

February 22, 2021

MEMBER AGENCIES

VIA EMAIL AND U.S. MAIL

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

Vallecitos Water District

Valley Center
Municipal Water District

Vista Irrigation District

Yuima
Municipal Water District

OTHER
REPRESENTATIVE

County of San Diego

Mr. Adam Wilson, Moderator
San Diego County LAFCO
(adwilson858@yahoo.com)

Re: Response to Questions from Dr. Hanemann

Dear Mr. Wilson:

This letter is the response from the San Diego County Water Authority (the "Water Authority") to the questions Dr. Michael Hanemann presented at the February 1 Ad Hoc Committee meeting. We ask that you provide it to Dr. Hanemann and to all Committee members and to LAFCO staff.

The below questions are as presented in the order posed by Dr. Hanemann. Where there were bullet-point follow-up questions we have at times designated them as lettered subquestions for ease of reference, or just included their elements in the overall answer. The answers are provided by Water Authority staff and consultants based upon the best available present information, and our view of the intent of the question. Citations are made to available documents, as requested by Dr. Hanemann, and are provided via footnotes for ease of reading.¹ When applicable, we also cite to where the associated topics are covered in our detailed September 18, 2020, Response to LAFCO (the "Response"), and in our supplemental documents also filed with LAFCO.

WATER AUTHORITY RESPONSES

QUESTION 1: What local water supplies do Fallbrook and Rainbow each have access to? [Note: By "local supply," we understand the question means water not purchased from the Water Authority, and thus an independent supply available to Fallbrook/Rainbow.]

WATER AUTHORITY ANSWER FOR RAINBOW: Rainbow does not have any local supplies of which the Water Authority is aware.

¹ It should be noted that all historic Water Authority public Board materials for the past decade can be found via the dropdown menu's located at this web page: [Meetings and Documents \(sdcwa.org\)](https://www.sdcwa.org/Meetings-and-Documents).

WATER AUTHORITY ANSWER FOR FALLBROOK: Fallbrook has the following local supplies of which the Water Authority is aware:

- a. Recycled water - Fallbrook Plant #1 (1,700 acre-feet per year).²
- b. Groundwater – Santa Margarita Conjunctive Use Project (3,100 acre-feet per year) scheduled to be on-line in 2021.³

QUESTION 1A: If so, what are the direct costs to Fallbrook and Rainbow? (Please provide cost breakdown)?

WATER AUTHORITY ANSWER FOR RAINBOW: As noted above, Rainbow does not have any local water supplies of which the Water Authority is aware.

WATER AUTHORITY ANSWER FOR FALLBROOK: The Water Authority does not know the direct costs for the Fallbrook supplies noted above. Fallbrook would have to provide that information.

QUESTION 2: What water supplies are controlled independently by SDCWA?

[Note: By “controlled independently,” we understand that the question means water not purchased by the Water Authority from MWD.]

WATER AUTHORITY ANSWER: Here are the supplies of the Water Authority:

- a. The Carlsbad Desalination Plant.⁴
- b. Water Authority – Imperial Irrigation District Water Conservation and Transfer Agreement (part of Quantification Settlement Agreement, or “QSA”).⁵

² Table F-4, *Water Authority Technical Review Draft 2020 UWMP*. The Water Authority recently provided this draft to LAFCO for Dr. Hanemann’s use. The full UWMP public draft will be out at the end of February, and a copy will be provided to LAFCO for Dr. Hanemann’s use as soon as it is out. All references in this letter to portions of the Draft UWMP are to the earlier version provided to LAFCO, but the references will remain the same in the version of the Draft coming out in late February.

³ Table F-2, *Water Authority Technical Review Draft 2020 UWMP*.

⁴ Section 4.5, *Water Authority Technical Review Draft 2020 UWMP*. See also [Seawater Desalination \(sdcwa.org\)](#), and in particular the link on that page to the contract: [SERVICE CONTRACT \(sdcwa.org\)](#)

⁵ Section 4.2, *Water Authority Technical Review Draft 2020 UWMP*. See also Water Authority September 18 Response to LAFCO, p.52, and [Quantification Settlement Agreement \(sdcwa.org\)](#)

- c. All-American Canal and Coachella Canal Lining Projects (part of QSA).⁶
- d. Surface water storage.⁷

QUESTION 2A: What are the present and future water amounts of those supplies?

WATER AUTHORITY ANSWER: Here are the base facts regarding the above independent supplies of the Water Authority:

- a. *Carlsbad Desalination Plant:* This plant produces water for the Water Authority under a long-term contract that is a take-or-pay agreement (i.e., the Water Authority is contractually obligated to pay and take certain quantities of water).⁸ The take-or-pay contract is for a term of 30 years, and started service in December of 2015.⁹ The contract calls for 48,000 acre-feet of water per year, and potentially up to 56,000 acre-feet of production per year. (There are contractual exceptions for certain extrinsic events, with complex provisions and conditions.¹⁰)
- b. *Quantification Settlement Agreement (both b and c above):* The QSA was entered into in 2003 and consists of over 30 contracts between many public agencies, the State of California, and the United States. Going forward, the agreements call for conserved water transfers from IID to the Water Authority of 200,000 acre-feet per year from 2021 through 2047, and conserved water from the All-American and Coachella Canal Lining Projects of 77,700 acre-feet

⁶ Section 4.3, *Water Authority Technical Review Draft 2020 UWMP*. See also Water Authority September 18 Response to LAFCO, p52, and [Quantification Settlement Agreement \(sdcwa.org\)](#).

⁷ Table 5-1, *Water Authority Technical Review Draft 2020 UWMP*. Surface water storage is, of course, a way to save water from other supply sources (including potentially from the above sources, and also from MWD). Though it is not a separate supply, it is a source from which water is drawn when needed and so is included here.

⁸ See [Seawater Desalination \(sdcwa.org\)](#), and in particular link on that page to the contract: [SERVICE CONTRACT \(sdcwa.org\)](#)

⁹ *Id.*

¹⁰*Id.*

per year¹¹ from 2021 through 2112. These also are take-or-pay agreements.¹²

- c. *Storage*: The Water Authority maintains various storage facilities and rights so as to allow water service throughout its region under all hydrologic conditions. The main storage rights and facilities, with storage capacity for each, are as follows¹³:

1. Olivenhain Reservoir – 24,774 acre-feet¹⁴
2. San Vicente Reservoir – 157,100 acre-feet¹⁵
3. Lake Hodges – 20,000 acre-feet¹⁶

QUESTION 3: What are the costs to SDCWA per each local water resource?

WATER AUTHORITY ANSWER: Here are the costs to the Water Authority of each of the above supplies:

- a. *Carlsbad Desalination Plant*: The Water Authority has the following main categories of costs for this Plant: (1) purchase costs of water from Poseidon, and bond repayment. These costs (which include passed-on energy costs from SDG&E) in 2021 are (all-in) \$2,752/acre-foot. It should be noted that payment of the bonds used to construct pipeline infrastructure to the Plant have a unit cost of \$211.16/acre-foot included in the above all-in figure; and (2) the Water Authority is obligated, due to changes in law, for certain intake mitigation at the Plant under its state permits. That intake mitigation project is being implemented in two improvement phases with the first completed in June 2020

¹¹ This amount does not include any additional unused environmental mitigation water. The Water Authority is entitled to receive up to an additional 4,850 acre-feet of water supply annually from the portion not used on environmental mitigation projects of the Coachella Canal Lining Project.

