Our Region's Trusted Water Leader
San Diego County Water Authority

January 6, 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
Vallecitos Water District
Valley Center Municipal Water District
Vista Irrigation District
Yuima Municipal Water District

OTHER REPRESENTATIVE

County of San Diego

VIA EMAIL AND U.S. MAIL

Mr. Keene Simonds
Executive Officer
San Diego County LAFCO
9335 Hazard Way, Suite 200
San Diego, CA 92123
(Keene.Simonds@sdcounty.ca.gov)

Re: Rainbow Municipal Water District ("Rainbow") and Fallbrook Public Utilities District ("Fallbrook") Applications for Detachment and Annexation (the "Reorganizations")

Dear Mr. Simonds:

This letter serves to provide San Diego LAFCO with some important update documents from the San Diego County Water Authority ("Water Authority") related to the above Reorganizations.

Included are the following documents, which the Water Authority hereby submits to LAFCO in regards to the Reorganizations:

Attachment 1: The Water Authority's combined Reply to Eastern and Rainbow/Fallbrook November 19, 2000 Submittals to LAFCO.

Attachment 2: A report by Stratecon, Inc., in response to the September 17, 2020 submittal by Metropolitan Water District of Southern California to LAFCO.

Attachment 3: A report by Stretecon, Inc., in response to the December 17, 2020 submittal by Fallbrook to the Delta Stewardship Council, which was also sent to LAFCO.

We ask that this letter and all the attached reports be made a part of the LAFCO record, and be submitted to Dr. Hanemann, to the Advisory Committee, and to the LAFCO Commissioners, staff, and counsel reviewing this matter.

If you have any questions, please feel free to call me. Thank you.

Sincerely,

Mark J. Hattam
General Counsel

Attachments

cc via email:

Holly Whatley, Commission Counsel
Aleks Giragosian, Deputy Commission Counsel
Robert Barry, Chief Policy Analyst
Gary Thompson, Executive Officer, Riverside LAFCO
Sandra L. Kerl, General Manager, San Diego County Water Authority
Jeffrey Kightlinger, General Manager, MWD
Kristina Lawson, Counsel, San Diego County Water Authority
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

ATTACHMENT 1

WATER AUTHORITY REPLY TO EASTERN AND RAINBOW/FALLBROOK SUBMITTALS

WATER AUTHORITY REPLY TO EASTERN
AND RAINBOW/FALLBROOK SUBMITTALS

(January 6, 2021)

1. INTRODUCTION

On March 18 and 19, 2020, Rainbow Municipal Water District ("Rainbow") and Fallbrook Public Utility District ("Fallbrook"), respectively, submitted their reorganization proposal applications to the San Diego Local Agency Formation Commission ("LAFCO"). On June 16, 2020, LAFCO issued its staff report seeking comments from affected stakeholders. Comments from over a dozen San Diego County water agencies, Eastern Municipal Water District, and the Metropolitan Water District of Southern California were submitted in response. On September 18, 2020, the San Diego County Water Authority ("Water Authority") submitted its initial response to the proposals (the "Response").

On September 19, 2020, Rainbow and Fallbrook submitted to LAFCO a study entitled "Cost-Benefit Analysis of SDCWA Membership" prepared by London Moeder Advisors, which the Water Authority reviewed and responded to in a letter to LAFCO dated November 6, 2020, that also included errata to the Response.

On November 19, 2020, Rainbow and Fallbrook in a joint letter, and Eastern in a separate letter, sent LAFCO information in response to the Water Authority's September 18 submittal.

On December 18, 2020, Fallbrook submitted to LAFCO a letter to the Delta Stewardship Council and a report regarding alleged reduced Bay-Delta water use.

The Water Authority here first provides a reply to Eastern, then comments on the combined Fallbrook/Rainbow submittal, and concludes with some brief comments regarding Fallbrook's Delta Stewardship Council submittal.

2. EASTERN SUBMITTAL

Eastern's submittal to LAFCO on November 19, 2020, consists of a short cover letter and a technical memorandum (the "Eastern Memo"). The Eastern Memo is made up of various subject matter areas, and responses to questions that the Water Authority posed. These areas are all covered by the Water Authority below in the sequence raised by Eastern, and using the Eastern topic headings.

a. Water Supply Reliability

On pages 1-4 of its Memo, Eastern makes various arguments critiquing its own 2018 water supply analysis, an Eastern document presented in the Water Authority's September 18 response to LAFCO. (*See* page 83 of that Response.)

Eastern's arguments ignore the Water Authority's basic point: that even Eastern does not consider the MWD supply (which is the only planned imported water source for Fallbrook and Rainbow) to be reliable in all circumstances. Eastern itself said this in 2018, and demonstrates its belief *by developing its own supplies to improve local reliability*. It would be illogical for Eastern (or any other agency) to invest in local supplies that are more costly than MWD supplies if MWD supplies were projected to be available and reliable under all future planning scenarios. Just as stated in the 2018 Eastern analysis, there are circumstances where the MWD supply is not reliable. Agencies such as Eastern plan for such eventualities by bolstering their own supplies.[1]

The Water Authority does not criticize Eastern for this long-term planning. Indeed, such actions are essential, and are precisely what the Water Authority did by entering into long-term agreements for its QSA water supply from the Colorado River and for its desalinated water supply, all undertaken as a result of experienced and anticipated future MWD water shortages. *See* Water Authority Response, pages 14-23.

The question for LAFCO is not whether MWD will be as reliable as the Water Authority in times of plenty, but whether it will be as reliable in times of shortage or emergency. MWD will be the *only* source of imported water for Fallbrook and Rainbow if LAFCO approves the sought reorganizations. The Eastern Memo confirms that Fallbrook and Rainbow would only receive MWD water: "EMWD currently has no plans to move non-MWD water through MWD pipes to FPUD or RMWD." Eastern Memo, page 7. In contrast, the Water Authority has a diversified water portfolio, which Fallbrook and Rainbow would relinquish to become 100% dependent on less reliable MWD imports. This shift is material and meaningful, and must be fully analyzed by LAFCO.

Eastern itself, because of long-term planning and expenditures on local supplies, may well have its own reliability for its retail customers. That is the question Eastern would like to answer, but it is not the relevant question. In exchange for an administrative fee of $11 per acre-foot, Fallbrook and Rainbow would receive only MWD pass-through water, when available, and none of the benefits of Eastern's local supply. Access to Eastern's local supplies would have to be separately negotiated and would come at an additional cost – and then the supposed cost savings of the proposed reorganizations evaporates.

Finally, one minor comment: Eastern's citation of reduced gallons per capita per day (gpcd) as to the MWD Water Supply Allocation Plan (WSAP) does not consider the fact that MWD revises the WSAP to account for any updates in demand prior to implementing allocation. In

[1] One of the drivers for development of local water supplies is the state mandate that agencies reduce their demand on the Bay-Delta, currently one of the two major sources of MWD's imported water supply.

previous allocations, estimated demand on MWD was reduced and therefore the amount of water allocated was reduced. MWD treats this 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.

b. FPUD and RMWD Governance/Representation

The Water Authority's Response raised the question of how Fallbrook and Rainbow will be represented at Eastern. Will they have directors on the Eastern Board who solely represent the Fallbrook and Rainbow service areas, as they do at the Water Authority? Or, will they be merged into a larger Eastern political division, where their customers' voices are diluted into a more voluminous body of Riverside County residents?

The Eastern Memo provides no clarity on this issue. First, it says that Fallbrook and Rainbow may just be added to a current division. ("Should FPUD and RMWD's applications for reorganization be approved, EMWD's director divisions would be adjusted to account for the expanded service area." Page 4.) However, the memo then states that new directors might be added: "The Water Code does provide for the possibility of increasing the number of directors on a municipal water district's board." Eastern Memo, page 5.[2]

Therefore, the simple answer is that Eastern, Fallbrook, and Rainbow – and thus their constituents, and LAFCO – do not know what the nature and extent of the representation would be under reorganization. While it may be true, as Eastern claims, that Fallbrook and Rainbow will have "the same proportional representation on EMWD's Board of Directors as all other EMWD ratepayers" (page 5), that does not ensure the same level of representation that Fallbrook and Rainbow customers have with their water wholesaler now. As Water Authority member agencies, Fallbrook and Rainbow customers have direct representation on the Water Authority Board to promote the interests of Fallbrook and Rainbow. If, instead, those customers simply become a minority of a political division of Eastern, they would have a minority voice with their own division representative, on issues where the interests of Fallbrook and Rainbow customers may very well be different than the majority of the other customers in that division.

For example, there have been controversies at Eastern over potential subsidies for groundwater users which result in lower rates for those customers. Fallbrook and Rainbow would presumably have no interest in such disputes, given that they only get water from MWD and not from local

[2] This Water Code reference by Eastern may be completely spurious. The cited Water Code provision for this assertion is Water Code section 71250.1(a). However, that section by its own terms states it only applies to a LAFCO "approving either a consolidation of districts or the reorganization of two or more districts into a single municipal water district . . . ." Neither is the case here, as least on the face of the applications. The Water Authority suggested in its Response that LAFCO again consider merging Fallbrook and Rainbow to save them millions of dollars, as considered a few years ago. However, unless that occurs, there is no "consolidation of districts" (defined in Government Code section 56030 as the creation of a new district out of two) or merging into "a single municipal water district."

Eastern supplies -- but they would apparently have some sort of voice and vote on that issue. This is also true for many other issues that may be of great concern to Eastern ratepayers but that would have no impact on Fallbrook and Rainbow, for example votes on ongoing local water supply development and related rate issues. At the Water Authority, in contrast, Fallbrook and Rainbow representatives directly represent their own customers on all matters that are relevant to their service needs and rates.

c. MWD Governance

The Water Authority's Response described how the reorganizations would shift a share of voting rights at MWD from San Diego County to Riverside County. *See* Response, pp. 68-74. The Water Authority also pointed out Eastern's long history of adversity to San Diego County interests, and thus why moving our County's voting rights to Eastern would have a double negative impact (i.e., losing voting rights to an adversary doubles the impact of the loss). Eastern's Memo spends only a few short paragraphs on this critical issue, and its response is telling.

First, and notably, Eastern does not dispute the fact of the diminution of voting power on San Diego County by the proposed reorganizations, but instead tries to turn the issue into a question about the number of MWD board representatives (delegates). This is completely irrelevant. Votes at the MWD Board are not determined by how many delegates vote for something, *but are based on the weighted votes of the member agencies*. MWD Act, Section 55. Or, as MWD itself described in a recent informational memo to its Board this past August:

> Metropolitan uses a *weighted voting system based on assessed valuation*. Under Section 55 of the Metropolitan Water District Act, each member agency gets one vote for every $10 million of assessed valuation of property taxable for Metropolitan's purposes.

See Exhibit A attached.

Therefore, to determine voting rights at MWD one looks not to the number of delegates, but to assessed valuation of property. By moving Fallbrook and Rainbow into Eastern's service area, their assessed valuations would no longer be part of the Water Authority but become part of Eastern, thus shifting MWD voting rights away from San Diego County's interests and to those of a longstanding antagonist to the Water Authority. This is explained in greater detail in Section 5 of the Water Authority's Response (pp. 68-74), is unrebutted by Eastern, and is a critical reason LAFCO should consider denial of the reorganizations outright.

Second, Eastern does not deny the facts detailed in the Water Authority Response as to its longstanding adversity to the Water Authority, including its current fight to prevent San Diego County water ratepayers from recovering rate overcharges by MWD. The simple truth is that Eastern's interests have long been adverse to those of ratepayers and taxpayers in San Diego County, and Eastern's ongoing litigation against the Water Authority proves the fact. Moving critical voting rights at MWD away from San Diego County to Eastern is directly prejudicial to San Diego County water ratepayer and taxpayer interests.

d. EMWD Services Provided to FPUD and RMWD

Eastern's response about its services provides rough summaries, but no details by which the scope and value of services may be assessed. For example, not all of Eastern's rebates are available to its wholesale customers, so just making a generic reference to rebates is not helpful. For clarity, Eastern should provide a list of its programs broken out by availability to retail and wholesale customers, and how its programs compare to Water Authority programs.

For example, consider legislative services. The Water Authority has two full-time staff members in Sacramento representing the Water Authority and its member agencies' interests. Both staff are registered lobbyists and spend considerable time engaged in advocacy in the State Capitol on issues of importance to the Water Authority, its member agencies, and the San Diego region. The staff also interacts extensively with regulatory agencies on issues such as water use efficiency regulations, drinking water quality issues, water rates and ratepayer assistance programs, wildfire prevention and public safety power shutoff protocols, air quality issues, and a wide range of energy issues, to the direct benefit of its member agencies and the region. In the past few years, the Water Authority has partnered directly with its member agencies to sponsor and support legislation that addresses issues impacting them directly, including workforce development, pumped hydropower storage, clarification of Proposition 218 compliance for retail water agency costs associated with fire hydrant services, tribal water service issues, bond funding opportunities, COVID-19 financial relief, and implementation of state laws and regulations. The Water Authority also contracts with lobbying firms in Sacramento and Washington D.C. to support the Water Authority staff efforts, and their work is directly focused on assisting in the execution of legislative and regulatory strategies that benefit Water Authority member agencies.

Water Authority staff routinely assist member agency officials in navigating the halls of the State Capitol, through assistance in setting up meetings and advocacy sessions, and accompanying member agency staff and officials throughout the Legislature to accomplish their objectives. Rainbow and Fallbrook would lose important access to professional legislative staff that has helped to ensure that their concerns and issues are brought to the attention of legislators.

e. Eastern Responses to Water Authority Questions

Eastern listed the questions asked by the Water Authority, and then provided responses. In this subsection the Water Authority provides both its initial question and the full Eastern response, followed by the Water Authority's comments on that response.

Question 1: How will Fallbrook and Rainbow be represented at Eastern? Will they each have seats on the Eastern Board as they do at the Water Authority? Will a new Eastern District be created for them? If not, what district will they go into?

Eastern Response: EMWD would adjust its existing director divisions to incorporate FPUD and RMWD using census data. The divisions would be roughly equal in population, allowing for proportional representation of ratepayer interests. Additional details may be found in the "FPUD and RMWD Governance/Representation" portion of this memorandum.

Water Authority Comments: *See* above subsection b, "FPUD and RMWD Governance/Representation," where the Water Authority addresses this issue.

Question 2: Other than via MWD pipes, does Eastern have any water infrastructure connections to either Rainbow or Fallbrook's water delivery systems? Are there any plans for such connections?

Eastern Response: EMWD does not currently own connections to RMWD's or FPUD's water delivery systems. However, MWD's Administrative Code allows MWD pipelines to be isolated in an emergency for EMWD's use in conveying water supplies to RMWD or FPUD. The construction of additional infrastructure to RMWD and/or FPUD would be subject to the execution of subsequent agreements between EMWD and RMWD or FPUD, respectively.

