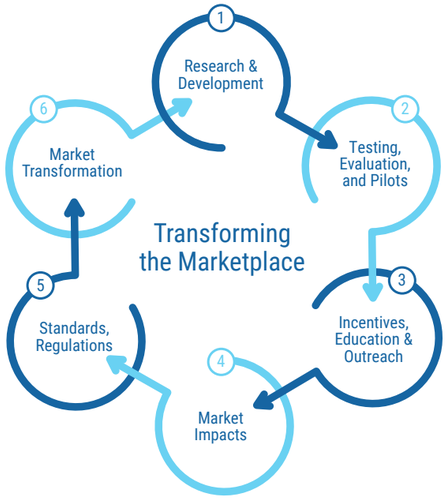
Conservation

The standout lesson from nature in the past few years is that the only thing we can expect is more unpredictability. The climate arcs from historically dry years to historically wet winters reminded water planners and residents of the importance of conservation, the prudence of keeping water in reserves, and our own abilities to adapt more sustainable behaviors when it comes to using water. Our achievements are directly tied to support from our member agencies, local and diverse communities, schools, businesses, and elected officials. Reaching underserved communities with targeted and accessible conservation programs is a shared priority.

Metropolitan has a renewed focus on outside funding sources, and this year received nearly $50 million in funds for conservation programs from state and federal agencies to extend and enhance our programs.

To encourage efficient water-use behavior, Metropolitan has several initiatives that include financial incentives, as well as educational, advertising, and outreach programs. We also support legislation, smart building codes, and device and appliance standards that ensure continued water savings over time. Metropolitan programs focus on market transformation, with specific activities illustrated in the figure to the right. We promote innovation, support development of new products, and influence consumer decision-making with catalysts like rebates, outreach and education, advocacy for new codes and standards, and fostering of new alliances. These efforts have brought positive and lasting change.

The first step towards transforming markets is to learn through research and development (1). We test new technologies with promising potential to see if they work and how well they might do in the marketplace. Ongoing testing, evaluation, and pilot programs are conducted through public-private collaborations that reduce associated development costs (2). Once these technologies are in the hands of consumers, we continue to track water savings and gauge consumer satisfaction.



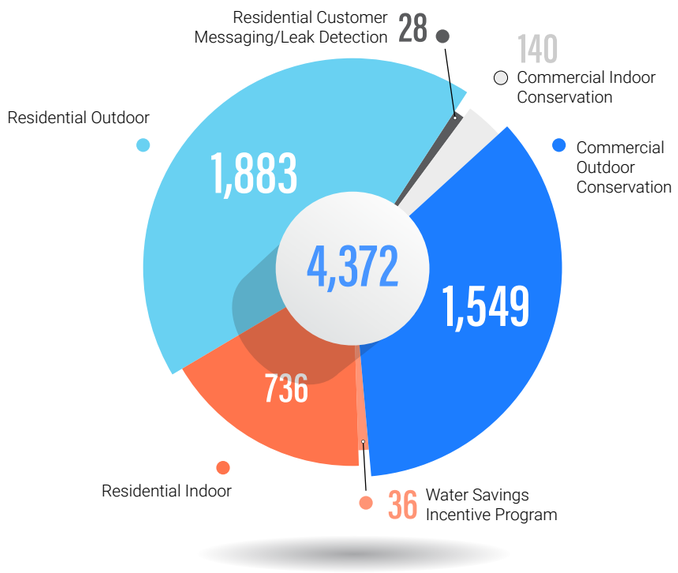
A waterwise garden blooms in a carpet of flowers and shrubs.

Catalysts like incentive programs, education and outreach bring new technologies to the attention of consumers (3). Rebates are offered to incentivize the use of water-efficient technologies and processes. Education and outreach calls attention to their availability. Targeted advertising, in multiple languages and across diverse platforms, brings the conservation message to a broader community. Impacts on the market are accelerated by these catalysts (4). Incentives also have the effect of increasing demand for new products and driving down production cost.

Advocacy for new standards and regulations happens when products become more available in the marketplace to support sustained water savings (5). New device standards and building and municipal codes also encourage research and development of next generation water-saving technologies, processes, services, and designs. And finally, once catalysts like financial incentives have their intended effects to influence markets and consumer behaviors, they can be phased out to allow natural market dynamics to sustain changes (6).

Since 1990, Metropolitan has invested $910 million in conservation rebates and programs, of which approximately $46 million was spent in fiscal year 2022/23. Metropolitan typically calculates rebates based on $195 per acre-foot of water savings over the life of a device or program. Exceptions include the turf replacement program, rain barrels, cisterns, and multi-family housing toilet replacements. These programs are intended to spur market transformation and are calculated differently to provide a greater incentive. More and more, Metropolitan supplements its conservation programs using state and federal grant funds when they are available.

New Water Savings in Acre-feet
Fiscal Year 2022/23



Fiscal Year 2022/23 Conservation Program Highlights

- Metropolitan provided about $46 million in rebates, landscape and irrigation classes, research, and outreach to help consumers reduce water use in their homes and businesses.
- Metropolitan processed over 31,350 applications for approximately $16.6 million in regional rebate funding.
- Metropolitan was awarded $49.5 million in grants from the Department of Water Resources and United States Bureau of Reclamation. $6.5 million has been awarded and implemented, with the remaining $43 million still to be launched.
- Through partnership program with SoCalGas, Metropolitan helped to install water saving fixtures in nearly 2,500 homes.

Metropolitan's Residential Conservation Programs

SoCal Water$mart Residential & Member Agency Residential Programs

Metropolitan's regional rebate program is administered through SoCal Water$mart to encourage and support the use of water-efficient products across the Southland. Residential rebates offered in fiscal year 2022/23 included high-efficiency clothes washers, premium high-efficiency toilets, high-efficiency sprinkler nozzles, smart irrigation controllers, rain barrels, and cisterns. Metropolitan estimates about 1,200 acre-feet of annual water savings from more than 97,500 residential conservation device rebates funded by Metropolitan in fiscal year 2022/23, which includes 14,000 water-saving high efficiency sprinkler nozzle rebates. Metropolitan also offered rebates for leak detection devices in fiscal year 2022/23 and provided showerheads and aerators through a direct install program.

Metropolitan also provides funding to member agencies for locally-administered conservation programs. Qualifying residential projects include rain barrel distributions, turf replacement programs, sustainable landscape irrigation programs, residential leak detection, customer water-use messaging, as well as residential water surveys.

Metropolitan estimates water savings of about 2,600 acre-feet annually from all residential programs administered in fiscal year 2022/23.

Regional Turf Replacement Program

Metropolitan's Turf Replacement Program provided rebates for residential, commercial, industrial, and institutional sites to remove about 10.5 million square-feet of lawn in fiscal year 2022/23, resulting in an estimated annual water savings of about 1,200 acre-feet. These savings represent an increase of 550 acre-feet over the previous fiscal year.

Grant funding from the Department of Water Resources ($2 million) and the United States Bureau of Reclamation ($2 million) increased the incentive amount by $1 per square foot to $3 per square foot for residential and commercial sites and $4 per square foot for public agency sites. Funding for public agency sites is still available. However funding for residential and commercial sites was fully reserved within one month of launching.

Removing water-thirsty grass makes way for zones of interesting diversity and color.

Other Regional Incentives

Premium High-Efficiency Toilets

Metropolitan continued its premium high-efficiency toilet rebates for underserved communities. The regional initiative to boost rebates from $40 to $250 to replace toilets in multifamily housing built before 1994 with premium high-efficiency models started in 2019. Metropolitan estimates that the total amount of premium high-efficiency toilet rebates issued for both residential and commercial customers in fiscal year 2022/23 will save about 250 acre-feet of water per year. Premium high-efficiency toilets use no more than 1.1 gallons per flush and about 30 percent less water when compared to older ultra-low-flush toilets.

High-Efficiency Clothes Washers

Metropolitan estimates water savings of about 430 acre-feet annually from clothes washer rebates in fiscal year 2022/23. High-efficiency clothes washers with an integrated water factor of 3.2 or less are eligible to receive rebates. The integrated water factor is the measure of the amount of water used to wash a standard load of laundry. These washers can save more than 10,000 gallons per year compared to a conventional top-loading clothes washer.

Smart Irrigation Controllers

Smart irrigation controllers save water by automatically adjusting watering schedules based on weather, soil conditions, plant material, sun exposure, soil moisture, and slope. Metropolitan estimates water savings from both regional and member agency incentive programs of about 720 acre-feet annually from smart controller rebates in fiscal year 2022/23.

Metropolitan's Commercial Conservation Programs

Metropolitan's commercial conservation programs provide financial incentives for water-saving devices and projects, including landscape transformation. Rebates are available for certain commercial kitchen devices, cooling towers, and medical and dental equipment. Qualifying commercial projects included turf removal, multi-family high-efficiency toilets, and high-efficiency sprinkler nozzles. Metropolitan estimates about 1,000 acre-feet of annual commercial water savings from more than 41,000 conservation device incentives and 3.7 million square feet of turf replacement in fiscal year 2022/23.

Handing over your irrigation schedule to a smart controller eliminates sprinklers in the rain.

Water Savings Incentive Program

The Water Savings Incentive Program is a regional pay-for-performance initiative. It is open to all commercial, industrial, institutional, agricultural, and large landscape consumers with qualifying projects within Metropolitan's service area. Financial incentives are available for customized water-efficiency projects, including: the installation of commercial or industrial high-efficiency equipment; industrial process improvements; agricultural and landscape water efficiency improvements; and water management services. Incentives are based on the amount of water saved and capped at 50 percent of eligible project costs. In fiscal year 2022/23, Metropolitan estimates savings of about 70 acre-feet of water from new projects. The annual water savings for fiscal year 2022/23 from all WSIP projects since program inception is estimated at about 4,480 acre-feet. An effort to elevate awareness of the WSIP was the motivation for the inaugural One Water Awards Program, which showcased six local businesses and municipalities that have benefited from program participation with water and financial savings.

Research & Development

Innovative Conservation Program

Metropolitan's Innovative Conservation Program provides funding for research that will document the water savings and reliability of innovative water savings devices, technologies and strategies. About $275,000 was provided as part of a joint 2020 program with SoCalGas.

Thirty-two project proposals from diverse entities such as universities, entrepreneurs, municipalities, non-profit organization, and individuals were received and evaluated by a selection committee. Six projects were selected and received up to $50,000 each in funding. Project topics include municipal and commercial leak detection, cooling tower efficiency, commercial turf replacement savings analysis, and showerheads that provide water and energy savings by eliminating waste during the shower-water warming process. All projects will be completed by fall 2024.

Recycling water used for firefighter training saves millions of gallons every year in Ventura County.

Long-Term Studies

In addition to the Innovative Conservation Program, Metropolitan pursued other research projects, many of them long-term studies. They include:

- Ongoing pilot study to provide individual GIS (Geographic Information System) dashboards to Metropolitan's member and retail agencies to help identify areas of turf that may not provide any functional benefits to the community.
- Evaluating the water-savings potential of leak detection for distribution system processes in collaboration with multiple member agencies.
- Continued partnership with the Alliance for Water Efficiency to study water affordability including direct installation of devices donated by Kohler® and Whirlpool®.
- Expanded collaboration with SoCalGas on a direct install program for underserved communities.

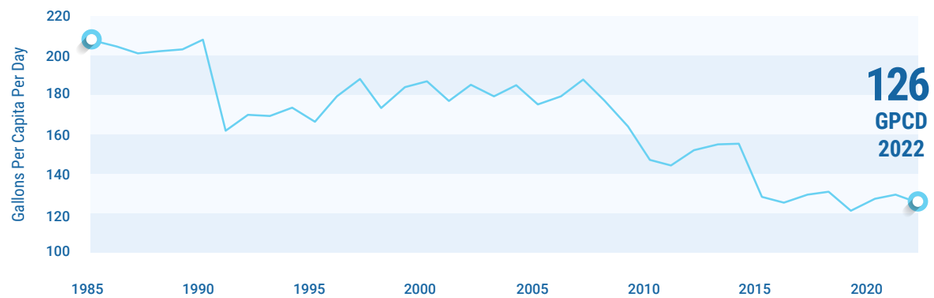
A collaboration with SoCalGas brings waterwise toilets to disadvantaged communities along with irrigation controllers and high-efficiency showerheads.

Metropolitan has collaborated with SoCalGas since 2014 when the agencies began to work together on joint water and energy efficiency incentive programs. The most recent collaboration saw the expansion of a direct install program that originally provided new high-efficiency clothes washers to income qualified residents in Metropolitan and SoCalGas services areas at no cost. The program expansion now allows income-qualified homeowners and residents of disadvantaged communities to receive new high-efficiency toilets, smart irrigation controllers, and high-efficiency showerheads and aerators installed by SoCalGas contractors free of charge. Approximately 5,570 homes have benefitted from this program since its inception in December 2021. In fiscal year 2022/23, there were nearly 3,300 high-efficiency toilets install, 600 "smart" or weather-based irrigation controllers, and 42,800 low-flow showerheads and faucet aerators installed in almost 2,500 homes. Funding in the amount of $2.5 million was provided for this program by the state Department of Water Resources which allowed the partners to expand the program and target more homes for retrofit.

Water-Use Efficiency

Increasing regional water-use efficiency is a key component of Metropolitan's water reliability strategy. Since 1990, Metropolitan's estimated regional potable water use declined from 209 gallons per capita daily or GPCD, to 126 GPCD in calendar year 2022. This 40 percent reduction and continued decline is attributed to regional investments in conservation programs, legislation, and long-term conservation program investments by Metropolitan. Further advances in water-use efficiency will be driven by regional investments in conservation programs, legislation, and education and outreach campaigns that promote a strong water-use efficiency ethic.

Potable Per Capita Water Use
Metropolitan's Service Area Calendar Year



Notes about the graph:
1. Calendar year data.
2. 2022 GPCD based on best available data (as of June 2023) and is subject to reconciliation. Data is received in 2023 for the previous calendar year.

Communications & Outreach

Our water supply system is being tested like never before. While climate change continues to threaten our supply resiliency, what remains certain is the need to conserve, reuse, and recycle as much as we can. Engaging Southern California's many diverse communities is not a one-size-fits-all approach, which is why Metropolitan fostered a strong presence on multimedia platforms as well as community-based outreach to nonprofit organizations, educators, elected officials, and the news media.

Advertising & Outreach Campaign

Extreme swings in Southern California water supply conditions in fiscal year 2022/23 presented exceptional challenges for Metropolitan's communication strategies. Conditions at the start of the fiscal year were dire, with emergency watering restrictions affecting millions of residents throughout the service area. The end of the fiscal year painted a starkly different picture. A series of atmospheric rivers in the winter of 2023 boosted California's snowpack to healthy levels and helped replenish depleted reservoirs and groundwater basins. The swings in weather from dry to wet point to the variable and extreme weather conditions that make managing the region's water resources increasingly challenging. Communicating about these challenges and the need to maintain an unwavering conservation ethic required innovative, nimble, and swift outreach approaches.

Initially, as Southern California prepared for a potential fourth year of drought, Metropolitan's fiscal year 2022/23 advertising and outreach campaign, with a total budget of $3.5 million, carried the conservation message forward on various media platforms and in six languages. The first flight of the campaign ran from July through November 2022, with advertisements on television, radio, social and digital media, outdoor billboards and transit shelters, and community newspapers. Creative design and messaging expanded on the previous fiscal year's "This is How We Save Water" campaign to emphasize the need to conserve amid increasingly dire water supply conditions. The campaign's concentration on in-language outreach was representative of Southern California's diverse audiences, with 6,000 radio spots in English, Spanish, Chinese, Korean, and Vietnamese delivering almost 40 million impressions – an advertising industry term for how many times an advertisement or message is seen. In-language outreach met hard-to-reach audiences in their own communities, with ceiling and banner advertisements at popular Latino and Asian community grocery stores and other placements that contributed to more than 600 outdoor units on billboards, transit shelters, gas stations, and EV charging stations video units across the district's six-county service area. For the first time, staff designed a mobile gaming in-app advertisement to promote the water-saving message to online audiences. The "Tap the Tap" game challenged users to turn off leaky, water-wasting faucets as fast as possible to help reduce the region's strained water supply demands. The strategy successfully reached new, younger online audiences and drove thousands of new visitors to bewaterwise.com to find helpful water-saving tips and rebates.

Emergency watering restrictions remained in place for agencies dependent on State Water Project supplies, and staff continued with a concurrent, visually different campaign on outdoor billboards and transit shelters to urge the nearly six million residents within these communities to comply with mandatory restrictions. These assets were translated into multiple languages including Spanish and Armenian, and staff hand-selected and geo-targeted outdoor placement locations to ensure appropriate visibility and reach in the communities where the languages were spoken.

Social media influencers helped Metropolitan reach diverse audiences with a waterwise message.

Metropolitan took its bewaterwise message to the world's largest digital billboard near downtown Los Angeles.

Metropolitan continued collaborating with social media influencers to engage traditionally hard-to-reach online audiences through authentic storytelling. In August 2022, the district partnered with Los Angeles-based, teenage female punk rock band The Linda Lindas whose Metropolitan-produced Instagram videos garnered more than 100,000 views and drew 47 percent of the engagement from audiences between the ages 13 to 24. Typically, the district sees a 6 percent engagement range for that age group. Metropolitan also partnered with Emmy-nominated skateboard lifestyle photographer Atiba Jefferson to create a series of personalized social media videos highlighting the importance of saving water. Jefferson's videos reached more than 250,000 people and generated over 6,000 engagements, meaning the photographer's younger male audience interacted with the content by commenting, liking, or forwarding the post. Following winter storms and subsequent improvements to water supply conditions, Metropolitan pivoted from severe drought messaging to highlight what the last four years showcased – climate change brings extreme weather patterns that fluctuate yearly. Messaging encouraged a continued conservation ethic despite the wet winter and highlighted the infrastructure investments being made to better prepare the region for the next turn of events. Once again, staff adjusted campaign creative design, scripting and media strategy to align the second flight with the region's variable weather patterns and evolving supply conditions while driving traffic to bewaterwise.com, the district's online conservation portal.

The second flight launched online in March 2023, and the district immediately saw website traffic grow nearly tenfold upon the rollout, with 2,000-3,000 daily visits. For Earth Month in April 2023, Metropolitan used the nation's largest digital billboard to amplify the critical need for Southern Californians to continue saving water. The Reef in downtown Los Angeles projected campaign messaging to millions of commuters during the month. Overall campaign creative design focused on straightforward and clear phrases emphasizing water-efficient devices, California Friendly® landscaping, rebates, helpful tips, and the need for continued conservation amid extreme weather. The entire transit shelter media buy of 188 locations focused on in-language advertising that featured conservation messages shared by Metropolitan employees and, in some cases, their family members. Languages included Spanish, Chinese, Korean, Vietnamese, Tagalog, and Armenian.

Staff expanded social media influencer efforts throughout spring 2023 with Josie Maran, a beauty entrepreneur who emphasizes natural products, and Justina Blakeney, an author, home designs, and textiles entrepreneur and creator of Jungalow designs. Staff also produced three social media videos with Fred Armisen of Saturday Night Live, Portlandia, Wednesday, and Los Espooky's fame. The videos captured the actor/producer as he met with staff about improving outdoor water efficiencies at his new home. The videos also used Armisen's bilingual skills to provide practical tips in English and Spanish that helped reach nearly 200,000 Spanish speakers in Southern California. The second flight ran through June 2023, and the fiscal year 2022/2023 campaign garnered a total of nearly 300 million impressions.

Metropolitan created its own in-app game, Lawn be Gone, to reach new audiences with an interactive conservation message.

Communicating to commercial, industrial, and institutional sectors is also essential to Metropolitan's outreach strategies. In May 2023, the district hosted the first-ever One Water Awards ceremony to recognize six businesses and municipalities in Southern California for their investments in large-scale water-efficiency projects that together will save more than 1 billion gallons of water over the next decade. Projects used funding from Metropolitan's Water Savings Incentive Program to make major improvements to water management operations and equipment, such as installing smart irrigation technology, water recirculation systems, and soil moisture sensors. The event drew nearly 100 water leaders from both private and public sectors, as well as elected officials.

July 2023 marked the launch of the fiscal year 2023/24 campaign to promote a conservation ethic in the face of extreme weather patterns brought by climate change and to deepen awareness of bewaterwise.com as a conservation resource. Campaign creative assets were designed in the late winter 2022 months as supply conditions shifted dramatically. While the region saw short-term relief following early winter storms, the district's other source of imported water – the Colorado River – remains in long-term drought. To help inform campaign messaging and design, Metropolitan conducted polling and focus groups during fiscal year 2022/23 on the value of water conservation and rebates. Results showed that while residents are committed to conservation, they want to know what actions local and regional water agencies and the state take to manage a reliable water supply. This message is woven into the current campaign's television, radio, digital, and social communications strategies.

As part of Metropolitan's summer conservation campaign, outdoor advertisements again ran in six languages throughout the district's service area, with locations selected based on where the languages are predominantly spoken. A new in-house produced, animated commercial recognizes the region's water supply challenges while instilling hope and directing viewers to bewaterwise.com for water-saving inspiration. The commercial was featured on KTLA-TV Channel 5, KMEX-TV Channel 52, cable stations, and during Los Angeles Dodgers and Los Angeles Angels televised games through late September 2023. Staff also partnered with KMEX on Spanish-language television integrations on the district's Turf Replacement Program and water-efficient devices along with segments on water quality, Pure Water Southern California, and climate extremes. A new mobile gaming in-app advertisement, "Lawn Be Gone" also is live. The app, designed and animated in-house by Metropolitan staff, promotes the use of beautiful and water-efficient California Friendly® and native plants in a fun and engaging way.

Reporters joined Metropolitan's Press Office on our tour of Hoover Dam, as part of a two-day system overview.

Media

As California swung from extreme drought to severe flooding in a matter of months, media attention on water issues remained strong. Metropolitan engaged reporters in in-depth discussions on our future of continued weather whiplash in a changing climate, and the increased role of both short-term conservation and long-term water efficiency.

Metropolitan leadership and subject matter experts provided more than 100 interviews to television, print, radio, and digital reporters and producers from local, state, and national news outlets, about the region's water supplies and the need for conservation. The press office has helped generate this interest and ensured Metropolitan is part of the water supply conversation by holding press conferences and issuing press releases on various water supply issues, including California's drought, Colorado River negotiations, Metropolitan's turf rebate program, and efforts to ban non-functional turf. Hundreds of news stories have resulted in print, radio, televised, and online media, with a total audience of over 1 billion and a publicity value of over $20 million.

Metropolitan GM Adel Hagekhalil addresses the media at the Grace F. Napolitano Pure Water Southern California innovation Center.

Metropolitan Resource Specialist Krista Guerrero addresses the news media about her own lawn transformation project.

The press office leveraged strong media interest in Metropolitan's emergency drought restrictions, which continued through March 2023, to highlight our turf rebate program – as the public cut their outdoor water use temporarily, interest increased in doing so permanently. We also highlighted the turf rebate program by showcasing an employee's project to transform her own lawn, which generated various local stories. These efforts resulted in dozens of stories on the turf program in many local media, as well as national outlets such as CNN, the New York Times and the Wall Street Journal. Media interest in Southern California's shift away from lawns continued into 2023, with Metropolitan's co-sponsorship of AB1572 , which would curtail the use of potable water to irrigate non-functional turf.

The press office also leveraged widespread media interest in the region's Colorado River supply to share the need to invest in long-term water efficiency, for example by reducing outdoor water use on turf.

And as reporters explored the future of the region's water supplies in a changing climate, they were also eager to learn about new projects on the horizon, including Pure Water Southern California. Metropolitan staff conducted various interviews on the project with local and national media, including the Wall Street Journal, and took every opportunity to explain the value of investing in a drought-resilient local water supply, and the science behind the treatment process to ensure the safety of the delivered water. The resulting coverage is helping build public support for the project.