¹² See, for example, Exhibit 8 QSA agreements submitted with Water Authority September 18, 2020, LAFCO Response. In particular, the IID-Water Authority transfer agreement and Revised Fourth Amendment provide the transfer deal terms.

¹³ The Water Authority also has certain contractual storage rights in groundwater banking programs, all as detailed in the Water Authority's December 2, 2015, Board memo which can be reviewed at the following web page: [2015_12_10FormalBoardPacketSEC.pdf \(sdcwa.org\)](#) (starting at page 268).

¹⁴ Table 5-1, *Water Authority Technical Review Draft 2020 UWMP*.

¹⁵ *Id.*

¹⁶ Section 6.2(b), *Agreement between the San Diego County Water Authority and the City of San Diego for the Emergency Storage Project (Joint Use of Lake Hodges Dam and Reservoir)*.

at a cost of \$45,000,000, which is paid for by the Water Authority via adjustments to the unit price of water paid to Poseidon and is included in the all-in cost provided above.¹⁷ However, the cost of the second and final phase of intake improvements has not yet been determined, and thus would be in addition to the above payments.

- b. *Quantification Settlement Agreement*: The QSA water consists of IID conserved transfer water and canal lining project conserved water. The contractual take-or-pay annual cost, and overall costs, for such water are detailed in the Water Authority Response to LAFCO on September 18, 2020, at Table 4.3 on page 53. Additionally, the Water Authority staff prepared for its Board a detailed review of the QSA and its costs, which Board memo for the February meeting is enclosed with this letter.
- c. *Storage*: Over the years, the Water Authority has expanded storage capacity in the region for carry-over and emergency storage needs. This is not an independent supply unrelated to the other supply sources, of course, but simply a mechanism to store water for use when needed. Costs for storage are included in CIP projects noted below at Question 8 and in various bonds noted in the Water Authority's September 18, 2020, Response to LAFCO.¹⁸

QUESTION 4: How does SDCWA allocate to its member agencies the water supplies that it controls?

WATER AUTHORITY ANSWER: The Water Authority does not “allocate” supplies to its member agencies under normal conditions. For an allocation to occur, there would need to be a determination by the Board of Directors that a significant water supply shortage exists, and the Board of Directors would then consider the need to authorize implementation of the water supply allocation methodology in the Water Shortage Contingency Plan. During an allocation, all available supplies (e.g. Water Authority, member agency, and MWD supplies available under its water allocation plan or preferential rights) are included in the allocation calculation.¹⁹

¹⁷ This intake mitigation project is detailed, and was approved by the Water Authority Board, at its October 24, 2019 meeting.

¹⁸ See Response, pp. 49 *et seq.*

¹⁹ The Water Shortage Contingency Plan is found at Appendix E of the previously submitted *Water Authority Technical Review Draft 2020 UWMP*.

QUESTION 4A: During water shortages and droughts, how much water is allocated to Fallbrook and Rainbow?

WATER AUTHORITY ANSWER: Each member agency's allocation is based on a complex formula that considers many factors, including the volume of water supply available to the region, an agency's base period historic demands, population growth, local project development, loss of local supplies, availability of carryover storage supplies, and regional reliability. Because this information will vary depending on the severity of the drought and other factors, it is not possible to estimate how much water would be allocated to Fallbrook and Rainbow until such events occur. The Water Authority's Water Shortage Contingency Plan addresses the specifics of how a shortage would be handled.²⁰ Unlike the MWD Act, the Water Authority Act does not include statutory rights to water for member agencies, so the Board of Directors has discretion to allocate water during times of shortage, subject to applicable state law in an emergency.

QUESTION 4B: What water sources are utilized and how is that determined?

WATER AUTHORITY ANSWER: In an allocation under the water supply allocation methodology in the Water Shortage Contingency Plan, the Water Authority's supplies that are utilized are from the Water Authority-IID Water Conservation and Transfer Agreement, All-American and Coachella Canal Lining Project Allocation Agreements, Carlsbad Desalination Plant, and Carryover Storage Program. Member agency local supplies and Metropolitan supplies are also utilized.²¹

QUESTION 5: How does MWD allocate to its member agencies the water supplies that it controls?

*WATER AUTHORITY ANSWER*²²: Section 135 of the MWD Act²³ provides MWD member agencies' statutory "preferential rights" to available MWD water supplies. Member agencies' respective preferential rights to MWD water are proportionate to the member agency's past payments toward MWD's capital and operating costs, excluding

²⁰ *Id.*

²¹ *Id.*

²² It is important that MWD answer these questions directly, as we noted at our last meeting. However, we here provide a Water Authority response based on its understanding.

²³ MWD Act:

http://www.mwdh2o.com/Who%20We%20Are%20%20Fact%20Sheets/1.2_Metropolitan_Act.pdf Also, the Water Authority LAFCO Response of September 18, 2020, pp. 82 *et seq.*, has a detailed explanation of preferential rights.

payments for the purchase of water. As of June 20, 2020, the Water Authority's preferential right to MWD water is 25.83% of MWD's entire available supply; Eastern MWD's preferential right to MWD water is only 3.74% of MWD's entire available supply.²⁴

The MWD Board of Directors adopted a Water Supply Allocation Plan (WSAP) in February 2008.²⁵ Under this approach, during a water shortage, MWD would allocate its supplies based on various factors including historical purchases with adjustments for growth and change in local supplies, MWD's available imported water supplies and dry-year storage reserves, member agencies' dependence on MWD, and member agencies' conservation achievements. Once adopted by the MWD Board, allocations are in place starting July 1 for a 12-month period, or until the Board acts to lift them. Member agencies that use more MWD water than their allocated amount face surcharges; cutbacks deepen as MWD's available water supplies are reduced. MWD's Board of Directors and its WSAP cannot, however, legally supersede or obviate statutory preferential rights to MWD water under Section 135 of the MWD Act, because preferential rights are held by MWD member agencies directly and are not subject to MWD Board action or discretion.

As noted in the Water Authority's January 6, 2021 LAFCO submittal, "MWD treats this [WSAP] and all issues as subject to the ongoing discretion of the MWD board of directors as reflected by majority vote; accordingly, it should not be assumed that MWD will maintain the current allocation formula for purposes of future water supply shortage allocation."²⁶

QUESTION 5A: In a shortage situation, how much water would be made available to Fallbrook and Rainbow?

