



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Counsel

Via Email

April 23, 2021

Mark J. Hattam, General Counsel
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123

Re: April 11, 2021 "Cease and Desist" Letter

Dear Mr. Hattam:

This letter responds to your April 11, 2021 "cease and desist" letter (attached) stating your objection to Metropolitan's description in the draft 2020 Urban Water Management Plan (UWMP) of water provided to Metropolitan under the parties' 2003 Amended and Restated Exchange Agreement as "Colorado River water made available to Metropolitan." Your objection is inconsistent with the plain language of the Exchange Agreement and fails to acknowledge that Metropolitan has statutory reporting requirements under the Urban Water Management Planning Act that govern its reporting in the UWMP.

The Exchange Agreement provides that SDCWA makes available Colorado River water to Metropolitan in exchange for Metropolitan deliveries

The parties' Exchange Agreement expressly states that SDCWA "makes available" Colorado River water to Metropolitan at Lake Havasu, where the water becomes Metropolitan's water. In exchange, Metropolitan delivers to SDCWA in San Diego County water from any source.

Specifically, in the Exchange Agreement, the parties agreed:

- **"SDCWA will Make Available the Conserved Water and/or the Canal Lining Water to Metropolitan at the SDCWA Point of Transfer. . . ."** (Exch. Agmt., § 3.1(a) (emphasis added); see also §§ 3.1 – 3.7, which are replete with use of Make Available and Made Available with respect to the water SDCWA provides to Metropolitan.)
- The Conserved Water means Colorado River water that the Imperial Irrigation District (IID) transfers to SDCWA via the IID-SDCWA Transfer Agreement. (Exch. Agmt., §§ 1.1(h), 3.1(a).)

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- The Canal Lining Water means Colorado River water conserved by the lining of the All-American Canal and the Coachella Canal that Metropolitan allocated to SDCWA in the Allocation Agreement. (Exch. Agmt., §§ 1.1(f), 3.1(a).)
- The SDCWA Point of Transfer of this Colorado River water from SDCWA to Metropolitan is Lake Havasu. (Exch. Agmt., § 3.5(a).)
- “‘Made Available’, ‘Make Available’, or ‘Making Available’” refers to the moment when (1) the Colorado River water has been transferred to SDCWA under the Transfer Agreement and/or allocated to SDCWA pursuant to the Allocation Agreement, (2) the Bureau of Reclamation has authorized Metropolitan to divert the water at Lake Havasu, and (3) all other legal requirements for diversions from the Colorado River by Metropolitan have been met. (Exch. Agmt., § 1.1(r).)
- In exchange, Metropolitan delivers water to SDCWA (defined in the agreement as Exchange Water) “in a like quantity as the quantity of water that SDCWA has Made Available to Metropolitan,” which “may be from whatever source or sources and shall be delivered using such facilities as may be determined by Metropolitan.” (Exch. Agmt., §§ 1.1(m) (emphasis added), 3.2.)
- Metropolitan’s deliveries to SDCWA are made in approximately equal monthly installments, while SDCWA does not make the Colorado River water available to Metropolitan in similar installments. (Exch. Agmt., §§ 3.1, 3.2(c).)
- Metropolitan’s deliveries to SDCWA (called the Metropolitan Point(s) of Delivery) are made in Northern San Diego County. (Exch. Agmt., § 3.5(b).)

Under the Exchange Agreement, each year pursuant to these terms, SDCWA has made available conserved IID and canal lining Colorado River water to Metropolitan, and Metropolitan has delivered a like quantity of water to SDCWA from any of its sources (generally this is a blend of State Water Project water and Colorado River water).

Metropolitan’s description of the water it receives from SDCWA under the Exchange Agreement as “Colorado River water made available to Metropolitan” is correct.

The Exchange Agreement does not change statutory reporting requirements

SDCWA’s objection to Metropolitan’s description is based on Section 4.1 of the Exchange Agreement, which provides that the water Metropolitan delivers to SDCWA under the Exchange Agreement shall be characterized for purposes of Metropolitan’s ordinances, plans, programs, rules, and regulations “in the same manner as the Local Water of other Metropolitan member agencies,” with exceptions. However, Section 4.1 concerns the water Metropolitan delivers to SDCWA (which the text establishes is not, in fact, local water); Section 4.1 does not speak to the

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water that SDCWA makes available to Metropolitan. Also, Section 4.1 does not concern state-mandated reporting requirements. While Metropolitan has authority and discretion with regard to the ordinances, plans, programs, rules, and regulations it creates, that is not the case with regard to statutory reporting requirements enacted and enforced by the State of California.

As explained in the draft UWMP, that plan is prepared to comply with the Urban Water Management Planning Act, codified at California Water Code, Section 10610, *et seq.* The Act requires Metropolitan to develop a water management plan “to achieve the efficient use of available supplies and strengthen local drought planning.” (Water Code § 10610.4 (c) (emphasis added).) Metropolitan must “describe and evaluate sources of supply” pursuant to Water Code Sections 10615 and 10632(a)(2)(B)(v), “[i]dentify and quantify ... existing and planned sources of water available to” Metropolitan pursuant to Section 10631(b) (emphasis added), and “[d]escribe the opportunities for exchanges or transfers of water on a short-term or long-term basis” pursuant to Section 10631(c). Therefore, Metropolitan must report all water supplies made available to Metropolitan to meet demands, including the water made available to Metropolitan under the Exchange Agreement.

In any event, Metropolitan does, indeed, describe the details of the Exchange Agreement in the UWMP. Metropolitan explains the transaction, including that SDCWA obtained the Colorado River water, SDCWA makes the water available to Metropolitan at Lake Havasu, and Metropolitan delivers to SDCWA a like quantity of water in exchange for the water made available to it. (Draft 2020 UWMP, §§ 1.4, 3.1, Appendix 3.1 subsection J, and Appendix 4 (WSCP) subsection A.4-3.)

Metropolitan looks forward to collaboration on meeting the UWMP Act reporting requirements

Accordingly, the matter you raise is not a contract issue related to the Exchange Agreement. Instead, it is an issue of meeting statutory reporting requirements. Footnote 1 at page 1-22 of the draft UWMP explains that past Metropolitan UWMP reporting actually inconsistently excluded the water made available to it by SDCWA from the listing of local supplies in certain areas, but also referred to the water as local supplies at SDCWA’s request. However, as a result of an evaluation of the statutory reporting requirements, along with a recognition that inconsistency within the UWMP is not appropriate, Metropolitan now reports the water in a manner that follows statutory requirements and is consistent within the plan.

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Nothing in the UWMP reporting changes the nature or terms of the Exchange Agreement. Furthermore, as stated, the transaction is described in the plan. Therefore, we do not understand the purpose of the "cease and desist" request, nor do we understand what practical, legal, or other material effect SDCWA believes this UWMP reporting item has on SDCWA. We, too, look forward to a more productive working relationship.

Very truly yours,

A handwritten signature in black ink, appearing to read "mscully", written in a cursive style.

Marcia Scully
General Counsel

Attachment

cc: Metropolitan Board of Directors
SDCWA Board of Directors
Jeff Kightlinger, MWD General Manager
Sandy Kerl, SDCWA General Manager

April 11, 2021

MEMBER AGENCIES

Carlsbad
Municipal Water District

City of Del Mar

City of Escondido

City of National City

City of Oceanside

City of Poway

City of San Diego

Fallbrook
Public Utility District

Helix Water District

Lakeside Water District

Olivenhain
Municipal Water District

Otay Water District

Padre Dam
Municipal Water District

Camp Pendleton
Marine Corps Base

Rainbow
Municipal Water District

Ramona
Municipal Water District

Rincon del Diablo
Municipal Water District

San Dieguito Water District

Santa Fe Irrigation District

South Bay Irrigation District

Vallacitos Water District

Valley Center
Municipal Water District

Vista Irrigation District

Yuima
Municipal Water District

OTHER
REPRESENTATIVE

County of San Diego

Marcia Scully, General Counsel
Metropolitan Water District of Southern California
700 N. Alameda Street
Los Angeles, CA 90012

RE: Exchange Agreement Section § 4.1/Demand to Cease and Desist

Dear Ms. Scully:

This letter is to make formal demand that Metropolitan Water District of Southern California (MWD) immediately cease and desist from further publication in its Urban Water Management Plan (UWMP) or in any other context, publication, proceeding or social media, that the Water Authority's QSA water is an MWD water supply and not a local supply of the San Diego County Water Authority.

The Draft 2020 Urban Water Management Plan (UWMP) changes how MWD characterizes the Water Authority's QSA water (exchange water) so that it is no longer reported as an independent local supply of the Water Authority, and is instead reported as "Colorado River water made available to Metropolitan." MWD admits in footnote 1 at page 1-22 of its draft UWMP that this is a departure from prior reporting.

These changes do not comply with Section 4.1 of the Exchange Agreement, which expressly requires that the exchange water be characterized in all of MWD's plans as a local supply. Accordingly, we ask that MWD modify its draft 2020 UWMP to continue its prior and correct practice of describing the exchange water as a local supply of the San Diego County Water Authority (including but not limited to portions of the UWMP Executive Summary; Sections 1.4, 2.2, 2.3 and 3.1; Appendix 2; and Sections A.3.1 and A.4.3.)

Aside from the confusion the new reporting practice may cause in assessing MWD's water supply reliability, MWD is also contractually bound to characterize the Water Authority's exchange water as a local water supply. Section 4.1 of our agencies' Exchange Agreement is titled "Exchange Water as an Independent Local Supply," and could not be clearer that MWD's UWMP is required to comply with the contract:

"The Exchange Water shall be characterized for the purposes of all of Metropolitan's ordinances, plans, programs, rules and regulations . . . in the same manner as the Local Supply of other Metropolitan member agencies, except as provided in Paragraphs 4.2 and 5.2 [which are pricing sections unrelated to the UWMP]." (Emphasis added.)

The Water Authority, not MWD, has paid to conserve its QSA water supply through the lining of the All-American and Coachella Canals, and via our water conservation agreement with the Imperial Irrigation District. As the trial court and Court of Appeal have already determined, the

Water Authority is not purchasing this water from MWD, and MWD has no legal right, ownership or entitlement to this water independent of the provisions contained in the Exchange Agreement.

MWD's UWMP is clearly included in the contractual requirement relating to MWD's characterization of the Water Authority's QSA supplies as a local supply in "all" of its plans. Accordingly, MWD will be in breach of the Exchange Agreement if it fails to properly characterize the Exchange Agreement water as a local supply of the Water Authority.

It should also be noted that MWD's mischaracterization of the exchange water in the draft UWMP violates not only the parties' contract, but also the clear holding of the Court of Appeal, which states on page 1155 of its decision that the trial court was correct in finding that the Exchange Agreement was a conveyance of the Water Authority's water, not a contract for the purchase of MWD water as advocated by MWD (emphasis added):

The trial court found "the Exchange Agreement was not an agreement pursuant to which [the Water Authority] obtained water from [Metropolitan], but instead an agreement pursuant to which [Metropolitan] in effect conveyed water on behalf of [the Water Authority]." Thus, the Water Authority's "payments under the exchange agreement must be included in the preferential rights calculation." *We agree with this conclusion.*

To the extent that MWD staff is engaged in the distribution or publication of inaccurate information regarding the Exchange Agreement water via social media or otherwise in San Diego County or elsewhere, this is also a demand that MWD immediately cease and desist from such activity.

The Water Authority's board officers and General Manager have asked me to convey to the MWD Board of Directors and member agencies that we deeply regret the continued need for communications such as this, and that we look forward to a more productive working relationship in the near future.

Sincerely,

/s/

Mark Hattam
General Counsel

cc: Water Authority MWD Delegates Hogan, Butkiewicz, Smith and Goldberg
Water Authority Board Officers and Directors
Sandy Kerl, General Manager
Metropolitan Board of Directors
Jeff Kightlinger, General Manager



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Counsel

May 3, 2021

VIA EMAIL

Mark J. Hattam
General Counsel
San Diego County Water Authority
4677 Overland Avenue
San Diego, California 92123

Re: April 29, 2021 Correspondence

Dear Mr. Hattam:

Your April 29 letter concerns two separate matters; I am responding here to the first portion regarding Metropolitan's draft Urban Water Management Plan (UWMP).

I disagree with your conclusions regarding my April 23 letter to you. The Exchange Agreement transaction is clear from the agreement's terms and, of course, the parties' performance of it from 2003 to the present. The essence of the Exchange Agreement is that SDCWA provides conserved Colorado River water to Metropolitan and in exchange Metropolitan provides a like amount of Metropolitan water from any of its sources to SDCWA. Section 4.1's provision that the Exchange Water that Metropolitan delivers to SDCWA shall be characterized in certain circumstances "in the same manner as the Local Water of other Metropolitan member agencies" shows it is not in fact local water. As I previously explained, Section 4.1 is not applicable to the statutorily required UWMP. Nothing in the description of the water in the UWMP inflates or distorts either the amount of Metropolitan's water supplies or the nature of the Exchange Agreement. Metropolitan now has a uniform description of the water in its UWMP that accords with statute, rather than conflicting descriptions within the same document as was previously the case.

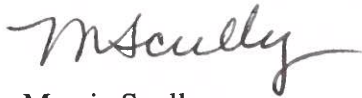
Mark J. Hattam

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May 3, 2021

I am providing a separate response to the second portion of your letter that concerns the separate topic of LAFCO applications.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Scully". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Marcia Scully
General Counsel

cc: Metropolitan Board of Directors (via e-mail)
SDCWA Board of Directors (via e-mail)
Jeffrey Kightlinger, Metropolitan General Manager (via e-mail)
Sandra L. Kerl, SDCWA General Manager (via e-mail)



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

May 4, 2021

Via Email

Ms. Sandra Kerl
General Manager
San Diego County Water Authority
4677 Overland Ave.
San Diego, CA 92123

Dear Ms. Kerl:

Metropolitan's Response to SDCWA's April 11, 2021 Comment Letter on
Metropolitan's 2020 Urban Water Management Plan Public Draft dated March 2021

We are in receipt of your letter dated April 11, 2021, addressed to the Water Planning and Stewardship Committee Chair Richard Atwater and the Members of the Board. Your letter contains San Diego County Water Authority's (SDCWA) comments on The Metropolitan Water District of Southern California's (Metropolitan) March 2021 public draft 2020 Urban Water Management Plan (draft UWMP). In this letter, you submitted comments in three categories: (1) "General Comments" on the description of Exchange Water with SDCWA, preferential rights, and the 2020 IRP and UWMP processes; (2) "Comments on the 'Findings' of the Draft 2020 UWMP" in the Executive Summary; and (3) "Other Comments" on various elements reported in the draft UWMP.

Thank you for your comments and input on our 2020 UWMP. Attachment 1 includes Metropolitan's responses to your comments. We look forward to continued coordination with SDCWA throughout the completion of both of our agencies' 2020 UWMPs.

Very truly yours,

A handwritten signature in black ink that reads "Brad Coffey".

Brad Coffey
Manager, Water Resource Management

EF:vsm

Enclosures (3)

Attachment 1. Metropolitan's Response to Summarized Comments by SDCWA

General Comments:

1. **Comment:** *SDCWA objects to the characterization of Colorado River QSA supplies.*

Response:

- Please refer to the April 23, 2021, letter from Metropolitan General Counsel Marcia Scully to SDCWA General Counsel Mark Hattam which is incorporated herein by reference.

2. **Comment:** *Metropolitan needs to describe its WSDM Plan and WSAP. Metropolitan also needs to include a discussion of preferential rights. The General Manager has made a number of statements recently to the effect that MWD has the legal authority to change or disregard preferential rights in its water supply allocation planning.*

Response:

- We have added two new footnotes in the Executive Summary which describe the Water Surplus and Drought Management Plan and the Water Supply Allocation Plan. Footnotes describing the WSDM Plan and WSAP were added on p. ES-7 of the May draft:
 - The WSDM plan is a coordinated plan used to direct Metropolitan's resource operations to help attain the region's reliability goal recognizing the interdependence of surplus and shortage actions. The WSCP is consistent with the WSDM Plan. See Attachment A in Appendix 4.
 - The WSAP is intended as an equitable approach for encouraging water use efficiency and minimizing regional impacts in times of shortage consistent with the principles and considerations approved by the Board through the WSDM Plan. See Attachment B in Appendix 4.
- The Urban Water Management Planning Act (UWMP Act) does not require Metropolitan to include a discussion of preferential rights. SDCWA appears to share the view that the UWMP should be closely tied to what "is statutorily required under the UWMP Act." (SDCWA UMWP Comment Letter, p. 2.)
- "Preferential rights" refers to Section 135 of the Metropolitan Water District Act (MWD Act). That Section provides that each member agency has the right to purchase a specified percentage of Metropolitan's available supplies. (MWD Act, § 135.) Thus, "preferential rights" refers to the right of each agency to purchase a portion of Metropolitan's available water supply, *vis-à-vis* each other. It refers to how member agencies split up available supplies. It does not, however, speak to the supply sources made available to Metropolitan, the manner in which Metropolitan can reduce total demands for its available supplies, nor does it provide a water shortage contingency plan to ensure Metropolitan's regional reliability. Those are the focus and requirements of the UWMP Act.
- The portion of each agency's preferential rights at Metropolitan may be relevant instead to that agency's own UWMP, since it goes to supplies available to those agencies. Metropolitan does not prevent or discourage SDCWA from reporting its preferential rights

portion in its own UWMP. Indeed, every year, Metropolitan reports updated preferential rights calculations to the member agencies.