Community Outreach

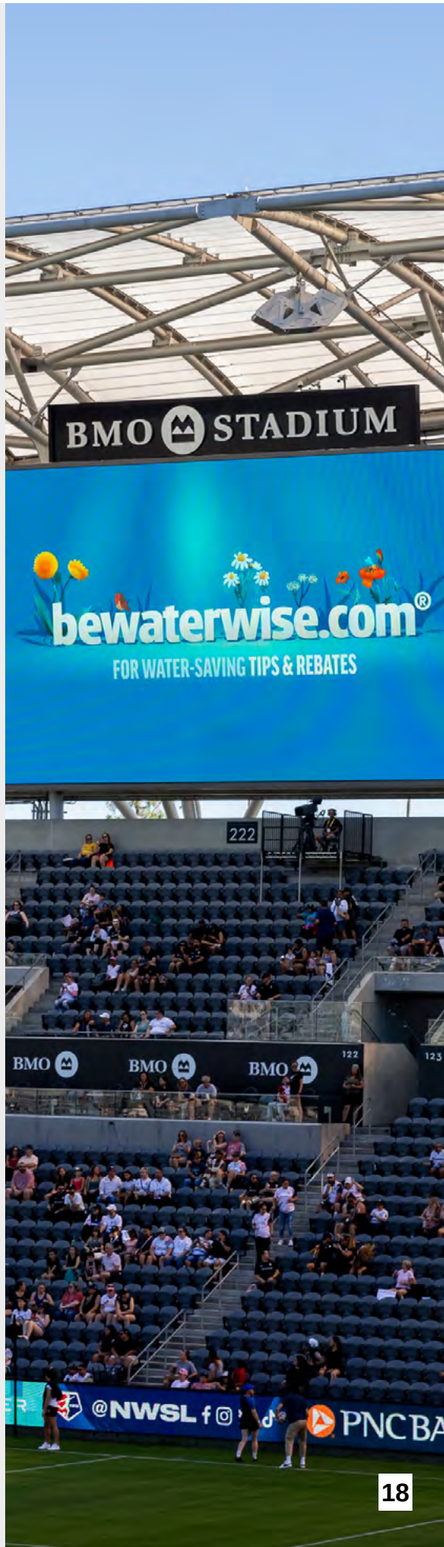
The district also leveraged community-based approaches to spread the conservation message to tens of thousands of soccer fans by partnering with the state's Save Our Water campaign and Los Angeles-based national women's soccer team Angel City Football Club. From LED advertising signage at every televised home game to pre-game fan festival exhibit booths, water-saving resources are meeting Southern Californians where they live, work, and play. Staff also negotiated contracts with two Angel City FC players, including one of their starters to film social media reels about sustainability and water conservation, similar to the influencer campaign. In August 2023, the California Natural Resources Agency Secretary Wade Crowfoot joined Metropolitan General Manager Adel Hagekhalil and Metropolitan Board Vice Chair Nancy Sutley on the BMO Stadium playing field for an in-stadium spotlight to amplify the conservation message to thousands of fans at the sold-out match. The ACFC partnership also includes participation in the team's Equality, Essentials, and Education Commitment, which funnels 10% of partnership funds to support community-based programming for youth in underserved areas of Los Angeles.

Our Community Partnering Program sponsored 44 water education and conservation events and programs throughout Southern California, including The Water Education for Children and Youth summer project at Salesian Youth Family Center, a nonprofit organization serving the East Los Angeles community. The program provided youth from the historically underserved community with a comprehensive look at Southern California's water system through hands-on activities, research, and social media engagement. Metropolitan also supported The Samburu Project's Kids Helping Kids program in honor of World Water Day and Earth Day. The Samburu Project is a Los Angeles-based grassroots nonprofit organization working to enhance the health and well-being of the communities it serves through access to clean water and water education.

Education Programs

Metropolitan worked with its member agencies, more than 44 school districts, county offices of education, colleges, non-profits, as well as formal and informal educators to provide water-focused STEAM (Science, Technology, Engineering, Art, and Math) learning activities with more than 100 events. Activities engaged nearly 20,000 students, teachers, parents, and other participants through virtual programs, newsletters, and other publications, social media, and community events. Metropolitan educators interacted with teachers and students through online classroom lessons, field trips, internships, workshops, and tours of Diamond Valley Lake and the Grace F. Napolitano Pure Water Southern California Innovation Center.

Metropolitan's partnership with the Angel City Football Club harnessed the enthusiasm of its fans to be waterwise.



Partners included Tree People, the Water Energy Education Alliance, Kollab Youth, WeTap, Project Wet, California Department of Water Resources, Tomorrow's Talent, Green Careers, California Environmental Education Foundation, Los Angeles County Office of Education, Girls in STEM, Boy Scouts, Girl Scouts, Water Education Foundation, American Society of Civil Engineers, Los Angeles County Sanitation Districts, Water Replenishment District, Agriculture in the Classroom, University of La Verne, and the California State University, Los Angeles School of Engineering.

New initiatives for K-12 water education products aligned with sustainability, environmental literacy, and Next Generation Science Standards and encouraged young people to adopt conservation behaviors while learning about water conveyance, treatment, and distribution. Metropolitan launched a new program entitled, "Water Engineering 4 Good," an online STEAM competition for middle and high school students. Teams are challenged to use recycled or upcycled materials to engineer a prototype of a device or system to conserve water inside or outside the home, for industry, agriculture, or water treatment and distribution.

The Education team participates in Metropolitan's workforce development efforts led by the Diversity, Equity, and Inclusion Office. In coordination with Tomorrow's Talent and West Basin Municipal Water District, Metropolitan sponsored the inaugural workforce development program for secondary students. The Cybersecurity and Information Security Team created a curriculum and deliverables for the one-week internship during spring break 2023. Carson and Narbonne High School students completed a semester of soft-skills training before and after the paid internship. To identify further program enhancements, Metropolitan worked with the water education coordinators on a SWOT (strengths, weaknesses, opportunities, and threats) Analysis. The analysis focused on post-pandemic classrooms, career technical education, emerging technology, climate change, state standards, recycled water, and engagement with tribal, indigenous, and minority students in under-represented communities.

With the return of in-person events, Metropolitan reinstated the traveling student art gallery with installations at member agency headquarters and community centers. The theme of "Being Waterwise Is …" promoted conservation, sustainability, and stewardship initiatives. After 18 years, the World Water Forum Program – a partnership with Los Angeles County Sanitation Districts and the U.S. Bureau of Reclamation that advocated for local and global water-use efficiency – ended. Finally, several local news publications chronicled a collaboration with WeTap, the Los Angeles Trust, and the student government at Washington Preparatory High School with a Metropolitan donation of 800 refillable water bottles and water-wise materials for every student.

Pictured here and left, Metropolitan educator Mark Moss hosts students as they learn about the Pure Water Southern California project and visit a nearby wetlands area.

Local Resources

Since 1982, Metropolitan has invested in local projects, which contribute to regional water supply reliability. Local resources lessen Southern California's dependence on imported supplies.

The Local Resources Program provides financial incentives to encourage member agency development of recycled water, treatment of degraded groundwater for municipal use, and seawater desalination. As of fiscal year 2022/23, Metropolitan invested $737 million to fund 88 recycled water projects and 28 groundwater recovery projects that have produced about 4.4 million acre-feet of water. Additionally, Metropolitan is moving through the environmental review phase for a facility that may become the largest water recycling program in the country with Pure Water Southern California.

Local Resources Program

In fiscal year 2022/23, Metropolitan provided about $5 million of incentives for production of 44,000 acre-feet of recycled water for non-potable and indirect potable uses. Metropolitan provided another $8 million of incentives to support projects that produced about 56,000 acre- feet of recovered groundwater for municipal use. Metropolitan's Board of Directors approved two new projects for participation in the Local Resources Program.

Additionally, local agencies, without direct support from Metropolitan, produced 422,000 acre-feet of recycled water that included wastewater discharged to the Santa Ana River that percolates into downstream groundwater basins, as well as 64,000 acre-feet of recovered groundwater. Figures 1 and 2 (on page 32) show total recycled water and groundwater recovery production in Metropolitan's service area, including local agency-funded projects.

On-site Retrofit Program

Metropolitan's On-site Retrofit Program has an annual budget of $3 million and provides financial incentives for the conversion of potable irrigation and industrial systems to recycled water. Metropolitan works continuously with member and retail agencies, as well as organizations like WateReuse, to promote and gather feedback that ultimately reshapes the program. Metropolitan maintains a program website (bewaterwise.com/onsite-retrofit) where up-to-date information can be accessed, including a link to the application, terms and conditions, frequently asked questions, and program publications. As of fiscal year 2022/23, the On-site Retrofit Program has provided funding to 480 sites, replacing 13,282 acre-feet per year of potable water with recycled water.

Construction of the East County Advanced Water Purification Project, a Local Resources Program project in the service area of the San Diego County Water Authority.

Groundwater Management

Metropolitan partners with local agencies to store imported surface water in groundwater basins for use in times of shortage under conjunctive-use agreements. Metropolitan currently has nine storage projects with nearly 212,000 acre-feet of storage capacity. This allows Metropolitan to store up to 53,000 acre-feet annually and withdraw up to 71,000 acre-feet annually during shortage. Metropolitan maintained its request for stored supply extraction due to the dry conditions persisting at the start of the fiscal year. A total of 1,913.3 acre-feet was extracted through March 31. Recent improved hydrologic conditions prompted Metropolitan to request that participating agencies store about 56,000 acre-feet of water by the end of the calendar year. The stored groundwater will supplement the region's water supplies during future droughts. Conjunctive-use partners have stored 4,012.4 acre-feet between April 1 and June 30.

Under the Cyclic Program, Metropolitan can capture surplus imported water supplies that cannot be stored in existing facilities or through participation in other storage programs. Metropolitan and participating member agencies enter a 10-year agreement to establish cyclic accounts across the region. In coordination with the agencies, Metropolitan delivers water to the cyclic accounts and allows the agencies to pay for these deliveries over an established period schedule.

Figure 1

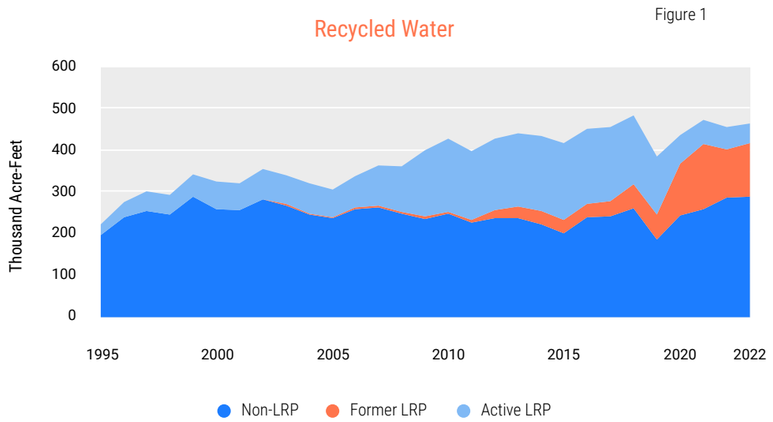
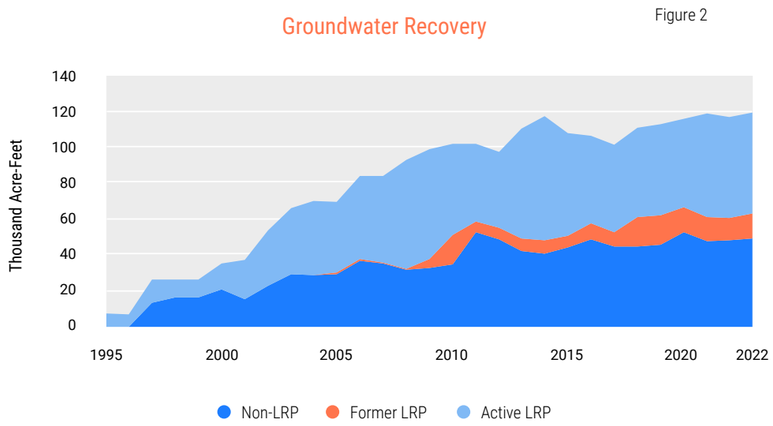


Figure 2



Metropolitan has the capability to capture up to 545,000 acre-feet into existing cyclic accounts. In April 2019, Metropolitan's board authorized the Cyclic Cost-Offset Program to provide agencies with cyclic accounts a mechanism for offsetting costs incurred by taking extraordinary actions to capture surplus supplies at Metropolitan's request. The General Manager first initiated the CCOP in August 2019 for use through the end of the January 2020. The General Manager again initiated the program in April 2023, when surplus supplies were available, and the Metropolitan Board amended the program in August 2023 to provide a credit up to $354 per acre-foot through the end of the calendar year. In fiscal year 2022/23, Metropolitan delivered an estimated 2,400 acre-feet into cyclic accounts with the city of Pasadena and Eastern Municipal Water District. The agencies will receive Cyclic Cost-Offset credits for accepting the 2,400 acre-feet via in-lieu means.

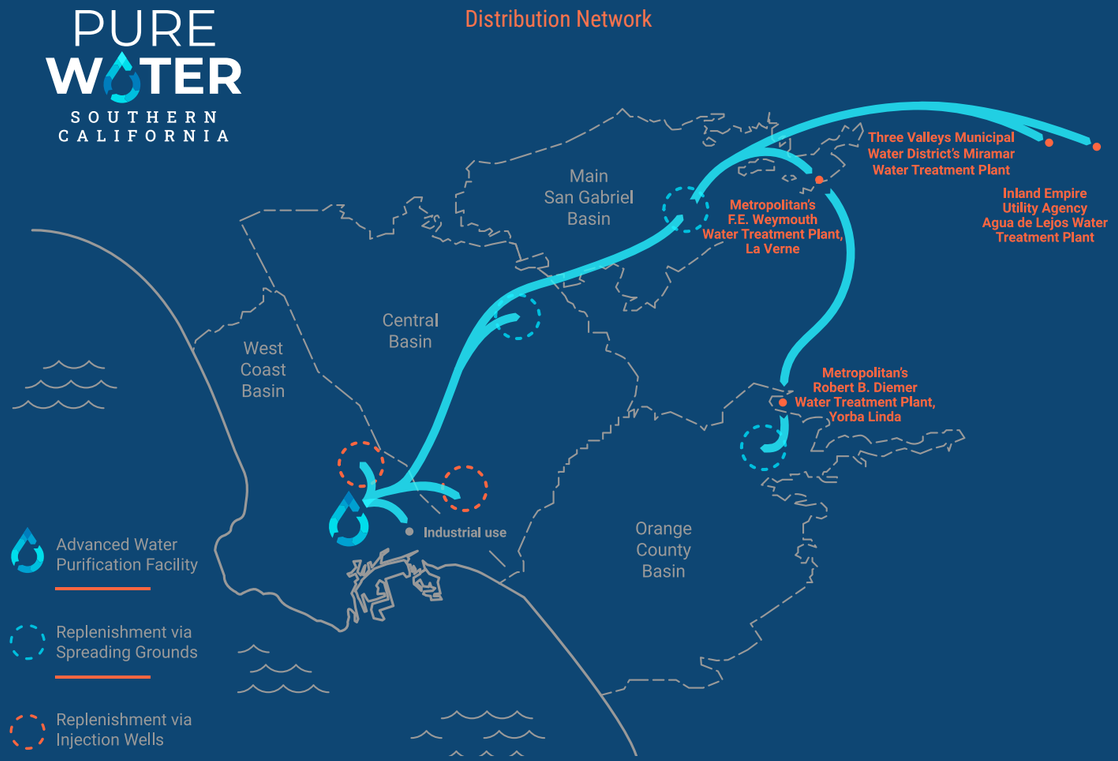
Pure Water Southern California

Pure Water Southern California is a new approach to local resource development with Metropolitan directly funding the development of a local water supply with regional benefits. The program is a partnership between Metropolitan and the Los Angeles County Sanitation Districts. The two agencies have been working together on this effort since 2009, starting with extensive research followed by the operation of a pilot demonstration facility, which began operation in fall 2019.

The Advanced Purification Center, a 500,000 gallon-per-day demonstration facility in Carson, was used by Metropolitan and the Sanitation Districts to test purification processes for potable reuse. It features an innovative process with membrane bioreactors followed by reverse osmosis and ultraviolet light/advanced oxidation. If approved by regulators, the process could be used throughout California to advance water reuse in the state. The demonstration facility also provides information to optimize operations and identify costs and other data needed for a future full-scale facility and program. An on-site learning center showcases the program to the public through tours, community events, and workshops. In 2020, Metropolitan's board approved moving forward with the environmental planning phase of the program, a significant milestone. The notice of preparation for the environmental work was released in September 2022. Metropolitan staff are investigating ways to accelerate the program so that some portions of the project can be operational to align with federal and state funding opportunities and local partner needs.

The environmental planning phase is expected to end in 2024 with the first phase of construction completed by early 2032. To accelerate the project, Metropolitan's board supported legislation, signed by Governor Newsom in September 2022, that allows Metropolitan to utilize alternative project delivery methods. This could reduce some time from the overall construction schedule. Metropolitan's board continues to consider funding, partnerships, and institutional and policy considerations related to the program.

As a part of the full-scale program, a new advanced water treatment facility would be constructed at the Sanitation Districts' Joint Water Pollution Control Plant in Carson. Should a full-scale project move forward, Pure Water Southern California will produce and deliver up to 150 million gallons per day, or up to 168,000 acre-feet per year of purified water. This is enough water for 500,000 homes.



The State of California granted the Pure Water Southern California project $80 million in funding in May 2023.

A new conveyance system, over 60 miles long, would deliver water to groundwater basins within Metropolitan's service area. The purified water would replace imported water currently used to replenish the basins, saving imported water for other purposes. Initially, purified water from the program would be used for indirect potable reuse. Ultimately, purified water from the program could be delivered for direct potable reuse at two Metropolitan water treatment plants. The program would reuse the largest untapped source of purified water in the region and could become one of the largest programs of its kind in the world.

In May 2023, the state of California provided Metropolitan with $80 million in funding to advance the Pure Water Southern California project. This funding was a direct result of legislation signed by Gov. Gavin Newsom to boost projects essential to the reliability of Southern California's water supply. Pure Water Southern California will be a critical piece of new infrastructure used to prepare the region for hotter and drier conditions driven by climate change.

Support for the program continues to grow. In 2022, Metropolitan and the San Gabriel Valley Municipal Water District, a State Water Project contractor, entered into a letter of intent. Metropolitan is collaborating with San Gabriel Valley Municipal Water District to discuss mutual use of facilities, potential transfers or exchanges, and improved reliability for both agencies. Through these unique partnerships, the program is enabling diverse groups of agencies to work together to solve the Southwest's water challenges.

This collaboration follows the pattern of support that includes executed letters of intent with the Los Angeles Department of Water and Power, the city of Torrance, the city of Long Beach, Central Basin Municipal Water District, West Basin Municipal Water District, Upper San Gabriel Valley Municipal Water District, and Three Valleys Municipal Water District, as well as the Water Replenishment District and the Main San Gabriel Basin Watermaster. In addition, agencies such as Southern Nevada Water Authority and the Central Arizona Water Conservation District have expressed interest and executed letters of intent. Metropolitan is collaborating with them to discuss potential transfers or exchanges of Colorado River supplies in return for investment in the program.

In December 2020, Metropolitan and Southern Nevada Water Authority executed a funding agreement for the environmental planning phase of the program. In 2021, Central Arizona Project and the Arizona Department of Water Resources executed a similar agreement.

Reverse osmosis filters at Fallbrook Groundwater Desalter Project.

Future Supply Actions

Metropolitan supports the development of local supplies through its Future Supply Actions Funding Program, a funding source for member agency studies to address challenges for groundwater, recycled water, stormwater, and seawater desalination supplies. The program is one avenue for Metropolitan to promote sustainable approaches to local supply development. It was established in 2010 as part of the Integrated Water Resources Plan to promote low-cost, low-risk investments for addressing technological, regulatory, and institutional barriers to new supplies. Southern California agencies are now able to accelerate new local supplies in the future when needed. Program goals include:

- Reducing barriers to future resource production
- Providing results that are unique, yet transferable to other areas in the region
- Advancing the field of knowledge
- Targeting critical paths to water resource implementation

Metropolitan has co-funded 34 pilot tests, demonstration studies, and white papers since 2013. All but one of the 14 studies approved in the latest 2019 funding cycle have been completed. Webinars were conducted to highlight the success of the studies and covered topics ranging from percolation optimization for stormwater basins to virus log removal in potable reuse. All completed FSA Funding Program study reports, presentations and webinars are available at www.mwdh2o.com/fsa.

In 2018, the FSA Funding Program co-funded six potable reuse projects and one agricultural reuse study with the Water Research Foundation. Metropolitan's nearly $1 million investment supported the WRF's $8 million Advancing Potable Reuse Initiative and matched $3.5 million in State Water Resources Control Board grant funding. WRF has completed four of the seven studies to date. The table below summarizes Metropolitan's FSA Funding Program investments.

Metropolitan's Investments in Future Supply Actions Funding Program

	2013 FSA Member Agency Studies		2018 FSA Member Agency Studies		2018 WRF Potable Reuse Studies	
	Studies	Funding	Studies	Funding	Studies	Funding
Groundwater	4	$987,000	3	$661,000		
Recycled Water	5	$807,000	5	$1,265,000	7	$975,000
Stormwater	2	$814,000	4	$865,000		
Seawater Desalination	2	$325,000	2	$365,000		
Total Funding	13	$2,933,000	14	$3,156,000	7	$975,000

Anaheim Stormwater Assessment looks at pervious and impervious areas.

Stormwater

Metropolitan authorized $12.5 million for direct use and recharge stormwater pilot programs in 2019. These pilot programs encourage the development, monitoring, and study of new and existing stormwater projects by providing financial incentives for their construction, retrofit, monitoring, and reporting costs. The pilots help evaluate the potential water supply benefits delivered by stormwater capture projects and provide a basis for potential future funding approaches.

During the online application process which ended December 31, 2021, Metropolitan received 12 pilot program applications for a total funding expenditure of $8.8 million. Due to the COVID pandemic, four of the twelve original projects were withdrawn. There are eight projects remaining in the program; six are approved and two await final design.

In addition to the pilot programs, Metropolitan has been involved in other technical studies to advance the understanding of stormwater in the service area. Metropolitan has participated in a study led by Los Angeles County Public Works and the U.S. Bureau of Reclamation to evaluate the water supply benefits of low-impact development projects such as green streets, vegetative swales, and dry wells. In addition, Metropolitan has partnered with Accelerate Resilience Los Angeles in a study to evaluate the multiple benefits of stormwater projects. Metropolitan also began preliminary discussions on a potential partnership with the California Department of Transportation to develop mutually beneficial stormwater projects.

Montclair Basins Improvement Project.

Climate & Watershed Initiatives

Metropolitan's mission is not just to ensure water supply reliability and quality, but to do so in an environmentally responsible way. We focus on a range of issues that include watershed health, stormwater collection, salinity management, and habitat restoration and preservation – all impacted by climate change. Water quality protection at the source for our imported supplies is also a priority and one made especially difficult in drought conditions that have consequences for ecosystems and human communities alike.

White crowned sparrow at Diamond Valley Lake.

CAMP4W
Climate Adaptation Master Plan for Water

Climate Adaptation Master Plan for Water

Extreme weather conditions in recent years have presented Southern Californians with an unsettling preview of the challenges ahead – weather whiplash is abruptly swinging the state from periods of severe and extended drought to record-setting wet seasons. There is no question that climate change is here and putting mounting pressure on the year-to-year management of all our available water resources. To ensure the continued reliability of water supplies for the communities we serve, Metropolitan is developing a Climate Adaptation Master Plan for Water, a roadmap that will guide our future capital investments and business model as we confront our new climate reality in the years and decades ahead.

