



WP&S Committee

- R. Atwater, Chair
- C. Kurtz, Vice Chair
- J. Abdo
- L. Ackerman
- G. Cordero
- D. De Jesus
- L. Dick
- S. Goldberg
- R. Lefevre
- M. Luna
- J. Morris
- M. Petersen
- G. Peterson
- B. Pressman
- R. Record

Water Planning and Stewardship Committee - Final - Revised 1

Meeting with Board of Directors *

March 7, 2022

10:00 a.m.

Teleconference meetings will continue until further notice. Live streaming is available for all board and committee meetings on mwdh2o.com ([Click Here](#))

A listen only phone line is also available at 1-800-603-9516; enter code: 2176868#. Members of the public may present their comments to the Board on matters within their jurisdiction as listed on the agenda via teleconference only. To participate call (404) 400-0335 and enter Code: 9601962.

| |
|---|
| Monday, March 7, 2022 Meeting Schedule |
| 08:30 am - E&O |
| 10:00 am - WP&S |
| 12:30 pm - Break |
| 01:00 pm - C&L |
| 02:00 pm - F&I |

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))

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

2. CONSENT CALENDAR OTHER ITEMS - ACTION

- A. Approval of the Minutes of the Meeting of the Water Planning and Stewardship Committee held February 7, 2022 [21-930](#)

Attachments: [03072022 WPS 2A minutes.pdf](#)

3. CONSENT CALENDAR ITEMS - ACTION

NONE

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

Delayed to 11:45 a.m.

4. OTHER BOARD ITEMS - ACTION

NONE

5. BOARD INFORMATION ITEMS

- 9-3 Review of the Remaining Planning Process and Funding Needs for Sites Reservoir Project [21-885](#)

Attachments: [03082022 WPS 9-3 B-L.pdf](#)
[03082022 WPS 9-3 Presentation.pdf](#)

6. COMMITTEE ITEMS

- a. Update on Water Surplus and Drought Management [21-902](#)

Attachments: [03072022 WPS 6a Report.pdf](#)
[03082022 WPS 6a Presentation](#)

- b. Update on Chino Basin Program Development and Pending Terms of Agreement with Inland Empire Utilities Agency [21-951](#)

Attachments: [03072022 WPS 6b Presentation.pdf](#)

- c. Bay-Delta Policies Workshop #1 [21-901](#)

Attachments: [03072022 WPS 6c Presentation.pdf](#)

- d. Update on Salmon Conservation Measures [ITEM WITHDRAWN] [21-899](#)

7. MANAGEMENT REPORTS

- a. Colorado River Manager's Report [21-931](#)

Attachments: [03072022 WPS 7a Report.pdf](#)

- b. Bay-Delta Manager's Report [21-947](#)

Attachments: [03072022 WPS 7b Report.pdf](#)

- c. Water Resource Management Manager's Report [21-932](#)

Attachments: [03072022 WPS 7c Presentation](#)

8. FOLLOW-UP ITEMS

NONE

9. FUTURE AGENDA ITEMS

10. 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. Agendas for the meeting of the Board of Directors may be obtained from the Board Executive Secretary. 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 <http://www.mwdh2o.com>.

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

MINUTES

WATER PLANNING AND STEWARDSHIP COMMITTEE

February 7, 2022

Chair Atwater called the teleconference meeting to order at 12:30p.m.

Members present: Chair Atwater, Vice Chair Kurtz, Directors Abdo, Ackerman (entered after roll call), Cordero, De Jesus, Dick, Goldberg, Lefevre, Morris, Petersen (entered after rollcall), Peterson, Pressman, and Record.

Members absent: Director Luna.

Other Board Members present: Chairwoman Gray, Directors Blois, Dennstedt, Erdman, Faessel, Fellow, Fong-Sakai, McCoy, Miller, Ramos, Smith, Tamaribuchi, and Williams.

Committee staff present: Coffey, Hasencamp, Hagekhalil, Munguia, Schlotterbeck, and Upadhyay

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 ITEM – ACTION

A. Approval of the Minutes of the Meeting of the Water Planning and Stewardship Committee held January 10, 2022

3. CONSENT CALENDAR ITEM – ACTION

7-8 Subject: Authorize: (1) agreement with the State Water Contractors, Inc. to pursue 2022 Sacramento Valley water transfer supplies; and (2) \$5 per acre-foot initial administrative deposit not-to-exceed \$500,000; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA.

Presented by: James Bodnar, Manager, Program Manager, Water Resource Management

Motion: Authorize the General Manager to enter into an agreement with the State Water Contractors, Inc. to pursue 2022 Sacramento Valley water transfer supplies, in a form approved by the General Counsel; and authorize making a \$5 per acre-foot initial administrative deposit and disbursements from that deposit consistent with the agreement not-to-exceed \$500,000.

Mr. Bodnar gave a presentation on a proposed agreement with the State Water Contractors, Inc. to pursue potential 2022 Sacramento Valley water transfer supplies.

7-9 Subject: Authorize General Manager to enter into a reverse-cyclic agreement with participating agencies to preserve the availability of State Water Project supplies to Metropolitan; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Presented by: Anna Garcia, Assistant Engineer II, Water Resource Management

Motion: Authorize the General Manager to enter into reverse-cyclic agreements with participating agencies to preserve the availability of SWP supplies to Metropolitan consistent with the terms in the board letter.

Ms. Garcia gave a presentation on a proposed Reverse-Cyclic Program to preserve water for use in the portions of the service area where Metropolitan relies more on the State Water Project.

The following Directors provided comments or asked questions:

1. Lefevre
2. Goldberg
3. Miller

Brad Coffey, Manager, Water Resource Management, responded to comments and questions.

After completion of presentations, Director Morris made a motion, seconded by Director Lefevre to approve the consent calendar consisting of items 2A, 7-8, and 7-9.

The vote was:

Ayes: Directors Abdo, Ackerman, Atwater, Cordero, De Jesus, Dick, Goldberg, Kurtz, Lefevre, Morris, Peterson, Pressman, and Record.

Noes: None

Abstentions: None

Absent: Directors Luna and Petersen.

The motion for items 2A, 7-8, and 7-9 passed by a vote of 13 ayes, 0 noes, 0 abstain, and 2 absent.

END OF CONSENT CALENDAR ITEMS

4. OTHER BOARD ITEMS – ACTION

None

5. BOARD INFORMATION ITEMS

None

6. COMMITTEE ITEMS

a. Subject: Oral update on Water Supply and Drought Management

Presented by: Tiffany Tran, Associate Resource Specialist, Resource Planning Team

Ms. Tran reported on hydrologic conditions that included updates on Upper Colorado River Basin snowpack, Lake Mead elevation, Northern Sierra snowpack. Ms. Tran's report also discussed the State's actions and the supply and demand balances.

The following Directors provided comments or asked questions:

1. Smith
2. Lefevre

7. MANAGEMENT REPORTS

a. Subject: Colorado River Management Report

Presented by: Bill Hasencamp

Mr. Hasencamp gave an update on Colorado River activity including hydrologic conditions, Colorado River Basin snowpack, and Lake Mead.

b. Subject: Water Resource Management Manager's Report

Presented by: Brad Coffey, Manager Water Resource Management

Mr. Coffey gave an update on conservation activity and expenditures.

The following Directors provided comments or asked questions:

1. Petersen

8. FOLLOW-UP ITEMS

9. FUTURE AGENDA ITEMS

Director Petersen requested a future agenda item on Conservation Program messaging and future budget.

General Manager Hagekhalil responded to Dir. Petersen's request.

10. ADJOURNMENT

Next meeting will be held on March 7, 2022.

Meeting adjourned at 1:38 p.m.

Richard Atwater
Chair



- Board of Directors
Water Planning and Stewardship Committee

3/8/2022 Board Meeting

9-3

Subject

Review of the remaining planning process and funding needs for Sites Reservoir Project

Executive Summary

This Board letter provides an update on the planning process for the proposed multi-benefit Sites Reservoir Project (Project), and the proposed three-year budget for completion of the planning, permitting, and environmental review effort.

In 2017, 2019, and 2020, the Metropolitan Board (Board) authorized participation in the planning and environmental review/permitting effort for the proposed Project, which would be located in the Sacramento Valley in northern California, and appropriated \$1,500,000, \$4,212,500, and \$5,000,000, respectively. In 2021, the Sites Project Authority proposed a workplan and budget for funding the remaining three-year planning effort through 2024.

The workplan, referred to as the Amendment 3 Workplan, will focus on finalizing the environmental planning documents, project construction/operation permits, and a coordinated operations plan with the federal and state water projects. The Amendment 3 Workplan would be implemented through an amendment to the 2019 Reservoir Project Agreement previously executed by Metropolitan and other project participants. The overall participant budget for this Amendment 3 Workplan is \$142,863,000, which includes funding from the state of California, the United States Bureau of Reclamation (USBR), and 23 public water agencies.

For Metropolitan to continue its participation and reserve 311,700 acre-feet (AF) of storage rights, which is equivalent to approximately 50,000 AF of annual water supply reservoir releases, the additional planning cost share would total \$20 million. This cost-share amount is payable over a three-year period, \$5 million in calendar year (CY) 2022, \$7 million in CY 2023, and \$8 million in CY 2024. The obligation of the proposed Project participants to make the second and third installments is conditioned upon the Sites Project Authority and the Sites Reservoir Committee members each annually reapproving the Amendment 3 Workplan by an affirmative vote of at least 75 percent.

Continued participation in planning, permitting, and environmental review of the proposed Project will preserve the opportunity to work with the participants to jointly improve water supplies for both northern and southern California, enhance critical habitat and flows for native fish species, reduce the impacts of the frequent wet and dry hydrologic swings, and develop key analyses of project feasibility. The proposed Project is identified as one of only two priority surface water reservoir projects in the Governor's Water Resilience Portfolio and is one of the first multi-benefit reservoirs in California that would have dedicated water storage and yield to be used for fishery enhancement, instream flow releases in drier periods, and improved habitat for native species.

Metropolitan's agreement to participate in funding for the Amendment 3 Workplan does not commit Metropolitan to the proposed Project implementation.

Details

History

The proposed Project first emerged as part of a second stage of the State Water Project (SWP) proposed in the 1980s, which included multiple water-related projects in northern California. In 1996, the proposed Project was

further analyzed by the California Department of Water Resources (DWR) and the USBR as part of the state and federal water cooperative effort called the CALFED Bay-Delta process. The CALFED environmental planning process resulted in a Programmatic Record of Decision that recommended implementation of the proposed Project as a component of the Preferred Program Alternative. In 2010, the Sites Project Authority was formed as a joint powers authority to continue moving forward with development of the proposed Project. There are 31 agencies participating in the planning phases of the proposed Project, including the state of California and the USBR. In 2020, the proposed Project was identified as a priority in the Governor's Water Resilience Portfolio.

Project Location

The proposed Project would be located in rural Glenn and Colusa counties, 60 miles north of Sacramento and about 10 miles west of the town of Maxwell in northern California (**Attachment 1**). The proposed Project location is separated from the greater Sacramento Valley by a foothill range to the east, making it suitable for off-stream storage of water from the Sacramento River.

Project Description

The proposed Project is currently being analyzed as a 1.3 million to 1.5 million AF off-stream surface water storage reservoir that would divert unregulated high-flow water from the Sacramento River. The proposed Project would require the construction of two dams up to 310 feet high and nine smaller saddle dams. Water to be stored in the proposed Project would be conveyed through existing intakes on the Sacramento River at Red Bluff Pumping Plant and Glenn-Colusa Diversion Dam. Water from these diversions would be conveyed through the existing Tehama-Colusa and the Glenn-Colusa canals to the proposed Project (**Attachment 2**). Combined, the diversions could deliver as much as 3,900 cubic feet per second of water from the Sacramento River to the proposed Project. Water diversions would only occur when conditions exist that are: (1) protective of aquatic resources; (2) after all other downstream senior water rights and conditions are met; and (3) only when excess flow conditions exist in the Delta. Water discharged from the proposed Project would flow through the existing Tehama-Colusa Canal, then into the Colusa Basin Drain before reaching the Sacramento River or the Upper Yolo Bypass. Project participants would divert their share of the water as it moves through the Tehama-Colusa Canal and river system, including Central Valley Project and SWP participating agencies south of the Delta. Dedicated environmental storage funded with State Proposition 1 monies would also utilize this system to convey supplies to enhance fishery flows, habitat, and water quality.

Key Benefits

For the Metropolitan service area, key benefits include improving drought-year supply reliability, securing additional sources for SWP dependent areas, providing low-salinity groundwater recharge, reducing risk of declining groundwater storage in the service area, and assisting in the Board's water quality blending salinity objective. Other key benefits of the proposed Project include providing:

- Off-Stream, Fish-Friendly Storage. The proposed Project would provide storage off-stream of the Sacramento River using existing modern-screened fish intakes designed to minimize fish losses and not block fish migration or spawning.
- California's Largest Dedicated Ecosystem Storage. Current methods of allocating water to support ecosystem health rely on minimum flow standards. The proposed Project will be one of the first reservoirs in California that will have dedicated ecosystem water and storage to enable more flexible and effective water management during dry times. This ecosystem water will be used to enhance instream fishery flows, water temperatures for spawning, pulse flows for out-migrating fish, riparian/floodplain habitat, water quality, and other environmental purposes.
- Climate Change Resiliency to Shrinking Snowpack. The proposed Project is envisioned as a climate change adaptation measure to manage shrinking snowpack, to capture and manage the increased flood flows for use in dry times, to enhance upstream Sacramento River water temperature management for migrating salmon, and to augment flows for fishery protection. In 2021, if the proposed Project had been in operation, it is estimated that there could be close to one million AF of additional water supplies, previously stored during wet periods, available for release over a two to three-year period to farms, cities, and the environment.

- Enhance Statewide Depleted Groundwater Basins. The state estimates that approximately 50 percent of the water that could be used to replenish California's groundwater will need to come out of the Sacramento River. The proposed Project is well suited to staging and conveying water to areas where groundwater depletion is producing undesirable effects.
- Local Flood Control and Recreational Opportunities. The proposed Project will enhance flood control protection for small communities prone to flooding near the reservoir project and expand recreational opportunities in northern California.
- Diversion Only During High-Flow Events. The proposed Project will enhance the ability to store unregulated flows during high precipitation events and release those water supplies for environmental and water supply purposes during dry water years.
- Significant Local and Statewide Support. The proposed Project has significant local, statewide, and bipartisan support from more than 175 organizations, agencies, businesses, and elected officials.

Tribal, Environmental, and Local Stakeholder Outreach

Sites Project Authority has been conducting an extensive outreach process to meet with local stakeholders, including environmental, salmon fishing, and tribal interests. During the past 18 months, over 40 meetings and workshops have been conducted to communicate and listen to additional input. This includes reaching out to over a dozen Native American tribes. The Sites Project team has also been holding monthly meetings with two local tribes with known historic connection to the proposed Project area. In addition, the USBR has consulted with federally recognized tribes. The proposed Project does not occur in an area that would affect tribal hunting or water rights, nor is the alternative on tribal trust lands.

These listening sessions and public input have been used by the Sites Project Authority to substantially modify the proposed Project facilities and operations to be more protective of the environment and reduce local impacts.

Sites Project Authority Members

The Sites Project Authority was formed under California law in 2010 as a joint powers authority and currently consists of 11 public agencies: Colusa County, Glenn County, Tehama-Colusa Canal Authority, Colusa County Water District, Glenn-Colusa Irrigation District, Reclamation District 108, Westside Water District, Sacramento County Water Agency/City of Sacramento, Placer County Water Agency/City of Roseville, Western Canal Water District, and Maxwell Irrigation District. DWR and USBR also participate on the Authority as non-voting members.

For decision-making purposes, approval of at least 75 percent of the total weighted vote of both the Sites Project Authority and the Sites Reservoir Committee members is required for any material change actions, including changes to budget, schedule, and workplan. For non-material changes, an affirmative vote of a least a majority of the total weighted vote is required.

Current Participating Project Partners

Currently, there are 31 agencies participating in the proposed Project, including the state of California and the US Bureau of Reclamation, with 23 agencies reserving water supply storage in the reservoir. In 2021, Rosedale-Rio Bravo Water Storage District and Irvine Ranch Water District joined in funding the planning effort. A full list of participating agencies is attached (**Attachment 5**). Metropolitan is currently a member of the Sites Reservoir Committee, which has certain decision-making authority in carrying out the budget and workplan.

Participating agencies are currently in the process of reviewing the Amendment 3 Workplan with their governing boards to consider approving participation and funding. The Sites Project Authority is also in discussions with other water agencies that have expressed an interest in participating in the proposed Project.

Project Environmental Documentation

An initial feasibility study and Administrative Draft Environmental Impact Report (EIR) were completed in 2013 by DWR. A Public Draft EIR/ Environmental Impact Statement (EIS) for the proposed Project was released by the Sites Project Authority (state lead agency) and the USBR (federal lead agency) in August 2017.

However, with the completion of a value-planning process in 2019, a Revised Draft EIR and Supplemental EIS were initiated due to modifications that included a smaller proposed Project footprint and operational changes to enhance environmental flows. The Revised Draft EIR and Supplemental EIS were released in November 2021, with a Final EIR/EIS scheduled for completion in the Fall 2022. The formal Notice of Determination and Record of Decision are scheduled for late 2022 or early 2023.

Responses to Common Questions About Potential Environmental Impacts

In November 2021, the Sites Project Authority released a fact sheet responding to common questions about the potential environmental impacts of the proposed Project (**Attachment 7**). In addition, the Revised Draft EIR/Supplemental Draft EIS includes more details related to the analysis of the proposed Project's potential impacts on a range of environmental resource areas.

In general, the proposed Project is an off-stream facility that does not dam a major river system or block fish migration or spawning. The proposed Project diverts water only during high-flow events. In addition, after discussions with state and federal fishery agencies, local stakeholders, environmental and Native American interests, the proposed Project operations were modified to be more protective of the environment. These modifications reduced the proposed Project diversions from the Sacramento River substantially, by almost 50 percent, as compared to the criteria proposed in 2017.

Storing water in Sites Reservoir during high-flow wet periods is part of the statewide strategy for adapting to changing climate conditions and to return much-needed flexibility to enhance environmental and water user needs.

Project Yield

The current operations model estimates the annual water yield of the proposed Project at approximately 207,000 to 260,000 AF per year. This model utilizes upstream Sacramento River flow and fishery regulatory criteria to protect instream river flows and water temperatures for salmon and other native species. Additional modeling analyses will continue to be conducted as further refinements are made to proposed Project operations.

Implementation of the proposed Delta Conveyance Project could allow for greater yields south of the Delta due to potential savings in Delta carriage water losses and south Delta regulatory restrictions. In 2021, if the proposed Project had been in operation, it is estimated that there would be close to one million AF of additional water supplies, previously stored during wet periods, and available for release over a two to three-year period to farms, cities, and the environment.

For Metropolitan, that additional storage in 2021 would amount to an approximate 230,000 AF share, which could have been used to secure water for our SWP exclusive areas, provide low-salinity supplies to reduce salt impacts and recharge our region's groundwater basins, and assist in meeting the Board's 500 mg/L water quality blending salinity objective.

Final Project formulation and annual operations will determine how the reservoir storage and yield will be divided between meeting water supply and environmental improvements funded by State Proposition 1 grant and federal Water Infrastructure Investment for the Nation (WIIN) Act appropriations.

Effect of Potential Climate Change Impacts

California's climate has always featured wide swings between drought and flood events. Storing water in natural snowpack reservoirs in the winter, which is slowly released through snowmelt into California's river system during the hotter spring/summer months, is critical to our economy and natural ecosystem. In a warming world, the snowpack will become even more volatile, melting faster with more precipitation falling as rain. River flows will increase during the winter, causing more flooding, and less during the spring/summer months.

If the current climate change projections are right, the increasing temperature will require additional reservoirs to capture the more volatile runoff. Sites Reservoir helps provide more flexibility to water supply and fishery agencies to mitigate these climate change impacts. In addition, as climate temperatures increase, the effectiveness of the reservoir increase, both from a water supply and environmental flow perspective.

Operations and Coordination with Other Regional Reservoirs

The proposed Project is designed to divert water from the Sacramento River through existing state-of-the-art fish screens, only when actual flows on the Sacramento River exceed that needed by more senior water right holders, the Delta is in excess conditions, and based on stringent criteria to protect aquatic resources. Releases from the reservoir will be based on environmental needs, water user participant requests, and regulatory permit conditions.

The proposed Project's unique location, south of Lake Shasta and Lake Oroville but north of the Delta, allows it to enhance the environmental, water quality, flood control, recreational, and water supply functions those existing reservoirs serve. Sites Reservoir allows the state and federal fishery agencies and water supply operators more flexibility to adapt to changing river, climate, Delta flow, and water quality conditions.

As an example, the proposed Project could be operated in coordination with Lake Shasta to preserve and enhance cold water for endangered salmon in the Sacramento River. The proposed Project could also contribute to the increased fresh-water flow into the Delta during drier periods to assist with salinity management of this critical estuary. The proposed Project would not compete for the water resources stored in these state and federal facilities but would increase the total amount of managed water in storage. With the uncertainty associated with California's varying snowmelt runoff in the next century, having Sites Reservoir will enhance the conservation of our critical statewide water supplies.

Proposed Participant Budget and Metropolitan Cost Share

The proposed participant budget for the Amendment 3 Workplan is \$142,863,000, which includes:

| Revenue Source | 2022 | 2023 | 2024 | TOTAL |
|------------------------------|----------------------|----------------------|----------------------|-----------------------|
| State (Proposition 1) | \$ 18,300,000 | -- | -- | \$ 18,300,000 |
| Federal (WIIN Act) | \$ 10,000,000 | \$ 20,000,000 | \$ 20,000,000 | \$ 50,000,000 |
| Water User Participants | \$ 16,762,000 | \$ 23,467,000 | \$ 26,819,000 | \$ 67,048,000 |
| Sites Joint Powers Authority | \$ 505,000 | \$ 505,000 | \$ 505,000 | \$ 1,515,000 |
| Carryover Funds | \$ 6,000,000 | -- | -- | \$ 6,000,000 |
| TOTAL | \$ 51,567,000 | \$ 43,972,000 | \$ 47,324,000 | \$ 142,863,000 |
| Metropolitan Share | \$ 5,000,000 | \$ 7,000,000 | \$ 8,000,000 | \$ 20,000,000 |

Costs associated with the proposed Project planning activities currently are being allocated to each water user participant based on its share of an assumed project yield of approximately 168,000 AF, which does not include the state or federal shares. The total assumed project yield for all participants is 234,000 AF. At present, Metropolitan holds 50,000 AF of participation rights in the proposed Project, which equates to 29.8 percent. Thus, Metropolitan's cost share for this next phase of planning activities would total \$20 million. This cost share would be paid over a three-year period, \$5 million in 2022, \$7 million in 2023, and \$8 million in 2024. Subsequently, costs associated with the proposed Project would be allocated based on each participant's share of the ultimate storage capacity approved for construction. As before, participation in this planning phase does not commit Metropolitan to participate in the construction phase of the proposed Project.

The obligation of the Project participants under the 2019 Reservoir Project Agreement and Third Amendment (**Attachments 3 and 4**) to make the second installment and third installment is conditioned upon the Sites Project Authority and the Sites Reservoir Committee members each annually reapproving the Amendment 3 Workplan by an affirmative vote of at least 75 percent.

The final amount of water supplies available to Metropolitan and other participants from the proposed Project, if it is implemented, and the unit costs will depend on state and federal participation levels, the total dollar amount that Metropolitan and others elect to contribute through future phases, and the final costs and yield for the proposed Project.

Estimated Overall Project Cost

In 2019, the Sites Project Authority and participating agencies conducted a value-planning effort to minimize potential Project costs and impacts. That effort resulted in an improved Project that reduced costs from \$5.2 billion to approximately \$3.9 billion (in 2021 dollars). Cost savings came primarily from the removal of the proposed 13.5-mile Delevan Diversion pipelines and intake facility on the Sacramento River. The annual costs for operations, maintenance, and power are estimated at \$83 million to \$100 million annually. The estimated average cost per AF of yield ranges from \$700 to \$900 per AF at the reservoir. For Metropolitan, it is estimated that an additional \$300 to 400 per AF would be added to the yield cost to take care of conveyance losses in the Delta, SWP pumping costs, and Metropolitan water treatment costs. Efforts are underway by the Sites Project Authority to continue refining the proposed Project cost estimates as potential additional state and federal funding becomes available.

State and Federal Investment Funding

In 2017, the Sites Project Authority applied for State Proposition 1 grant funding to the California Water Commission. Proposition 1 included \$2.7 billion for new storage projects. In 2018, the California Water Commission approved \$816 million in state investment to advance the proposed Project, the largest grant award given to any project requesting Proposition 1 support. The State's Proposition 1 investment was increased in 2020 to \$836 million. To date, the state has released approximately \$40 million to the proposed Project for completion of the environmental documentation and permit process. This state investment will pay for a portion of the reservoir cost, and in return, the state will receive flood control and recreation benefits as well as a portion of the water and storage produced by the proposed Project to be dedicated to environmental benefits in the watershed and Delta. On the federal side, the proposed Project has been awarded \$104 million in WIIN Act grants by the US Environmental Protection Agency. In addition, the proposed Project was awarded a \$449 million US Department of Agriculture loan that can be used to build the intertie between the Glen-Colusa Irrigation District and Tehama-Colusa Irrigation District canals to assist in water operations for the Project and its partners. The proposed Project has submitted a letter of interest for a Water Infrastructure Finance and Innovation Act loan of up to \$600 million and is awaiting the results of EPA's review process.

Schedule

The proposed key milestones to be completed over the next three years include:

- Mar 2022 – Section 7 Biological Assessment for the US Fish & Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS)
- Oct 2022 – Final Revised EIR and Supplemental EIS issued
- Mar 2022 – CDFW Incidental Take Permit issued for Operations and Construction
- Oct 2022 – Section 106 – National Historic Preservation Act Final Programmatic Agreement
- Dec 2022 – Federal ESA – Receive Biological Opinions from USFWS & NMFS
- Dec 2022 – Execute State (DWR) and Federal (USBR) Coordinated Operations Agreements
- Apr 2023 – Section 408 US Army Corps of Engineers Levee & Flood Permit and Central Valley Flood Protection Board Encroachment Permit issues
- Jun 2023 – Section 401 and 404 US EPA Clean Water Act Permit issued
- Jun 2023 – Section 1602 CDFW Streambed Alteration Agreement issued
- Oct 2023 – State Water Resources Control Board Water Right Permit issued
- Dec 2023 – 30 percent engineering design completed
- Nov 2023 – Proposition 1 Water Storage Investment Program final award from California Water Commission

Final engineering design for the project is scheduled to be completed by 2026, with reservoir construction completed by 2030 (**Attachment 6**).

Previous Metropolitan Board Authorizations

In April 2017, the Metropolitan Board authorized appropriation of \$1.5 million and participation in the Phase 1 Sites Reservoir Project Agreement. The \$35 million budget for the 2017/18 Workplan includes funding from the state of California, USBR, and public water agencies.

On February 12, 2019, the Metropolitan Board authorized appropriation of \$4,212,500, and participation in the 2019 Reservoir Project Agreement (**Attachment 3**) through December 31, 2019. The budget for the 2019 agreement was approximately \$15 million.

On October 12, 2020, the Metropolitan Board authorized appropriation of \$5 million and participation in the Phase 2 Workplan and the Second Amendment to the 2019 Reservoir Project Agreement. The budget for the Phase 2 Workplan was \$31.75 million, and included funding from the state of California, USBR, and public water agencies.

Policy

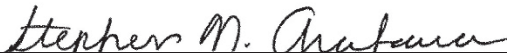
By Minute Item 45753, dated May 11, 2004, the Board adopted refined Bay-Delta finance and cost allocation policy principles for communication with the California Bay-Delta Authority and interested parties, as set forth in the letter signed by the Chief Executive Officer on April 20, 2004.

By Minute Item 46637, dated April 11, 2006, the Board adopted the policy principles regarding long-term actions for the Sacramento-San Joaquin River Delta as described in the revised letter signed by the General Manager on April 4, 2006.

By Minute Item 47135, dated June 12, 2007, the Board supported, in principle, the proposed Delta Action Plan, as set forth in the letter signed by the General Manager on May 25, 2007.

Fiscal Impact

Funding for Metropolitan's cost-share amount of the Amendment 3 Workplan is payable over a three-year period, \$5 million in CY 2022, \$7 million in CY 2023, and \$8 million in CY 2024. Payments due in CY 2023 and CY 2024 (\$7 million and \$8 million, respectively) were included in Metropolitan's proposed fiscal year 2022/23 and 2023/24 budget. Funding for CY 2022 (\$5 million) is proposed to be funded out of Metropolitan's existing fiscal year 2021/22 budget. Staff is scheduled to bring this item for Board consideration in April 2022.