WATER AUTHORITY ANSWER: Under their requested reorganizations, Fallbrook and Rainbow would not be MWD member agencies, but members of Eastern, which is an MWD member agency. Therefore, MWD would not make water available to Fallbrook and Rainbow directly, but to Eastern. As explained in the Water Authority's September 18 Response to LAFCO and supplemental filings, Eastern will not be providing Fallbrook

²⁴ Preferential Rights by member agency as of June 30, 2020: <https://mwdprograms.sdcwa.org/wp-content/uploads/Preferential-Rights-6-30-2020.pdf>

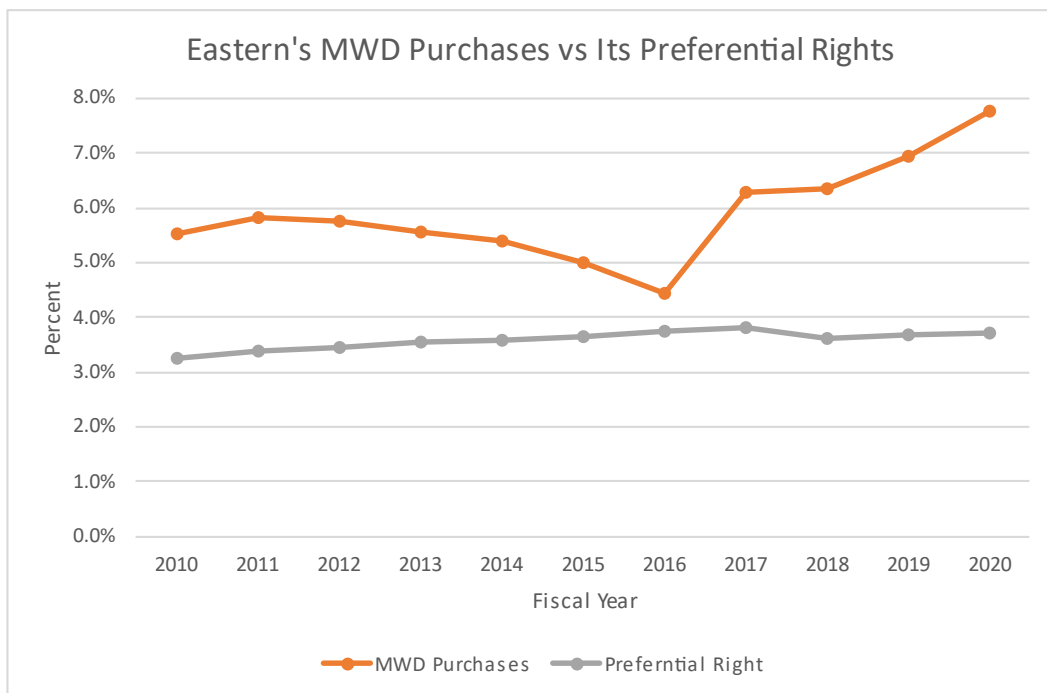
²⁵ See MWD's February 9, 2008 memo 8-5, *Approve Water Supply Allocation Plan*: <http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2008/02%20-%20Feb/Letters/064669628.pdf> And minute 47393 of MWD's February 2008 Board Meeting: <http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2008/03%20-%20March/Minutes/064670582.pdf>

²⁶ See Water Authority's January 6, 2021 Letter and three attachments to LAFCO, Page 6 of 111 or page 3 of Attachment 1, <https://www.sdlafco.org/home/showpublisheddocument?id=5440>

and Rainbow with anything other than MWD water,²⁷ so the fundamental question is really this: if MWD is short of water, what happens to Eastern? That answer is provided above in Question 5 (WSAP and preferential rights).

It should be noted that as to MWD preferential rights, Eastern's rights are those established by historic payments made by its ratepayers that did not include Fallbrook and Rainbow. Whether those ratepayers would agree to share Eastern's very limited preferential right to MWD water with Fallbrook and Rainbow, and at what price, is unknown.

Also, it is important to understand that should one or more MWD member agencies exercise their preferential rights during a shortage, Eastern would not have adequate MWD supplies to meet its own historic MWD water demands, let alone the new demands of adding Fallbrook and Rainbow. The below table illustrates Eastern's preferential rights to MWD water over the past 10 years, and how its purchases of overall MWD available water supply percentage (left axis) materially exceeds Eastern's actual preferential right to MWD water.



QUESTION 5B: What water sources would be utilized and how is that determined?

WATER AUTHORITY ANSWER: Under their requested reorganizations, Fallbrook and Rainbow would not be MWD member agencies, but members of Eastern, which is an

²⁷ See Response, pp.75 et seq.

MWD member agency. Therefore, MWD would not make water available to Fallbrook and Rainbow directly, but to Eastern. As explained in the Water Authority's September 18 Response to LAFCO and supplemental filings, Eastern will not be providing Fallbrook and Rainbow with anything other than MWD water.²⁸ Therefore, the question is what water sources does MWD have that it might use in a shortage.

MWD's main sources of supply are the State Water Project and the Colorado River. As explained in detail in the Water Authority's September 18 Response to LAFCO,²⁹ MWD's SWP supplies can be severely curtailed, and its Colorado River supplies are mainly lower priority than those of the Water Authority. What supplies may or may not be available to MWD in any given particular shortage is unknown.

QUESTION 6: What are the various charges made by SDCWA to its member agencies?

WATER AUTHORITY ANSWER: The Water Authority's rates and charges, those applied to its 24 member agencies, consist of seven components that are paid by the member agencies. Three charges are based on annual volumes (AF) delivered (Supply, Treatment, and Transportation). Three are commodity based fixed charges assessed on rolling-averages of deliveries (Customer Service, Storage, and Supply Reliability). The final charge is the Water Authority's Infrastructure Access Charge (IAC) that is assessed on total connected meter equivalents (retail water meters). The Water Authority also passes through two charges directly from MWD (Capacity Charge and Readiness-to-Serve Charge).

Separate from its rates and charges, the Water Authority maintains a special assessment paid by individual property owners within its service area (Standby Availability Charge - \$10 per acre per year, or \$10 for a parcel less than one acre per year). New construction is also assessed a one-time Capacity Charge (System and Treatment) based on the size of the retail meter connection.

The development, calculation, and application of these rates and charges are fully detailed in the Water Authority's CY 2021 Cost of Service Study.³⁰ Additionally, the Water Authority's full explanatory public Board memo as to the 2020 setting of rates and charges for 2021, and thus its current rates and charges, can be found on the Water

²⁸ See Response, pp.76 et seq.

²⁹ See Response, pp.78 et seq.

³⁰ The 2021 Cost of Service Study may be found at [showpublisheddocument \(sdlafco.org\)](https://www.sdlafco.org/showpublisheddocument). It was submitted as part of the Water Authority package sent to LAFCO on November 16, 2020, and is Exhibit 1 to that submitted response to the London Moeder study.

Authority's website.³¹ These materials should be reviewed for further detail as to the Water Authority specific rates and charges, and how they are applied.

QUESTION 6A: Has the structure in charges changed in any way over the last 5-10 years?

WATER AUTHORITY ANSWER: The Water Authority regularly reviews its rates and charges to ensure that they remain in accordance with cost-of-service principles, legal requirements, and Board policies. Below are the more consequential structural adjustments, including a few in the past decade, each of which is discussed in full in the above-referenced CY 2021 Cost of Service Study.³²

Ordinance 2002-03: The last major structural change to rates occurred in 2002 (Ordinance No. 2002-03, effective 1/1/2003), which transitioned the rate structure from a historical single unit price water rate to a more granular, function-based structure collected over various fixed and variable components.

Treatment Charge: This charge was created in 2006 to reflect the construction and continued operation of the Twin Oaks Valley Water Treatment Plant.