Water Authority Comments: The response by Eastern shows that it has no mechanism to move ***Eastern*** (as opposed to MWD) water during normal circumstances to either Fallbrook or Rainbow. There simply is no infrastructure built for that. While MWD pipes might possibly be used in an emergency, this has two major caveats not detailed by Eastern: (1) to acquire access to Eastern's local water supplies, Fallbrook and Rainbow would have to pay for it (or the other Eastern customers would be subsidizing Fallbrook and Rainbow, who have not bought into Eastern's own water supplies or infrastructure). Therefore, there would be significant costs; and (2) MWD's Administrative Code section 4519, which covers the emergency eventuality referenced by Eastern, has numerous requirements, including indemnifications and certain cost payments. This very restrictive emergency MWD pipe usage is not free of charge, and is not always available. For example, the Elsinore Fault runs between Eastern and the MWD pipelines, so there may be no access available even if MWD's Code would legally allow use. Also, Eastern provides no information as to how its system, which is not designed to send Eastern water into MWD pipes for delivery to Fallbrook/Rainbow, would be able to provide sufficient water pressure for such hypothetical conveyance. Understanding the plan for emergency service is critically important to the proposed reorganizations because, as indicated below in the discussion of preferential rights, Fallbrook and Rainbow could find themselves completely cut off from MWD water. Construction of additional infrastructure is also subject to CEQA review.

Question 3: If Eastern were to try and move its own non-MWD water through MWD pipes to Rainbow or Fallbrook, would Eastern have to pay an MWD wheeling charge?

Eastern Response: EMWD currently has no plans to move non-MWD water through MWD pipes to FPUD or RMWD. However, should FPUD or RMWD hypothetically choose to partner with EMWD in the development of a local supply project, EMWD would potentially deliver local supplies to FPUD or RMWD on an in-lieu basis. To complete an in-lieu delivery, EMWD would physically take less MWD water and utilize the new local supply within its retail service area. FPUD or RMWD would physically receive an increased amount of MWD water (corresponding to EMWD's decrease). From a financial perspective, however, FPUD or RMWD

would be receiving the MWD water in-lieu of the new local supply and would not pay the MWD full-service charge or the MWD wheeling charge for this water. Instead, FPUD and RMWD would pay a rate to EMWD that would be determined by mutual agreement prior to the development of the local supply.

From a reliability perspective, if MWD were to experience an outage or similar event that temporarily reduces supplies available to EMWD, deliveries to FPUD and RMWD may be made using a similar concept – EMWD could increase production from its local supply sources, allowing FPUD and RMWD to take MWD deliveries without interruption.

Water Authority Comments: Rather than answer the question, Eastern posits a non-existent future scenario wherein Fallbrook and Rainbow "partner with EMWD in the development of a local supply project" and then have increased MWD water delivered in lieu of this hypothetical newly created water.

As to the question actually asked, Eastern is silent. The simple fact is that if Eastern wanted to take its own water and ship it to Fallbrook and Rainbow, it has no way to get that water delivered other than to use MWD infrastructure. MWD will charge a wheeling rate for this (if there is not an emergency), just as it charges the Water Authority to move QSA water through MWD pipes. That wheeling rate is very significant, $534/AF (MWD System Access + MWD System Power) in 2021. Additionally, if Eastern were to provide its own current water supplies, Rainbow and Fallbrook would have to pay the costs of such supplies. None of these water supply or delivery costs have been identified or accounted for in the Fallbrook and Rainbow applications or by Eastern.

Even in the hypothetical scenario posited by Eastern, Fallbrook and Rainbow would have to pay for the new "development of a local supply project." One would have to assume that Eastern has already taken advantage of all low-cost water development opportunities,[3] and that only the more expensive water supply possibilities remain.

In summary, the basic takeaway for LAFCO and Fallbrook and Rainbow customers is that for their $11/AF administrative access fee at Eastern, Rainbow and Fallbrook are 100% dependent on MWD supplies, with no access to Eastern's. Further, to get access to Eastern supplies, Fallbrook and Rainbow would either have to pay the MWD wheeling rate plus payment to Eastern for the cost of the supply, or pay Eastern to develop a new supply for itself so Eastern can reduce its MWD usage, freeing up "in lieu" water for Fallbrook and Rainbow. The cost of either scenario would likely far exceed what those agencies are now paying at the Water Authority.

[3] *See* https://www.emwd.org/gwr-plus. Eastern's current local supply development projects include expansion of groundwater desalting facilities, development of a groundwater water banking program, and development of advanced water purification for groundwater recharge.

Question 4: If Eastern were to try and move its own non-MWD water through MWD pipes to Rainbow or Fallbrook, would Rainbow/Fallbrook have to pay an Eastern transportation charge, and if so, what would it be?

Eastern Response: No, EMWD's wheeling rate would not be applicable in this scenario. As discussed in Question No. 3, EMWD currently has no plans to move non-MWD water through MWD pipes to FPUD or RMWD. However, if FPUD and RMWD did partner with EMWD in a local supply project, EMWD would potentially make deliveries on an in-lieu basis and no transportation charge would apply.

Water Authority Comments: Eastern's response is misleading. Eastern is taking the question and re-casting it as, "If Eastern created a new supply paid for by Rainbow and Fallbrook for Eastern's own use, and thus Eastern reduced its MWD usage accordingly, would there be an Eastern wheeling charge?" Eastern then states that such a project would be "on an in-lieu basis and no transportation charge would apply." However, that was not the question the Water Authority asked.

The Water Authority asked if Eastern were to transport its "own non-MWD water" to Fallbrook and Rainbow, whether there would be an Eastern wheeling charge. Eastern does not respond to this simple question because the answer is that there would be. Eastern's Board of Directors has an adopted board policy, set forth in the District's Administrative Code at sections 5.801 through 5.805 with regard to water wheeling.[4] The Board's policy is expressly designed to protect Eastern's existing customers (section 5.803) and requires recovery of costs "on a uniform rate basis…includ[ing] the proportionate cost of such access, encompassing all aspects of the District's integrated water distribution network" (section 5.804). Therefore, in order to be served any water other than MWD water, Fallbrook and Rainbow would not only have to pay an MWD wheeling charge (non-emergency), but also an Eastern wheeling charge of (currently) $736.33 per acre-foot. Why? Because Fallbrook and Rainbow have contributed nothing to the cost of Eastern's infrastructure or its power costs to move the water. Eastern must either charge to use its infrastructure, or it would be providing a subsidy to Fallbrook and Rainbow at the expense of its other customers, who paid for the Eastern infrastructure and power. Such a subsidy would likely run afoul of cost-of-service laws and expose all parties to litigation.

Given Eastern's clear attempted misdirection, LAFCO and the public must presume that in fact there would be an Eastern wheeling charge pursuant to Eastern's board policy and Administrative Code if Eastern sent any of its own supplies to Fallbrook or Rainbow via the Eastern system and then through the MWD pipes to reach Fallbrook and Rainbow.

Question 5: Other than MWD water, what services do Fallbrook and Rainbow receive from Eastern for their $11 per acre-foot charge?

[4] *See* Exhibit B.

Eastern Response: FPUD and RMWD would have access to EMWD's education programs, legislative groups, regional campaigns, ad hoc board meetings, conservation programs, other community programs and events and, as discussed in Questions No. 3 and 4 above, the opportunity to partner with EMWD on potential local water supply projects. Additional details may be found in the "EMWD Services Provided to FPUD and RMWD" portion of this memorandum.

Water Authority Comments: For their $11/AF payment, Eastern advises that Rainbow and Fallbrook get some limited customer service benefits available to its wholesale customers, plus the chance to maybe someday pay Eastern for new unidentified, unplanned water supply projects which Eastern will own, the costs of which are unknown.

The most important services, however, are those which Fallbrook and Rainbow will not receive from Eastern:

- They receive *no* right to any Eastern local water supplies.
- They receive *no* right to any Eastern water storage.
- They receive *no* right to use of any Eastern's water delivery or other infrastructure.
- They receive *no* right to any Eastern benefits that Eastern's customers have paid for.

LAFCO must look very carefully at a reorganization request in which Fallbrook and Rainbow will receive a substantially reduced level of service from Eastern compared to the services it currently receives from the Water Authority.

Question 6: What additional services could Eastern potentially provide to Fallbrook and Rainbow, other than the proposed MWD service for the $11 per acre-foot charge? What would the charges be for those additional services?

Eastern Response: Beyond the services discussed in the response to Question No. 5, any additional projects would be subject to an agreement between EMWD and the respective agency. This could include local supply development projects. Costs would be determined based on the scope of the agreement.

Water Authority Comments: To paraphrase, the answer is "Rainbow and Fallbrook will get nothing more than what Eastern receives from MWD, unless the parties enter into a separate agreement where Eastern gets paid extra."

Question 7: Please provide all communications Eastern has had with MWD related to the proposed detachments and annexations.

Eastern Response: EMWD's communications with MWD relating to the proposed detachments and annexations have been for the purpose of identifying and clarifying potential administrative issues that may arise in the event that the reorganization proposal is approved. These discussions have been summarized in documentation that has already been released by EMWD and MWD to SDLAFCO.

Water Authority Comments: This simply means that Eastern has had such communications, but they will not be provided to LAFCO. Saying, "Don't worry we summarized them for you" is a not a substitute for seeing the actual documents. Given Eastern's obfuscation here, the Water Authority is, at the same time as this reply is filed, serving Eastern with a Public Records Act request. The Water Authority will provide any responsive documents to LAFCO.

Question 8: Since MWD preferential rights do not travel with Rainbow and Fallbrook to Eastern, should Eastern need to use its preferential rights at MWD, would they be used for Rainbow and/or Fallbrook, or just for Eastern's retail customers?

Eastern Response: While preferential rights do not travel with RMWD and FPUD to EMWD, should a reorganization occur, EMWD and SDCWA would continue to receive an annual update to their preferential rights calculation, which is based on member agencies' historical payments and tax assessments to MWD. Furthermore, MWD has never limited member agencies' ability to purchase water according to their preferential rights.

Water Authority Comments: This is a non-response. Saying that Eastern and the Water Authority will continue to have their preferential rights updated does not address the fact that Fallbrook and Rainbow will have *zero preferential rights* to water from MWD should the reorganizations be approved, because MWD has already told them so.[5] Further, it is not an answer to the question to say that MWD does not limit purchases to preferential rights. MWD itself has no authority over assertion of preferential rights to MWD water, because those rights are held not by MWD but by the member agencies via statute. *See* Response at pp. 82-83. Again, because of this non-response, LAFCO and the public must assume that Fallbrook and Rainbow are proposing a reorganization in which their customers will become nearly 100% dependent on MWD water at the same time they will have no legal preferential right to MWD water during times of shortage.[6]

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[5] *See* Exhibit 39 in Water Authority's September 18, 2020, LAFCO Response, wherein MWD General Manager Kightlinger confirms that none of the Water Authority's preferential rights would transfer to Eastern.

[6] The Water Authority's Board of Directors decided more than 25 years ago that the risk of preferential rights enforcement by one or more MWD member agencies was too great a risk to take at a time when the Water Authority had preferential rights to only half as much MWD water as it was using. *See* Water Authority Response at pp. 14-15 ("…with Section 135 hanging over their heads, San Diego water officials felt uneasy about their growing dependence and their "last

Question 9: What specific ad valorem taxes does Eastern believe the Water Authority should receive after the detachments and annexations?

Eastern Response: EMWD does not have an opinion regarding ad valorem taxes that SDCWA should or should not receive should the proposed reorganization occur. However, it is anticipated that the existing ad valorem tax of 0.0035% that is collected on customers' property tax bills and received by MWD would continue as usual, based on property valuations as determined by the San Diego County Tax Assessor.

Water Authority Comments: Eastern's answer to this question is straightforward – it "does not have an opinion."

3. FALLBROOK/RAINBOW JOINT SUBMITTAL

Fallbrook and Rainbow submitted a joint response to the Water Authority's September 18, 2020, LAFCO Response. One notable difference from the Eastern response is that Fallbrook and Rainbow did not even try to answer any of the specific LAFCO questions the Water Authority provided in its Response. The Water Authority here addresses the claims made by Fallbrook and Rainbow in their reply (the "Joint Reply"), in the order of the issues raised.

ISSUE 1: Water Supply Reliability

On this issue the Joint Reply starts off with this statement: "The main question is whether Eastern Municipal Water District (EMWD) can meet the water supply needs of RMWD and FPUD." That is not the "main question," or even a relevant question. As made clear in the Water Authority Response, and as confirmed by Eastern repeatedly, Fallbrook and Rainbow are not going to be getting ***any*** water supplies developed by Eastern itself. They are only going to be receiving imported water passed-through from MWD, as there is no Eastern infrastructure by which Eastern's local water supply can even get to Fallbrook or Rainbow.

The proper question is this: "Whether MWD can meet the near and long-term water supply needs of RMWD and FPUD in all circumstances." That is answered in detail in the Water Authority Response, and the answer is: not always, not to the same level of reliability as the Water Authority, and not without assuming catastrophic risks associated with earthquakes and preferential rights. If reorganized into Eastern's wholesale jurisdiction, Fallbrook and Rainbow would sacrifice access to a robust portfolio of supplies from the Water Authority for sole

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in line" status at the end of the [MWD] pipeline.") Spurred to action by the drought and MWD water shortages, the Water Authority took a suite of actions not only to secure its preferential rights at MWD but to develop the highly reliable water supply it has today.

dependence on MWD's imported water supply, unless additional financial investments are made by Fallbrook and Rainbow to access Eastern's local supplies.

In regards to State-mandated conservation efforts, Fallbrook and Rainbow reference the 2015 time period before the new Conservation Legislation was enacted. Senate Bill 606 now requires the State Water Resources Control Board (SWRCB) to defer to implementation of the locally-adopted Water Shortage Contingency Plans (WSCP), to the extent practicable, during a state of emergency based on drought conditions. It also requires water suppliers to annually submit supply and demand information -- similar to the "stress test" information supplied to the SWRCB at the end of the last drought. If a high level of reliability is demonstrated to the SWRCB under drought conditions, it is not expected to impose statewide mandates as it has in the past.

Additionally, regional planning and reliability are very important. The Water Authority engages in long-term planning for the benefit of all its member agencies and their customers. Investments in the QSA supply, the Carlsbad desalination plant, water storage and infrastructure were planned to serve and protect every Water Authority member agency in every potential hydrological event. The investments the Water Authority has made, including its very substantial investments in water conservation projects, have well-positioned the Water Authority and its member agencies to avoid the imposition of statewide mandates for water agencies that have not made such investments.