Through the CAMP4W process, Metropolitan is working with its 26 member agencies and their customers to ensure that our portfolio of water investments increases supply reliability, develops a more resilient and regionally interconnected water delivery system, and maintains affordable water rates for the 19 million residents living across our service area. Metropolitan is also involving government officials, environmental and community-based organizations, tribal entities, and the public in our planning process. The CAMP4W complements Metropolitan's existing long-range planning efforts, including the Integrated Water Resources Plan, Energy Sustainability Plan, Climate Action Plan, and Capital Investment Plan.

Climate Action Plan

Metropolitan isn't just adapting to climate change as it comes, it's also taking important steps to keep it from worsening. Metropolitan's Climate Action Plan establishes a feasible pathway to achieve the state's target to reduce statewide greenhouse gas emissions to 40 percent below the 1990 level by 2030 and Metropolitan's goal of carbon neutrality by 2045.

Metropolitan provides Annual Progress Reports which present our progress in implementing the actions outlined in the CAP, an updated GHG inventory, and the status of Metropolitan's carbon budget. The inaugural First Annual 2022 CAP Progress Report highlights Metropolitan's achievements since adopting the CAP in May 2022 through the end of 2022, and also features the 2021 GHG inventory update.

Metropolitan's CAP identified 42 total measures for reducing Metropolitan's GHG emissions, executed in two implementation phases, each with nine strategies, focusing on, but not limited to:

- Renewable Energy and Energy Efficiency
- Zero Emission Fleet

Renewable Energy & Energy Efficiency

Metropolitan upgrades its infrastructure to ensure energy efficiency. The district invests in renewable energy resources, including buying and generating hydroelectric power to help meet much of its electricity needs. In addition to using power generated at Parker and Hoover Dams, Metropolitan has built 15 in-stream hydroelectric plants throughout our distribution system with a total capacity of about 130 megawatts. Metropolitan has also installed 5 ½ megawatts of photovoltaic solar power at its facilities and will soon add battery energy storage to store green energy when power rates are low and discharge that energy when rates are higher.

Zero Emission Vehicle Task Force

Metropolitan convened a ZEV Task Force to assess, develop and implement a strategy to transition Metropolitan's vehicle fleet from fossil fuel combustion to ZEV to reduce GHG emissions, help meet Metropolitan's climate goals, comply with state regulatory requirements, and maintain system resilience.

The first of many zero emission vehicles to be tested at Metropolitan to help meet GHG reduction goals.

GHG Tracking Protocol

Metropolitan has partnered with CAPDashTM, a web-based tool that allows the public to view our progress toward our GHG emission reduction targets. Data is categorized by various strategies Metropolitan is employing, from operational fuel use to employee commuting, and is visualized in interactive charts and graphics that facilitate greater transparency.

Metropolitan's GHG emissions vary due to the amount of water pumped from the Colorado River to meet the demands of Southern California. Higher Colorado River pumping generally correlates to dry years with low SWP allocations. Metropolitan has a Carbon Budget of 9.89 million CO2e in 2020 to achieve carbon neutrality by 2045 by offsetting all carbon emissions. An online carbon dashboard will track progress in our commitment to transparency.

Carbon Budget Summary

Estimated Carbon Budget (2005-2045)
14,660,475 MT CO_2e

Allocated Carbon Budget (2005-2021)
9,357,705 MT CO_2e

Carbon Budget Used Through 2021
4,982,005 MT CO_2e

Percent of 2021 Carbon Budget Used
53%

Total Carbon Budget Remaining (2022-2045)
9,678,470 MT CO_2e

Local Watersheds

Metropolitan's commitment to environmental stewardship is reflected in its many activities. Metropolitan actively participates on planning boards and organizations focused on efforts that include the protection of water quality at the source.

Southern California Water Coalition

Metropolitan remains actively involved in the Southern California Water Coalition Stormwater Task Force. In 2020, the Southern California Water Coalition created its recycled water taskforce to provide a forum for the discussion of recycled water issues in the region. In addition to monthly meetings, Metropolitan staff has provided updates on the Pure Water Southern California project. In 2022, the task force supported a steering committee led by Las Virgenes Municipal Water District for the development of a stormwater white paper and pilot study to implement smart meters in the Los Angeles area to evaluate real-time dry weather and wet weather diversions.

Southern California Salinity Coalition

The Southern California Salinity Coalition promotes research and outreach activities to address the need to control or reduce salinity in drinking water, wastewater, groundwater, and recycled water. In addition to water agencies, local wastewater, groundwater, and watershed management agencies also participate in the SCSC. Metropolitan is a founding member and currently holds a position on SCSC's board. SCSC accomplishments in fiscal year 2022/23 include:

- Held a regional salinity summit hosted at Metropolitan's headquarters and attended by 75 participants. The summit featured presentations on regulator activities and highlighted opportunities for collaboration among stakeholders
- Completed a study on the co-benefits of desalinated seawater in San Diego County
- Completing a pilot study of Flow-Reversal Reverse Osmosis for potable reuse.
- Awarded an academic fellowship to an UCLA graduate student working on salinity-related research
- Presented on salinity management to Southern California stakeholders

Multi-Species Habitat Protection and Preservation

Four multi-species reserves encompassing about 30,000 acres are the cornerstone of Metropolitan's investments in environmental conservation and stewardship. These reserves provide mitigation for impacts from construction of Metropolitan infrastructure projects, watershed protection around reservoirs and protection of habitat for native species. The reserves also provide opportunities for education, research, and trails for bicycling, hiking and horseback riding. A snapshot of the four reserves follows:

Monarch butterflies flock to native foliage.

Southwestern Riverside County Multi-Species Reserve

This reserve consists of nearly 13,500 acres surrounding Diamond Valley Lake and Lake Skinner and includes the Dr. Roy E. Shipley Reserve located between the reservoirs. The reserve is home to at least eight types of natural habitat and many sensitive bird, animal, and plant species.

Metropolitan partners with the California Department of Fish and Wildlife, Riverside County Habitat Conservation Agency, Riverside County Regional Park and Open-Space District, and United States Fish and Wildlife Service to cooperatively manage the reserve. Provisions to ensure the protection of the Diamond Valley Lake and Lake Skinner watersheds are incorporated into management of the reserve, including the appropriate siting of public access points and vegetation management tools.

Upper Salt Creek Wetland Preserve

A 40-acre parcel of land purchased as mitigation for the Eastside Pipeline, the Upper Salt Creek Wetland Preserve provides protection for unique vernal pool habitat and rare plants. The preserve is protected in perpetuity from future development, and public access is not allowed.

Santa Rosa Plateau Ecological Reserve

The nearly 10,000-acre Santa Rosa Plateau Ecological Reserve is home to several endangered, threatened, or rare animals and plants, including a species of fairy shrimp that exists nowhere else on earth. The reserve, established as partial mitigation for construction of Diamond Valley Lake, protects some of the most unique chaparral, grassland, oak, and vernal pool habitats in California.

Lake Mathews Multiple Species Reserve

The 5,100-acre reserve surrounding Lake Mathews is managed for native habitat and sensitive plant and animal species, including the endangered Stephens' kangaroo rat and coastal California gnatcatcher. Metropolitan partners with the California Department of Fish and Wildlife, Riverside County Habitat Conservation Agency, and United States Fish and Wildlife Service to cooperatively manage the reserve. Habitat management tools and strategies on the reserve, such as grazing and prescribed burns, are critically evaluated for their potential effects to water quality in Lake Mathews. The lake itself is an important bird resting and feeding site, especially in winter, when ducks, double-crested cormorants, grebes, and eagles visit.

The Lower Colorado River Multi-Species Conservation Program conservation for 27 species including the yellow-billed cuckoo.

Colorado River

The Lower Colorado River Multi-Species Conservation Program

This program is a comprehensive restoration effort along the Colorado River including the states of Arizona, Nevada, and California. It targets the restoration of natural habitat communities once prevalent along the river corridor—riparian forests, marshes, and backwaters. The benefits of restoring natural communities go beyond providing habitat for native aquatic and terrestrial species. With Metropolitan's support as the largest non-federal contributor, along with its federal and state partners, the program continued to make great advances in the restoration of native habitats and natural processes along the lower Colorado River from full pool of Lake Mead to the southern international boundary with Mexico. A total of 7,048 acres of land cover habitat has been established, and approximately 561,236 native fish have been stocked and reintroduced into the lower Colorado River through federal fiscal year 2022.

Colorado River Basin Salinity Control Forum

The Colorado River Basin Salinity Control Forum is an organization of the seven Colorado River Basin states of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming. The Forum coordinates salinity control efforts among the states; collaborates with federal agencies on the implementation of the Colorado River Basin Salinity Control Program; and works with Congress on the authorization and funding of the program. The Forum funds efforts to reduce salt loading to the Colorado River and provides information on salinity control.

Metropolitan holds the Forum's chair position and participates in technical workgroup activities. The Forum's salinity control measures remove about 1.33 million tons of salt from the Colorado River annually. This translates to a salinity reduction of over 100 milligrams per liter from the Colorado River's lower basin and Metropolitan's Colorado River Aqueduct supplies.

In fiscal year 2022/23, the U.S. Bureau of Reclamation issued a Request for Information and a Statement of Objectives soliciting solutions from potential contractors for disposal of concentrated brine extracted from the Dolores River by the Paradox Valley Unit, which is operated by Reclamation and is the single largest salinity control project in the Colorado River Basin. The RFI/SOO is the latest step in Reclamation's ongoing effort to find a long-term alternative to the PVU deep-injection well, which may be nearing the end of useful service.

In December 2022, Reclamation successfully completed a six-month test of the existing PVU deep-injection well, which had been mostly non-operational since March 2019 due to ongoing concern over a magnitude 4.5 seismic event in the Paradox Valley linked with operation of the well. After the test, Reclamation spent two months analyzing seismic and well-head pressure data and determined it would be appropriate to continue operating the well at two-thirds capacity in an ongoing series of six-month tests until completion of seismic hazard and risk studies by the end of 2023. Those studies will determine whether the injection well can safely operate on a more permanent basis, until a long-term alternative is implemented.

In fiscal year 2022/23, the Forum developed a partial solution to recent financial challenges faced by the CRB Salinity Control Program. Funding for the program includes federal dollars and state cost-share dollars as a percentage of federal funding. Over the past two decades, federal Environmental Quality Incentives Program funding for on-farm salinity control projects has increased substantially, thereby increasing the required state cost-share in absolute terms. Additionally, Lower Basin state cost-share revenues have declined since they derive from Hoover Dam power revenue, which has dropped due to declining reservoir levels. Together, these two factors have led to financial instability in the program. The Forum's partial solution to this funding challenge is to reduce the required state cost-share percentage on EQIP funding and on the operation and maintenance costs associated with several of the earliest salinity control projects in the Basin. Senators in the seven Basin States have introduced federal legislation to this effect with the goal of including it in the 2023 Farm Bill package.

Finally, in fiscal year 2022/23, the Forum completed a final draft of the 2023 Review of Water Quality Standards for Salinity in the Colorado River System (2023 Review). The document is required by the U.S. Environmental Protection Agency every three years to ensure that the salinity standards continue to protect beneficial uses of the Colorado River. The final draft is currently under review by water quality representatives from the seven Basin states. The Forum plans to finalize and adopt the 2023 Review at its fall meeting in New Mexico, after which it will be transmitted to EPA.

Multi-State Salinity Coalition

The Multi-State Salinity Coalition is a consortium of water agencies from across the country promoting information exchange on salinity management and desalination issues. As a founding member, Metropolitan serves on the MSSC's Board of Directors. MSSC promotes stakeholder collaboration through an annual summit covering a range of topics including salinity and concentrate and management, watershed sustainability, international projects, revenue stability, potable reuse, and innovative technologies. MSSC also hosts meetings throughout the year for members to highlight salinity management case studies. Metropolitan sponsored MSSC's 2023 Conference, participated in discussion panels, and helped plan the event. MSSC also awards scholarships for students working on topics related to salinity management issues.

Sacramento-San Joaquin Delta

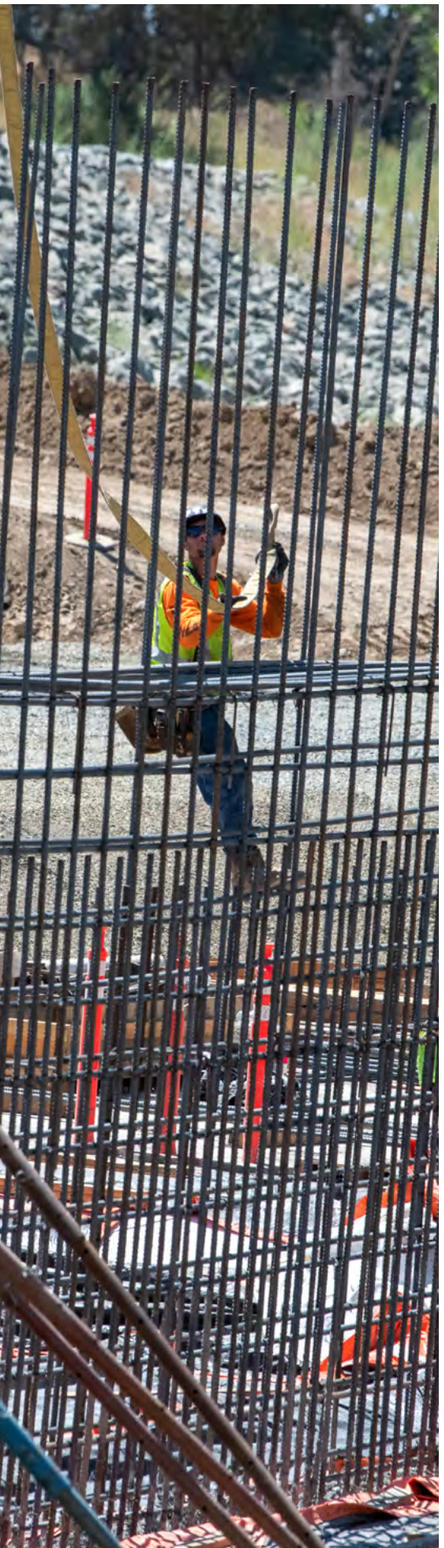
Municipal Water Quality Investigations Program

Metropolitan continues to support and participate in DWR's Municipal Water Quality Investigations Program, which implements water quality monitoring and modeling studies in the Delta and the State Water Project facilities. In fiscal year 2022/23, this program conducted routine water quality monitoring for drinking water quality constituents throughout the Delta, operated five real-time water quality monitoring stations, completed 3-week water quality forecasts, and continued a monitoring study to evaluate the degradation of an herbicide used to treat aquatic weeds in Clifton Court Forebay and O'Neill Forebay. The program also continued sampling for constituents of emerging concern along the Delta Mendota Canal, due to concerns with treated wastewater input flows. Due to the CEC data collected by MWQI and submitted to the regulatory agencies, the wastewater agencies are now required to conduct CEC monitoring in the future. Work also started on a new project to create a water quality database for turn-ins to the California Aqueduct. MWQI Specific Projects Committee also funded work on estimating salinity constituents in the Delta using electrical conductivity, which led to the publication of four journal articles in the journals of Estuaries and Coasts, San Francisco Estuary and Watershed Science, and Estuarine, Coastal and Shelf Science.

Delta Water Quality Studies

Metropolitan continues to work with the State Water Contractors and other stakeholders to support studies and management actions that address the impact of nutrients, contaminants, and other water quality stressors impacting native species in the Delta watershed. Metropolitan funded studies investigating toxic contaminant effects on Delta smelt and juvenile salmon. Since 2021, Metropolitan has conducted studies with UC Davis to evaluate contaminant toxicity in the Spring on larval Delta Smelt. Initial results suggest there is a temporal and regional difference in hazard risk to contaminant toxicity. Metropolitan also continued participating in the Delta Regional Monitoring Program. In fiscal year 2022/23, the Delta RMP conducted water quality monitoring studies for pesticides and aquatic toxicity, mercury, cyanotoxins, and constituents of emerging concern.

Chinook Salmon tagging by CA DWR and CA Department of Fish and Wildlife. Photo courtesy CA DWR.



California EcoRestore

In fiscal year 2022/23, DWR continued construction of the Big Notch Project located in the Fremont Weir State Wildlife Area in Yolo County. Weather delays during the winter of 2023 affected construction, which resumed in March of 2023. The Big Notch Project is currently scheduled for completion in 2024. When completed, the gated passage, or notch will be opened when the Sacramento River is high enough to flow into the Yolo Bypass floodplain creating a new path for salmon and sturgeon to access the Yolo Bypass floodplain. The water will create shallow-water habitat for fish to easily migrate through the area. Juvenile salmon will be able to feed in a food-rich area for a longer time, allowing them to grow more rapidly in size, improving their chances of survival as they travel to the Pacific Ocean. Adult salmon and sturgeon will benefit from improvements that will reduce stranding and migratory delays due to passage barriers.

Metropolitan continues to work with the Yolo Bypass Fisheries and Engineering Technical Team to identify adaptive management strategies that will enhance the success of the project and ensure the project is meeting the goals of the Biological Opinion.

In addition, construction is nearing completion for improvements to the Yolo Basin Wildlife Area, which includes improving pumping capacity, excavating the heavily silted-in Greens Lake Unit and improving roads and crossings that will make it easier to flood up the Yolo Bypass Wildlife Area for waterfowl and shorebird habitat during the fall and winter and draw-down in the spring.

Reorienting to Recovery Salmon Project

The Reorienting to Recovery Project was initiated in 2020 by members of the Collaborative Science and Adaptive Management Program, a consortium of State of California and federal resource management agencies, public water agencies, and non-governmental organizations. The Project's purpose is to develop an effective and implementable strategy for recovering listed and non-listed salmon in California's Central Valley watershed while considering other social, ecological, and economic interests in the region. In fiscal year 2021/22, Phase 1 of the Project was completed which included engaging with scientists to develop a salmon recovery definition framework. In fiscal year 2022/23, Phase 2 of the project solicited input from the broader community on watershed-specific targets to define salmonid recovery, information on habitat availability and current and planned recovery projects, and values to define social, ecological, and economic interests related to salmonids.

The Big Notch Project in Yolo County will create a new path for salmon. Photo courtesy CA DWR.

Butte Sink and Sutter Bypass Project

Metropolitan is a funding partner on the Butte Sink and Sutter Bypass Project. During fiscal year 2022/23, Metropolitan participated in the collaborative Sutter Bypass Workgroup process. Activities related to this effort included coordination of study plans and discussion of ongoing fish, zooplankton, and hydrology studies. These studies help stakeholders gain a better understanding of how fish benefit from the Sutter Bypass and Butte Sink habitats and inform what restoration actions are needed to improve salmon use and survival. Preliminary results suggest that fish using Butte Sink and Sutter Bypass habitats generally have higher growth rates than fish in the Sacramento and Feather Rivers.

Delta Islands

Metropolitan's acquisition of four islands in the Sacramento-San Joaquin Delta allows us to help secure and guard the Delta's future State Water Project supplies. We are using the strategically located islands – Webb Tract, a large portion of Holland Tract, Bouldin Island and Bacon Island – to conduct research and identify potential projects that support water system reliability, restore habitat, and promote sustainable agricultural practices. In fiscal year 2022/23, Metropolitan collaborated with state and federal agencies and researchers from UC Davis and U.S. Geological Survey to initiate studies on the suitability of using ponds on the islands to support Delta smelt supplementation efforts. Preliminary results suggest that pond culture will be a viable method for Delta smelt. Further studies will be conducted to improve this understanding to evaluate how to improve certain limitations in pond culture such as prey densities, temperature stress, and post release survival.

Metropolitan also completed Phases 1 and 2 of the Delta Island Adaptations project funded by a Proposition 1 planning grant. The planning project includes the evaluation of opportunities for island-wide improvements that include subsidence reversal, sustainable agricultural practices, carbon sequestration, water quality improvements, and habitat restoration. Under Phase 2, Bouldin Island was selected as the focus of science-based planning for potential land uses (including conceptual landscape designs and identification of pilot projects and further scientific studies) on an entire island owned by Metropolitan that meets the Delta Plan co-equal goals using creative and innovative solutions for subsided Delta islands.

In 2023, Metropolitan was awarded a $20.9 million grant from the Sacramento-San Joaquin Delta Conservancy to construct up to 3,500 acres of wetland and up to 1,500 acres of rice fields on Webb Tract located in San Joaquin County. The goals of the project are to stop or reverse subsidence on the deeply subsided island, sequester carbon, generate income from long-term leases of the rice fields and generate income from carbon sequestered in rice and wetlands. The income generated from the project is expected to fund its long-term maintenance. The project will have the added benefit of providing habitat for migratory birds and other species in the Delta. The Delta Conservancy grant will fund design, environmental documentation, permitting and construction of the wetland.

Lead researcher Dr. Florian Mauduit and staff from UC Davis releasing hatchery Delta smelt in cages deployed in a pond on Bouldin Island.

Boyle Heights Climate Mural "Interconnected Relations" on display at Metropolitan headquarters before its final home at the Boyle Heights Arts Conservatory.

Public Hearing Notice

Every year, Metropolitan reports its accomplishments in water conservation, recycling, and groundwater recharge to the state Legislature. To coincide with the report preparation, the MWD Act requires Metropolitan to "hold an annual public hearing... during which the district shall review its urban water management plan... for adequacy in achieving an increased emphasis on cost-effective conservation, recycling, and groundwater recharge and invite knowledgeable persons from the fields of water conservation and sustainability to the hearing." The MWD Act also provides that Metropolitan "shall consider factors of availability, water quality, regional self-sufficiency, benefits for species and environment, the totality of life-cycle costs, including avoided costs, and short- and long-term employment and economic benefits."

While the Urban Water Management Plan is prepared and updated every five years in accordance with state requirements (Metropolitan's 2020 UWMP was adopted in May 2021), Metropolitan hosts an annual hearing to share progress on fiscal year plan objectives and to receive public comments. Metropolitan held a public hearing on Jan. 8, 2024 to receive public and stakeholder input. Comments received at the hearing are on file at Metropolitan and are available upon request.

Glossary of Terms

CAP
Climate Action Plan

CAMP4W
Climate Action Master Plan for Water

CEC
Constituents of Emerging Concern

CO2e
Carbon Dioxide equivalent

CRA
Colorado River Aqueduct

CRB
Colorado River Basin

DVL
Diamond Valley Lake

Delta RMP
Delta Regional Monitoring Program

DWR
Department of Water Resources

EPA
Environmental Protection Agency

EQIP
Environment Quality Incentives Program

EWCP
Emergency Water Conservation Program

FSA
Future Supply Actions

FEIS
Final Environmental Impact Statement

GHG
Greenhouse Gas

GIS
Geographic Information System

GPCD
Gallons Per Capita Daily

ICP
Innovative Conservation Program

IRP
Integrated Water Resources Plan

LRP
Local Resources Program

MSSC
Multi-State Salinity Coalition

MWQIP
Municipal Water Quality Investigation Program

Sanitation Districts
Los Angeles County Sanitation Districts

SCSC
Southern California Salinity Coalition

SoCalGas
Southern California Gas Company

SWP
State Water Project

WSIP
Water Savings Incentive Program

Metropolitan sincerely thanks Bill McDonnell for his 27 years at Metropolitan including a decade of leadership for the water use efficiency team. Bill led Metropolitan to become nationally recognized as a trailblazer in conservation and literally transformed the Southern California mindset and landscape to welcome waterwise alternatives. We know that his sense of community and humor and humble way of making things happen will carry him into retirement.

Metropolitan is a voluntary cooperative of 26 member agencies with a 38-member board of directors.
Metropolitan board and committee meetings are open to the public and broadcast live through mwdh2o.com.

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About Metropolitan

The Metropolitan Water District of Southern California is a state-established cooperative of 26 member agencies - cities, municipal water districts, and one county water authority - that directly or indirectly serve 19 million people in six counties. Metropolitan imports water from the Colorado River and Northern California to supplement local supplies and helps its members develop increased water conservation, recycling, storage, and other resource management programs.