Supply Reliability Charge (SRC): Following a multi-year work-group process, the Supply Reliability Charge was adopted by the Board in 2015 (effective Jan 1, 2016) to recover the functional incremental supply costs allocated to enhanced supply Reliability (notably the addition of the Carlsbad Desalination Plant).³³

Permanent Special Agriculture Water Rate (PSAWR): For CY 2021, the Board adopted the PSAWR, that made the previous "transitional" TSAWR rate (2013-2020) permanent. The rate originally stemmed from MWD's 2012 termination of its Interim Agricultural Water Program.³⁴ MWD no longer has a discounted agricultural water rate or program.

³¹ See June 25, 2020, Agenda and Item 7.4, located at [AGFORMAT \[CVRPGS\] \(sdcwa.org\)](#) and particularly starting at page 46.

³² See above footnote 30.

³³ See pages 19 *et seq.* at [2015_05_28FormalBoardPacketSEC.pdf \(sdcwa.org\)](#) .

³⁴ In addition to the Cost of Service Study, the Water Authority September 18 Response to LAFCO provides detail on rate issues, and also the TSAWR/PSAWR agricultural programs. See pp.24 *et seq.*

QUESTION 6B: If so, what factors caused the changes?

WATER AUTHORITY ANSWER: Changes to the Water Authority's rates and charges are done in response to changes or additions in levels or attributes of service, and cost recovery requirements. See noted examples in previous response.

Another consideration during the rate development process is that the rates recover costs in a similar fashion to how the cost is incurred. This has been a focus of the Water Authority since the introduction of the IAC in 1999 (Resolution No. 98-26). As such, the IAC was designed to be independent of commodity sales and generate a minimum 25 percent ratio of fixed revenues to fixed expenditures.

Prior to implementation of the IAC, the Water Authority Board believed it was overly reliant on variable revenues. This transition to greater fixed cost recovery was continued in the 2002 rate structural change, with the adoption of the Customer Service and Storage charges. In 2015, with the adoption of the SRC, fixed costs were further allocated away from volumetric recovery to a commodity based on fixed charges.

The bases for the Water Authority rates and charges, which are consistent with industry standards and California legal requirements, are fully explained in the 2021 Cost of Service Study and the related Board materials.³⁵

QUESTION 7: What are the various charges made by MWD to its member agencies?

WATER AUTHORITY ANSWER: As shown on MWD's website,³⁶ it has the following rates and charges, of which all are variable, or volumetric rates, except for MWD's two fixed charges, the Readiness-to-Serve and Capacity charges, and which it states are imposed for the reasons stated.³⁷ [MWD also receives revenues from ad valorem taxes intended to pay off "(1) the principal and interest on general obligation bonded indebtedness of the district and (2) that portion of the district's payment obligation

³⁵ See [showpublisheddocument \(sdlafco.org\)](#) (Cost of Service study was submitted as part of the Water Authority package sent to LAFCO on November 16, and is Exhibit 1 to the submitted response to the London Moeder study); and also June 25, 2020, Agenda and Item 7.4, located at [AGFORMAT \[CVRPGS\] \(sdcwa.org\)](#) and particularly starting at page 46.

³⁶ See "Water Rates and Charges" tab on MWD's *Financial Information* webpage: <http://www.mwdh2o.com/WhoWeAre/Management/Financial-Information/Pages/default.aspx>

³⁷ It is not possible to track or verify the extent to which MWD actually complies with cost of service requirements as described in its rates and charges because it refuses to make available to its Board of Directors or member agencies the full rate model it uses to allocate costs. By contrast, the Water Authority makes its rate model available to the Board, its member agencies and the public.

under a water service contract with the state” (Burns Porter Bonds)].³⁸

1. Tier 1 Supply Rate: recovers the cost of developing and maintaining a reliable water supply.
2. Tier 2 Supply Rate: set at MWD's cost of purchasing water transfers north of the Delta. The Tier 2 Supply Rate encourages the maintenance of existing local supplies and the development of cost-effective local supply resources and conservation. (MWD's fiscal year 2021 and 2022 budgets assume that no member agencies will pay the Tier 2 supply rate.)
3. System Access Rate: recovers costs associated with the interconnected regional delivery network necessary to deliver water to meet member agencies' average annual demands. Included are the costs of conveyance and distribution facilities.
4. System Power Rate: recovers MWD's power costs for pumping supplies to Southern California.
5. Water Stewardship Rate: recovers the costs of providing financial incentives for existing and future investments in local resources including conservation, recycled water, and groundwater recovery. (Per its staff's recommendation, the MWD Board decided not to impose the Water Stewardship Rate in calendar years 2021 and 2022. Decisions are pending as to future rates and charges.)
6. Treatment Surcharge: recovers the costs of treating imported water.
7. Readiness-to-Serve Charge: a fixed charge that recovers the costs of providing emergency service and available capacity to meet outages, emergencies and hydrologic variability.
8. Capacity Charge: a fixed charge that recovers the cost of providing peaking capacity within the distribution system which MWD owns or has the right to use.

The bulk, about 80 percent, of MWD's revenues are from its volumetric rates while, conversely, the majority of MWD's costs are fixed.³⁹ During the Board's October 2019 Retreat, MWD acknowledged that one of the challenges it faces is how its financial structure will navigate declines in member agencies' demand for its water (and also fluctuations in its available imported water supplies) coupled with higher fixed costs. To manage the variability of demand for its water (and its reliance on volumetric water rates), MWD maintains financial reserve funds. However, the white paper accompanying the October 2019 retreat states: "If overall demands are on a continuing downward long-term trend, the Board will need to consider if this model is the best and most

³⁸ MWD Act, Section 124.5:

http://www.mwdh2o.com/Who%20We%20Are%20%20Fact%20Sheets/1.2_Metropolitan_Act.pdf

³⁹ See MWD's October 2019 White Paper, *Charting Metropolitan's Second Century*, page 22:

<http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2019/10-Oct/Reports/10212019%20Board%20Retreat%20White%20Paper.pdf>

equitable approach for sharing costs and collecting revenues.”⁴⁰ The white paper concludes: “Continuing to rely on variable revenues will drive the need for higher volumetric rates to build and maintain larger reserves for Metropolitan to withstand declines in transactions that last longer periods of time. This can incentivize a downward spiral trend of further rolling off that could strand investments. Alternatively, a shift to generating more revenue from fixed charges would involve considerable deliberations to identify sources that are both sustainable and equitable.”⁴¹ MWD currently has Board and member agency processes underway to update its Integrated Resources Plan and rate structure, with a view toward resolving the challenges identified as part of the October 2019 Board retreat.

QUESTION 7A: Has the structure in charges changed in any way over the last 5-10 years?

WATER AUTHORITY ANSWER: October 2001 was the last time the MWD Board made significant changes to MWD’s overall rate structure, which resulted in the unbundling of MWD’s rates starting January 1, 2003.⁴²

In 2019 MWD decided to reexamine how it recovers its demand management costs, and chose not to recover those costs via a Water Stewardship Rate, which was suspended. How to recover those costs is currently being reviewed at MWD.

In January 2021, MWD launched its rate review process with the first meeting of a member agency and MWD staff workgroup.⁴³ So far, the Board has identified the following issues that it would like to consider in the review:

- Readiness to Serve Charge refinements
- Capacity Charge refinements
- Rate re-bundling
- Surplus year storage incentives
- Revenue generating rates (monetizing storage including groundwater management replenishment program)

⁴⁰ See MWD’s October 2019 White Paper, *Charting Metropolitan’s Second Century*, pages 22-25: <http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2019/10-Oct/Reports/10212019%20Board%20Retreat%20White%20Paper.pdf>

⁴¹ *Id.* Page 26.