As to LAFCO Policy L-109, the standard is not just an "adequate" water supply, but also a "reliable" one, and one that is "diversified where possible." As the Water Authority points out in its Response, MWD's supply has not always been reliable. Additionally, in case of earthquake on the Elsinore Fault the water supply for Fallbrook and Rainbow may be neither adequate or reliable. This is spelled out in detail in the Water Authority's September 18 Response (*see* pages 85-90). A sole-source supply from MWD is also inferior to the Water Authority's diversified sources of supply. Because it is diversified, adequate, and more reliable, the Water Authority's supply is a superior water supply to that of MWD.

It is noteworthy that none of the replies by Eastern, Rainbow, or Fallbrook provide any details about Elsinore Fault earthquake planning, or MWD's purported "14-day plan" to have all the pipes open and flowing again in two weeks. The Water Authority Response noted that it has never seen any such plan that was cited in the LAFCO applications, and it asked both the applicant agencies to show it to LAFCO. Response, page 148, Question 10 to Rainbow; and page 150, Question 10 to Fallbrook. *Neither have done so*. LAFCO should require that the applicants produce this undisclosed plan. The Water Authority's data and analysis shows that a serious earthquake on the Elsinore Fault may cut off the ability of MWD to supply water to the San Diego region, including Fallbrook and Rainbow, for months. *See* Water Authority Response, page 86. This evidence is unrebutted, and demonstrates another fatal flaw risk for Fallbrook and Rainbow customers should the reorganizations be approved, with their planned sole imported water reliance on MWD.

ISSUE 2: Financial Impact to Member Agencies

Fallbrook and Rainbow make a number of financial arguments which are not on point.

First, they cite to their London Moeder report for the argument that they are subsidizing other Water Authority member agencies. The report was issued by a real estate advisory group with no expertise in public agency or water rate analysis, and is completely rebutted by the Water Authority reply previously submitted to LAFCO.

They then argue that "even though FPUD and RMWD customers pay for Desalinated Water," they do not receive the benefit when certain State mandates might be in place. First, the quoted premise is wrong, because not all Fallbrook and Rainbow customers pay for the Water Authority's desalinated water supply. Many Fallbrook and Rainbow agricultural customers have been on the Transitional Special Agricultural Water Rate (now permanent PSAWR) program (*see* Water Authority Response at pp. 23-25), by which those customers receive a lower level of water reliability in return for a lower price that excludes the costs of payments to Poseidon for desalinated water from the Carlsbad plant. *See* Water Authority September 18, 2020, Response, pp. 24-25. The remaining Fallbrook and Rainbow customers, who do pay some portion of desalinated water supply costs in their rates, receive the benefits of this highly reliable water supply being available in our region.[7] In fact, this is precisely the kind of "in lieu" water supply availability Eastern is touting as a future supply program -- for extra cost to Fallbrook and Rainbow -- in its hypothetical scenario discussed earlier.

Next, Fallbrook and Rainbow argue that even if the Water Authority's financial numbers are correct, this does not matter because it is only a 1% water cost increase for the rest of the region; that their rates have gone up 9% annually over the past decade; and that roll-offs will have far more impact. Each part of the argument is incorrect:

- The 1% figure used by Rainbow and Fallbrook is in error. In the Water Authority Response, detail is provided showing that the full per-acre foot cost of unreimbursed Fallbrook/Rainbow detachments would result in $50-$130 per acre-foot increases for the remaining member agencies (if recovered on rates). Response, p.49. The Water Authority's 2020 untreated water rate is $1,057 per acre-foot ($132 transportation rate, and $925 Melded Untreated M&I Supply Rate). Therefore, the increases to other member agencies, if charged to volumetric water rates, would not result in a 1% increase, but between 4.7% ($50/AF increase) and 12.3% ($130/AF increase).[8] *Fallbrook and Rainbow are asking LAFCO to approve rate increases for the rest of San Diego County, so they can pay slightly less in the very near-term for far less reliable water*. Section 4 of the Water Authority September 18 Response details all the facts of the financial impacts

[7] The further argument that State mandates may affect water supply availability is addressed above.

[8] Fallbrook and Rainbow together account for about 6% of the Water Authority's overall revenues; common sense alone tells one not to expect a 1% impact from losing 6% in revenues.

other member agencies would have to bear if these two agencies get what they want.

- Fallbrook and Rainbow complain about 9% annual Water Authority rate increases for the last decade, but they do not tell LAFCO or the public where those rate increases came from. *Most of them are the result of MWD rate increases*, which the Water Authority passes through to its member agencies and which Fallbrook and Rainbow would still pay even if they became part of Eastern. Also, as explained in the Water Authority Response (pp. 100-102), MWD's rates will soon be increasing dramatically, because it plans to spend tens of billions of dollars on major water supply projects such as a Bay-Delta tunnel. Attached as Exhibits C, D, and E are recent MWD documents showing the expected MWD costs for these projects. These costs will fall most heavily on agencies which rely solely on MWD for water, such as Fallbrook and Rainbow are planning to do.

- The rolling off argument is not correct, as detailed in the Water Authority's Response at pages 65-67. Agencies that detach on short notice, reversing prior long-term planning decisions, are gone and no longer subject to future Water Authority decisions, rates and charges. In contrast, member agencies that reduce demand for Water Authority water over time as part of the long-term planning process remain subject to decisions of the Water Authority Board as to how to collect sufficient revenues to pay the agency's costs. *See* Water Authority's Response at pp. 65-67 for a discussion why "rolling off" the Water Authority is not like detachment.

Fallbrook and Rainbow then contend that 2020 Urban Water Management Plan documents show that the Water Authority projects MWD purchases for the future. There are multiple fallacies in this argument:

- UWMPs provide projections for normal and dry years, because they are statutorily keyed to analyzing if there is a sufficient, reliable water supply during these prescribed hydrologic conditions. They do not normally provide projections for wet years. In wet years, such as have occurred recently, there are some months when the Water Authority orders almost no MWD water and uses QSA water delivered via the MWD pipes for Fallbrook and Rainbow. *See* Response, p. 98. An updated chart is attached as Exhibit F. One cannot just look at annual water figures, but one must look at what happens over the course of any given year, and wet years and months in particular because that is when regional water demands drop.

- Additionally, agencies have flexibility in developing their UWMPs as to what planned future projects to include in these five-year updates as part of their demand forecast. The Water Authority includes only "Verifiable" projects in its regional demand forecast; "Verifiable" being those projects that have completed all environmental documentation, have completed all permitting, or have been awarded construction contracts. For example, the larger planned Phase 2 of the City of San Diego's Pure Water program (59,360 acre-feet per year) is not included in the "Verifiable" project list of the Water Authority's upcoming UWMP, but it is listed as "Additional Planned." It is also

expected to be listed by the City of San Diego in their UWMP as an "Additional Planned" project. When built, Phase 2, when combined with Phase 1 of Pure Water, would reduce regional water needs by a total of 92,960 acre-feet per year in 2035 as currently envisioned, and thus virtually eliminate the need for MWD water purchases by the Water Authority in 2035, even with Fallbrook and Rainbow as members. For more information about the Pure Water program, go to the City of San Diego site https://www.sandiego.gov/public-utilities/sustainability/pure-water-sd

- The next error is making the assumption that the Water Authority only recovers money from Fallbrook and Rainbow for volumetric sales. It does not. The Water Authority, as explained in the financial Section 4 of its September 18 Response, recovers extensive fixed revenues. Also, even the Water Authority's volumetric sales do not recover solely for the cost of a particular water supply, but also for aspects of system costs such as infrastructure, storage, etc.

The final contention in this section is that there is "no SDCWA precedent for requiring a SDCWA member agency that reduces its water purchases (and thereby its payments to SDCWA), to then have an obligation to continue to make payments to SDCWA . . . ." That is not correct. Every rate and budget-setting cycle the Water Authority Board meets and decides what rates and charges to enact in a manner that is equitable and satisfies cost-of-service requirements. As explained in the Water Authority Response Section 4, this process is designed to recover the costs of the agency. The Board makes the decisions as to how that cost recovery is to be done consistent with cost-of-service legal requirements. It has done so many times over the years without objection or challenge, including increases to fixed cost recoveries which mitigate lost water revenues from sales to manage reduced demands.

ISSUE 3: Financial True-Up

Fallbrook and Rainbow misstate various aspects of law and fact in their final Issue section.

As to the law, the Water Authority has written extensive briefing on the law in Section 9 of its September 18 Response to LAFCO. The Fallbrook/Rainbow reply misrepresents the Water Authority's position, claiming that it says "that LAFCO should ignore the CWA Act." That is patently not true. In fact, the Water Authority went to great effort to fully explain the meaning and history of the Act, how the Act requires LAFCO to include various conditions, and how the Act and the LAFCO Statutes interact. Fallbrook and Rainbow provide LAFCO with no similar detailed legal response.

In regards to the recited facts, again Fallbrook and Rainbow misdirect and/or mislead:

- They state that, "FPUD and RMWD ratepayers have helped build the Emergency Storage Project (ESP) and have never had full access to it. There is a $30-$40 million project to serve FPUD and RMWD with ESP water which will be eliminated with our detachment. This project is required to be built if FPUD and RMWD stay within SDCWA, otherwise SDCWA would have illegally charged FPUD and RMWD ratepayers for ESP facilities

for which they do not have full access." The first sentence is in error. Fallbrook and Rainbow have always benefited from the ESP, as detailed in the Water Authority Response.[9] The potential Water Authority non-expenditure of the $30-$40 million extension was also credited by the Water Authority in its Response.[10] Claims as to illegality are also wrong: the extension is not some legal requirement, but simply further infrastructure to benefit member agencies, which is the regular task of the Water Authority, all as decided by its Board of Directors. Completion of the work, or non-completion of it, would not change the legality of the Water Authority's rates and charges.

- In regards to flow control facilities, Fallbrook and Rainbow assert that they paid for the initial installations, and they did (at least for most). They then, however, say, "FPUD and RMWD pay all ongoing operation and maintenance costs." That is not correct. The Water Authority pays for the operation and maintenance costs of these facilities.

- Fallbrook and Rainbow assert the cash value of Water Authority assets, and how their "share" of such assets would go to all other members. However, as explained in the Water Authority Response Section 4, in-place water infrastructure has very limited liquidation value, so trying to reference the book value as if these items were readily transferable assets is non-sensical. Further, the existing infrastructure was constructed to serve all current member agencies, so there is no re-sizing benefit.

- Fallbrook and Rainbow complain that the Water Authority includes all its long-term obligations in its potential impacts, most of which end by 2047, but a canal lining component stretches into the next century. The Water Authority's existing contracts are just that: obligations previously incurred, as planned to meet the base load water supply demand of its member agencies including Fallbrook and Rainbow.

- Fallbrook and Rainbow state that, "There is no legal or logical basis for the SDCWA argument that FPUD and RMWD ratepayers should not only continue to pay for infrastructure we don't use (and have never used) but also pay for the actual water for other member agencies in the future." As to legal and logical basis for ratepayers paying their share for a postage-stamp system, one need look no further than the Court of Appeal decision in *Rincon del Diablo Municipal Water Dist. v. San Diego County Water Authority* 121 Cal.App.4th 813 (2004) attached for convenience as Exhibit G. In that case the Water Authority's postage-stamp rates for the entire system were deemed legal and reasonable. Ironically, Fallbrook and Rainbow's arguments about the purported unfairness of Water Authority rates and charges for facilities located in other parts of San

[9] *See* pages 86-90.

[10] *See* page 61, footnote 65.

Diego County would certainly apply by order of magnitude to ***MWD*** rates and charges for water supplies and facilities located in Los Angeles, Orange, Riverside, San Bernardino and Ventura counties and in Northern California, all of which Fallbrook and Rainbow would pay for as recipients of MWD water.

- Fallbrook and Rainbow claim that if MWD's supply costs increase in the future, there is a "net financial benefit from detachment in that it will reduce SDCWA's net cost for supply in the future, thereby benefiting its member agencies." There is no scenario where uncompensated detachment is a financial benefit, all as detailed in Section 4 of the Water Authority LAFCO Response.

4. DELTA STEWARDSHIP SUBMITTAL[11]

The Fallbrook submittal to the Delta Stewardship Council to show reduced Bay-Delta usage is, in large part, a lengthy response to an issue never raised by the Water Authority and not at issue at LAFCO: whether MWD, Eastern, Fallbrook, Rainbow and other Southern California agencies are reducing their overall reliance on Bay-Delta water by various water supply development measures they have taken over the years. Many agencies are in fact doing so, but that is not the relevant question raised at LAFCO.

The issue raised by the Water Authority, and detailed in its Response and its consultant Stratecon's reports,[12] is whether the sought reorganizations will increase Bay-Delta water demands or not. In other words, will moving from the Water Authority to MWD as the wholesale water provider create any differences, or not, as to Bay-Delta usage? The simple answer is that it will, because the Water Authority's diversified supply portfolio is far less dependent on the Bay-Delta than MWD's, and because water demands on MWD will increase.

Ironically, the Fallbrook report actually proves the Water Authority's foundational point when it makes this key statement on page 2:

> MWD, as the regional wholesaler and purveyor of State Water Project (SWP) supplies from the Delta, benefits from the contributions its member agencies (like SDCWA and EMWD) and sub-agencies (like FPUD) make to improve regional self-reliance.

[11] In addition to the information below, the Water Authority also concurrently submits a short separate report by Stratecon, Inc., to the Fallbrook Delta Stewardship Council submittal.

[12] Stratecon has provided a response analysis regarding the MWD Bay-Delta submittal to LAFCO that is submitted concurrently with this reply, and also a brief response to the newest Fallbrook submittal which is also being concurrently submitted along with this reply.

Indeed, that is so. MWD benefits from that regional self-reliance because each acre-foot of water that one of its customers acquires from other sources is an acre-foot less MWD has to supply from the State Water Project. The Water Authority QSA water supply is just such a "regional self-reliance" investment, *but one that Fallbrook and Rainbow now seek to abandon and go onto an exclusive MWD supply*. It is more than a little ironic to claim, in the same technical paper, that MWD's Bay-Delta usage should be credited for regional self-reliance investments that it has not paid for, and Fallbrook and Rainbow want to walk away from that same investment.

Moving from QSA water back to MWD water *does* increase Bay-Delta reliance. Is it just the Water Authority which says this? No. San Diego LAFCO should carefully consider statements made by the State Water Resources Control Board in its Revised Order WRO 2002 – 0013[13] as to how QSA water reduces Bay-Delta reliance, such as (page 44):

> If the proposed transfer is not implemented because the cost of mitigation is too high, the consequences to the State's water supply and to the San Francisco Bay/Sacramento San Joaquin River Delta (Bay-Delta) could be severe.