 Stephen N. Arakawa
 Manager, Bay-Delta Initiatives

2/25/2022
 Date


 Adel Hagekhalil
 General Manager

3/1/2022
 Date

Attachment 1 – Sites Reservoir Location Map

Attachment 2 – Sites Reservoir Facilities Map

Attachment 3 – 2019 Reservoir Project Agreement

Attachment 4 – Third Amendment to the 2019 Reservoir Project Agreement

Attachment 5 – Sites Reservoir Project Participants

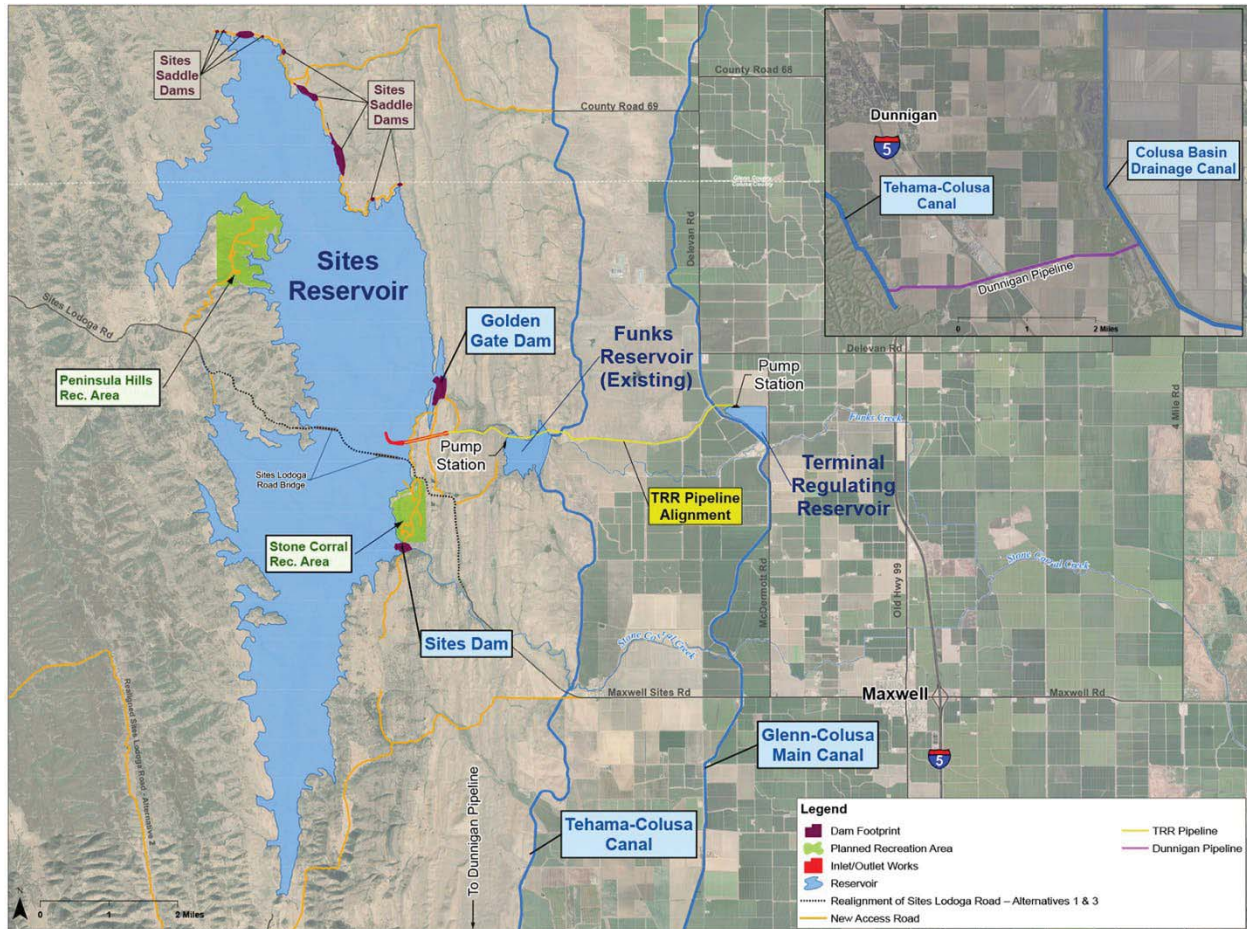
Attachment 6 – Sites Reservoir Schedule

Attachment 7 – Sites Reservoir RDEIR-SDEIR Common Questions & Responses

Sites Reservoir – Location Map



Sites Reservoir Project – Facilities Map



SITES PROJECT AUTHORITY

2019 RESERVOIR PROJECT AGREEMENT

DATED AS OF APRIL 1, 2019

BY AND AMONG

SITES PROJECT AUTHORITY

AND

THE PROJECT AGREEMENT MEMBERS LISTED HEREIN

TABLE OF CONTENTS

| | | |
|------------|--|-----|
| Section 1 | Definitions..... | 2 |
| Section 2 | Purpose..... | 3 |
| Section 3 | Reservoir Project Committee..... | 3 |
| Section 4 | Funding | 5 |
| Section 5 | Participation Percentages | 6 |
| Section 6 | Future Development of the Sites Reservoir Project..... | 6 |
| Section 7 | Indemnity and Contribution..... | 7 |
| Section 8 | Term..... | 7 |
| Section 9 | Withdrawal From Further Participation..... | 7 |
| Section 10 | Admission of New Project Agreement Members | 8 |
| Section 11 | Amendments | 8 |
| Section 12 | Assignment; Binding on Successors | 8 |
| Section 13 | Counterparts..... | 9 |
| Section 14 | Merger of Prior Agreements | 9 |
| Section 15 | Severability | 9 |
| Section 16 | Choice of Law..... | 9 |
| Section 17 | Notices | 9 |
| EXHIBIT A | PROJECT AGREEMENT MEMBERS | A-1 |
| EXHIBIT B | 2019 WORK PLAN..... | B-1 |
| EXHIBIT C | NOTIFICATIONS | C-1 |

THIS 2019 RESERVOIR PROJECT AGREEMENT is made effective as of April 1, 2019, by and among (a) the Sites Project Authority (the “Authority”) and (b) certain Members and/or Non-Member Participating Parties, listed on the attached **Exhibit A** and is made with reference to the following facts:

RECITALS

A. Various public agencies in the Sacramento River Watershed created the Authority in 2010. Various public agencies in the Sacramento River Watershed, including certain Project Agreement Members, previously entered into the Fourth Amended and Restated Sites Project Authority Joint Exercise of Powers Agreement, dated November 21, 2016, pursuant to which they are developing the Sites Reservoir Project, which is contained in the CalFed Bay-Delta program Programmatic Record of Decision, August 28, 2000. The Joint Powers Agreement provides a mechanism for “Project Agreements” (as defined in the Joint Powers Agreement) to undertake specific work activities for the development of the Sites Reservoir Project. On September 17, 2018, the Authority’s Board of Directors also adopted Bylaws for Phase 2 of the Sites Reservoir Project, which also address Project Agreements and their management through Reservoir Project Committees.

B. On April 11, 2016, certain Authority Members of the Authority entered into the PHASE 1 RESERVOIR PROJECT AGREEMENT which was amended and restated as of November 21, 2016.

C. The Authority and certain Project Agreement Members have undertaken a process to negotiate a 2019 Reservoir Project Agreement to undertake specific work activities.

D. The Project Agreement Members wish to continue development of the Project pursuant to a Work Plan approved by the Authority on November 19, 2018 and the Reservoir Project Committee on November 16, 2018 and a summary of which is described in **Exhibit B** attached hereto. The Project will be undertaken in the name of the Authority and in accordance with the Authority’s stated Mission as set forth in the fourth Recital of the Joint Powers Agreement. The Project Agreement Members are entering into this Project Agreement to satisfy the requirements of Article VI of the Joint Powers Agreement.

E. All members of the Authority have also been given the opportunity to enter into this Project Agreement. The form of this Project Agreement was determined to be consistent with the Joint Powers Agreement and the Bylaws and approved by the Authority’s Board of Directors on September 17, 2018.

F. The Authority and the Project Agreement Members acknowledge that one of the Authority’s goals, in addition to providing environmental benefits, is to develop and make both a water supply and storage capacity available to water purveyors and landowners within the Sacramento River watershed, and in other areas of California, who are willing to purchase either or both a water supply and storage capacity from the Sites Reservoir Project, and that the Project Agreement Members should have a preference to the water supply or storage capacity.

G. The Authority and the Project Agreement Members acknowledge that the approval and execution of this Project Agreement does not commit the Authority, the Project Agreement Members or any other party to any definite course of action regarding the Sites Reservoir Project. As

set forth in Section 6(a) of this Project Agreement, there are no assurances that the Sites Reservoir Project will be constructed. One of the prerequisites that would need to be fulfilled before the Sites Reservoir Project could be constructed is the completion of environmental review under the California Environmental Quality Act (“CEQA”). As part of this environmental review, the Authority, as the lead agency that is conducting the review, reserves all of its rights, responsibilities, obligations, powers, and discretion under the provisions of CEQA to: (i) evaluate the environmental impacts of the Sites Reservoir Project; (ii) deny and disapprove the Sites Reservoir Project if the environmental review reveals significant environmental impacts that cannot feasibly be mitigated; (iii) adopt feasible mitigation measures and/or an alternative to the Sites Reservoir Project to avoid or lessen significant environmental impacts; or (iv) determine that any significant environmental impacts that cannot feasibly be mitigated are outweighed by the economic, social or other benefits of the Sites Reservoir Project.

AGREEMENT

THEREFORE, in consideration of the facts recited above and of the covenants, terms and conditions set forth herein, the parties agree as follows:

Section 1 Definitions

“Authority” means the Sites Project Authority, a joint exercise of powers agency created pursuant to the Joint Powers Agreement.

“Authority Members” means the members of the Authority executing the Joint Powers Agreement, as such members may change from time-to-time in accordance with Section 3.3, Section 7.12 and Section 7.2 of the Joint Power Agreement.

“Board” means the Board of Directors of the Authority.

“Bylaws” means the Bylaws for Phase 2 of the Sites Reservoir Project adopted by the Authority on September 17, 2018, as such Bylaws may be amended or supplemented from time-to-time in accordance therewith.

“Committee” means the Reservoir Project Committee described in Section 3 of this Project Agreement.

“Fiscal Year” means the fiscal year of the Authority, which currently begins on January 1 of each calendar year and ends on December 31 of each calendar year, or such other twelve month period which may be designated by the Authority as its Fiscal Year.

“Joint Power Agreement” means the Fourth Amended and Restated Sites Project Authority Joint Exercise of Powers Agreement, dated November 21, 2016, as such agreement may be amended or supplemented from time-to-time in accordance therewith.

“Law” means Articles 1 through 4 (commencing with Section 6500), Chapter 5, Division 7, Title 1 of the California Government Code, as amended or supplemented from time-to-time.

“Material Change Item” shall have the meaning ascribed thereto in the Bylaws.

“Participation Percentage” means the Participation Percentages as set forth in **Exhibit A** hereto, as such Participation Percentages may be modified in accordance herewith.

“2019 Budget” means the 2019 Budget approved by the Committee on November 16, 2018 and the Authority on November 19, 2018, as such 2019 Budget may be amended or supplemented from time-to-time in accordance with the Joint Powers Agreement, this Project Agreement and the Bylaws.

“Project” or “Sites Reservoir Project” means the Sites Reservoir Project as described in **Exhibit B** hereto, as modified from time-to-time in accordance therewith.

“Project Agreement” means this Project Agreement, dated as of April 1, 2019, by and among the Authority and the Project Agreement Members listed on **Exhibit A** from time-to-time, as such Project Agreement may be amended or supplemented from time-to-time in accordance herewith.

“Project Agreement Members” means (a) the Authority Members listed in the attached **Exhibit A**, (b) the Non-Member Participating Parties listed in the attached **Exhibit A** and (c) additional Authority Members or Non-Member Participating Parties who execute this Project Agreement from time-to-time pursuant to Section 10 hereof.

“Work Plan” means the activities described in **Exhibit B** hereto as such description may be amended or supplemented from time-to-time.

Section 2 **Purpose**

The purpose of this Project Agreement is to permit the Authority and the Project Agreement Members to continue development of the Project in the name of the Authority consistent with the Joint Powers Agreement. The activities undertaken to carry out the purposes of this Project Agreement shall be those, and only those, authorized by the Authority and the Committee in accordance with this Project Agreement, the Joint Powers Agreement and the Bylaws. Without limiting in any way the scope of the activities that may be undertaken under this Project Agreement, such activities shall include funding the Authority’s costs undertaken to carry out the directions of the Committee. Notwithstanding any other provision of this Project Agreement, no activity undertaken pursuant to this Project Agreement shall conflict with the terms of the Joint Powers Agreement or the Bylaws, nor shall this Project Agreement be construed in any way as creating an entity or combination of entities that is separate and apart from the Authority.

Section 3 **Reservoir Project Committee**

(a) **Committee Membership.** The business of the Project Agreement Members under this Project Agreement shall be conducted by a Committee consisting of one member appointed by each Project Agreement Member. Appointment of each member of the Committee shall be by action of the governing body of the Project Agreement Member appointing such member, and shall be effective upon the appointment date as communicated in writing to the Authority. Project Agreement Members may also appoint one or more alternate Committee members, which alternate(s) shall assume the duties of the Committee member in case of absence or unavailability of such member. Project Agreement Members may also appoint an alternate Committee member from a different Project Agreement Member for convenience in attending Committee meetings, who may

cast votes for such Project Committee Members, provided that no person shall represent more than five other Project Committee Members and more than 20% of the weighted vote as provided in Subsection 3(g) at any given meeting; provided however, that if the appointing Project Committee Member is an officer of the Committee, the appointed alternate Committee member shall not assume the capacity of such officer position. In order to serve as an alternate Committee member, a written evidence of such designation shall be filed with the Committee Secretary. Each member and alternate member shall serve on the Committee from the date of appointment by the governing body of the Project Agreement Member he/she represents and at the pleasure of such governing body.

(b) Officers. The Committee shall select from among its members a Chairperson, who shall annually act as presiding officer, and a Vice Chairperson, to serve in the absence of the Chairperson. There also shall be selected a Secretary, who may, but need not be, a member of the Committee and a Treasurer. All elected officers shall be elected and remain in office at the pleasure of the Committee, upon the affirmative vote of at least a majority of the total weighted vote as provided at Subsection 3(g);

(c) Treasurer. The Authority Treasurer shall serve as the Committee's Treasurer and shall act as the Committee's liaison to the Authority's General Manager and Authority Board on financial matters affecting the Committee. The Treasurer shall prepare and provide regular financial reports to the Committee as determined by the Committee. The Treasurer shall not be required to be a member of the Board of Directors of the Authority.

(d) General Manager. The Authority's General Manager shall (1) serve as the Project Director responsible for advancing the Sites Reservoir Project, (2) be a non-voting member of the Committee, (3) ensure coordination of activities between the Authority and Committee, (4) convene, on an as needed basis, legal representatives from the Project Agreement Members and Authority Members to advise the General Manager on legal matters that will be reported to the Committee and Authority on a timely basis, and (5) coordinate the activities between the Committee and both the United States Bureau of Reclamation and Department of Water Resources.

(e) Meetings. The Chairperson of the Committee or a majority of a quorum of the members of the Committee are authorized to call meetings of the Committee as necessary and appropriate to conduct its business under this Project Agreement. All such meetings shall be open to the public and subject to the requirements set forth in the Ralph M. Brown Act (Government Code Sections 54950 et seq.).

(f) Quorum. A majority of the Committee members based on the weighted vote provided in Subsection 3(g) shall constitute a quorum of the Committee.

(g) Voting. Notwithstanding any provisions of the Bylaws that might be construed otherwise, for purposes of this Project Agreement, the voting rights of each Project Agreement Member shall be determined as follows:

(i) an equal number of voting shares for each Project Agreement Member as defined in **Exhibit A**, that being for each Project Agreement Member, 1 divided by the total number of Project Agreement Members, multiplied by 50; plus

- (ii) an additional number of voting shares for each Project Agreement Member equal to its respective Participation Percentage described in **Exhibit A**, multiplied by 50, using the version of **Exhibit A** in effect at the time the Committee votes.

The resulting weighted total of all voting shares shall equal 100. An Example of this weighted voting incorporating the formulas for determining participating percentages is attached at **Exhibit A**.

(h) Decision-making Thresholds. In accordance with Section 5.8 of the Bylaws, for purposes of this Project Agreement, approval by the Committee for material and non-material changes shall be as follows: for actions other than Material Change Items, action of the Committee shall be taken upon the affirmative vote of at least a majority of the total weighted vote as provided in Subsection 3(g); for Material Change Items, action shall be taken upon the affirmative vote of at least 75% of the total weighted vote as provided at Subsection 3(g).

(i) Delegation of Authority/Powers and Limitations Thereon. Subject to the direction of the governing bodies of the Project Agreement Members, the Committee shall undertake all actions necessary for carrying out this Project Agreement, including but not limited to setting policy for the Project Agreement Members acting under this Project Agreement with respect to the Project; recommending actions to be undertaken in the name of the Authority under this Project Agreement; determining the basis for calculation of the Participation Percentages for each fiscal year, and the timing required for payments of obligations hereunder; authorizing expenditure of funds collected under this Project Agreement within the parameters of the Work Plan and budget; and such other actions as shall be reasonably necessary or convenient to carry out the purposes of this Project Agreement. This Section 3(i) is subject to any and all limitations set forth in the Joint Powers Agreement and Bylaws, including but not limited to, any action that constitutes a material change as defined at Section 12.3 of the Bylaws requiring the approval of both the Committee and the Authority Board, and actions specified in Section 10 of the Bylaws which remain exclusively with the Authority Board.

Section 4 Funding

(a) Budget. The Committee shall, in cooperation with the Authority's Board, provide and approve both a Fiscal Year operating budget and reestablish a Phase 2 budget target, annually or more frequently as needed. On November 19, 2018, the Board approved the Fiscal Year 2019 operating budget. The Work Plan, including annual budget, dated November 19, 2018, is attached at Exhibit B, along with the budget approval process and requirements. The Project Agreement Members shall contribute their respective pro-rata share of the budgeted sums in accordance with Section 5 of this Project Agreement; provided, however, that in no event shall the amount paid by a Project Agreement Member exceed \$60 per acre-foot without the approval of such Project Agreement Member.

(b) Fiscal Responsibilities. Exhibit B specifies the Authority's requirements regarding the fiscal responsibilities of the Committee.

(c) Allocation of Project Agreement Expenses. The Project Agreement Members agree that all expenses incurred by them and/or by the Authority under this Project Agreement are the costs of the Project Agreement Members and not of the Authority or the Project Agreement Members of the Authority that do not execute this Project Agreement, and shall be paid by the Project Agreement Members; provided, however, that this Section shall not preclude the Project

Agreement Members from accepting voluntary contributions and/or Authority Board's pre-approval of in-kind services from other Authority Members, or Project Agreement Members, and applying such contributions to the purposes hereof. The Project Agreement Members further agree to pay that share of any Authority costs reasonably determined by the Authority's Board to have been incurred by the Authority to administer this Project Agreement. Before the Authority's costs of administering this Project Agreement become payable, the Authority will provide its calculation of such costs to the Committee, which will have the right to audit those costs and provide comments on the calculation to the Authority Board. The Authority Board shall consider the Committee's comments, if any, including the results of any such audit, in a public meeting before the Authority Board approves a final invoice for such costs.

Section 5 Participation Percentages

Subject to Section 4(a), each Project Agreement Member shall pay that share of costs for activities undertaken pursuant to this Project Agreement, whether undertaken in the name of the Authority or otherwise, equal to such Project Agreement Member Participation Percentage as established in this Section 5. The initial Participation Percentages of the Project Agreement Member are set forth in the attached **Exhibit A**. These initial Participation Percentages are for the purpose of establishing the Reservoir Project Agreement Members respective responsibilities for costs under this Project Agreement and other amounts contained in the approved Fiscal Year budget and Phase 2 budget target, which is defined as the "Reservoir Total" on **Exhibit B**. The Participation Percentages of each Project Agreement Member will be modified by the Committee from time to time as the result of the admission of a new Project Agreement Member to this Project Agreement or the withdrawal of a Project Agreement Member, and **Exhibit A** shall be amended to reflect all such changes. Such amended **Exhibit A** shall, upon approval by the Committee, be attached hereto and upon attachment, shall supersede all prior versions of **Exhibit A** without the requirement of further amendment of this Project Agreement.

Section 6 Future Development of the Sites Reservoir Project

(a) The Project Agreement Members acknowledge that the Sites Reservoir Project is still in the conceptual stage and there are no assurances that the Sites Reservoir Project will be constructed or that any water supplies will be developed as a result of this Project Agreement. **Exhibit B** includes a partial list of some of the risks and uncertainties that underlie the lack of assurances. The Project Agreement Members therefore recognize that they are not acquiring any interest in the Sites Reservoir Project other than their interest in the specific permitting, design, engineering and other materials that will be in the Work Plan Project as described in **Exhibit B**, and that the Project Agreement Members are not acquiring under this Project Agreement any interest in any future water supply or access to any other services from the Sites Reservoir Project except as provided hereunder.

(b) Without limiting the foregoing, any Project Agreement Member that elects to continue participating in the development, financing, and construction of the Sites Reservoir Project to the time when the Authority offers contracts for a water supply or other services, will be afforded a first right, equal to that Project Agreement Member's Participation Percentage, to contract for a share of any water supply that is developed, and for storage capacity that may be available from, the Sites Reservoir Project. In any successor phase agreements, Project Agreement Members who are parties to this Project Agreement that submitted a proposal to participate before February 15, 2019, shall be granted rights to contract for a share of any water supply that is developed, and for storage capacity

that may be available from the Sites Reservoir Project prior to the rights of those becoming parties to this Project Agreement after that date. The Authority and the Project Agreement Members will cooperate on the drafting of provisions in the water supply contract that will allow a Project Agreement Member or other eligible entity that commits to purchase a Sites Reservoir Project water supply to transfer water that the entity may not need from time to time on terms and conditions acceptable to the such Project Agreement Member.

Section 7 Indemnity and Contribution

(a) Each Project Agreement Member, including Authority Members acting in their capacity as Project Agreement Members, shall indemnify, defend and hold the Authority, Authority Members and other Project Agreement Members and their directors, trustees, officers, employees, and agents harmless from and against any liability, cause of action or damage (including, without limitation, reasonable attorneys' fees) arising out of the performance of this Project Agreement multiplied by each Project Agreement Member's Participation Percentage. Notwithstanding the foregoing, to the extent any such liability is caused by the negligent or intentional act or omission of an Authority Member or a Project Agreement Member, such Authority Member or Project Agreement Member shall bear such liability.

(b) Each Project Agreement Member, including Authority Members acting in their capacity as Project Agreement Members, shall indemnify, defend and hold the Authority and the members of the Authority that do not execute this Project Agreement and their directors, trustees, officers, employees and agents harmless from and against any liabilities, costs or expenses of any kind (including, without limitation, reasonable attorney's fees) arising as a result of the activities described in or undertaken pursuant to this Project Agreement multiplied by each Project Agreement Member's Participation Percentage. All assets, rights, benefits, debts, liabilities and obligations attributable to activities undertaken under this Project Agreement shall be assets, rights, benefits, debts, liabilities and obligations solely of the Project Agreement Members in accordance with the terms hereof, and shall not be the assets, rights, benefits, debts, liabilities and obligations of the Authority or of those members of the Authority that have not executed this Project Agreement. Members of the Authority not electing to participate in the Project Agreement shall have no rights, benefits, debts, liabilities or obligations attributable to the Project Agreement.

Section 8 Term

(a) No provision of this Project Agreement shall take effect until this Project Agreement has been duly executed and delivered by the Authority and by one Project Agreement Member.

(b) The term of this Project Agreement shall continue until December 31, 2019, unless extended in writing by the parties hereto.

Section 9 Withdrawal From Further Participation

To withdraw from this Project Agreement, a Project Agreement Member shall give the Authority and other Project Agreement Members written notice of such withdrawal not less than 30 days prior to the withdrawal date. As of the withdrawal date, all rights of participation in this Project Agreement shall cease for the withdrawing Project Agreement Member. The financial obligation as prescribed in the Bylaws' Section 5.11 in effect on the withdrawal date, shall consist of the

withdrawing Member's share of the following costs: (a) payment of its share of all non-contract costs incurred prior to the date of the written notice of withdrawal, and (b) those contract costs associated with funds approved in either contract amendments or task orders that were approved prior to the date of the written notice of withdrawal for which the contractor's work extends beyond the withdrawal date. However, a withdrawing member shall have no liability for any change order or extensions of any contractor's work that the remaining Project Agreement Members agree to after the withdrawing Member provides written notice of withdrawal. Withdrawal from this Project Agreement shall not be considered a Material Change Item and shall not be subject to the Dispute Resolution process provided for in Section 13.3 of the Bylaws.

Section 10 Admission of New Project Agreement Members

Additional Members of the Authority and Non-Member Participating Parties may become Project Agreement Members upon (a) confirmation of compliance with the membership requirements established in the Bylaws, (b) the affirmative vote of at least 75% of the total weighted vote as provided at Subsection 3(g) of the then-current Project Agreement Members, (c) the affirmative vote of at least 75% of the total number of Directors of the Authority, and (d) upon such conditions as are fixed by such Project Agreement Members.

Section 11 Amendments

This Project Agreement may be amended only by a writing executed by the Authority and at least 75% of the total weighted vote as provided in Subsection 3(g) of the then-current Committee members.

Section 12 Assignment; Binding on Successors

Except as otherwise provided in this Project Agreement, the rights and duties of the Project Agreement Members may not be assigned or delegated without the written consent of the other Project Agreement Members and the Authority, which consent shall not be unreasonably withheld. Any attempt to assign or delegate such rights or duties in contravention of this Project Agreement shall be null and void. Project Agreement Members may assign and delegate their rights and duties under this Project Agreement to other Project Agreement Members, and they may assign, sell, trade, or exchange all or a fraction of the potential benefits (e.g. acre-feet of water supply, megawatt-hours of power) they expect to receive through their participation in this Project Agreement. Any approved assignment or delegation shall be consistent with the terms of any contracts, resolutions, indemnities and other obligations of the Authority then in effect. This Project Agreement shall inure to the benefit of, and be binding upon, the successors and assigns of the Authority and the Project Agreement Members.

Section 13 Counterparts

This Project Agreement may be executed by the Authority and each Project Agreement Member in separate counterparts, each of which when so executed and delivered shall be an original, but all such counterparts shall together constitute but one and the same instrument. Facsimile and electronic signatures shall be binding for all purposes.

Section 14 Merger of Prior Agreements

This Project Agreement and the exhibits hereto constitute the entire agreement between the parties and supersede all prior agreements and understanding between the parties relating to the subject matter hereof. This Project Agreement is intended to implement, and should be interpreted consistent with, the Joint Powers Agreement.

Section 15 Severability

If one or more clauses, sentences, paragraphs or provisions of this Project Agreement shall be held to be unlawful, invalid or unenforceable, the remainder of the Project Agreement shall not be affected thereby.

Section 16 Choice of Law

This Project Agreement shall be governed by the laws of the State of California.

Section 17 Notices

Notices authorized or required to be given under this Project Agreement shall be in writing and shall be deemed to have been given when mailed, postage prepaid, or delivered during working hours, to the addresses set forth **Exhibit E** (“**Notifications**”), or to such other address as a Project Agreement Member may provide to the Authority and other Project Agreement Members from time to time.

IN WITNESS WHEREOF, the Authority and Project Agreement Members hereto, pursuant to resolutions duly and regularly adopted by their respective governing bodies, have caused their names to be affixed by their proper and respective officers on the date shown below:

Dated: _____

SITES PROJECT AUTHORITY

By: _____

Name:

Title:

[PROJECT AGREEMENT MEMBER]

Dated: _____

(Authority & Project Agreement Member)

By: _____

Name:

Title:

EXHIBIT A

PROJECT AGREEMENT MEMBERS

| Participant | Participation (Annualized Acre-Foot) | |
|--|--|----------------|
| | Preliminary | Percent |
| American Canyon, City of | ~4,000 | 1.7% |
| Antelope Valley-East Kern Water Agency | ~500 | 0.2% |
| Carter Mutual Water Company ‡ | ~500 | 0.2% |
| Coachella Valley Water District | ~10,000 | 4.3% |
| Colusa County | ~10,000 | 4.3% |
| Colusa County Water District | ~13,100 | 5.6% |
| Desert Water Agency | ~6,500 | 2.8% |
| Glenn-Colusa Irrigation District | ~5,000 | 2.1% |
| Metropolitan Water District of S. CA | ~50,000 | 21.4% |
| Pacific Resources Mutual Water Company ‡ | ~20,000 | 8.5% |
| Reclamation District 108 | ~5,000 | 2.1% |
| San Bernardino Valley Municipal Water District | ~21,400 | 9.1% |
| San Geronio Pass Water Agency | ~14,000 | 6.0% |
| Santa Clara Valley Water District | 24,000 | 10.3% |
| Santa Clarita Valley Water Agency | ~5,000 | 2.1% |
| TC-4: Cortina Water District | ~300 | 0.1% |
| TC-4: Davis Water District | ~2,000 | 0.9% |
| TC-4: Dunnigan Water District | ~2,774 | 1.2% |
| TC-4: LaGrande Water District | ~1,000 | 0.4% |
| Westside Water District | ~15,000 | 6.4% |
| Wheeler Ridge-Maricopa Water Storage District | 14,000 | 6.0% |
| Zone 7 Water Agency | ~10,000 | 4.3% |
| Potential new participants | TBD | % |
| Total: | 234,074 | 100.0% |

Participation Percentages exclude State of California and United States Bureau of Reclamation share of the Project.

NOTE: Any annualized amounts listed for Phase 2 are preliminary and are based on best estimates received after participants' respective review of the draft financing plan and draft Phase 2 Reservoir Project Agreement. These amounts do not represent the results of any action having been taken by the participants' respective governing body to formally execute the Phase 2 Reservoir Project Agreements. Final participation amounts will be established after interim financing terms and conditions have been provided and incorporated into the final Phase 2 Reservoir Project Agreement.

‡ Denotes a non-public agency. Refer to California Corporations Code Section 14300 et. seq. with additional requirements provided in both the Public Utilities Code and Water Code.