⁴² See MWD’s March 12, 2012 memo 9-1, *Adopt (1) recommended water rates and charges; (2) resolutions to impose charges, for fiscal year 2002/03; (3) authorize \$693,000 for the modification of the Water Information System to support the information and invoicing requirements of the new rate structure; and (4) approve changes to Metropolitan’s Administrative Code to support the implementation of the approved rates and charges:* <http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2002/03-Mar/Letters/003912309.pdf#search=unbundled>

⁴³ See MWD’s February 8, 2021 presentation, *An Update on the Rate Refinement Process:* <http://www.mwdh2o.com/PDFWWACurrentBoardAgendas/02082021%20FI%206a%20Presentation.pdf>

- Purchase Orders commitments
- Availability of Service charge
- Delta Conveyance Project cost recovery
- Regional Recycled Water Project cost recovery
- MWD Reserve Policy
- Property Tax Alternatives

QUESTION 7B: If so, what factors caused the changes?

WATER AUTHORITY ANSWER: The rate structure modifications adopted in October 2001 stemmed from the MWD Board’s strategic planning process that started in 1998. At the culmination of this process, in December 1999, the Board adopted Strategic Plan Policy Principles,⁴⁴ which noted that “[i]ssues related to cost allocation and rate structure require further discussion and resolution.” These issues were to be addressed via a “revised rate structure.”

More recently, in June 2017, the Court of Appeal ruled that MWD could not charge the Water Stewardship Rate, which recovers the cost of MWD’s demand management programs, on third party water it conveys, such as the Water Authority’s exchange water.⁴⁵ Therefore, in April 2018, the MWD Board suspended charging the Water Stewardship Rate on the Exchange Agreement and directed staff to undertake a demand management cost allocation study.⁴⁶

QUESTION 8: What major investments or capital projects have been made by SDCWA over the last 10 years?

WATER AUTHORITY ANSWER: The following are the major projects of the Water Authority in the past decade that represent major investment or capital projects:

Investments: The QSA and the Carlsbad desalination plant are the non-capital projects that represent major financial investments of the Water Authority in the past decade. The QSA, as detailed above and in the Water Authority’s September 18, 2020,

⁴⁴ MWD’s December 14, 1999 *Final Draft Strategic Plan Policy Principles*:
<http://www.mwdh2o.com/2018%20Background%20Materials/Strategic%20Plan%20Policy%20Principles%20f%2012-14-1999.pdf>

⁴⁵ See <https://www.sdcwa.org/sites/default/files/AppellateCase.pdf> as modified at <https://www.sdcwa.org/sites/default/files/SDCWA-001.pdf> .

⁴⁶ MWD’s April 10, 2018 memo 8-2, *Adopt CEQA determination and approve suspension of billing and collection of the Water Stewardship Rate on exchange agreement deliveries to San Diego County Water Authority for (a) calendar years 2019 and 2020 during the Demand Management cost allocation study period, and (b) calendar year 2018*: <http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2018/04-April/Letters/064866145.pdf>

Response to LAFCO, started in 2003, but carries over into the next century via take-or-pay contracts. The Carlsbad desalination plant, also described above and in the Water Authority's September 18, 2020, Response to LAFCO, began operations in 2015.

Capital Projects: The following are the significant capital projects undertaken by the Water Authority since 2010:

Project ID	Project Description	Notice of Completion	Project Total Cost (\$ mil)
S0101	Twin Oaks Valley Water Treatment Plant	Mar 2010	\$169.4
N0402	San Vicente Pump Station/San Vicente Reservoir Interconnect Pipeline	Apr 2010	\$11.1
G0600	San Vicente Pumping Facilities	May 2010	\$106.4
C0701	Mission Trails Pipeline Tunnel	Nov 2010	\$40.5
G0701	San Vicente Pipeline and Aqueduct Interconnect	Jan 2011	\$296.9
R0217	P3&4 Miramar Hill to Scripps Ranch	Oct 2012	\$24.5
G1300 J0100	ESP - Lake Hodges Pump Station & Inlet-Outlet Olivenhain-Hodges Pumped Storage	Feb 2013	\$175.9
R0274	P4 SR-52 to Lk Murray & P3 30" I/C to LMCV	Jul 2013	\$27.4
M0192	Miramar Pump Station Meter Vault	Aug 2013	\$1.4
N0401	San Vicente Dam Raise Beyond ESP	Sep 2014	\$321.5
R0211 R0212	P3 Sweetwater to Lower Otay	Oct 2014	\$31.0
R0161 R0304	Second Aqueduct Pipeline - Caltrans Highway 76 Realignment/Pipeline 4 PCCP Relining - San Luis Rey River	Jun 2015	\$15.6
N0405	San Vicente Marina Facility	Mar 2016	\$30.8
N0404	San Vicente Bypass Pipeline	May 2016	\$20.3

Q0207	Ramona Pipeline Cathodic Protection Bonding and Pump Well Installation	Aug 2016	\$1.8
N0521	Twin Oaks Valley Water Treatment Plant Expanded Service Area	Aug 2016	\$7.4
N0331	Miramar Pump Station Rehabilitation	May 2017	\$7.7
R0306	Pipeline 4 Relining Lake Murray Interconnect to Alvarado	May 2017	\$9.1
C0721	Nob Hill Improvements	Jul 2017	\$16.1
Q0301	Carlsbad 6 Flow Control Facility - Carlsbad 1 Flow Control Facility Rehabilitation	Apr 2018	\$5.9
R0209	P3 Lake Murray to Sweetwater Reservoir	Oct 2018	\$36.9
Q0209	Moosa Canyon Erosion Control	Jan 2019	\$3.1
Q0212	Pipeline Structure Rehabilitation	Feb 2019	\$0.8
N0801	Kearny Mesa Headquarters Roof Rehabilitation	Apr 2019	\$0.7
R0307	P5 PCCP Relining Point of Delivery to Sage Road	Aug 2019	\$29.1
R0283	Pipeline 4 Moosa Canyon Emergency Repair	Feb 2020	\$7.8
Q0332	P5 Reject Tower Upgrades	Apr 2020	\$1.1
R0284	Pipeline 5 Rehabilitation at Moosa Creek	Aug 2020	\$3.8
Q0302	Vallecitos 11 / Vista Irrigation District 12 FCF Rehabilitation	Sep 2020	\$9.1
S0331	Padre Dam 7 FCF	Feb 2021	\$0.4
Q0333	San Diego 28 FCF	Feb 2021	\$12.6

Q0204	First Aqueduct Structures, FCFs & Lining Rehabilitation Hubbard Hill North	Mar 2021	\$43.5
K0300	Carlsbad Desalination Project	Ongoing	\$78.3
G2000	ESP – Post Construction Activities	Ongoing	\$48.8
H0200 H0500	Mitigation Program Post Construction Mitigation Management	Ongoing	\$40.4

QUESTION 8A: Procedurally, how are those investments decided?