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One Water & Stewardship Committee

Review of Metropolitan's Achievements in Conservation, Recycling, & Groundwater Recharge

Item 1a

January 8, 2024

Overview

Today's Public Hearing

- Required by MWD Act Section 103.5, added by legislature in 1999 (SB 60)
  - Public Hearing
  - Report to state Legislature by Feb. 1st

> *"…increased emphasis on sustainable, environmentally sound, and cost-effective water conservation, recycling and groundwater storage and replenishment measures"*

Overview

Today's Public Hearing

- Review Urban Water Management Plan for adequacy in achieving an increased emphasis on cost-effective conservation, recycling, and groundwater recharge
  - *Review highlights of draft report to Legislature*
- Hear from knowledgeable individuals in fields of water conservation and sustainability

Review of UWMP

2020 Urban Water Management Plan

- Adopted May 2021
- Section 3: Implementing the Plan
  - 3.4 Conservation
  - 3.5 Local Resources
  - 3.6 Local Groundwater Storage

Progress of programs in UWMP are the basis of annual report to Legislature

Review of UWMP

Conservation

- Initiatives to maintain sustainable water demand levels
  - Public Education & Outreach
  - Conservation Programs
    - Residential
    - Commercial, Industrial, and Institutional
  - Metering
  - Research & Development
  - Asset Management

Review of UWMP

Local Resources

- Initiatives to increase local water supply
  - Local Resources Program
  - On-Site Retrofit Program
  - Stormwater Pilot Programs
  - Pure Water Southern California
  - Future Supply Actions

Review of UWMP

Local Groundwater Storage

- Initiatives to maximize the use of local groundwater storage and production
  - Imported water deliveries for aquifer recharge and seawater barrier protection
  - LRP funding for recycled water groundwater recharge & groundwater recovery projects
  - Conjunctive Use Program
  - Cyclic Storage Program
  - Participation in local watershed initiatives

Review of Draft Report to Legislature

Key Accomplishments in FY 2022/23

- Secured $49.5 million in grants from DWR and USBR
- A new LRP project commenced operation
- Received $80 million from the state of California to advance Pure Water Southern California

Review of Draft Report to Legislature

Cumulative Investment as of FY 2022/23

	Investment	Acre-Feet
Conservation	$910 Million	3,898,000
Recycled Water	$539 Million	3,130,000
Groundwater Recovery	$198 Million	1,224,000
Total	**$1.6 Billion**	**8,252,000**

Conservation Highlights in Fiscal Year 2022/23

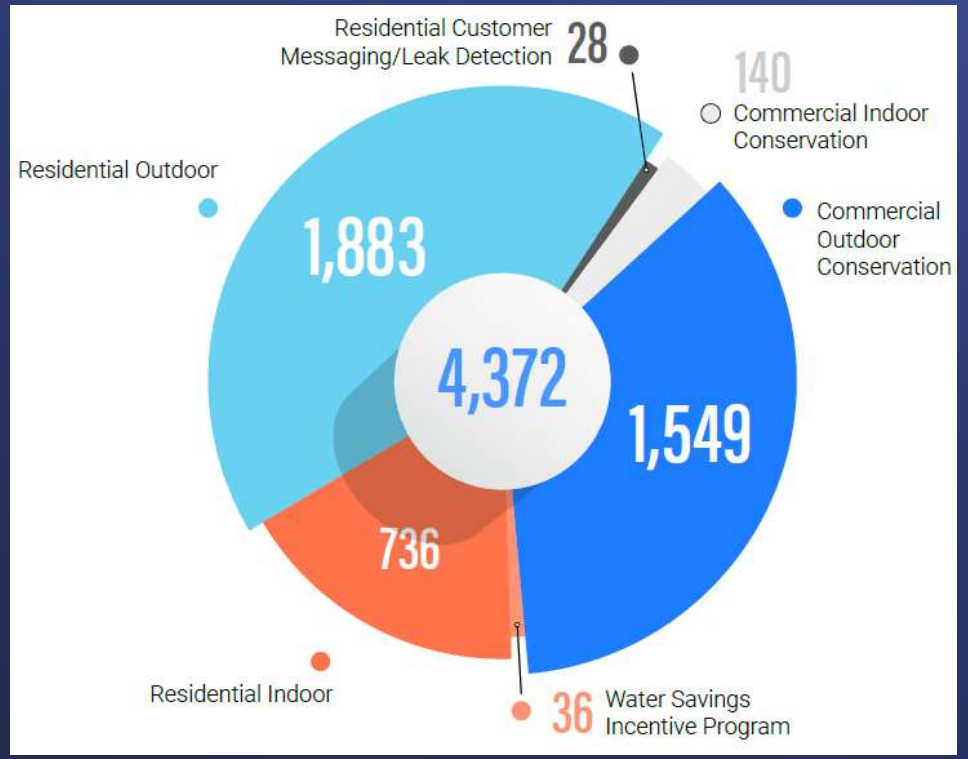
Investing in programs to help residents and businesses improve water-use efficiency

- $46 million in fiscal year 2022/23
  - Rebates
  - Landscape and irrigation classes
  - Research
  - Outreach

Conservation Highlights in Fiscal Year 2022/23

Rebate programs have been instrumental in achieving regional water savings

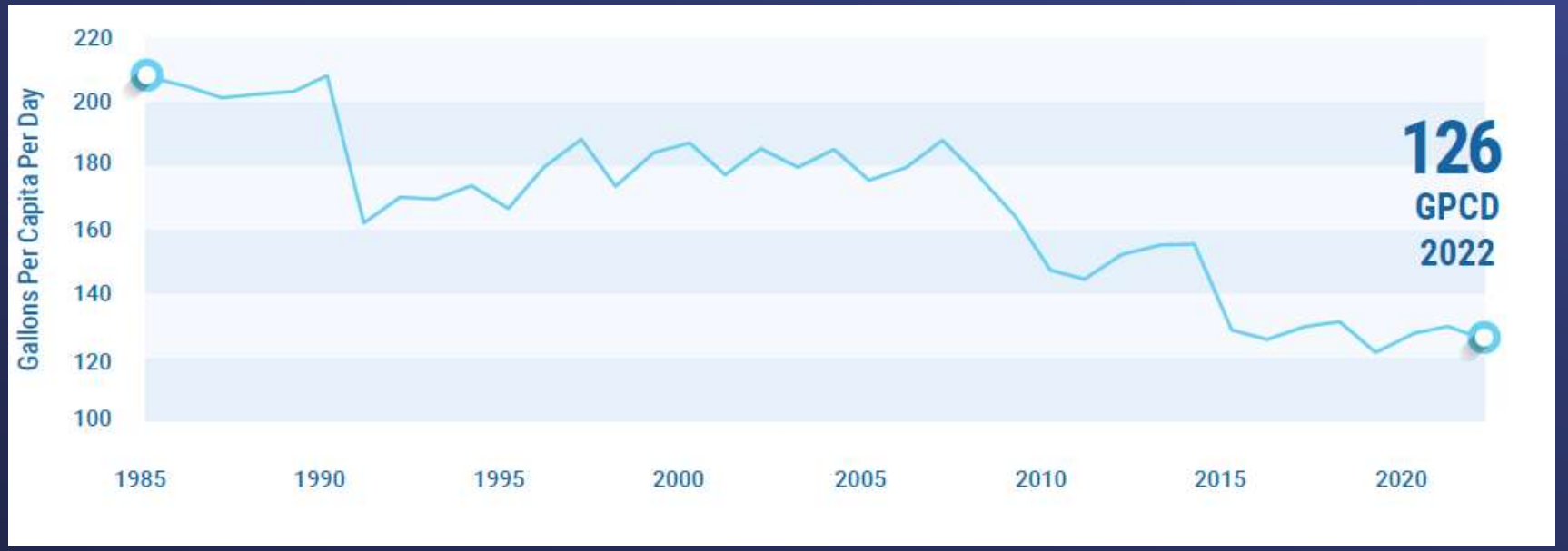
- Approximately 207,000 acre-feet of water saved through rebate programs
  - ~4,372 acre-feet from new devices



Savings from new devices in FY 2022/23 (Acre-feet)

Conservation Highlights in Fiscal Year 2022/23

Potable per capita water use has declined by nearly 40 percent since 1990



Conservation Highlights in Fiscal Year 2022/23

Metropolitan's strong presence on multimedia platforms promotes regional conservation

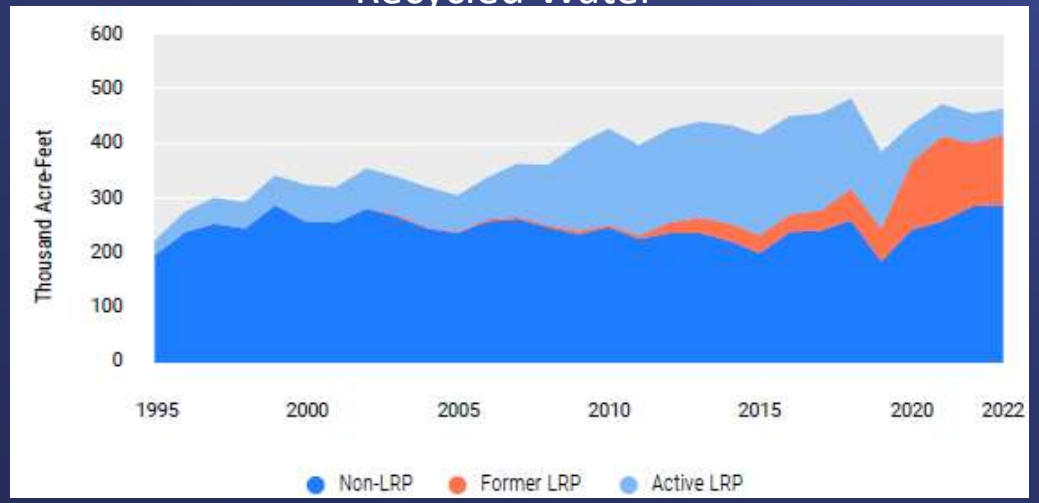
Local Resources Highlights in Fiscal Year 2022/23

The Local Resource Program has helped develop regional local water supply

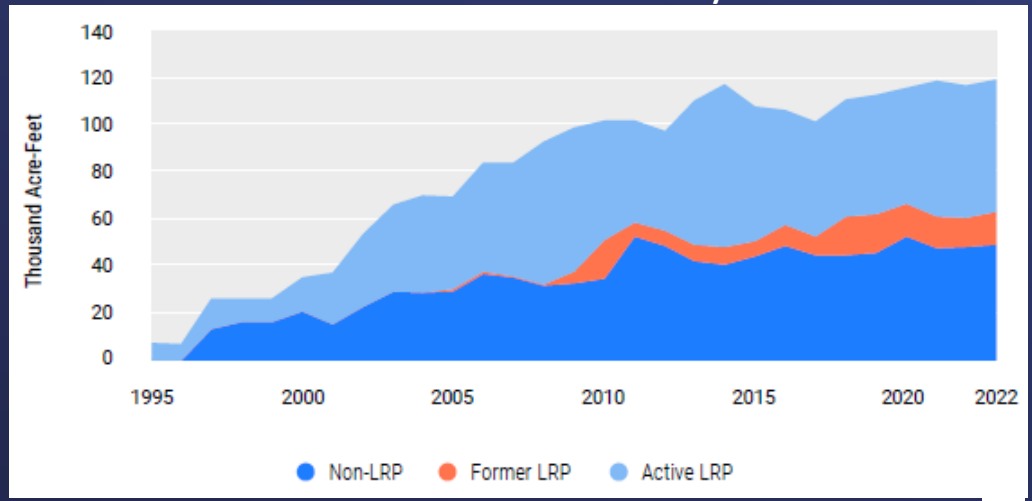
Local Resources Highlights in Fiscal Year 2022/23

LRP drives growth in recycled water and recovers groundwater production

Recycled Water



Groundwater Recovery



Local Resources Highlights in Fiscal Year 2022/23

Pure Water Southern California environmental planning phase nears completion

Groundwater Recharge Highlights in Fiscal Year 2022/23

Metropolitan helps sustain local groundwater basins

- ~49 TAF of imported water delivered to replenish local groundwater basins and prevent seawater intrusion
- LRP recycled water projects provide about 100 TAF annually for groundwater replenishment and seawater barrier

Additional Highlights and Details are in the Draft Report

Next Steps

Metropolitan will:

- Review and incorporate comments received today
- Submit Report to Legislature by Feb. 1st


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

MINUTES

ONE WATER AND STEWARDSHIP COMMITTEE

November 13, 2023

Vice Chair Faessel called the meeting to order at 2:30 p.m.

Director Peterson made a request to participate remotely (via video conference) under AB 2449, noting that emergency circumstances prevented him from attending in person.

Director Erdman made a motion to vote to approve Director Peterson's attendance seconded by Director Miller.

AB 2449 "emergency circumstances" vote for Director Peterson was:

Ayes:	Directors Ackerman, Alvarez, Armstrong, De Jesus, Erdman, Faessel, Fong-Sakai, Goldberg, Kurtz, Lefevre, Miller, Peterson, Pressman, and Sutley.
Noes:	None
Abstentions:	None
Absent:	Directors Chacon, Cordero, and Quinn.

The motion for Director Peterson to participate using AB 2449 Emergency Circumstance passed by a vote of 14 ayes, 0 noes, 0 abstentions, and 3 absent.

Members present: Directors Ackerman, Alvarez, Armstrong, De Jesus, Erdman, Faessel, Fong-Sakai, Goldberg, Kurtz, Lefevre, Miller, Peterson (AB 2449), Pressman, and Sutley.

Members Absent: Directors Chacon, Cordero, and Quinn.

Other Board Members present: Abdo, Camacho, Dennstedt, Fellow, McCoy, Ortega, Seckel, and Smith.

Committee staff present: Coffey, Crosson, Hasencamp, Neudeck, Schlotterbeck, Upadhyay, Wheeler, and Winn.

1. OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE COMMITTEE ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION (AS REQUIRED BY GOV. CODE SECTION 54954.3(A))

None

CONSENT CALENDAR ITEMS -- ACTION

2. CONSENT CALENDAR OTHER ITEMS – ACTION

A. Approval of the Minutes of the One Water and Stewardship Committee for October 9, 2023.

3. CONSENT CALENDAR ITEMS – ACTION

7-5 Subject: Authorize the General Manager to extend the Metropolitan/Quechan Tribe Seasonal Fallowing Pilot Program with the Quechan Tribe of the Fort Yuma Indian Reservation and farmers within Quechan tribal land, to provide incentives for land fallowing for up to $864,000 in 2024 and escalated annually through 2026; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Presented by: None.

Motion: Authorize the General Manager to extend the Metropolitan/Quechan Tribe Seasonal Fallowing Pilot Program with the Quechan Tribe of the Fort Yuma Indian Reservation and farmers within Quechan tribal land, to provide incentives for land fallowing for up to $864,000 in 2024 and escalated annually through 2026.

7-6 Subject: Express support for the 2023 California Resilience Challenge and approve a financial sponsorship of $50,000 to continue as a Resilience Leader; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Presented by: None.

Motion: Express support for the 2023 California Resilience Challenge and approve a financial sponsorship of $50,000 to continue as a Resilience Leader.

7-7 Subject: Authorize a $200,000/ year increase to the existing agreement with WaterWise Consulting, Inc., currently set at $200,000/year, for the Large Landscape and Residential Survey Program, for a total agreement not to exceed $400,000/year; the General Manager has determined that the proposed actions are exempt or otherwise not subject to CEQA

Presented by: None.

Motion: Authorize an increase of $200,000/year to a new amount not to exceed $400,000/year for an existing agreement with WaterWise Consulting Inc. for the Large Landscape and Residential Survey Program.

7-8 Subject: Authorize a $350,000/ year increase to the existing agreement with WaterWise Consulting, Inc., currently set at $500,000/year, to provide inspection services for turf removal, regional device rebates, and water savings incentive program projects for Metropolitan's conservation rebate programs, for a total agreement not to exceed $850,000/year; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA.

Presented by: None.

Motion: Authorize an increase of $350,000/year, to a new amount not to exceed $850,000/year, for an existing agreement with WaterWise Consulting, Inc. to provide inspection services for turf removal, regional device rebates, and water savings incentive program projects for Metropolitan's conservation rebate programs.

Director Sutley made a motion to approve the Consent Calendar consisting of items 2a, 7-5, 7-6, 7-7, and 7-8, seconded by Director Kurtz.

Director Fong Sakai asked a question related to item 7-5. Staff responded to her question.

Director Peterson announced that no one was in the room with him 18 years of age or older.

The vote was:

Ayes:	Directors Ackerman, Alvarez, Armstrong, De Jesus, Erdman, Faessel, Fong-Sakai, Goldberg, Kurtz, Lefevre, Miller, Peterson, Pressman, and Sutley.
Noes:	None
Not voting:	None
Abstentions:	None
Absent:	Directors Chacon, Cordero, and Quinn.

The vote for the Consent Calendar items passed by a vote of 14 ayes, 0 noes, 0 abstentions, and 3 absent.

****END OF CONSENT CALENDAR ITEMS****

4. OTHER BOARD ITEMS – ACTION

Director Fong-Sakai provided a disclosure and recusal statement related to item 8-3.

Director Goldberg disclosed that she receives per diem and reimbursement from the San Diego County Water Authority, but would remain to vote.

8-3 Subject: Authorize the General Manager to enter into agreements with Coachella Valley Water District, Imperial Irrigation District, and San Diego County Water Authority to allow water to be added to Lake Mead under U.S Bureau of Reclamation's Lower Colorado River Basin System Conservation and Efficiency Program in 2023; the General Manger has determined that the proposed action is exempt or otherwise not subject to CEQA.

Presented by: Laura Lamdin, Engineer, Water Resources Management

Motion: Authorize the General Manager to enter into agreements with Coachella Valley Water District, Imperial Irrigation District, and San Diego County Water Authority to allow water to be added to Lake Mead under Reclamation's LC Conservation Program in 2023.

Ms. Lamdin gave a presentation on the proposed agreements that would help California achieve the goals set out in the Colorado River Board of California's October 5, 2022, letter proposing a goal that California agencies conserve 400,000 acre-feet (AF) per year of water in Lake Mead between 2023 and 2026. These

agreements would provide financial benefit to Metropolitan and the San Diego County Water Authority (SDCWA), and would demonstrate how multi-agency partnerships can benefit the Colorado River.

The following Directors provided comments or asked questions:

1. Lefevre
2. De Jesus
3. Ortega
4. Peterson
5. Kurtz

Staff responded to Directors' questions and comments.

After completion of the presentation, Director Kurtz made a motion, seconded by Director Ackerman, to approve option 1 of the board letter.

Director Peterson announced that no one was in the room with him 18 years of age or older.

The vote was:

Ayes:	Directors Ackerman, Alvarez, Armstrong, De Jesus, Erdman, Faessel, Goldberg, Kurtz, Lefevre, Peterson, Pressman, and Sutley.
Noes:	None.
Abstentions:	None.
Absent:	Directors Cordero, Cordero, and Quinn.
Not voting:	Directors Fong-Sakai and Miller.

The motion for item 8-4 passed by a vote of 12 ayes, 0 noes, 0 abstention, 4 absent, and 2 not voting.

5. BOARD INFORMATION ITEMS

None

6. COMMITTEE ITEMS

a. Subject: Agreements to support healthy rivers

Presented by: George Nishikawa, Resource Specialist, Bay Delta Initiatives

Mr. Nishikawa's presentation discussed an update on the Water Quality Control Plan. He reviewed the background and history, elements of the report, overview of alternatives, and public review and comment periods.

The following Directors provided comments or asked questions:
1. Seckel
2. Peterson
3. Sutley
4. Fellow
5. Miller
6. Smith
7. Ortega

Staff responded to questions and comments.

b. Subject: Revised Draft Supplemental Environmental Impact Statement for Changing the 2007 Colorado River Guidelines

Presented by: Shanti Rossett, Program Manager, Office of the General Manager

Ms. Rossett gave a presentation on revised Draft Environmental Impact Statement for Changing the 2007 Colorado River Guidelines and provided an overview of changes in the Revised Draft Supplemental Impact Environmental Statement (SEIS) analyzing proposed changes to operations of Lake Powell and Lake Mead through 2026.

The following Directors provided comments or asked questions:
1. Miller

Staff responded to questions and comments.

c. Subject: Update on Water Surplus and Drought Management

Presented by: Noosha Razavian, Resource Specialist, Water Resource Management

Ms. Razavian gave an update on Water Surplus and Drought Management that focused on summarizing the previous water year.

The following Directors provided comments or asked questions:
1. Peterson

d. Subject: Update on Conservation Activities

Presented by: Elise Goldman, Resource Specialist, Water Resource Management

Ms. Goldman gave a summary of conservation activity and expenditures for September 2023.

The following Directors provided comments or asked questions:
1. Miller

7. MANAGEMENT REPORTS

a. Subject: Bay-Delta Resources, Colorado River Resources, Sustainability, Resilience and Innovation, and Water Resource Management activities

Presented by: Deven N. Upadhyay, Executive Officer and Assistant General Manager

Mr. Upadhyay made several staff recognitions, announced the 50th anniversary of the Colorado River Salinity Control Forum and noted Metropolitan's contributions, and reported on Bucket 2 proposals status.
Ms. Crosson reported on Climate Action Plan and Sustainability, Resilience and Innovation activity.

The following Directors provided comments or asked questions:
1. Kurtz

8. SUBCOMMITTEE REPORTS AND DISCUSSION

a. Report from Subcommittee on Bay-Delta.

Director Ackerman provided an update from the October 18, 2023, Subcommittee Meeting on Bay-Delta that included Delta Island collaborative efforts, Delta Stewardship Council guest speakers who discussed current on future Delta initiatives and Delta levy records analysis, and an overview of the Bay-Delta memo that was provided to the Board in early September.

The following Directors provided comments or asked questions:
1. Lefevre

b. Discuss and provide direction to Subcommittee on Bay-Delta

No direction given.

c. Discuss and provide direction to Subcommittee on Demand Management and Conservation Programs and Priorities

The following Directors provided comments or asked questions:

1. Fong-Sakai
2. Seckel

Director Fong-Sakai requested that the subcommittee direct staff to provide a Board Report on Metropolitan's role in past Local Resource development projects, but effective and ineffective.

Staff responded to Directors' questions and comments.

9. FOLLOW-UP ITEMS

None.

10. FUTURE AGENDA ITEMS

None.

11. ADJOURNMENT

The next meeting will be held on January 8, 2024

The meeting adjourned at 4:38 p.m.

Stephen Faessel
Vice Chair

One Water and Stewardship Committee

Update on Delta Conveyance

Item 6a

January 8, 2024

Item 6a
Update on Delta Conveyance

Subject
Update on Delta Conveyance

Purpose
The Department of Water Resources (DWR) recently released the Final Environmental Impact Report (EIR) for the Delta Conveyance Project. In addition, DWR released an updated planning timeline and analysis of State Water Project reliability beyond 2040.

Next Steps
Staff will provide updates based on key planning milestones and bring forward future decisions on project funding.