3. **Comment:** *The 2020 UWMP is not developed as part of the 2020 IRP. MWD staff stated early on that the 2020 UWMP and 2020 IRP processes would be conducted independently. Although there have been many requests by member agencies to incorporate analysis from the 2020 UWMP into the 2020 IRP update, MWD has not accommodated this request. Outreach efforts for the 2020 IRP cannot be used for the UWMP. Chapter 5 should only include UWMP outreach efforts.*

Response:

- Chapter 5 (draft UWMP Section 5) does describe the outreach efforts for the 2020 UWMP which comply with the UWMP Act’s requirements for coordination and public outreach. Below is a summary of these outreach efforts. Please see **Attachment 2** for more details.
 - a. Metropolitan collaborated with its member agencies through the UWMP Coordination Meetings with member agencies and other appropriate agencies, the Member Agency Managers meetings, and IRP Member Agency Technical Workgroup. Metropolitan hosted UWMP coordination meetings in May 2020, June 2020, November 2020, and March 2021; and an IRP-UWMP technical meeting in October 2020.
 - b. Metropolitan staff met with member agency staff individually and provided presentations to member agency boards upon request.
 - c. Metropolitan reviewed the data provided by its member agencies, other regional planning organizations such as SCAG and SANDAG, DWR, and USBR, and used the data in its water reliability assessments.
 - d. Preliminary estimates of demand and supply were included in the Final Draft 2020 UWMP and draft Appendix 11 to the 2015 UWMP which were sent to the member agencies in December 2020. Further refinements were posted on Metropolitan’s website in February 2021, March 2021, and April 2021.
 - e. Metropolitan held two public workshops in May 2020, provided public notice of the documents and public hearing through letters to cities and counties and newspaper publications in January-February 2021, and held a public hearing on April 12, 2021.
- Requests to incorporate analysis from the 2020 UWMP into the 2020 IRP update are more appropriately addressed in the 2020 IRP update process.
- As stated in the UWMP, “...Metropolitan’s 2020 UWMP was developed as part of the 2020 Integrated Water Resources Plan (IRP) planning process and provides a representation of Metropolitan’s planning elements reported under the conditions required by the Act...” And that “...Metropolitan’s Board of Directors provided oversight throughout the ongoing process for the development of the 2020 IRP that informed the preparation of the 2020 UWMP...”
- The numerous meetings and technical workshops held as part of Metropolitan’s 2020 IRP process over the last year and a half informed the preparation of the 2020 UWMP. The

discussions, feedback, and input received at the Board, member agency, and stakeholder levels were used in the technical analysis to develop the IRP and UWMP planning elements. While the IRP and UWMP may present different planning levels, they all fall within the range of potential future conditions.

- The IRP represents Metropolitan’s comprehensive planning process and serves as Metropolitan’s blueprint for long-term water reliability. Through the IRP process, the most current planning projections of supply capability and water demands are developed with extensive collaboration from the member agencies and other appropriate agencies. Metropolitan used the information developed through the IRP process to prepare the required UWMP reliability assessments.
- For instance, the coordination and information exchange with planning entities (such as local associations of governments, DWR, USBR) and local stakeholders (member and retail agencies, groundwater basin managers, etc.) were used in modeling demand projections and supply forecasts for both the IRP process and UWMP preparation. Also, the local supply projections and project inventory included as part of the 2020 IRP Update survey completed by Metropolitan’s member agencies in June 2019 and October 2020 helped inform the supply characterization for the 2020 UWMP.

4. Comment: *Reference to Appendix 13 should be removed*

Response:

- Agreed. At the public hearing, Metropolitan explained that there will no Appendix 13 to the 2020 UWMP.
- A description of the impact of local resources on demand on Metropolitan will be provided as a reference material and will be posted as part of the 2020 UWMP Reference Materials page on Metropolitan’s website www.mwdh2o.com.
- Also included in Section 2, p. 2-16 is a narrative that states: “...A write up on the impact of alternative forecasts and projections of local supplies on Demand on Metropolitan is included in the 2020 Reference Materials page posted on Metropolitan’s website (www.mwdh2o.com). This write up provides supplemental information on alternative forecasts and projections for estimating local supply development and production in the service area that may be appropriate for different planning applications and its impact on estimates of Demand on Metropolitan.” The “alternative forecasts and projections” refers to the variability of estimates in local supply development and production and its impact on member agencies’ demands on Metropolitan. Accordingly, the information will be made available for public review to help inform the relevance of such supplies on Metropolitan’s planning.

Comments on Findings

5. **Comment:** *In addition to describing the Water Surplus and Drought Management and the Water Supply Allocation Plans, Metropolitan needs to include a discussion of preferential rights.*

Response:

- As explained above, Metropolitan has added two new footnotes in the Executive Summary which describe the Water Surplus and Drought Management Plan and the Water Supply Allocation Plan.
 - The UWMP Act does not require Metropolitan to include a discussion of preferential rights. Preferential rights have no impact on the total amount of water supplies available to Metropolitan or the total demand on Metropolitan. They also do not serve as a water shortage contingency plan that provides Metropolitan a method to maximize its supplies during times shortage. Instead, they give agencies a preferential right to buy an amount of Metropolitan's available supplies proportionate to the formula set forth in Section 135 of the MWD Act. Preferential rights divide the total available water supplies as between member agencies, but they do not provide a contingency plan for Metropolitan to remain reliable during times of shortage. Therefore, a discussion on the topic is not required. As noted above, nothing prevents SDCWA from discussing preferential rights in its own UWMP to explain how those rights relate to its water supply availability, demand management, and its water shortage contingency planning.
6. **Comment:** *MWD states that it will continue to invest in water efficiency measures to help retail agencies achieve their 20 percent per person water use efficiency targets. However, it is past 2020.*

Response:

- The bullet on page ES-7 has been updated and now states: "Metropolitan continues to invest in measures that will help improve the region's water use efficiency over time."

Other Comments:

7. **Comment:** Insufficient analysis of factors that may impact imported water supplies. Also, too broad a characterization of climate change, subsidence.

Response:

- Metropolitan's supply characterization of its imported supplies is based on expected supplies from DWR's Delivery Capability Report (DCR) and USBR's Colorado River Simulation System (CRSS) modeling. The draft UWMP already includes a discussion of the restrictions on State Water Project (SWP) and Central Valley Project (CVP) operations in accordance with water quality objectives established by the State Water Resources Control Board, the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fisheries Service issued on October 21, 2019, and the Incidental Take Permit issued by the California Department of Fish and Wildlife on March 31, 2020, and the amendments to the Coordinated Operations Agreement between the Central Valley Project and the State Water Project made in 2018. For clarification, Metropolitan

provided additional descriptions of climate change and subsidence impacts on demand and supply characterization in Sections 2.2, 2.3, and 2.4.

8. **Comment:** *Suggest MWD include more detail about the many agreements it references in the UWMP, including the term and other material features that could impact the UWMP analysis.*

Response:

- The detailed information requested is included in UWMP Appendix 3. This appendix provides a justification of supply projections and contains a description of each source of supply, expected supply capability, rationale for the expected supply (historical record, written contracts or other proofs), financing, permits/approvals (at federal, state, and local levels).
- SDCWA’s comment letter is based on a review of Metropolitan’s March 2021 draft UWMP. More details regarding the agreements were added in later drafts of the UWMP.

9. **Comment:** *Request that MWD add a statement on page 1-24 to clarify that the Water Authority and its member agencies did not receive MWD financial incentives for the development and successful implementation of the Claude “Bud” Lewis Seawater Desalination Plant.*

Response:

- A clarifying sentence was added: “In December 2015, pursuant to its Water Purchase Agreement with the San Diego County Water Authority (SDCWA), Poseidon Resources began operation of the 56 TAF Claude “Bud” Lewis Seawater Desalination Plant in the City of Carlsbad. During fiscal years 2017 through 2019, the facility produced an annual average of 42.1 TAF, meeting nearly 9 percent of SDCWA’s service area demands. The Carlsbad facility does not receive funding through Metropolitan’s LRP.”

10. **Comment:** *Clarify in Section 2 that Metropolitan is not lead agency in regional water management.*

Response:

- Section 2.1, on p. 2-2, states: “Metropolitan plays a leading role in Southern California’s regional water management, having the responsibility for importing water from outside the region and convening dialogues on regional water issues...” We could not find reference in the 2020 UWMP draft which stated that Metropolitan served as the lead agency in regional water management.
- Metropolitan’s governance, formation, purpose, and services are statutory and are described in the UWMP Section 1. There is nothing in the UWMP that states Metropolitan has jurisdiction over any local projects or programs any member agency may implement.
- The MWD Act provides that “Metropolitan water districts may be organized for the purpose of developing, storing, and distributing water for domestic and municipal purposes and may provide, generate, and deliver electric power within or without the state for the purpose of developing, storing, and distributing water for such district.” (MWD Act, § 25.) Thus, Metropolitan’s purpose is broad under the enabling MWD Act. However, the MWD Act organizes the district as a voluntary cooperative, with no

requirement to join or remain as a member, nor is there a minimum purchase requirement for its members. (See, MWD Act, Parts 1-4.) And indeed, Metropolitan must recover all of the costs of providing its services to its members. (MWD Act, § 134.) Therefore, we believe the UWMP accurately describes Metropolitan's role.

11. Comment: *Calling excess water supplies "insurance" without analyzing the cost of insurance or which member agencies want insurance is a recipe for future imposition of fixed costs to pay for supplemental water supply with no buyer.*

Response:

- This comment raises no issue with the text of the UWMP and, therefore, Metropolitan provides no response to this comment.

12. Comment: *Provide a discussion on pages 2-46 and 2-47 of additional time to consider alternative methods for Water Stewardship Rate.*

Response:

- The UWMP reports the actions taken by the Board. SDCWA's comments infer certain intent from those actions, and any such individual interpretation is not appropriate for discussion in the UWMP. Additionally, the comments are more appropriately addressed in the ongoing Rate Refinement process.

13. Comment: *Include on page 3-5 the additional parties to the suite of the agreements under the Quantification Settlement Agreement (QSA).*

Response:

- Descriptions of the pertinent QSA agreements are included in Appendix 3; as such, this additional detail will not be added to Section 3.

14. Comment: *Clarify on page 3-8 that the volume of exchange water does not include any unused portion of the mitigation water.*

Response:

- The UWMP accurately describes the amount of water that Metropolitan receives pursuant to the Exchange Agreement and complies with the UWMP Act requirements. The additional information requested is irrelevant and could confuse some readers.

15. Comment: *Clarify on page 3-9 that SDCWA's water conservation and transfer agreement with the Imperial Irrigation District will reach full implementation in 2021 (at 200,000 acre-feet), and that the 2021 and 2022 transfer volumes include early transfer water.*

Response:

- The requested text is included in the draft UWMP in Section 3.1, p. 3-9.

16. Comment: *Add on page 3-9 the completion dates for the Coachella and All-American Canal Lining projects of 2007 and 2010, respectively.*

Metropolitan's Response:

- Completion dates of December 2006 for the Coachella Canal and 2009 for the All-American Canal Lining projects are in the draft UWMP in Section 3.1, p. 3-9.

17. Comment: Clarify on page 3-9 that the SDCWA receives any unused environmental mitigation water from the Coachella Canal Lining project.

Response:

- Metropolitan added a clarifying sentence on p. 3-9: “Pursuant to the QSA and related agreements, the 98,550 AF of water resulting from these projects annually is allocated as follows: 16,000 AF to the San Luis Rey Settlement Parties in San Diego County, 77,700 AF to SDCWA, and 4,850 AF for Coachella Canal Lining Project mitigation. Any portion of the latter volume not used for mitigation is allocated to SDCWA; however, whether SDCWA can actually receive such water is subject to other laws, agreements, and factors.”

18. Comment: Update on page 3-11 the description of MWD’s DCP contributions to match the description in MWD’s most recent Official Statement stating that MWD “is responsible for 93 percent of California’s DCP Contributions under the Lower Basin DCP.

Response:

- The description has been updated on p. 3-11 and Appendix 3, pp. A.3-3 and A.3-14: “Pursuant to intrastate implementation agreements that terminate in 2026, Metropolitan is responsible for 93 percent of any California DCP Contribution that may be required under the Lower Basin DCP. CVWD is responsible for 7 percent of California’s required DCP Contributions.”

19. Comment: Suggest the plan include tables summarizing these benefits and challenges for each type of local water supply discussed such as Table 3-10 on page 3-69.

Response: Appendix 5 includes a complete listing of all local supply projects which was compiled through an extensive coordination process between Metropolitan and its member agencies. Local project production assumptions are consistent with the projections reported by the member agencies in their own UWMPs.

20. Comment: Figure 3-8 shows MWD’s projected GHG emissions but does not reflect the text description that MWD plans to achieve carbon neutrality by 2045.

Response:

- The data presented in Figure 3-8 represent a forecast of Metropolitan’s future GHG emissions under several water supply conditions without any future GHG reduction measures added to bridge the gap. The data from the emissions forecast was part of a gap analysis used to determine how much GHG emissions Metropolitan would need to reduce to reach the recommended goal of carbon neutrality by 2045. Metropolitan is using the worst-case scenario to develop its GHG reduction measures and bridge the forecasted gap. The forthcoming Climate Action Plan discusses in detail the GHG reduction measures Metropolitan will use to bridge the gap.

21. Comment: Please make changes to page A.3-18 as requested by the SDCWA’s General Counsel in his April 11, 2021, letter.

Response:

- Please refer to the April 23, 2021 letter from Metropolitan General Counsel Marcia Scully to SDCWA General Counsel Mark Hattam which is incorporated herein by reference.

22. Comment: *Please correct the statement on page A.3-52 that “the 2020 Update of the Integrated Water Resources Plan (2020 IRP Update) identified policies and strategies for ensuring sustainable groundwater production in light of a potential for extended multiple-year dry conditions” to reflect that the 2020 IRP is still being developed and that staff will present these policies and strategies to the board for consideration.*

Response:

- Description has been updated (now on page A.3-53) to “...Additionally, the 2020 IRP may lead to policies and strategies for ensuring sustainable groundwater production in light of a potential for extended multiple-year dry conditions...”

23. Comment: *Clarify on page A.3-54 that Board has not taken action to implement the RRWP and include a timeline for the decision and when the RRWP costs will be incorporated into MWD’s 10-year rate forecast.*

Response:

The draft UWMP provides a full and current description of the RRWP and its demonstration facility. It is clear that the full-scale RRWP is not implemented yet, and the most recent Board action is accurately described as follows:

- On p. 3-66, the description of RRWP specifically states that: “...Metropolitan’s Board approved proceeding with the environmental planning phase of the project in November 2020...”
- On page 3-75, the RRWP description states: “In November 2020, Metropolitan’s Board of Directors approved the next phase of the program, environmental planning. In addition, the Board also approved an updated agreement with the Sanitation Districts, which further expands the partnership and allows for additional shared responsibilities and resources.”
- On page A.3-56, the RRWP description once again states that: “...As a first step toward full implementation, Metropolitan and the Sanitation Districts cooperated to complete the Advanced Purification Center in 2019. The Advanced Purification Center is a 0.5 million gallon per day demonstration facility that will generate information needed for the potential future construction of a full-scale recycled water facility... Metropolitan’s Board approved proceeding with the environmental planning phase of the project in November 2020.”
- The timing of when the RRWP costs should be incorporated into MWD’s 10-year rate forecast is more appropriately addressed in the ongoing Rate Refinement process.

24. Comment: *Tables A.3-7 on pages A.3-56 through A.3-60 characterize the Exchange with the Water Authority as “Additional Colorado River Exchange Supplies;” please modify this description to “Additional Non-Metropolitan Colorado River Aqueduct Supplies.”*

Response:

- Please refer to the April 23, 2021, letter from Metropolitan General Counsel Marcia Scully to SDCWA General Counsel Mark Hattam, which is incorporated herein by reference.

25. Comment: *Please clarify under Exchange with the San Diego County Water Authority that the conserved IID water and the canal lining water are within Priority 3a, and clarify under Exchange with the United States that the canal lining water falls within Priority 3a.*

Response:

- An overview of the Colorado River system and rights is already provided in Section 3.1, pp. 3-3 to 3-12 and in Appendix 3 Section 3.1, pp. A.3-1 to A.3-20. Additionally, a full explanation of the Quantification Settlement Agreement, including all related contracts, is included in Appendix 3. No further details are required by the UWMP Act.

26. Comment: *Please clarify in Table A.4-3 that the Exchange with the Water Authority and Exchange with the United States are not MWD supplies.*

Response:

- Please refer to the April 23, 2021 letter from Metropolitan General Counsel Marcia Scully to SDCWA General Counsel Mark Hattam, which is incorporated herein by reference.

27. Comment: *The text on page A.4-16 states, “Over the last 40 years, Metropolitan effectively delivered to its member agencies water supplies to meet demands ranging from 1.2 MAF per year to over 2.5 MAF per year.” Consistent with the many comments SDCWA has made on Appendix A, clarify that these deliveries are from different sources at different times.*

Response:

- The WSCP accurately describes and quantifies the various sources of water supply made available to Metropolitan. Metropolitan’s UWMP describes historical retail water demands and total projected demands by Metropolitan’s member agencies. Additionally, the UWMP describes the contractual obligations met under the Exchange Agreement. (See §§ 1.4, 3.1, Appendix 3, Section 3.1 subsection J, and Appendix 4 (WSCP) subsection A.4-3.)

28. Comment: *Confirm that shortage stages and response actions in Table A.4-5 are consistent with MWD’s Water Surplus and Drought Management Plan.*

Response:

- The WSCP is consistent with Metropolitan’s WSDM Plan. A footnote stating this has been added to the Executive Summary, p. ES-7.

29. Comment: *Explain why MWD does not apply in Appendix 10 the same approach for upstream embedded energy from the SWP in its energy calculations and in its greenhouse gas emissions inventory.*

Response:

- Metropolitan includes upstream SWP embedded energy in Appendix 10 to provide the most accurate energy intensity values for use in member agency UWMP energy intensity calculations. Including upstream SWP embedded energy represents the actual energy intensity of Metropolitan’s supplies delivered to the member agencies. This approach ensures that member agencies and other stakeholders interested in Metropolitan’s energy intensity are provided with accurate information. The inclusion of SWP embedded energy is clearly indicated in the tables and narrative.