WATER AUTHORITY ANSWER: Significant capital projects are decided by the Water Authority Board of Directors. Per the Water Authority Administrative Code, staff’s ability to commit to water supply acquisition and contract expenditures is very limited, with the Board reserving authority over all major matters.⁴⁷

The Water Authority Board approval process generally works as follows: (a) the Water Authority staff prepares factual analyses and recommendations for the Board, sometimes at the request of the Board or its Officers, or as needed; (b) the staff report is provided to the Board in writing ahead of Board meetings, and is publicly agendaized for the Board meetings; (c) the staff also prepares public presentation documents such as Powerpoints and explanatory materials; (d) the public meeting is held, with the public being allowed to comment to the Board and staff; (e) when the agenda item is reached, staff makes a presentation to the Board; (f) the Board members then ask questions, and have discussions, which at times can last for hours on major items; and (g) the Board then votes (voting is discussed below in response to Question 8B). The result of the vote is documented in public minutes, and/or resolutions or ordinances.⁴⁸

Therefore, all major investments and capital projects are approved by the Water Authority Board of Directors.

QUESTION 8B: How does each member agency contribute/participate to the process?

WATER AUTHORITY ANSWER: Each member agency has a number of ways they contribute/participate in the Water Authority decision-making process.

⁴⁷ See Water Authority Administrative Code sections 4.00.010(b) (\$250,000 limit for General Manager on real property matters); 4.00.010(c) (acquiring water supplies other than from MWD reserved to Board); and 4.04.020(a) (\$150,000 limit on contract approvals by General Manager). The Code can be viewed on the web at [Administrative Code \(sdewa.org\)](http://sdewa.org/AdministrativeCode).

⁴⁸ The process can be seen by looking at any of the Board agenda materials for Water Authority meetings, which can be viewed at this web site: [Meetings and Documents \(sdewa.org\)](http://sdewa.org/MeetingsandDocuments).

First, every month the Water Authority holds a meeting for all member agency General Managers at which upcoming Board and Water Authority matters are discussed. This allows staff-to-staff input from the member agencies and their executive leadership to Water Authority staff.

Second, member agencies regularly submit formal written statements, arguments, and opinions to the Water Authority before Board meetings.⁴⁹ Of course there is often informal back-and-forth between member agency staffs and Water Authority staff as well. Many times this results in changes being made to matters being proposed.

Third, and most important, every member agency has representation on the Water Authority Board of Directors so that collective decisions for the agency can be made.⁵⁰ The Water Authority's 24 member agencies are represented through a 36-member Water Authority Board. This representation is not determined by the Water Authority, but by member agencies, as allowed by the State Legislature via the County Water Authority Act.⁵¹ The number of directors an agency can choose to appoint is determined by assessed property value, while the actual voting is weighted by financial contributions.⁵² Therefore, agencies with larger financial contributions receive a larger weighted vote. Because there is an agency (the City of San Diego) with more than 38% of the weighted vote, it takes 55%+ of the weighted vote (not the normal 50%+) for the Board to approve an expenditure or financial commitment.⁵³

Fourth, once a decision is made to fund a major project or investment, then the costs must be recovered. How the costs are to be recovered (i.e., through volumetric rates or fixed charges) is again a Board 55%+ majority decision, and again goes through the entire process listed above as part of the Water Authority's budget-setting process and rates and charges approvals. Additionally, even before the ultimate Board votes on budgets and rates/charges the Water Authority holds noticed updates and workshops at public meetings so all parties can see where the staff work is headed.⁵⁴

⁴⁹ See [2020_11_16CommentsLetters_7.6.5.pdf \(sdcwa.org\)](#) for an example of extensive correspondence for a Board meeting from numerous persons, including various Water Authority member agencies.

⁵⁰ The current membership by each member agency can be seen at [Biographies \(sdcwa.org\)](#).

⁵¹ Which can be found here: [Westlaw Download Summary Report \(sdcwa.org\)](#).

⁵² County Water Authority Act Section 45-6.

⁵³ County Water Authority Act Section 45-6(d).

⁵⁴ See, for example, the May 2020 Board materials located at this web site: [2020_05_28FormalBoardPacketSEC \(sdcwa.org\)](#), and particularly Board memo starting at page 28 of Board packet.

QUESTION 8C: What is the nature of each member agencies' commitment to future improvements? [Note: By "future improvements" in the context of the initial Question 8, we understand the question is asking how decisions made by the Board in past years or today, but being paid for in the future, are committed to by member agencies.]

WATER AUTHORITY ANSWER: The Water Authority is structured by the County Water Authority Act to allow in member agencies, and lands, in San Diego County via annexation, which agencies then receive water service from the Water Authority.

As with MWD under its enabling Act,⁵⁵ the Water Authority provides water supply and related services to its member agencies without those agencies having to sign separate delivery contracts. Thus, for example, the Water Authority and Eastern can purchase MWD water not because they have contracts with MWD, but because they are MWD member agencies. Similarly, Fallbrook and Rainbow can buy Water Authority water on demand just by virtue of their membership in the Water Authority. They do not contract for the water; they have access to on-demand water because of their membership.

The "commitment" of the agencies making major financial decisions for the Water Authority is that as members they are required to pay for the costs and financial obligations via the rates and charges set by the overall agency, all as detailed in the County Water Authority Act. So long as they are members, they are subject to such payments, because that Act allows the imposition of such rates and charges for the Water Authority to recover its costs.

However, should an agency decide to leave the Water Authority, the County Water Authority Act was designed (in the pre-Proposition 13 world) to protect the agency by making all lands in the leaving district(s) taxable for whatever obligations had been previously incurred: "the taxable property within the excluded area shall continue to be taxable by the county water authority for the purpose of paying the bonded and other indebtedness of the county water authority outstanding or contracted for at the time of the exclusion"⁵⁶ In other words, if an agency decided to leave its service area would still remain responsible for their share of all the financial obligations of the Water Authority that existed at the time of exit. The meaning and impact of this provision, and its relation to various aspects of LAFCO legislation and other legal requirements (which allow further financial and other conditions), is disputed and at issue in the pending LAFCO proceeding. The Water Authority has provided lengthy legal and historical analysis of these issues in its September 18, 2020, Response at LAFCO.⁵⁷

⁵⁵ In many regards, the County Water Authority Act is similar to, and modeled upon, the earlier Metropolitan Water District Act that governs the Metropolitan Water District of Southern California ("MWD"), which reenacted version can be found at: [The MWD Act \(mwdh2o.com\)](http://www.mwdh2o.com)

⁵⁶ County Water Authority Act Section 45-11(a)(2).

⁵⁷ See pages 152 *et seq.* of the September 18, 2020, Water Authority Response to LAFCO.

CONCLUSION

The Water Authority is appreciative of LAFCO and Dr. Hanemann's efforts to address the complex issues raised by the pending reorganization proceedings instituted by Fallbrook and Rainbow. Proper study and analysis is critical for LAFCO to reach a fair and comprehensive result that will protect all water ratepayers in San Diego County while also considering the desires of management in Fallbrook and Rainbow. The Water Authority's above responses will be supplemented if necessary.

If LAFCO or Dr. Hanemann have any questions, please feel free to call me and I will put you in contact with staff members who can answer those questions. Thank you.