The SWRCB noted that MWD's own witness testified that the QSA water reduces reliance on the Delta (page 45):

> A witness for MWD testified that if the Interim Surplus Guidelines are suspended and California is limited to its 4,400,000 afa apportionment, then under the terms of the Seven-Party Agreement, Southern California as a whole would face an immediate short-fall of approximately 800,000 afa, and MWD would face an immediate short-fall of 600,000 afa. [Citation.] This could have significant economic consequences in Southern California and lead to increased pressure on the limited amount of water available from the Bay-Delta. [Citation.] Increased demand for a significant amount of water for Southern California could also upset ongoing efforts to improve water management and restore the ecological health of the Bay-Delta through the CALFED planning process. [Citation.]

The QSA water transfer is not the only "regional self-reliance" program in the State of California, but it is certainly one of major importance. As stated by the SWRCB at page 73:

> The California Water Plan identifies the Colorado River as a source of supply for Southern California. In the absence of the proposed transfer, the State may be required to immediately reduce its diversions from the Colorado River by approximately 800,000 acre-feet of water per year. The only infrastructure currently in place that could provide an alternative source of water is the State Water Project, which diverts water from the Sacramento-San Joaquin Delta Estuary. Increased diversion from the Bay-Delta could have negative impacts on fish and wildlife resources that rely on the Bay-Delta, and the

[13] Which can be found at https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/2002/wro2002-13revised.pdf

resulting measures to protect threatened and endangered species under the CESA and the federal ESA could result in severe and unpredictable water shortages throughout the State.

What Fallbrook and Rainbow are asking LAFCO to approve is to let them abandon the Water Authority and its QSA supply, and instead add new demand on MWD's supply, which mainly comes from the Bay-Delta. This is contrary to the regional self-reliance policies and law of the State of California.

Fallbrook's unidentified consultant(s) asserts that the water molecules Fallbrook and Rainbow receive in either case will be the same, because the water is mixed by MWD before delivery for water quality purposes. However, the Water Authority has never disputed the benefits of salinity control, or that the same physical water may be delivered in either scenario.

Fallbrook's submittal also argues that Urban Water Management Plan guidelines should be used to ignore monthly water usage numbers. However, LAFCO is not drafting a UWMP. It is analyzing whether there is any difference in actual water sources used by different wholesalers. For such an analysis the actual facts certainly matter. Consider the spreadsheet attached as Exhibit F, which shows the most recent Water Authority QSA supplies, MWD supplies, and Fallbrook/Rainbow deliveries (which are all treated water deliveries). Here are some simple facts gleaned from the spreadsheet:

- Starting in December of 2019, there were eight consecutive months where combined Fallbrook and Rainbow deliveries exceeded the amount of treated water the Water Authority bought from MWD. In all these months the Water Authority was delivering QSA water to Fallbrook and Rainbow.

- The combined amount of QSA water delivered in these eight months to Fallbrook and Rainbow was at least 8,533 acre-feet (12,566 delivered, minus 4,033 treated water bought from MWD).

- That 8,533 acre-feet of water, because Fallbrook and Rainbow were Water Authority members, was charged against the Water Authority's Colorado River QSA water allotment. However, if they had been "reorganized" into Eastern, then this would have to be MWD water. ***Yet the Water Authority's QSA deliveries would still be the same volume, because the QSA deliveries are fixed by contract***.[14] Thus, this 8,533 acre-feet is an ***extra*** demand of ***new*** water, all of which MWD would have had to supply.

These simple actual water availability facts belie any attempts to use misdirection and circular logic to avoid reality. LAFCO must, as stated in the Water Authority's Response, do a proper analysis of this increase in water demand, as it will affect Bay-Delta water usage.

[14] See the contractual ramp-up of QSA deliveries in Column E of the spreadsheet.

5. CONCLUSION

The documents submitted by Eastern and Rainbow/Fallbrook are in large part non-responsive, and do not rebut the extensive facts and law presented by the Water Authority in its September 18 Response. Their submittals do not effectively address a host of critical issues, such as why San Diego County should suffer the loss of important voting rights at MWD to Eastern and Riverside County, why other member agencies should face cost increases to allegedly benefit Fallbrook and Rainbow, and how Fallbrook and Rainbow customers would be represented under the proposed reorganization's governance. Rainbow and Fallbrook have also ignored earthquake water supply risks, and the risk of being almost 100% dependent on a water supplier in which they will have no preferential rights to water. There are many other important issues as discussed in the Water Authority's September 18 Response and in this Reply not substantively answered by the applicants or Eastern.

The Water Authority is willing to provide LAFCO and its consultant Dr. Hanemann with all information and materials needed to complete the application review process.

EXHIBIT A

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

INFORMATION

- **Board of Directors**
  Finance and Insurance

8/18/2020 Board Meeting

5G

Subject

Report on list of certified assessed valuations for fiscal year 2020/21 and tabulation of assessed valuations, percentage participation, and vote entitlement of member agencies as of August 18, 2020

Executive Summary

Every year, Metropolitan receives the certified assessed valuation from the county auditors for the six counties where Metropolitan provides water service. All county auditors have until the 15th day of August to provide the certified assessed valuation to Metropolitan, which is why Metropolitan's Board adjourns its August regular and committee meetings to the third week of the month. Metropolitan received the last of the counties' information for fiscal year (FY) 2020/21 on August 9, 2020.

Based on the information received, staff reports that certified assessed valuations for Metropolitan's six-county service area totaled $3.3 trillion for FY 2020/21. The percentage participation and vote entitlement by member agencies as of August 18, 2020, have been updated accordingly and are reported in this letter and in **Attachment 1**. Assessed valuation is also used to determine how many representatives an agency has on the Metropolitan Board. Based on the assessed valuations for FY 2020/21, the number of representatives for each agency remains the same and is also reported in **Attachment 1**.

Details

Background

This letter reports the certified assessed valuations for FY 2020/21 and member agency percentage participation, vote, and director entitlement (**Attachment 1**), which become effective for all purposes at the August 18, 2020, regular Board meeting.

As part of the Metropolitan Water District Act, the process of determining assessed valuation is made each August, based on submissions from the auditors of each of the six counties in the Metropolitan service area. Metropolitan uses a weighted voting system based on assessed valuation. Under Section 55 of the Metropolitan Water District Act, each member agency gets one vote for every $10 million of assessed valuation of property taxable for Metropolitan's purposes. Under Section 52 of the Metropolitan Water District Act, assessed valuation is also used to determine how many representatives an agency has on the Metropolitan Board. Each member agency is entitled to one board member and may appoint an additional representative for each full 5 percent of Metropolitan's assessed valuation of taxable property that is within such member agency's service area. As of last year, AB1220 (Garcia) added subsection (b) to Section 52 of the Metropolitan Water District Act, which provides, "A member public agency shall not have fewer than the number of representatives the member public agency had as of January 1, 2019. This subdivision does not affect Section 55." Based on the assessed valuations for FY 2020/21, neither the assessed valuations nor AB1220 affects the current number of directors of any member agencies.

The certificates of the county auditors for the six counties covering Metropolitan's area, certifying the FY 2020/21 assessed valuations of all property used for calculating Metropolitan's FY 2020/21 vote and director entitlement, are on file in the office of the Controller.

The assessed valuations by the respective county auditors are as follows:

County	Assessed Valuations Taxable by Metropolitan
Los Angeles	$ 1,593,580,889,093
Orange	654,987,416,111
Riverside	209,015,948,025
San Bernardino	127,116,540,150
San Diego	566,343,031,902
Ventura	112,311,699,205
Total:	**$ 3,263,355,524,486**

A comparison of FY 2019/20 and FY 2020/21 assessed valuations and the percentage of change (**Attachment 2**) and a comparison of FY 2019/20 and FY 2020/21 vote entitlement and the percentage change (**Attachment 3**) are attached for your information.

Policy

Metropolitan Water District Act Section 52: Additional Directors

Metropolitan Water District Act Section 55: Voting by Board

Metropolitan Water District Act Section 305: Certification of Assessed Valuations; Segregation of Valuations

Fiscal Impact

None

8/12/2020
Katano Kasaine *Date*
Assistant General Manager/
Chief Financial Officer

8/12/2020
Jeffrey Kightlinger *Date*
General Manager

Attachment 1 – Assessed Valuations, Percentage Participation, and Vote and Director Entitlement of Member Public Agencies as of August 18, 2020

Attachment 2 – Comparison of Assessed Valuations for the Fiscal Years 2019/20 and 2020/21

Attachment 3 – Comparison of Vote Entitlement Percentage for the Fiscal Years 2019/20 and 2020/21

Ref# cfo12674825

The Metropolitan Water District of Southern California
Assessed Valuations, Percentage Participation, and
Vote and Director Entitlement of Member Public Agencies
As of August 18, 2020

Member Agency	*Assessed Valuation Amount Certified	Percent of Total	** Vote Entitlement	*** Director Entitlement
Anaheim	$ 50,827,184,760	1.56%	5,083	1
Beverly Hills	38,956,717,957	1.20%	3,896	1
Burbank	26,141,123,217	0.80%	2,614	1
Calleguas MWD	111,618,780,405	3.44%	11,162	1
Central Basin MWD	163,841,107,803	5.04%	16,384	2
Compton	5,317,323,800	0.16%	532	1
Eastern MWD	89,360,565,565	2.75%	8,936	1
Foothill MWD	20,523,777,475	0.63%	2,052	1
Fullerton	22,375,441,140	0.69%	2,238	1
Glendale	35,169,758,778	1.08%	3,517	1
Inland Empire Utilities Agency	126,454,139,655	3.89%	12,645	1
Las Virgenes MWD	26,486,631,207	0.82%	2,649	1
Long Beach	55,981,628,720	1.72%	5,598	1
Los Angeles	679,724,957,408	20.93%	67,972	5
MWD of Orange County	550,132,942,332	16.94%	55,013	4
Pasadena	33,945,712,922	1.05%	3,395	1
San Diego County Water Authority	563,102,159,967	17.34%	56,310	4
San Fernando	2,162,763,122	0.07%	216	1
San Marino	7,112,212,432	0.22%	711	1
Santa Ana	28,885,250,705	0.89%	2,889	1
Santa Monica	41,988,358,140	1.29%	4,199	1
Three Valleys MWD	75,351,151,920	2.32%	7,535	1
Torrance	31,358,048,464	0.97%	3,136	1
Upper San Gabriel Valley MWD	115,436,487,268	3.55%	11,544	1
West Basin MWD	227,757,273,626	7.01%	22,776	2
Western MWD	118,236,059,481	3.64%	11,824	1
TOTAL ASSESSED VALUATIONS WITHIN METROPOLITAN	$ 3,248,247,558,269	100%	324,826	38

Percentage may not foot due to rounding.

* The above valuations include only those which have been certified by the County Auditors, in accordance with Section 305 of the Metropolitan Water District Act, Statutes of 1969, as amended. The certified valuations have been reduced to reflect Homeowners' Property Exemptions and do not include areas excluded from Metropolitan.

** Each member of the Board shall be entitled to cast one vote for each ten million dollars ($10,000,000) of assessed valuation of property taxable for district purposes, in accordance with Section 55 of the Metropolitan Water District Act.

*** In addition to one representative, pursuant to Section 52 of the MWD Act (Chapter 781, Stats. 1998), each member agency shall be entitled to one additional representative for each full five percent of the assessed valuation of property taxable for Metropolitan purposes. Pursuant to AB1220 (Garcia), a member public agency shall not have fewer than the number of representatives the member agency had as of January 1, 2019.

The Metropolitan Water District of Southern California
Comparison of Assessed Valuations for the Fiscal Years 2019/20 and 2020/21

Member Agency	FY 2019/20 Assessed Valuation	FY 2020/21 Assessed Valuation	Percentage Change
Los Angeles County:			
Beverly Hills	$ 36,580,540,574	$ 38,984,209,757	6.6%
Burbank	25,002,647,242	26,232,053,217	4.9%
Glendale	33,711,265,189	35,299,922,378	4.7%
Los Angeles	640,175,002,878	681,956,634,299	6.5%
Pasadena	32,409,521,952	34,064,564,522	5.1%
San Marino	6,846,700,283	7,131,517,032	4.2%
Santa Monica	39,316,267,365	42,052,273,740	7.0%
Long Beach	53,299,586,877	56,231,422,772	5.5%
Torrance	30,680,242,440	31,509,046,749	2.7%
Compton	4,928,389,062	5,367,588,584	8.9%
West Basin MWD	213,987,806,089	228,506,171,874	6.8%
Three Valleys MWD	72,538,027,913	75,830,420,346	4.5%
Foothill MWD	19,621,347,114	20,633,179,075	5.2%
Central Basin MWD	156,584,724,071	164,837,540,712	5.3%
Las Virgenes MWD	26,249,192,792	26,576,523,807	1.2%
Upper San Gabriel Valley MWD	110,865,559,035	116,125,000,182	4.7%
San Fernando	2,044,793,609	2,175,734,122	6.4%
Total Los Angeles County	**1,504,841,614,485**	**1,593,513,803,168**	**5.9%**
Orange County:			
Anaheim	48,780,882,406	51,034,279,760	4.6%
Santa Ana	27,889,308,938	29,025,884,820	4.1%
Fullerton	21,047,887,392	22,487,669,340	6.8%
MWD of Orange County	527,514,977,984	552,439,582,191	4.7%
Total Orange County	**625,233,056,720**	**654,987,416,111**	**4.8%**
Riverside County:			
Eastern MWD	84,345,758,934	90,029,050,008	6.7%
Western MWD	111,841,869,904	118,986,898,017	6.4%
Total Riverside County	**196,187,628,838**	**209,015,948,025**	**6.5%**
San Bernardino County:			
Inland Empire Utilities Agency	**120,149,133,064**	**127,116,540,150**	**5.8%**
San Diego County:			
San Diego County Water Authority	**537,702,536,141**	**566,336,932,422**	**5.3%**
Ventura County:			
Calleguas MWD	**108,243,210,879**	**112,311,699,205**	**3.8%**
Total Within Metropolitan	**3,092,357,180,127**	**3,263,282,339,081**	**5.5%**
Excluded Areas	**69,601,933**	**73,185,405**	**5.1%**
***Total Taxable by Metropolitan**	**$ 3,092,426,782,060**	**$ 3,263,355,524,486**	**5.5%**

*** Gross Before HOE**

The Metropolitan Water District of Southern California
Comparison of Vote Entitlement Percentage for the Fiscal Years 2019/20 and 2020/21

	FY 2019/20		FY 2020/21		Change	
Member Agency	**Vote Entitlement**	**Vote Entitlement Percentage**	**Vote Entitlement**	**Vote Entitlement Percentage**	**Vote Entitlement**	**Vote Entitlement Percentage**
Anaheim	4,857	1.58%	5,083	1.56%	226	-0.01%
Beverly Hills	3,655	1.19%	3,896	1.20%	241	0.01%
Burbank	2,491	0.81%	2,614	0.80%	123	0.00%
Calleguas MWD	10,754	3.49%	11,162	3.44%	408	-0.06%
Central Basin MWD	15,556	5.06%	16,384	5.04%	828	-0.01%
Compton	488	0.16%	532	0.16%	44	0.01%
Eastern MWD	8,369	2.72%	8,936	2.75%	567	0.03%
Foothill MWD	1,951	0.63%	2,052	0.63%	101	0.00%
Fullerton	2,093	0.68%	2,238	0.69%	145	0.01%
Glendale	3,358	1.09%	3,517	1.08%	159	-0.01%
Inland Empire Utilities Agency	11,948	3.88%	12,645	3.89%	697	0.01%
Las Virgenes MWD	2,615	0.85%	2,649	0.82%	34	-0.03%
Long Beach	5,304	1.72%	5,598	1.72%	294	0.00%
Los Angeles	63,788	20.73%	67,972	20.93%	4,184	0.20%
MWD of Orange County	52,516	17.07%	55,013	16.94%	2,497	-0.13%
Pasadena	3,229	1.05%	3,395	1.05%	166	0.00%
San Diego County Water Authority	53,442	17.37%	56,310	17.34%	2,868	-0.03%
San Fernando	203	0.07%	216	0.07%	13	0.00%
San Marino	683	0.22%	711	0.22%	28	0.00%
Santa Ana	2,775	0.90%	2,889	0.89%	114	-0.01%
Santa Monica	3,925	1.28%	4,199	1.29%	274	0.02%
Three Valleys MWD	7,205	2.34%	7,535	2.32%	330	-0.02%
Torrance	3,053	0.99%	3,136	0.97%	83	-0.03%
Upper San Gabriel Valley MWD	11,016	3.58%	11,544	3.55%	528	-0.03%
West Basin MWD	21,322	6.93%	22,776	7.01%	1,454	0.08%
Western MWD	11,109	3.61%	11,824	3.64%	715	0.03%
Total	**307,705**	**100%**	**324,826**	**100%**	**17,121**	**0.00%**

Percentages may not foot due to rounding.