EXHIBIT B
2019 WORK PLAN

2018 November 16 Reservoir Committee Meeting - Attachment A - Agenda Item 3-3

| | |
|----------------|------------------|
| Category | (Multiple Items) |
| Action | (Multiple Items) |
| Funding Source | (Multiple Items) |
| Work Manager | (All) |
| Priority | (All) |

Report: Reservoir Committee 2019 Work Plan & Budget
Report Date: 2018 Nov 12

| Expense (-) or Revenue (+) | Cost Center | Task | Resource | Reprioritize | Proposed Budget |
|----------------------------|----------------------------|-----------------|----------|-----------------------------|---------------------------------------|
| | | | | Currently Approved Budget | Authority= 12 mon Res. Comm= 9 mon |
| | | | | Sum of Total End of Phase 1 | Sum of Total 2019 |
| Expense | C.R. Policy | | | \$ - | \$ (2,067,094) |
| | Engagement | | | \$ - | \$ (135,000) |
| | Operations | Contingency | | \$ - | \$ - |
| | | Env Interests | | \$ (44,936) | \$ (120,552) |
| | | Exchange | | \$ - | \$ (75,550) |
| | | Modeling | | \$ (325,000) | \$ (998,480) |
| | | Op POA | | \$ (59,488) | \$ (61,040) |
| | | Staff+ | | \$ (69,705) | \$ (417,555) |
| | | Storage | | \$ (17,824) | \$ (136,300) |
| | | Water Rights | | \$ (29,712) | \$ (204,264) |
| | | Water Rights+ | | \$ (29,712) | \$ (119,892) |
| | Operations Total | | | \$ (576,377) | \$ (2,133,633) |
| | Power | Grid Interconn+ | | \$ - | \$ (1,097,880) |
| | | H2oPower+ | | \$ - | \$ (668,453) |
| | | Staff Aug+ | | \$ - | \$ (632,880) |
| | | Staff+ | | \$ - | \$ - |
| | Power Total | | | \$ - | \$ (2,399,213) |
| | Res. Comm. O | Advisory | | \$ (43,200) | \$ (82,565) |
| | | Office | | \$ - | \$ (133,100) |
| | | Participation | | \$ (109,800) | \$ (210,600) |
| | | PROCURE | | \$ - | \$ (80,240) |
| | | PROCURE-2 | | \$ - | \$ - |
| | | Rebalance | | \$ (8,400) | \$ (134,070) |
| | | Staff | | \$ (6,000) | \$ (1,739,573) |
| | | Staff Aug | | \$ - | \$ (4,237,495) |
| | | Staff Aug+ | | \$ - | \$ (225,990) |
| | | Staff+ | | \$ - | \$ - |
| | | Support | | \$ (26,925) | \$ (107,678) |
| | | Technology | | \$ (3,330) | \$ (13,280) |
| | | USDA-1 | | \$ (10,000) | \$ (10,800) |
| | | WSIP-1 | | \$ (51,440) | \$ (81,960) |
| | Res. Comm. OH Total | | | \$ (259,095) | \$ (7,057,351) |
| | Water | Dam Design | | \$ - | \$ (8,776,500) |
| | | Economics+ | | \$ - | \$ (329,880) |
| | | EIR-EIS | | \$ (165,000) | \$ (2,371,767) |
| | | Field Studies | | \$ (200,000) | \$ (887,876) |
| | | Field Surveys | | \$ - | \$ (91,980) |
| | | Permit Coord | | \$ (590,000) | \$ (8,095,900) |
| | | Rights of Entry | | \$ (306,000) | \$ (600,119) |
| | Water Total | | | \$ (1,261,000) | \$ (21,154,022) |
| Expense Total | | | | \$ (2,096,472) | \$ (34,946,312) |

Summary - Page 1 of 2

NOTE: 2019 proposed budget, which is applicable to this Agreement, was approved by the Reservoir Committee at their November 16, 2018 meeting with the Reservoir Committee's share of expenses listed on page B-2.

| Expense (-) or Revenue (+) | Cost Center | Task | Resource | Reprioritize | Proposed Budget |
|-------------------------------|-------------|------|----------|--------------------------------|---------------------------------------|
| | | | | Currently Approved Budget | Authority= 12 mon Res. Comm= 9 mon |
| | | | | Sum of Total End of Phase 1 | Sum of Total 2019 |
| Revenue | Conversion | | | \$ - | \$ 2,067,094 |
| | WIIN | | | \$ - | \$ 8,776,500 |
| | WSIP | | | \$ 821,603 | \$ 10,077,760 |
| | Res. Comm. | | | \$ - | \$ 14,044,440 |
| Revenue Total | | | | \$ 821,603 | \$ 34,965,795 |
| Grand Total | | | | \$ (1,274,870) | \$ 19,482 |

EXHIBIT C

NOTIFICATIONS

Attention: Mr. Steve Hartwig
City of American Canyon
4381 Broadway, Suite 201
American Canyon, CA 94503

Attention: Mr. Tom Charter
c/o Ms Jamie Traynham
Davis Water District
P.O. Box 83
Arbuckle, CA 95912

Attention: Mr. Dwayne Chisam
Antelope Valley-East Kern WA
6500 West Avenue N
Palmdale, CA 93551

Attention: Mr. Mark Krause
Desert Water Agency
1200 South Gene Autry Trail
Palm Springs, CA 92264

Attention: Mr. Ben Carter
Carter MWC
4245 River Road
Colusa, CA 95932

Attention: Mr. Bill Vanderwaal
Dunnigan Water District
P.O. Box 84
Dunnigan, CA 95937

Attention: Mr. Jim Barrett
Coachella Valley Water District
P.O. Box 1058
Coachella, CA 92236

Attention: Mr. Thad Bettner
Glenn-Colusa Irrigation District
P.O. Box 150
Willows, CA 95988

Attention: Ms. Wendy Tyler
Colusa County
547 Market St., Suite 102
Colusa, CA 95932

Attention: Mr. Matt LaGrande
LaGrande Water District
P.O. Box 370
Williams, CA 9598

Attention: Ms. Shelley Murphy
Colusa County Water District
P.O. Box 337
Arbuckle, CA 95912

Attention: Mr. Steve Arakawa
Metropolitan Water District of Southern
California
1121 L Street, Suite 900
Sacramento, CA 95814

Attention: Mr. Jim Peterson
Cortina Water District
P.O. Box 489,
Williams, CA 95987

Attention: Mr. Preston Brittain
Pacific Resources MWC
4831 Calloway Drive, Ste. 102
Bakersfield, CA 93312
Bakersfield, CA 93312

Attention: Mr. Bill Vanderwaal

Reclamation District 108
P.O. Box 50
Grimes, CA 95950

Attention: Mr. Dirk Marks

Santa Clarita Valley Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350

Attention: Mr. Doug Headrick

San Bernardino Valley Municipal Water District
380 East Vanderbilt Way
San Bernardino, CA 92408-3593

Attention: Dan Ruiz

Westside Water District
5005 State Hwy 20
Williams, CA 95987

Attention: Mr. Jeff Davis

San Geronio Pass Water Agency
1210 Beaumont Ave,
Beaumont, CA 92223

Attention: Robert Kunde

Wheeler Ridge-Maricopa Water Storage District
12109 Highway 166
Bakersfield, CA 93313

Attention: Ms. Cindy Kao

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686

Attention: Ms. Valerie Pryor

Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 945

Attention: Mr. Dirk Marks

THIRD AMENDMENT TO 2019 RESERVOIR PROJECT AGREEMENT

BY AND AMONG
SITES PROJECT AUTHORITY

and

THE PROJECT AGREEMENT MEMBERS LISTED HEREIN

Dated as of January 1, 2022

THIS THIRD AMENDMENT TO 2019 RESERVOIR PROJECT AGREEMENT (this “Third Amendment”), dated as of January 1, 2022, by and among SITES PROJECT AUTHORITY, a joint powers authority duly organized and existing under the laws of the State of California (the “Authority”), and the project agreement members listed in the Agreement referenced below (the “Project Agreement Members”) amends that certain 2019 Reservoir Project Agreement dated as of April 1, 2019 (the “Original Agreement”), as previously amended by the First Amendment to 2019 Reservoir Project Agreement dated as of January 1, 2020 (the “First Amendment”) and by the Second Amendment to 2019 Reservoir Project Agreement dated as of July 1, 2020 (the “Second Amendment” and, together with the Original Agreement, the First Amendment and the Second Amendment, the “Agreement”), each by and among the Authority and the Project Agreement Members;

WITNESSETH:

WHEREAS, Authority and the Project Agreement Members have determined to approve an Amendment 3 Work Plan and to extend the term of the Agreement to December 31, 2024; and

WHEREAS, under Section 11 of the Agreement, the Agreement may be amended by a writing executed by the Authority and at least 75% of the total weighted vote of the then current Committee members as provided in Subsection 3(g); and

WHEREAS, except as provided below in Section 2.07 below, all acts, conditions and things required by law to exist, to have happened and to have been performed precedent to and in connection with the execution and the entering into of this Third Amendment do exist, have happened and have been performed in regular and due time, form and manner as required by law, and the parties hereto are now duly authorized to execute and enter into this Third Amendment;

NOW, THEREFORE, THIS THIRD AMENDMENT WITNESSETH, the Authority and the Project Agreement Members agree, as follows:

ARTICLE I

DEFINITIONS

Section 1.01. Definitions. All capitalized terms not otherwise defined herein shall have the meaning set forth in the Agreement.

ARTICLE II

AMENDMENTS TO AGREEMENT

Section 2.01. Project Agreement Members.

(a) Effective January 1, 2022, Exhibit A to the Agreement titled “Project Agreement Members” shall be removed and replaced with Exhibit A to this Third Amendment titled “Project Agreement Members.”

Section 2.02. Work Plan.

(a) Effective January 1, 2022, the Amendment 2 Work Plan attached as Exhibit B to the Second Agreement shall be supplemented by the Work Plan attached hereto as Exhibit B (the “Amendment 3 Work Plan”).

Section 2.03. Funding.

The Agreement is hereby amended to remove Section 4(a) in its entirety and replace it with the following:

“(a) Budget. The Committee shall, in cooperation with the Authority’s Board, provide and approve both a Fiscal Year operating budget and reestablish a Phase 2 budget target, annually or more frequently as needed. The Project Agreement Members shall contribute their respective pro-rata share of the budgeted sums reflected in the Amendment 3 Work Plan in accordance with Section 5 of this Project Agreement. The contribution with respect to the pro-rata budgeted sums reflected in the Amendment 3 Work Plan shall be payable by each Project Agreement Member in three installments. The first installment shall be in an amount equal to \$100 per acre-foot and shall be payable by no later than May 1, 2022. The second installment shall be in an amount equal to up to \$140 per acre-foot and shall be payable by no later than January 1, 2023. The third installment shall be in an amount equal to up to \$160 per acre-foot and shall be payable by no later than January 1, 2024. The obligation of the Project Agreement Members to make the second installment and third installment shall be conditioned upon the Authority and the Committee reapproving the Amendment 3 Work Plan or approving an amendment thereto by (i) an affirmative vote of at least 75% of the total number of Directors of the Authority Board and (ii) an affirmative vote of at least 75% of the total weighted vote as provided at Subsection 3(g) of the then-current Committee members, prior to January 1, 2023 or January 1, 2024, as applicable.”

Section 2.04. Future Development of the Proposed Sites Reservoir Project.

The Agreement is hereby amended to add the below Sections 6(c), 6(d) and 6(e):

“(c) On or prior to March 31, 2022, each Project Agreement Member shall provide the Authority with a completed Project Agreement Member Project Payment Annex in the form attached hereto as Exhibit C. The Project Agreement Members, upon written request of the Authority, will meet with Authority staff from time to time, but not more often than once per calendar quarter, at which meeting, Authority staff will provide such Project Agreement Members with information regarding the then-current financing options being considered by the Authority and the expected terms of such financing options and the Project Agreement Member will provide updates regarding the status of the items identified in the Project Agreement Member Project Payment Annex.

(d) On or prior to June 30, 2023, each Project Agreement Member shall provide the Authority with a written update (the “Project Agreement Member Update”) with respect to the progress in the implementation of such repayment option, the remaining actions to be taken and the estimated completion dates.

For those Project Agreement Members that identified special benefit assessments or land based charges imposed in an improvement district as a source of repayment for an Authority

financing in its Project Agreement Member Payment Annex, the Project Agreement Member Update will also include a confirmation that such Project Agreement Member has the legal or contractual authority to discontinue water service to a water user that is delinquent in the payment of such special benefit assessment or land based charge, as applicable.

The Project Agreement Member Update will also include a confirmation that the Project Agreement Member has adopted a debt management policy that is compliant with California Government Code Section 8855(i), or, if such Project Agreement Member has not adopted such a debt management policy, the Project Agreement Member Update will include a statement that such Project Agreement Member expects to adopt such a debt management policy or an opinion from the general counsel to such Project Agreement Member to the effect that such a debt management policy is not required to be adopted by the Project Agreement Member to finance its share of the Project.

The Project Agreement Member Update shall also identify any change in the proposed source of repayment from the source identified in the Project Agreement Member Payment Annex previously submitted to the Authority.

(e) The Project Agreement Members that identified the repayment options of either special benefit assessments or land based charges imposed in an improvement district in their respective Project Agreement Member Payment Annexes agree to use best efforts to complete the necessary procedures to comply with the applicable requirements of Proposition 218 by no later than June 30, 2023.”

Section 2.05. Term. The Agreement is hereby amended to remove Section 8(b) in its entirety and replace it with the following:

“(b) The term of this Project Agreement shall continue until December 31, 2024. In the event that this Third Amendment is not approved by Project Agreement Members with the requisite percentage of the total weighted vote as set forth in the Agreement by March 31, 2022, the Agreement shall be revived immediately upon approval by such requisite percentage, without any additional approval of the Project Agreement Members, and this Third Amendment shall become effective.”

Section 2.06. Admission of New Project Agreement Members. The Agreement is hereby amended to add the following sentence to end of the paragraph included under Section 10 of the Agreement:

“The Authority shall have the right to charge Project Agreement Members executing the Agreement after a date determined by the Board a fee, which such fee shall be established by the Board, to compensate Project Agreement Members who executed the Agreement prior to a date determined by the Board, for providing funding for the initial phases of the Project.”

Section 2.07. California Environmental Quality Act. The Agreement is hereby amended to add the following Section 18:

“Section 18 California Environmental Quality Act

Notwithstanding any provision of this Agreement, the Authority and the Project Agreement Members fully reserve all of their respective rights, powers, authority and discretion with respect to

the proposed Project pursuant to the agencies' respective obligations and responsibilities under the California Environmental Quality Act ("CEQA"). This includes: (A) the power and discretion of the Authority as the lead agency, upon the completion of its CEQA review, to adopt feasible mitigation measures or a feasible project alternative, to approve the proposed Project based on the requisite CEQA findings, or to disapprove the proposed Project; and (B) the powers and discretion of the Project Agreement Members concerning the specific matters within their respective jurisdiction and authority acting as responsible agencies under CEQA. Any future decisions on whether to issue an approval of the proposed Project, and if so, how to issue such approval, will not be made until the agency making the decision has first completed its CEQA review of the proposed Project."

ARTICLE III

PROJECT AGREEMENT MEMBER PARTICIPATION

Section 3.01. Project Agreement Participation. Each Project Agreement Member shall specify its participation in the Sites Reservoir Project by indicating its storage amount in the Sites Reservoir Project on the signature page to this Third Amendment. Based upon the respective participation elections of the Project Agreement Members, the Authority shall update Exhibit A pursuant to Section 5 of the Agreement.

ARTICLE IV

MISCELLANEOUS

Section 4.01. Effectiveness of Agreement. Except as expressly amended by this Third Amendment, the Agreement is hereby ratified and confirmed and shall continue in full force and effect in accordance with the terms and provisions thereof. The amendments set forth in this Third Amendment shall be incorporated as part of the Agreement upon their effectiveness in accordance with Section 11 of the Agreement.

Section 4.02. Execution in Several Counterparts. This Third Amendment may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original; and all such counterparts, or as many of them as the Authority and the Project Agreement Members shall preserve undestroyed, shall together constitute but one and the same instrument.

Section 4.03. Laws Governing Third Amendment. The effect and meaning of this Third Amendment and the rights of all parties hereunder shall be governed by, and construed according to, the laws of the State.

IN WITNESS WHEREOF, the Authority and Project Agreement Members hereto, pursuant to resolutions duly and regularly adopted by their respective governing bodies, have caused their names to be affixed by their proper and respective officers on the date shown below:

Dated: _____

SITES PROJECT AUTHORITY

By: _____
Name:
Title:

[PROJECT AGREEMENT MEMBER]

Dated: _____

(Authority & Project Agreement Member)

By: _____
Name:
Title:

[PROJECT AGREEMENT MEMBER]
REPRESENTATIVES

The primary and alternate representatives of the [PROJECT AGREEMENT MEMBER] are identified below.

Primary Representative:

Alternate Representative:

ELECTION OF PARTICIPATION AMOUNT

[PROJECT AGREEMENT MEMBER] hereby elects to participate in the Sites Reservoir Project in the below amount.

- a) **Annualized Acre-Foot**
(acre-feet of releases)
- b) **Storage Allocation**
(acre-feet of storage)
*Box "a" * 6.234*
- c) **Total Budget Authorization**
*Box "a" * \$400 per acre-foot*

| |
|--|
| |
| |
| |

*****PARTICIPATION LEVELS ARE PRELIMINARY AND MAY BE ADJUSTED FOLLOWING REBALANCING*****

EXHIBIT A

PROJECT AGREEMENT MEMBERS

| Participant | Third Amendment Participation | | Percent |
|--|---|---|----------------|
| | Annualized Acre-Foot (Box "a") | Storage Allocation (Box "b") | |
| American Canyon, City of | 4,000 | 24,936 | 2.4% |
| Antelope Valley-East Kern Water Agency | 500 | 3,117 | 0.3 |
| Carter Mutual Water Company # | 300 | 1,870 | 0.2 |
| Coachella Valley Water District | 10,000 | 62,340 | 6.0 |
| Colusa County | 10,000 | 62,340 | 6.0 |
| Colusa County Water District | 10,073 | 62,795 | 6.0 |
| Cortina Water District | 450 | 2,805 | 0.3 |
| Davis Water District | 2,000 | 12,468 | 1.2 |
| Desert Water Agency | 6,500 | 40,521 | 3.9 |
| Dunnigan Water District | 2,972 | 18,527 | 1.8 |
| Glenn-Colusa Irrigation District | 5,000 | 31,170 | 3.0 |
| Irvine Ranch Water District | 1,000 | 6,234 | 0.6 |
| LaGrande Water District | 1,000 | 6,234 | 0.6 |
| Metropolitan Water District of S. CA | 50,000 | 311,700 | 29.8 |
| Reclamation District 108 | 4,000 | 24,936 | 2.4 |
| Rosedale-Rio Bravo Water Storage District | 500 | 3,117 | 0.3 |
| San Bernardino Valley Municipal Water District | 21,400 | 133,408 | 12.8 |
| San Geronio Pass Water Agency | 14,000 | 87,276 | 8.4 |
| Santa Clara Valley Water District | 500 | 3,117 | 0.3 |
| Santa Clarita Valley Water Agency | 5,000 | 31,170 | 3.0 |
| Westside Water District | 5,375 | 33,508 | 3.2 |
| Wheeler Ridge-Maricopa Water Storage District | 3,050 | 19,014 | 1.8 |
| Zone 7 Water Agency | 10,000 | 62,340 | 6.0 |
| Total: | 167,620 | 1,044,943 | 100.0 |

Participation Percentages exclude State of California and United States Bureau of Reclamation share of the Project.

Denotes a non-public agency. Refer to California Corporations Code Section 14300 et. seq. with additional requirements provided in both the Public Utilities Code and Water Code.

EXHIBIT B
AMENDMENT 3 WORK PLAN

Exhibit B
Reservoir Committee
2022, 2023 and 2024 Work Plan Summary

Reservoir Committee and Authority Board Annual Budget for FY 2022, FY 2023 and FY 2024 (\$000)

| Work Plan | Subject Area | 2022 | 2023 | 2024 | Total |
|-----------------------|----------------------------|-------------------|-------------------|-------------------|--------------------|
| Revenue | Participation Revenue | \$16,762 | \$23,467 | \$26,819 | \$67,048 |
| | Authority Board Seats | \$505 | \$505 | \$505 | \$1,515 |
| | Federal Revenue | \$10,000 | \$20,000 | \$20,000 | \$50,000 |
| | State Revenue | \$18,300 | \$0 | \$0 | \$18,300 |
| | Carry-over Funds | \$6,000 | \$0 | \$0 | \$6,000 |
| Revenue Total | | \$51,567 | \$43,972 | \$47,324 | \$142,863 |
| Expenses | Communications | (\$477) | (\$477) | (\$495) | (\$1,449) |
| | Engineering | (\$18,715) | (\$30,516) | (\$20,485) | (\$69,716) |
| | External Affairs | (\$273) | (\$273) | (\$282) | (\$828) |
| | General Project Activities | (\$620) | (\$545) | (\$565) | (\$1,730) |
| | Permitting | (\$7,503) | (\$4,731) | (\$2595) | (\$14,829) |
| | Planning | (\$5,092) | (\$1,212) | (\$278) | (\$6,582) |
| | Program Operations | (\$8,594) | (\$7,440) | (\$5690) | (\$21,724) |
| | Real Estate | (\$902) | (\$903) | (\$935) | (\$2,740) |
| Expenses Total | | (\$42,176) | (\$46,097) | (\$31,325) | (\$119,598) |
| Grand Total | | \$9,391 | (\$2,125) | \$15,999 | \$23,265 |

EXHIBIT C

FORM OF PROJECT AGREEMENT MEMBER
PROJECT PAYMENT ANNEX

Project Agreement Member:

Date:

| | | | | | | |
|--|--|--|--|--|---|--|
| Expected Source(s) of Repayment For Authority Financing (Check Each Box That Applies): | <input type="checkbox"/> Amounts Collected Through Department of Water Resources State Water Project Annual Statement of Charges | <input type="checkbox"/> Water Rates and Charges (Proposition 218 Compliance Required) | <input type="checkbox"/> Water Rates and Charges (Proposition 218 Compliance Not Required) | <input type="checkbox"/> Special Benefit Assessment-Districtwide | <input type="checkbox"/> Special Benefit Assessment Levied by District on Certain Lands | <input type="checkbox"/> Land-Based Charges Imposed Within an Improvement District |
| If An Improvement District, Has It Been Formed? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | If no, is it anticipated to be formed by June 30, 2023? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| If A Special Benefit Assessment, Has the Special Benefit Been Approved In An Amount To Pay Debt Service On The Authority Financing? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | If no, is it anticipated to be presented for landowner approval by June 30, 2023? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| Does the District Have A Debt Management Policy Compliant With Section 8855(i) of the California Government Code? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | | | | |

Sites Reservoir Project

Project Participants in the Sites Project Planning

Sacramento Valley

- Carter Municipal Water Company
- City of American Canyon
- Colusa County
- Colusa County Water District
- Cortina Water District
- Davis Water District
- Dunnigan Water District
- Glenn County
- Glenn-Colusa Irrigation District
- La Grande Water District
- Reclamation District 108
- City of Roseville
- Sacramento County Water Agency
- City of Sacramento
- Tehama Colusa Canal Authority
- Westside Water District
- Western Canal Water District

Bay Area

- Santa Clara Valley Water District
- Zone 7 Water Agency

Southern California

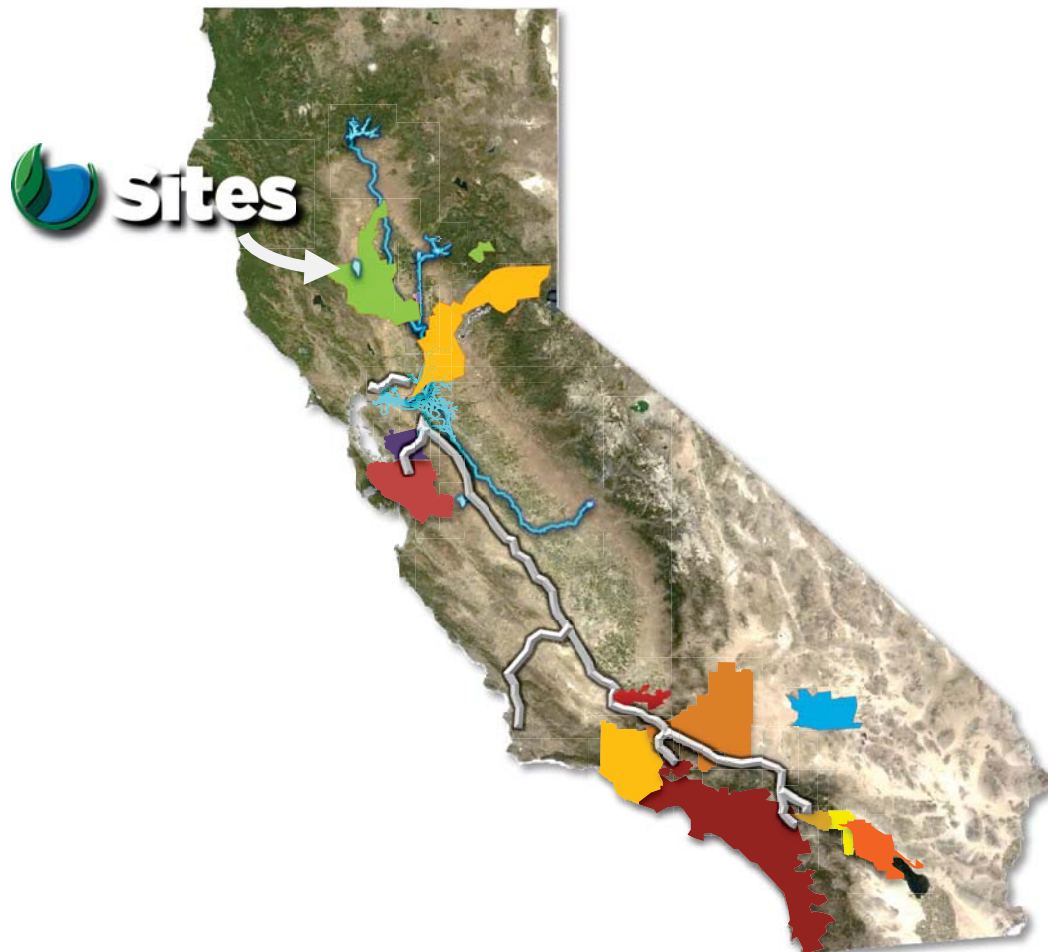
- Antelope Valley - East Kern Water Agency
- Coachella Valley Water District
- Desert Water Agency
- Irvine Ranch Water District
- Metropolitan Water District of Southern California
- San Bernardino Valley Municipal Water District
- San Geronio Pass Water Agency
- Santa Clarita Valley Water Agency

San Joaquin Valley

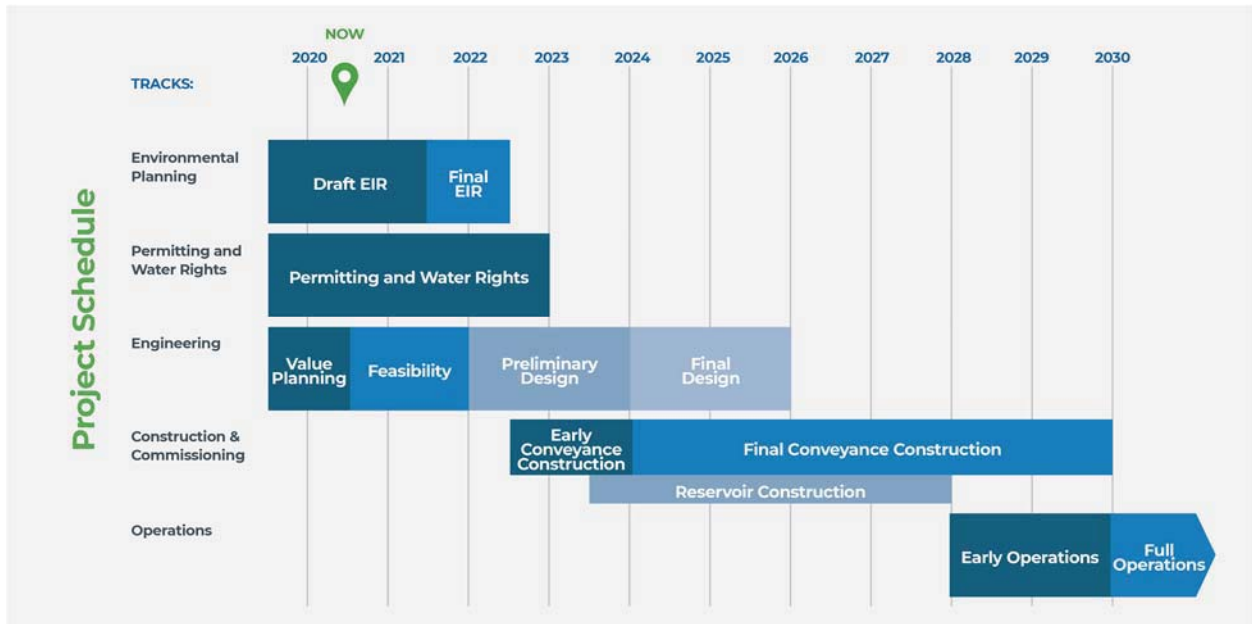
- Rosedale-Rio Bravo Water Storage District
- Wheeler Ridge - Maricopa Water Storage District

State/Federal

- California Department of Water Resources
- US Bureau of Reclamation



Sites Reservoir Schedule



| | 2020 | | | | 2021 | | | | 2022 | | |
|---|--|----|----|----|--|----|----|----|---------------------------------|----|----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| | AMENDMENT 1A and 1B | | | | AMENDMENT 2 | | | | | | |
| Go/No-Go Decision Points | ★ | | | | ★ | | | | ★ | | |
| Participation Agreement Materials | Home board package approved | | | | | | | | Home board package approved | | |
| Value Planning | Preferred Project Facilities | | | | | | | | | | |
| Engineering | Engineering to support Project Description | | | | Engineering to support Prop 1 Feasibility | | | | | | |
| Confirm Operations and Temperature Benefits | Preferred Project Operations | | | | | | | | | | |
| Environmental Documentation | | | | | EIR/EIS Response to Comments and Revisions | | | | Final EIR/EIS | | |
| Ongoing Operations Modeling Support | | | | | | | | | | | |
| Prop 1 Feasibility Report (Env, Eng, Fin, Eco) | | | | | Submit to State | | | | State Review | | |
| Advance Key Permits Needed for Project Certainty | | | | | | | | | State Validation of Eligibility | | |
| Water Rights | | | | | | | | | Submit Application | | |
| Biological Assessment | | | | | Submit to USFWS & NMFS | | | | | | |
| Incidental Take Permit (CDFW) | | | | | | | | | Submit to CDFW | | |
| 106 Programmatic Agreement | | | | | | | | | Final Section 106 PA | | |

NOTE: This graphic includes schedule drivers only and does not include all activities/deliverables. This work plan is based on current participation commitments.



Sites Reservoir Project

RDEIR/SDEIS Frequently Asked Questions

The following questions and answers are meant to respond to common questions about the potential environmental impacts of the proposed Sites Reservoir Project.

1. Would Sites Reservoir divert water from the Sacramento River during dry and critically dry years?

Yes, even during drier years there can be significant precipitation events that present conditions where water can be diverted safely from the river and placed in Sites Reservoir. All diversions would be subject to the highly protective operating conditions that are currently being proposed for the Sites Reservoir Project.