Sincerely,



Sandra L. Kerl
General Manager

Enclosure

cc via email:

Jeffrey Kightlinger, General Manager, MWD
Jack Bebee, General Manager, Fallbrook PUD
Paula C. P. de Sousa, Counsel, Fallbrook PUD
Nick Kanetis, Deputy General Manager, Eastern MWD
Tom Kennedy, General Manager, Rainbow MWD
Alfred Smith, Counsel, Rainbow MWD
Water Authority Board of Directors
Kristina Lawson, Counsel, Water Authority
Mark J. Hattam, General Counsel, Water Authority

February 17, 2021

Attention: Board of Directors

Colorado River Issues Part 1 – Quantification Settlement Agreement supplies. (Presentation)

Purpose

This report provides part one of a two-part update on Colorado River issues and focuses on the Quantification Settlement Agreement (QSA) agreements, pricing, and supply reliability. This report also addresses comments received from the Board during last month's Water Transfer implementation update.

Executive Summary

- This is the first of a two-part Colorado River Issues presentation focusing on the background and details of the Water Authority's QSA supplies which include the water transfer with the Imperial Irrigation District (IID) and canal lining project supplies.
- QSA supplies provide approximately 280,000 AF of reliable, low-cost, independent annual Colorado River supplies to the San Diego region helping to meet over 50 percent of its demands.
- This first part includes information on the QSA supplies, costs and pricing structures, and supply reliability.
- The second part of the presentation will be presented next month and discusses Colorado River Basin States issues such as Lake Mead storage and the 2007 Interim Guidelines.

Background

In October 2003, the Water Authority, IID, Coachella Valley Water District (CVWD), Metropolitan Water District of Southern California (MWD) and various other state and federal parties approved the QSA and a suite of over 30 agreements that facilitate the implementation of historic water conservation programs in Southern California and quantify certain Colorado River water rights. The QSA programs serve to stabilize Colorado River water supplies for up to 75 years and reduce the state's demand on the river to its 4.4 million-acre-foot (MAF) entitlement. The QSA made possible a variety of conservation-based water transfers and other water supply programs, with the Water Authority/IID Conserved Water Transfer as the cornerstone of this effort. In addition to the 200,000 AF of annual supplies through the water transfer, the Water Authority also gained approximately 80,000 AF of annual supplies from projects that conserve water through lining portions of the All-American and Coachella Canals. Together these QSA supplies currently provide more than half of the supplies to meet the San Diego region's demand. QSA supplies are the Water Authority's lowest cost supply source. Costs and other requirements to implement the Water Authority's QSA programs are established under several QSA agreements and subsequent amendments. The pricing structure for the annual water transfer supply rate paid to IID varies throughout the term of the Transfer Agreement, which currently runs through 2047 but can be extended for an additional 30-year term upon mutual consent. The Water Authority does not pay a volumetric rate for canal lining supplies. Rather, the annual cost is based on annual operations and maintenance costs and debt

service payments resulting from project financing. In addition to supply costs, the other major component of the costs for the QSA supplies are associated with the transportation rates paid to MWD through the Exchange Agreement to deliver these supplies to San Diego County via its Colorado River Aqueduct. The Water Authority’s QSA supplies are derived from conserved high priority Colorado River water and are highly reliable. It is also important to note that the QSA agreements have resulted in disputes and settlements from time to time. Also, in the early years of implementation, there were legal challenges on the validity of the water transfer, QSA, and environmental components. The court issued judgments rejecting all claims and found that environmental reviews fully complied with CEQA and dismissed all remaining appeals in 2015.

Discussion

January’s Water Transfer Implementation update provided details and information on historical water transfer volumes, IID conservation programs, and associated costs. That presentation sparked requests for more information on the pricing structures of the water transfer and Early Transfer Water as well as detailed information on the components of QSA melded rates. This report responds to those requests and provides additional history and details on the water transfer, canal lining projects, MWD exchange, QSA rates, and supply reliability.

Water Transfer with IID

The Water Authority and IID were in discussions since the mid-1990’s for a conserved water transfer and finalized the original Transfer Agreement in 1998. However, it wasn’t until 2003 that the Revised Fourth Amendment to the Transfer Agreement was executed as part of the QSA package of agreements and the Water Authority began receiving conserved water. The Fifth Amendment to the Transfer Agreement, executed in 2009, resolved disputes related to the pricing structure. The original agreement, the Revised Fourth Amendment, and the Fifth Amendment each contain terms for determining the annual supply price paid to IID, which has three distinct pricing structures throughout the term of the transfer (Table 1).

Table 1. Pricing Structures for Water Transfer with IID

Pricing Structure	Years in Effect	Description
Predetermined Schedule	2003 - 2015	Annual price set based on the updated schedule included in the Fifth Amendment.
Inflation Index	2016 - 2034	Annual price increases according to the Gross Domestic Product Implicit Price Deflator (GDPIP).
Price Formula or Market Price	2035 - 2047 (2077, if extended)	Depending on conditions, the annual price will either be determined by an intricate price formula or based on a market pricing scale.

Since 2016, the annual supply rate paid to IID for conserved water has been determined using an inflation index called the GDPIP. The GDPIP has been favorable since this pricing structure has been in place with an average annual increase of less than two percent. For calendar year 2021, the price increased by 1.3 percent to \$688/AF. Each year there is also an annual true up process that makes slight adjustments to the rate based on the GDPIP activity over that year. In 2020, the true up resulted in a small decrease to the annual rate yielding a savings of \$19,000. The Water

Authority receives a credit of \$2/AF from IID for all transfer water through 2047 from a socioeconomic funding reimbursement totaling \$10 million.

Calendar year 2021 marks the middle of a three-year period where the Water Authority will receive additional water called Early Transfer Water. Early Transfer Water is an additional allotment of conserved water from IID totaling a cumulative 10,000 AF over the period from 2020 through 2022. The water is scheduled as 2,500 AF in calendar year 2020, 5,000 AF in 2021, and 2,500 AF in 2022. Early Transfer Water has a separate pricing schedule based on \$125/AF in 1999 dollars, escalated at the Consumer Price Index (CPI) and is significantly less expensive than the regular transfer supply price. The Early Transfer Water price was \$212/AF in 2020 and is expected to increase minimally (\$2/AF per year) over the Early Transfer period.

The Fifth Amendment of 2009 resolved disputes related to the annual water transfer supply price and resulted in a stable pricing structure for a 25-year term through 2034 under an updated set pricing schedule through 2015 followed by a transition to the GDPIPD inflation index-based pricing through 2034 (Table 1). These pricing structures are more predictable than the price formula structure that, prior to the Fifth Amendment, would have taken effect no later than 2017 and is heavily based on MWD rates, which have increased faster than inflation for decades. The 2009 settlement resulted in a lower and more predictable annual supply rate and removed the shortage premium for a period of 25 years. In exchange, the Water Authority provided \$6 million in 2009 and \$50 million in bond funding for tax-exempt capital improvement projects to IID in 2010. As there was ongoing litigation at the time, a repayment provision was included in case of water transfer invalidation in the courts that would have required IID to repay a portion of the \$50 million funding based on a schedule set through 2020.

Beginning in 2035, the pricing structure for the water transfer becomes more complicated and will be dependent on future conditions. If and when certain defined criteria of a water transfer market exist, the price could be reset to a market price calculated based on a statistical analysis of existing market rates, influenced by characteristics such as water quality and reliability, and scaled against the formula-based price according to the cumulative market volume. Upon being reset to a market-based price, the annual price increases according to CPI and can only be reset every ten or more years or upon specified market development. The shortage premium will be reinstated in 2035 which adds a premium to the annual base price for IID conserved water under a Lower Basin shortage, a critical year on the State Water Project, or a Water Authority declared shortage.