- Metropolitan voluntarily provides GHG emissions information in the 2020 UWMP with the expectation it will be useful to stakeholders. Metropolitan's approach to reporting its GHG emissions in the appendix is consistent with the information Metropolitan reports to The Climate Registry (TCR). Metropolitan has voluntarily reported its GHG emissions to TCR since 2005. TCR requires extensive verification procedures before publishing Metropolitan's GHG emissions information. The information provided in the appendix is publicly available on TCR's open and transparent CRIS platform. GHG emissions associated with the SWP are reported by the California Department of Water Resources in their Climate Action Plan.
- Metropolitan is also a founding member of TCR's Water-Energy Nexus (WEN) Registry established in 2019. The new WEN registry will allow Metropolitan to report verified GHG emissions with upstream embedded SWP emissions in future UWMPs.
- TCR's General Reporting Protocol, CRIS reporting platform and WEN Protocol can all be found on TCR's website: <https://www.theclimateregistry.org/>

Attachment 2. Outreach Efforts

Comment: *Chapter 5 should focus on 2020 UWMP outreach efforts instead of 2020 IRP outreach efforts.*

Response:

- Chapter 5 does describe the outreach efforts for the 2020 UWMP.
 - i. Metropolitan collaborated with its member agencies through the Member Agency Managers meetings and an IRP Member Agency Technical Workgroup, as well as the UWMP Coordination Meetings with member agencies and other appropriate agencies. (See Table 5-2 for a summary of these meetings and Table 5-3 for a list of participating member agencies and other appropriate agencies that Metropolitan coordinated with in its regional planning, as well as the cities and counties that were notified about the preparation of its 2020 UWMP, Appendix 11 to the 2015 UWMP, and WSCP.) These meetings provided an opportunity to share information, discuss scenario development and data analysis, and review draft analyses of future supply and demand.

Regional issues and analysis methodologies were discussed during the technical workgroup meetings and the Member Agency Managers meetings.
 - ii. In addition, Metropolitan staff met with member agency staff individually and provided presentations to member agency boards upon request. (See Table 5-2.)
 - iii. As part of its coordination efforts, Metropolitan reviewed the data provided by its member agencies, other regional planning organizations such as SCAG and SANDAG, the California Department of Water Resources, and the U.S. Bureau of Reclamation, and used the data in its water reliability assessments.
 1. Local and imported water supplies were included (see Appendices 2, 3, and 5), as well as demand management programs, regulations, and public acceptance of conservation as a way of life (see Section 3).
 2. Metropolitan prepared the data in five-year increments for conditions under normal water year, single dry year, and for droughts lasting at least five years as required in CWC Section 10631.
 3. Information regarding the member agencies' local supply projections was compiled through the extensive coordination process between Metropolitan and its member agencies. Additionally, Metropolitan maintains an inventory of member agency local supply projects that have been identified within Metropolitan's service area. The project inventory in Appendix 5 was updated and completed as part of the 2020 IRP Update survey completed by Metropolitan's member agencies in June 2019 and October 2020. The local supply projections compiled under this IRP Update survey provided the basis for the supply characterization in preparing the 2020 UWMP.
 4. Demographic information and demand forecasts were shared with the member agencies in May 2020, November 2020, and March 2021 to assist the member agencies with their preparation and adoption of their plans.

- a. When requested, Metropolitan staff met individually with the member agencies to review the data sets and discuss any agency-specific questions or issues.
 - b. Metropolitan scheduled online meetings with numerous requesting member agencies over the last year to coordinate and refine demand and supply projections.
5. Preliminary estimates of demand and supply were included in the Final Draft 2020 UWMP and draft Appendix 11 to the 2015 UWMP distributed to the member agencies in December 2020. Further refinements of demand and supply estimates were included in the Public Review drafts of the 2020 UWMP and draft Appendix 11 to the 2015 UWMP that were posted on Metropolitan’s website in February 2021, March 2021, and April 2021.
- iv. Metropolitan involved environmental and non-governmental organizations, businesses, academia, diverse communities, and the public in the preparation of the IRP, 2020 UWMP, Appendix 11 to the 2015 UWMP, and WSCP.
 1. To encourage public involvement during the planning process, Metropolitan held two public workshops in May 2020 using an online platform due to COVID-19 concerns. The workshops introduced the scenario planning approach and focused on drivers of change, opening up discussion among stakeholders across the region. Over 500 stakeholders participated, sharing their ideas on what could drive future water supply and demand conditions. Throughout the planning process, the public was invited to provide comments at each IRP Committee meeting and to view the presentations and listen to the board discussions.
 2. In late January 2021 and early February 2021, Metropolitan provided notice of the availability of the draft 2020 UWMP, the WSCP, and Appendix 11 to its 2015 UWMP and notice of the public hearing on April 12, 2021.
 - a. The public review drafts of the 2020 UWMP, Appendix 11 to the 2015 UWMP, and the WSCP were posted on Metropolitan’s website, mwdh2o.com, on February 1, 2021, more than 60 days in advance of the public hearing on April 12, 2021.
 - b. On February 1, 2021, the notice of availability of the documents was sent to Metropolitan’s member agencies, as well as to cities and counties in Metropolitan’s service area.
 - c. A public notice advertising the public hearing in English and Spanish was published in 12 Southern California newspapers.
 - i. The notice was published in English language newspapers on February 1 and 8, 2021.
 - ii. The notice was also published in Spanish language newspapers on January 28-30, 2021 and February 1, 4-6, and 8, 2021.
 - iii. Table 5-4 lists the newspaper publications.

- v. On April 12, 2021, Metropolitan held a public hearing on the draft 2020 UWMP, draft Appendix 11 to the 2015 UWMP, and draft WSCP at the Board's Water Planning and Stewardship Committee meeting (which was held online due to COVID-19 concerns).

April 11, 2021

MEMBER AGENCIES

Carlsbad
Municipal Water District

City of Del Mar

City of Escondido

City of National City

City of Oceanside

City of Poway

City of San Diego

Fallbrook
Public Utility District

Helix Water District

Lakeside Water District

Olivenhain
Municipal Water District

Otay Water District

Padre Dam
Municipal Water District

Camp Pendleton
Marine Corps Base

Rainbow
Municipal Water District

Ramona
Municipal Water District

Rincon del Diablo
Municipal Water District

San Dieguito Water District

Santa Fe Irrigation District

South Bay Irrigation District

Vallacitos Water District

Valley Center
Municipal Water District

Vista Irrigation District

Yuima
Municipal Water District

OTHER
REPRESENTATIVE

County of San Diego

Water Planning and Stewardship Committee Chair Richard Atwater and
Members of the Board

Metropolitan Water District of Southern California
700 N. Alameda Street
Los Angeles, CA 90012

RE: Public Hearing regarding: (1) Metropolitan's 2020 Urban Water Management Plan, (2) Metropolitan's Water Shortage Contingency Plan, and (3) Metropolitan's Appendix 11 Addendum to the 2015 Urban Water Management Plan

Dear Water Planning and Stewardship Chair Atwater and Board Members:

The Water Authority has reviewed MWD's March 2021 public draft 2020 Urban Water Management Plan (Draft 2020 UWMP) and submits the following comments:

General Comments

The Water Authority objects to the changes in the draft 2020 UWMP regarding the characterization of the Water Authority's independent Colorado River QSA supplies (exchange water). See the letter sent by the Water Authority's General Counsel dated April 11, 2021 which is incorporated herein by reference.¹

In addition to describing its Water Surplus and Drought Management Plan and Water Supply Allocation Plan (WSAP), MWD needs to include a discussion of preferential rights, which is a member agency's statutory right to MWD water. (Sections 1.4 and 2.5, and Appendix 4.) The General Manager has made a number of statements recently to the effect that MWD has the legal authority to change or disregard preferential rights in its water supply allocation planning but neither he nor the General Counsel has provided any legal analysis to support these statements (which are contrary to many past statements and opinions by both MWD and member agencies in the context of both litigation and agency policy). The Water Authority – and we believe many other member agencies disagree with Mr. Kightlinger's statements. Preferential rights represent and reflect billions of dollars of investments MWD member agencies have historically made and MWD staff has no authority to either disregard those investments or declare the provisions of state law null and void.

MWD describes the 2020 UWMP as being “developed as part of the 2020 Integrated Water Resources Plan (IRP) planning process;” however, given that the 2020 IRP has not yet reached any conclusions or even presented core planning data, we do not understand how the UWMP is being developed in any meaningful way as part of that process. Moreover, MWD

¹ Water Authority General Counsel's letter dated April 11, 2021 is found here:

<https://mwdprograms.sdcwa.org/wp-content/uploads/2021-04-11-WA-GC-letter-to-MWD-GC-re-UWMP.pdf>

staff stated early on that the 2020 UWMP and 2020 IRP processes would be conducted independently, with separate workgroups and with different MWD and member agency staff.

Further, although there have been many requests by member agencies, including the Water Authority, to incorporate analysis from the 2020 UWMP into the 2020 IRP update (Director Smith has asked more than once that it be included as baseline data in all graphics and tables in the IRP), MWD staff has yet to accommodate this request.

Chapter 5 of the Draft 2020 UWMP describes MWD's 2020 IRP outreach efforts, implying that these efforts are somehow related to 2020 UWMP outreach—this is not correct as these outreach efforts solely focused on the 2020 IRP rather than the 2020 UWMP. Rather than focusing on the IRP outreach, we suggest focusing this chapter on the outreach effort conducted related to the 2020 UWMP. For example, Table 5-1 details when the IRP Committee met and discussed the 2020 IRP update but not when the board discussed the 2020 UWMP. We suggest the table be modified to reflect when the board discussed the 2020 UWMP. Similarly, Table 5-2 lists the IRP-focused “Member Agency Technical Workgroup” and Member Agency Managers meetings that discussed the IRP. We suggest reference to technical workgroup meetings be removed unless the 2020 UWMP was actually discussed; similarly, member agency manager meetings should only be included in cases where the 2020 UWMP was actually discussed. Again, MWD made clear that it was “delinking” the two processes (per the request of its member agencies) during the May 2020 meeting of the IRP Special Committee¹ and that should be clearly and accurately reported in the 2020 UWMP. (Executive Summary, Sections 2.1 and 2.6, and Chapter 5.)

The draft plan's index includes Appendix 13, *Alternative Forecasts for Demand on Metropolitan*, which is “to be developed.” A similar appendix was not included in MWD's prior UWMPs and this appendix has not been presented to the board, member agencies, or public for review. MWD has not explained the need for this new “alternative” in the 2020 UWMP. Unless it is statutorily required under the UWMP Act (we do not believe it is), we suggest that reference to this unidentified and unexplained appendix be removed. It is not appropriate for MWD to include a new appendix, when board members, member agencies, and the public have not had any explanation of the appendix or opportunity to review or provide input.

Comments on “Findings” of the Draft 2020 UWMP (page ES-6 and ES-7)

MWD plans and programs to address reduction in its water supplies: As noted above, in addition to describing its Water Surplus and Drought Management and Water Supply Allocation Plans, MWD should include a discussion of preferential rights in order to accurately address this subject.

MWD plans to continue investments in water use efficiency measures and local projects: MWD states that it will continue to invest in water efficiency measures to help retail agencies achieve their 20 percent per person water use efficiency targets. However, it is past 2020 and many if not all member agencies have already achieved these targets. If there are agencies that have not yet achieved these targets, the MWD board should address the issue on a policy level, including whether regional dollars might be used to provide financial assistance to

agencies that have not yet complied with state regulations. For example, the board could consider how disadvantaged communities who might not have met conservation targets might be supported financially within the requirements of Proposition 26, especially where it is demonstrated that the ratepayers of disadvantaged communities have paid MWD water rates and charges in excess of demand management benefits received.

Other comments

We provide the following additional comments and requests:

- Throughout the Draft 2020 UWMP, MWD references very generally impacts and potential impacts to its imported water supplies, such as impacts from the Biological Opinions, subsidence on the California Aqueduct, and State Water Resources Control Board's update to the Bay-Delta Water Quality Control Plan on the State Water Project. However, the plan does not explain or provide any analysis of *how staff believes these potential impacts are expected to impact MWD (even within a range)*. Broad generalizations about climate change and subsidence are not a sufficient basis for the board to consider potential actions and associated costs. MWD should provide an analysis of each of these issues including the anticipated impacts on MWD's imported supplies and some sense of the measures that may be taken over a timeline to address these concerns (i.e., adaptive management cannot be done in the abstract but needs to occur in the context of an identified set of potential impacts and possible solutions to address those impacts).
- The Draft 2020 UWMP references many agreements—like those related to MWD's storage and exchange programs—we suggest MWD include more detail about these various agreements including the term and other material features that could impact the UWMP analysis.
- Page 1-24: We request that MWD add a statement to clarify that the Water Authority and its member agencies did not receive MWD financial incentives for the development and successful implementation of the Claude "Bud" Lewis Seawater Desalination Plant.
- Starting at page 2-1, MWD describes its role in "regional" planning as "Southern California's lead agency in regional water management," which would lead many readers to believe that MWD member agencies are somehow subject to the jurisdiction of MWD in implementing local projects and programs, which is not accurate. This section should be modified to make clear that MWD's role is as a *supplemental* water supplier. The point should also be reinforced that if MWD develops water supplies for which there is no buyer, all member agencies will be on the hook to pay for it, because MWD's costs will have to be covered in any case once money is spent. The Blue Ribbon Task Force identified this problem more than 20 years ago, and MWD has yet to grapple with the reality of declining demand for MWD water, which is:

“Member agencies may want... the insurance provided by major investments to increase MWD standby capacity, but if forced to commit funds for such capabilities, they may actually prefer far lower levels of protection than a hypothetically "costless" water supply guarantee.” Metropolitan Water District Blue Ribbon Task Force Final Report (January 1994) at page 9.

MWD began during its October 2019 board Retreat to talk about this issue but it has not been continued as part of the IRP discussions. Calling excess water supplies “insurance,” without any analysis of the cost of insurance or understanding which member agencies want insurance is a recipe for the future imposition of fixed costs to pay for supplemental water supplies for which there is no buyer. This poses a material risk to MWD and the member agencies, which the Water Authority and its delegates to MWD will continue to request for discussion in the IRP and rate review processes.

- Pages 2-46 and 2-47: We suggest MWD modify the description of its effort related to the Water Stewardship Rate to reflect that the board’s December 2019 action was intended to provide additional time to consider *alternative cost recovery methods* for MWD’s demand management costs (rather than “a rate design alternative.”) The problem identified by the Court of Appeal and the basis of its ruling invalidating MWD’s Water Stewardship Rate wasn’t the rate *per se*, but the fact that MWD was improperly characterizing supply costs as transportation. A new “rate design,” if it continues to allocate supply costs to any transportation rate or charge as part of a new “rate design” will suffer from the same problem and invalidity as it has in the cases that have already been decided (and which MWD has expressly been ordered by the Court not to repeat in future rate setting).
- Page 3-5: We suggest the text include the additional parties to the suite of the agreements under the Quantification Settlement Agreement (QSA), including, but not limited to, the Water Authority, the California Department of Water Resources, the California Department of Fish and Wildlife, the U.S. Department of the Interior, and the San Luis Rey Settlement parties.
- Pages 3-8: Please clarify that the volume of exchange water does not include any unused portion of the mitigation water.
- Page 3-9: Please clarify that the Water Authority’s water conservation and transfer agreement with the Imperial Irrigation District will reach full implementation in 2021 (at 200,000 acre-feet), and that the 2021 and 2022 transfer volumes include early transfer water.
- Page 3-9: We suggest adding the completion dates for the Coachella and All-American Canal Lining projects of 2007 and 2010, respectively.
- Page 3-9: Please clarify that the Water Authority receives any unused environmental mitigation water from the Coachella Canal Lining project.

- Page 3-11: Please update the description of MWD's DCP contributions to match the description in MWD's most recent Official Statement stating that MWD "is responsible for 93 percent of California's DCP Contributions under the Lower Basin DCP."ⁱⁱ
- Pages 3-56 through 3-78: Section 3.5 describes the benefits and challenges of various local supplies. We suggest the plan include tables summarizing these benefits and challenges for each type of local water supply discussed such as Table 3-10 on page 3-69.
- Page 3-91: Figure 3-8 shows MWD's projected greenhouse gas emissions but does not reflect the description in the text that MWD plans to achieve carbon neutrality by 2045. We suggest explaining or clarifying why the figure does not reflect MWD achieving this goal.
- Page A.3-18: Please make changes as requested by the Water Authority's General Counsel in his April 11, 2021 letter referred to above.
- Page A.3-52: Please correct the statement that "*the 2020 Update of the Integrated Water Resources Plan (2020 IRP Update) identified policies and strategies for ensuring sustainable groundwater production in light of a potential for extended multiple-year dry conditions*" to reflect that the 2020 IRP is still being developed and that staff will present these policies and strategies to the board for consideration.
- Page A.3-54: Please clarify that the board has not yet taken action to implement the Regional Recycled Water Program and include the timeline when that decision is expected. Also, when the costs associated with the Program will be incorporated into MWD's 10-year rate forecast. This request is not in any way to suggest that the Water Authority does not support this and other local water supply development; however, there is more work to be done by the board to consider how much water supply is needed and what the preferred investment portfolio will be to provide it.
- Pages A.3-56 through A.3-60: Tables A.3-7 characterize the Exchange with the Water Authority as "Additional Colorado River Exchange Supplies;" please modify this description to "Additional Non-Metropolitan Colorado River Aqueduct Supplies," consistent with MWD's reporting of this water supply in its 2015 UWMP and the provisions of the Exchange Agreement as described in Water Authority's General Counsel's April 11, 2021 letter to General Counsel Scully (who should be well aware of this contractual provision).
- Page A.4-13: Please clarify under *Exchange with the San Diego County Water Authority* that the conserved IID water and the canal lining water are within Priority 3a. Similarly, please clarify under *Exchange with the United States* that the canal lining water falls within Priority 3a.