EXHIBIT B

ARTICLE 8 – WATER WHEELING[47]

5.801 GENERAL

California Water Code §1810 provides that neither the state, nor any regional or local public agency may deny a bona fide transferor of water the use of a water conveyance facility (water wheeling) which has unused capacity, for the period of time for which that capacity is available, if fair compensation is paid for that use.

Fair compensation is defined as reasonable charges incurred by the owner of the conveyance system, including capital, operation, maintenance and replacement costs, and increased costs from any necessitated purchase of supplemental power.

5.802 PURPOSE

The purpose of this Article is to set forth policy guidelines by which the District will address the financial and operational components of water system access, as well as impacts on water quality and current customers.

5.803 POLICY PRINCIPLES

Requests for access to District owned and operated water conveyance facilities (water wheeling) shall be considered using the following policy guidelines:

(a) Evaluation and the granting of access shall be made in a manner consistent with California water law; and

(b) The review and approval of access shall ensure no harm to existing District customers; and

[47] Added Article 8 to Title 5 by Res. No. 5111.1 on June 5, 2013.

(c) Criteria for consideration shall serve to protect the District's financial position, operational performance, and quality of service delivered; and

(d) The District will facilitate acceptable and appropriate water system access.

5.804 COST RECOVERY

Costs for access to water conveyance systems shall be recovered on a uniform rate basis and include the proportionate cost of such access, encompassing all aspects of the District's integrated water distribution network.

Such costs for access shall be proportionately recovered on a per-acre-foot charge that, at a minimum, includes:

(a) Water distribution system capital (including the cost of debt service), operational and maintenance costs;

(b) Water distribution system indirect support costs including, but not limited to, billing, meter reading, and similar services;

(c) Water system depreciation, replacement and refurbishment costs attributable to the proposed use;

(d) Water treatment costs (for water introduced into the raw water system and treated by EMWD); and

(e) General and administrative costs.

The District shall not be responsible for other potential costs such as, but not limited to, those associated with pre-treatment, environmental, or regulatory concerns, which shall be the responsibility of those wheeling water through the

District's system.

The wheeling rate shall be established by the District's Board of Directors and published in the Consolidated Rates, Fees, and Charges.

5.805 WATER QUALITY AND CUSTOMER IMPACTS

Approved access to conveyance systems shall in no way harm, or adversely impact the customers of the District, or the quality of water delivered by the District.

(a) The District shall not accept water for conveyance that, at District's sole discretion, is determined to unsuitably degrade existing ambient water quality at the point of connection. Such determinations may include, but are in no way limited to, impacts caused by regulated contaminants, and impacts to salinity levels with secondary impact to the District's recycled water program.

(b) Those wheeling water through the District's system shall provide on-going treatment and water quality monitoring as prescribed by District; and

Those wheeling water shall obtain and maintain, at their sole cost and expense, all necessary environmental, regulatory, and governmental permits and approvals.

EXHIBIT C

DELTA CONVEYANCE DESIGN & CONSTRUCTION AUTHORITY

Board Memo

Contact: Kathryn Mallon, Executive Director

Date: August 20, 2020 Board Meeting **Item No.** 7c

Subject: Presentation on Delta Conveyance Preliminary Cost Assessment

Detailed Report:

The DCA Executive Director, Kathryn Mallon, will present a preliminary cost assessment for the proposed Delta Conveyance Project. While development of the program is in very early stages, this information is intended to aid the public water agencies who are ultimately responsible for funding the environmental review, planning, permitting and, if approved, design and construction of a proposed Delta Conveyance facility.

Cost information developed at this early stage provides a preliminary starting point to understand possible costs that will necessarily be refined over time as planning and environmental review proceeds and more precise design and engineering are available to increase confidence and probability levels of potential costs based on industry standard methodology. Additionally, items not included in the estimate at this time will need to be developed to create a more comprehensive assessment of total program costs.

It should be noted that the preparation of this cost information related to the proposed project is not an indication of any type of project approved by DWR. DWR has made no decisions as to the selection of a specific alternative. A final decision regarding whether to approve the proposed Delta Conveyance Project or an alternative, including the no project, will not occur until after completion of environmental review under CEQA, and other environmental permitting processes.

Recommended Action:

Information only.

DELTA CONVEYANCE DESIGN & CONSTRUCTION AUTHORITY

Delta Conveyance Program Cost Assessment Update

PRESENTATION TO THE BOARD

August 2020

Item 7.c

Topics Covered

- Program Scope – What was estimated?
- DCA Estimating Process
- Cost Assessment of Program
- Confidence Level
- Design Advancements
- Future Steps to Finalize Baseline Program Budget

Notes on the Cost Assessment

THIS ESTIMATE IS…

- A ***snapshot*** based on the status of the program today – we are still very early in the planning process
- A ***tool for the State Water Contractors*** to use when requesting Board Approval for Delta Conveyance Funding
- ***Undiscounted***, similar to past estimates to allow agencies to compare with historical values

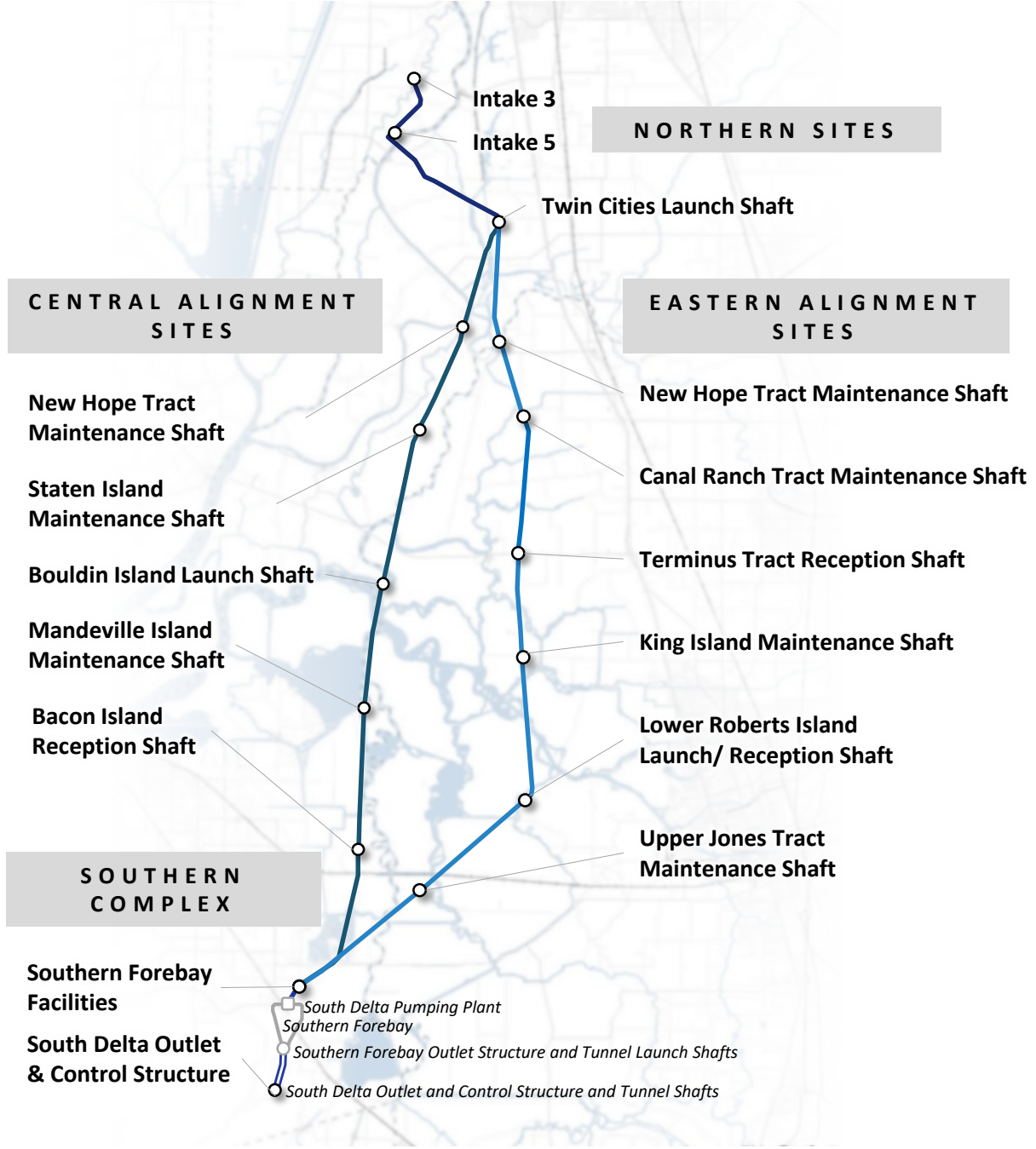
THIS ESTIMATE IS **NOT**…

- ***Reflective of the final conceptual design*** – will come as the Planning Phase completes
- ***Reflective of the final mitigation costs*** – will be identified during the CEQA process
- ***Inclusive of all items*** such as community benefits, DWR planning, or financing costs – will be added as we get closer to preparing a final Baseline Program Budget
- ***Reflective of the time-value*** of money over the estimated 20-year delivery period – will be added as part of our final Baseline Program Budget

Project Scope – What did we estimate?

- **Total capacity 6,000 cfs**
- **Two intakes at 3,000 cfs each**
- **42 miles of tunnels and associated shafts**
- **Southern Complex Facilities**
  - Pump Station
  - Forebay
  - Connections to existing CA Aqueduct

* There is a 0.5-mile section of parallel 40ft tunnels extending between the forebay and the connection to the existing Aqueduct



DCA Estimating Process

COST BREAKDOWN	
Construction (Per Element)	
	• Detailed Line Items
	• Allowances
	• Risk Mitigations
	• Contractor Field Mgt, OH&P
	• Contingency
Soft Costs	
	• DWR Oversite
	• DCA PMO, Engineering, CM
	• Land Acquisition
Environmental Mitigation	
	• Mitigation Design, Construction, Monitoring
TOTAL (Construction, Soft Costs, Mitigation)	

- Followed AACE1 **industry standard guidelines** for estimate preparation
- **Detailed estimates including materials, labor and equipment** were developed for known information from drawings, sketches, and other documents. (All rates based on current, Year 2020 values).
- **Allowances** were used for known yet undefinable items
- The **program risk team** identified accepted risk mitigations
- **Industry standard Field Management, Overhead, and Profit** percentages were applied to construction costs
- **Contingency levels** were established for individual elements
- **Soft Costs** were established based on industry standard factors for Capital Program Delivery
- An **Environmental Mitigation** "placeholder" was carried over from the previous Cal Waterfix project estimate.

* Association for Advancement of Cost Estimating

Some Key Points on Contingency

- Contingency is part of the construction cost. It represents a best guess of the unknown items where experience indicates, will likely result in additional cost.
- Contingency levels were identified for each feature to reflect the uncertainty in the status of the information at the time of the estimate development.
- Contingency levels were established in partnership between the estimating and engineering teams and reflects our assessment of:
  - Design status
  - Identified risks
  - Professional judgment
- Contingency levels will decrease as the engineering work advances and the unknown elements of the work are revealed or resolved.