Canal Lining Projects

The canal lining supplies from the Coachella and All-American Canal Lining Projects (CCLP and AACLP) are critical components of the QSA supplies and the Water Authority's long-term supply reliability and diversification efforts. As part of the QSA, the Water Authority lined 35 miles of the Coachella Canal and 23 miles of the All-American Canal in exchange for the conserved water previously lost to seepage. The total project construction cost of the CCLP was \$129 million of which \$87 million was available from the State General Fund and Proposition 50 funds. The total project cost for the AACLP was \$319 million of which \$170 million was available from the State General Fund, Proposition 50 funds, and Proposition 87 funds. The

Water Authority financed the costs that exceeded State funding (\$191 million), which are collected through the Melded M&I Supply Rate and Infrastructure Access Charge. In 2021, the debt service costs are estimated at \$6 million, having been reduced by recent refunding activities. Construction work on the CCLP and AACLP was completed in 2007 and 2010, respectively. Canal lining supplies consist of 56,200 AF/year from the AACLP and 21,500 AF/year from the CCLP, plus any unused mitigation water. The Water Authority is entitled to receive up to an additional 4,850 acre-feet of water supply annually from the portion not used on environmental mitigation projects of the CCLP. The Water Authority receives approximately 80,000 acre-feet of conserved water annually and is guaranteed for 110 years. The Water Authority does not pay a direct supply cost for water received but pays approximately \$13 to \$25 per acre-foot for annual operations, maintenance, and repair (OM&R) of both canals.

Exchange with MWD

The Water Authority pays MWD to transport its QSA supplies to San Diego County as MWD owns the only large-scale conveyance facility in Southern California for transporting Colorado River water, the Colorado River Aqueduct. The Water Authority filed lawsuits between 2010 and 2018 challenging water rates and charges as they were set and imposed by MWD on San Diego County agencies and their ratepayers. Among other things, the rate litigation with MWD involves the exchange rates charged to wheel QSA supplies. The exchange rate paid to MWD currently consists of MWD's adopted System Access and System Power rates. For calendar year 2021, there was an 11 percent increase in the exchange rate to \$534/AF, which is now greater than the melded QSA supply-related component of the rates. Since 2018, the exchange rate has increased 24 percent. The same costs are also included in supplies purchased from MWD. Under the 2003 Exchange Agreement with MWD, the Water Authority's annual QSA supplies are delivered in equal monthly installments. The Exchange Agreement term runs through 2047 for the IID water transfer and through 2112 for the canal lining supplies. There is no current option to extend the Exchange Agreement to coincide with an extension of the water transfer.

QSA Rates

The QSA contracts for the IID water transfer, canal lining supplies, and MWD exchange are very complex with many stipulations and moving parts, especially pertaining to pricing and costs. The Water Authority signed on to these agreements as a package deal for 280,000 AF of reliable, long-term, independent annual Colorado River supplies. Decisions since 2003 such as the 2009 Fifth Amendment served to reduce long-term transfer costs and stabilize rate increases. Together, the canal lining supplies and the transfer water create a melded QSA supply that, even with large increases in exchange rates, is the Water Authority's lowest cost source. In response to the discussion and requests at last month's board meeting, a breakdown including all of the components of the all-in QSA melded rates for 2021 totaling \$1,049/AF is included in Table 2. Moving forward, the Water Authority is both working with MWD on its long-range plans and exploring other options for the cost-effective, long-term conveyance of the San Diego region's independent Colorado River supplies.

Table 2. Calendar Year 2021 Melded QSA All-In Rate

QSA Supply	Description	Rate (\$/AF)		Volume (AF)		Cost (\$M)		Total QSA Supply (AF)		Melded QSA Rate (\$/AF)
IID Water Transfer	IID Supply	\$688	x	200,000	=	\$137.6	÷	282,700	=	\$487
IID Water Transfer	Early Transfer	\$214	x	5,000	=	\$ 1.1	÷	282,700	=	\$4
IID Water Transfer	Socioeconomic Reimbursement	(\$2)	x	205,000	=	\$ (0.3)	÷	282,700	=	(\$1)
Canal Lining	OM&R	\$17	x	77,700	=	\$ 1.3	÷	282,700	=	\$5
Canal Lining	Debt Service ¹	\$76	x	77,700	=	\$ 6.0	÷	282,700	=	\$21
Total	Melded QSA Supply²									\$515
	MWD Exchange									\$534
Total	Melded QSA All-In^{2,3}									\$1,049

¹ Reflects estimated annual debt service related to the construction of the CCLP and ACLP.

² QSA rates shown at January’s Water Transfer Implementation Update displayed the contractual amount. This rate reflects updated all-in QSA costs.

³ Not a Board-approved rate. Rather reflects cost components recovered through various rates and charges.

Supply Reliability

QSA supplies are critical to the Water Authority in terms of water supply diversity and reliability. The water transfer and canal lining supplies provide independent Colorado River supplies tied to high priority water rights on the Colorado River which provides insulation from cutbacks that can impact other supply sources. Under the historic set of contracts and agreements that govern the Colorado River known as the “Law of the River,” priority systems are in place for both interstate and intrastate water rights. Among the Lower Basin states which include California, Arizona, and Nevada, California has the highest priority water rights and does not face any cutbacks under a declared shortage on the river, as defined in the current operational agreement known as the 2007 Interim Guidelines. Within California’s annual apportionment of Colorado River water, there is another prioritization system among California water users. Of the major contract holders, agricultural entities have the highest priority rights including Palo Verde Irrigation District, IID, and CVWD. MWD has the lowest priority within California’s 4.4 MAF apportionment, meaning its allocation would be subject to any required cutbacks to California first. Under current operations California is not subject to any shortage reductions due to the state’s high priority within the Lower Basin. However, as the lowest priority user, MWD is responsible for 93 percent of California’s Drought Contingency Plan (DCP) contributions. The Water Authority’s QSA supplies are all conserved water supplies derived from high priority allocations to IID or CVWD, and are therefore highly reliable.

Under the canal lining agreements, any shortage that impacts the annual canal lining volume would result in the reduced volume being subsequently delivered. Under the Transfer

Agreement, the Water Authority would take a proportional share of any shortage reduction to IID. As IID is the largest contract holder with an annual allocation of 3.1 MAF, a pro rata share to the Water Authority's 200,000 AF transfer volume would be a relatively small volume. While there are provisions in the agreements for potential shortage effects, no shortage impacts to QSA supplies are expected due to protection under both the state's as well as associated individual California users' high priority water rights.

With the Colorado River continuing to face long-term drought conditions, the probability of shortage on the river has increased and is likely to occur in the next few years even as soon as 2022, with a potential significant effect on MWD's lower priority water supply (depending on the scope of the shortage and DCP requirements). While shortage impacts are not projected to impact the Water Authority's QSA supplies, it is important to understand Basin States programs, river operations, and other issues, and their relationship to the Water Authority's Colorado River QSA supplies. This will be the focus of part two of the Colorado River Issues update next month.

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