- Page A.4-11: Table A.4-3 Please clarify that the Exchange with the Water Authority and Exchange with the United States are not MWD supplies.
- Page A.4-16: The text states, “*Over the last 40 years, Metropolitan effectively delivered to its member agencies water supplies to meet demands ranging from 1.2 MAF per year to over 2.5 MAF per year.*” Consistent with the many comments the Water Authority has made on Appendix A to MWD Official Statements relating to the sale of bonds, please clarify that these *deliveries* are from different sources at different times so as not to mislead the reader about the volume of MWD water sales over time.
- Page A.4-21: Please confirm that the actions described in Table A.4-5 for MWD’s shortage stages and response actions are consistent with MWD’s Water Surplus and Drought Management Plan.
- Pages A.10-3 and A.10-9: Page A.10-3 describes that MWD includes the upstream embedded energy from the State Water Project in its energy intensity calculations, but then later, on page A.10-9, describes the associated greenhouse gas emissions from the State Water Project are not included in its greenhouse gas emissions inventory. Please explain why MWD does not apply the same approach for embedded energy and its greenhouse gas emissions inventory.

Sincerely,



Sandra L Kerl
General Manager

Cc: San Diego County Water Authority Board of Directors
San Diego County Water Authority Member Agency Managers
Jeff Kightlinger, MWD General Manager

ⁱ See presentation *Integrated Resources Plan: Schedule and Outreach* dated May 26, 2020 found here: <http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2020/05%20-%20May/Presentations/05262020%20IRP%203a%20Presentation.pdf>

Also, audio recording of this IRP Committee meeting found here:

http://mwdh2o.granicus.com/MediaPlayer.php?view_id=21&clip_id=8297

ⁱⁱ See page A-25 of MWD’s Official Statement dated January 21, 2021:

http://www.mwdh2o.com/PDF_Who_We_Are/MWD_2021%20Ser.%20A_FOS.pdf

From: Fandialan,Edgar P
Sent: Tuesday, May 4, 2021 5:03 PM
To: Tsui, Sabrina
Cc: Pettijohn, David; Kwan, Delon
Subject: Re: LADWP Comments to MWD's Draft 2020 UWMP

Hi Sabrina,

Thank you for your review and comment on Metropolitan's March 2021 draft 2020 Urban Water Management Plan.

- Metropolitan's demand, supply, and reliability assessment tables are all presented in calendar years.
- Metropolitan uses the 96 years of hydrology (1922-2017) provided by LADWP to project the Los Angeles Aqueduct (LAA). Doing so allows for consistency with Metropolitan's modeling methodology for accounting the impact of hydrologic variation on demand. The average of this 96-year period is the basis for Metropolitan's normal year LAA estimate. We included a footnote in the UWMP Section 2 demand table to acknowledge the resulting discrepancies due to the difference in hydrology chosen for normal water year reporting.
- Consistent with our UWMP, we selected 1977 hydrology for LAA in our single dry year analysis. The discrepancy in LAA estimate lies in the selection of a different single dry year in LADWP's UWMP. We included a footnote in the UWMP Section 2 demand table to acknowledge the resulting discrepancies due to the difference in hydrology chosen for the single-dry year reporting.
- For the five consecutive drought years, Metropolitan and LADWP used the same hydrology reflecting 1988-1992. Due to differences in reporting, it was not possible to directly compare multi-dry year tables, however the difference is negligible since the same hydrology was used.
- With regards to demands, we added clarifying language that Metropolitan's conservation savings projection does not include savings from the implementation of future planned active conservation programs.
- At the public hearing, Metropolitan explained that there will no Appendix 13 to the 2020 UWMP. A write up on the impact of local resources on demand on Metropolitan will be provided as a reference material and will be posted as part of the 2020 UWMP Reference Materials page on Metropolitan's website www.mwdh2o.com. Also included in Section 2, p. 2-16 is a narrative that states: "...A write up on the impact of alternative forecasts and projections of local supplies on Demand on Metropolitan is included in the 2020 Reference Materials page posted on Metropolitan's website (www.mwdh2o.com). This write up provides supplemental information on alternative forecasts and projections for estimating local supply development and production in the service area that may be appropriate for different planning applications and its impact on estimates of Demand on Metropolitan." The "alternative forecasts and projections" refers to the variability of estimates in local supply development and production and its impact on member agencies' demands on Metropolitan. Accordingly, the information will be made available for public review to help inform the relevance of such supplies on Metropolitan's planning.

We look forward to continued coordination with LADWP throughout the completion of both of our agencies' 2020 UWMPs.

Thank you,

Edgar

Edgar Fandialan
Water Resource Management Group
Metropolitan Water District of Southern California

From: Tsui, Sabrina <Sabrina.Tsui@ladwp.com>
Sent: Monday, April 12, 2021 3:46:23 PM
To: Fandialan, Edgar P
Cc: Pettijohn, David; Kwan, Delon
Subject: LADWP Comments to MWD's Draft 2020 UWMP

Hi Edgar,

Thank you for the opportunity to review MWD's March 2021 Draft 2020 UWMP. Please see LADWP's comments below.

The methodology that MWD uses to project LAA supplies is different than ours. This is leading to discrepancies between our values and MWD's values. For example, 33 TAF is cited as our low in 2015, which is true for calendar year 2015. However, MWD is not very clear or consistent with the reporting year type (i.e., FY vs CY) and seems to bounce between them. At a minimum, our numbers should be reported on FY or RY basis to be consistent with our reporting in LADWP's UWMP. This would put us up into the 55 TAF range. In addition, we noticed that MWD forecasts higher demand for LADWP despite our active efforts to reduce water demand. Similarly, we noticed other discrepancies in both our projected demands and supplies. We ask that the values of our 2020 UWMP, shown in the tables below, be used for consistency between our two agencies.

Demand and Supply Projections (in acre-feet)	Average Year Fiscal Year Ending (FYE) on June 30				
	2025	2030	2035	2040	2045
Total Water Demand¹	642,600	660,200	678,800	697,800	710,500
Post-Conservation Demand	509,500	526,700	536,100	554,500	565,800
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	133,100	133,500	142,700	143,300	144,700
Los Angeles Aqueduct ⁴	190,400	188,900	187,300	185,800	184,200
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	461,200	480,000	495,100	493,700	493,700
MWD Water Purchases					
With Existing/Planned Supplies	181,400	180,200	183,700	204,100	216,800
Total Supplies	642,600	660,200	678,800	697,800	710,500

Demand and Supply Projections (in acre-feet)	Dry Year Fiscal Year Ending (FYE) on June 30				
	2025	2030	2035	2040	2045
Total Water Demand¹	674,700	693,200	712,700	732,700	746,000
Post-Conservation Demand	509,500	526,700	536,100	554,500	565,800
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	165,200	166,500	176,600	178,200	180,200
Los Angeles Aqueduct ⁴	70,800	70,200	69,600	69,000	68,500
Groundwater					
- Entitlements ⁵	121,300	121,300	121,300	120,700	120,700
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	385,600	406,200	423,200	423,700	425,400
MWD Water Purchases					
With Existing/Planned Supplies	289,100	287,000	289,500	309,000	320,600
Total Supplies	674,700	693,200	712,700	732,700	746,000

Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year One (1988) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	657,900	675,800	694,900	714,400	727,400
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	150,300	149,200	158,800	160,000	161,700
Los Angeles Aqueduct ⁴	133,700	132,600	131,500	130,400	129,300
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	421,700	439,400	455,400	455,000	455,800
MWD Water Purchases					
With Existing/Planned Supplies	236,200	236,400	239,500	259,400	271,600
Total Supplies	657,900	675,800	694,900	714,400	727,400

Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year Two (1989) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	661,700	679,700	698,900	718,500	731,500
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	154,100	153,100	162,800	164,100	165,800
Los Angeles Aqueduct ⁴	119,500	118,600	117,600	116,600	115,700
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	531,700	557,700	580,900	580,100	581,100
MWD Water Purchases					
With Existing/Planned Supplies	130,000	122,000	118,000	138,400	150,400
Total Supplies	661,700	679,700	698,900	718,500	731,500

Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year Three (1990) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	674,800	693,200	712,800	732,700	746,000
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	167,200	166,600	176,700	178,300	180,300
Los Angeles Aqueduct ⁴	70,800	70,200	69,600	69,000	68,500
Groundwater					
- Entitlements ⁵	121,309	121,309	121,309	120,709	120,709
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	387,609	406,309	423,309	423,809	425,509
MWD Water Purchases					
With Existing/Planned Supplies	287,191	286,891	289,491	308,891	320,491
Total Supplies	674,800	693,200	712,800	732,700	746,000
Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year Four (1991) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	661,600	679,600	698,900	718,400	731,500
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	154,000	153,000	162,800	164,000	165,800
Los Angeles Aqueduct ⁴	119,700	118,800	117,800	116,800	115,800
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	411,400	429,400	445,700	445,400	446,400
MWD Water Purchases					
With Existing/Planned Supplies	250,200	250,200	253,200	273,000	285,100
Total Supplies	661,600	679,600	698,900	718,400	731,500

Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year Five (1992) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	655,700	673,600	692,600	712,000	724,900
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	148,100	147,000	156,500	157,600	159,200
Los Angeles Aqueduct ⁴	141,900	140,700	139,500	138,400	137,300
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	427,700	445,300	461,100	460,600	461,300
MWD Water Purchases					
With Existing/Planned Supplies	228,000	228,300	231,500	251,400	263,600
Total Supplies	655,700	673,600	692,600	712,000	724,900

With regards to Appendix 13, Alternative Forecasts for Demand on MWD, it was mentioned at the March 18th MWD UWMP Coordination Meeting that the draft Appendix 13 was to be released in a few weeks. At this morning's WP&S Committee/ MWD's UWMP Public Hearing, I did hear both Brad and Deven acknowledge that the alternate forecasts will no longer be part of MWD's UWMP. In the event that this decision changes, or if it is used in the future, our original question was: Will Appendix 13, Alternative Forecasts for Demand on MWD be available anytime soon and will there be time to comment on it prior to the UWMP going to Board for adoption, or used for planning purposes?

Thank you,

Sabrina Y. Tsui, P.E.

Manager, Resources Development
Water Resources Division
(213) 367-4131



Please consider the environment before printing this email.

From: "Fandialan, Edgar P" <efandialan@mwdh2o.com>

Subject: [EXTERNAL] UWMP Announcements

Date: 04 March 2021 16:14

To: "PBogdanoff@anaheim.net" <PBogdanoff@anaheim.net>, "Rhoang@anaheim.net" <Rhoang@anaheim.net>, "mgomez@beverlyhills.org" <mgomez@beverlyhills.org>, "mswan@psomas.com" <mswan@psomas.com>, "vdamasse@beverlyhills.org" <vdamasse@beverlyhills.org>, "gborboa@beverlyhills.org" <gborboa@beverlyhills.org>, "rwilson@burbankca.gov" <rwilson@burbankca.gov>, "DDrugan@calleguas.com" <DDrugan@calleguas.com>, "JLancaster@calleguas.com" <JLancaster@calleguas.com>, "HGraumlich@calleguas.com" <HGraumlich@calleguas.com>, "alex@centralbasin.org" <alex@centralbasin.org>, "kelseyc@centralbasin.org" <kelseyc@centralbasin.org>, "jeremym@centralbasin.org" <jeremym@centralbasin.org>

"BDickinson@comptoncity.org" <BDickinson@comptoncity.org>, "Szurita@comptoncity.org" <Szurita@comptoncity.org>, "ngg@emwd.org" <ngg@emwd.org>, "njazmadarian@fmwd.com" <njazmadarian@fmwd.com>, "mle@fmwd.com" <mle@fmwd.com>, "GarH@ci.fullerton.ca.us" <GarH@ci.fullerton.ca.us>, "RRuyle@Glendaleca.gov" <RRuyle@Glendaleca.gov>, "cgarcia@ieua.org" <cgarcia@ieua.org>, "jaguilar@ieua.org" <jaguilar@ieua.org>, "ehurst@ieua.org" <ehurst@ieua.org>, "ESchlageter@lvmwd.com" <ESchlageter@lvmwd.com>, "OSlosser@lvmwd.com" <OSlosser@lvmwd.com>, "anatole.falagan@lbwater.org" <anatole.falagan@lbwater.org>, "Dean.Wang@LBWater.org" <Dean.Wang@LBWater.org>, "Kwan, Delon" <Delon.Kwan@ladwp.com>, "Pettijohn, David" <David.Pettijohn@ladwp.com>, "Tsui, Sabrina" <Sabrina.Tsui@ladwp.com>, "hdelatorre@mwdoc.com" <hdelatorre@mwdoc.com>, "AHeide@mwdoc.com" <AHeide@mwdoc.com>, "mitchdion@cityofpasadena.net" <mitchdion@cityofpasadena.net>, "MCouch@sdca.org" <MCouch@sdca.org>, "emendelson@sdca.org" <emendelson@sdca.org>, "ASchnell@sdca.org" <ASchnell@sdca.org>, "SStephens@sdca.org" <SStephens@sdca.org>, "JStephenson@sdca.org" <JStephenson@sdca.org>, "NKimball@sfcity.org" <NKimball@sfcity.org>, "AMendez@sfcity.org" <AMendez@sfcity.org>, "MThrone@CityofSanMarino.org" <MThrone@CityofSanMarino.org>, "garry.hofer@amwater.com" <garry.hofer@amwater.com>, "Jessica.Taylor@amwater.com" <Jessica.Taylor@amwater.com>, "rosas@santa-ana.org" <rosas@santa-ana.org>, "sunny.wang@smgov.net" <sunny.wang@smgov.net>, "tkellett@tvmwd.com" <tkellett@tvmwd.com>, "lcohn@TVMWD.com" <lcohn@TVMWD.com>, "adarlak@torranceca.gov" <adarlak@torranceca.gov>, "Joeygarcia@torranceca.gov" <Joeygarcia@torranceca.gov>, "cschaich@torranceCA.gov" <cschaich@torranceCA.gov>, "Tom@usgvmwd.org" <Tom@usgvmwd.org>, "Robert@usgvmwd.org" <Robert@usgvmwd.org>, "Elena@usgvmwd.org" <Elena@usgvmwd.org>, "Christy@usgvmwd.org" <Christy@usgvmwd.org>, "edwardc@westbasin.org" <edwardc@westbasin.org>, "MarinaL@westbasin.org" <MarinaL@westbasin.org>, "TammyH@westbasin.org" <TammyH@westbasin.org>, "RShaw@wmwd.com" <RShaw@wmwd.com>, "MMatlock@wmwd.com" <MMatlock@wmwd.com>
Cc: "Coffey,Brad" <bcoffey@mwdh2o.com>, "Goshi,Brandon J" <bgoshi@mwdh2o.com>, "Teraoka,Jill C" <JTeraoka@mwdh2o.com>, "Kuo Brinton,Betty L" <BKuo@mwdh2o.com>, "Schaffer,Carolyn A" <CSchaffer@mwdh2o.com>, "Nevills,Jennifer C" <jnevills@mwdh2o.com>, "Polyzos,Demetri J" <DPolyzos@mwdh2o.com>, "Hines,Steven M" <shines@mwdh2o.com>, "Ti,Mike N" <mike_ti@mwdh2o.com>, "Sumi,David H" <DSumi@mwdh2o.com>, "Horton,Robert C" <RHorton@mwdh2o.com>, "Carrillo,Carlos A" <CCarrillo@mwdh2o.com>, "Tran,Tiffany" <T_Tran@mwdh2o.com>, "Hardjadinata,Nadia R" <NHardjadinata@mwdh2o.com>

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To UWMP Member Agency Coordinators:

I hope everyone is doing well and making good progress towards finalizing your agency's 2020 UWMP.

Here are several important announcements:

1. Metropolitan will release an updated Public Review Draft 2020 UWMP on March 8, 2021. The latest draft 2020 UWMP will include updated demand and local supply information based on feedback provided by our member agencies received by the requested January 8th deadline for submission of comments. Metropolitan also included additional input and data received by February 5th to accommodate additional member agency submissions. The updated information was incorporated in the reliability assessments contained in March 8th draft UWMP. Any additional information received after February 5th may be incorporated in the final 2020 UWMP scheduled for adoption in May 2021.

Also included in the March posting are the updated draft Water Shortage Contingency Plan and draft Appendix 11 Addendum to the 2015 UWMP on Reduced Delta Reliance reporting. The updated March drafts,

as well as any further refinements to the documents, will be posted on the same Metropolitan website:
www.mwdh2o.com.

2. As part of our 2020 UWMP coordination and to assist with your agency's preparation of your plan, Metropolitan will email to each member agency updated draft demand forecasts through 2045 under normal water year, single dry year, and droughts lasting five consecutive years. This information is consistent with the reliability assessments contained in Metropolitan Public Review Draft 2020 UWMP that will be posted on March 8, 2021.
3. Metropolitan will host an on-line UWMP Member Agency Coordination meeting on Thursday, March 18, 2021 from 2:30-4:00 pm. Topics of discussion will include a status update of the 2020 UWMP process, draft Appendix 13 (Alternative Forecast of Demand on Metropolitan, included in the March draft 2020 UWMP), and draft Appendix 11 Reduced Delta Reliance Reporting.

Please register in advance for this meeting by using the link provided below:

https://zoom.us/join/zoom/register/tJcudeqqgTgtHdcTG3K_GqN5NWdE48YqRkD

Looking forward to your participation at the meeting and our continued coordination throughout the rest of the 2020 UWMP process. Please email me if you have any questions.

Thanks,
Edgar

*Edgar Fandialan
Principal Engineer, Water Resource Management Group
Metropolitan Water District of Southern California*

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From: Cathleen Pieroni <cpieroni@ieua.org>
Sent: Monday, April 5, 2021 5:03 PM
To: Carrillo, Carlos A <CCarrillo@mwdh2o.com>
Cc: Coffey, Brad <bcoffey@mwdh2o.com>; Sylvie Lee <slee@ieua.org>; Christiana Daisy <cdaisy@ieua.org>; Elizabeth Hurst <ehurst@ieua.org>; Goshi, Brandon J <bgoshi@mwdh2o.com>; Fandialan, Edgar P <efandialan@mwdh2o.com>
Subject: RE: Comments on MWD's draft UWMP

Good afternoon Carlos,

Thanks so much for your reply and suggested footnote. I'm afraid I puzzled over the meaning of the footnote. Are you trying to show that we would pull more out of groundwater basins during dry years? If so, maybe the footnote could be reworded (see suggestion below)? cp

"3 Estimate of local production of natural recharge represents the amount of water taken out of the groundwater basin while maintaining basin balance considering projected local groundwater production and replenishment deliveries to the groundwater basins."