Contingency Levels for Each Major Feature

CONTINGENCY AS A % OF TOTAL DIRECT COST

Intakes	35%
Tunnels and Shafts	40%
Forebay and Levee	35%
Pumping Plant	30%
South Delta Facilities	35%
Utilities/Early Works/Logistics	50%
COMPOSITE CONTINGENCY	38%

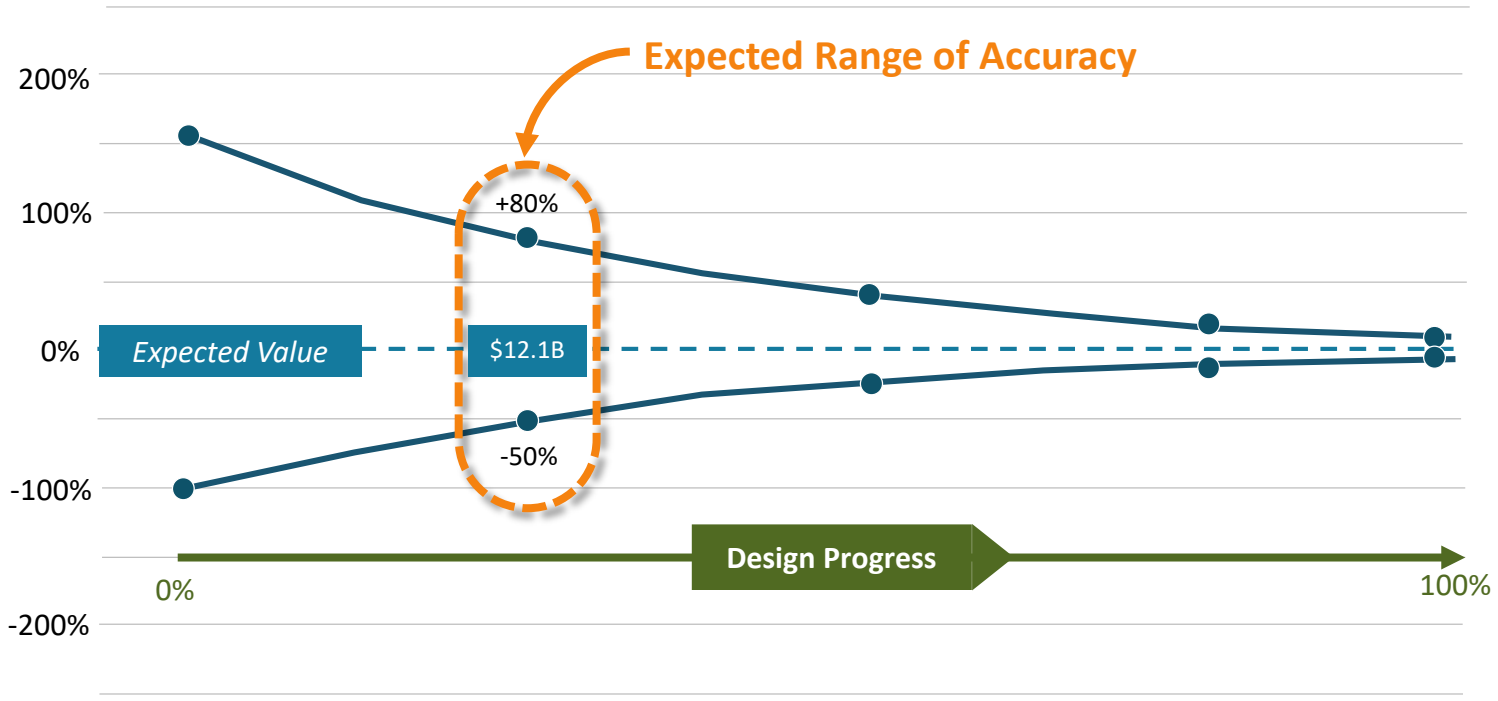
Construction Cost Summary

ELEMENT	BASE COST[1]	CONTINGENCY	TOTAL
Intakes	**$ 1,448,000,000**	**$ 507,000,000**	**$ 1,955,000,000**
Tunnels and Shafts	**$ 4,473,000,000**	**$ 1,789,000,000**	**$ 6,262,000,000**
Pumping Plant	**$ 805,000,000**	**$ 242,000,000**	**$ 1,047,000,000**
Southern Facilities Complex (Forebay, Hydraulic Structures)	**$ 1,521,000,000**	**$ 532,000,000**	**$ 2,053,000,000**
Early Works, Utilities, Logistics	**$ 522,000,000**	**$ 261,000,000**	**$ 783,000,000**
Total	**$ 8,769,000,000**	**$ 3,331,000,000**	**$ 12,100,000,000**

1. Base cost includes all defined items derived from the available engineering information including materials, labor, equipment, allowances, risk mitigations, construction field management and contactor overhead and profit. The unit costs and rates used to develop the estimate are based on **Year 2020 values**.

AACE uses historical data to develop confidence ranges for estimating classes

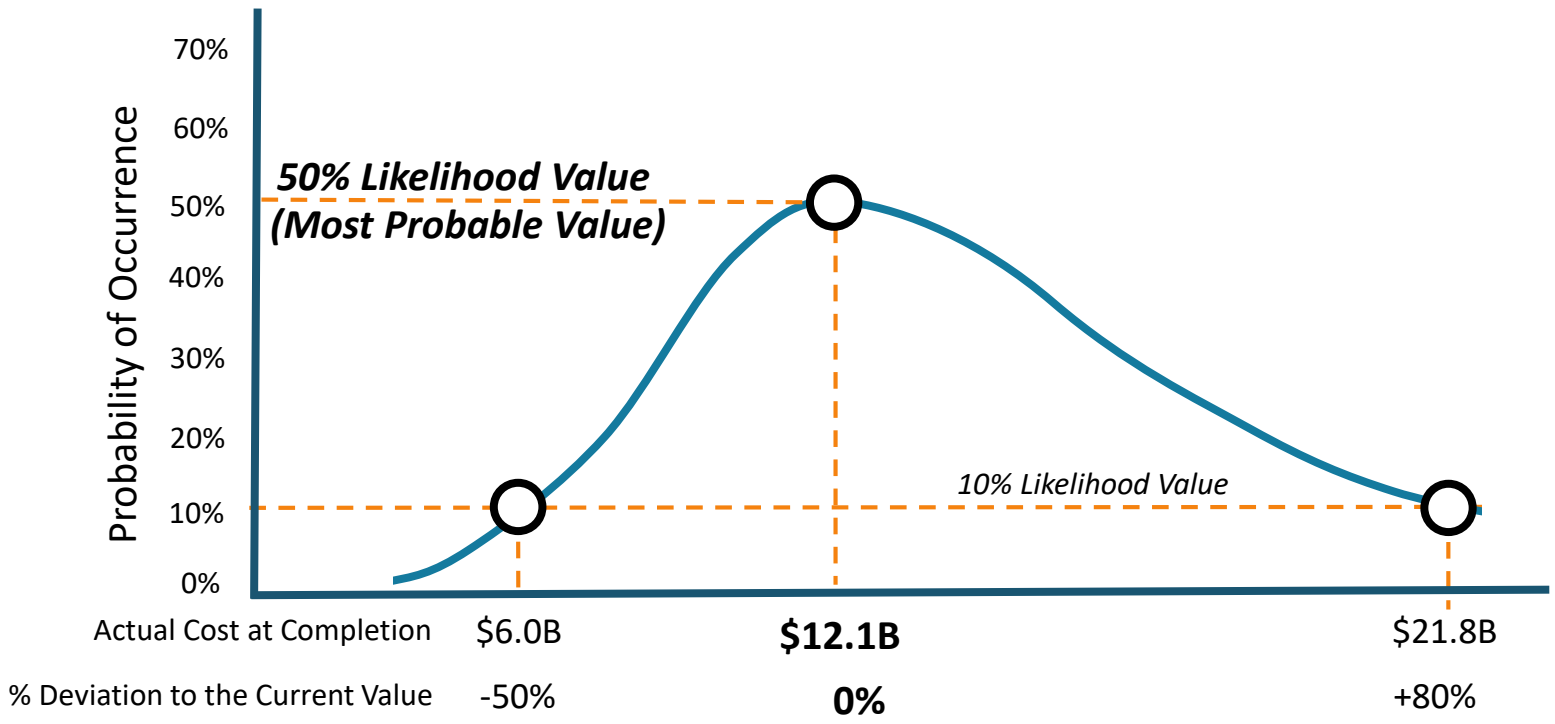
80% Confidence Interval Accuracy Range



- The boundaries of the curve represent the expected range of accuracy of the estimate to the final actual construction cost at the 80% confidence level.
- In the early stages, there is a much wider range of potential outcomes due to the uncertainty in the level of information.
- As the design advances, the confidence range of the estimate narrows.

What does the 80% confidence interval mean for the Delta Conveyance value?

80% Confidence Interval Accuracy Range



- **The most probable construction cost is $12.1Bil. This is the DCA's opinion of cost at the 50% probability level.**
- **Based on historical data, there is an 80% likelihood that the final cost will range between -50% to +80% of the most probable number of $12.1Bil.**
- **The wide range is based on historical outcomes and reflects the lack of certainty in the program definition at this time.**
- **The far ends of the range have a much lower probability of occurrence than the most probable value.**

Soft costs added to reflect DCA delivery and DWR oversite costs

Categories of Soft Costs

DCO OVERSIGHT — 1.5% OF CONSTRUCTION

- Engineering Standards Compliance
- Program Controls Monitoring (Schedule and Budget)
- Invoice Processing and Payment
- Start-up and Commissioning Support
- Environmental Monitoring

PROGRAM MANAGEMENT OFFICE — 3.5% OF CONSTRUCTION

- Executive Office
- Executive Support (HR, Legal, Audits, Treasury)
- Program Controls (Inc. Procurement)
- Shared Professional Services (Safety, Permitting, Real Estate, Quality, Sustainability, Outreach)

ENGINEERING MGT, DESIGN, AND CONSTRUCTION MGT — 20% OF CONSTRUCTION

- Project Management
- Design Services thru Construction Closeout
- Field Investigations and Temporary Easements
- Independent Technical Reviews
- Construction Project Management
- Construction Oversite Services
- Off-site/ Factory Inspections and Validations
- Commissioning and Start-up

PERMITTING AND AGENCY COORDINATION — 0.5% OF CONSTRUCTION

- Permit fees
- Agency fees

LAND ACQUISITION: — 2.5% OF CONSTRUCTION

- Easements
- Land purchase

Cost Summary

ITEM	VALUE
CONSTRUCTION[1]	**$ 12,100,000,000**
Two Intakes	$ 1,448,000,000
Southern Complex Facilities (Forebay, Hydraulic Structures)	$ 1,521,000,000
Pumping Plant	$ 805,000,000
Tunnel and Shafts	$ 4,473,000,000
Utilities, Power and Logistics	$ 522,000,000
Construction Sub-Total	**$ 8,769,000,000**
Contingency (38%)	**$ 3,331,000,000**
SOFT COSTS	**$ 3,400,000,000**
DWR Oversite	$ 180,000,000
DCA Program Management Office	$ 420,000,000
DCA Engineering (Design and CM Services)	$ 2,420,000,000
DCA Permits and Agency Coordination	$ 60,000,000
Land Acquisition	$ 320,000,000
ENVIRONMENTAL MITIGATION	**$ 400,000,000**
Mitigation Program	$ 400,000,000
TOTAL	**$15,900,000,000**

[1] All material, labor and equipment rates used to develop the construction costs were based on Year 2020 values.

Design progression

FEATURE	ADVANCEMENTS
Intakes	• Enhanced ground improvements • Enhanced foundation design
Tunnel and Shafts	• Smaller diameter tunnel • Fewer shafts • Enhanced tunnel liner design
Intermediate Forebay	• Eliminated
Pump Station	• New independent structure
Forebay	• Enhanced foundation design • Enhanced seismic stability design
Interconnection to Existing System	• More robust flow control structures • Canals replaced with tunnels to connect structures
Logistics	• Road and rail improvements

As the engineering work advances, we will continue to experience change. This is a natural progression in the design process. We will inevitably identify better ways to achieve objectives or need to adjust for new information.

Future Steps

- **Create a Baseline Program Capital Plan that represents the time-value of money over the 20-year delivery period.**
  - Include the estimated value of all contracts in the year the contracts are scheduled to be procured.
- **Continue developing soft costs, e.g.**
  - Community Benefit Fund
  - DWR Environmental Planning Work
- **Develop final conceptual construction cost estimate when CEQA is approved**
  - Concept design confirmed
  - Final environmental mitigations identified
- **Update Board periodically as new information is developed that affects cost, e.g.**
  - Geotechnical exploration data
  - Major scope changes

Thank You.

Questions?

EXHIBIT D

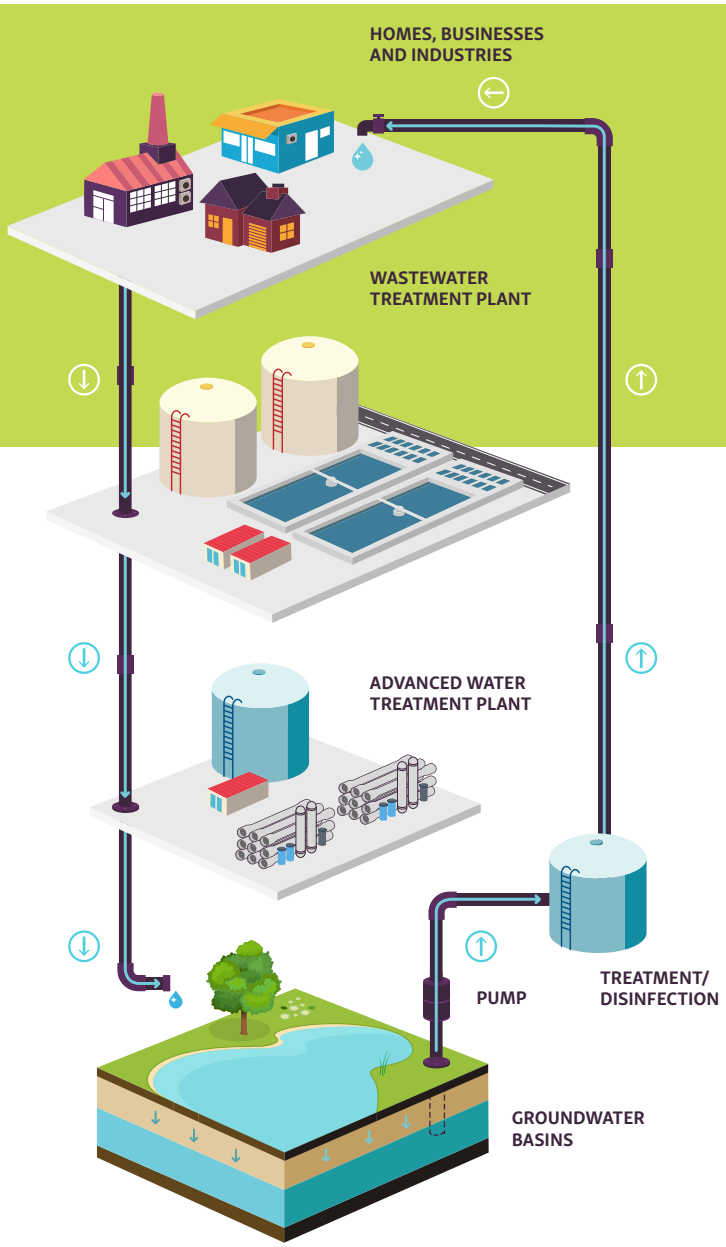
A NEW SOURCE OF WATER FOR SOUTHERN CALIFORNIA

Regional Recycled Water
Advanced Purification Center

Water is too precious to use just once. So the Metropolitan Water District of Southern California is making a major investment in a potential water recycling project that will reuse water currently sent to the ocean. The Regional Recycled Water Program, a partnership with the Sanitation Districts of Los Angeles County, will purify wastewater to produce high quality water that can be used again. The program will start with a demonstration facility and could eventually become one of the largest advanced water treatment plants in the world.