2. Would Sites Reservoir meaningfully address future droughts?

Sites Reservoir is an insurance policy for future droughts. Sites Reservoir does not rely on snowpack and if the scientific projections are correct about the impacts of climate change (i.e., California is expected to receive about the same annual precipitation that it currently does but more will come as rain than snow and be subject to year-to-year variability), then having Sites Reservoir would mean we can collect more water in the reservoir for use during future droughts.

3. Would Sites Reservoir decrease Delta flows?

Yes, slightly, when the Project is diverting. However, since the Sites Reservoir diversions would occur only when there are high river flows, any reduction to Delta flows would be minor and would not impact any of the beneficial uses of the water in the Delta. Storing water in Sites Reservoir during times when there is a lot of flow in the Sacramento River for use during times when the flows are low, including during drought periods, is part of the statewide strategy for adapting to changing climate conditions and to return much needed flexibility to our statewide water management system.

4. Have concerns about the impact of Sites Reservoir operations on the environment been addressed in the current proposal?

The Project operations have been modified substantially over the last two years to be more protective of the environment. These modifications have reduced the Project diversions from the Sacramento River substantially (almost in half) as compared to the criteria proposed in 2017. The current Project operations strikes the needed balance between environmental protections and Project affordability that has to exist for the Project to proceed.

5. Does this Project impact the Trinity River?

The Project would not affect or result in changes in the operation of the Central Valley Project (CVP), Trinity River Division facilities (including Clear Creek). Reclamation would continue to operate the Trinity River Division consistent with all applicable statutory, legal, and contractual obligations, including but not limited to the Trinity River Record of Decision (ROD), the 2017 ROD for the Long-Term Plan for the Lower Klamath River, and the provision of (not less than) 50,000 acre-feet identified in Trinity River Division Central Valley Project Act of 1955 to be made available to Humboldt County and downstream water users.



6. How does this Project impact water quality in the Sacramento River and Delta?

The Project would have some impacts to water quality and would also enhance beneficial uses of water, even improving water quality in some areas. For example, increases in outflow in drier years could reduce seawater intrusion into the Delta. During those same periods, exchanges with Sites water could benefit fish by preserving cold-water supplies from Shasta Lake, Lake Oroville, and Folsom Lake later into the year. The Sites Project Authority would implement best management practices to minimize any potential water quality impacts associated with facility operations and maintenance. These would include actions to prevent spills and reduce runoff that may cause sediment or contaminants to flow into waterbodies. Monthly water quality testing would be performed for discharges moving into and through the Yolo Bypass, and mitigation measures – such as mercury sediment management – would be implemented to counteract any impacts to water quality.

7. How will the Project benefit anadromous fish?

The additional water supply provided by Sites Reservoir may provide opportunities for improved management of salmonid habitat, particularly in the Sacramento River above Red Bluff Diversion Dam. By exchanging Sites water for CVP water, Reclamation has an additional tool to maintain and improve habitat for salmonid spawning, incubation, rearing, and migration. By delivering water to CVP contractors from Sites Reservoir, Reclamation may maintain supply in Shasta Lake for important periods to support these habitat conditions. The possible additional water supply in Shasta Lake can then be allocated during real-time management scenarios for a number of uses (e.g., cold-water pool maintenance, spring pulse or fall pulse flow events, reduced fall flows) that may provide enhanced anadromous fish benefits.

8. Will this Project curtail or otherwise reduce allocations for other water right holders?

Sites Reservoir would only divert water when flows in the Sacramento River meet minimum diversion criteria, when the Delta is in “excess” conditions, when all senior downstream water rights have been met, when all environmental permit conditions have been met, and when there is excess capacity within the conveyance facilities, such as the Tehama-Colusa and Glenn-Colusa Canals. The Project would not curtail or otherwise reduce allocations of water for other water right holders.





Review of the Remaining Planning Process and Funding Needs for Sites Reservoir Project

Water Planning & Stewardship Committee

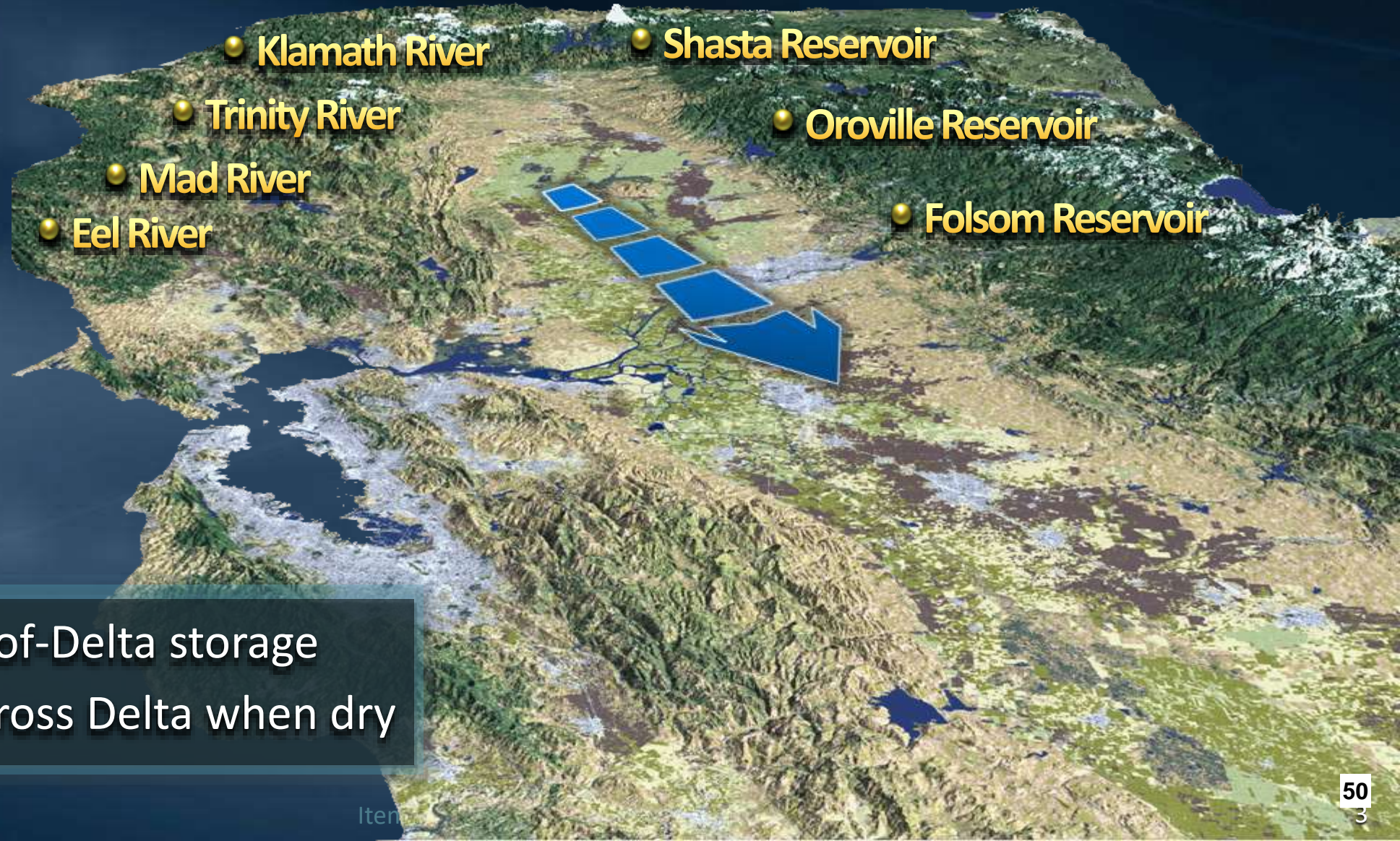
Item 9-3

March 7, 2022

Topics

- Storage Supplies & Lessons Learned
Integrated Groundwater & Surface Storage
- Sites Reservoir Planning Status
Key Progress & 2022-2024 Workplan
- Project Benefits
Statewide & Metropolitan Specific
- Participation & Funding Consideration
Previous & Upcoming Decision
- Next Steps

The Original Vision 1950s



- Large North-of-Delta storage
- Deliveries across Delta when dry

Environmental Priorities 1970s



- Wild & Scenic Rivers Act (Fed & State)
- SWP plan loses key North Coast storage

Integrated Operations 1990s

- Develop diverse portfolio, including GW banking & off-stream storage
- Integrate surface reservoir and groundwater recharge operations



Climate Resiliency 2010s



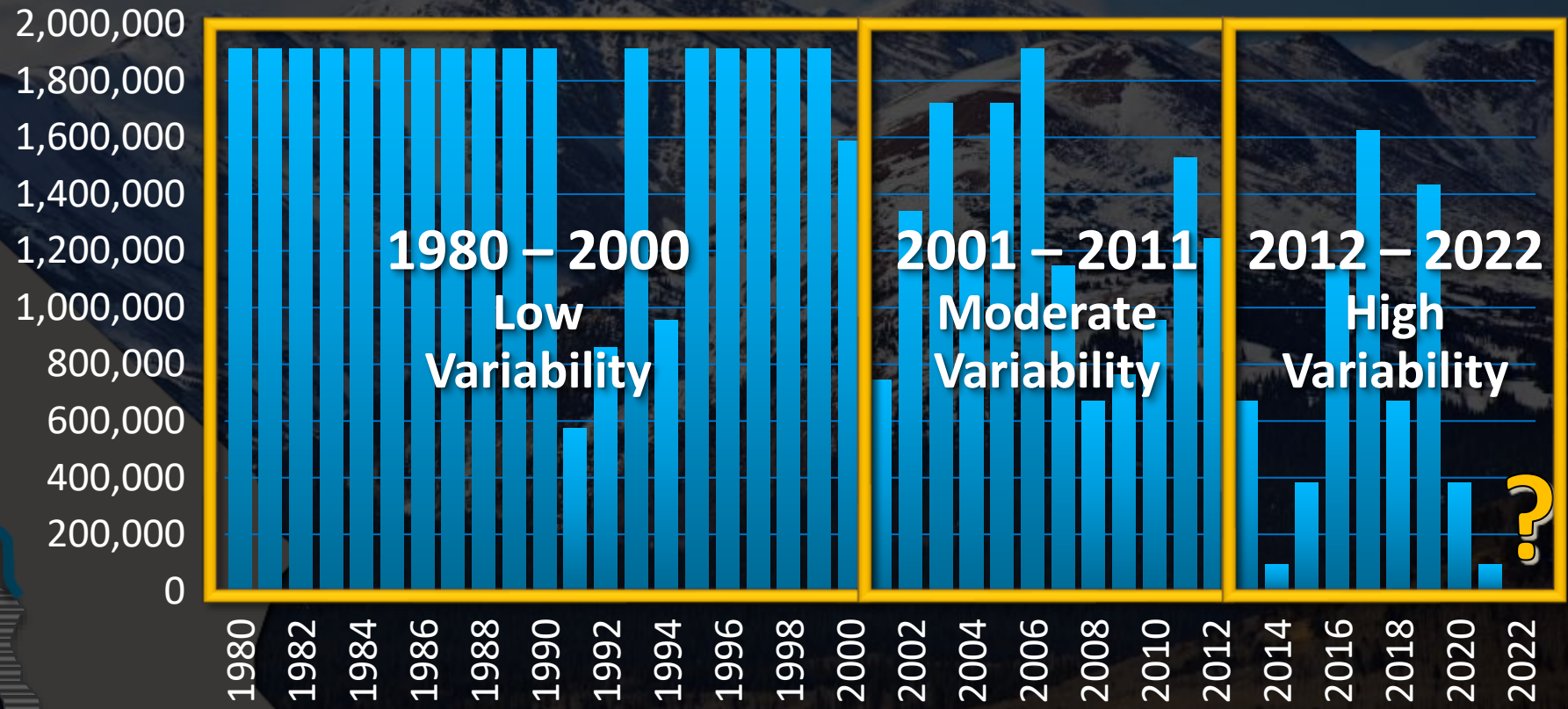
- Adapt & mitigate the impacts that snow will increasingly fall as rain
- Adapt to increased winter flooding, & reduced Spring/Summer runoff

Lessons Learned

Snowpack Reservoir & SWP Water Allocation

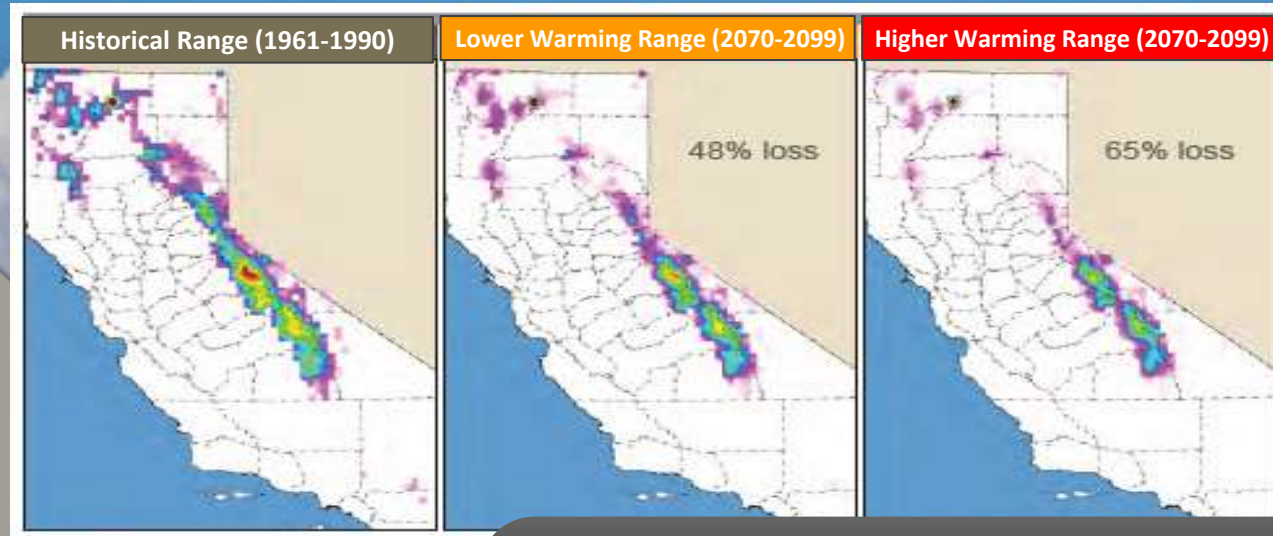


State Water Project Allocation



Lessons Learned

Snowpack Reservoir & SWP Water Allocation



Climate Research

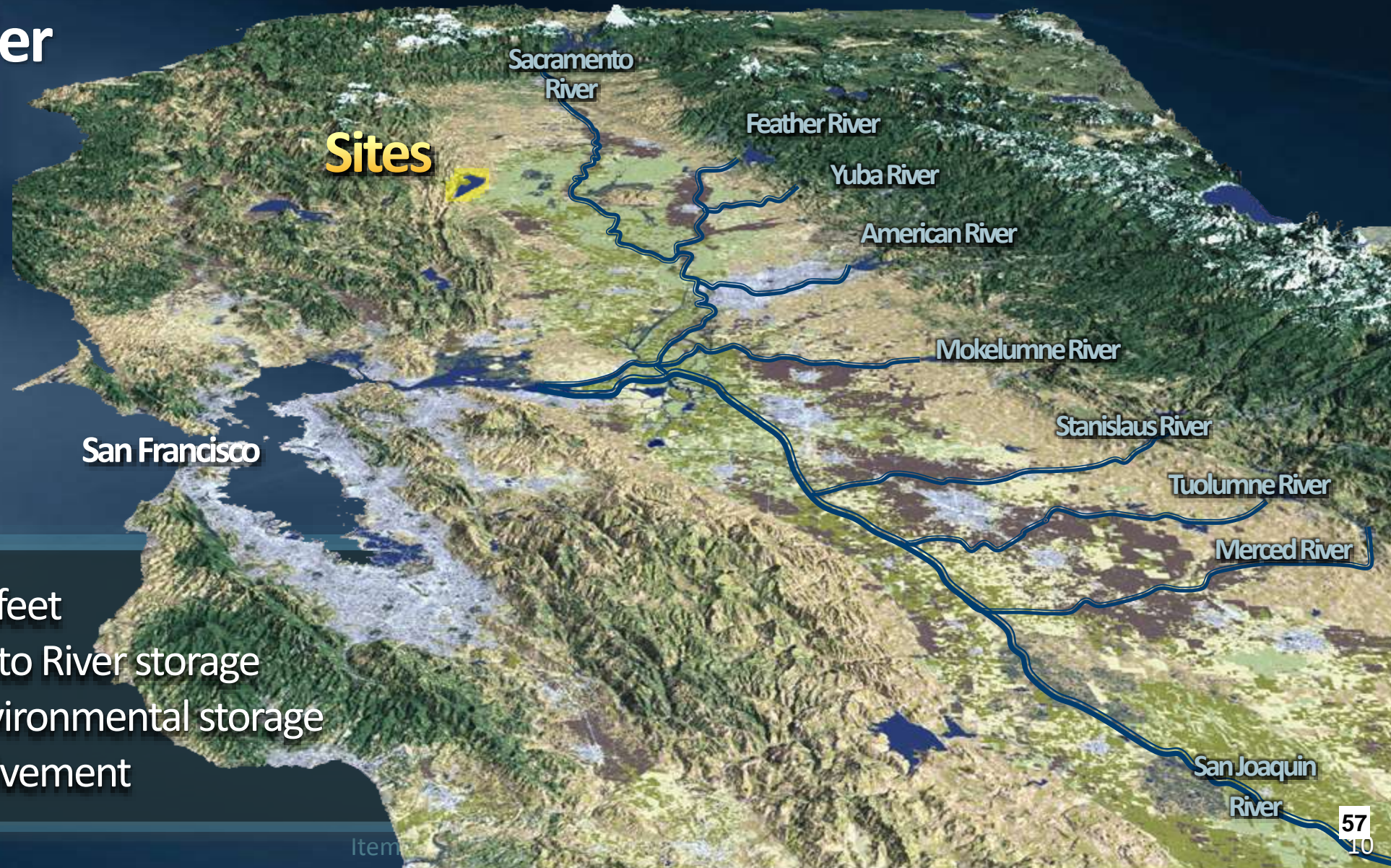
- 30 to 65% of snowpack (4-9 million AF) will fall as rain by 2100
- Existing reservoirs not designed to handle faster runoff
- Lower river flows in the spring/summer for fish and water supply

Topics

- Storage Supplies & Lessons Learned
Integrated Groundwater & Surface Storage
- Sites Reservoir Planning Status
Key Progress & 2022-2024 Workplan
- Project Benefits
Statewide & Metropolitan Specific
- Participation & Funding Consideration
Previous & Upcoming Decision
- Next Steps

Sites Reservoir

Proposal Under Analysis



- 1.3 – 1.5 million acre-feet
- Off-stream Sacramento River storage
- Largest dedicated environmental storage
- Broad statewide involvement

Sites Reservoir

Project Storage (1.5 million AF)

Metropolitan Share

- Storage – 311,700 AF (22.6%)



**North-of-Delta
Participants**
~ 257,000 AF (18%)

**South-of-Delta
Participants**
~ 788,000 AF (57%)

**Bureau of
Reclamation**
~ 91,000 AF (7%)

**State of
California**
~ 244,000 AF (18%)

Deadpool (non active) ~ 120,000 AF

Sites Reservoir Project Yield Estimate

Annual Reservoir Release Estimate

- Average – 207,000 to 260,000 AF/yr. all participants (50,000 AF/yr. MWD's share)
- Dry/Critical – 348,000 to 427,000 AF/yr.

State/Federal ¹
~ 66,380 AF/yr.

Water Users ¹
~ 167,620 AF/yr.

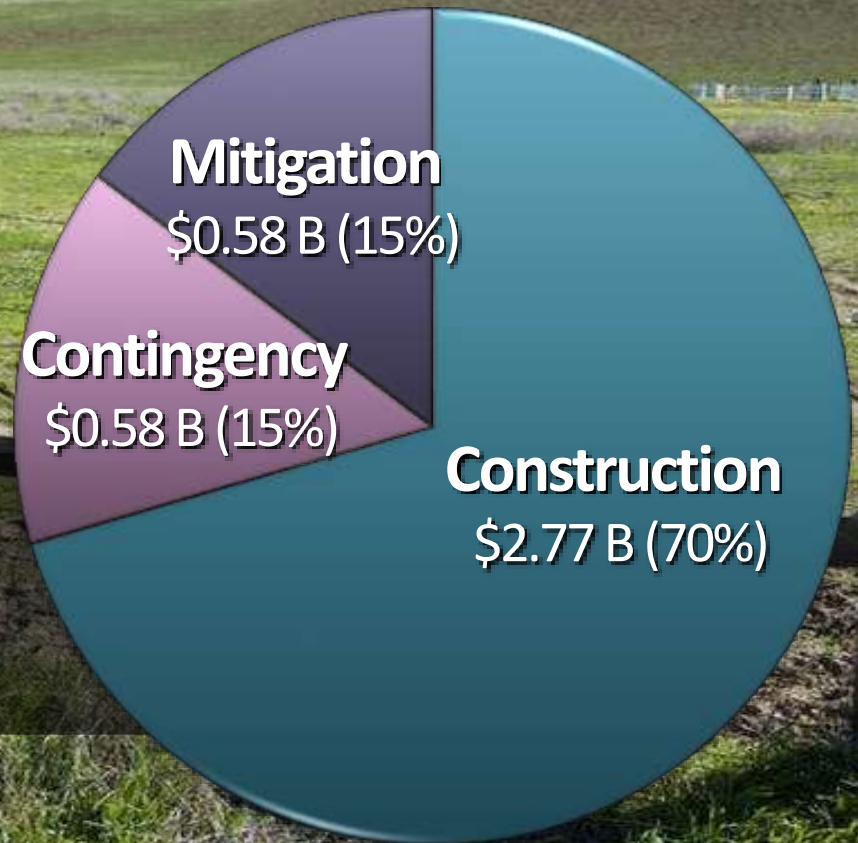
¹ Federal share subject to appropriation; User share subject to Board authorization; State share subject to final approval by California Water Commission

Sites Reservoir Project Cost Estimate

Cost Estimate (2021\$)¹

- Total Project Cost Estimate ~ \$3.93 billion
- Reservoir Release Estimate ~ \$700-900/acre-ft.

¹ Construction costs are based on a Class 4 cost estimate;



Key Progress

✓ Technical Analyses

- Initial water supply modeling & operations
- Initial engineering design & cost estimates
- Value Planning project improvements

✓ Regulatory/Environmental

- Revised Draft Environmental Impact Report/Statement
- Regulatory agency consultation & initial permit application development

✓ State/Federal Funding

- \$836 million State Proposition 1 grant
- \$104 million federal WIIN Act grant
- \$449 million US Dept. of Agriculture loan
- \$600 million federal WIFIA loan (application)



Topics

- Storage Supplies & Lessons Learned
Integrated Groundwater & Surface Storage
- Sites Reservoir Planning Status
Key Progress & 2022-2024 Workplan
- Project Benefits
Statewide & Metropolitan Specific
- Participation & Funding Consideration
Previous & Upcoming Decision
- Next Steps

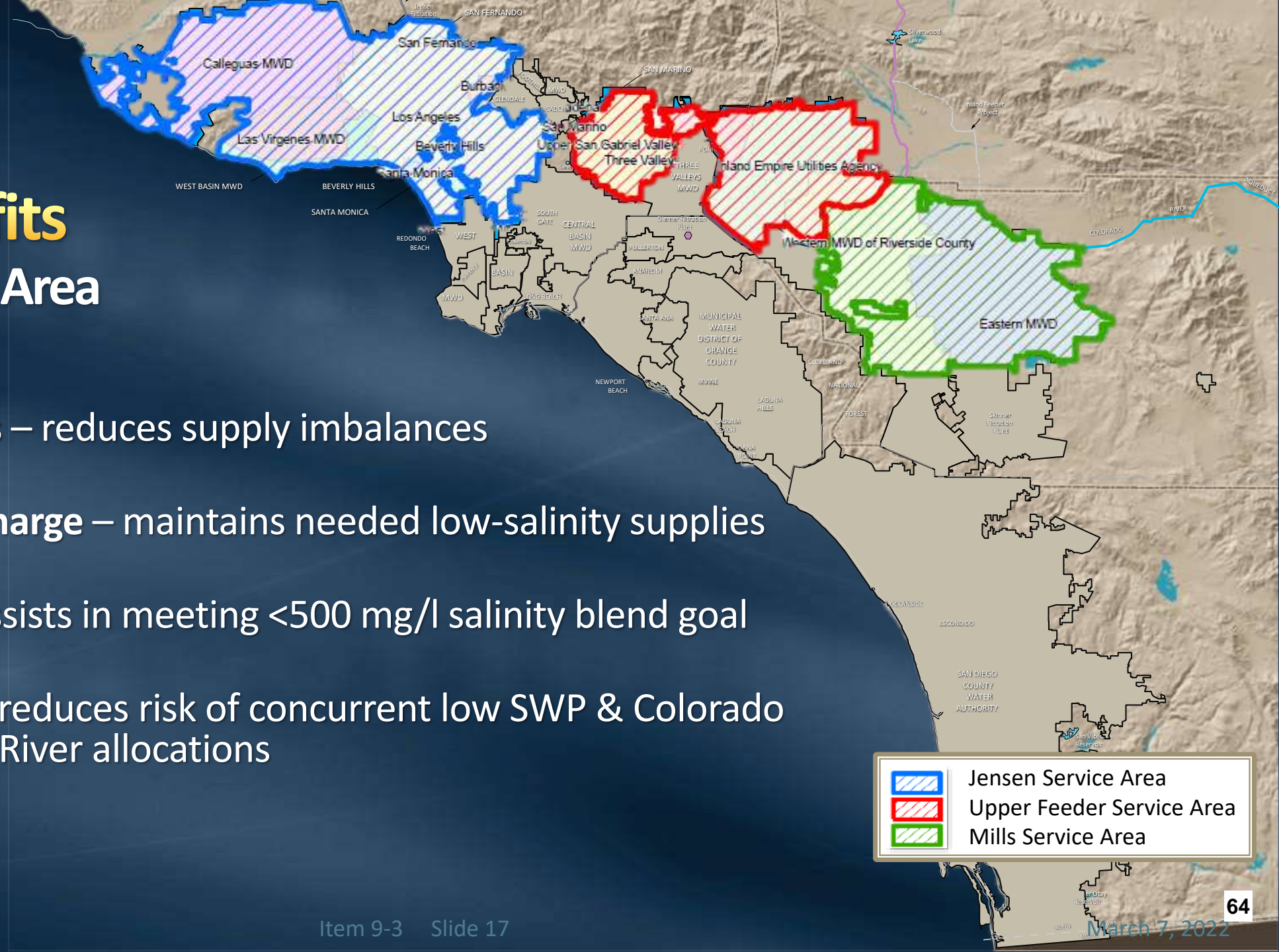
Key Benefits – Overall




- Improves ability in meeting future climate change challenges
- Mitigates for decreased snowpack and increased rainfall
- Dedicates portion of new storage for environmental use only
- Important collaborative approach among northern & southern California water agencies

Key Benefits

MWD Service Area

- SWP Reliant Areas** – reduces supply imbalances
- Groundwater Recharge** – maintains needed low-salinity supplies
- Water Quality** – assists in meeting <500 mg/l salinity blend goal
- Perfect Drought** – reduces risk of concurrent low SWP & Colorado River allocations

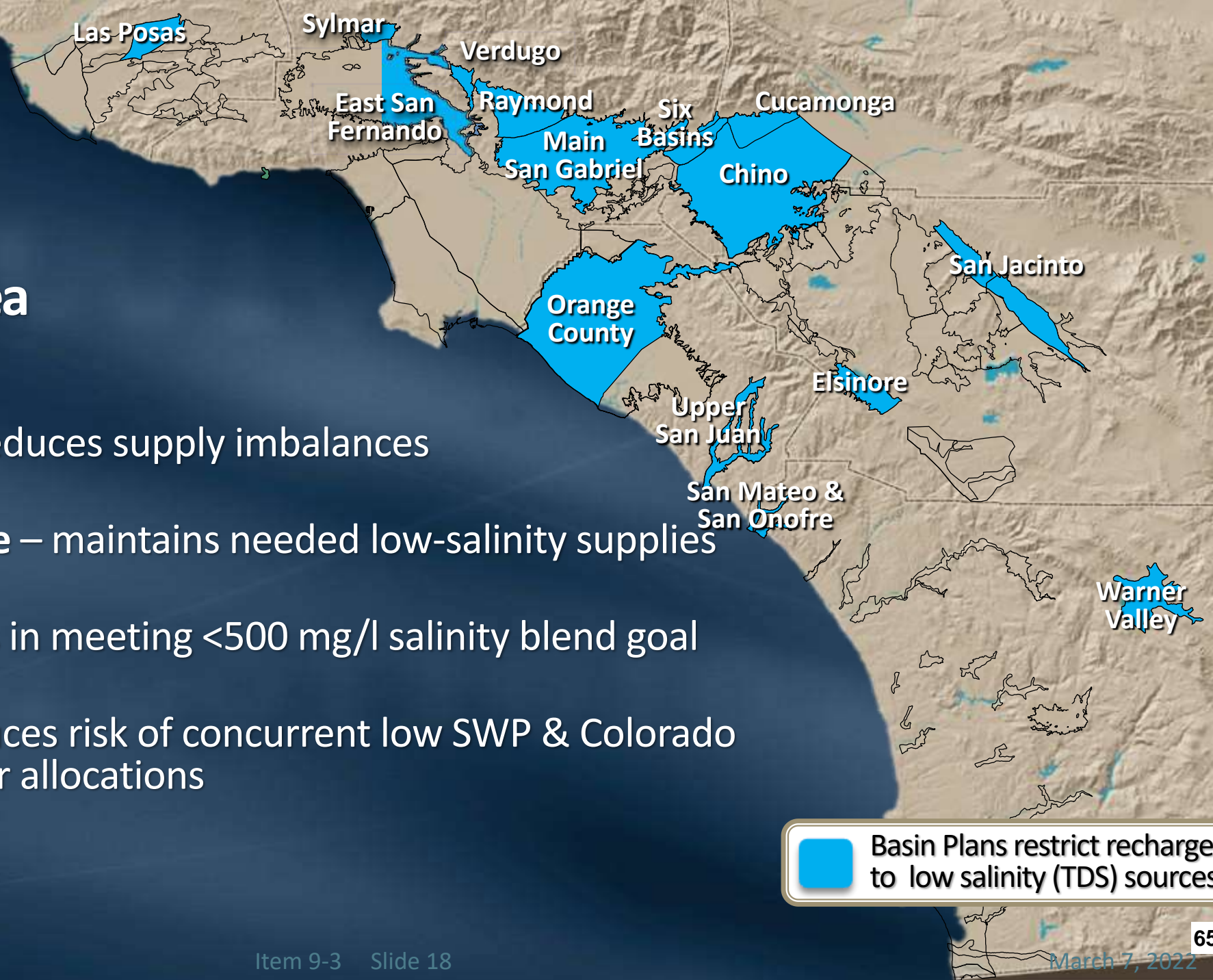


| | |
|---|---------------------------|
|  | Jensen Service Area |
|  | Upper Feeder Service Area |
|  | Mills Service Area |