From: Carrillo, Carlos A <CCarrillo@mwdh2o.com>
Sent: Monday, April 5, 2021 1:36 PM
To: Cathleen Pieroni <cpieroni@ieua.org>
Cc: Coffey, Brad <bcoffey@mwdh2o.com>; Sylvie Lee <slee@ieua.org>; Christiana Daisy <cdaisy@ieua.org>; Goshi, Brandon J <bgoshi@mwdh2o.com>; Fandialan, Edgar P <efandialan@mwdh2o.com>
Subject: RE: Comments on MWD's draft UWMP

Hi Cathy,

Our apologies for the delayed response. We will be adding the following footnote to this table referencing Natural Recharge:

"3 Estimate of natural recharge is based on basin balance considering projected local groundwater production and replenishment deliveries to the groundwater basins."

For this table, we assume that natural recharge would effectively be the difference between groundwater production and replenishment from Metropolitan imported water/local recycled water projects since most basins are managed and would be operated in balance.

Please let us know if you have any additional questions.

Best,
Carlos

Carlos Carrillo
Metropolitan Water District
(213) 217-7140
ccarrillo@mwdh2o.com

From: Cathleen Pieroni <cpieroni@ieua.org>

Sent: Saturday, April 3, 2021 12:20 PM

To: Carrillo, Carlos A <CCarrillo@mwdh2o.com>

Cc: Coffey, Brad <bcoffey@mwdh2o.com>; Sylvie Lee <slee@ieua.org>; Christiana Daisy <cdaisy@ieua.org>

Subject: FW: Comments on MWD's draft UWMP

Good afternoon Carlos,

IEUA previously submitted the attached comments on MWD's draft 2020 UWMP. Thank you for addressing our 2nd comment in the March draft document. Would it be possible to receive an explanation as to why our third comment was not addressed? And while changes to Table 1-5 were made (Comment #1), they do not appear to address the trends we would expect to see for natural recharge to groundwater basins. Perhaps you could explain to us via a video conference meeting next week (before the 4/12 public hearing) what are the factors and assumptions going into your model that result in increasing natural groundwater recharge over time and during dry years. Again, this is counter intuitive to us.

Thank you in advance for your assistance in this matter. Cathy

Original Table 1-5:

Table 1-5
Local Supplies for Normal and Dry Years
 (Acre-Feet)

	2025		2035		2045	
	Normal Year ¹	Dry Year ²	Normal Year	Dry Year	Normal Year	Dry Year
Local Groundwater						
<i>From Natural Recharge</i>	886,000	942,000	936,000	946,000	945,000	958,000
<i>Replenishment</i>	330,000	255,000	320,000	315,000	323,000	321,000
Local Projects						
<i>Groundwater Recovery</i>	147,000	142,000	166,000	165,000	168,000	168,000
<i>Recycling</i>	497,000	448,000	569,000	563,000	592,000	588,000
<i>Seawater Desalination</i>	51,000	56,000	53,000	56,000	53,000	56,000
Local Runoff Stored	99,000	90,000	102,000	93,000	102,000	93,000
Los Angeles Aqueduct	258,000	118,000	258,000	118,000	258,000	118,000
Total	2,268,000	2,051,000	2,404,000	2,256,000	2,441,000	2,302,000

¹ Normal Water Year is based on 1922 through 2017.

² Dry Year is based on five consecutive years of drought (1988-92)

And now:

Table 1-5
Local Supplies for Normal and Dry Years
 (Acre-Feet)

	2025		2035		2045	
	Normal Year ¹	Dry Year ²	Normal Year	Dry Year	Normal Year	Dry Year
Local Groundwater						
<i>From Natural Recharge</i>	903,000	948,000	966,000	970,000	993,000	1,003,000
<i>Replenishment</i>	334,000	257,000	323,000	318,000	326,000	325,000
Local Projects						
<i>Groundwater Recovery</i>	144,000	140,000	158,000	158,000	160,000	159,000
<i>Recycling</i>	533,000	487,000	656,000	627,000	678,000	675,000
<i>Seawater Desalination</i>	51,000	56,000	51,000	56,000	51,000	56,000
Local Runoff Stored	85,000	81,000	88,000	82,000	88,000	82,000
Los Angeles Aqueduct	257,000	118,000	258,000	118,000	258,000	118,000
Exchange with SDCWA	278,000	278,000	278,000	278,000	278,000	278,000
Total	2,584,000	2,364,000	2,779,000	2,608,000	2,832,000	2,695,000

¹ Normal Water Year is based on 1922 through 2017.

² Dry Year is based on five consecutive years of drought (1988-92)

From: Cathleen Pieroni

Sent: Thursday, January 7, 2021 11:08 AM

To: Carrillo, Carlos A <CCarrillo@mwdh2o.com>; T_Tran@mwdh2o.com

Cc: Elizabeth Hurst <ehurst@ieua.org>; Joshua Aguilar <jaguilar@ieua.org>; William McDonnell <wmcdonnell@ieua.org>

Subject: Comments on MWD's draft UWMP

Good morning,

Attached please find comments from IEUA on MWD's draft UWMP for your consideration.

Thank you,

Cathleen

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Page	Reference	Comment
1-25	Table 1-5, Local Supplies for Average and Dry Years	<p>In-region groundwater replenishment from “natural recharge” is expected to increase between 2025 and 2045. Is this assumed to occur because of anticipated increases in precipitation due to climate change? I cannot find a reference to the assumptions governing this assumption. For the Chino Basin, there are concerns that replenishment from precipitation will decrease over time due to land development and the related reduction in permeable acreage. Also, increased outdoor water-use efficiency (including reductions in system water loss) is expected to also result in reduced recharge. The Chino Basin Watermaster estimates that 40% of current basin recharge is related to precipitation and applied water from irrigation systems.</p> <p>Also, why is natural groundwater replenishment assumed to be higher in multiple dry years as compared to normal years? That seems counterintuitive.</p>
3-50	Table 3-5, Metropolitan’s Conservation Credits Program	<p>Wouldn’t it be more appropriate to list the lifetime saving associated with investments made in each FY (demonstrating \$/AF saved) rather than listing the AF saved that particular year, which includes cumulative AF saved as a result of future year investments and implies a lower cost per AF? Would recommend that you add column for lifetime AF saved for each year’s financial investment to link the investments with the actual yield of savings.</p>
3-58	Table 3-8, Existing and Projected Total Effluent Capacity Wastewater Treatment Plants within Metropolitan’s Service Area	<p>This table is based on a 2002 study, which seems outdated. It seems unlikely that existing primary treatment capacity is 1,770 mgd and that capacity levels are expected to grow to 3,139 mgd by 2040 given that secondary treatment or higher is required for discharges. The estimate of advanced treatment levels in 2040 seems very low too. Jennifer West at WateReuse may have updated numbers.</p>



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

May 4, 2021

Mr. Michael R. Markus
General Manager
Orange County Water District
18700 Ward Street
Fountain Valley, CA 92708

Dear Mr. Markus:

Re: Orange County Water District comments
on Metropolitan Water District 2020 Urban Water Management Plan Draft

Thank you for your comments on The Metropolitan Water District of Southern California's (Metropolitan's) draft 2020 Urban Water Management Plan (UWMP). As you know, seawater desalination diversifies the region's water resource mix with a locally controlled and drought-proof water supply. Metropolitan supports member agency desalination through technical assistance, research and information exchange, and financial incentives through the Local Resource Program (LRP). In October 2015, Metropolitan received a preliminary application for LRP funding from the Municipal Water District of Orange County (MWDOC) for the Huntington Beach Seawater Desalination Project (HB Project).

For Metropolitan's 2020 UWMP, local supplies were projected using information reported to us in collaboration with our member agencies. MWDOC did not include the HB Project in their water supply projections¹ for the reasons described in their April 21, 2021 letter. As such, Metropolitan also did not include the production. Though not included in the local supply projection, Metropolitan's UWMP does describe how the HB Project could help meet the region's goals for new local supplies.² We also corrected Table A.5-3 to reflect the project's reported online date of 2027.

Metropolitan addressed the HB Project similarly to potential production from the Regional Recycled Water Program (RRWP). The RRWP, in partnership with the Los Angeles County Sanitation Districts, offers a potentially new local supply of up to 168,000 acre-feet of purified water for groundwater replenishment, industrial use, and potentially raw water augmentation. Despite substantial progress in

¹MWDOC's local supply projections are shown in Table 4-1 on p. 4-3 in Municipal Water District of Orange County's [2020 Urban Water Management Plan Draft](#).

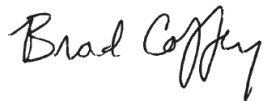
² Please see description of the HB Project in Section 3.5 (pp. 3-56, 3-77), and Appendix 5 (p. A.5-12)

Mr. Michael R. Markus
Page 2
May 4, 2021

developing this potential supply, Metropolitan did not include its possible production in the UWMP analysis.

Once again, thank you for your comments. They were helpful as we finalize our UWMP for Metropolitan's Board adoption in May. If you have any further questions, please feel free to contact me at (213) 217-5845.

Sincerely,



Brad Coffey
Manager, Water Resource Management

Attachments:

Markus, M. (April 15, 2021). *Metropolitan Water District 2020 Urban Water Management Plan Draft Comments.*

Hunter, R. J. (April 20, 2021). *OCWD's Comment Letter #2 on MWDOC's 2020 Draft Urban Water Management Plan.*

cc: Robert Hunter, MWDOC
Harvey De La Torre, MWDOC
John Kennedy, OCWD
Greg Woodside, OCWD
Scott Maloni, Poseidon Water

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ORANGE COUNTY WATER DISTRICT
ORANGE COUNTY'S GROUNDWATER AUTHORITY

April 15, 2021

Via electronic mail: bcoffey@mwdh2o.com

Mr. Brad Coffey
Group Manager, Water Resource Management
Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, CA 90012-2944

SUBJECT: Metropolitan Water District 2020 Urban Water Management Plan Draft Comments

Dear Mr. Coffey:

The Orange County Water District (OCWD) would like to provide the following comments on the Metropolitan Water District of Southern California (MET) 2020 Urban Water Management Plan Draft (2020 Draft UWMP) and asks that consideration of these comments be reflected in the final draft document scheduled to be issued in May.

As you may be aware, OCWD's 2015 Groundwater Management Plan identifies the proposed Project as a planned future water supply capable of providing up to 56,000-acre feet per year (50 MGD) of new supply, and the OCWD Board of Directors approved a term sheet in 2018 to guide future negotiations for the purchase of the Project's maximum capacity. The project will also be included in the District's 2021 Groundwater Reliability Plan which is currently being prepared. Poseidon Water anticipates that the facility could achieve its first full year of operation as early as 2027 assuming necessary permits and project approvals are obtained in the next 12 months. This projected operational date should be identified in MET's UWMP Draft Appendix 5 Table A.5-3.

Furthermore, the Draft UWMP could benefit from more clarity as it pertains to the Huntington Beach Desalination Project's identification as a planned future water supply. The DWR 2020c citation referencing state guidelines refers to the Department of Water Resources Urban Water Management Plan Guidebook 2020, 6-36, which states:

Recommended

It is recommended that Suppliers indicate the level to which desalination is being considered by describing whether each potential desalination source is: (a) conceptual in nature, (b) likely to be developed, (c) almost certainly to be developed, or (d) in the process of being developed or in use at this time. The information included in Submittal Tables 6-8 and 6-9 and the optional Planning Tool Supply Worksheet should only be if it falls under categories (c) or (d), but Suppliers may choose to include less firm desalination opportunities in their narratives.

Consultation with DWR staff indicates that the meaning of the word “develop” was intended using the standard definition as defined by Merriam-Webster.¹ The Project is in the late stages of development and has been in the state’s permitting process for almost twenty years. As such, the Project has secured property development rights and various local and state permits and approvals including, but not limited to, a Local Coastal Development Permit, Conditional Use Permit, California Environmental Quality Act certification, a National Pollutant Discharge Elimination System Permit from the Santa Ana Regional Water Quality Control Board and a land lease with the California State Lands Commission. The Project also has developed cost estimates, facility Engineering, Procurement and Construction bids, an invitation from the US EPA to apply for up to \$585 million in credit assistance under the Water Infrastructure Finance and Innovation Act, and a MET Local Resource Program application jointly submitted to MET in 2013 by all four of Orange County’s MET member agencies – Municipal Water District of Orange County (MWDOC) and the cities of Anaheim, Fullerton and Santa Ana, and subsequently updated in October 2015 by MWDOC. In fact, the development of the Huntington Beach Desalination Project could be the most mature of any seawater desalination project in the state of California.

MET’s 2020 Draft UWMP Table 3-13 labeled “*Seawater Desalination Projects Under Development within Metropolitan’s Service Area*” includes the proposed Project and correctly identifies its status as “under development” and in the permitting phase. However, it appears from the increase in water from future regional supplies identified in Tables 1-5, 2-1, 2-2, and 2-3 of MET’s Draft UWMP 25-year supply projections that MET is counting on facilities currently in a similar state of development (i.e., under development but not constructed) as the Huntington Beach Desalination Project but not including water from the Project itself. In this regard, MET might also consider reflecting the proposed Project’s 56,000-acre feet of supply in Tables 1-5, 2-1, 2-2, and 2-3.

In sum, the Project clearly meets the state’s definition of “developed” and should fall under DWR Guidebook guidance criterion (d) *in the process of being developed* and therefore should be specifically identified in relevant UWMP tables reflecting that it is a planned future water supply capable of providing a new sources of regional water supply within the 2020 UWMPs 25-year planning horizon.

Thank you for consideration of these comments.

Sincerely,



Michael R. Markus, P.E., D.WRE, BCEE, F.ASCE
General Manager

cc: Harvey De La Torre, MWDOC
John Kennedy, OCWD
Scott Maloni, Poseidon Water
OCWD Board of Directors

¹ April 8, 2021 email from DWR staff to Poseidon Water Vice President Scott Maloni. Merriam-Webster defines “develop” as **a**: to work out the possibilities of //develop an idea **b**: to create or produce especially by deliberate effort over time.



April 20, 2021

Mr. Michael R. Markus
General Manager
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City of Tustin
City of Westminster
Yorba Linda Water District

Re: OCWD's Comment Letter #2 on MWDOC's 2020 Draft Urban Water Management Plan

Dear Mr. Markus:

Thank you for providing us your April 15 comment letter on our 2020 Draft Urban Water Management Plan (UWMP). We have carefully reviewed your comments and suggestions regarding our description of the proposed Huntington Beach Poseidon Ocean Desalination Plant (Poseidon HB Project).

Per your suggestion, we will incorporate the following in our upcoming final draft:

- Poseidon's estimated operational date of 2027, assuming all necessary permits and project approvals are obtained; and
- Reflecting that an updated non-binding term sheet between OCWD and Poseidon was developed in 2018; and
- Correction to the reference of MWDOC's UWMP Table 4-1 (instead of Table 6-2).

While we agree the proposed Poseidon HB Project has made progress since our previous 2015 UWMP, the project still has not secured all of its necessary permits, financial and operational agreements, nor the Metropolitan Local Resource Program (LRP) agreement. Without these essential milestones achieved, it is difficult to categorize this project as *"(c) almost certainly to be developed, or (d) in the process of being developed or in use at this time."* For these reasons, we do not quantify this project's supply in our UWMP's Table 4-1¹ planned projections. This is consistent with how the Doheny Desalination Project in Dana Point is addressed as well.

Again, thank you for your comments, they are very useful in helping us finalizing our UWMP for the Public Hearing and Board adoption in May.

Should you have any questions, you can contact me directly at (714) 593-5026.

Sincerely,

Robert J. Hunter
General Manager

¹ Of note, this is for projections in Table 4-1, *MWDOC Service Area Water Supply Projections* (4-3) and Appendix B, *DWR Submittal Table 6-9 Wholesale: Water Supplies — Projected* (B-14).

cc: MWDOC Board of Directors
OCWD Board of Directors
John Kennedy, OCWD
Greg Woodside, OCWD
Harvey De La Torre, MWDOC
Brad Coffey, MWD
Scott Maloni, Poseidon Water

Attachment: OCWD April 15, 2021, MWDOC 2020 Draft UWMP

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April 15, 2021

Via electronic mail: rhunter@mwdoc.com

Rob Hunter
General Manager
Municipal Water District of Orange County
18700 Ward Street
Fountain Valley CA 92708

SUBJECT: Municipal Water District of Orange County 2020 Draft Urban Water Management Plan

Dear Mr. Hunter:

The Orange County Water District (OCWD) would like to provide additional comments on the Municipal Water District of Orange County (MWDOC) 2020 Draft Urban Water Management Plan (2020 Draft UWMP) and asks that consideration of these comments be reflected in the final draft document scheduled to be issued in May.

As you are aware, OCWD's 2015 Groundwater Management Plan identifies the proposed Project as a planned future water supply capable of providing up to 56,000-acre feet per year (50 MGD) of new supply, and the OCWD Board of Directors approved a term sheet in 2018 to guide future negotiations for the purchase of the Project's maximum capacity. The project will also be included in the District's 2021 Groundwater Reliability Plan which is currently being prepared. Poseidon Water anticipates that the facility could achieve its first full year of operation as early as 2027 assuming necessary permits and project approvals are obtained in the next 12 months. This projected operational date should be identified in the MWDOC Final 2020 UWMP.

Furthermore, the Draft UWMP could benefit from more clarity as it pertains to the Huntington Beach Desalination Project's identification as a planned future water supply. Specifically, MWDOC's Draft UWMP section 6-53 states:

Under guidance provided by DWR, the Huntington Beach Seawater Desalination Plant's projected water supplies are not included in Table 6-2 due to its current status within the criteria established by State guidelines (DWR, 2020c).