How it works

The process begins with wastewater discharged from homes, businesses and industries. After the wastewater has been cleaned, it flows to an advanced water treatment plant where it is further purified. The water then replenishes groundwater basins, where it may be pumped up and used again. It could also be delivered to industrial facilities and potentially to Metropolitan's water treatment plants and delivery system.



Why it works

- Uses the region's largest untapped source of cleaned wastewater, currently sent to the ocean.
- Produces a drought-proof source of water, readily available rain or shine.
- Prepares the Southland in the event of a catastrophic earthquake by increasing local water supplies.
- Replenishes groundwater basins, which provide 30% of Southern California's water supply and have seen levels drop to historic lows in recent years.
- Considers and accommodates future regulations that could allow the water to flow to Metropolitan's water treatment plants and distribution system.
- Helps meet the needs of the region's growing economy and population at a cost comparable to other local water resources.
- Helps ensure regional water reliability through diversifying sources, in addition to conservation, local supply development and imported water.

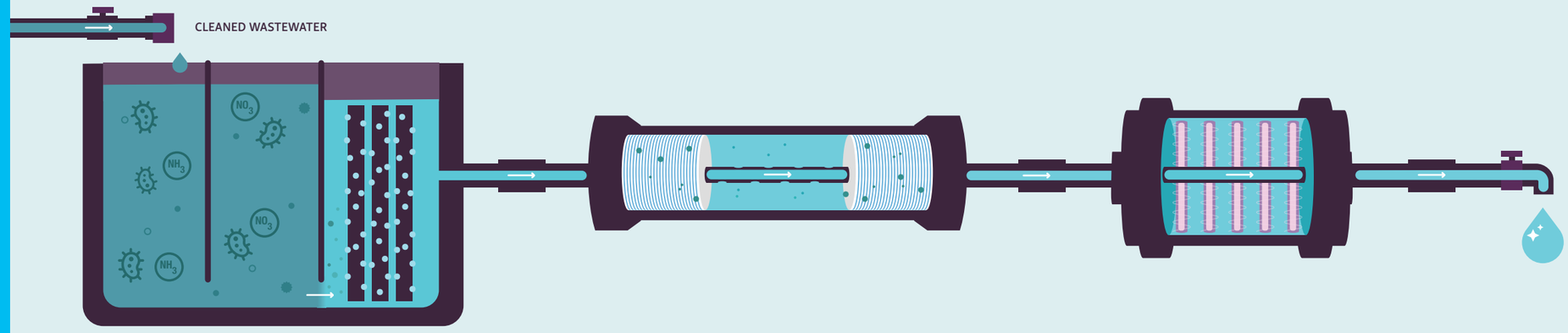
INTRODUCING THE REGIONAL RECYCLED WATER ADVANCED PURIFICATION CENTER

The new Regional Recycled Water Advanced Purification Center is a demonstration facility that takes cleaned wastewater from the Sanitation Districts' Joint Water Pollution Control Plant in Carson and applies a rigorous purification process to ensure the water is safe to reuse. The facility uses both tried and tested water treatment technologies employed across the world for decades and innovative processes to remove contaminants such as pharmaceuticals, pesticides, viruses, bacteria and potentially harmful chemicals down to the microscopic level, leaving only clean water.

THE PURIFICATION PROCESS

After wastewater is cleaned through multiple processes, it flows to the Regional Recycled Water Advanced Purification Center where it goes through a three-step purification process.

The end result is high quality, purified water that is safe to use again.



1 **Membrane Bioreactors:** Microorganisms remove ammonia and other nitrogen compounds, while membranes filter tiny particles, including microorganisms smaller than 1/100 of a grain of sand.

2 **Reverse Osmosis:** Pressurized membranes further remove microscopic materials, such as bacteria, pharmaceuticals and salts, eliminating more than 99% of all impurities.

3 **Ultraviolet/Advanced Oxidation Process:** Ultraviolet light and a powerful oxidant inactivate any remaining viruses and remove trace chemical compounds.

CONTINUING A RECYCLED WATER LEGACY

The past five decades have seen recycled water use in Southern California grow rapidly, for both irrigation and groundwater replenishment.

1962

The Sanitation Districts' Whittier Narrows Water Reclamation Plant becomes the first plant in the U.S. intentionally designed to recycle water, using it to recharge groundwater basins.

1970s

As Southern California's population grows, recycled water lines are constructed alongside new development to irrigate schoolyards, parks and golf courses.

1975

Water Factory 21 begins purifying wastewater in Orange County and using it to replenish and protect groundwater from seawater intrusion. Becomes first plant in the world to use reverse osmosis.

1980s

Wastewater treatment plants add processes to produce more recycled water. Purple pipes are adopted as industry standard to distinguish recycled water for irrigation, firefighting and industrial use.

1980 recycled water usage: 17,000 acre-feet

1990 recycled water usage: 100,000 acre-feet

1995 – 2005

Several new water recycling facilities are built that use reverse osmosis. The resulting water is used for groundwater recharge and industrial use.

2000 recycled water usage: 175,000 acre-feet

2008

Orange County embarks on the largest water reuse project of its kind in the world, eventually purifying 100 million gallons of water daily to replenish groundwater supplies used for drinking. Becomes the gold standard for water recycling.

2010 recycled water usage: 315,000 acre-feet

2014

San Diego advances a water recycling program that for the first time in California would use purified recycled water to fill a drinking water reservoir.

TODAY

Water agencies from Ventura to San Diego continue to take steps towards implementing large recycling projects. The Regional Recycled Water Program will take the rapid growth of recycled water use in Southern California even farther.

2018 recycled water usage: 450,000 acre-feet

1 acre-foot = 325,851 gallons

STARTING SMALL AND SCALING UP

The Advanced Purification Center is a demonstration facility that will generate information needed for the potential future construction of a full-scale advanced water treatment plant. It uses a unique application of membrane bioreactors designed to increase efficiency in the water recycling process. Scientists and engineers will test the process to ensure the resulting purified water meets the highest water quality standards. Once approved by regulators, the innovative process could be used in California and applied around the globe.

ADVANCED PURIFICATION CENTER:

A 500,000 gallon/day demonstration facility. Tours of the site are now available.

Cost: $17 million for construction

Timeline: Operation began in fall 2019

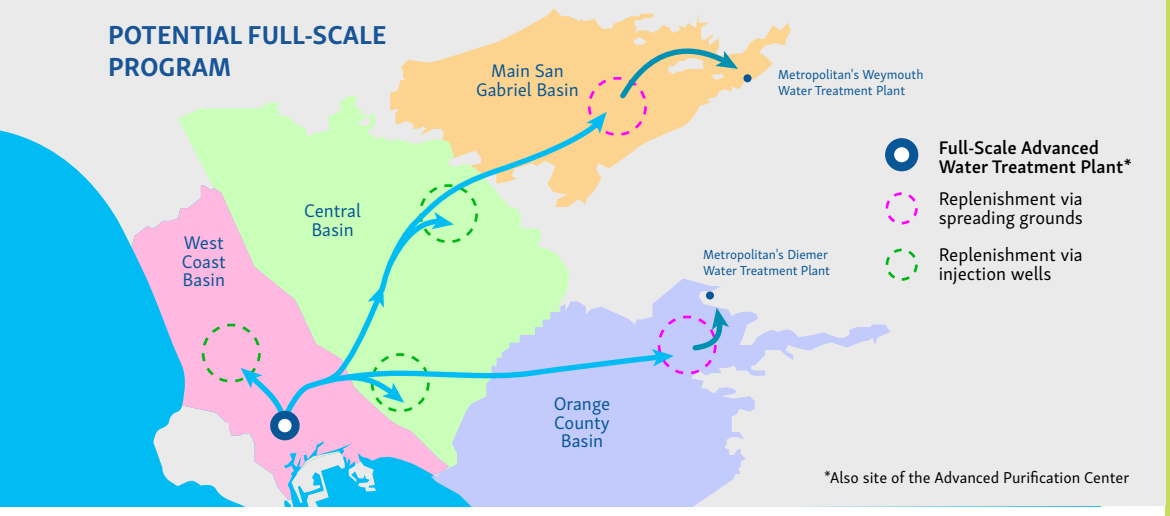
FULL-SCALE ADVANCED WATER TREATMENT PLANT:

A full-scale facility would produce up to 150 million gallons daily or 168,000 acre-feet annually, enough to serve more than 500,000 homes. Purified water could be delivered through over 60 miles of new pipelines to the region's groundwater basins, industrial facilities and potentially two of Metropolitan's water treatment plants.

Cost: $3.4 billion to build, $129 million annually to operate, resulting in a water cost of $1,826/acre-foot

Timeline: Once approved, 11 years to design and build if construct.

POTENTIAL FULL-SCALE PROGRAM



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

SANITATION DISTRICTS OF LOS ANGELES COUNTY

Learn more and find out about tours at **www.mwdh2o.com/rrwp**

THE PARTNERS

The Metropolitan Water District of Southern California is a state-established cooperative of 26 cities and water agencies serving nearly 19 million people in six counties. The district imports water from the Colorado River and Northern California to supplement local supplies, and helps its members to develop increased water conservation, recycling, storage and other resource-management programs.

The Sanitation Districts of Los Angeles County is a regional public agency consisting of 24 independent special districts serving over 5.6 million people in 78 cities and the unincorporated territory within Los Angeles County. The Sanitation Districts protect public health and the environment through innovative and cost-effective wastewater and solid waste management and, in doing so, convert waste into resources such as recycled water, energy and recycled materials.

www.lacsd.org

The Metropolitan Water District of Southern California

700 N. Alameda St.
Los Angeles, CA 90012

P.O. Box 54153
Los Angeles, CA 90054-0153

(213) 217-6000

(800) call-mwd (225-5693)

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EXHIBIT E

Water Authority Special Board Meeting
December 19, 2019[1]
Comments Regarding Subsidence

Kightlinger: Yes. So, let me get into a little bit of that but I want to take a step back Director Smith and talk a little bit about few that how we came up with this idea. And we wanted to know—first of all, let me go back to how, what the rate is on the transportation why that's going up and what we perceive as the value of then locking it down. Our transportation rate has gone up since 2003 to 2018 over a 15-year period we've had history with the, this exchange agreement at 4.6 percent a year. And the reason, and over that same period of time inflation has gone up at 2.6 percent a year. So, it's gone up about 2 percent a year above inflation.

The reason for that delta there between those two numbers has been two main drivers at Metropolitan. One is we are, we have 165 miles of precast concrete pipe, and we bit the bullet and we're lining that entirely with steel. That's about two and a half-billion-dollar proposal or project, program that's going to take 25 years to complete we started on it six years ago. It's running at roughly $40-$50 million a year. It's going to ramp up and that is driving that rate much higher and it's part of aging infrastructure.

The other main driver for us at the moment is our Colorado River Aqueduct. The first significant repairs we did on our Colorado River Aqueduct were in 2003 when we actually had less than a full Aqueduct. And since then every single year, now that we no longer operate at 1.2 million acre-feet of full Aqueduct, we do a shut down every year and we do two to four weeks of repair. Currently that runs $50 million a year. It's going to be $850 million. We programmed over the next 15 years to bring our Colorado River Aqueduct back to full operating capacity.

Those two drivers are pretty expensive transportation-driven costs and they're going to drive Metropolitan's transportation rate literally for the next 20 years. There's some other unknowns out there that we know are coming on. The State Water Project—subsidence is a huge issue. You've all read about it. We have subsidence throughout the entire Central Valley. The preliminary estimates by DWR is they're going to spend somewhere between three and five billion dollars repairing the California Aqueduct over the next generation. That's all transportation. And so all these costs are coming to land on that rate.

You raise the one issue that we did plug in and say we are going to plug this back into that agreed-upon rate is Delta Conveyance. The current number right now as looked at by the Newsom Administration is to build a single tunnel, not the Twin Tunnels. The twin tunnel project was es—cost estimated at $17 billion, the single

[1] Audio available here: https://www.sdcwa.org/sites/default/files/2016-12/Board/2019_Audio/2019_12_19SpecialBoardAudio.mp3

tunnel at $10.5 billion. Metropolitan's share of that $10 billion would be roughly two-thirds as you pointed out. That would eventually be built into that if it ever is built, and we don't know that it will be. Our Board hasn't taken an action on it. It still has to go through environmental review. That's going to be three-to-four years from now. At some point of final decision will be made, not just by the Met Board, but by everybody else. And if so, that'll be plugged in.

But what I would point out is that will be plugged in as part of the settlement proposal. Absent the settlement proposal it'll be plugged in. So it's the same difference. But what in addition will also be plugged in is all our Colorado River Aqueduct costs, absent the settlement all the steel lining cost will be plugged in, and all that State Water Project subsidence which is in here, that'll also all be plugged in because the courts have said that's all legitimate parts of our transportation rate. And so all that will be plugged in regardless. That makes sense?