Key Benefits

MWD Service Area

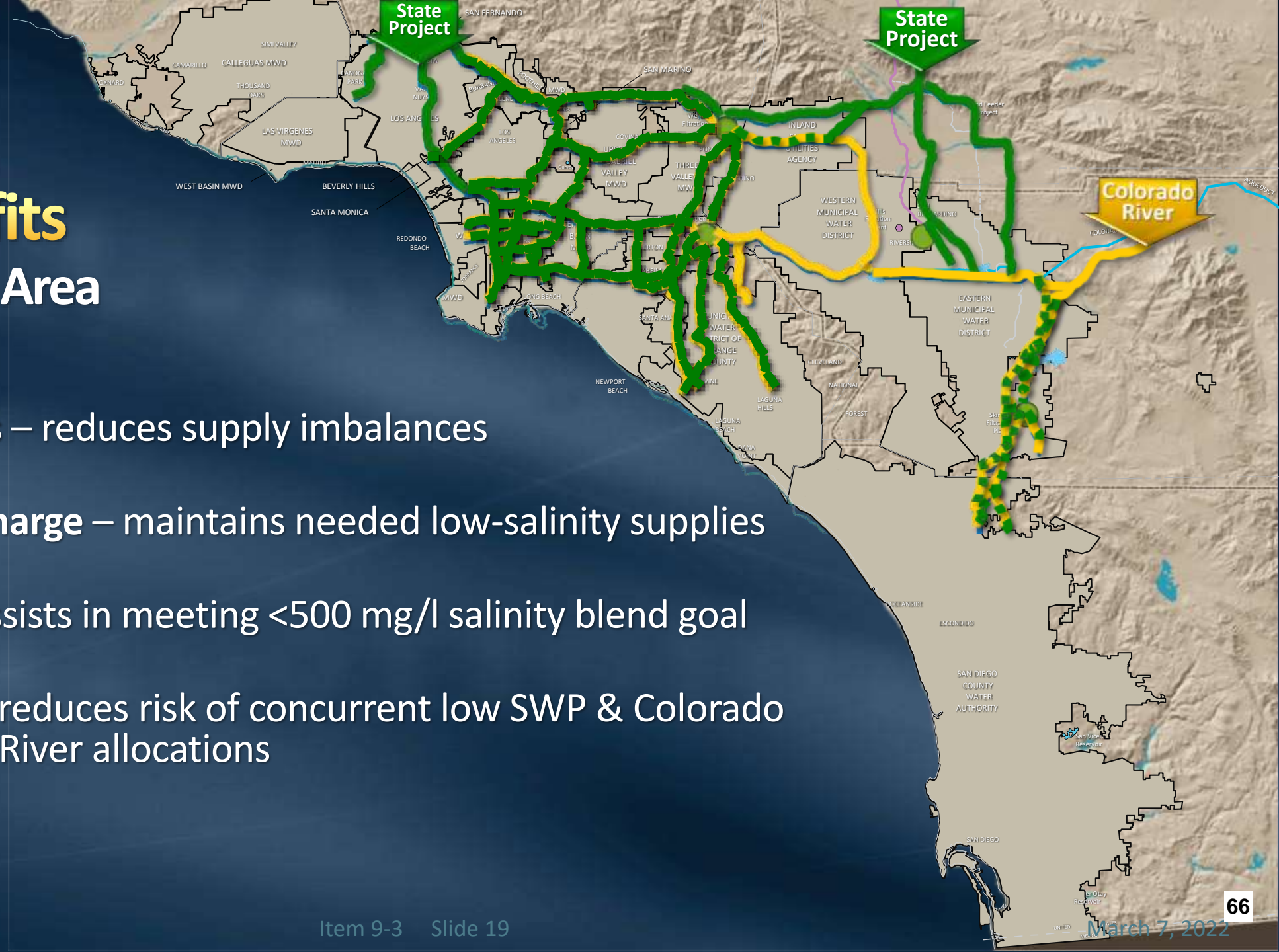
- SWP Reliant Areas – reduces supply imbalances
- Groundwater Recharge – maintains needed low-salinity supplies
- Water Quality – assists in meeting <500 mg/l salinity blend goal
- Perfect Drought – reduces risk of concurrent low SWP & Colorado River allocations



Key Benefits

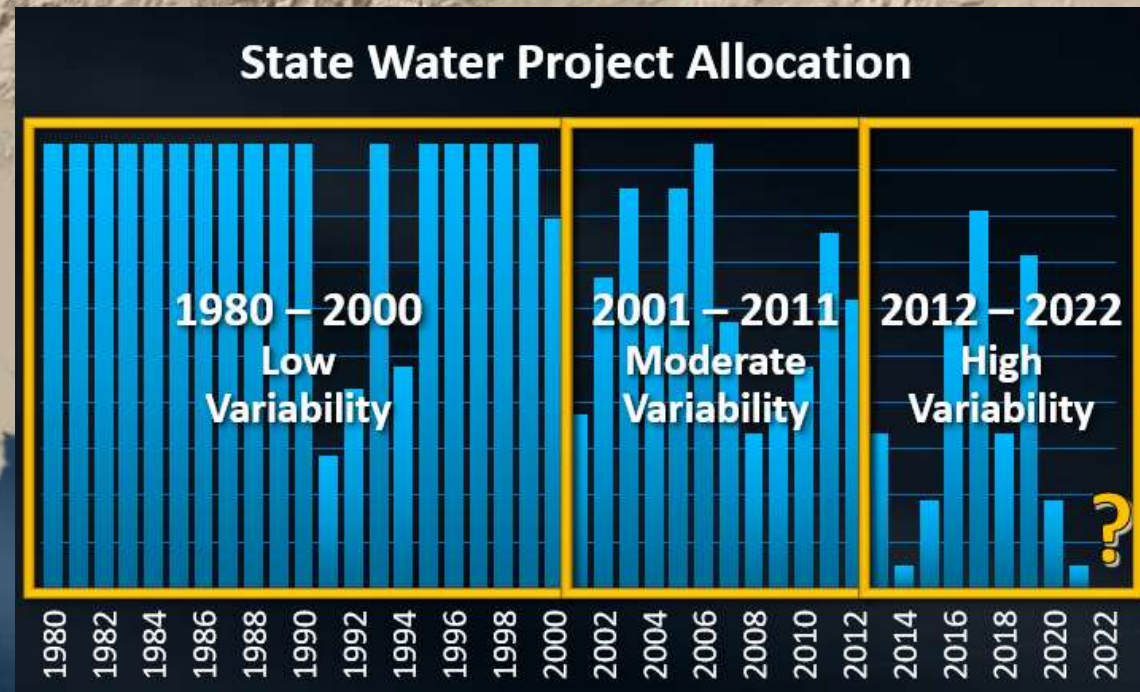
MWD Service Area

- SWP Reliant Areas – reduces supply imbalances
- Groundwater Recharge – maintains needed low-salinity supplies
- Water Quality – assists in meeting <math>< 500 \text{ mg/l}</math> salinity blend goal
- Perfect Drought – reduces risk of concurrent low SWP & Colorado River allocations



Key Benefits MWD Service Area

- SWP Reliant Areas – reduces supply imbalances
- Groundwater Recharge – maintains needed low-salinity supplies
- Water Quality – assists in meeting < 500 mg/l salinity blend goal
- Perfect Drought – reduces risk of concurrent low SWP & Colorado River allocations



Topics

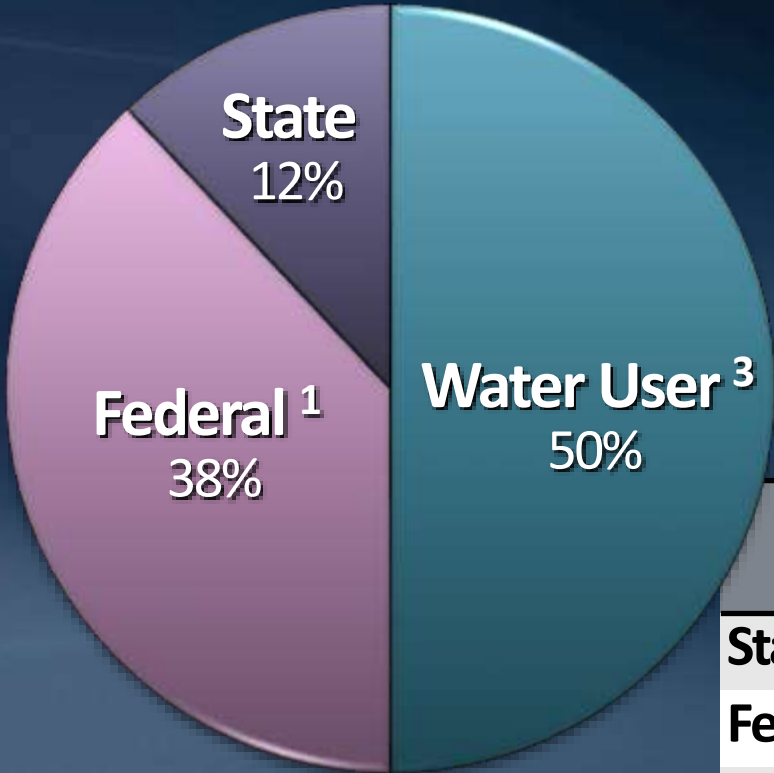
- Storage Supplies & Lessons Learned
Integrated Groundwater & Surface Storage
- Sites Reservoir Planning Status
Key Progress & 2022-2024 Workplan
- Project Benefits
Statewide & Metropolitan Specific
- Participation & Funding Consideration
Previous & Upcoming Decision
- Next Steps

The slide features a background image of a large, circular meeting room with a long table and many people seated around it. The room has a high ceiling with circular recessed lighting. A large circular seal is visible on the wall behind the table. Two large projection screens are on the right wall, one showing a group of people and the other showing a map. The title "Metropolitan Board Funding Considerations" is overlaid in the center in a large, bold, yellow and white font.

Metropolitan Board Funding Considerations

- 2017
 - \$1.5 million cost-share for 2017-18 Sites Reservoir workplan
- 2019
 - \$4,212,500 cost-share for 2019-20 Sites Reservoir workplan
- 2020
 - \$5 million cost-share for 2020-21 Sites Reservoir workplan
- 2022 (proposed)
 - \$20 million cost-share for 2022-24 Sites Reservoir workplan

2022-24 Workplan 3-Year Budget¹



| Source | 2022 | 2023 | 2024 | Total |
|---------------------------------------|----------------------|----------------------|----------------------|-----------------------|
| State (Prop 1 Grant) | \$ 18,300,000 | -- | -- | \$ 18,300,000 |
| Federal (WIIN Act)² | \$ 10,000,000 | \$ 20,000,000 | \$ 20,000,000 | \$ 50,000,000 |
| Water Users³ | \$ 17,267,000 | \$ 23,972,000 | \$ 27,324,000 | \$ 68,563,000 |
| Carryover Funds | \$ 6,000,000 | | | \$ 6,000,000 |
| TOTAL³ | \$ 51,567,000 | \$ 43,972,000 | \$ 47,324,000 | \$ 142,863,000 |
| MWD Share⁴ | \$ 5,000,000 | \$ 7,000,000 | \$ 8,000,000 | \$20,000,000 |

1. 2022-24 Workplan, also referred to as the Amendment 3 Workplan, is for the period of Jan. 1, 2022, through Dec. 31, 2024.

2. Subject to federal appropriation

3. Subject to individual participating agency Board approval

4. Assumes participation by Metropolitan based a 311,700 acre-ft of storage (also defined as an average yield of 50,000 AF/year)



Reservoir overlook – Governor Brown (2018)

2022-24 Workplan Focus & Key Deliverables

- Environmental
 - Final EIR/EIS & Record of Decision
- Permits/Agreements
 - Water rights permit
 - Environmental permits
 - Local agency agreements
- Project Operations
 - Final coordinated operations agreement with DWR/USBR
- Engineering
 - Advance 30% design & geotechnical investigations
- Develop mitigation & land acquisition master plan

1. 2022-24 Workplan, also referred to as the Amendment 3 Workplan

Broad Statewide Involvement

● Bay Area

- Santa Clara Valley WD
- Zone 7 Water Agency

● San Joaquin Valley

- Rosedale-Rio Bravo WSD
- Wheeler Ridge - Maricopa

● Southern California

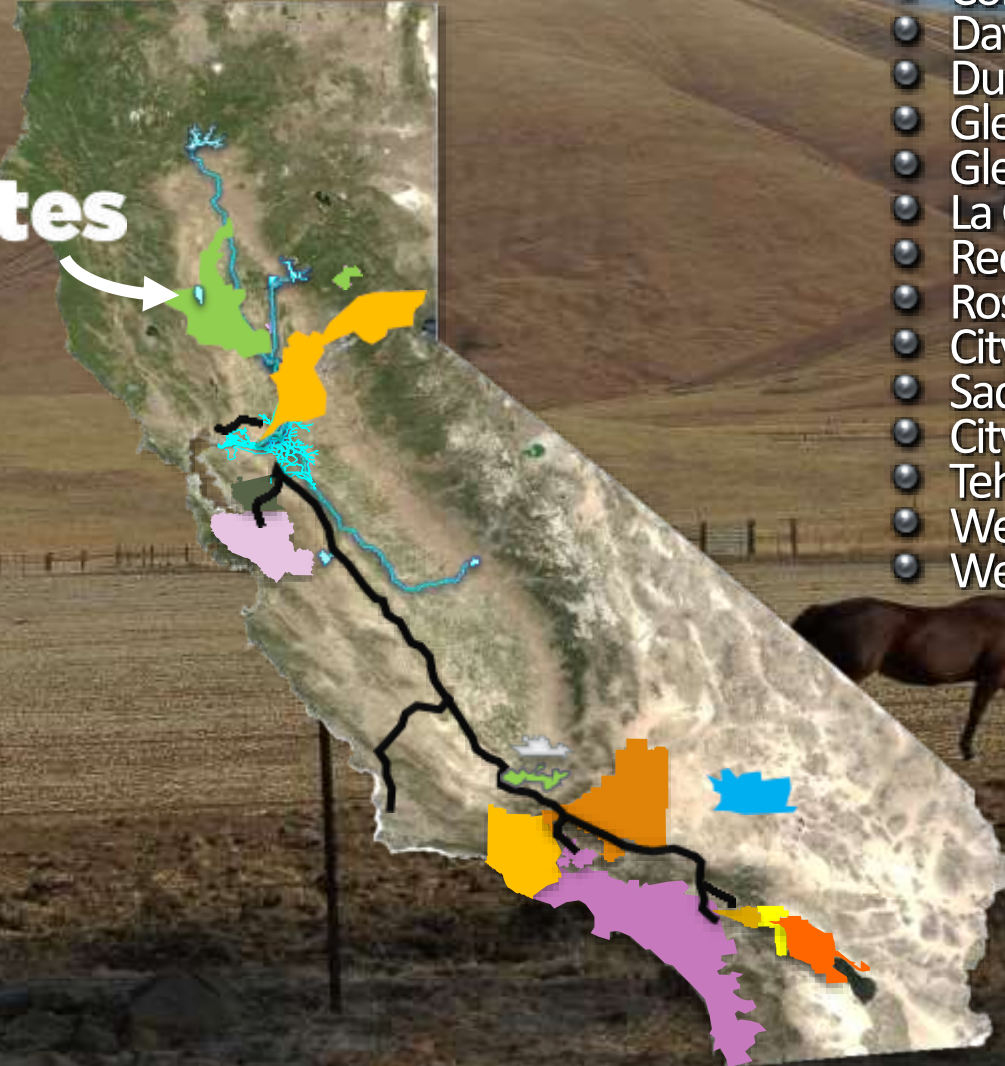
- Antelope Valley - East Kern WA
- Coachella Valley WD
- Desert Water Agency
- Irvine Ranch Water District
- Metropolitan Water District
- San Bernardino Valley MWD
- San Geronio Pass Water Agency
- Santa Clarita Valley Water Agency

● State/Federal

- California Dept. of Water Resources
- U.S. Bureau of Reclamation



Sites



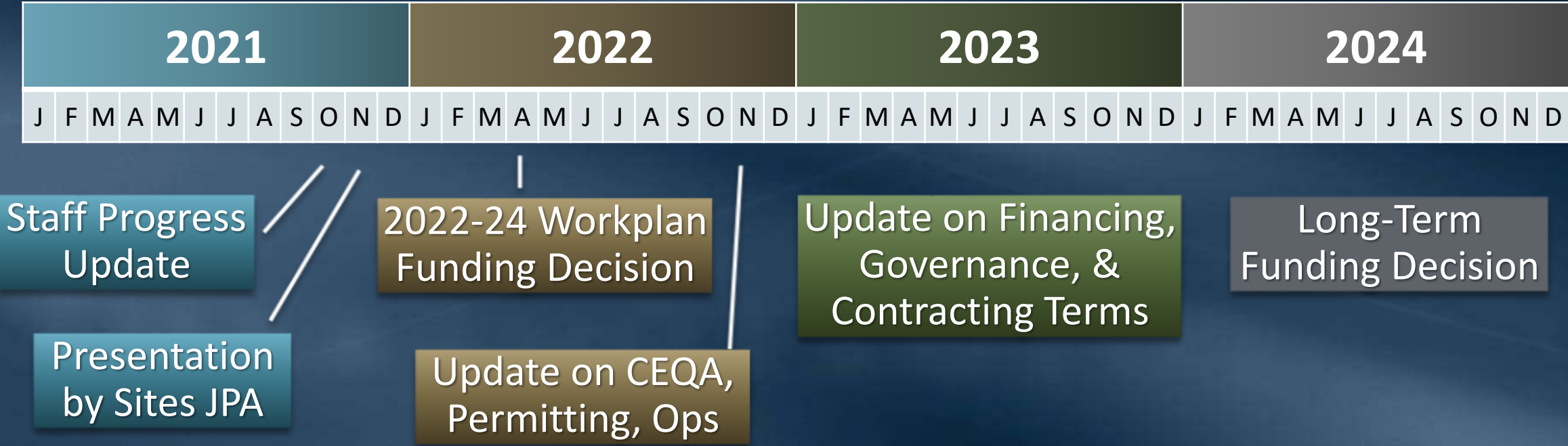
● Sacramento Valley

- Carter Municipal Water Co.
- City of American Canyon
- Colusa County
- Colusa County Water District
- Cortina Water District
- Davis Water District
- Dunnigan Water District
- Glenn County
- Glenn-Colusa Irrigation District
- La Grande Water District
- Reclamation District 108
- Rosedale-Rio Bravo WSD
- City of Roseville
- Sacramento County WA
- City of Sacramento
- Tehama Colusa Canal Authority
- Westside Water District
- Western Canal Water District

Topics

- Storage Supplies & Lessons Learned
Integrated Groundwater & Surface Storage
 - Sites Reservoir Planning Status
Key Progress & 2022-2024 Workplan
 - Project Benefits
Statewide & Metropolitan Specific
 - Participation & Funding Consideration
Previous & Upcoming Decision
- Next Steps

Metropolitan Board Proposed Timeline ¹



1. Subject to change

Next Steps

- April 2022 Board letter on funding 2022-24 Workplan
- Final environmental documents by Oct 2022
- Decision on project implementation in 2024





● **Water Surplus and Drought Management Update** *Conditions as of 2/22/2022*

Summary

This report accounts for water supply, demand, and storage conditions for calendar year (CY) 2022 as of February 22, 2022. In addition, this report tracks the hydrologic conditions for water year (WY) 2021-2022.

Following an unusually dry January, conditions remained dry in February for both imported supply watersheds. Precipitation in northern California for the first two months of the calendar year is projected to be the driest January-February on record. Snowpack in the northern Sierra and Upper Colorado River Basin are below normal for this date and more storms are needed to reach normal hydrologic condition levels for the water year. The northern Sierra and the Upper Colorado River Basin snowpack are 52 and 71 percent of their respective April 1st normal.

Metropolitan's projected supply/demand gap estimate for calendar year 2022 is currently 415 thousand acre-feet based on a demand estimate of 1.71 million acre-feet, the 15 percent SWP Table A allocation, and the Colorado River Aqueduct (CRA) supply estimate of 1.0 million acre-feet. Metropolitan has sufficient WSDM actions available to satisfy the identified supply/demand gap for 2022 at the current Table A allocation. Metropolitan will continue with its extraordinary drought operations and to develop new supplies through partnerships with member agencies and others. These actions will help preserve SWP supplies and reduce use of storage supplies this year to better position Metropolitan for continued dry conditions this year and a potential dry 2023.

Purpose

Informational

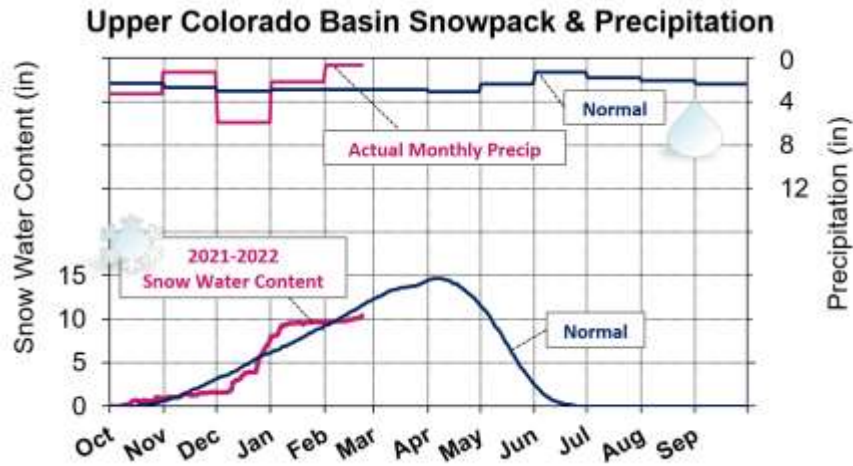
Attachments

Attachment 1: Projected 2022 WSDM Storage Detail (15 percent SWP Table A allocation)

Attachment 2: Agreements to Exchange or Return Stored Water, Potential Magnitude of California's Drought Contingency Plan Contribution, and Cyclic Program Balances

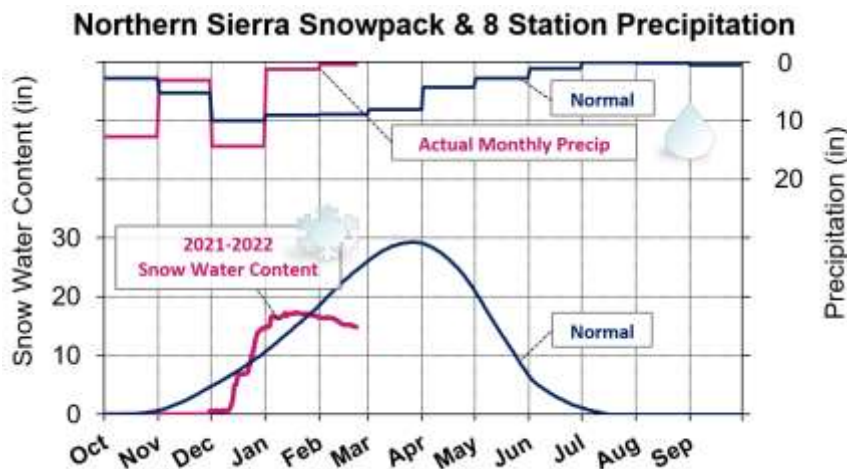
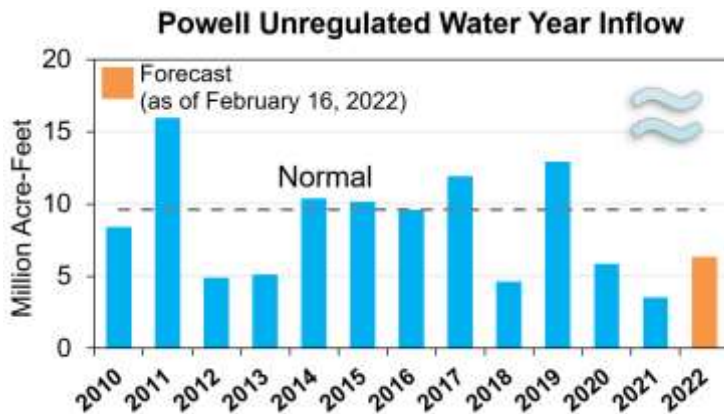
Detailed Report

This Water Surplus and Drought Management (WSDM) report updates water supply and demand conditions for CY 2022 and developing hydrologic conditions for WY 2021-2022.



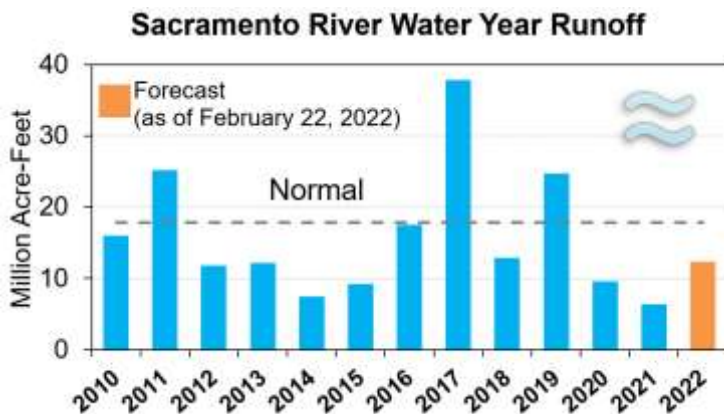
Upper Colorado River Basin

- * Below normal snowpack water content for this date (10.4 inches).
- ◆ Above normal precipitation to date (13.4 inches).
- ≈ Runoff into Lake Powell for WY 2022 is forecasted at 66% of normal.



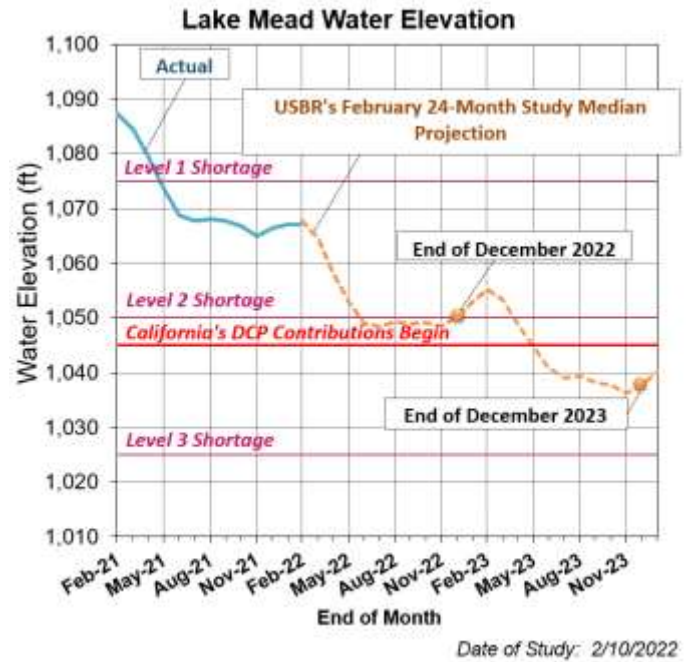
Sacramento River Basin

- * Below normal snowpack water content for this date (14.9 inches).
- ◆ Below normal precipitation at the 8 Station to date (31.9 inches). January and February on pace to be the driest January and February on record.
- ≈ Runoff into the Sacramento River for WY 2022 is forecasted at 69% of normal.



| CRA Supplies | Acre-Feet |
|---|------------------|
| Basic Apportionment | 550,000 |
| IID/ MWD Conservation Program | 105,000 |
| PVID Fallowing Program | 25,000 |
| Exchange w/ SDCWA (IID/Canal Lining) | 280,000 |
| Exchange w/ USBR (San Luis Rey Tribe) | 16,000 |
| Lower Colorado Water Supply Project | 9,000 |
| Bard Seasonal Fallowing Program | 6,000 |
| Quechan Diversion Forbearance | 6,000 |
| Quechan Seasonal Fallowing Program | 3,000 |
| Higher Priority Water Use Adjustment ¹ | 0 |
| Total CRA Supplies | 1,000,000 |

¹ Final adjustment could vary by more than 100 TAF.

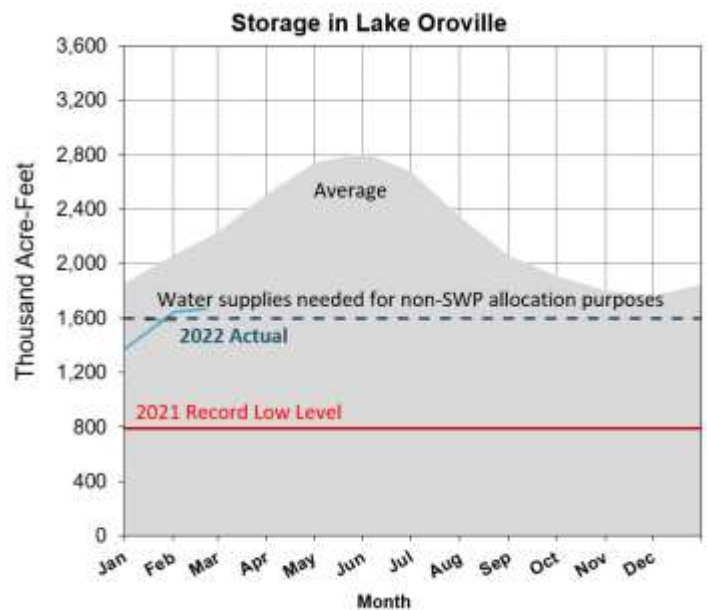


- Lake Mead storage is currently at 8.96 MAF (elevation 1066.9 feet).
- The Lower Basin is at a Level 1 shortage in CY 2022. Supplies to Metropolitan will not be curtailed and Metropolitan will have full access to its Intentionally Created Surplus (ICS) in CY 2022.

| SWP Supplies | Acre-Feet |
|--|------------------|
| Table A (15% SWP allocation) | 287,000 |
| Article 21 | 0 |
| Port Hueneme ¹ | 0 |
| SWC Buyers Group Transfers | 0 |
| Yuba Accord Dry-Year Purchase Program | 0 |
| MWDOC/IRWD Partnership ² | 4,000 |
| Purchase of SDCWA's Semitropic Supply ² | 4,000 |
| Total SWP Supplies | 295,000 |
| Total Supplies (CRA + SWP) | 1,295,000 |
| (Prior to storage actions) | |

¹ Rounded to the nearest thousand. Supply is 277.5 AF.