First, the reference to MWDOC UWMP Table 6-2 appears to be a typographical error as this table appears to be limited to imported wholesale water supplies from the Metropolitan Water District (MET). Second, the DWR 2020c citation referencing state guidelines refers to the Department of Water Resources Urban Water Management Plan Guidebook 2020, 6-36, which states:

Recommended

It is recommended that Suppliers indicate the level to which desalination is being considered by describing whether each potential desalination source is: (a) conceptual in nature, (b) likely to be developed, (c) almost certainly to be developed, or (d) in the process of being developed or in use at this time. The information included in Submittal Tables 6-8 and 6-9 and the optional Planning Tool Supply Worksheet should only be if it falls under categories (c) or (d), but Suppliers may choose to include less firm desalination opportunities in their narratives.

Consultation with DWR staff indicates that the meaning of the word “develop” was intended using the standard definition as defined by Merriam-Webster.¹ The Project is in the late stages of development and has been in the state’s permitting process for almost twenty years. As such, the Project has secured property development rights and various local and state permits and approvals including, but not limited to, a Local Coastal Development Permit, Conditional Use Permit, California Environmental Quality Act certification, a National Pollutant Discharge Elimination System Permit from the Santa Ana Regional Water Quality Control Board and a land lease with the California State Lands Commission. The Project also has developed cost estimates, facility Engineering, Procurement and Construction bids, an invitation from the US EPA to apply for up to \$585 million in credit assistance under the Water Infrastructure Finance and Innovation Act, and a MET Local Resource Program application jointly submitted to MET in 2013 by all four of Orange County’s MWD member agencies – MWDOC and the cities of Anaheim, Fullerton and Santa Ana, and subsequently updated in October 2015 by MWDOC. In fact, the development of the Huntington Beach Desalination Project could be the most mature of any seawater desalination project in the state of California.

In sum, the Project clearly meets the state’s definition of “developed” and should fall under DWR Guidebook guidance criterion (d) *in the process of being developed* and therefore should be specifically identified in relevant UWMP tables reflecting that it is a planned future water supply capable of providing a new sources of regional water supply within the 2020 UWMPs 25-year planning horizon.

Thank you for consideration of these comments.

Sincerely,



Michael R. Markus, P.E., D.WRE, BCEE, F.ASCE
General Manager

cc: Harvey De La Torre, MWDOC
John Kennedy, OCWD
Scott Maloni, Poseidon Water
OCWD Board of Directors

¹ April 8, 2021 email from DWR staff to Poseidon Water Vice President Scott Maloni. Merriam-Webster defines “develop” as **a**: to work out the possibilities of //develop an idea **b**: to create or produce especially by deliberate effort over time.



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

May 7, 2021

Via Email
Doug Obegi
Natural Resources Defense Council
111 Sutter Street
San Francisco, CA 94104

Dear Mr. Obegi:

Response to NRDC's April 12, 2021 Comments
on Metropolitan's 2020 Urban Water Management Plan Public Draft dated March 2021

Thank you for your April 12, 2021 letter (attached) commenting on Metropolitan's March 2021 public draft of the 2020 Urban Water Management Plan (draft UWMP). Your letter provided comments in three major themes: (1) "The Draft UWMP Likely Overestimates Demand for Imported Water from MWD;" (2) "The Draft UWMP Appears to Overestimate Demand for Imported Water from MWD Because It Inaccurately Estimates Water Supply from Local and Regional Water Projects;" and (3) "The Draft UWMP Overestimates Likely Water Supplies from the California Aqueduct."

Below are Metropolitan's responses to these summary comments:

General Comments:

- 1. Summary of NRDC's Comment:** NRDC comments that demand for imported water is likely overestimated because MWD underestimates improved water use efficiency, utilizes high estimates of population and overestimates demand for supplies to replenish groundwater and surface water during dry years and five-year droughts.

Metropolitan's Response:

- Estimates of Demand on Metropolitan in the 2020 UWMP are the product of a series of specific and documented assumptions of sources of input data run through models and estimators also documented in the UWMP and its appendices. Specifically, demographic projections are provided from recognized regional planning entities (Southern California Association of Governments and San Diego Association of Governments). Modeling methods do consider the changes in both demographic drivers and in water use characteristics (represented by NRDC as Per Capita Use) in its estimates. Demand for imported supplies for the replenishment of groundwater and surface water are provided by the member agencies and groundwater basin management entities within Metropolitan's service area. Taken in total, the Demands on Metropolitan in the 2020

Mr. Obegi
Page 2
May 7, 2021

UWMP are based on documented input sources and modeling and comply with requirements set forth in the Urban Water Management Planning Act.

- 2. Summary of NRDC's Comment:** NRDC comments that demand for imported water is likely overestimated because MWD inaccurately estimates water supply from local and regional water projects and that the Draft UWMP overestimates supply from the Los Angeles Aqueduct (LAA).

Metropolitan's Response:

- Estimates and projections of water supply from local water projects were provided by the member agencies, retail sub-agencies, and water management agencies. In most cases, these remain consistent with estimates provided by the member agencies in their respective UWMPs. This results from a coordinated effort with member agencies in the preparation of the 2020 UWMP. Comments regarding the inclusion of the Regional Recycled Water Project are misplaced with regard to estimates of Demand on Metropolitan as that and similar projects would provide a water supply and not increase or decrease Demand on Metropolitan. Please refer to the May 4, 2021 e-mail from Edgar Fandialan to Sabrina Tsui regarding Metropolitan's methodology to project LAA supplies, a copy of which is attached and incorporated herein by reference.

- 3. Summary of NRDC's Comment:** NRDC comments that the Draft UWMP overestimates likely water supplies from the California Aqueduct and does not provide a basis for assumptions regarding the water supply from the California Aqueduct.

Metropolitan's Response:

- Metropolitan's UWMP contains estimates and documentation of sources of information used to provide projections of water supplies from the State Water Project and other water supplies delivered through the California Aqueduct. Estimates of State Water Project supplies were sourced from DWR's 2019 Delivery Capability Report. Estimates of available supplies from State Water Project Carryover Storage and from storage, banking and transfer programs were based on simulated modeling of Metropolitan's demands and water resource mix, which is documented and explained within the UWMP and its appendices. In short, they are estimated to be consistent within the context of the overall available water supply and demand used to produce the reliability assessments within the UWMP. All estimates provided and water supply assumed available for water transfer programs are named and described within the UWMP.

Mr. Obegi
Page 3
May 7, 2021

We trust that this letter responds to the overall comments and concerns raised by your letter. Although we did not specifically address all of the point-by-point comments made within your comment letter, we considered them in completing the final Draft UWMP scheduled to be considered for adoption in May 2021. We would also be willing to meet to discuss the preparation of our UWMP further. We look forward to continued cooperation with NRDC in this and other water planning issues.

Very truly yours,



Brad Coffey
Manager, Water Resource Management

Attachments

- (1) April 12, 2021 comment letter from NRDC
- (2) May 4, 2021 e-mail to of Los Angeles Department of Water Resources



April 12, 2021

Gloria Gray, Chair
Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, CA 90012

Sent via email to: efandialan@mwdh2o.com

RE: Comments on the Draft Urban Water Management Plan of the Metropolitan Water District of Southern California

Dear Chair Gray, Members of the Board, and Staff:

On behalf of the Natural Resources Defense Council (“NRDC”) and NRDC Action Fund, which have over 3 million members and activists, more than 450,000 of whom are Californians, I am writing to provide comments on the Draft Urban Water Management Plan (“Draft UWMP”) prepared by the Metropolitan Water District of Southern California (“MWD”). In our review of the Draft UWMP, we find that it:

- Overestimates likely demand for water from MWD in the future, because it overestimates per-capita water demand and significantly underestimates water supplies from several categories of local and regional water supply projects; and
- Significantly overestimates projected water supplies that will be available to be imported from the Colorado River and Bay-Delta, particularly with respect to water transfers and water storage programs.

The Draft UWMP reflects the fact that in general, demand for water in Southern California continues to decline. Overall, the Draft UWMP projects that total regional demand between 2025 – 2040 will be 9.46 percent lower across all water-year types than the previous 2015 UWMP’s projections. Meanwhile, total MWD demand (demand after conservation and local supplies) has decreased even more significantly; compared to the 2015 UWMP’s projections, the Draft UWMP projects 31.88 percent less total MWD demand across all water-year types through 2040.

Despite decreases in demand compared to the previous 2015 UWMP, the Draft UWMP nevertheless appears to overestimate demand for imported water. The Draft UWMP’s demand projections seem to underestimate likely decreases in per capita water consumption, which would further lower demand projections. Moreover, the Draft UWMP appears to overestimate the demand for storage replenishment during dry years and five-year droughts, artificially inflating demand for those respective models.

It appears that the Draft UWMP has used an inconsistent approach to estimating water supply from local and regional sources versus imported water supplies. In general, the Draft UWMP appears to make aggressive assumptions with respect to imported water supplies, assuming the maximum potential amounts of imported water (“capability”) from water transfers and water storage programs, rather than realistic estimates of water supplies from these sources. In contrast, the Draft UWMP appears to use very conservative assumptions for local and regional water supplies, excluding water supply from many local and regional projects that are planned in the region.

Where possible, we have recommended specific revisions to the Draft UWMP to address these concerns. Even with NRDC’s recommended revisions, it appears that the Final UWMP will show that MWD likely has a substantial surplus of water supplies, based on current estimates of imported water.

However, it is abundantly clear that MWD’s imported water supplies from the Bay-Delta and Colorado River will be reduced from the levels assumed in the Draft UWMP, due to climate change and the need to significantly strengthen protections for the Bay-Delta. For instance, in 2018 the State Water Resources Control Board (“State Water Board”) released its Framework for updating the Bay-Delta Water Quality Control Plan, which estimated that total diversions from the Bay-Delta would be reduced by approximately 2 million acre-feet (“MAF”) per year, which would be a 17 percent reduction in total diversions from the watershed.¹ While the State Water Board’s 2018 Framework does not identify a specific reduction in imported water to MWD, it is critical that MWD continue to plan for reduced diversions from the Bay-Delta.

Thankfully, the Draft UWMP demonstrates that even with significantly reduced water diversions from the Bay-Delta, Southern California can adapt by reducing demand through continued improvements in water use efficiency and the development of local water supply projects. There are tremendous opportunities to increase water supply from local and regional projects that are not included in the Draft UWMP’s estimates of water supply. These projects improve water supply reliability and create good paying jobs in the communities that MWD serves. Given the likely reductions in imported water supplies in the future, the Board should not use the Draft UWMP’s conclusion that MWD has a surplus of water to reduce funding for local and regional water supply projects.

On the pages that follow, we provide specific comments and recommendations regarding the Draft UWMP.

¹ This document is available online at:
https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/sed/sac_delta_framework_070618%20.pdf.

I. The Draft UWMP Likely Overestimates Demand for Imported Water from MWD

Historically, projected demand for imported water from MWD increased in each previous urban water management plan, while in reality, demand for imported water has consistently been less than that projected in those prior plans. In contrast, the Draft UWMP estimates that demand for water from MWD will be significantly lower than the average MWD water sales over the past decade, and it also projects that demand for imported water from MWD will further decline between 2020 and 2045. While we concur that demand for imported water from MWD will continue to decline, it appears that the Draft UWMP still overestimates likely demand for imported water because it underestimates improved water use efficiency in the coming decades and underestimates water supply from local and regional water projects.

a. The Draft UWMP Projects Significant Reductions in Demand for Water from MWD Compared to Recent Years

Compared to recent water sales over the past decade or longer, the Draft UWMP estimates reductions in demand for imported water from MWD. Although water transactions in fiscal year 2019-2020 (1.36 MAF) were the lowest recorded since 1983, the 10-year average for MWD’s water transactions is significantly higher at 1.69 MAF. MWD Annual Report 2020 at 7.² The Draft UWMP reflects the general decreasing trend in water transactions, projecting that total MWD deliveries for 2025 – 2045 across all water-year types are likely to be lower than the recent 10-year average of 1.69 MAF, as shown in the table below.

	2025	2030	2035	2040	2045
Single Dry-Year	1,597,000	1,548,000	1,505,000	1,524,000	1,551,000
Five-Year Drought	1,629,000	1,610,000	1,575,000	1,568,000	1,591,000
Normal Year	1,469,000	1,420,000	1,379,000	1,394,000	1,418,000

See Draft UWMP Tables 2-4 – 2-6. Total MWD deliveries are the sum of total MWD demands and SDCWA exchange. Water transactions calculated for the past ten years similarly include “water sales, wheeling and exchange water transactions.” MWD Annual Report 2020 at 11.

² Available online at: http://www.mwdh2o.com/PDF_Who_We_Are/2020_AnnualReport.pdf. As the MWD Annual Report 2020 observes, the low demand in 2019-2020 reflected continued conservation efforts, investments in local supplies, and wet weather and cooler temperatures that decreased local water demand and replenished local supplies.

Although the Draft UWMP anticipates lower water sales than the prior decade and projects that sales will continue to decline over the next 25 years, the Draft UWMP appears to overestimate demand for imported water from MWD, as discussed in more detail below.

b. The Draft UWMP Overestimates Demand for Imported Water from MWD Because It Does Not Fully Account for Decreasing Trends in Per Capita Demand and Appears to Overestimate Population Growth

Because the Draft UWMP appears to underestimate improved water use efficiency in the region over the next 25 years, it appears to overestimate likely demand for imported water from MWD. Although the Draft UWMP recognizes that per capita water use has declined significantly in the service area over the past 15 years, it does not provide per capita water use estimates through 2045. We encourage MWD to revise the Draft UWMP to provide estimates of per capita residential water use over the length of the plan. As discussed below, based on the data that has been presented, the Draft UWMP appears to conclude that per capita residential water use in 2045 will remain roughly the same as today. Given the trends of increasing water use efficiency and changes in residential development patterns, MWD is likely see further reductions in per capita water use in MWD's service area and the Draft UWMP likely overestimates demand.

Per capita water use has decreased significantly over the past 15 years. *See* Draft UWMP at 3-84 (Figure 3-4). MWD's water efficiency target under SB 7x7 of 2009 was 146 gallons per capita per day (GPCD) for 2020, which was based on a 1996-2005 average baseline of 182 GPCD. Draft UWMP at 3-83. MWD will easily exceed that target, having reported per capita water use of 131 GPCD in 2015 and per capita water use of 121 GPCD in 2019. *Id.* However, the Draft UWMP does not provide estimates of per capita water use after 2020, and we strongly urge MWD to revise the Draft UWMP to provide estimates of per capita water use through 2045.

Because the Draft UWMP did not provide data on per capita water use after 2020, NRDC used data in the Draft UWMP to generate an estimate of the trend in per capita residential water use over time. We summed MWD's projected single-family residential demand and multi-family residential demand to approximate residential retail demand, and then we divided that total by the Draft UWMP's population predictions for residents within MWD's service area to estimate per capita residential water use from 2020 to 2045. This calculation is different from the methodology used under SB 7x7 and cannot be compared to those analyses. However, using that analysis and the data presented in the Draft UWMP, we estimate that 2020 per capita water will be around 115 GPCD and is expected to decline to around 113 GPCD in 2030 and remain near that level through 2045. Nationally, residential water use has declined at a rate of one percent annually and may decline even more drastically in California given our water efficient product standards and outdoor landscape ordinances.

	2020	2025	2030	2035	2040	2045
Residential Demand (acre-feet)	2,454,000	2,552,000	2,607,000	2,674,000	2,731,000	2,786,000
Population in Metropolitan's Service Area	19,035,000	20,089,000	20,634,000	21,145,000	21,610,000	22,026,000
Per Capita Residential Demand (GPCD)	115.1	113.4	112.8	112.9	112.8	112.9

See Draft UWMP Tables A.1-2 and A.1-13, at A.1-10 and A.1-14, respectively. While Southern California has significantly reduced per capita water use over the past several decades, there are tremendous opportunities to further improvement water use efficiency through 2045, both indoors and outdoors. MWD's assumptions regarding water demand in Appendix G are conservative and likely overestimate demand for water. For instance, Appendix G appears to assume only 50 percent compliance with implementation of the Model Water Efficient Landscape Ordinance ("MWELO"), despite existing legal requirements. More generally, new housing developments are likely to be significantly more efficient than existing housing; while the Draft UWMP reflects increased proportions of multifamily housing (which use less water for outdoor landscaping), it is not clear that it accounts for the increased water use efficiency of new housing and changes in development patterns in these demand projections.

In addition, the Draft UWMP appears to overestimate population growth within MWD's service area between 2020 and 2045, which could also result in overestimating demand for water. Most notably, while the Department of Finance estimates that the total population within the six counties that are partially or wholly served by MWD (Los Angeles, Orange County, Riverside, San Bernardino, San Diego, and Ventura) will grow by six percent between 2020 and 2045 (from 22.189M to 23.559M),³ the Draft UWMP estimates that the total population within MWD's service area will grow by 15.7 percent between 2020 and 2045 (from 19.035M to 22.026M). See Draft UWMP at A.1-10 (Table A.1-2). It is unclear why the Draft UWMP estimates that the population within the MWD service area will grow at twice the rate that is estimated in these same counties over the same time period, and growth at the same rate projected by the Department of Finance would significantly reduce water demand over the coming decades compared to the estimates in the Draft UWMP.

³ See California Department of Finance, Population Projections, P-2: County Population Projections (2010-2060), available online at: <https://www.dof.ca.gov/Forecasting/Demographics/Projections/>.