Policy Considerations

The Delta Conveyance Project Final EIR is an important milestone in the effort by DWR to modernize the State Water Project and protect against future water supply losses caused by climate change, sea level rise, and earthquakes:

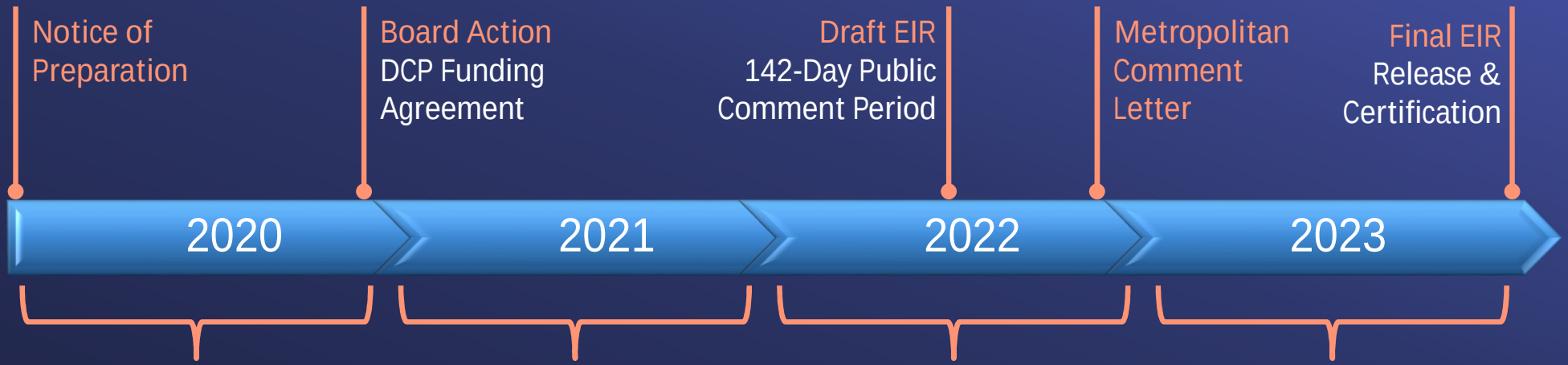
- Given the best available science and the risks associated with climate change and sea level rise, what is the best way to promote a sustainable State Water Project supply within Metropolitan's One Water approach?
- How will Delta Conveyance Project decision-making be coordinated with the Climate Adaptation Master Plan for Water (CAMP4W) process?

Update on Delta Conveyance

Presentation Overview

- Overview of DCP Milestones
- Final Environmental Impact Report
- DCP Planning Timeline
- SWP Reliability Beyond 2040
- Next Steps

Delta Conveyance Project – Milestones to Date



Committee Updates
January
February
July
September
October

Committee Updates
January
February
April
June - DWR
July
September

Committee Updates
January
May - DCA
June - DWR
July
October
November

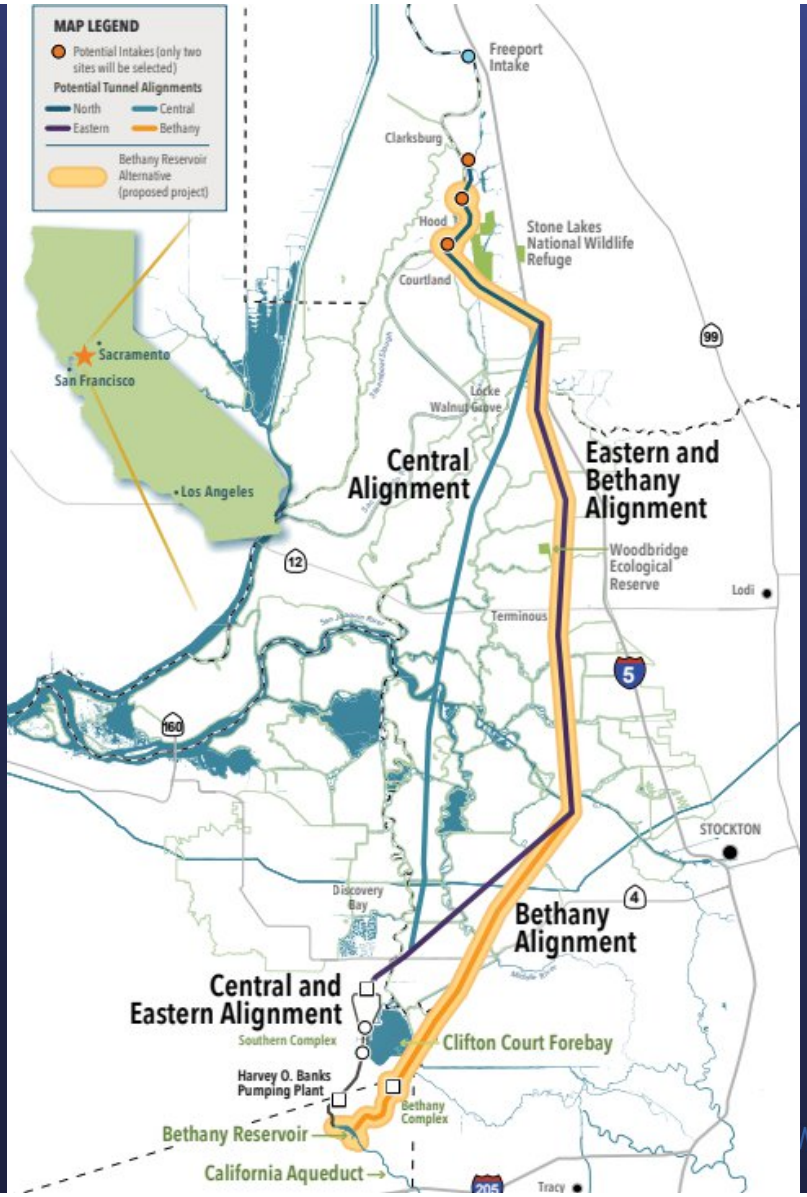
Committee Updates
April

Delta Conveyance Project
Final EIR

Delta Conveyance Project Final EIR

Release & Certification

- DCP Final EIR released December 8 & certified December 21
  - Adopt CEQA Findings, MMRP & Statement of Overriding Considerations
  - Project approval
  - Notice of Determination
  - 30-day clock for CEQA litigation



Approved Project:

- Bethany alignment
- 6,000 cfs
- 2 intakes
- Pumping plant connects the tunnel directly to Bethany Reservoir

By the Numbers:

- 3,000 cubic feet per second (cfs) per intake
- 1 below-ground tunnel for ~45 miles
- 36 feet tunnel diameter (inside)
- 140 – 170 feet depth
- 18 inches thickness of tunnel segments

Delta Conveyance Project Final EIR

Response to Comments

- DWR reviewed & considered all comments
  - Including those received after the comment period
- ~729 letters and other communications
- ~7,300 individual comments
- Comments covered a broad range of policy and environmental technical topics

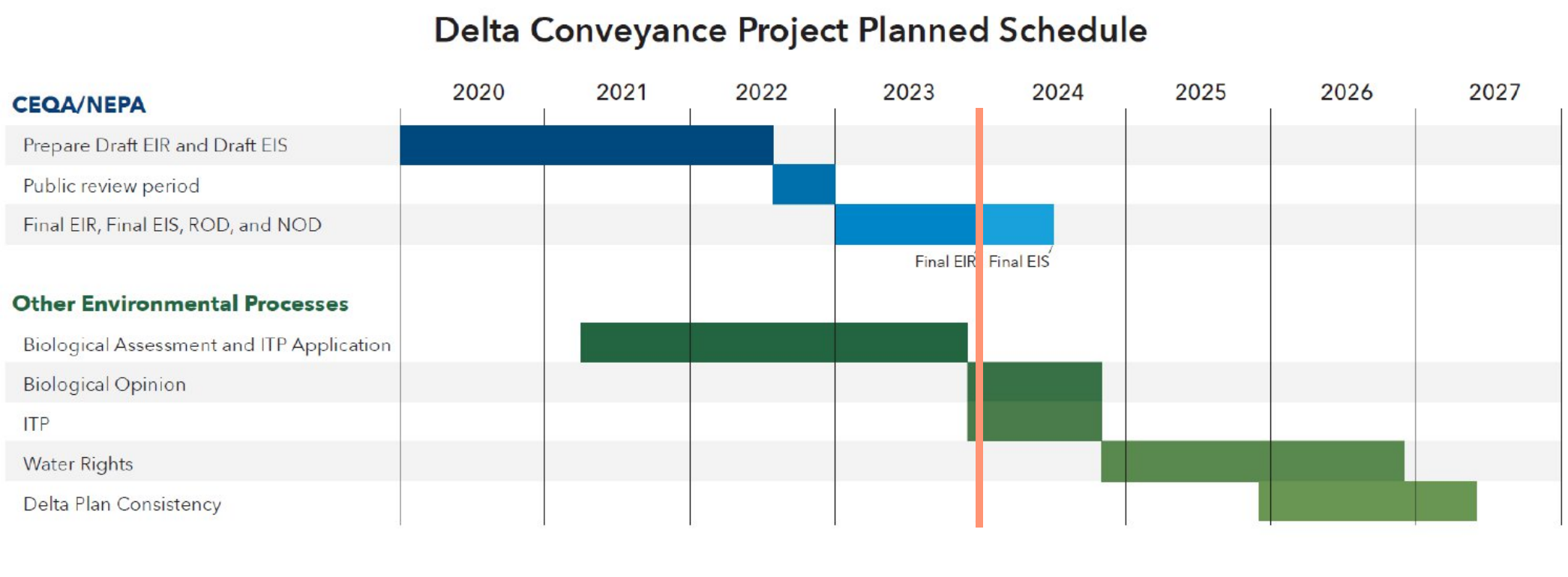
Delta Conveyance Project Final EIR

Project Refinements

- Refinements to project description
  - Footprints & construction activities
  - Refinements to clarify operations
- Inclusion of Contra Costa Water District settlement
- Air Quality & GHG modeling
- Per CEQA, these refinements did not trigger recirculation

Delta Conveyance Project Planning Timeline & Next Steps

Delta Conveyance Project - Planning Timeline



Delta Conveyance Project

Planning Process Next Steps

- Ongoing permitting, through early 2027
- Community Benefits Program development, through late 2025
- Updated cost estimate, spring 2024
- Statewide cost benefit analysis, mid-2024
- Bond validation, ongoing

State Water Project Reliability Beyond 2040

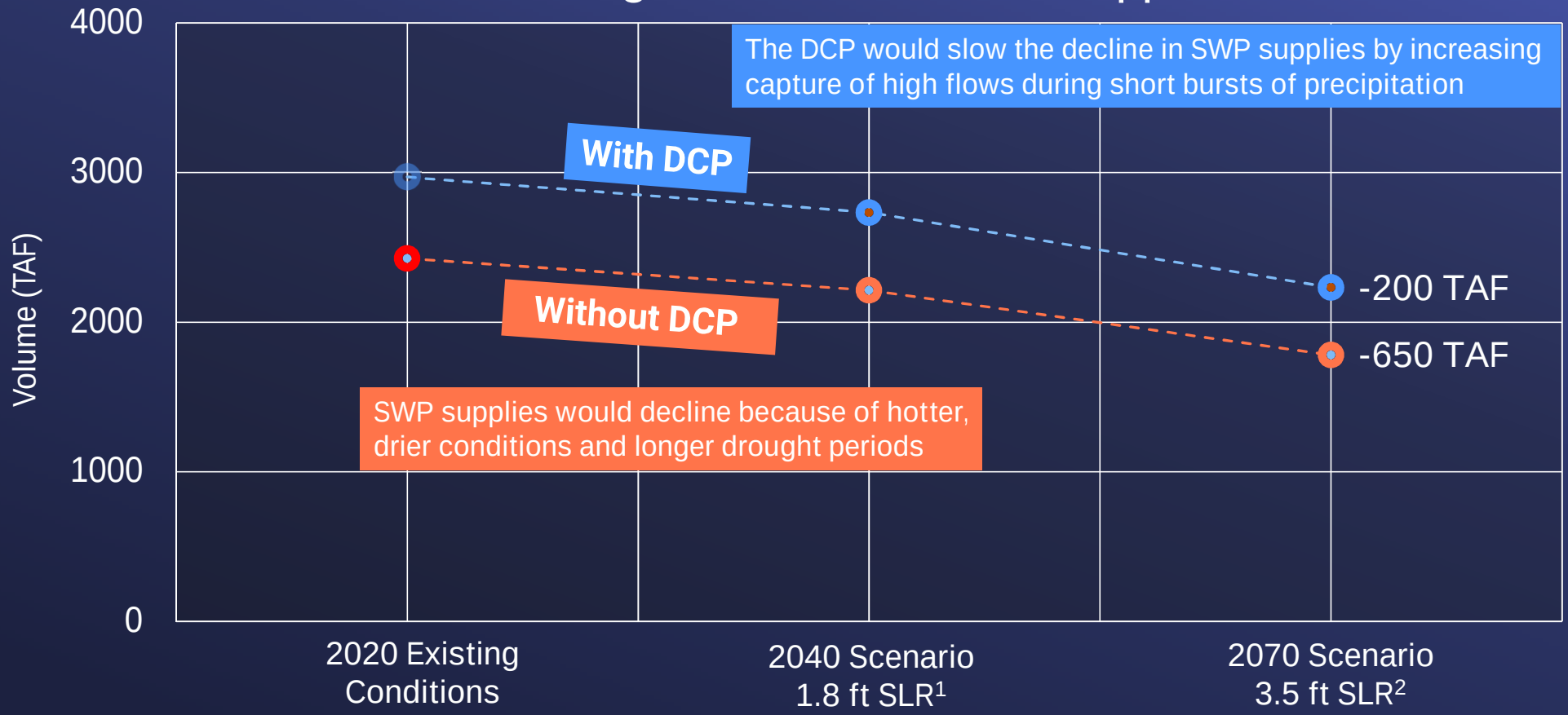
Reliability Beyond 2040

- Metropolitan's Dec 2022 Draft EIR comment letter requested additional analysis
- 2070 Technical Memo developed by DWR
  - Hotter and drier
  - Greater sea level rise
  - Increased runoff variability
  - Additional reductions in SWP supplies
  - Similar benefits as 2040 Scenario
- Aligns with Sept 2023 Board action on Representative Concentration Pathway 8.5

State Water Project

State Water Project Reliability Beyond 2040

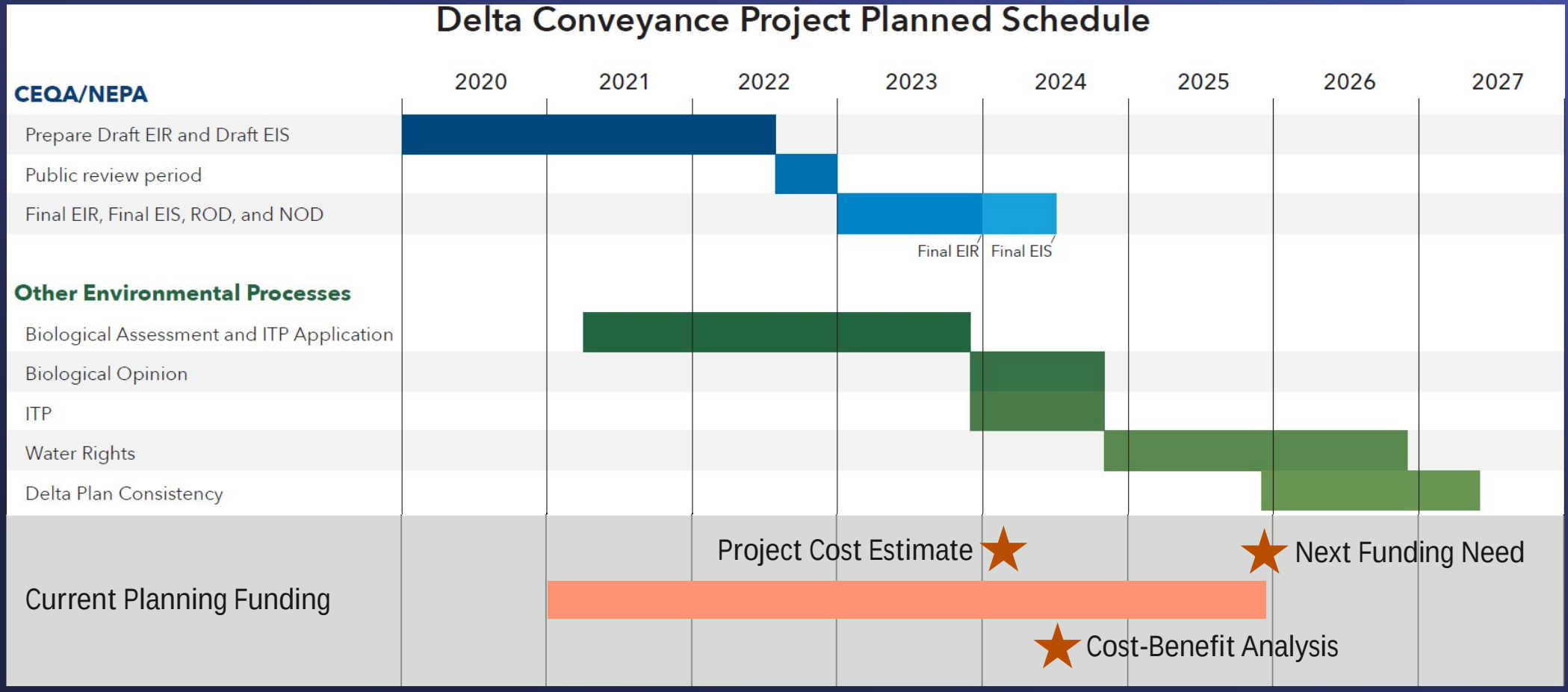
Average Annual SWP Delta Supplies



[1] 1.8 feet of sea level rise under the 2040 Central Tendency Climate Scenario as described in Appendix 30A. H++ corresponds to OPC's extreme scenario resulting from loss of West Antarctic ice sheet.
[2] 3.5 feet of sea level rise under the 2070 Median Climate Scenario as described in 2070 Technical Memo. Per 2018 OPC Guidance, 0.5% likelihood by 2070 under high emissions.

Next Steps

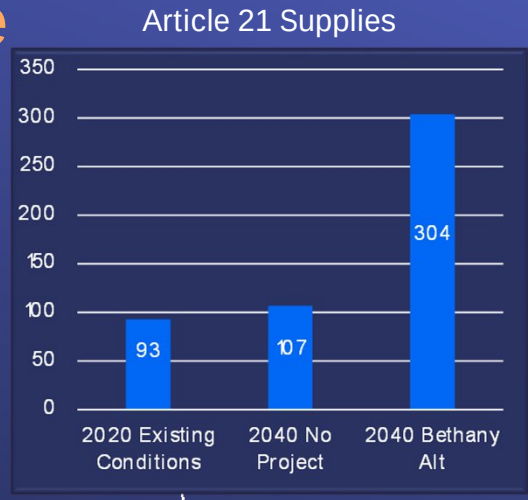
Next Steps


Delta Conveyance Project Planned Schedule
2020
2021
2022
2023
2024
2025
2026
2027
CEQA/NEPA
Prepare Draft EIR and Draft EIS
Public review period
Final EIR, Final EIS, ROD, and NOD
Final EIR
Final EIS
Other Environmental Processes
Biological Assessment and ITP Application
Biological Opinion
ITP
Water Rights
Delta Plan Consistency
Project Cost Estimate
Next Funding Need
Current Planning Funding
Cost-Benefit Analysis


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

Adapting to High Flow Events Amid Climate Change

SWP Deliveries, Long Term Average (TAF)[1,2,3]



Restores allocated supplies and increases Article 21 supplies from high flow events

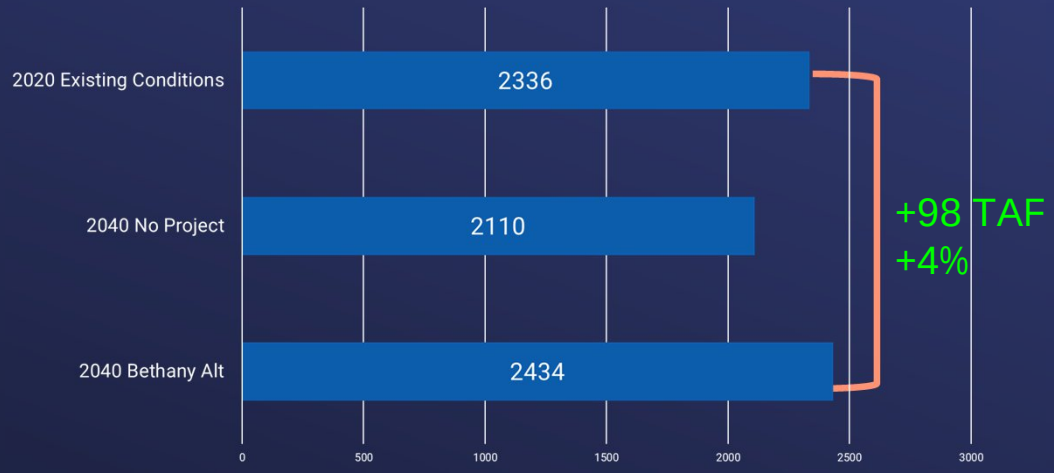
[1]2040 scenarios discussed included No Project and Proposed Project (Bethany Alternative), [2]H++ corresponds to OPC's extreme scenario resulting from loss of West Antarctic ice sheet

[3]Allocated supplies include Table A and Article 56 Carryover supplies as shown in Table 6A-1 of the DCP Draft EIR.

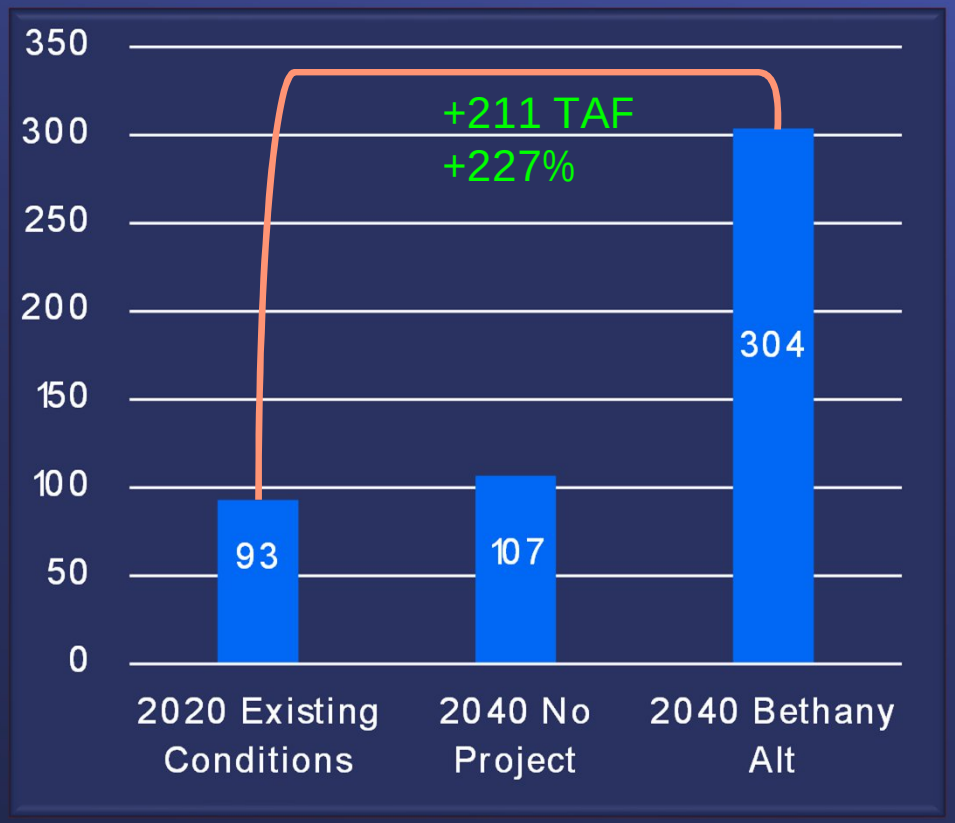
Adapting to High Flow Events Amid Climate Change

SWP Deliveries, Long Term Average (TAF)[1,2,3]

Allocated Supplies



Article 21 Supplies



Capturing high flow events restores and protects water supply reliability

[1]2040 scenarios discussed included No Project and Proposed Project (Bethany Alternative), [2]H++ corresponds to OPC's extreme scenario resulting from loss of West Antarctic ice sheet
[3]Allocated supplies include Table A and Article 56 Carryover supplies as shown in Table 6A-1 of the DCP Draft EIR.