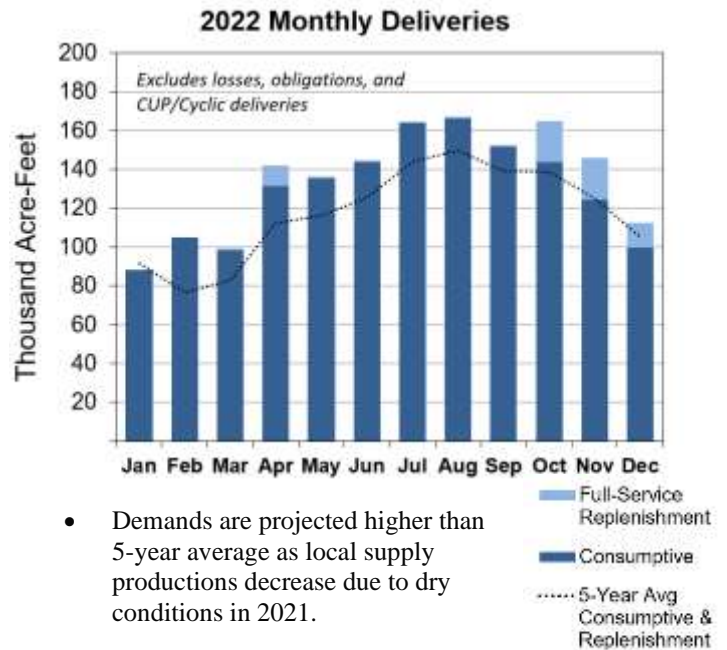
² Agreements signed in February.



- The 2022 Table A allocation is 15 percent. Changes to the allocation are possible depending on hydrologic conditions in northern California. The final allocation is typically determined in May or June.
- Storage in Lake Oroville is currently at 1.66 MAF (47 percent of total capacity) or 76 percent of historical average as of the date of this report.

| Current Demand | Acre-Feet |
|---|------------------|
| Member Agency Consumptive ¹ | 1,559,000 |
| Member Agency Replenishment | 70,000 |
| Coachella Valley Water District Agreement | 15,000 |
| Exchange w/ San Luis Rey Tribe | 16,000 |
| System and Storage Losses | 50,000 |
| Cyclic Deliveries | 0 |
| Total Demands | 1,710,000 |

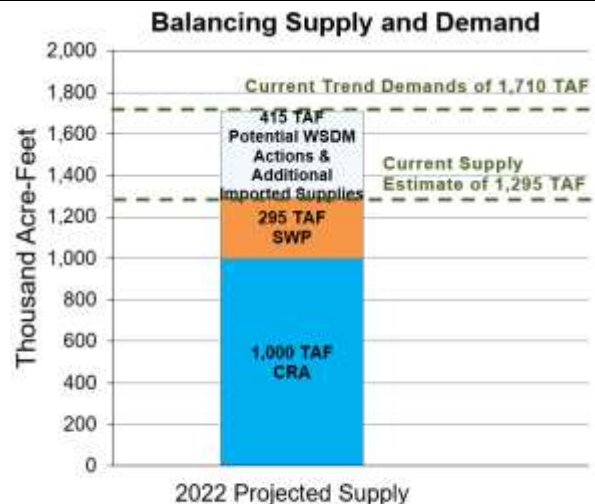
¹ Includes exchange w/ SDCWA (IID/Canal Lining) and CUP sales.



- Demands are projected higher than 5-year average as local supply productions decrease due to dry conditions in 2021.

MANAGING SUPPLIES AND DEMANDS

| Supply/Demand Balance | Acre-Feet |
|---------------------------------|-----------------|
| Total Supplies | 1,295,000 |
| Total Demands | 1,710,000 |
| Current Balance Estimate | -415,000 |



Dry-Year WSDM Strategies/Actions

The following WSDM actions are being pursued or are underway to satisfy the estimated supply/demand gap in 2022, enhance Metropolitan’s capability of delivering supplies to the SWP Dependent Areas, and reduce storage withdrawals in 2022.

- Withdrawing water from dry-year storage reserves.
- Coordinating with member agencies to identify new drought actions targeted at Metropolitan’s SWP Dependent Areas.
- Executed an agreement with DWR to allow for water withdrawals from Perris Flex storage from Castaic Lake.
- Increased exchange amounts with Arvin-Edison for Metropolitan to receive Friant surface water supplies.
- Maximizing the use of Colorado River or stored supplies by using the Greg Avenue pump station and drafting water from Diamond Valley Lake to serve the Lakeview Pipeline and the Mills Plant.
- Advancing infrastructure improvements to reduce the impact of the current drought and provide future system flexibility.
- Working with member agencies to switch from service connections providing SWP supplies to alternate connections that use Colorado River supplies, both within and outside of the Operational Shift Cost-Offset Program.
- Partnering with the San Diego County Water Authority to purchase their groundwater stored in the Semitropic Water Bank and lease their pumping capacity.
- Partnering with non-member agencies such as the San Bernardino Valley Municipal Water District, a SWP Contractor, for exchange opportunities.
- Utilizing the Coordinated Operating Agreement with Municipal Water District of Orange County and Irvine Ranch Water District to enhance SWP supplies.
- In February, Metropolitan’s board approved the Reverse Cyclic Program through which member agencies would purchase supplies this year for deferred delivery in a future year to help preserve SWP storage; and to enter into agreement with the State Water Contractors to pursue transfer supplies.

2022 WSDM Storage Detail

| | 1/1/2022 Estimated Storage Levels ¹ | CY 2022 Take Capacity ² | 2022 Total Storage Capacity |
|--|---|---------------------------------------|--------------------------------|
| WSDM Storage | | | |
| Colorado River Aqueduct Delivery System | 1,243,000 | 238,000 | 1,657,000 |
| Lake Mead ICS | 1,243,000 | 238,000 ³ | 1,657,000 |
| State Water Project System | 636,000 | 191,000 | 1,879,000 |
| MWD SWP Carryover ⁴ | 38,000 | 38,000 | 350,000 |
| DWCV SWP Carryover ⁴ | | | |
| MWD Articles 14(b) and 12(e) | 0 | 0 | N/A |
| Castaic Lake (DWR Flex Storage) | 0 | 0 | 154,000 |
| Lake Perris (DWR Flex Storage) | 49,000 | 49,000 ⁵ | 65,000 |
| Arvin Edison Storage Program | 136,000 | 17,000 ⁶ | 350,000 |
| Semitropic Storage Program | 218,000 | 50,000 ⁷ | 350,000 |
| Kern Delta Storage Program | 149,000 | 37,000 | 250,000 |
| Mojave Storage Program | 19,000 | 0 | 330,000 |
| AVEK Storage Program | 27,000 | 0 | 30,000 |
| In-Region Supplies and WSDM Actions | 795,000 | 426,000 | 1,246,000 |
| Diamond Valley Lake | 600,000 | 343,000 | 810,000 |
| Lake Mathews and Lake Skinner | 179,000 | 67,000 | 226,000 |
| Conjunctive Use Programs (CUP) ⁸ | 16,000 | 16,000 | 210,000 |
| Other Programs | 674,000 | 39,000 | 1,181,000 |
| Other Emergency Storage | 381,000 | 0 | 381,000 |
| DWCV Advanced Delivery Account | 293,000 | 39,000 | 800,000 |
| Total | 3,348,000 | 894,000 | 5,963,000 |
| Emergency | 750,000 | 0 | 750,000 |
| Total WSDM Storage (AF) ⁹ | 2,598,000 | 894,000 | 5,213,000 |

¹ Start of year balances, subject to DWR adjustments and USBR final accounting in May 2022.

² Take capacity assumed under a 15 percent SWP Table A Allocation. Storage program losses included where applicable.

³ Take capacity 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 Available for withdrawal from Castaic Lake in 2022 pursuant to an MWD-DWR agreement.

⁶ Take amounts dependent on exchange capabilities.

⁷ Includes leasing 5,000 AF of return capacity from SDCWA per agreement signed in February. This provides Metropolitan the ability to withdraw more of its groundwater stored in the program.

⁸ 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.

⁹ Total WSDM Storage level subject to change based on accounting adjustments.

Agreements to Exchange or Return Stored Water

| | Future Returns ¹ |
|--|------------------------------------|
| California ICS Agreement – IID ² | 240,000 |
| Storage and Interstate Release Agreement with Southern Nevada Water Authority ³ | 330,000 |
| Coachella Valley Water District Agreement ⁴ | 210,000 |
| Total (AF) | 780,000 ⁵ |

¹ Rounded to the nearest thousand.

² IID can request return in any year, conditional on whether or not Metropolitan is implementing a Water Supply Allocation Plan.

³ Up to 30,000 AF per year beginning no earlier than 2022.

⁴ Obligation to be met by the end of 2026.

⁵ Subject to change based on accounting adjustments.

Potential Magnitude of California's Drought Contingency Plan Contribution

| | 2022 | 2023 | 2024 | 2025 | 2026 |
|--|-------------|-------------|-------------|-------------|-------------|
| Likelihood of Required California Drought Contingency Plan Contribution ¹ | 0% | 0% | 65% | 62% | 64% |
| Average Metropolitan DCP Contribution When Contributions Are Required (AF) | 0 | 0 | 235,000 | 285,000 | 289,000 |

¹ Results from USBR's January 2022 Colorado River Simulation System (CRSS) model run which is the latest CRSS study at the time of this report. Study assumes 500+ Plan actions implemented to date; any further 500+ Plan activities would add new water to Lake Mead and would reduce the probabilities in the table.

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 | |
| 2019 | 51,000 | 147,000 | 19,000 | 166,000 | 91,000 | 126,000 |
| 2020 | 126,000 | 2,000 | 0 | 2,000 | 50,000 | 78,000 |
| 2021 | 78,000 | 0 | 0 | 0 | 28,000 | 50,000 |
| 2022 ¹ | 50,000 | 0 | 0 | 0 | 32,000 | 18,000 |

¹ Projected Cyclic program activity for the year. Subject to change.



Update on Water Surplus and Drought Management

Water Planning and Stewardship Committee

Item 6a

March 7, 2022

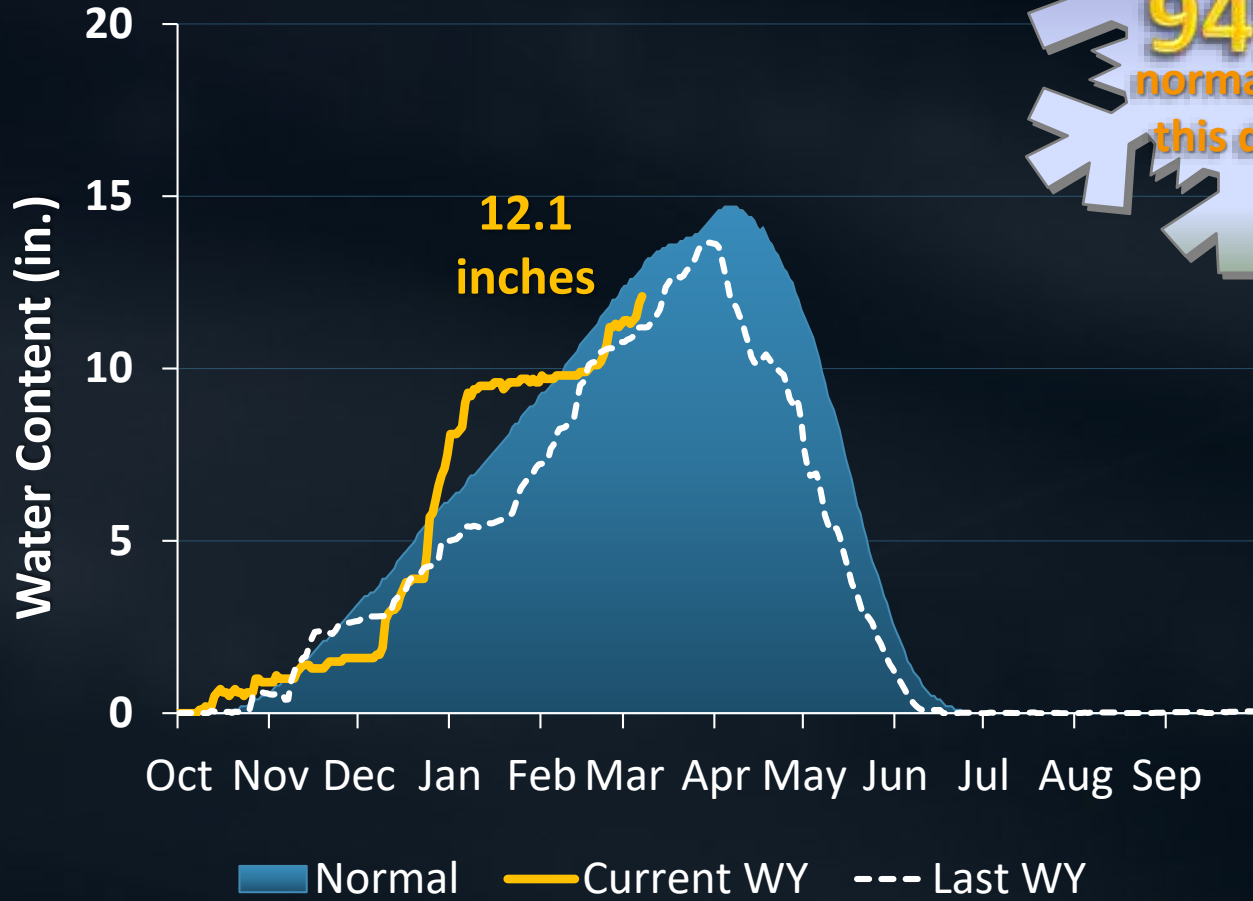
Outline

- Hydrologic Conditions
- Supply and Demand Balances

Upper Colorado River Basin snowpack below normal

As of 3/7/2022

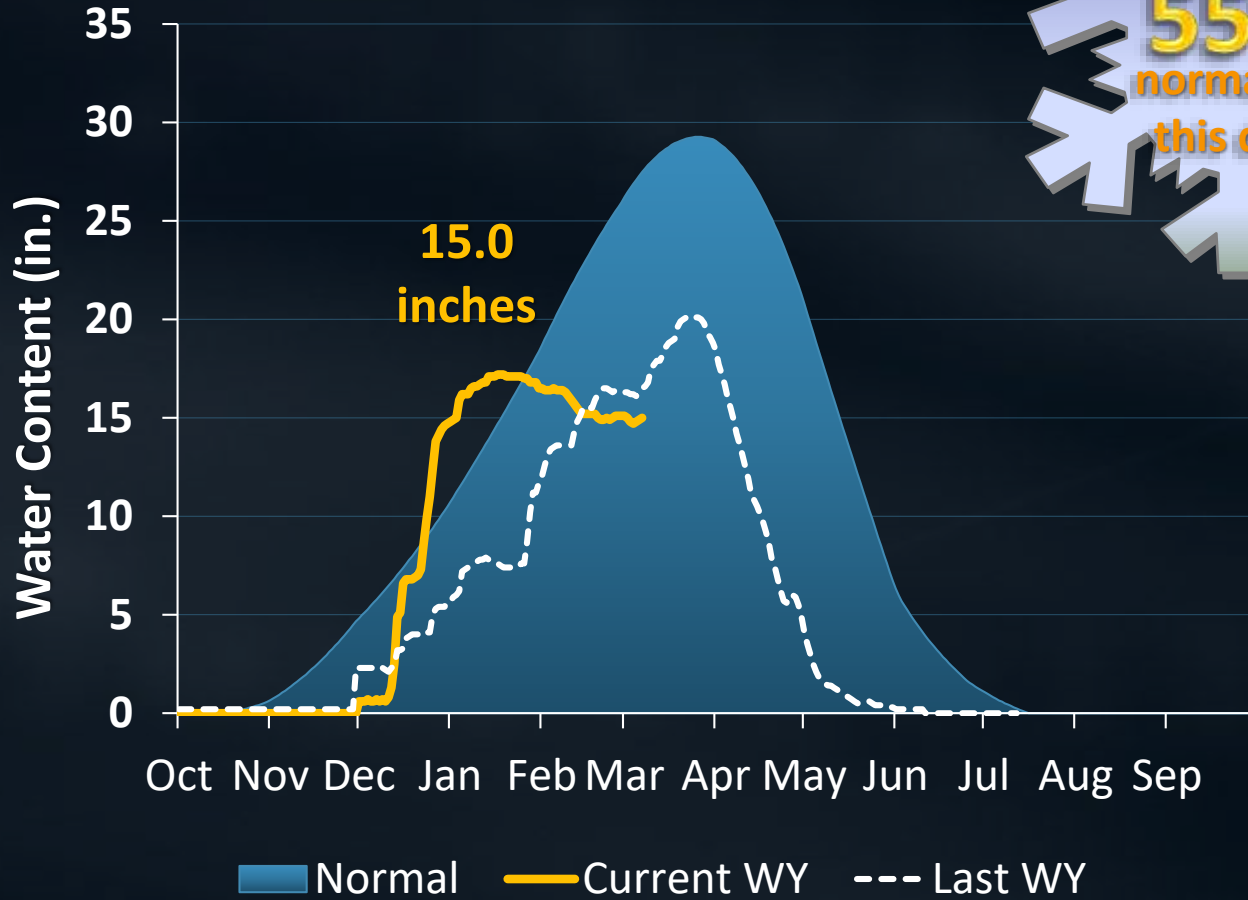
94%
normal for
this date



Northern Sierra snowpack below normal

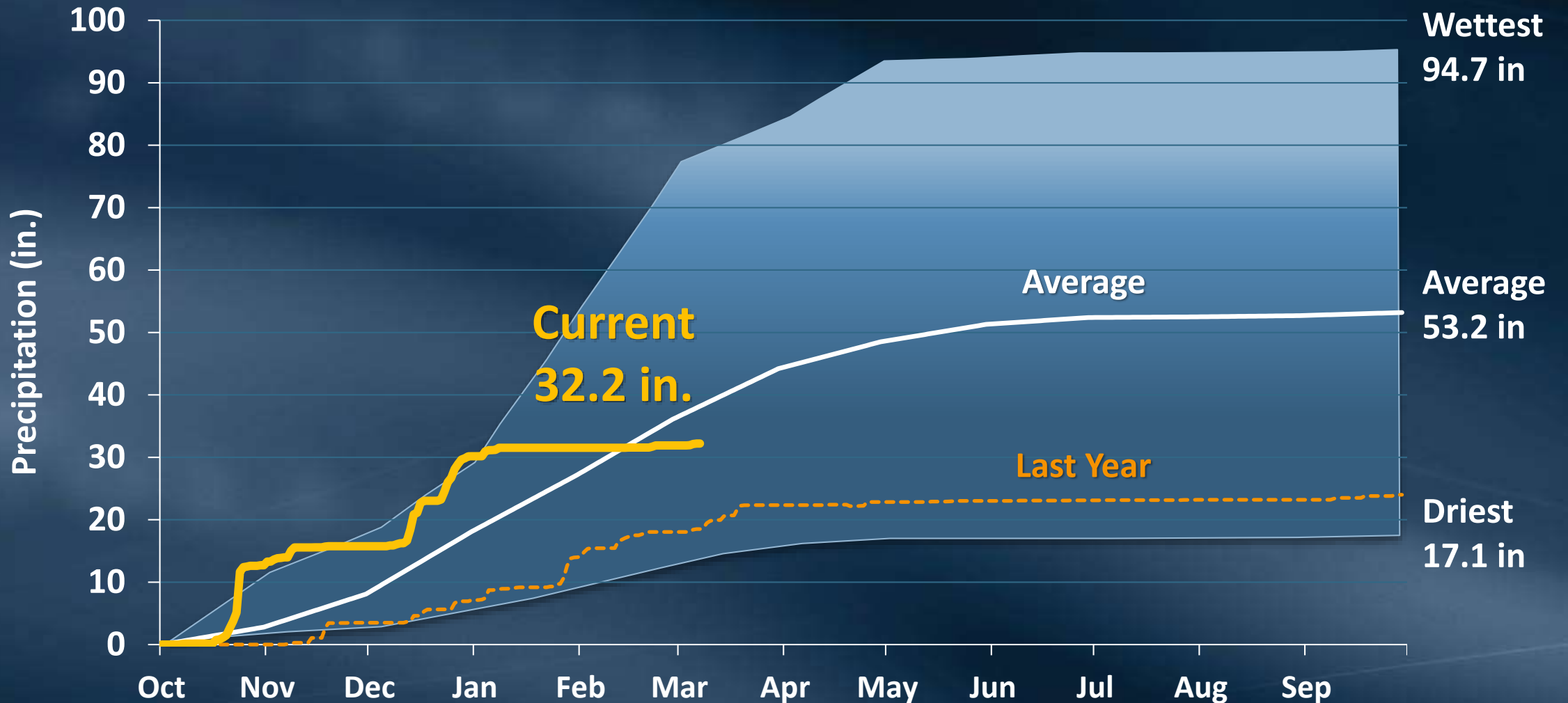
As of 3/7/2022

55%
normal for
this date



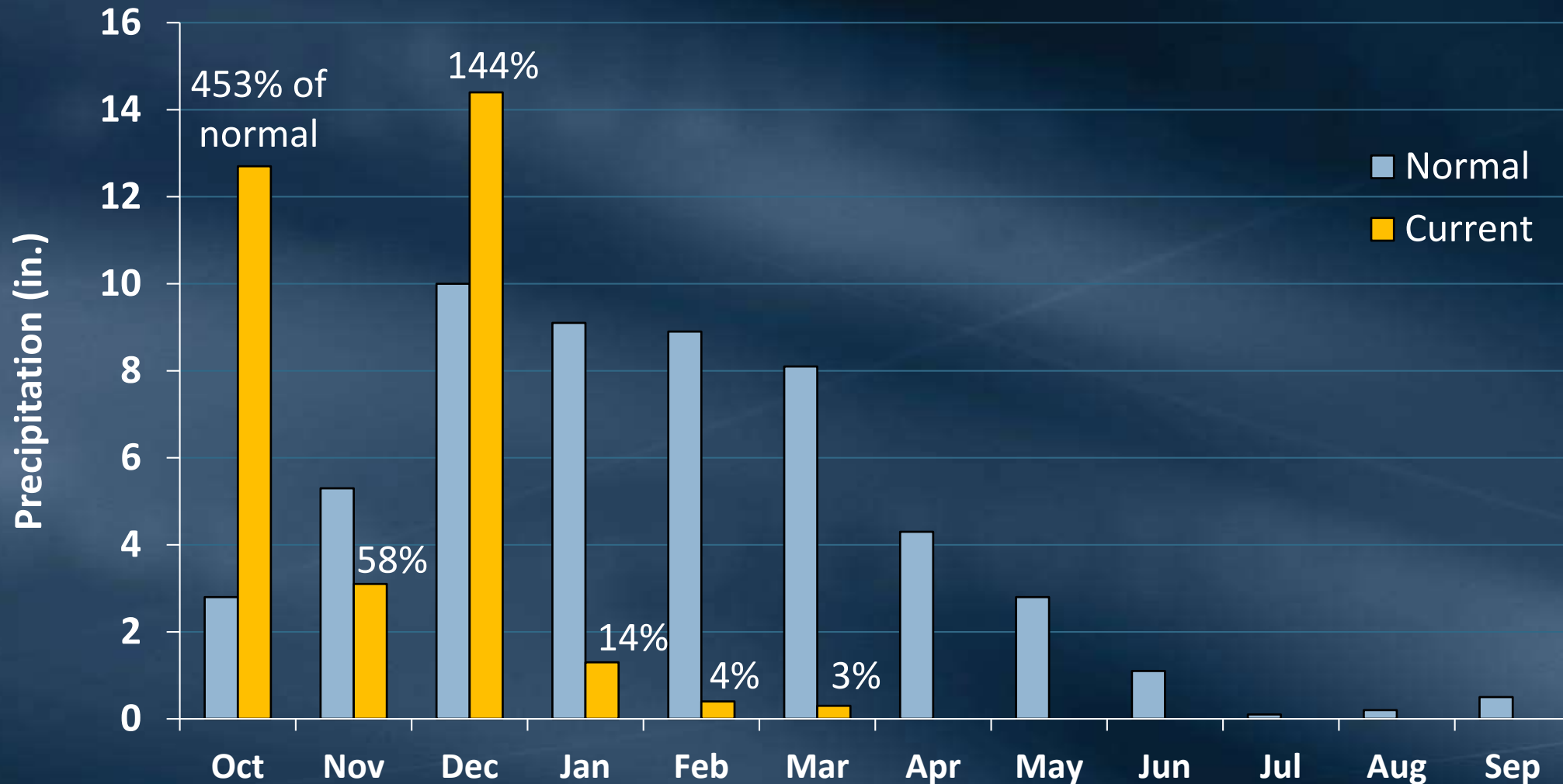
Driest January and February on record

8-Station Index (as of 3/7/2022) - Cumulative



A month left of the rainy season

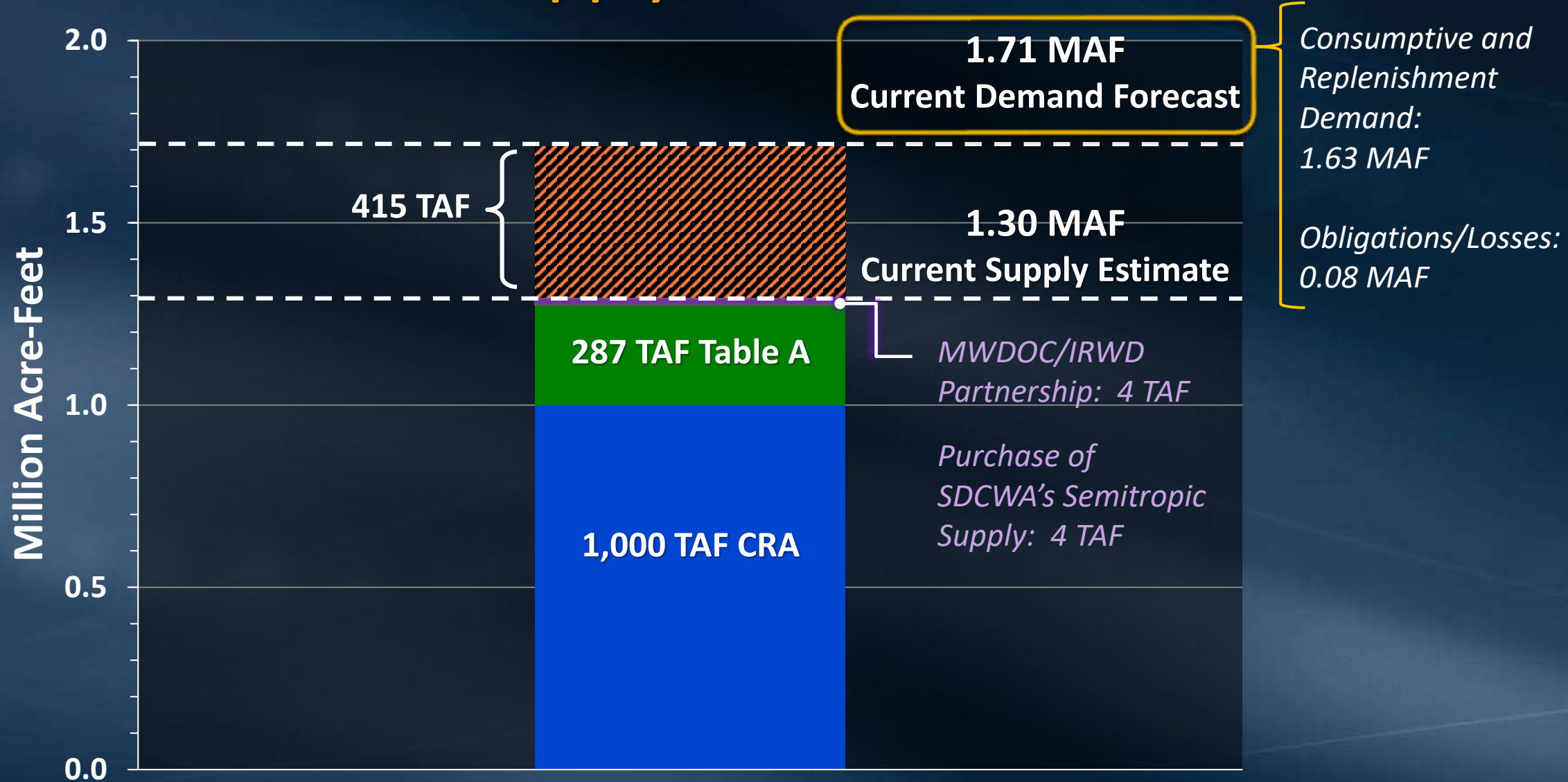
8-Station Index (as of 3/7/2022) - Monthly