As a result of these assumptions, the Draft UWMP likely overestimates total demand and per capita demand. We encourage MWD to revisit the assumptions underlying these water demand projections, and to reevaluate how recently realized decreases in per capita demand might continue in the future.⁴

c. The Draft UWMP Appears to Overestimate Demand Because It Fails to Provide a Reasoned Explanation for Its Assumption of Water Demand for Storage Replenishment During Dry Years and Five-Year Droughts

The Draft UWMP fails to explain the basis for its assumptions regarding water demand for storage replenishment, and we urge MWD to further justify or eliminate the assumptions regarding storage replenishment demand in single dry years and five-year droughts. The Draft UWMP defines storage replenishment as “the amount of water member agencies plan to use to replenish their groundwater basins or surface reservoirs” to sustain basin or reservoir health and functioning. Draft UWMP at 2-8. Aside from this cursory introduction, MWD provides little information on how to calculate storage replenishment demand for its service area. While it is logical to replenish lost stores during normal or above-average water years, MWD projects that storage replenishment demand will be 11,000 acre-feet more during any given dry year than during a normal year. Moreover, MWD assumes that storage replenishment demand will remain high (between 257,000 and 325,000 acre-feet) during multiyear droughts. Draft UWMP Table 2-2 at 2-12. The table below shows MWD’s projected storage replenishment demands, in acre-feet, across the three water-year types.

	2025	2030	2035	2040	2045
<i>Single Dry-Year</i>	345,000	325,000	334,000	336,000	337,000
<i>Five-Year Drought</i>	257,000	311,000	318,000	323,000	325,000
<i>Normal Year</i>	334,000	314,000	323,000	325,000	326,000

See Draft UWMP Tables 2-1 – 2-3. It is unclear why the Draft UWMP estimates higher demand for water for storage replenishment during dry years and droughts, particularly since MWD’s Water Storage Contingency Plan explains that water for long term seasonal and groundwater

⁴ In addition, the Draft UWMP does not include the text for Appendix 13, which is described as “Alternative Forecasts for Demand on Metropolitan.” MWD staff indicated via email to NRDC that Appendix 13 would be made available to the public by the end of April. MWD must provide an opportunity for public review and comment on Appendix 13 if MWD seeks to submit it to the Department of Water Resources (“DWR”) as part of the final UWMP.

replenishment could be reduced or curtailed entirely during droughts. See Draft UWMP, Appendix 4.

Moreover, the Draft UWMP increases storage replenishment estimates under the normal water year scenario and the five-year drought scenario compared to the February 2021 Draft UWMP. Similarly, the Draft UWMP reflects a marked increase from the previous 2015 UWMP.⁵ MWD should provide a reasoned explanation for the storage replenishment modeling in the Draft UWMP, and further justify the assumptions regarding demand for water replenishment, including the assumptions of higher estimates for single dry-years than normal years, and further elaborate on the changes that led to dramatic increases in storage replenishment estimates compared to the 2015 UWMP and previous drafts.

II. The Draft UWMP Appears to Overestimate Demand for Imported Water from MWD Because It Inaccurately Estimates Water Supply from Local and Regional Water Projects

The Draft UWMP appears to overestimate demand for imported water from MWD because it inaccurately assesses water supply from local and regional projects. Local and regional water supply projects provide approximately half of the water supply in the MWD service area. Draft UWMP at 1-23. The Draft UWMP recognizes that as local and regional water supplies increase, the amount of imported water from MWD necessary to meet the same level of demand decreases. *Id.* at 2-7. Local and regional water supply projects like water recycling and stormwater capture are essential elements of the region's supply portfolio, and these projects are generally more sustainable, more cost-effective, and often more drought resistant than water imported from the Bay-Delta. These types of projects also create well-paying local jobs in the community. Increased growth from local water supplies is essential in light of the effects of climate change and the inevitable reductions in imported water from the Bay-Delta in the future. Encouragingly, the Draft UWMP demonstrates that there is a wealth of local and regional water supply projects that are being implemented or planned that will help the region adapt to a future with less imported water.

In 2017, NRDC released a report summarizing our review of MWD's 2015 UWMP,⁶ in which we found that MWD significantly overestimated demand and underestimated local water supply,

⁵ The 2015 UWMP single-dry year model predicted that storage replenishment demand between 2025 – 2040 would be on average 38,500 acre-feet less annually than the Draft UWMP's projections. The 2015 UWMP's five-year drought model called for an average of 6,000 fewer acre-feet of storage replenishment annually. For normal water years, the 2015 Draft UWMP predicted that storage replenishment demand would be 27,500 acre-feet less on average.

⁶ *Mismatched: A Comparison of Future Water Supply and Demand For the Metropolitan Water District of Southern California*, available online at: <https://www.nrdc.org/sites/default/files/mismatched-water-mwd-southern-ca-ib.pdf>.

as compared to its member agencies. We appreciate that MWD has attempted to work more closely with its member agencies regarding projections of water supply from local and regional projects in developing the Draft UWMP. However, as we discuss below, the Draft UWMP appears to underestimate likely water supply from water recycling projects, overestimate supply from the Los Angeles Aqueduct, overestimate supply from “In Region Supplies and Programs” in normal water year types, and underestimate supply from stormwater capture and groundwater recharge. We encourage MWD to revise the Draft UWMP to more accurately project water supply from local and regional projects now and into the future.

a. The Draft UWMP Underestimates the Likely Water Supply from Water Recycling and Fails to Provide a Reasoned Explanation for Its Estimate of 2045 Supply

Although the Draft UWMP projects a substantial increase in local water supply from water recycling projects over the next 25 years, it does not explain the basis for its 2045 estimate of supply. Equally important, the Draft UWMP appears to significantly underestimate the likely water supply from the numerous specific water recycling projects that are planned in the region, including the Regional Recycled Water Program.

The Draft UWMP estimates that local water supply from water recycling will increase from 441,000 acre-feet in 2020 to an estimated 678,000 acre-feet in 2045. *See* Draft UWMP at 3-58; *id.* at 1-25. However, the Draft UWMP fails to explain the basis for this estimate of 678,000 acre-feet, which is significantly lower than the total of approximately 944,000 acre-feet of supply from the specific water recycling projects that are included in Appendix 5 and from the Regional Recycled Water Program,⁷ as shown in the table below.

UWMP Estimate in 2045	UWMP Current (2020)	Construction (Appendix 5)	Regional Recycled Water Program (RRWP)	Existing, in construction, and RRWP	Conceptual (Appendix 5)	TOTAL
678,000	441,000	113,192	168,000	722,192	221,852	944,044

It is not clear why the Draft UWMP used the estimate of 678,000 acre-feet, based on the projects listed in Appendix 5. Including all of these projects in the Final UWMP would increase local supplies by approximately 266,000 acre-feet, which is equivalent to nearly a 15 percent State Water Project (“SWP”) allocation each year. At a minimum, it is abundantly clear that there

⁷ Although the Draft UWMP discusses the Regional Recycled Water Program repeatedly, the yield from this project appears to be excluded from the estimates of water supply yield from water recycling by 2045, in both the body of the report and Appendix 5. It is unclear why the yield from this project is excluded entirely from the Draft UWMP.

remain significant opportunities – based on specific projects that are being planned by member agencies – to dramatically increase the supply of recycled water compared to the amounts shown in the Draft UWMP. We urge MWD to include the yield from the Regional Recycled Water Program in Appendix 5 and to include this and other planned water recycling projects, including the San Diego Pure Water Phase II, in the Final UWMP.

b. The Draft UWMP Assumes Extremely Limited Increases in Water Supply from Stormwater Capture and Groundwater Recharge Between 2020 and 2045

The Draft UWMP uses inconsistent terminology that made it difficult for NRDC to directly compare estimates of yield from stormwater capture, but it appears that the Draft UWMP assumes very limited increases in water supply from stormwater capture and groundwater recharge projects. Based on review of Table A.11-2, the Draft UWMP appears to estimate that water supply from stormwater capture and groundwater recharge would only increase by 14,000 acre-feet between 2020 and 2045, as shown in the table below.⁸

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	2020	2045	Difference
Water Use Efficiency	1,056,000	1,389,000	333,000
Water Recycling	436,000	678,000	242,000
Stormwater Capture and Use	110,000	88,000	-22,000
Advanced Water Technologies	194,000	213,000	19,000
Conjunctive Use Projects	1,303,000	1,320,000	17,000

See Draft UWMP at Table A.11-2. This result is counterintuitive, given the significant estimated water supply potential from stormwater capture in the region⁹ and the passage of Measure W in Los Angeles County to fund stormwater projects. It is also unclear if this estimate is consistent with projections from MWD’s member agencies; for example, Table ES-S in the Los Angeles Department of Water and Power’s (“LADWP’s”) draft UWMP estimates that stormwater capture and groundwater replenishment will increase total local groundwater supply in an average year

⁸ See Draft UWMP at Table A.11-2. The 14,000 acre foot estimate was calculated by summing the change in supply between 2020 and 2045 in the “Stormwater Capture and Use” category (-22,000 acre-feet), “Advanced Water Technologies” category (19,000 acre-feet) and “Conjunctive Use Projects” category (17,000 acre-feet).

⁹ NRDC and the Pacific Institute, 2014 The Untapped Potential of California’s Water Supply: Efficiency, Reuse and Stormwater (2014), available online at: <https://www.nrdc.org/resources/untapped-potential-californias-water-supply>.

by 14,000 acre-feet between 2025 and 2045.¹⁰ LADWP's draft UWMP also estimates that under a more aggressive approach to stormwater capture, groundwater supply could be 46,000 acre-feet higher than estimated in Table ES-S. *See* LADWP, draft UWMP, at ES-18.

It is clear that there are very substantial opportunities for groundwater recharge and stormwater capture beyond those analyzed in the Draft UWMP, and that the likely amount of water supply from these sources is significantly higher than estimated in the Draft UWMP. We encourage MWD to review these estimates ensure that the Final UWMP is consistent with the estimates from MWD's member agencies.

c. The Draft UWMP Appears to Overestimate Supply from the Los Angeles Aqueduct

The Draft UWMP's estimate of local water supply from the Los Angeles Aqueduct appears to overestimate yield compared to the estimate in LADWP's draft UWMP. MWD's Draft UWMP estimates that in 2045, the Los Angeles Aqueduct would yield 258,000 acre-feet (normal water year) and 118,000 acre-feet (single dry year). *See* Draft UWMP at Table 1-5. In contrast, LADWP's draft UWMP¹¹ estimates that in 2045, the Los Angeles Aqueduct would yield 184,000 acre-feet (normal water year) and 68,500 acre-feet (single dry year). We encourage MWD to revise the Draft UWMP to be consistent with LADWP's estimates.

III. The Draft UWMP Overestimates Likely Water Supplies from the California Aqueduct

The Draft UWMP fails to explain the basis for the assumptions regarding water supply from the California Aqueduct, particularly assumptions regarding water supply from water transfers, and the Draft UWMP appears to significantly overestimate likely water supply from the California Aqueduct. We encourage MWD to revise the Draft UWMP to provide a better explanation of the assumptions regarding water supply and to eliminate the assumptions regarding water transfers and carryover water in normal water-year types.

The Draft UWMP uses modeling from the DWR's 2019 Delivery Capability Report to estimate SWP deliveries during a normal water year and single dry year. *See* Draft UWMP at 2-7. The 2019 Delivery Capability Report estimates that under current conditions, in an average year the SWP will deliver 58 percent of maximum Table A contract amounts, 7 percent in a single dry

¹⁰ LADWP's draft UWMP is available online at:
https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB747866&RevisionSelectionMethod=LatestReleased.

¹¹ *See* footnote 10, *supra*.

year (1977), and 26 percent or 28 percent per year over a six year drought.¹² These estimates do not account for the inevitable reductions in water diversions from the Bay-Delta that will be implemented in the near future in order to better protect the environment and water quality and adapt to climate change, and as a result they overestimate likely Bay-Delta water supplies in future years.

But even using DWR’s estimate for SWP supplies, the Draft UWMP appears to significantly overestimate water supply from the California Aqueduct because of its unreasonable assumptions regarding carryover water in San Luis Reservoir and water transfers.

	SWP Table A ¹³	SWP Carryover	Subtotal	Transfers	Total ¹⁴
Normal Water Year	1,221,000	282,000 ¹⁵	1,523,000	253,000	1,776,000
Single Dry-Year	134,000	282,000	416,000	217,000	633,000
Five-Year Drought	550,000	56,000	606,000	183,000	789,000

Source: Draft UWMP Tables 3-2 and 3-3.

a. The Draft UWMP Makes Unreasonable Assumptions Regarding Water Supplies from Carryover Storage, Particularly in Normal Water Years

The Draft UWMP makes several unrealistic assumptions regarding water supply from carryover storage, particularly the assumption that 282,000 acre-feet of carryover water is available in normal years.

¹² Under future conditions with sea level rise in 2040, DWR’s Delivery Capability Report estimates that the SWP would deliver 53 percent of maximum Table A amounts in an average year and 12 percent in 1977 conditions.

¹³ This includes both MWD and Desert Water Agency’s Table A supplies, consistent with Table 3-2 in the Draft UWMP, which subtracts the same out of water from Colorado River supplies in Table 3-1.

¹⁴ These amounts in the Total column are consistent with the results for 2035 presented in Tables 2-4 and 2-5, but it is not consistent with the normal year deliveries reported in Table 2-6 (Table 2-6 reports 1,763,000).

¹⁵ The Draft UWMP explains that MWD’s maximum carryover in San Luis Reservoir is 200,000 acre-feet, but it does not explain whether Desert Water Agency’s maximum carryover is 82,000 acre-feet.

First, the Draft UWMP appears to assume that MWD can use its full Table A allocation and its full carryover storage in a single year, and still have the full carryover storage available in subsequent years. But water is available as carryover storage in a subsequent year only to the extent that MWD does not use its full SWP allocation and reserves some of that water for carryover in San Luis Reservoir. As the Draft UWMP explains,

When water from the SWP cannot be put to immediate use in Metropolitan's service area, the water may be stored for future use. Provided storage capacity is available, the water may remain in either Oroville Reservoir (as SWP storage for delivery to all contractors the following year) or San Luis Reservoir (as carryover storage assigned to Metropolitan). Through the carryover storage program, as amended by the Monterey Amendment, Metropolitan can place a maximum of 200,000 af per year of allocated supplies in SWP surface reservoirs.¹⁶

Draft UWMP, Attachment A (pdf page 439). In other words, if MWD uses its full SWP Table A allocation in a single year, it cannot also use all of its carryover storage that year and then refill carryover storage that year so that it can be used in the following year (without including the full replenishment of carryover storage in that same year as part of demands). Yet that is what the Draft UWMP appears to show, effectively double counting this imported water as both Table A and carryover storage.¹⁷

Second, the Draft UWMP assumes that MWD has maximum carryover storage available in all water years and uses that entire amount, an assumption that is not justified in the Draft UWMP. Moreover, if San Luis Reservoir is full (in wet years), then any water that is stored as carryover water in San Luis Reservoir will spill and be lost. *Id.* Not only does MWD not necessarily have the maximum amount of water supply in carryover storage in any given year, but MWD may have access to little to no water from carryover storage in any year.

Third, the Draft UWMP assumes that carryover water is part of the water supply in normal water years. However, as the Draft UWMP admits elsewhere, San Luis carryover storage and Central Valley storage programs are generally used in dry years and they are omitted from the calculation of normal water year supplies in Table A.11-3. *See id.* at A.11-8.

¹⁶ MWD's maximum carryover storage exceeds 200,000 acre-feet because MWD obtained Desert Water Agency's carryover rights in San Luis.

¹⁷ We recognize that MWD also stores water, including carryover storage, in wet years, which are not analyzed in the UWMP. However, given the infrequency of wet years, the Draft UWMP cannot rely on having water in carryover storage without showing that MWD will ensure that carryover storage is refilled, which the Draft UWMP does not do.

Because carryover storage is primarily intended to be used for dry year supply, because it must be replenished to be available in subsequent years, and because it can be spilled and the amounts of carryover storage are not reliable, we urge MWD to revise the Draft UWMP to eliminate water supply from carryover storage in normal water years and to reduce the amount of water supply from carryover storage in other water year types.

b. The Draft UWMP Overestimates Water Supplies from Water Transfers Through the California Aqueduct

The Draft UWMP also significantly overestimates the likely water supply available from water transfers, assuming much higher amounts of water transfers than MWD has reported over the past several decades in the Draft UWMP.

First, the estimates of water supply from water transfers identified in Table 3-3 (which are included in the assumptions regarding water supply from the California Aqueduct in Tables 2-4 to 2-6) are dramatically higher than the amount of water transfers that MWD has successfully negotiated in recent years that are documented in the Draft UWMP. For instance, the Draft UWMP reports that MWD obtained approximately 122,000 acre-feet of water transfers in total over the 2016-2020 period, and was able to obtain less than 100,000 acre-feet in dry or critically dry years of 2008 (27,000 acre-feet), 2009 (37,000 acre-feet), and 2015 (13,000 acre-feet). *See* Draft UWMP at 3-35. The only year in which the Draft UWMP documents that MWD obtained more than 100,000 acre-feet of water from water transfers was 2010. *Id.* In contrast, the Draft UWMP assumes 183,000 acre-feet per year in a 5 year drought (nearly five times more water than was acquired in 2009 through water transfers) and 217,000 acre-feet in a single dry year (nearly six times more water than was acquired in 2009 through water transfers).

Moreover, the amounts from specific water transfer programs identified in Table 3-3 appear to be significantly higher than the maximum amounts from these specific programs identified in the text of the Draft UWMP. For instance, while Table 3-3 estimates that 70,000 acre-feet are available from Antelope Valley/East Kern Acquisition and Storage in a normal year and 79,000 acre-feet in a single dry year, the text of the Draft UWMP states that, “The exchange program is expected to deliver 30 TAF over ten years, with 10 TAF available in dry years. Under the program, Metropolitan will also be able to store up to 30 TAF in the AVEK’s groundwater basin, with a dry year return capability of 10 TAF.” *Id.* at 3-33.

Finally, the Draft UWMP assumes more than 250,000 acre-feet of water supply from water transfers in average water years, but the text acknowledges that water transfers and water banking programs in the Central Valley are designed to provide water supply in dry years: “These partnerships allow Metropolitan to store its SWP supplies during wetter years for return in future drier years. Some programs also allow Metropolitan to purchase water in drier years for delivery via the California Aqueduct to Metropolitan’s service area.” *Id.* at 3-31.