One Water and Delta Conveyance Putting the Pieces Together

One Water and Delta Conveyance

Delta Conveyance Project aims to protect and restore SWP water reliability

Vital To Metropolitan

- The SWP is a core component of Metropolitan's supply portfolio
- Metropolitan's infrastructure is designed and built to benefit from the SWP

Develop New Local Supplies

- Blending higher quality source water (SWP) will help in maintenance and development of local supplies (Recycled Water)

Surface Storage

- San Luis Reservoir Carryover
- Flexible Storage
- Diamond Valley Lake

Water Quality at Existing Metropolitan Treatment Facilities

- Blending with Colorado River Supplies at Weymouth, Diemer, and Skinner Treatment Plants

SWP Groundwater Banking

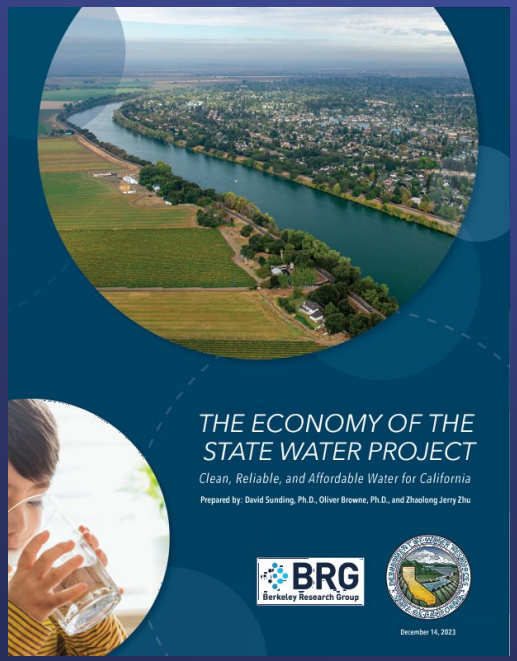
- Central Valley Programs
- High Desert Water Bank

Local Groundwater Recharge

- Supply for In-Service Area Groundwater Basins
- Conjunctive Use Programs

The Economy of the State Water Project

- Report developed by Berkeley Research Group
- SWP service area would rank as the world's 8th largest economy
  - Provides water to over 27 million Californians as well as agriculture, commercial and industrial uses
  - Supports more than 8.7 million jobs
  - Serves between 65% & 75% of California's disadvantaged communities[1]
- On average SWP supply costs range from $250/acre-foot to $1,440/acre-foot delivered[2]



[1] Range reflects difference between Median Household Income definition & CalEnviroScreen definition
[2] Average cost varies based on delivery location, $250/af to San Joaquin Valley, $600/af to Southern California, $1,440/af to Central Coast

Water Resources Management Group

- **Water Surplus and Drought Management Update Conditions as of 12/12/2023**

Summary

This report provides a preliminary accounting for water supply, demand, and storage conditions for calendar year (CY) 2024 as of December 12, 2023. This report also tracks the hydrologic conditions for water year (WY) 2023-2024.

Since the start of the water year, conditions have been dry for both imported supply watersheds. As of December 12, 2023, the Northern Sierra snowpack and precipitation measured below normal at 39 percent and 46 percent, respectively. As for the Upper Colorado River Basin, snowpack and precipitation measured slightly below normal at 85 percent and 87 percent, respectively.

Currently, the estimated amount of imported supply available from the State Water Project (SWP) and Colorado River to help meet demand, prior to withdrawing water from storage, is 1.14 million acre-feet (MAF) for CY 2024. The SWP portion is 191 thousand acre-feet (TAF), which includes the initial SWP Table A allocation of ten percent. The low initial allocation reflects the dry start to the water year in northern California and available SWP supplies in Lake Oroville and San Luis Reservoir. The allocation is expected to increase with improved hydrologic conditions. Metropolitan's 2024 Colorado River supply is currently estimated at 958 TAF based on Metropolitan's submitted water order to the United States Bureau of Reclamation (USBR). This supply may change based on higher priority water use in California and water management actions Metropolitan may decide to take.

The demand on Metropolitan is currently estimated to be 1.54 MAF for CY 2024. Since supply is less than demand, Metropolitan's current supply/demand gap is estimated to be 399 TAF. However, it is early in the year and a wide range of supply and demand balances remains possible. Should the supplies remain low, Metropolitan has ample dry-year storage available to satisfy the potential supply gap for CY 2024, including the SWP Dependent Area, and is actively engaging with sellers for SWP transfers if those supplies are needed.

Purpose

Informational

Attachments

Attachment 1: Projected 2024 WSDM Storage Detail (10 percent SWP Table A allocation)

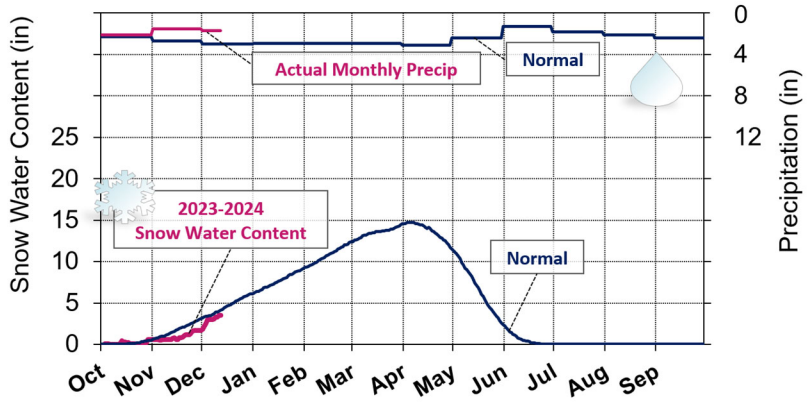
Attachment 2: Future Contributions and Obligations and Cyclic Program

Attachment 3: Range of Future Supply and Demand Gaps

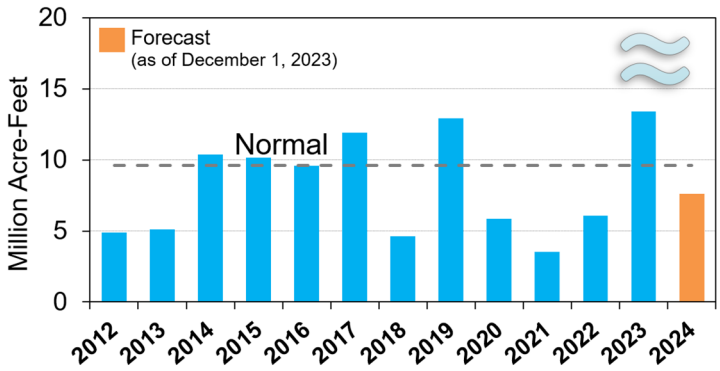
Detailed Report

This Water Surplus and Drought Management (WSDM) report provides the preliminary water supply and demand estimates for CY 2024 and developing hydrologic conditions for water year (WY) 2023-2024.

Upper Colorado Basin Snowpack & Precipitation



Powell Unregulated Water Year Inflow



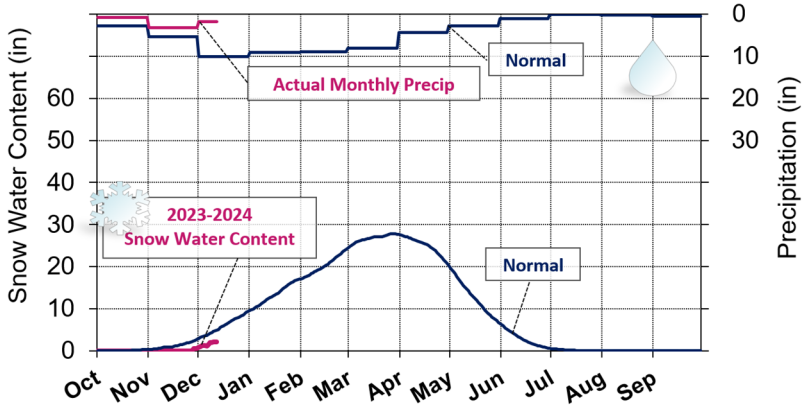
Upper Colorado River Basin

❄ Below normal snowpack water content for this date: 3.5 inches or 85% of normal for this date. Snow data early in the season may not provide a valid measure of conditions.

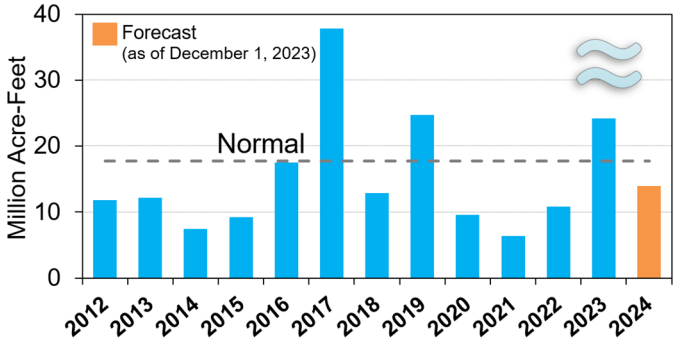
♦ Below normal precipitation to date: 5.3 inches or 87% of normal.

≈ Runoff into Lake Powell for WY 2024 is forecasted at 79% of normal.

Northern Sierra Snowpack & 8 Station Precipitation



Sacramento River Water Year Runoff



Sacramento River Basin

❄ Below normal snowpack water content for this date: 2.1 inches or 39% of normal for this date. Snow data early in the season may not provide a valid measure of conditions.

♦ Below normal precipitation to date: 5.6 inches or 46% of normal.

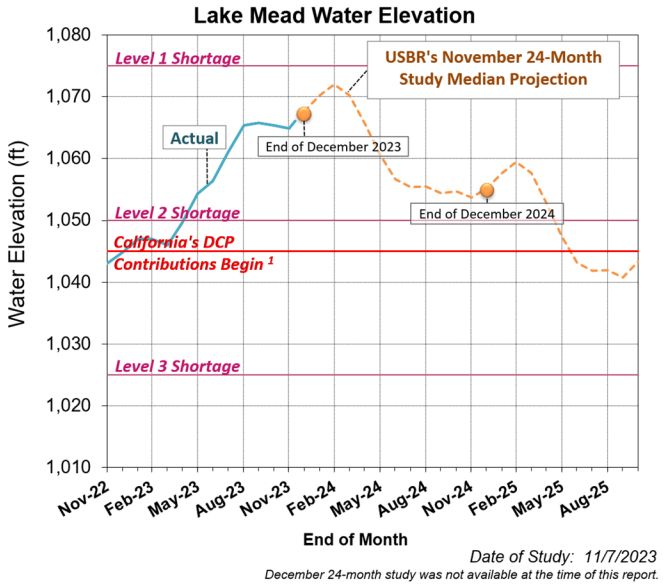
≈ Runoff forecast for WY 2024 is forecasted at 79% of normal.

CRA Supplies	Acre-Feet
Basic Apportionment	*550,000*
IID/ MWD Conservation Program	*105,000*
CVWD - 2nd Amendment, Exchange of Additional Water	*0*
PVID Fallowing Program [1]	*0*
Exchange w/ SDCWA (IID/Canal Lining)	*278,000*
Exchange w/ USBR (San Luis Rey Tribe)	*16,000*
Lower Colorado Water Supply Project	*9,000*
Bard Seasonal Fallowing Program [1]	*0*
Quechan Diversion Forbearance [1]	*0*
Quechan Seasonal Fallowing Program [2]	*0*
Higher Priority Water Use Adjustment	*0*
Total CRA Supplies [3]	**958,000**

[1] Not a supply for Metropolitan in 2024. Water generated from these programs will become system water as part of USBR's Lower Colorado River Basin System Conservation Program to help protect Lake Mead.

[2] Program available to Metropolitan in 2024. An estimate will be provided when more information becomes available.

[3] Supplies based on Metropolitan's submitted water order to USBR. Total may not sum due to rounding.



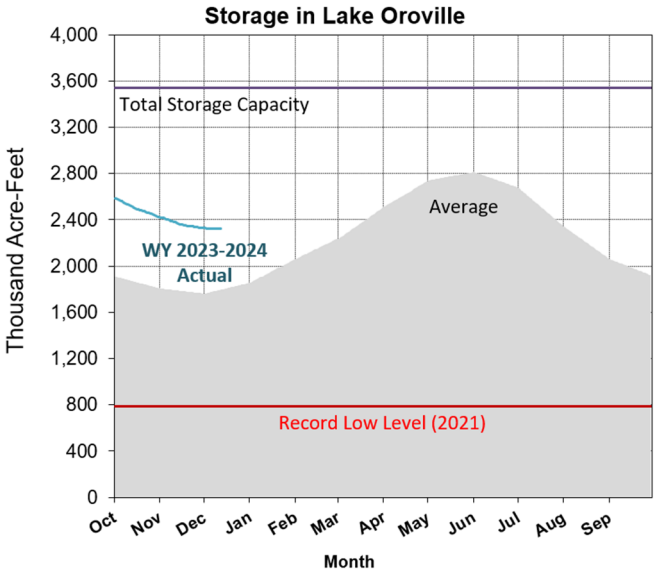
[1] Metropolitan is required to make Drought Contingency Plan (DCP) contributions in the following year if the August 24-month Study projects Lake Mead's elevation to be at or below 1,045 feet on January 1. Since the August 2023 24-month Study projected Lake Mead's elevation to be above 1,045 feet on January 1, 2024, Metropolitan is not required to make DCP contributions in 2024. This figure reflects the latest 24-month study (November) available at the time of this report.

- Lake Mead storage is currently 8.8 MAF or elevation 1,066.0 feet (34 percent of total capacity).
- The Lower Basin is at a Level 1 shortage in CY 2024. Under this level, Metropolitan's operations are not impacted.

SWP Supplies	Acre-Feet
Table A (10% SWP allocation)	*191,000*
Port Hueneme [1]	*0*
Total SWP Supplies [2]	**191,000**
Total Supplies (CRA + SWP) (Prior to storage actions) [2]	**1,149,000**

[1] Rounded to the nearest thousand. Supply is 185 AF.

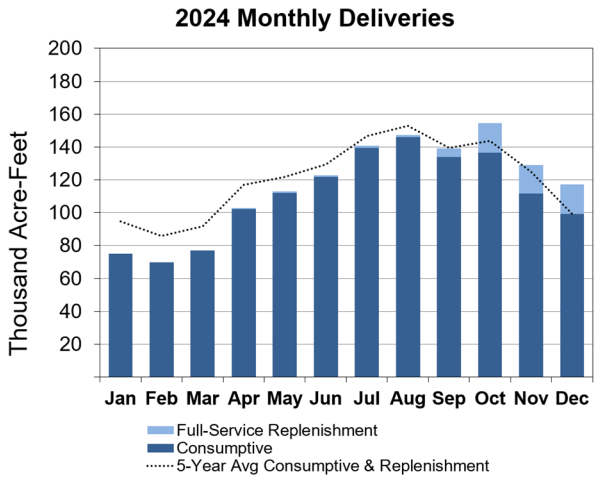
[2] Total may not sum due to rounding.



- The initial SWP Table A allocation for CY 2024 is ten percent. Further increases to the SWP allocation are possible and will depend on future hydrologic conditions. The final allocation is typically determined in May or June.
- Lake Oroville is currently at 2.3 MAF (66 percent of total capacity) or 130 percent of historical average as of the date of this report.

Current Demand	Acre-Feet
Member Agency Consumptive [1]	*1,358,000*
Member Agency Replenishment	*64,000*
Coachella Valley Water District Agreement	*50,000*
Imperial Irrigation District Return	*0*
Exchange w/ San Luis Rey Tribe	*16,000*
System and Storage Losses	*60,000*
Cyclic Deliveries	*0*
2022 Reverse Cyclic Deliveries	*0*
Total Demands [2]	**1,548,000**

[1] Includes exchange w/ SDCWA (IID/Canal Lining) and CUP sales.
[2] Total may not sum due to rounding.

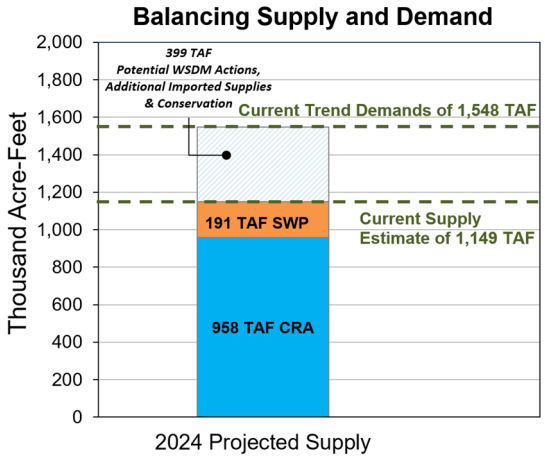


CY 2024 consumptive and replenishment demands are forecasted to be slightly below the 5-year average due to higher local supplies in the region.

MANAGING REGIONAL SUPPLY AND DEMAND

Supply/Demand Balance	Acre-Feet
Total Supplies	*1,149,000*
Total Demands	*1,548,000*
Current Balance Estimate [1]	**-399,000**

[1] Total may not sum due to rounding.



WSDM Strategies/Actions

Metropolitan is monitoring supply development and updated demand projections. Appropriate WSDM actions will be taken to satisfy any supply/demand gap. Should supplies remain low, Metropolitan has ample dry-year storage available to satisfy the potential supply gap for CY 2024, including the SWP Dependent Area, and is actively engaging with sellers for SWP transfers if those supplies are needed.

2024 WSDM Storage Detail

WSDM Storage	1/1/2024 Estimated Storage Levels [1]	CY 2024 Take Capacity [2]	2024 Total Storage Capacity
Colorado River Aqueduct Delivery System	**1,544,000**	**147,000**	**1,657,000**
Lake Mead ICS	1,544,000	147,000 [3]	1,657,000
State Water Project System	**994,000**	**593,000**	**1,889,000**
MWD & DWCV Carryover	297,000	297,000	350,000 [4]
MWD Articles 14(b) and 12(e)	0	0	N/A
Castaic and Perris DWR Flex Storage	219,000	219,000	219,000
Arvin Edison Storage Program	100,000	0	350,000
Semitropic Storage Program	199,000	45,000	350,000
Kern Delta Storage Program	123,000	32,000	250,000
Mojave Storage Program	19,000	0	330,000
AVEK High Desert Water Bank Program	37,000	0	40,000 [5]
In-Region Supplies and WSDM Actions	**1,018,000**	**633,000**	**1,246,000**
Diamond Valley Lake	758,000	501,000	810,000
Lake Mathews and Lake Skinner	199,000	87,000	226,000
Conjunctive Use Programs (CUP) [6]	61,000	45,000	210,000
Other Programs	**593,000**	**64,000**	**1,181,000**
Other Emergency Storage	381,000	0	381,000
DWCV Advanced Delivery Account	212,000	64,000	800,000
Total	**4,149,000**	**1,437,000**	**5,973,000**
Emergency	750,000	0	750,000
Total WSDM Storage (AF) [7]	**3,399,000**	**1,437,000**	**5,223,000**

[1] Preliminary start of year balances, subject to DWR adjustments and USBR final accounting in May 2024.

[2] Take capacity assumed under a ten percent SWP Table A Allocation. Storage program losses included where applicable.

[3] Take capacity will be based on planned maintenance activities and current CRA supply estimate.

[4] Total storage capacity varies year-to-year based on prior year remaining balance added to current year contractual limits.

[5] Reflects a portion of the AVEK High Desert Water Bank Program's total storage capacity. The total storage capacity will be reflected once the program is fully constructed. Anticipated to be fully operational by 2027.

[6] Total of all CUP programs including IEUA/TVMWD (Chino Basin); Long Beach (Central Basin); Long Beach (Lakewood); Foothill (Raymond and Monk Hill); MWDOC (Orange County Basin); Three Valleys (Live Oak); Three Valleys (Upper Claremont); and Western.

[7] Total WSDM Storage level subject to change based on accounting adjustments.

Future Contributions and Obligations and Cyclic Programs

Table 1: Future Obligations [1]

	Beginning of Year 2024 Balance
Water Stored for IID under the California ICS Agreement and its Amendment or the 2021 Settlement Agreement with IID	266,000 [2]
Storage and Interstate Release Agreement with Southern Nevada Water Authority (SNWA)	330,000 [3]
Coachella Valley Water District Agreement	105,000 [4]
2022 Reverse Cyclic	7,000 [5]
Total (AF) [6]	**708,000**

[1] Rounded to the nearest thousand AF. Subject to change based on accounting adjustments.

[2] Reflects final accounting under USBR's 2022 Water Accounting Report released May 15, 2023. IID can request return in any year, conditional on agreement terms.

[3] SNWA may request up to 30,000 AF per year.

[4] Obligation must be met by the end of 2026.

[5] Deferred delivery from Calleguas Municipal Water District and Three Valleys Municipal Water District. Metropolitan is required to deliver water to the member agencies by 2027.

[6] Total may not sum due to rounding.

Table 2: Potential Magnitude of California's Drought Contingency Plan Contribution

	2024	2025	2026
Likelihood of Required California Drought Contingency Plan Contribution [1]	0%	0%	13%
Average Metropolitan DCP Contribution When Contributions Are Required (AF)	0	0	214,000

[1] Results from USBR's November 2023 Colorado River Mid-Term Modeling System (CRMMS) model run. December study not available at the time of this report.

Table 3: Cyclic Program Activity

CY	Starting Balance (AF)	CY Actions (AF)				Ending Balance (AF)
		Cyclic Pre-Delivery	Cyclic Cost-Offset Pre-Delivery	Total Pre-Delivery	Sale Out of Cyclic to Date	
2019	51,000	147,000	19,000	166,000	91,000	126,000
2020	126,000	2,000	0	2,000	50,000	79,000
2021	79,000	0	0	0	28,000	51,000
2022	51,000	0	0	0	27,000	24,000
2023	24,000	31,000	10,000	41,000	7,000	58,000
2024 [1]	58,000	0	0	0	0	58,000

[1] This table is updated with actual Cyclic Program activity on a monthly basis. Total may not sum due to rounding.

Potential Future Supply and Demand Gaps

(Estimate as of November 2023)

Metropolitan's Water Surplus and Drought Management Plan provides a framework for managing Metropolitan's resources in periods of surplus and shortage. To guide WSDM actions, Metropolitan constructs plausible scenarios with different supply and demand assumptions. The table below shows the projected range of plausible end-of-year supply and demand balances for Calendar Years 2025 and 2026. These ranges provide a bookend for the wide range of supply and demand balances that may unfold.

To reflect a reasonable range of future outcomes, the low supply projection is coupled with high demand projection as one bookend and the high supply projection is coupled with the low demand projection for the other bookend. The resulting ranges and key assumptions are shown in the table below. For 2025, the supply and demand balances may range from a shortage of ~1,011 TAF to a surplus of ~1,642 TAF and for 2026 the balances may range from a shortage of ~1,032 TAF to a surplus of ~1,660 TAF. Regardless of the conditions that may materialize in the future, Metropolitan will continue to adhere to the WSDM Plan to capture surplus water in normal to wet conditions and use stored water and drought actions in drought conditions.

	2025 (TAF)		2026 (TAF)	
Item	**Low Supply/ High Demand**	**High Supply/ Low Demand**	**Low Supply/ High Demand**	**High Supply/ Low Demand**
SWP [1]	116	1,914	116	1,914
Colorado River [2]	889	1,074	853	1,077
Demand on Metropolitan [3]	-1,900	-1,100	-1,900	-1,100
Other Demand on Metropolitan [4]	-116	-246	-101	-231
Supply/Demand Balance [5]	**-1,011**	**1,642**	**-1,032**	**1,660**

[1] SWP supplies are based on a low of 5% to a high of 100% of Table A.

[2] Colorado River supplies are based on estimated basic apportionment, transfers, exchanges, higher priority water use, and DCP contributions.

[3] Demand on Metropolitan reflects the total replenishment and consumptive demand.

[4] Includes Coachella Valley purchase, San Luis Rey Agreement, system losses, and Reverse Cyclic and Cyclic Program deliveries.

[5] The supply-demand balances should not be interpreted as an absolute range as they were determined by explicit assumptions to represent reasonable outcomes.