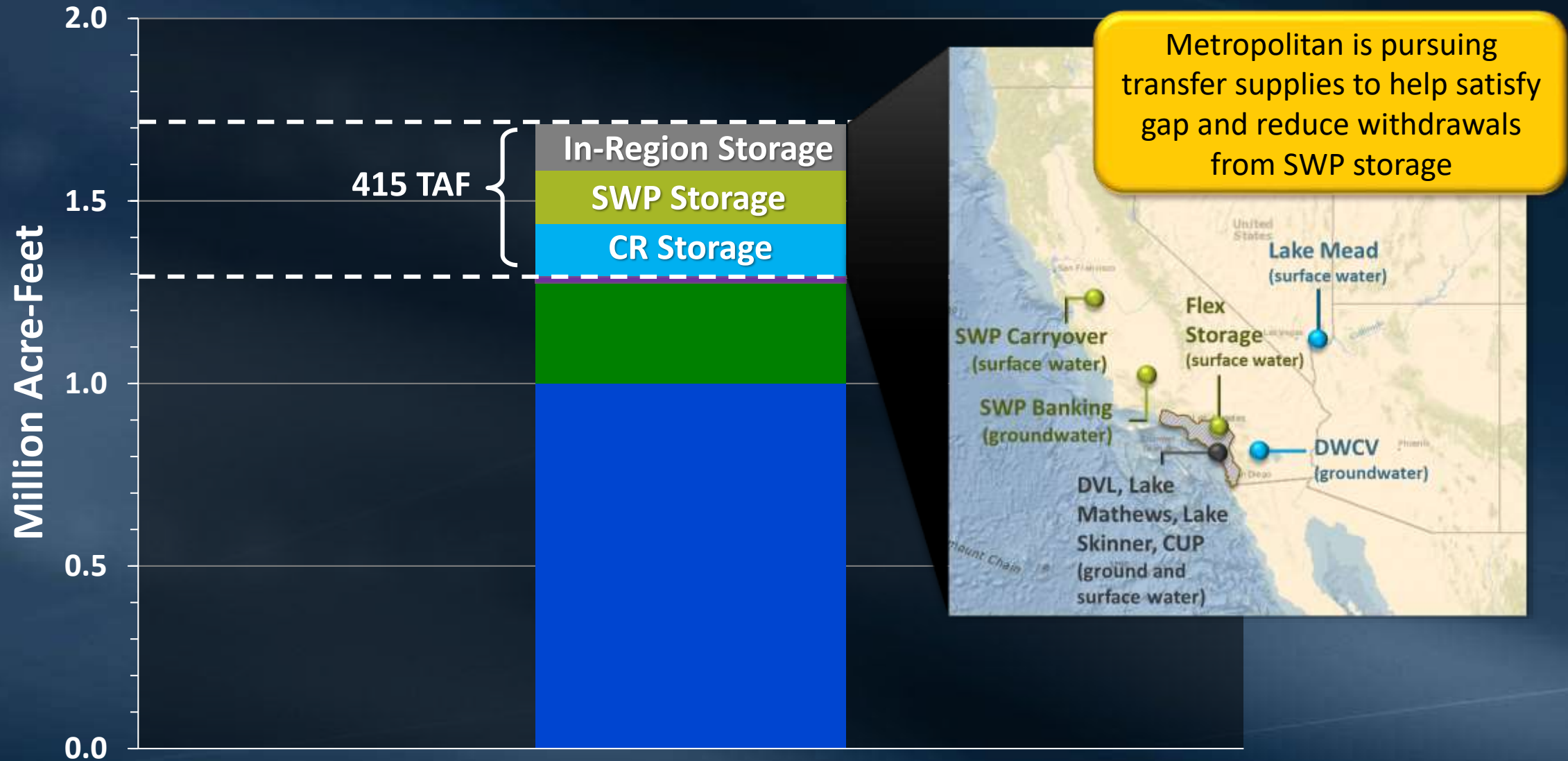
Dry conditions significantly reducing runoff

- DWR's February study suggesting the possibility of a drop in the allocation
 - DWR held the allocation at 15 percent
- Hydrologic conditions in March will be critical
 - Rainfall in March can help maintain the current allocation level but will be reflected in the April study
 - DWR's March study will reflect dry conditions through February
- Allocation typically finalized by May

2022 Service Area Supply/Demand Balance

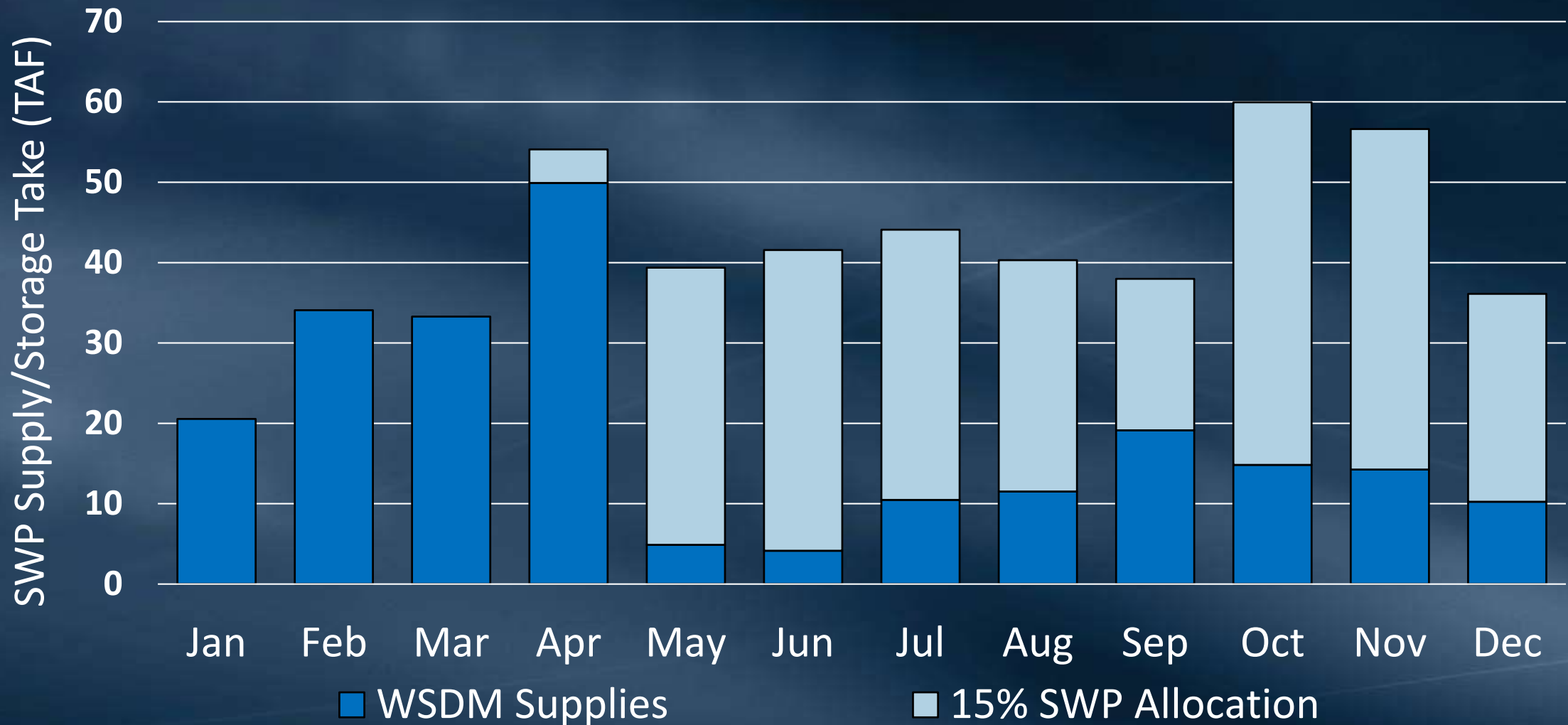


Satisfying the service area supply/demand gap



2022 SWP Dependent Area Monthly Demands

After Drought Actions – With 15% Allocation & Normal Demand

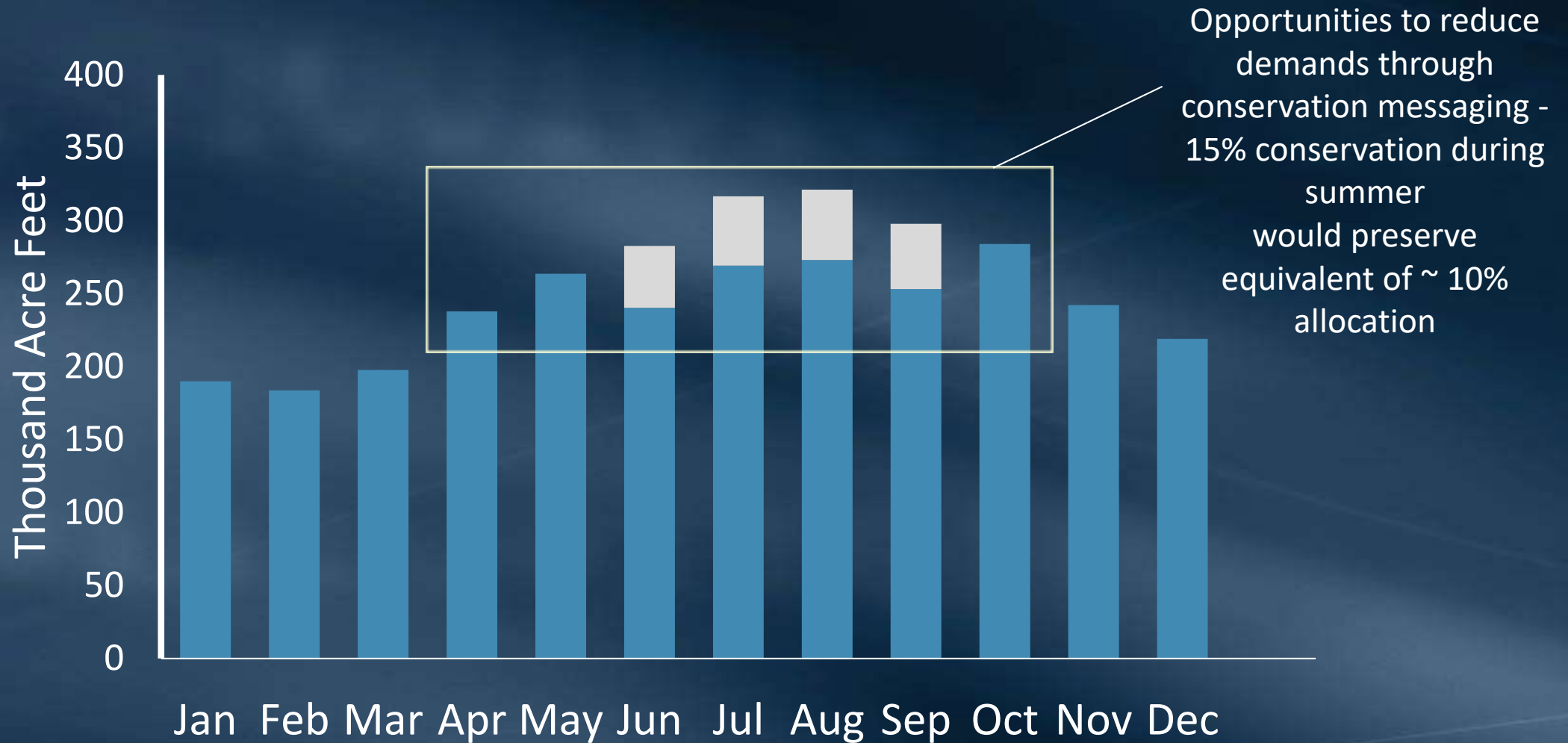


Ramping up conservation messaging to help preserve supplies

- Include advertising on digital, out of home, radio, and print
- Increase coordination with member agencies and DWR
- Expand outreach to community leaders and organizations
- Develop stronger messaging
- New media buy contract for Board's consideration

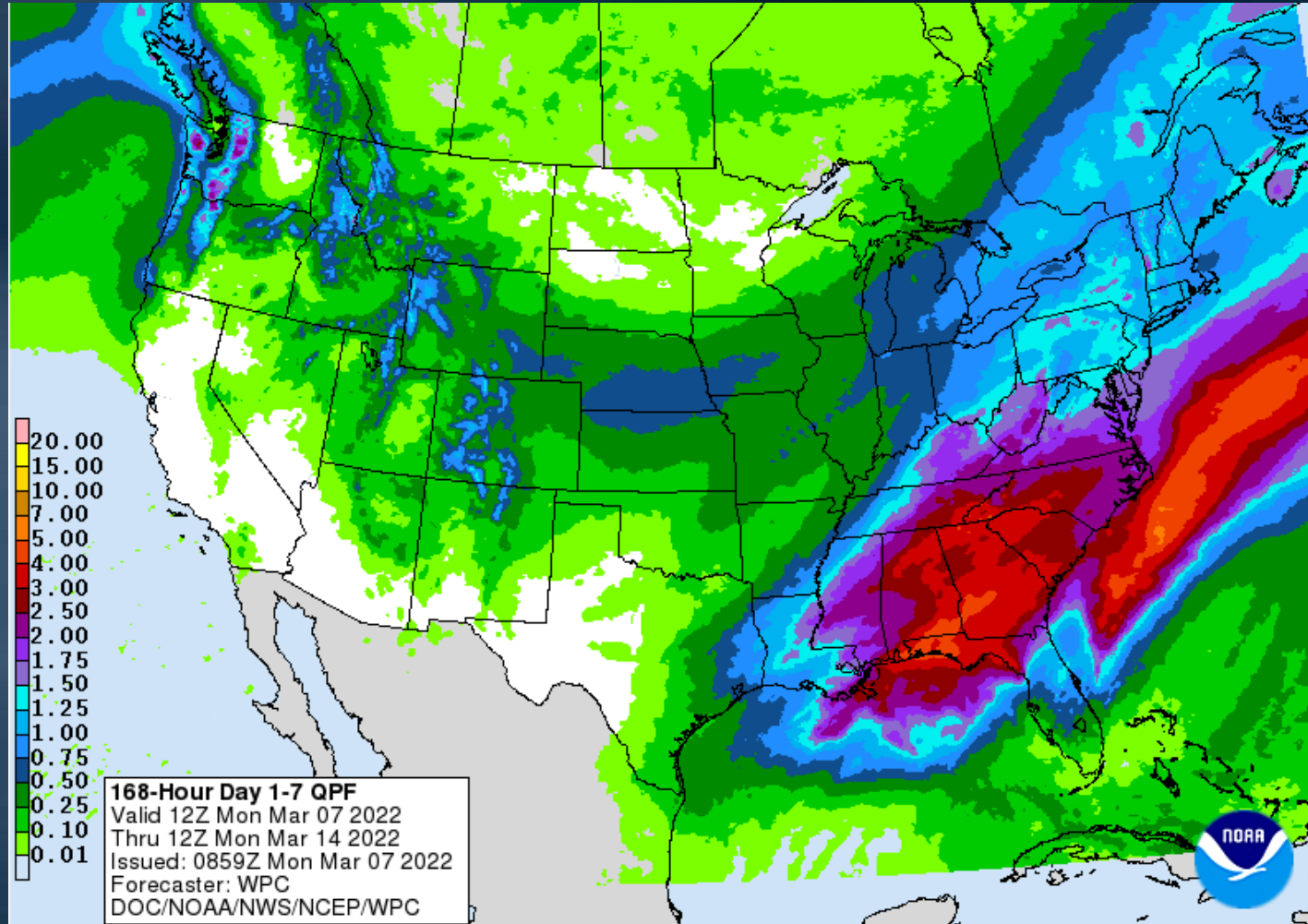
Opportunities to conserve in the spring and summer

Service area retail municipal & industrial demand: 5-year average

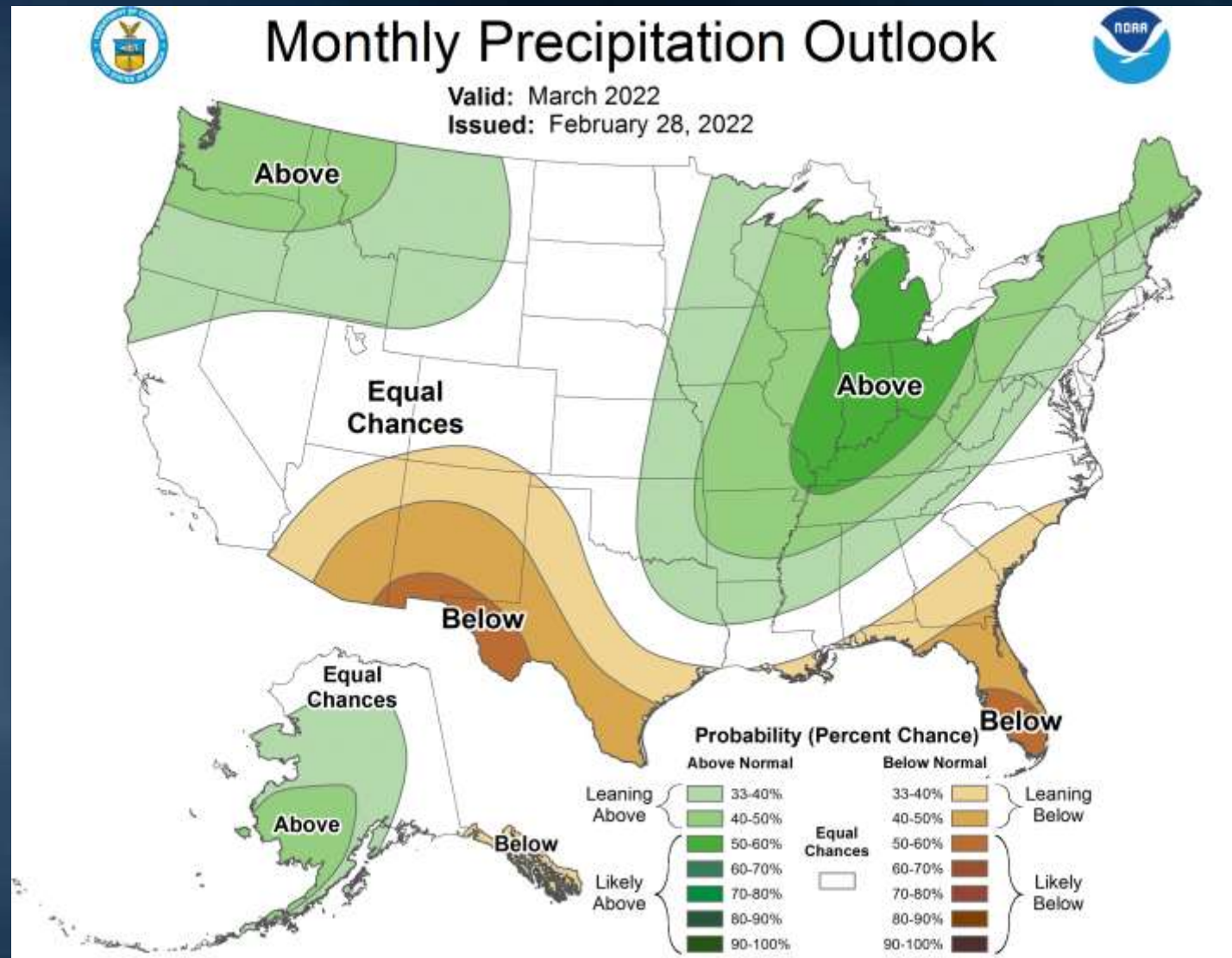


Precipitation forecasted for the next 7 days

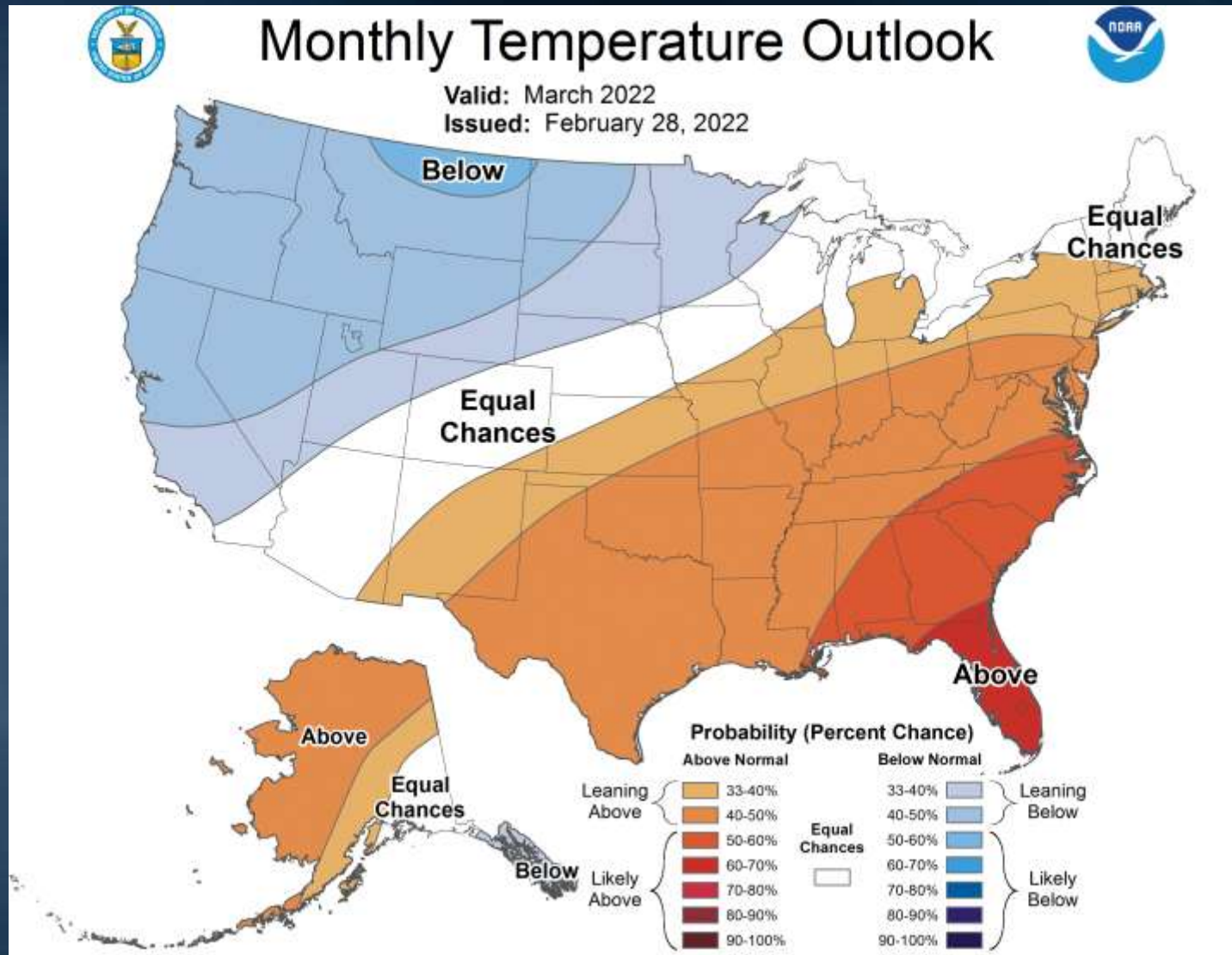
March 7 – 14



March precipitation outlook



March temperature outlook



Summary

- Dry conditions persist since January
- March will be critical for the SWP Table A allocation
- Metropolitan continues to evaluate water supply conditions should additional emergency actions be warranted
- Continued water-use efficiency is vital to satisfy demands this year and preserve supply for next year





Update on Chino Basin Program Development and Pending Terms of Agreement with Inland Empire Utilities Agency

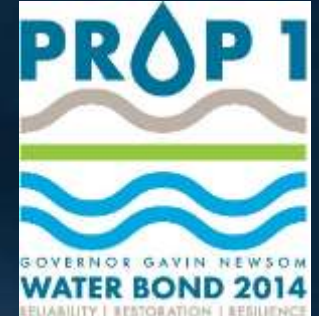
Water Planning and Stewardship Committee

Item 6b

March 7, 2022

Proposition 1 Recap

- Proposition 1 approved \$7.5 billion of funding (Nov. 2014)
 - State water bond for water system investments
 - \$2.7 billion specifically for water storage projects
- California Water Commission (CWC) uses the Water Storage Investment Program (WSIP) to allocate the funds
 - One of the projects given conditional funding is the Chino Basin Program (CBP)



Previous Board Briefing

- In June 2021, staff presented an update on the Prop 1 WSIP projects and an overview of the Chino Basin Program
 - Metropolitan provided letter of intent to continue collaborating with IEUA as its potential facilitating SWP contractor
- Staff have continued working with IEUA on program development and agreement terms



WSIP Pulse Flow Project Framework



1. California Dept. of Fish & Wildlife aims to provide pulse flows to Feather River

2. To balance water used for pulse flow, DWR would reduce SWP allocations to a State Water Contractor

3. To compensate for reduced SWP allocations, water would be delivered from the WSIP groundwater project to the State Water Contractor

CBP – How Would It Work?

New advanced water treatment
to produce up to 15,000 AFY



Treated water is
stored in Chino Basin

State Calls for Exchange
(Up to 50 TAFY)

Up to 50 TAF* equivalent
exchange of SWP supplies
and Chino Basin supplies

Stored groundwater from
Chino Basin would be
provided to MWD

- Exchange would be up to 375 TAF over 25 years
- State could request up to three consecutive years, if sufficient stored groundwater available
- After 25-year program term, stored water would be used for local supply

**Dependent on pulse flow call and carriage loss accounting*

Program Benefits

State and Public

- Environmental benefits for Chinook salmon and surrounding ecosystem
- Additional flows in Feather River could alleviate significant ecosystem impacts during dry and critical years



Program Benefits

State and Public

IEUA/Chino Basin

- New facility will allow IEUA to meet advanced water treatment requirements
- Treated water would reduce salinity and improve overall water quality in the Chino Basin
- Chino Basin is increasing managed storage capacity up to 1 MAF, which can be more effectively used with proposed program facilities



Program Benefits

State and Public

IEUA/Chino Basin

MWD/Regional

- Improves regional reliability & system flexibility within MWD's service area
- Improves critical dry year reliability
 - No pulse flow exchanges in critical dry years
 - Provides option for additional supplies in SWP Dependent area
- Includes emergency use provision for up to 50 TAF
- Sets precedent of assigning monetary value to environmentally beneficial water supplies

Metropolitan as a Facilitating Partner

- The Prop 1 agreement for the Chino Basin Program is between IEUA and the California Water Commission
 - Several associated agreements needed to facilitate the program
 - Metropolitan not party to all agreements
- As facilitating partner, MWD will see neutral to net gain
 - Tenet of “no harm”
 - Protects SWP Dependent areas

List of Agreements Needed (MWD in Green)

- A1. SWP Pulse Flow Exchange Agreement
- A2. Metropolitan-DWR SWP Article 15a Exchange Agreement
- A3. DWR – DFW Pulse Flow Agreement
- B. CBP Participating IEUA Member Agency Agreements
- C. Metropolitan-IEUA Exchange Agreement
- D. Recycled Water Source Agreements
- E. WSIP Public Benefit Agreement with DFW
- F. WSIP Public Benefit Agreement with SWRCB (Water Quality)
- G. WSIP Public Benefit Agreement with DFW (Emergency Water)
- H. CWC Funding Agreement

Agreements with Metropolitan as a Party

- SWP Pulse Flow Exchange Agreement
 - Parties: DWR, IEUA, MWD
 - Purpose: Pulse flow operation terms, annual decision making
- Metropolitan-DWR SWP Article 15a Exchange Agreement
 - Parties: DWR, MWD
 - Purpose: Terms for exchange of SWP Table A allocation
- Metropolitan – IEUA Exchange Agreement
 - Parties: MWD, IEUA
 - Purpose: Exchange quantities, performance requirements, operational agreements

Pending Terms of Agreement

- Agreement terms cover the following areas:
 - Exchange quantities
 - Call quantities, how stored groundwater will be delivered to MWD service area (in-lieu and pump in)
 - Operations
 - Limitations on when call year can be initiated (e.g., no call in critical dry years)
 - CBP Operating Committee to establish IEUA/MWD activities (go/no go)
 - Cost
 - MWD not obligated to invest in exchange facilities
 - Additional benefits
 - Flexibility provided to MWD

Chino Basin Program Timeline



Next Steps

- MWD Action item in April to authorize the General Manager to negotiate terms and conditions consistent with MWD/IEUA Exchange Agreement draft terms
- IEUA will continue working on developing agreements
- Staff will return for Board approval of all MWD agreements, including approval of final MWD/IEUA Exchange Agreement terms





Bay-Delta Policy Update

Workshop One

Water Planning and Stewardship Committee

Item 6c

March 7, 2022

Workshop Overview



Background:
Bay-Delta Policies



Research and Staff Workshops



Bay-Delta Policy Development
and Framework



Policy Framework Application



Discussion


BDI Policy Update Timeline

June Action

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-------------|---------------|
| Staff Research and Development | | | | | | | | | |
| Kick Off with BDI Committee | | | | | | | | | |
| Committee Workshops 1+2 | | | | | | | | | |
| Board Info and Action Items | | | | | | | | INFO | ACTION |

Background: Bay Delta Policies


Existing Board Adopted Bay-Delta Policies



Policy Principles 2006
(Policy Principles - Themes)



Delta Action Plan Framework 2007
(Short, Mid, and Long Term)



Delta Conveyance Criteria 2007
(Near, Long Term and Approved
Conveyance Criteria)

Other Key Bay-Delta Board actions: Bay-Delta Finance & Cost Allocation (May 2004), Delta Governance Principles (August 2008), Delta Vision Implementation (Jan 2009), Delta Related Legislation (April 2009)

Four Central Policy Themes (2006)

Focus on a long-term Sustainable Delta

Promote Statewide Integrated Resource Management Actions – consistent with IRP

Long-Term Solutions Must be Cost-Effective and Fairly Apportion Costs to All Beneficiaries

Pursue continued Implementation/Protection of Drinking Water Supplies/Quality Facility Improvements

Application of Existing Bay-Delta Policies and key initiatives

Conveyance Criteria

Delta Action Framework



CSAMP



2006

2008

2010

2012

2014

2016

2018

2020

Bay-Delta Policy Principles

Delta Governance Principles



Delta Conveyance Project

Why Update the Bay-Delta Policies?



Policies have not been updated in over 15 years



Policy structure is dense and spread over multiple board actions



Policies can be difficult to understand for both decision makers and the public



Metropolitan's policies should be clear and concise to support the board's future oversight and actions

Research and Staff Workshops

Summarized Research

26

Detailed policy profiles focused on current issues and emerging trends completed by Subject Matter Experts.