Therefore, we urge MWD to revise the Draft UWMP to: (1) eliminate water supply from water transfers in normal water years; and, (2) to significantly reduce the water supply from water transfers in single dry years and five-year droughts to be consistent with MWD's existing contracts providing for water transfers and to reflect the much lower availability of water transfers that has historically occurred.

c. The Draft UWMP Overestimates the Amounts of Imported Water Withdrawn from Storage (“In-Region Supplies and Programs”), Particularly in Normal Water Years

The Draft UWMP appears to significantly overestimate the amount of water that MWD can withdraw from storage in normal water years (described in the Draft UWMP as “In-Region Supplies and Programs”). However, these are dry year storage facilities, and assuming extensive withdrawals from storage in normal water years would mean that less water would be available in these storage facilities for MWD to use during a single dry year and multi-year droughts.¹⁸ Therefore, we encourage MWD to eliminate this category from the Draft UWMP for normal water years, while retaining this for single dry-year and multi-year droughts, and to include it with MWD's supplies rather than as part of local and regional supplies.

In-Region Supplies and Programs are defined as water that is stored in MWD's surface reservoirs, flexible storage in SWP reservoirs (Lake Perris and Castaic Lake), and groundwater storage conjunctive use. *See* Draft UWMP at A.3-46 to A. 3-53. The total storage capacity for these facilities is estimated at 1,665,200 acre-feet. *Id.* at A.3-46. Of that total amount, approximately half is reserved for emergency storage. *Id.* at A.3-47. The other half is described in the Draft UWMP as “Dry-Year/Seasonal Storage,” *id.* at A.3-47, and is “earmarked for dry-year supply and system regulation purposes.” *Id.* These facilities store water imported from the Bay-Delta and/or Colorado River, which can be accessed when other supplies are insufficient to meet demands. That means there is approximately 812,000 acre-feet of “Dry-Year/Seasonal Storage” capacity, assuming these reservoirs are full,¹⁹ with some additional groundwater storage.

The Draft UWMP assumes 875,000 acre-feet of water supply from these facilities in a normal year, a single dry year, or over the course of a five-year drought. However, that would drain all of the water in storage that is reserved for dry-year and system regulation (assuming that these reservoirs are full to begin with), and if MWD withdraws that much water from these storage facilities in an average year, that water would not be available in subsequent dry years.

¹⁸ As we note in footnote 17, *supra*, with respect to carryover storage, these regional reservoirs and storage programs can also refill in wet years. However, the Draft UWMP does not demonstrate that these reservoirs will be full and can be completely drained in all future years.

¹⁹ The Draft UWMP states that it assumes “median storage levels” in future years, although it does not quantify what median storage in these reservoirs is.

Because the water in these storage facilities is intended for dry years, and because using that water in normal years would prevent its use in dry years, MWD should revise the Draft UWMP to exclude In-Region Supplies and Programs from the water supply available in normal years. In addition, because the Draft UWMP does not demonstrate that MWD reliably has all of this water in any future single dry year or five-year drought, MWD should reduce the amount of water supply from In Region Supplies and Programs that is assumed for single dry and five-year drought years.

d. The Draft UWMP Appears to Overestimate Colorado River Water Supplies from the Lake Mead ICS Storage Program in a Five-Year Drought

Finally, it appears that the Draft UWMP overestimates water supply from the Colorado River, particularly during a five-year drought. The Draft UWMP states that, “As of January 1, 2020, Metropolitan had a total of 866 TAF of Extraordinary Conservation ICS water in Lake Mead.” Draft UWMP at 3-9. However, Table 3-1 assumes 400,000 acre-feet per year of water supply from the Lake Mead ICS Storage Program over a five-year drought sequence, which would require that MWD have 2 million acre-feet of Extraordinary Conservation ICS water in Lake Mead. Given the lack of evidence to support the availability of such water now or in the future, MWD should revise the Draft UWMP to reduce the estimate of water supply from the Lake Mead ICS Storage Program over a five-year drought.

IV. Conclusion and Recommendations

In our review of the Draft UWMP, we have recommended significant revisions to better reflect available water supplies and demands, finding that the Draft UWMP generally overestimates total demands, overestimates imported water supplies (including imported water supplies that are stored for use in future dry years), and generally underestimates local supply water supply.

However, even with substantial revisions, it appears that MWD still has a substantial surplus of water available in normal water years, as well as in single dry years and five-year droughts, as shown in a revised version of Table 2-6 below that includes NRDC’s recommended revisions to the water supply projections for a normal water year.

REVISED Table 2-6					
Normal Water Year					
Supply Capability and Projected Demands					
	2025	2030	2035	2040	2045
Supplies					
In Region Supplies and Program	-	-	-	-	-
California Aqueduct	1,221,000	1,221,000	1,221,000	1,221,000	1,221,000

Colorado River Aqueduct	1,214,000	1,250,000	1,250,000	1,230,000	1,250,000
Total Supply	2,435,000	2,471,000	2,471,000	2,451,000	2,471,000
Demands					
Total Demands on MWD	1,191,000	1,142,000	1,101,000	1,116,000	1,140,000
Exchange with SDCWA	278,000	278,000	278,000	278,000	278,000
Total MWD Deliveries	1,469,000	1,420,000	1,379,000	1,394,000	1,418,000
Surplus/Deficit	966,000	1,051,000	1,092,000	1,057,000	1,053,000

Thanks to Southern California’s continued dedication to improving water use efficiency, and the ongoing investments in local and regional water supply projects that reduce demand for imported water, MWD has been able to save record amounts of water in storage over the past several years. The Draft UWMP, even with the significant revisions we recommend, appears to show that MWD is likely to have a surplus of water of over 1 MAF per year in normal years, and a surplus in single dry years and five-year droughts.

With climate change and the need to significantly strengthen Bay-Delta protections likely to reduce MWD deliveries from the Bay-Delta – coupled with a growing population – the Draft UWMP affirms the need for continued efforts to decrease water demand, increase water use efficiency, and increase investment in local and regional supplies across the region. Reductions in per capita water use and conservation are powerful tools to lessen overall demand. As discussed above, it is abundantly clear that MWD’s imported water supplies from the Bay-Delta and Colorado River are likely to be reduced in future years from the levels assumed in the Draft UWMP. At the same time, the Draft UWMP significantly underestimates the likely water supply from local and regional projects, which improve water supply reliability and create well-paying jobs in the communities that MWD serves. The Draft UWMP’s conclusion that MWD has a surplus of water does not justify foregoing local and regional water supply projects. By decreasing demand, increasing efficiency, and investing in local and regional water supplies, MWD can better prepare for the future.

In order to more accurately assess MWD’s future water supplies, we urge MWD to revise the Draft UWMP as recommended in these comments. We would be happy to discuss our comments and recommendations at your convenience.

Sincerely,



Doug Obegi

Attachment 2. Response to Los Angeles Department of Water and Power

From: Fandialan, Edgar P
Sent: Tuesday, May 4, 2021 5:03 PM
To: Tsui, Sabrina
Cc: Pettijohn, David; Kwan, Delon
Subject: Re: LADWP Comments to MWD's Draft 2020 UWMP

Hi Sabrina,

Thank you for your review and comment on Metropolitan's March 2021 draft 2020 Urban Water Management Plan.

- Metropolitan's demand, supply, and reliability assessment tables are all presented in calendar years.
- Metropolitan uses the 96 years of hydrology (1922-2017) provided by LADWP to project the Los Angeles Aqueduct (LAA). Doing so allows for consistency with Metropolitan's modeling methodology for accounting the impact of hydrologic variation on demand. The average of this 96-year period is the basis for Metropolitan's normal year LAA estimate. We included a footnote in the UWMP Section 2 demand table to acknowledge the resulting discrepancies due to the difference in hydrology chosen for normal water year reporting.
- Consistent with our UWMP, we selected 1977 hydrology for LAA in our single dry year analysis. The discrepancy in LAA estimate lies in the selection of a different single dry year in LADWP's UWMP. We included a footnote in the UWMP Section 2 demand table to acknowledge the resulting discrepancies due to the difference in hydrology chosen for the single-dry year reporting.
- For the five consecutive drought years, Metropolitan and LADWP used the same hydrology reflecting 1988-1992. Due to differences in reporting, it was not possible to directly compare multi-dry year tables, however the difference is negligible since the same hydrology was used.
- With regards to demands, we added clarifying language that Metropolitan's conservation savings projection does not include savings from the implementation of future planned active conservation programs.
- At the public hearing, Metropolitan explained that there will no Appendix 13 to the 2020 UWMP. A write up on the impact of local resources on demand on Metropolitan will be provided as a reference material and will be posted as part of the 2020 UWMP Reference Materials page on Metropolitan's website www.mwdh2o.com. Also included in Section 2, p. 2-16 is a narrative that states: "...A write up on the impact of alternative forecasts and projections of local supplies on Demand on Metropolitan is included in the 2020 Reference Materials page posted on Metropolitan's website (www.mwdh2o.com). This write up provides supplemental information on alternative forecasts and projections for estimating local supply development and production in the service area that may be appropriate for different planning applications and its impact on estimates of Demand on Metropolitan." The "alternative forecasts and projections" refers to the variability of estimates in local supply development and production and its impact on member agencies' demands on Metropolitan. Accordingly, the information will be made available for public review to help inform the relevance of such supplies on Metropolitan's planning.

We look forward to continued coordination with LADWP throughout the completion of both of our agencies' 2020 UWMPs.

Thank you,

Edgar

Edgar Fandialan
Water Resource Management Group
Metropolitan Water District of Southern California

From: Tsui, Sabrina <Sabrina.Tsui@ladwp.com>
Sent: Monday, April 12, 2021 3:46:23 PM
To: Fandialan, Edgar P
Cc: Pettijohn, David; Kwan, Delon
Subject: LADWP Comments to MWD's Draft 2020 UWMP

Hi Edgar,

Thank you for the opportunity to review MWD's March 2021 Draft 2020 UWMP. Please see LADWP's comments below.

The methodology that MWD uses to project LAA supplies is different than ours. This is leading to discrepancies between our values and MWD's values. For example, 33 TAF is cited as our low in 2015, which is true for calendar year 2015. However, MWD is not very clear or consistent with the reporting year type (i.e., FY vs CY) and seems to bounce between them. At a minimum, our numbers should be reported on FY or RY basis to be consistent with our reporting in LADWP's UWMP. This would put us up into the 55 TAF range. In addition, we noticed that MWD forecasts higher demand for LADWP despite our active efforts to reduce water demand. Similarly, we noticed other discrepancies in both our projected demands and supplies. We ask that the values of our 2020 UWMP, shown in the tables below, be used for consistency between our two agencies.

Demand and Supply Projections (in acre-feet)	Average Year Fiscal Year Ending (FYE) on June 30				
	2025	2030	2035	2040	2045
Total Water Demand¹	642,600	660,200	678,800	697,800	710,500
Post-Conservation Demand	509,500	526,700	536,100	554,500	565,800
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	133,100	133,500	142,700	143,300	144,700
Los Angeles Aqueduct ⁴	190,400	188,900	187,300	185,800	184,200
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	461,200	480,000	495,100	493,700	493,700
MWD Water Purchases					
With Existing/Planned Supplies	181,400	180,200	183,700	204,100	216,800
Total Supplies	642,600	660,200	678,800	697,800	710,500

Demand and Supply Projections (in acre-feet)	Dry Year Fiscal Year Ending (FYE) on June 30				
	2025	2030	2035	2040	2045
Total Water Demand¹	674,700	693,200	712,700	732,700	746,000
Post-Conservation Demand	509,500	526,700	536,100	554,500	565,800
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	165,200	166,500	176,600	178,200	180,200
Los Angeles Aqueduct ⁴	70,800	70,200	69,600	69,000	68,500
Groundwater					
- Entitlements ⁵	121,300	121,300	121,300	120,700	120,700
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	385,600	406,200	423,200	423,700	425,400
MWD Water Purchases					
With Existing/Planned Supplies	289,100	287,000	289,500	309,000	320,600
Total Supplies	674,700	693,200	712,700	732,700	746,000

Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year One (1988) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	657,900	675,800	694,900	714,400	727,400
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	150,300	149,200	158,800	160,000	161,700
Los Angeles Aqueduct ⁴	133,700	132,600	131,500	130,400	129,300
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	421,700	439,400	455,400	455,000	455,800
MWD Water Purchases					
With Existing/Planned Supplies	236,200	236,400	239,500	259,400	271,600
Total Supplies	657,900	675,800	694,900	714,400	727,400

Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year Two (1989) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	661,700	679,700	698,900	718,500	731,500
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	154,100	153,100	162,800	164,100	165,800
Los Angeles Aqueduct ⁴	119,500	118,600	117,600	116,600	115,700
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	531,700	557,700	580,900	580,100	581,100
MWD Water Purchases					
With Existing/Planned Supplies	130,000	122,000	118,000	138,400	150,400
Total Supplies	661,700	679,700	698,900	718,500	731,500

Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year Three (1990) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	674,800	693,200	712,800	732,700	746,000
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	167,200	166,600	176,700	178,300	180,300
Los Angeles Aqueduct ⁴	70,800	70,200	69,600	69,000	68,500
Groundwater					
- Entitlements ⁵	121,309	121,309	121,309	120,709	120,709
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	387,609	406,309	423,309	423,809	425,509
MWD Water Purchases					
With Existing/Planned Supplies	287,191	286,891	289,491	308,891	320,491
Total Supplies	674,800	693,200	712,800	732,700	746,000
Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year Four (1991) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	661,600	679,600	698,900	718,400	731,500
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	154,000	153,000	162,800	164,000	165,800
Los Angeles Aqueduct ⁴	119,700	118,800	117,800	116,800	115,800
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	411,400	429,400	445,700	445,400	446,400
MWD Water Purchases					
With Existing/Planned Supplies	250,200	250,200	253,200	273,000	285,100
Total Supplies	661,600	679,600	698,900	718,400	731,500

Demand and Supply Projections(in acre-feet)	Multi-Dry Year: Year Five (1992) Fiscal Year Ending on June 30				
	2025	2030	2035	2040	2045
Total Water Demand	655,700	673,600	692,600	712,000	724,900
Post-Conservation Demand	507,600	526,600	536,100	554,400	565,700
Existing / Planned Supplies					
Conservation (Additional Active ² and Passive ³ after FYE 14)	148,100	147,000	156,500	157,600	159,200
Los Angeles Aqueduct ⁴	141,900	140,700	139,500	138,400	137,300
Groundwater					
- Entitlements ⁵	109,400	109,400	109,400	108,800	108,800
- Groundwater Replenishment	7,000	11,000	11,000	11,000	11,000
- Stormwater Recharge (Increased Pumping)	4,000	8,000	15,000	15,000	15,000
Recycled Water- Irrigation and Industrial Use	17,300	29,200	29,700	29,800	30,000
Subtotal	427,700	445,300	461,100	460,600	461,300
MWD Water Purchases					
With Existing/Planned Supplies	228,000	228,300	231,500	251,400	263,600
Total Supplies	655,700	673,600	692,600	712,000	724,900

With regards to Appendix 13, Alternative Forecasts for Demand on MWD, it was mentioned at the March 18th MWD UWMP Coordination Meeting that the draft Appendix 13 was to be released in a few weeks. At this morning's WP&S Committee/ MWD's UWMP Public Hearing, I did hear both Brad and Deven acknowledge that the alternate forecasts will no longer be part of MWD's UWMP. In the event that this decision changes, or if it is used in the future, our original question was: Will Appendix 13, Alternative Forecasts for Demand on MWD be available anytime soon and will there be time to comment on it prior to the UWMP going to Board for adoption, or used for planning purposes?

Thank you,

Sabrina Y. Tsui, P.E.

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From: "Fandialan, Edgar P" <efandialan@mwdh2o.com>

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Date: 04 March 2021 16:14

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To UWMP Member Agency Coordinators:

I hope everyone is doing well and making good progress towards finalizing your agency's 2020 UWMP.

Here are several important announcements:

1. Metropolitan will release an updated Public Review Draft 2020 UWMP on March 8, 2021. The latest draft 2020 UWMP will include updated demand and local supply information based on feedback provided by our member agencies received by the requested January 8th deadline for submission of comments. Metropolitan also included additional input and data received by February 5th to accommodate additional member agency submissions. The updated information was incorporated in the reliability assessments contained in March 8th draft UWMP. Any additional information received after February 5th may be incorporated in the final 2020 UWMP scheduled for adoption in May 2021.

Also included in the March posting are the updated draft Water Shortage Contingency Plan and draft Appendix 11 Addendum to the 2015 UWMP on Reduced Delta Reliance reporting. The updated March drafts,

as well as any further refinements to the documents, will be posted on the same Metropolitan website:
www.mwdh2o.com.

2. As part of our 2020 UWMP coordination and to assist with your agency's preparation of your plan, Metropolitan will email to each member agency updated draft demand forecasts through 2045 under normal water year, single dry year, and droughts lasting five consecutive years. This information is consistent with the reliability assessments contained in Metropolitan Public Review Draft 2020 UWMP that will be posted on March 8, 2021.
3. Metropolitan will host an on-line UWMP Member Agency Coordination meeting on Thursday, March 18, 2021 from 2:30-4:00 pm. Topics of discussion will include a status update of the 2020 UWMP process, draft Appendix 13 (Alternative Forecast of Demand on Metropolitan, included in the March draft 2020 UWMP), and draft Appendix 11 Reduced Delta Reliance Reporting.

Please register in advance for this meeting by using the link provided below:

https://zoom.us/meeting/register/tJcudeqqgTgtHdcTG3K_GqN5NWdE48YqRkD

Looking forward to your participation at the meeting and our continued coordination throughout the rest of the 2020 UWMP process. Please email me if you have any questions.

Thanks,
Edgar

*Edgar Fandialan
Principal Engineer, Water Resource Management Group
Metropolitan Water District of Southern California*

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