One Water and Stewardship Committee

Update on WSDM

Item 6b
January 08, 2024

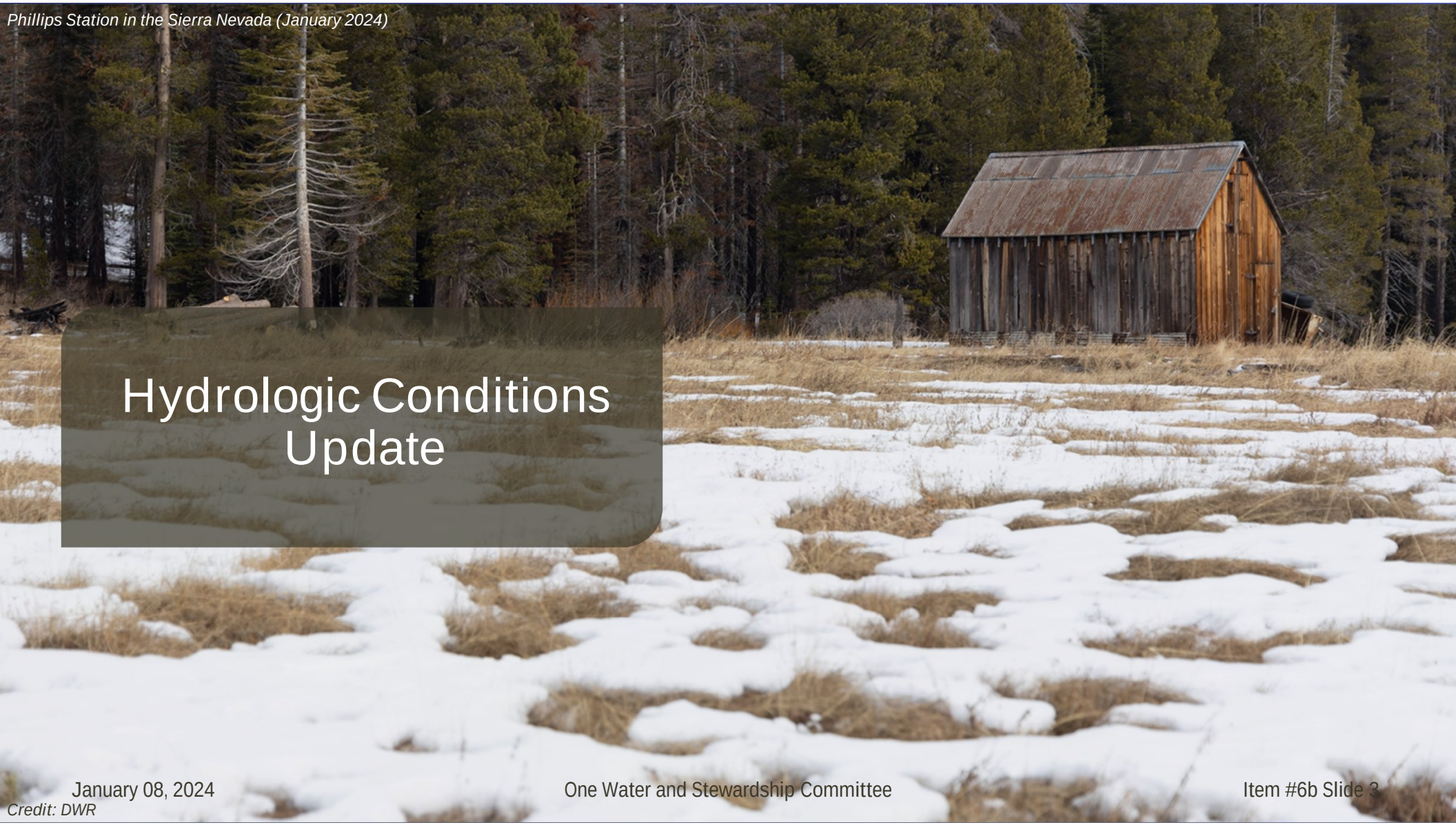
Item 6b Update on WSDM

Subject

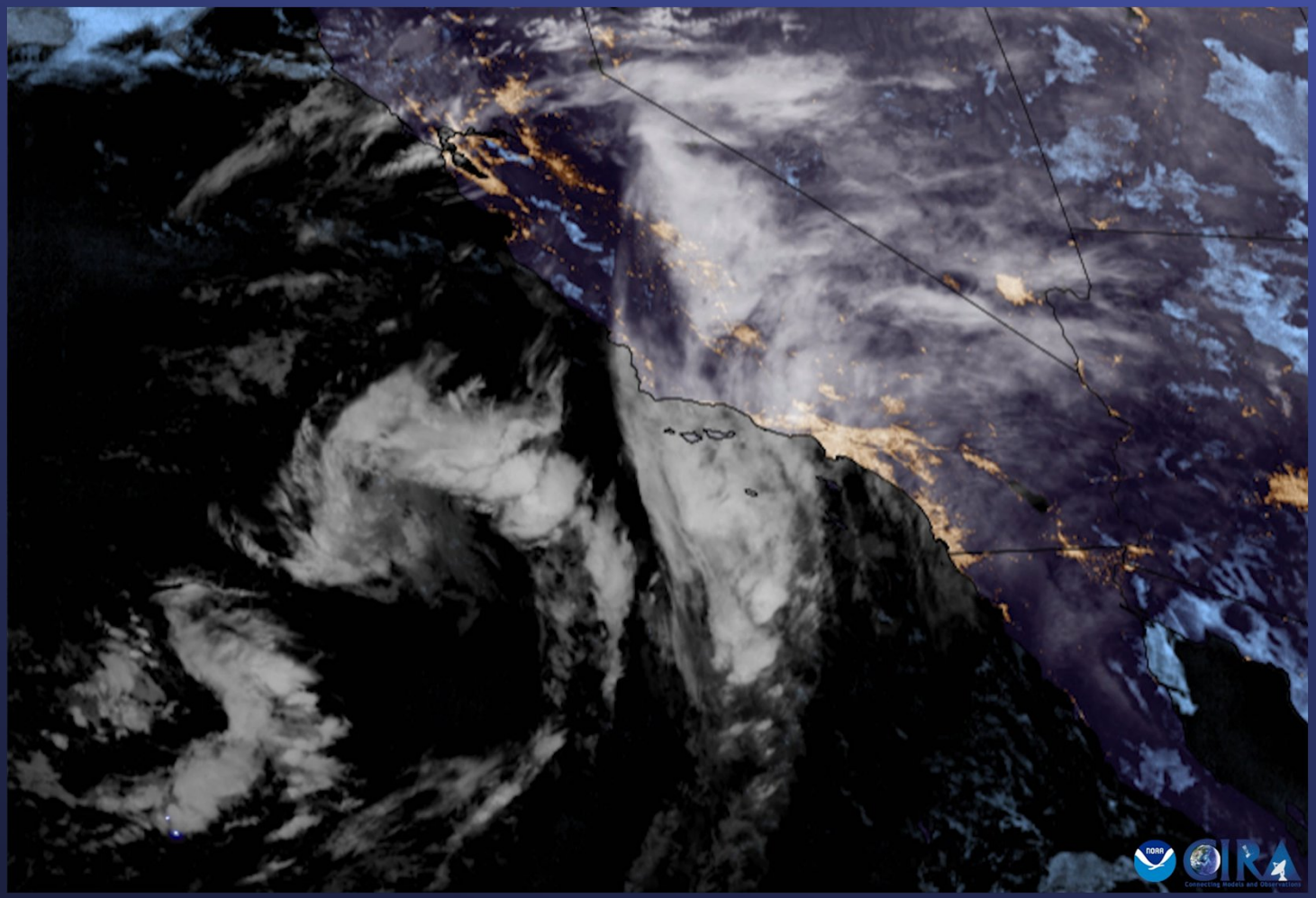
Update on Oral Report on Water Surplus and Drought Management

Purpose

Provide updated supply and hydrologic information

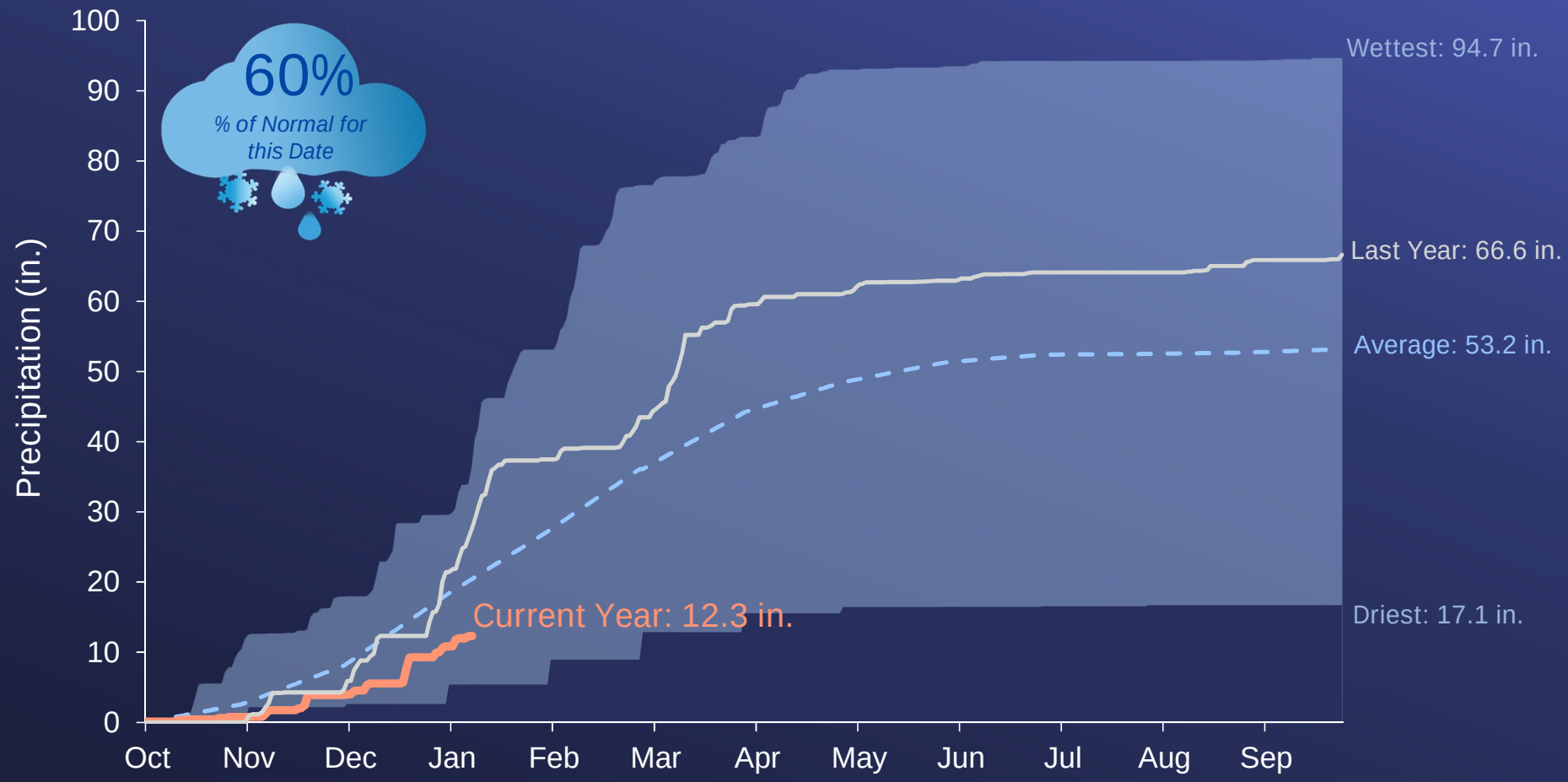

Phillips Station in the Sierra Nevada (January 2024)
Hydrologic Conditions Update
Credit: DWR

Heavy Rainfall Arrives in Southern California

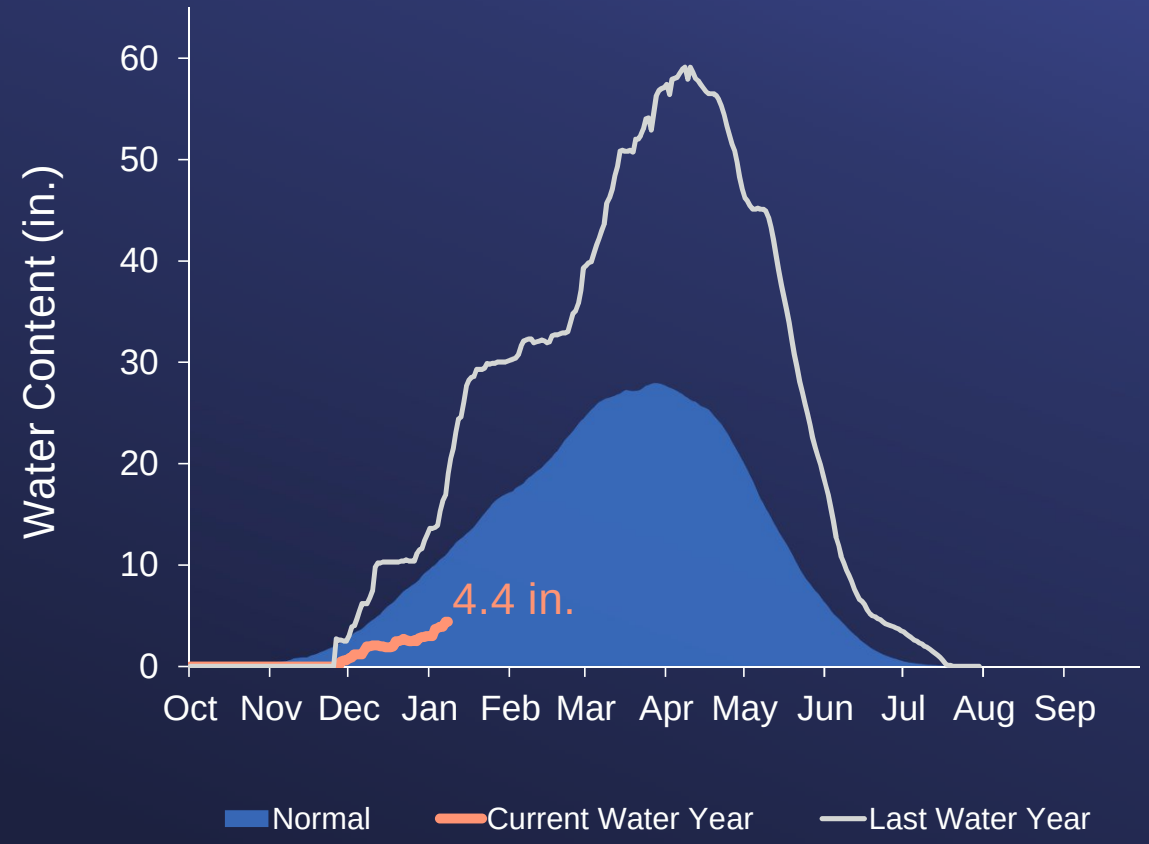


Northern Sierra Precipitation: 8-Station Index

As of 01/08/2024



Below Normal Snowpack in Northern Sierra



Northern Sierra Snowpack

4.4 in.