50+

Internal workshop participants from across the organization

173

Comments reviewed and categorized

Emerging Trends



Climate change impacts on hydrology

Increased intensity and frequency of droughts, wildfires, floods



Joint funding and partnerships are occurring statewide

Watershed wide partnerships, multi-agency science partnerships, project partnerships



Delta Sustainability has become even more critical

Strain on environment, multi-benefit projects trending, co-existing environment and water supply needs

Highlights and Key Points



Community building in the Delta



Promote sustainable farming practices in Delta (flexible leases)



Delta Conveyance planning should emphasize proposed project operational reliability



Local resource development still requires imported water for recycling and groundwater recharge



Multi-benefit restoration projects are essential, streamlining permitting processes is a must



Energy sustainability and reliability is a paramount concern, but should not be at the expense of water suppliers

Bay-Delta Policy Development and Framework

Objective: Restructure policies to align with emerging trends while preserving topics that are still relevant to the Board's ongoing direction

Key Six Policy Areas



Policy Area 1: Statewide Water Resource Management



Policy Area 2: Bay-Delta Science, Watershed Management, and Land use



Policy Area 3: Bay-Delta Operational Resilience



Policy Area 4: Bay-Delta Infrastructure Reliability



Policy Area 5: Community Investments and Partnerships

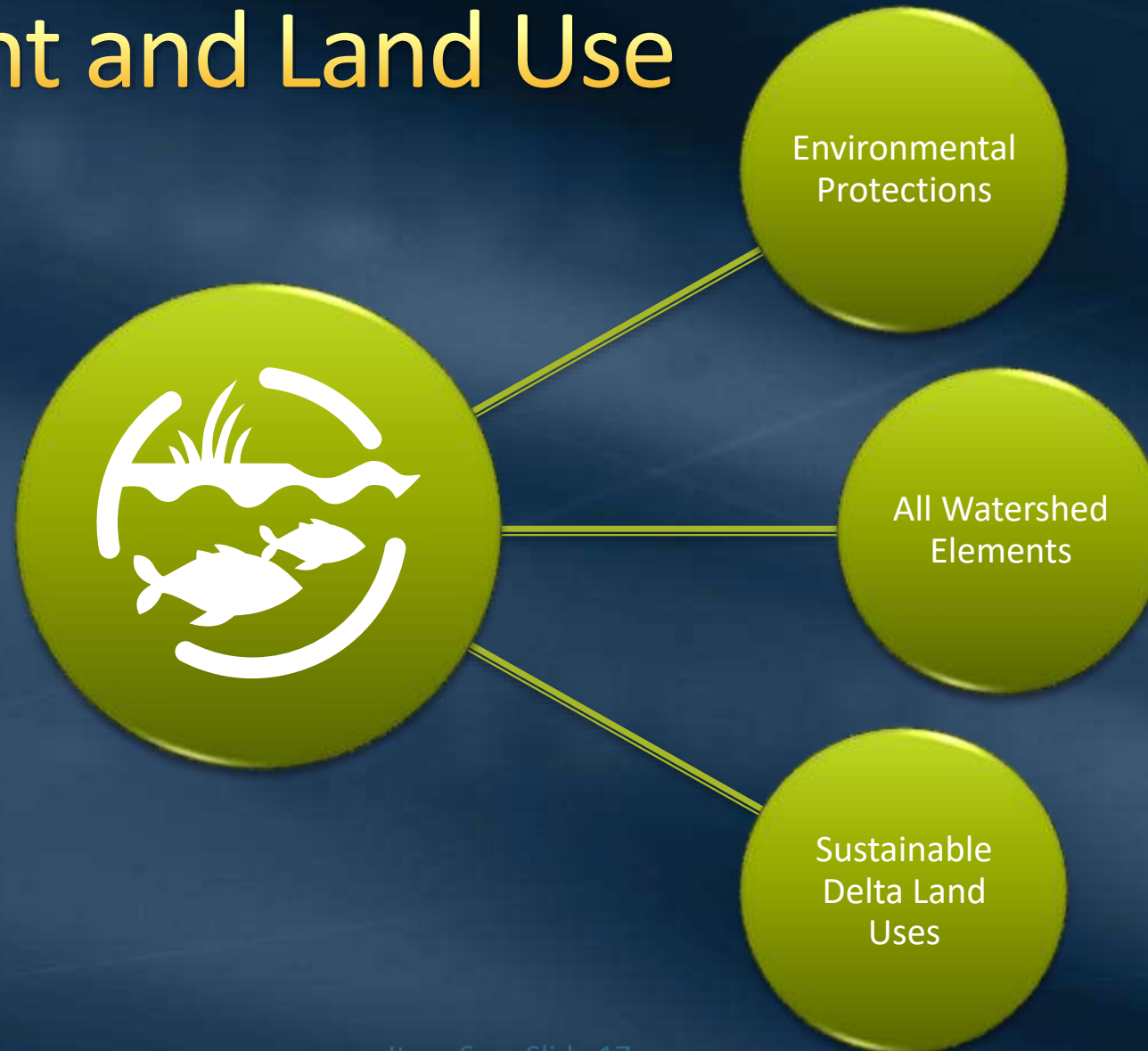


Policy Area 6: Statewide Water Resources Management Supports MWD's One Water

Policy Area 1: Statewide Water Resource Management



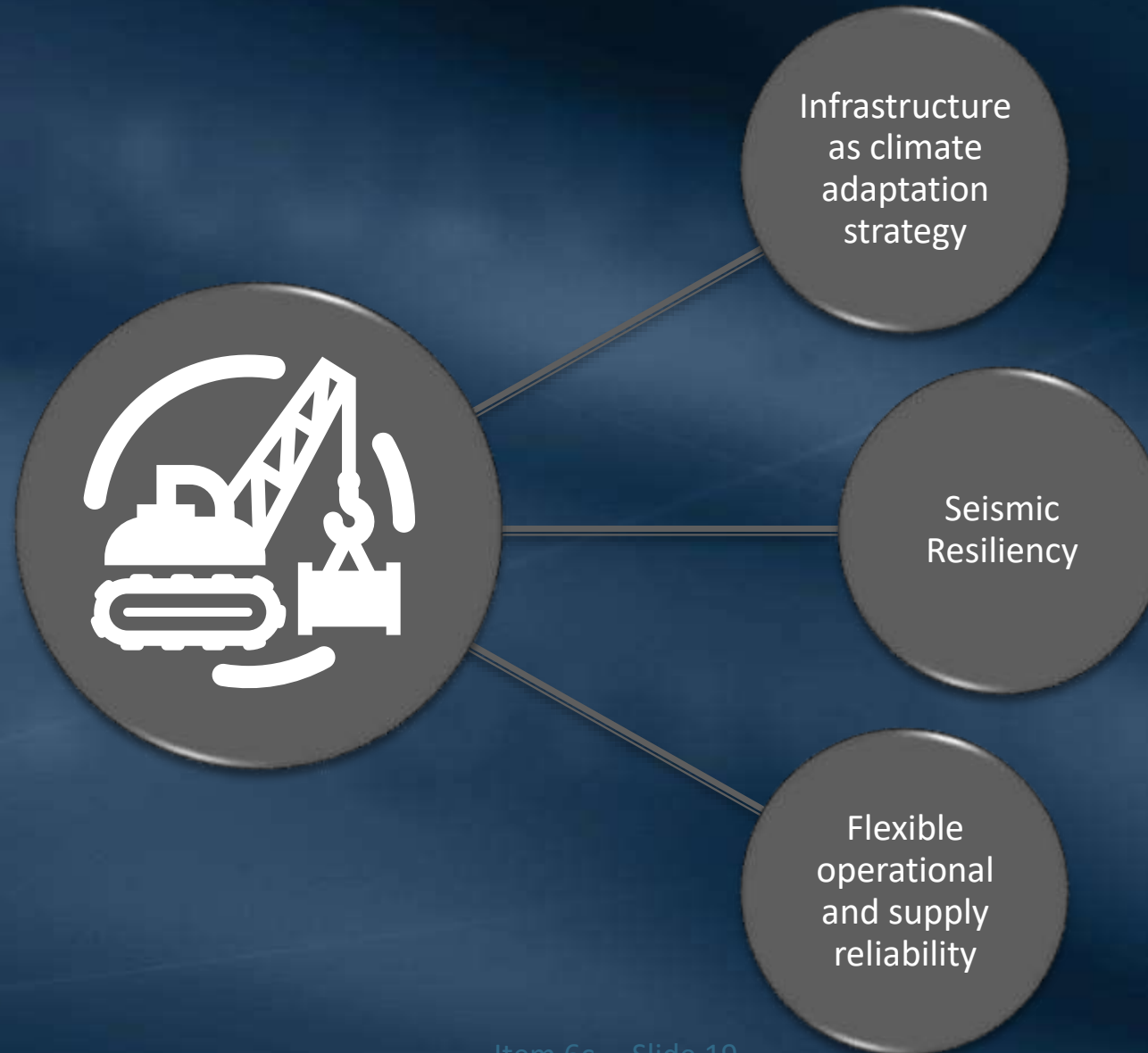
Policy Area 2: Bay-Delta Science, Watershed Management and Land Use



Policy Area 3: Bay-Delta Operational Resilience



Policy Area 4: Bay-Delta Infrastructure Reliability



Policy Area 5: Community Investments and Partnerships

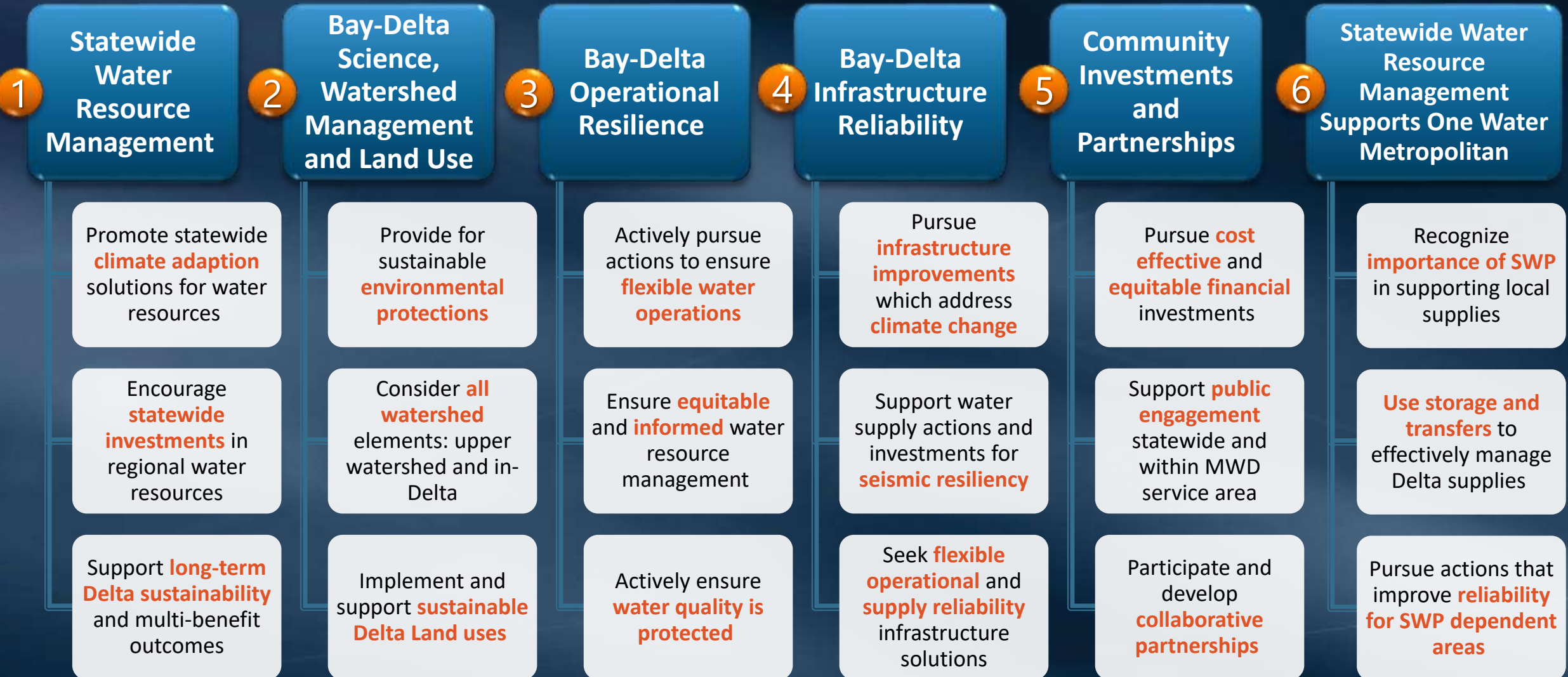


Policy Area 6: Statewide Water Resources Management Supports

MWD's One Water



DRAFT Bay-Delta Policy Framework: Policy Areas and Principles



Applying the Bay-Delta Policy Framework

Use of Bay-Delta Policies

- Provide board direction to staff related to Bay-Delta activities:
 - Program and project management
 - External engagement
 - Longer term planning
 - Key Investments
 - Day to day activities
- Align with proposed future board actions
- Final Board deliberation and actions would still be addressed individually



Policy Application – Delta Science



Policy Area 1: Statewide Water Resource Management

- Support long term Delta sustainability and multi-benefit outcomes



Policy Area 2: Bay-Delta Science, Watershed and Land Use Management

- Provide sustainable environmental protections



Policy Area 5: Community Investments and Partnerships

- Participate and develop collaborative partnerships

Policy Application – Delta Islands



Policy Area 1: Bay-Delta Science, Watershed and Land Use Management

- Implement and support sustainable Delta Land uses



Policy Area 3: Bay-Delta Infrastructure Reliability

- Pursue infrastructure improvements which address climate change
- Support water supply actions and investments for seismic resiliency



Policy Area 5: Community Investments and Partnerships

- Participate and develop collaborative partnerships

Discussion

Next Steps

Committee Workshop #2

April 2022



**Review DRAFT Bay-Delta
Framework and policy
principles**



Discuss key policies



**Solicit Board Input /
Discussion**



Next Steps:

**Update and Finalize Policies for Board
adoption
May Info Item
June Action Item**





● Colorado River Management Report

Summary

This report provides a summary of activities related to management of Metropolitan's Colorado River resources for the month of February 2022

Purpose

Informational

Detailed Report

Colorado River Basin Conditions

The U.S. Bureau of Reclamation (Reclamation) 24-Month Study forecast for runoff into the Colorado River system has declined more than 1 million acre-feet (maf) between January and February 2022. Current runoff projections into Lake Powell for April through July of unregulated inflow forecast is 5.000 maf or 78 percent of average. The reduced runoff forecast has increased the chance of Lake Powell declining to power pool (elevation 3,490 feet) to around 25 percent each year through 2026. Current projections show the chances of Lake Mead declining to critically low elevations have improved because of an adjustment to a model that Reclamation made to more accurately account for intervening inflows between Lake Powell and Lake Mead. However, the risk of Lake Mead declining to elevation 1,020 feet is 20 percent in 2024 and increases to 37 percent in 2026. The increased risk of reaching critical elevations highlight the need to fully implement the 500+ plan agreement to add 1 maf of additional conserved water to Lake Mead by the end of next year. Staff continues to explore new programs that could conserve water in the short-term and will keep the Board apprized of those activities.

Treaty Minute 323 Implementation Update

On September 21, 2017, the U.S. and Mexican Sections of the International Boundary and Water Commission signed Minute No. 323, titled "Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin". Following Minute No. 323's adoption, a number of workgroups were established to implement the provisions of the minute. Metropolitan staff regularly participate in many of the workgroups, including the Projects' workgroup, which was established to seek "opportunities for joint cooperative projects with the potential for increasing delivery or exchange of Colorado River water benefitting both nations". In February, staff participated in the Minute 323 Projects Workgroup meeting. The Workgroup reviewed Conagua's progress on efficiency programs including replacement of existing gate structures on the main canals in the system, as well as SCADA controls for better management of water deliveries. Additionally, the Workgroup discussed a New Water Projects Study, which has been finalized by Conagua and is seeking funding to move forward. The Workgroup recommended Mexico conduct a pilot project using a new drip irrigation system in the Mexicali area with additional technical and financial support from the U.S. Lastly, the workgroup heard a presentation by the non-governmental organizations (NGOs) that are working with the Mexicali area farmers to invest in water conservation projects to develop conserved water that could be purchased for environmental purposes. Some water has already been conserved and used for the environment and the NGOs would like to expand that effort as part of the Minute 323 Projects.



● Bay-Delta Management Report

Summary

This report provides a summary of activities related to the Bay-Delta for January and February 2022

Purpose

Informational

Detailed Report

Long-Term Delta Actions

Delta Conveyance

The California Department of Water Resources (DWR) is continuing to develop an Environmental Impact Report (EIR) under the California Environmental Quality Act. The U.S. Army Corps of Engineers (USACE), as part of its permitting review under the Clean Water Act and Rivers and Harbors Act, continues its preparation of an Environmental Impact Statement (EIS) to comply with the National Environmental Policy Act. DWR and USACE are planning to release draft environmental documents for public review in mid-2022.

Field activities under the Initial Study/Mitigated Negative Declaration for Soil Investigations in the Delta (including cone penetration tests, soil borings, and geophysical surveys) have been temporarily paused for the winter but will continue in the spring. DWR and the Delta Conveyance Design and Construction Authority (DCA) are continuing work to obtain temporary entry for additional soil surveys on private lands and permits for soil survey sites that fall under the jurisdiction of the Rivers and Harbors Act. Investigations at any given site will not occur until property owners have been notified and required permits and approvals for that site have been obtained.

As part of DWR's efforts to work with the community to develop a Community Benefits Program, DWR conducted a case study workshop on November 17, 2021. The workshop provided an opportunity to learn about other programs that have been implemented in other parts of the country. Three panelists spoke about the insights and lessons learned from implementing other programs and answered questions from the public. The meeting materials and videos (in English and Spanish) are available on DWR's website ([Community Benefits Program \(ca.gov\)](#)).

In February, DWR posted new planning and outreach materials to its Delta Conveyance Project website. These materials include a Public Outreach and Community Engagement Plan for 2022 that outlines ongoing public outreach and engagement activities ([DCP Public Outreach and Community Engagement Plan for 2022 \(ca.gov\)](#)). Other new materials include digital articles highlighting information from informational webinars on operations, climate change, environmental justice and fisheries held in 2021, and a new Delta Conveyance Deep Dive video on fisheries. These materials can be found on the project website ([Delta Conveyance \(ca.gov\)](#)).

Joint Powers Authorities

During the Delta Conveyance Design and Construction Authority (DCA) Special Board of Director's Meetings on January 14 and February 17, the DCA extended a resolution authorizing virtual board and committee meetings pursuant to AB 361.

At its regularly scheduled January 20 DCA Board of Director's meeting, the Board of Directors approved a resolution to sunset the Stakeholder Engagement Committee (SEC). This direction recognized that the SEC was formed to solicit and incorporate stakeholder feedback for the DCA's conceptual design work, and this work has now been largely provided to the DWR environmental team. The DCA held a final SEC meeting in December to review its general work to date, its input in the conceptual design, and future outreach efforts by the DCA and

Board Report (Bay-Delta Management Report)

DWR. In addition to this action, DCA staff recognized the SEC's valuable participation in representing their communities as part of the DCA's commitment to community outreach.

The DCA Board also approved an increase to the adopted fiscal year 2021/22 budget from \$23.5 million to \$24.48 million. The revised budget incorporates amounts remaining from the final portion of the underspend from the fiscal year 2020/21 budget in the amount of \$978,396.

During the Delta Conveyance Finance Authority (DCFA) regularly scheduled January and February meetings, the DCFA adopted similar resolutions in both meetings to continue remote teleconference meetings pursuant to the Brown Act Section 54953(e) for meetings of the DCFA.

Sites Reservoir

The public comment period for the Sites Reservoir Project Revised Draft EIR/Supplemental Draft EIS was extended to January 28.

In their January meetings, the Sites Project Authority Board and the Sites Reservoir Committee approved several administrative amendments to the standard consulting contracts with the Executive Director and Authority Agents related to indemnification and limitation of liability.

Near-Term Delta Actions

Regulatory Activities

Staff continued to participate in the collaborative groups called for in the 2019 Biological Opinions for the State Water Project (SWP) and Central Valley Project, and in the 2020 Incidental Take Permit (ITP) for Long-Term Operation of the SWP, to address science needs and inform management and operation of the water projects. The Delta Coordination Group is developing science and monitoring plans for planned operations of the water projects and implementation of the summer-fall habitat actions in 2022. The technical workgroup charged with developing a Juvenile Production Estimate (JPE) for Spring-run Chinook salmon, a requirement of the ITP, is currently focused on developing performance metrics to evaluate objectives related to development of a JPE. Work also continued on the development of a monitoring program for steelhead populations in the San Joaquin River basin, a requirement of the Biological Opinion. The technical workgroup developed specific hypotheses to guide monitoring and submitted a draft outline of the monitoring plan to state and federal agencies for review.

Staff participated in the Interagency Ecological Program's Winter-Run Chinook Salmon Project Work Team (Winter-Run PWT). On January 14, the Winter-Run PWT submitted a letter to the National Marine Fisheries Service and the California Department of Fish and Wildlife formally transmitting the forecast for the number of juvenile winter-run Chinook salmon that are expected to enter the Delta, which in turn sets the allowable take at the water project facilities.

Science Activities

In February, a scientific paper published in the Environmental DNA journal titled "The artemis package for environmental DNA analysis in R" (<https://onlinelibrary.wiley.com/doi/10.1002/edn3.277>) reported on results from a study to develop a statistical programming package named artemis to evaluate environmental DNA (eDNA) data from environmental field samples. The eDNA surveys provide an indirect, noninvasive, affordable and rapid way to detect organisms in the environment. The study was funded through a collaboration of Metropolitan, the State Water Contractors, and U.S. Bureau of Reclamation. The artemis tool represents the first open source models developed specifically to design eDNA detection surveys and analyze data from eDNA surveys in a tidal system like the San Francisco Bay-Delta Estuary. This publication will support wider acceptance for the use of eDNA monitoring by regulatory agencies. The artemis model is already being applied locally and nationwide for a variety of projects including restoration, invasive species monitoring, and listed species monitoring. Use of eDNA surveys could potentially prove beneficial to improve how water project operations are managed efficiently for both environmental protection and water supply reliability.

Board Report (Bay-Delta Management Report)

Staff continued participating in the Collaborative Science and Adaptive Management Program (CSAMP), including participation on the Collaborative Adaptive Management Team (CAMT). In January and February, activity focused on the two projects addressing improvement of Delta smelt and salmon. The technical working group for the Delta Smelt Structured Decision Making project is currently refining portfolios of management actions to benefit Delta smelt and is planning the analysis of the portfolios. The CSAMP Policy Group and CAMT were briefed on the portfolios and provided input. The portfolios of management actions will be evaluated using a combination of quantitative life-cycle models and expert judgement to characterize predicted Delta smelt outcomes. The costs and benefits of management approaches will be evaluated as well once the management approaches are refined. CAMT discussions in February also focused on the CAMT monitoring assessment effort and scoping the next phase to assess and document the objectives of CSAMP members with respect to monitoring.

Staff continued collaboration with non-government environmental organizations and public water agencies on the CSAMP Salmon Recovery Initiative. CAMT and the CSAMP Policy Group received briefings in January from the science team leading the project. The briefings addressed the objectives and metrics developed in Phase 1 to help define salmon recovery in quantitative terms and the progress for scheduling outreach to stakeholders. In February, the project team started presentations to stakeholders throughout the Central Valley watershed, including tribes, to make them aware of this effort and ask for their participation in Phase 2 of the process. Phase 2 is focused on engaging with stakeholders to solicit actions planned for salmon recovery, and in phase 3 the actions will be analyzed to help determine which actions may best achieve salmonid recovery while meeting other objectives (e.g. cost, water supply, agricultural production, etc.).

In January, the State Water Contractors (SWC) released their Science Plan ([State-Water-Contractors-Science-Plan_FINAL.pdf \(swc.org\)](#)). The purpose of the SWC Science Plan is to communicate in a transparent manner SWC-funded science efforts that are part of an overall program. The SWC Science Plan lays out the goals and objectives, management questions, and research priorities and processes to ensure that funded science projects are reflective of best available science. Staff provided input to the SWC Science Plan and continue to work with the SWC staff to develop partnerships on science projects.

Staff continued work on the Delta smelt and Native Species Preservation Project, which will utilize Delta island properties currently owned by Metropolitan to support Delta smelt supplementation efforts. Monitoring studies initiated in October 2021 will characterize water quality and biological factors in the existing impoundments on the Delta islands properties. In December, additional funding was approved by the SWC to continue the monitoring studies in spring and summer of 2022. Staff is continuing to meet with state and federal agencies, non-government organizations, and university researchers to develop partnerships and scope out the next phases of the project.

Delta Emergency Preparedness

Delta Levee Stability and Monitoring Efforts

The Delta Levee Stability and Monitoring efforts provide support to the Delta Islands Instrumentation and Monitoring Assessment and Bouldin Island Pilot Project to ensure integrity of freshwater conveyance and Delta Island levees, and to support real time levees monitoring of Delta Islands and broader Delta regional levees. Metropolitan's consultant installed remote erosion sensors on Bouldin Island's westside levee. Additional reception antenna extenders were also installed on previously installed levee sensor probes that measure changes in soil moisture and pressures in zones above high-water tides. Real time monitoring is collecting data that will be analyzed as a part of the evaluation process. The overall progress for the draft levee stability assessment report will be available in the summer of 2022.



Water Resource Management Manager's Report

Water Planning and Stewardship Committee

Item 7c

March 7, 2022

Conservation Expenditures

FY 20/21-21/22 ⁽¹⁾

| | Paid ⁽²⁾ | Committed ⁽³⁾ |
|----------------------------|---------------------|--------------------------|
| Regional Devices | \$6.3M | \$3.7M |
| Member Agency Administered | \$2.5M | \$9.1M |
| Turf Replacement | \$12.8M | \$16.2M |
| Advertising | \$0.1M | \$1.0M |
| Other | \$2.3M | \$1.2M |
| TOTAL | \$24.0M | \$31.2M |

(1) The Conservation Program biennial expenditure authorization was \$86M and expected expenditures for rate setting purposes were \$50M.

(2) As of 7/1/2020 –1/30/2022.

(3) Committed dollars as of February 10, 2022.

Conservation Activity

FY20/21-21/22



Turf Replacement Rebates:

January: 304,900 ft² removed

FY2020/21-FY2021/22: 6,480,692 ft² removed



Clothes Washers:

January: 492 units rebated

FY2020/21-FY2021/22: 25,918 units rebated



Sprinkler Nozzles:

January: 1,064 units rebated

FY2020/21-FY2021/22: 49,220 units rebated

Lifetime Water Savings to be achieved by all rebates in January 2022: 2,554 AF

FY2020/21-FY2021/22: 60,594 AF lifetime water savings

(1) Expenditures may include advertising and Water Savings Incentive Program activity in addition to the incentives highlighted above.

Local Resources Program Project Groundbreaking

- City of Santa Monica's Sustainable Water Supply Project
- Will recover 2,300 acre-ft per year of impaired groundwater for potable use
- Board approved LRP agreement in May 2021



State Water Project Contract Extension

- DWR holds long-term contracts with 29 public water agencies
- Metropolitan's contract expires in 2035
- Metropolitan's Board considered DWR's final certified EIR and approved Amendment in Dec. 2018
 - Extends contract through 2085
 - Includes revisions to improve financial management & fiscal integrity
- Court issued Tentative Decision in February validating the contract extension
- DWR expects to transition billing in 2024, and could begin issuing bonds with maturity beyond 2035

Rapid intensification of the emerging southwestern North American megadrought in 2020–2021

A. Park Williams^{1,2}✉, Benjamin I. Cook^{2,3} and Jason E. Smerdon²

Published online: 14 February 2022

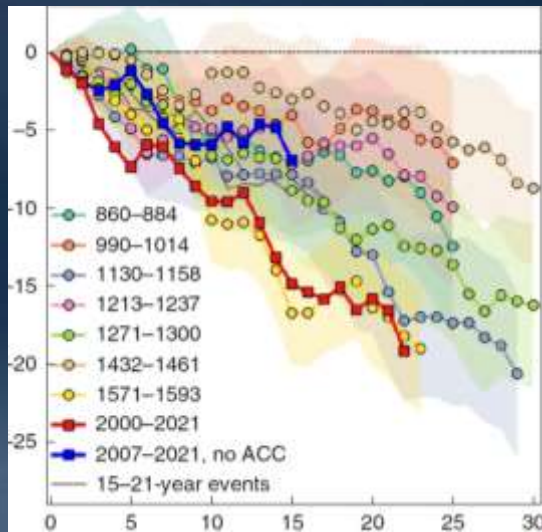


Key findings of the 2000 – 2021 Southwest Megadrought Study

- Driest 22-year period since year 800
- 2002 and 2021 ranked among the driest
- Human-caused climate change is responsible for about 42% of the soil moisture deficit
- Drought likely to continue (75% chance to continue through 2030)



Severe drought confirmed by multiple research teams



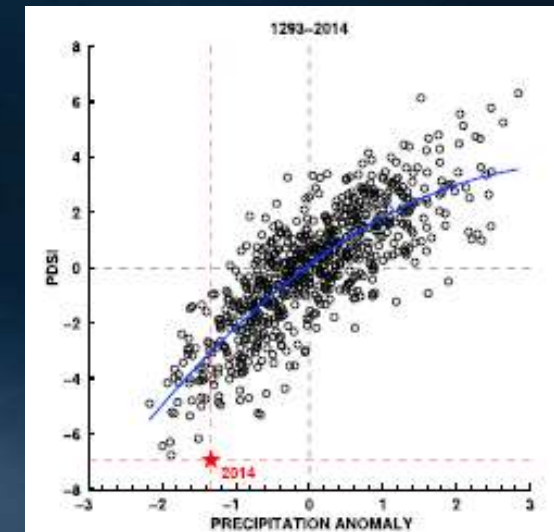
Duration
across entire
Southwest

Williams (2022)
UCLA;
Columbia University;
NASA Goddard Institute



Coincidence
in So. Cal.
watersheds

Woodhouse (2020)
Univ. of Arizona;
Univ. of Nevada, Reno



Severity
(shorter-term) in
Central and So. Cal.

Griffin (2014)
Univ. of Minnesota;
Woods Hole Oceanographic
Institute