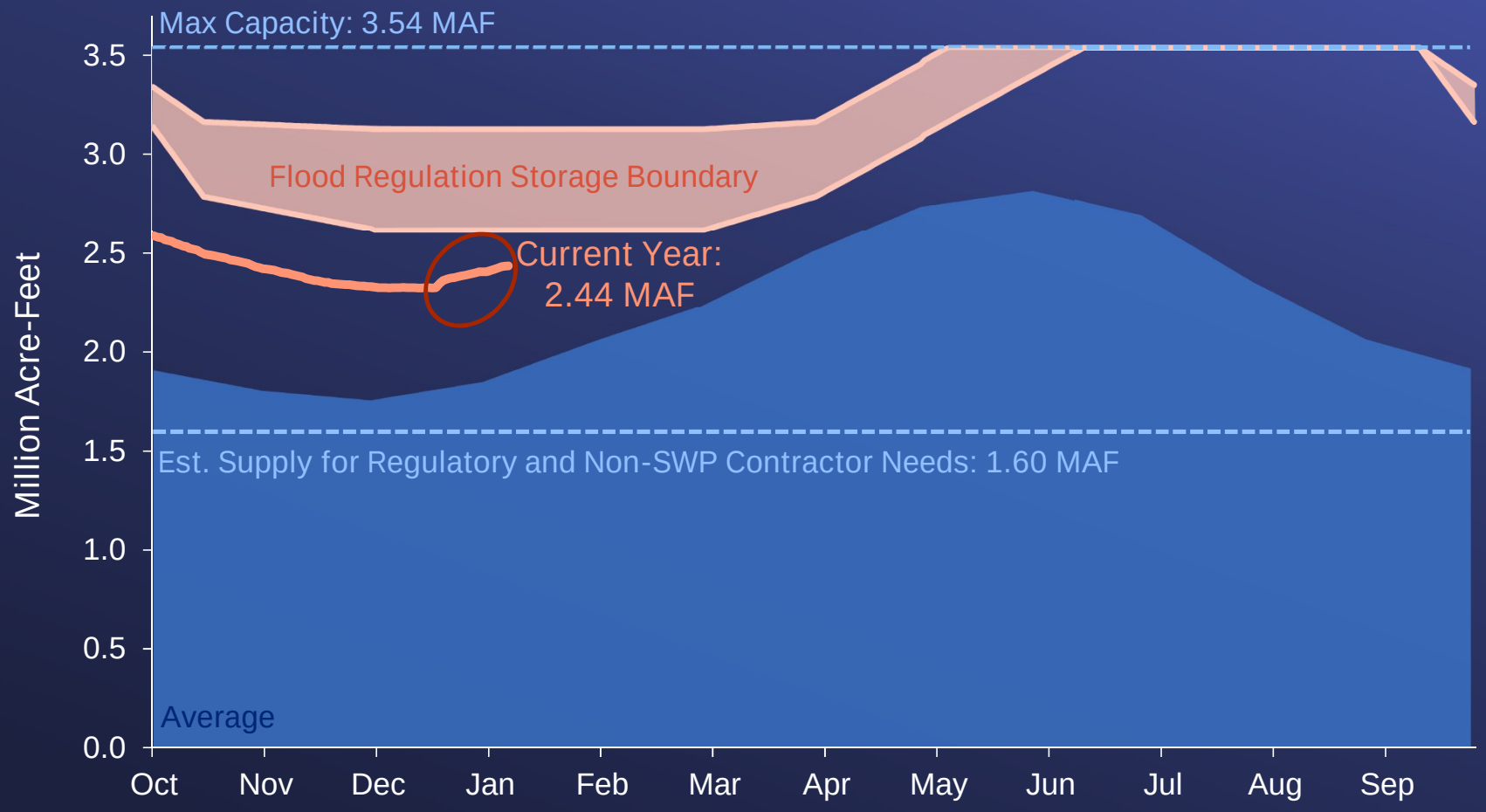
As of 01/08

39%

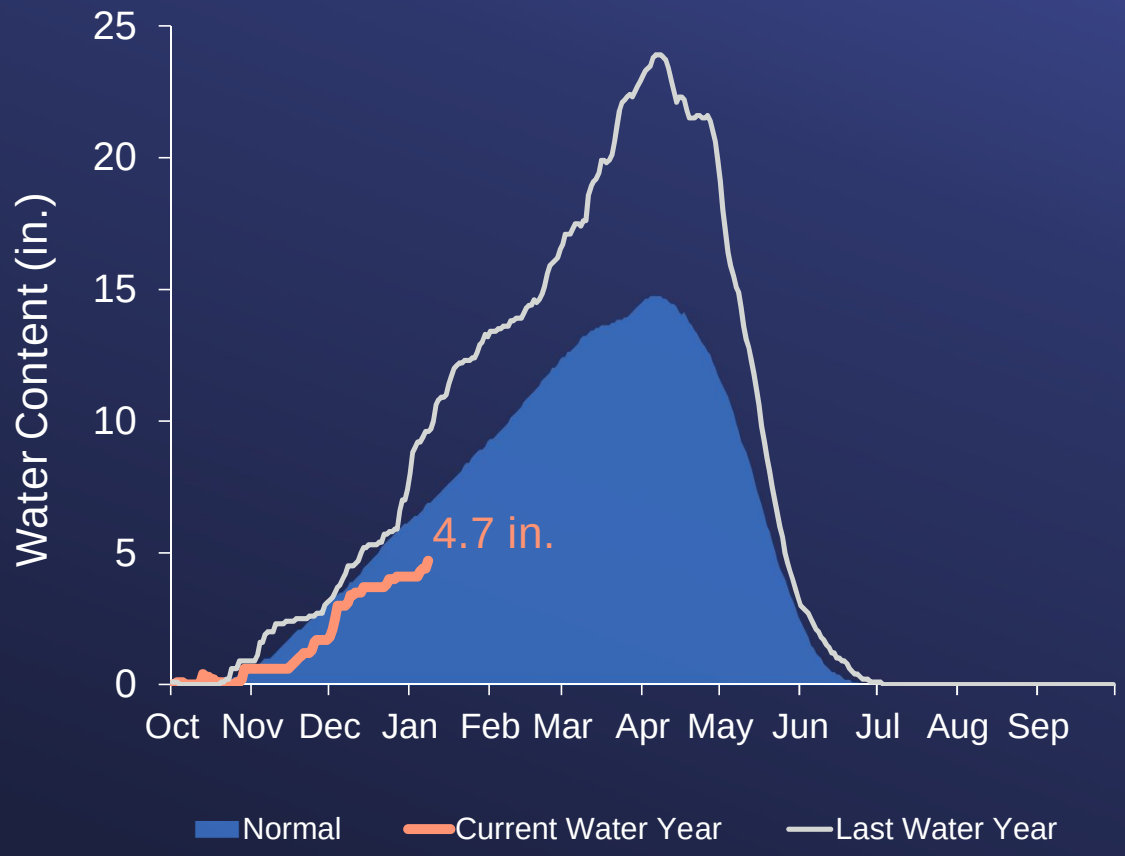
% of Normal for this Date

Moderate Gains in Lake Oroville Storage

As of 01/07/2023



Slow Start to Upper Colorado River Basin Snowpack

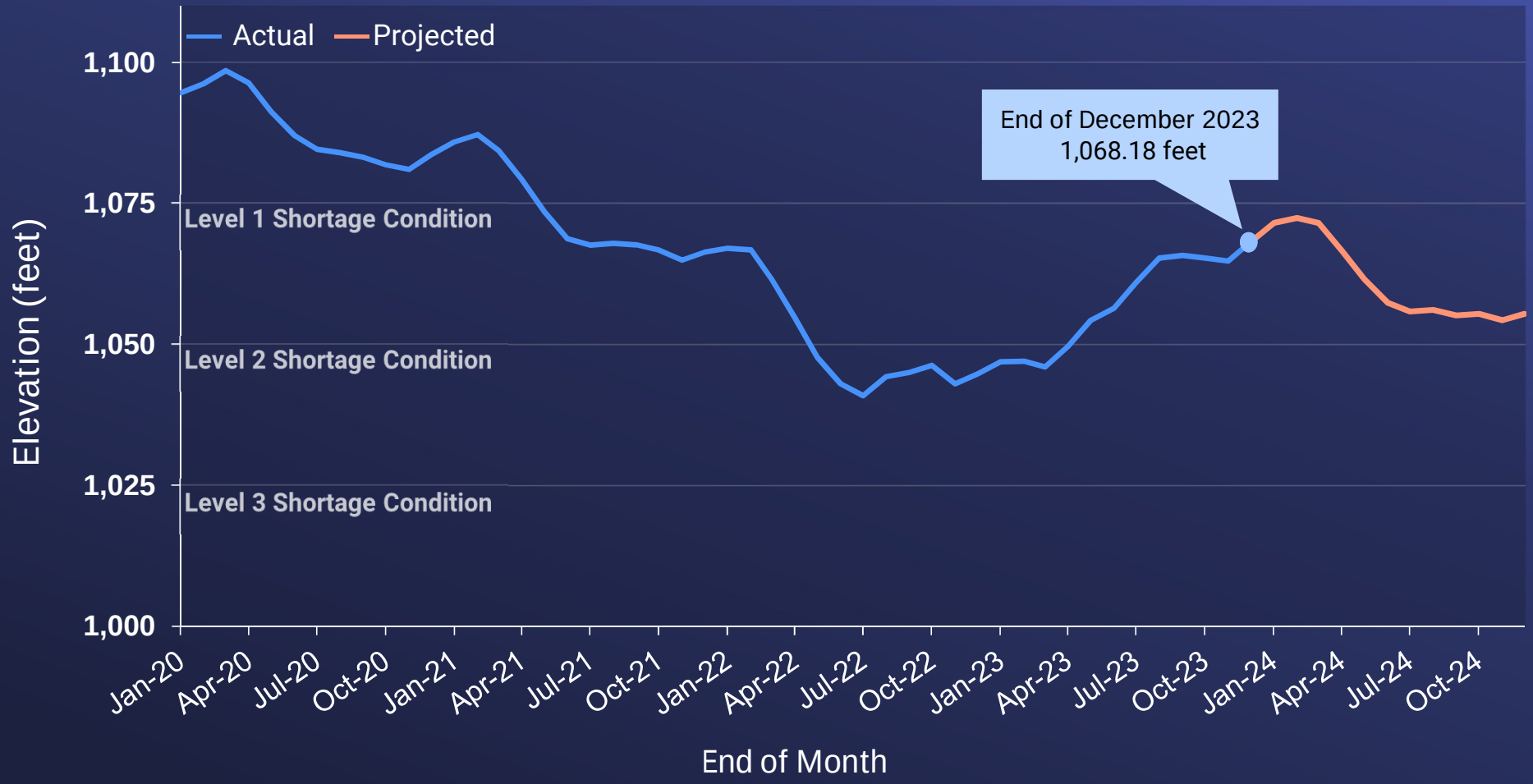


Upper Colorado River Basin Snowpack

4.7 in.
As of 01/08

68%
% of Normal for this Date

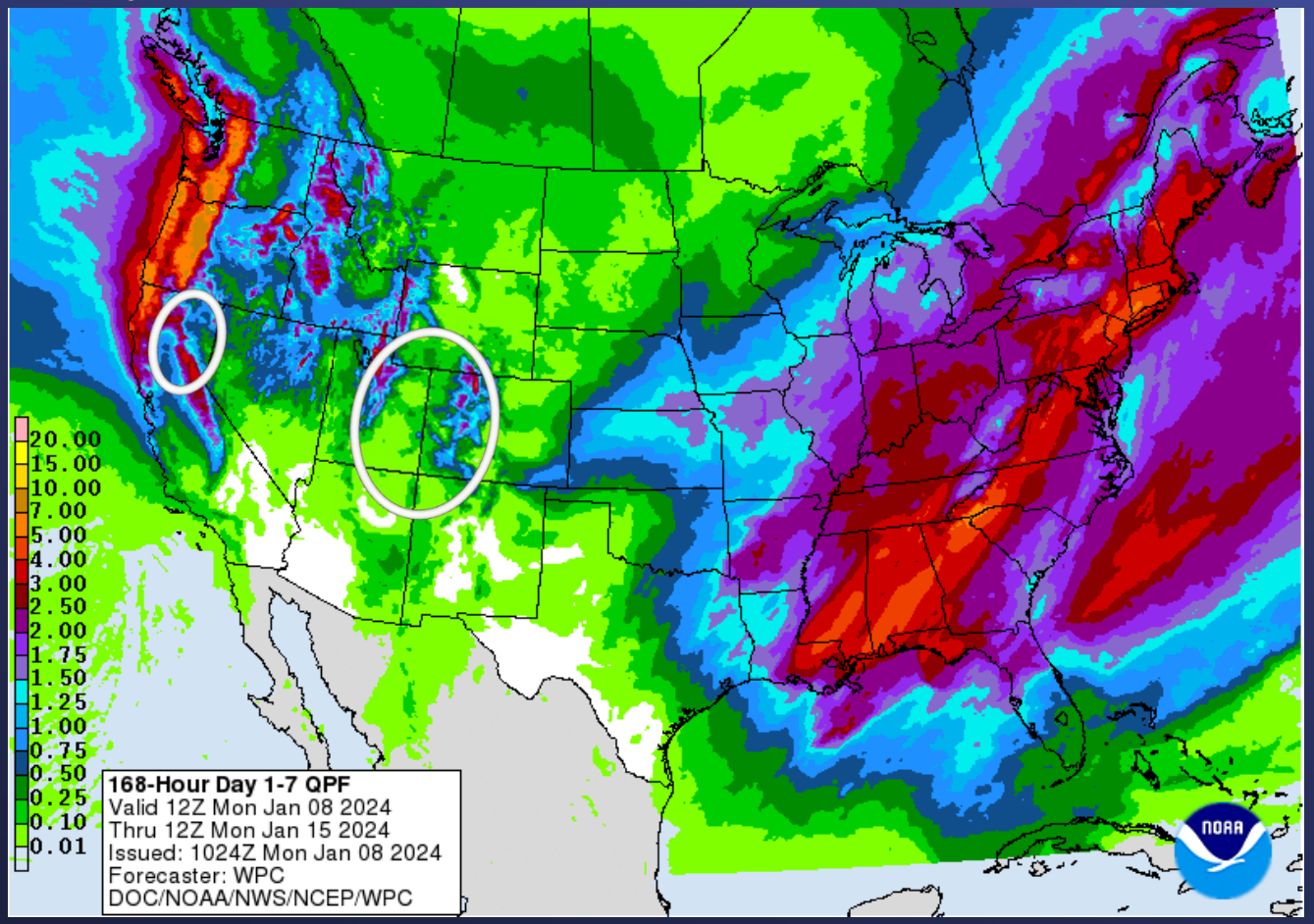
Improved Conditions in Lake Mead



Source: USBR's December 2023 24-Month study

Additional Precipitation in the Forecast

January 8 - 15



2024 Water Surplus & Drought Management

Credit: DWR

Initial 2024 SWP Table A Allocation

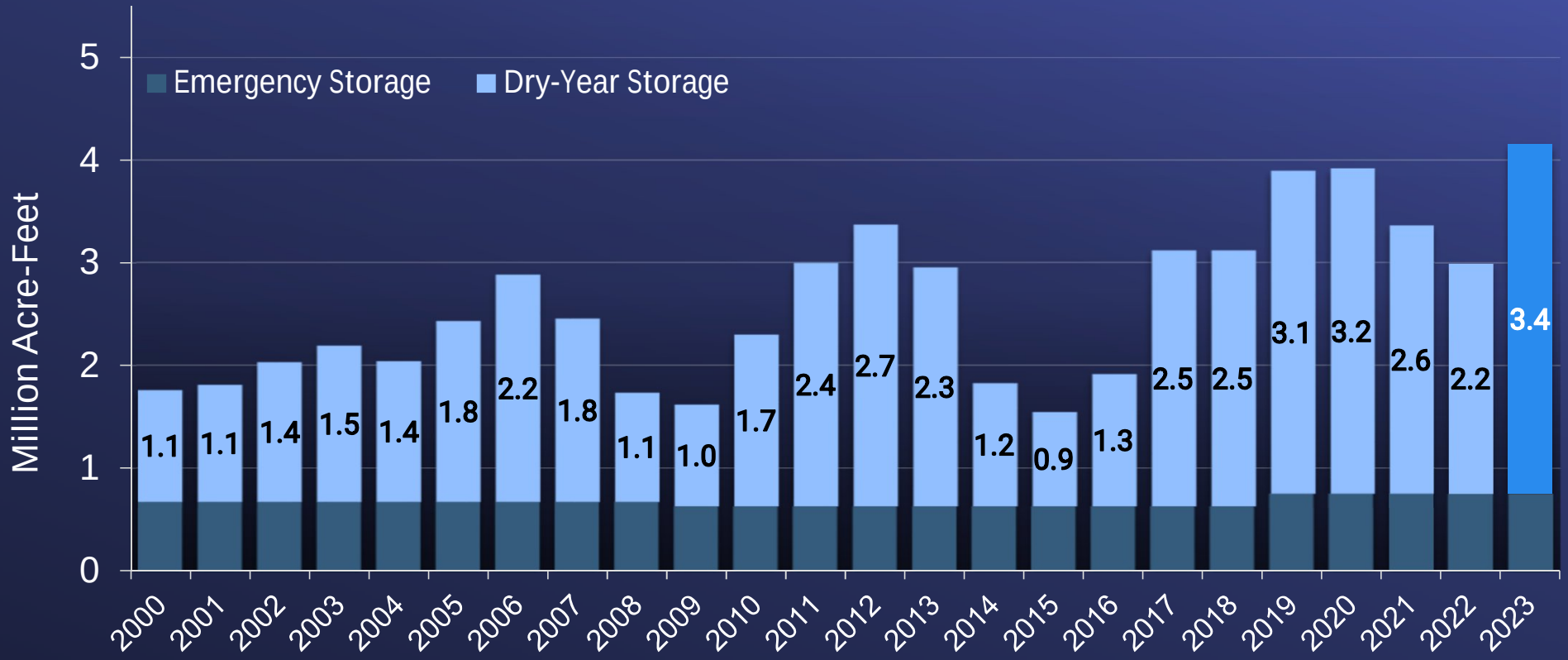
DWR Announces Initial State Water Project Allocation of 10 Percent for 2024

Published: Dec 01, 2023

- Reflects current reservoir storage conditions and relatively dry start to Water Year 2024
  - DWR estimates at least 90% chance 2024 SWP Allocation increases above 10%
  - Current study's dry and wet conditions reflect potential allocations of 10% to 50%, respectively

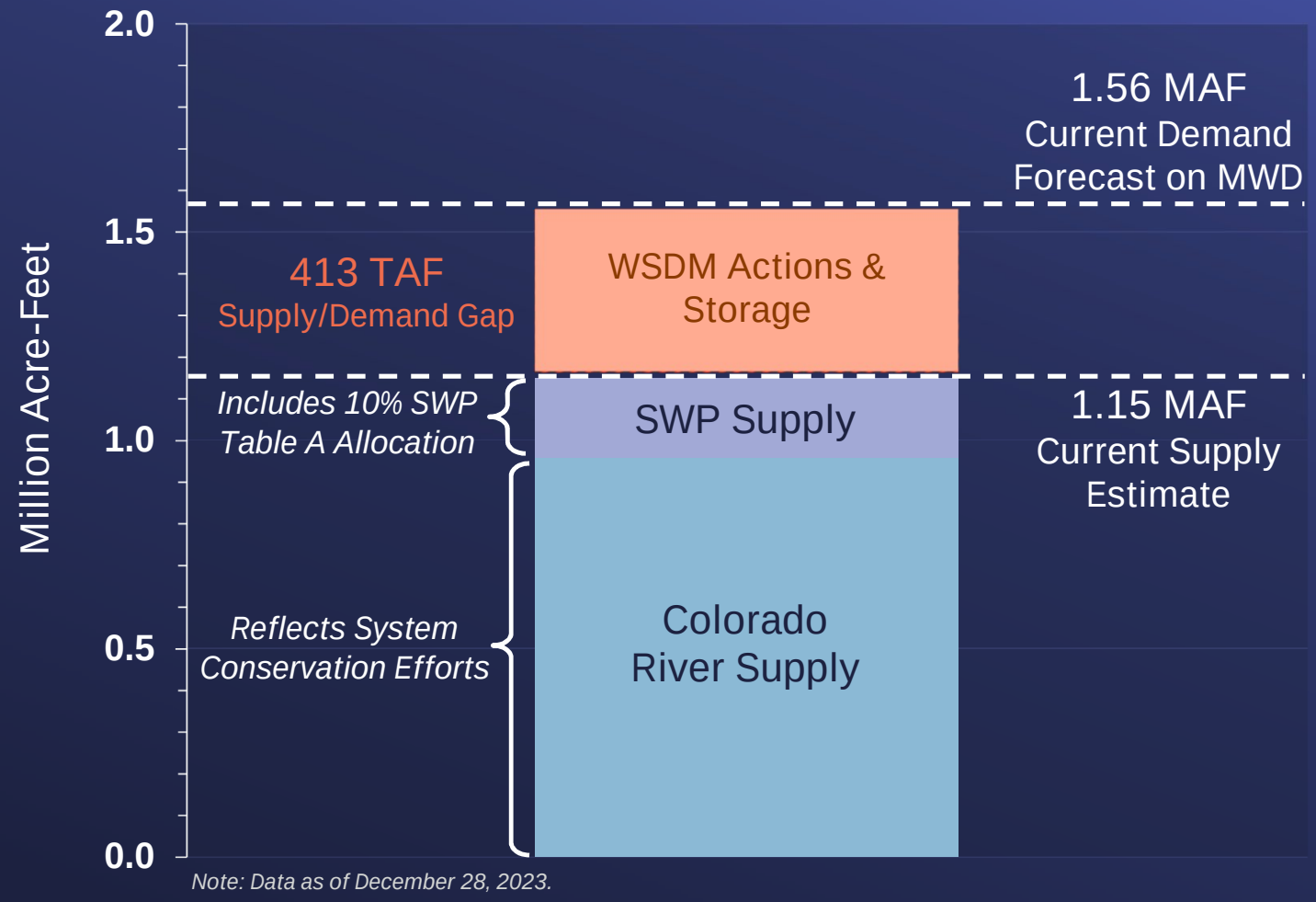
Metropolitan Dry-Year Storage

End-of-Year Balances



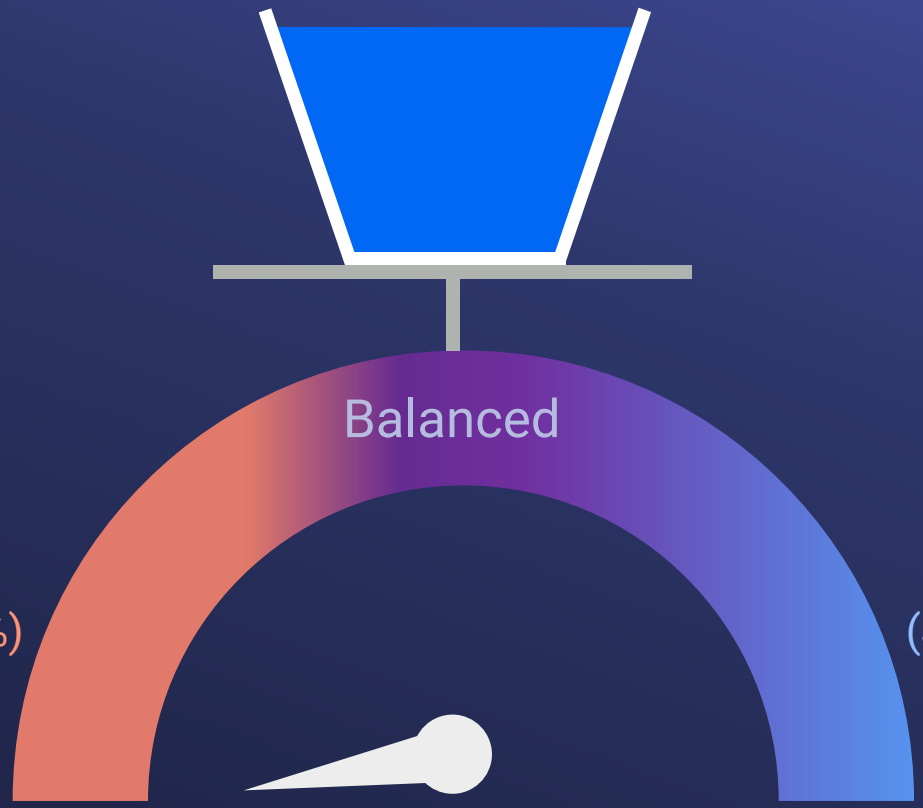
Note:
2023 end-of-year balance is preliminary as it is subject to USBR final accounting.

2024 Water Supply/Demand Balance: Regional View



Note: Data as of December 28, 2023.

2024 WSDM Actions Across SWP Allocations



Drought Actions
(SWP Allocation ≤ 25%)

Surplus Actions
(SWP Allocation ≥ 30%)

Note: Information as of December 2023. Assumes current trend demand on Metropolitan and forecasted Colorado River supplies.


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

One Water & Stewardship Committee

Conservation Update

Item 6c

January 8, 2024

Current Conservation Program Expenditures

FYs 2022/23 & 2023/24 (1)

	Paid(2)	Committed(3)
Regional Devices	$9.9M	$3.5M
Member Agency Administered	$9.4M	$5.3M
Turf Replacement	$32.8M	$24.5M
Advertising	$7.8M	$2.7M
Other	$3.1M	$1.6M
TOTAL	$63.0M	$37.6M

(1) The Conservation Program biennial expenditure authorization is $86M.

(2) As of 7/1/2022 –11/30/2023.

(3) Committed dollars as of December 10, 2023.

Current Conservation Program Activity

FYs 2022/23 & 2023/24

Turf Replacement Rebates:

November: 887,554 ft2 removed

FY2022/23-FY2023/24: 15,496,068 ft^2 removed

Toilets:

November: 1,343 units rebated

FY2022/23-FY2023/24: 31,871 units rebated

Sprinkler Nozzles:

November: 869 units rebated

FY2022/23-FY2023/24: 32,450 units rebated

Lifetime Water Savings to be achieved by all rebates in November 2023: 4,183 AF

FY2022/23-FY2023/24: 90,495 AF lifetime water savings

Coming Next Month

- Action: Adjustment to Member Agency Administered Program, flexible spending
- Presentation: Residential rebate for leak detection/flow monitor devices, pilot program update


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

Office of the General Manager

- **Bay-Delta Management Report**

Summary

This report provides a summary of activities related to the Bay-Delta for December 2023

Purpose

Informational

Detailed Report

Long-Term Delta Actions

Delta Conveyance

The California Department of Water Resources (DWR) released the Final Environmental Impact Report (EIR) to the public per the California Environmental Quality Act on December 8, 2023. The Final EIR was certified on December 21, 2023 and DWR approved the proposed project.

Sites Reservoir

At the December 15 Joint Reservoir Committee and Sites Authority Board meeting, the Reservoir Committee and the Authority Board approved a contract with an outside consultant to provide wheeling rate development services. Delivering the benefits of the Sites Reservoir Project requires the shared use of existing infrastrure and Sites Storage Partners will be required to pay wheeling costs.

Near-Term Delta Actions

Science Update

Dr. Shawn Acuña presented at both the North American Society of Environmental Toxicology and Chemistry Annual Meeting, and also at the Fall 2023 Zoology Colloquium. The presentations were focused on the use of contaminant performance metrics within a structured decision making framework, in the context of water projects and Delta smelt.

Delta Islands

Staff executed three consultant agreements for design, environmental planning, and public outreach for the Webb Tract project. The final consultant agreement for scientific studies is expected early January 2024.

Three levee improvement projects wrapped up work for the 2023 season. These projects occurred on Bouldin and Bacon Islands. Approximately 8.5 miles of levee were improved. DWR provided funding for this project through the Delta Levees Special Flood Control Projects program. Additional work will be completed in 2024.

Staff presented on the Levee Monitoring Pilot Study on Bouldin Island at the WaterStart Channels for Innovation Summit 2023. This pilot study is utilizing innovative new technology to determine real-time changes in levee conditions.

Office of the General Manager

- **Colorado River Management Report**

Summary

This report provides a summary of activities related to management of Metropolitan's Colorado River resources for December 2023.

Purpose

Informational

Detailed Report

California Conservation Agreements Signing Ceremony

Following Metropolitan's November 14 and December 5 Board approval of various agreements with its partners in California, on December 13, as part of the Colorado River Water Users Association's annual conference, the Commissioner of the Bureau of Reclamation (Reclamation) signed numerous water conservation agreements with California water agencies and the Fort Yuma Quechan Indian Tribe (Quechan Tribe) to help meet the state's commitment to conserve 1.6 million acre-feet of water for Lake Mead's benefit through 2026. Metropolitan's General Manager and General Counsel signed conservation agreements with Imperial Irrigation District, Palo Verde Irrigation District (PVID), the Quechan Tribe, Coachella Valley Water District, and San Diego County Water Authority. These agreements will collectively leave about 250,000 acre-feet of water in Lake Mead this year. The agreements with PVID and the Quechan Tribe will leave additional water in Lake Mead through 2026. These agreements, along with Metropolitans' projected record amount of storing a projected 450,000 acre-feet of water in Lake Mead in 2023, have resulted in California's water use being at its lowest level since 1949.

Clarification Regarding Management of Binational Intentionally Created Surplus

In 2017, as part of Treaty Minute 323 with the country of Mexico, Metropolitan and its partners agreed to fund conservation in Mexico, with the conserved water being shared by both countries. The parties to the Minute 323 Contributed Funds Agreement clarified provisions of that agreement regarding water that was conserved in Mexico with funding from Metropolitan, Imperial Irrigation District, Southern Nevada Water Authority, and Central Arizona Water Conservation District (Funding Parties). Reclamation and the Funding Parties exchanged a letter agreement clarifying that Reclamation will account for 36,367 acre-feet of water provided by Mexico to the United States pursuant to the schedule established in Treaty Minute 323 by the end of 2023 and that Reclamation will credit that water to the Funding Parties' Intentionally Created Surplus (ICS) accounts by the end of 2026. This clarification allows compliance with the schedule provided in Treaty Minute 323 and results in additional space being available in California's ICS accumulation space through 2026 because Reclamation will credit the binational ICS to the Funding Parties in 2026 instead of this year.

Office of the General Manager

- **Bay-Delta Management Report**

Summary

This report provides a summary of activities related to the Bay-Delta for November 2023.

Purpose

Informational

Detailed Report

Long-Term Delta Actions

Sites Reservoir

At the November 17 Joint Reservoir Committee and Sites Authority Board meeting, the Sites Authority Board approved a resolution to certify the Final Environmental Impact Report and approved the Sites Reservoir Project as described in the California Environmental Quality Act (CEQA) Findings. The Sites Authority Board also directed the Executive Director of the Sites Authority to file a Notice of Determination and certify the CEQA record of proceedings.

Delta Conveyance Related Joint Powers Authorities

At the November 16 regularly scheduled Delta Conveyance Finance Authority (DCFA) Board meeting, the board approved an amendment to the bylaws authorizing the DCFA Board to adopt a policy that authorizes the disclosure of information disclosed in a DCFA closed session consistent with Government Code requirements. Amending the bylaws to include this policy will allow for the sharing of information with members' legislative bodies and their legal counsel and allow those agencies to take action accordingly.

Near-Term Delta Actions

Science Update

Science staff is reviewing the Bay-Delta Water Quality Control Plan Draft Staff Report and Substitute Environmental Document released by the State Water Resources Control Board on September 28, 2023. The deadline for written comments has been extended to January 19, 2024.

Additionally, staff participated in the Delta Science Programs Workshop: Exploring Scientific and Management Implications of Upper Trophic Level Foodwebs in the Delta and served on the panel on Ecosystem Management in the Delta panel. Additional panel members included CDFW, California Department of Water Resources, the Bureau of Reclamation, the Delta Conservancy, and the United Auburn Indian Community. The goal of this workshop was to determine the management needs for decision support tools of foodweb models for managing the Delta and Suisun Bay.

Delta Islands

Metropolitan's Multi-Benefit Landscape Restoration Planning Grant for its Delta Islands from the California Department of Fish and Wildlife is in its final phase of developing conceptual plans and basis of designs for six recommended pilot projects and scientific research studies for Bouldin Island. The primary objective of this grant

is to assist in identifying opportunities on Metropolitan's Islands in addressing land subsidence, habitat restoration, carbon sequestration, sustainable agricultural practices, and water quality/reliability.

Final edits to the draft grant agreement for the Multi-Benefit Landscape Restoration Project on Webb Tract were completed, and the agreement is going through the state's administrative review process. Staff has executed three consultant agreements for design, environmental planning, and public outreach and the final consultant agreement for scientific studies is expected to be completed in early December 2023.