EXHIBIT F

Estimated Monthly MWD Supplies [1] (AF)

	A	B		C	D	E		F	G	H	I = A+C-D-G-H	J = B-E-F	K = I+j		
	Total MWD Meter Deliveries			Deliveries Through SCWD [2]	QSA Deliveries			SLR Deliveries	Fallbrook Wheeled Deliveries	Mexico Emergency Deliveries	MWD Supply			FY Total	FY Total from MWD Website
Date	Treated	Untreated	Total	Treated	Treated	Untreated	Total	Untreated	Treated	Treated	Treated	Untreated	Total		
7/31/2017	9,648	30,423	40,071	9		14,808	14,808	2,917	-	-	9,657	12,698	22,355		
8/31/2017	10,182	33,752	43,934	8		14,808	14,808	2,059	-	-	10,190	16,885	27,075		
9/30/2017	8,983	30,022	39,004	8		14,808	14,808	501	-	-	8,991	14,712	23,703		
10/31/2017	6,676	28,299	34,975	8		14,808	14,808	915	-	-	6,684	12,576	19,260		
11/30/2017	4,761	26,447	31,208	9		14,808	14,808	-	-	-	4,770	11,639	16,409		
12/31/2017	4,130	24,127	28,257	8		16,435	16,435	-	-	-	4,138	7,693	11,831		
1/31/2018	3,293	19,996	23,289	8		17,308	17,308	2,339	-	-	3,300	349	3,649		
2/28/2018	3,136	20,499	23,635	8		17,308	17,308	2,443	-	-	3,144	747	3,892		
3/31/2018	2,897	19,325	22,222	8		17,308	17,308	1,970	-	-	2,905	47	2,952		
4/30/2018	3,745	28,190	31,935	9		17,308	17,308	3,110	-	-	3,754	7,772	11,526		
5/31/2018	3,566	30,343	33,909	10		17,308	17,308	3,294	-	-	3,576	9,740	13,316		
6/30/2018	4,682	32,927	37,609	11		17,308	17,308	2,480	-	-	4,694	13,139	17,832	173,799	173,822
7/31/2018	5,155	38,662	43,817	13		17,308	17,308	364	-	-	5,167	20,989	26,157		
8/31/2018	7,712	40,149	47,861	13		17,308	17,308	-	-	-	7,725	22,840	30,565		
9/30/2018	6,288	35,808	42,097	12		17,308	17,308	-	-	206	6,095	18,500	24,594		
10/31/2018	3,417	31,949	35,366	11		17,308	17,308	-	-	87	3,341	14,641	17,982		
11/30/2018	9,823	16,364	26,187	10	944	16,364	17,308	-	-	-	8,888	-	8,888		
12/31/2018	4,238	17,374	21,612	7		17,355	17,355	-	-	-	4,244	20	4,264		
1/31/2019	4,742	16,155	20,896	8	217	14,570	14,787	1,584	-	-	4,533	-	4,533		
2/28/2019	2,246	13,730	15,976	7	524	12,776	13,300	955	-	-	1,728	-	1,728		
3/31/2019	2,926	17,283	20,209	8		14,487	14,487	1,078	207	-	2,726	1,718	4,445		
4/30/2019	4,909	22,117	27,025	11	1,124	20,557	21,680	1,560	-	-	3,796	-	3,796		
5/31/2019	3,003	22,481	25,484	12	431	21,249	21,680	1,232	-	-	2,584	0	2,584		
6/30/2019	4,173	24,141	28,314	12		21,680	21,680	1,863	-	-	4,185	598	4,782	134,319	134,684
7/31/2019	4,929	29,903	34,832	14		21,681	21,681	2,293	-	217	4,725	5,929	10,655		
8/31/2019	5,924	34,882	40,807	12		21,681	21,681	2,460	-	217	5,719	10,741	16,460		
9/30/2019	5,922	31,079	37,000	10		21,681	21,681	1,461	-	220	5,712	7,937	13,648		
10/31/2019	6,005	30,535	36,540	9		21,681	21,681	1,514	-	-	6,014	7,341	13,355		
11/30/2019	4,465	21,509	25,974	8	172	21,509	21,681	-	-	-	4,301	-	4,301		
12/31/2019	2,120	19,971	22,091	5	1,711	19,971	21,681	-	-	-	415	-	415		
1/31/2020	3,743	20,426	24,170	5	3,593	18,923	22,517	1,503	-	-	156	0	156		
2/29/2020	4,058	21,037	25,094	8	3,532	18,985	22,517	2,052	-	-	535	-	535		
3/31/2020	2,868	21,708	24,576	9	2,624	19,892	22,517	1,815	-	-	253	-	253		
4/30/2020	5,072	13,700	18,772	11	4,341	12,805	17,146	895	-	-	742	-	742		
5/31/2020	7,851	18,326	26,177	11	6,491	16,026	22,517	2,300	-	-	1,372	-	1,372		
6/30/2020	4,455	20,340	24,795	12	4,241	18,276	22,517	2,064	-	-	226	-	226	62,115	62,852
7/31/2020	5,997	25,360	31,357	11	5,675	22,213	27,888	3,147	-	-	334	-	334		
8/31/2020	5,390	28,532	33,922	14		22,517	22,517	2,023	-	434	4,970	3,992	8,962		
9/30/2020	5,660	27,863	33,523	11		22,517	22,517	20	-	637	5,033	5,326	10,360		
10/31/2020	4,475	24,078	28,553	9		22,517	22,517	30	-	217	4,268	1,531	5,799		
11/30/2020	3,882	23,091	26,973	8		22,517	22,517	50	-	105	3,785	524	4,309		

MWD Supply

Water Authority Sales to Fallbrook PUD and Rainbow MWD [1]

Sales to Fallbrook PUD	Sales to Rainbow MWD
1,264	1,841
873	2,298
1,042	1,774
824	2,285
859	1,250
847	1,857
600	887
638	1,161
419	732
987	1,438
632	1,722
1,283	1,984
1,220	2,168
892	2,531
859	1,725
725	1,732
762	1,129
383	702
341	362
223	244
391	424
669	1,337
302	1,074
834	1,227
962	2,189
820	1,986
1,063	1,538
786	1,956
920	852
158	531
414	536
491	779
365	416
483	723
587	1,479
774	1,494
1,246	2,090
779	1,731
1,074	2,441
778	1,405
614	1,158

1. Source: DAIS database
2. Deliveries through South Coast Water District's system

EXHIBIT G

[No. D042529. Fourth Dist., Div. One. July 21, 2004.]

RINCON DEL DIABLO MUNICIPAL WATER DISTRICT et al., Plaintiffs and Appellants, v.
SAN DIEGO COUNTY WATER AUTHORITY et al., Defendants and Respondents.

SUMMARY

Five water districts sued the San Diego County Water Authority (SDCWA) to invalidate a portion of SDCWA's ordinance setting the transportation rate, which was a component of SDCWA's water rate. The trial court granted summary judgment in favor of SDCWA. (Superior Court of San Diego County, No. GIC 798230, Kevin A. Enright, Judge.)

The Court of Appeal affirmed. The court held that the transportation rate was not a capacity charge under Gov. Code, § 66013. Historically, water rates were usually used to recover all costs incurred in providing water, including the costs of building, maintaining, and improving the water system. Further, county water authorities were required to set rates to pay for bonded indebtedness. Nothing in the language of § 66013 nor in its legislative history expressed an intention to impose a new standard on water rates. Although the transportation rate was a postage stamp rate rather than a block rate, the transportation rate was not designed to replace property tax revenue lost due to Proposition 13, nor was there any indication the Legislature intended to revise the statutory scheme governing water rates. Even if the transportation rate were held to be a capacity charge, it did not violate § 66013. The total revenue collected through the transportation rate did not exceed the capital, maintenance, and operating costs of SDCWA's aqueduct, nor did the capital portion of the rate exceed the capital costs of the aqueduct. SDCWA satisfied the test for establishing that the transportation rate was a regulatory fee and not a special tax by apportioning costs based upon the benefits received—the amount of acre-feet of water delivered. The trial court correctly concluded the transportation rate was reasonable under § 66013. (Opinion by O'Rourke, J., with Benke, Acting P. J., and Irion, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1) **Waters § 184—Public Utilities Selling Water—Rate Fixing—Capacity Charge.**—Gov. Code, § 66013, subd. (b)(3), defines a capacity charge as a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged.

(2) **Waters § 184—Public Utilities Selling Water—Rate Fixing—Capacity Charge—User Rates—Special Assessments—County Water Authority's Transportation Rate Not a Capacity Charge.**—Water rates are considered user or commodity charges, because they are based on the actual consumption of water. User rates are functionally distinct from special assessments, which are compulsory charges levied against certain properties for public improvements that directly or indirectly benefit the property owner and are not related to the use of the public improvement. Further, the power to set water rates comes from the public agency's proprietary and quasi-public capacity, while the power to impose special assessments or other capital charges derives from the taxing power. On the other hand, water rates are not distinguished from taxes by their use to fund capital improvements. Historically, water rates are usually used to recover all costs incurred in providing water, including the costs of building, maintaining, and improving the water system. Further, county water authorities are required to set rates to pay for bonded indebtedness. For these reasons, the transportation rate, which was part of a county water authority's water rate, was not a capacity charge under Gov. Code, § 66013.

[4 Witkin, Summary of Cal. Law (9th ed. 1987) Real Property, § 49.]

(3) **Waters § 184—Public Utilities Selling Water—Rate Fixing—No Legislative Intent to Impose a New Standard on Water Rates.**—Nothing in the language of Gov. Code, § 66013, nor in its legislative history expresses an intention to impose a new standard on water rates.

(4) **Waters § 184—Public Utilities Selling Water—Rate Fixing—Capacity Charge.**—It is not reasonable to assume the Legislature intended its definition of capacity charge in Gov. Code, § 66013, subd. (b)(3), to abolish the distinctions among the various types of governmental revenue sources, each of which is governed by its own statutory scheme.

(5) Waters § 184—Public Utilities Selling Water—Rate Fixing—Capacity Charge—Transportation Rate Not a Capacity Charge.—Neither the transportation rate nor the capital portion of that rate is a capacity charge under Gov. Code, § 66013.

(6) Waters § 184—Public Utilities Selling Water—Rate Fixing—Capacity Charge.—A capacity charge does not violate Gov. Code, § 66013, unless it exceeds the cost of providing the service.

(7) Waters § 184—Public Utilities Selling Water—Rate Fixing—Test for Establishing Whether a Fee is a Regulatory Fee—Transportation Rate.—To show a fee is a regulatory fee and not a special tax, the government should prove: (1) the estimated costs of the service or regulatory activity, and (2) the basis for determining the manner in which the costs are apportioned, so that charges allocated to a payor bear a fair or reasonable relationship to the payor's burdens on or benefits from the regulatory activity. A county water authority's transportation rate satisfied that test by apportioning costs based upon the benefits received—the amount of acre-feet of water delivered.

COUNSEL

Glenn, Wright, Jacobs & Schell, Kent H. Foster and Donald R. Worley for Plaintiffs and Appellants.

Fox & Sohagi, Margaret Moore Sohagi, Philip A. Seymour; and Daniel S. Hentschke for Defendants and Respondents.

OPINION

O'ROURKE, J.—Rincon Del Diablo Municipal Water District, Vallecitos Water District, Valley Center Municipal Water District, Vista Irrigation District and Yuima Municipal Water District (collectively the Northern Districts) sued the San Diego County Water Authority (SDCWA) and all other interested persons to invalidate the portion of SDCWA's Ordinance No. 2002-03 (the Ordinance) setting the transportation rate, a component of the water rate. After the parties each filed summary judgment motions, the court granted summary judgment in favor of SDCWA. The Northern Districts appeal, contending: (1) the capital portion of the transportation rate (capital portion) is a capacity charge as defined by Government Code section 66013[1];

[1] All further statutory references are to the Government Code unless otherwise specified.

and (2) the capital portion violates section 66013 because it is not reasonable. We affirm.

FACTUAL AND PROCEDURAL HISTORY

SDCWA is an independent public agency operating under the authority of the County Water Authority Act. (Wat. Code, App., ch. 45.) It provides wholesale water service to 23 member agencies, including the Northern Districts. SDCWA purchases all the water it provides from the Metropolitan Water District of Southern California (MWD). That water enters SDCWA's aqueduct system at turnover points located near the border of San Diego and Riverside Counties.

The Northern Districts comprise five of the water districts in the northeastern section of San Diego County, which are near the turnover points. Because MWD water enters at the northern boundary of San Diego County, the Northern Districts use less of SDCWA's aqueduct system than those water districts in the southern part of San Diego County. In 1998, the agencies comprising the Northern Districts plus Fallbrook Public Utility System and Rainbow Municipal Water District formed the Economic Study Group (ESG) and hired Bookman-Edmonston Engineering to conduct a study of SDCWA's water rates and propose modifications "to fairly reflect the cost of service . . . to ESG members." The ESG Study allocated pipeline capital costs and system maintenance based upon the length of the pipeline needed to provide water to the various agencies. Under that analysis, the Northern Districts would pay 4.2 percent of total pipeline capital costs instead of the 14 percent they had been paying.

Historically, SDCWA charged a flat dollar rate for each acre-foot of water. Such a flat fee is also known as a "postage stamp" water rate. In November 1998, SDCWA retained A&N Technical Services to analyze and evaluate various water rate structures and recommend a revised rate structure. Based on that analysis, SDCWA staff prepared a rate study in 2000 that unbundled water rates into four categories, one of which is the transportation rate. The transportation rate captures the capital costs as well as the operating and maintenance costs of SDCWA's aqueduct system, excluding the costs to operate the system as a whole or significant portions of the system. The capital costs recovered by the transportation rate comprise about 75 percent of the total revenue recovered. The operations and maintenance portion of the transportation rate recovers about 74 percent of the costs of SDCWA's operations and maintenance department, 70 percent of its engineering department, 75 percent of its right-of-way department, as well as other costs.

The SDCWA rate study analyzed the following cost allocations for the transportation rate: (a) point-to-point, which is based upon distance from

MWD delivery point and peak capacity; (b) zones of cost, which separates the system into four geographic zones from north to south; (c) shareholder, which captures the historic financial contributions of each agency based upon its voting shares; and (d) postage stamp, which is a uniform charge per acre-foot of water. The study also computed relative percentages of costs to each water agency under each method and under the ESG proposal.

In April 2002, the SDCWA (the Board) Board adopted the proposed rate structure recommended by a subcommittee it had established to review the SDCWA rate study. The Board submitted the rate structure it adopted to a peer review, which concluded that the rate structure is "consistent with cost of service principles . . . and reasonably allocates [SDCWA's] cost of service to each of its member agencies." The review further states: "Under typical cost of service allocations, transmission and distribution related costs are allocated to customers based upon peaking. This is due to the fact that these facilities are designed to handle customer peak demands. However, in SDCWA's case, all member agencies are treated as a single class, as a result this allocation is less relevant and their use of a uniform rate is appropriate. [¶] Two other allocation methods for this service category that are discussed in the rate report and are commonly considered to have cost of service qualities are the point-to-point allocation and zones of cost allocation. These alternatives are considered particularly when system costs may vary by zone or distance. Although these allocation approaches are sometimes considered, in our experience, they are not typical due to the fact that systems are often integrated and it is difficult to identify discrete costs."

On June 27, 2002, the Board adopted the Ordinance that incorporated the new water rate. The water rate consists of a customer service charge, an emergency storage program charge, the transportation rate, a supply charge that includes a capacity reservation charge and a readiness-to-serve charge, and an infrastructure access charge. The Ordinance did not affect the standby availability charge or the capacity charge.[2] The Ordinance sets the transportation rate at $55 for each acre-foot of water. Revenue from the transportation rate and the other components of water sales are placed in SDCWA's general fund and are not segregated to fund capital costs. The transportation rate is also the charge for "wheeling," which is "[t]he use of a water conveyance facility by someone other than the owner or operator to transport water . . . ." (*Metropolitan Water District v. Imperial Irrigation Dist.* (2000) 80 Cal.App.4th 1403, 1407 [96 Cal.Rptr.2d 314] (*MWD*).)

On October 17, 2002, the Northern Districts filed their complaint to invalidate the Ordinance under Government Code section 66022 and

[2] SDCWA's capacity charge is a one-time charge to new water customers based on the size of the water meter they require.

Code of Civil Procedure sections 860 et seq., alleging the Ordinance violates Government Code section 66013. The parties filed cross-motions for summary judgment. The court denied the motion brought by the Northern Districts and granted SDCWA's motion. The court ruled the transportation rate is not a capacity charge under Government Code section 66013 because it "is not a charge for 'facilities' within the meaning of the statute but rather a charge for the delivery of water." The court further ruled that "[e]ven if the Transportation Rate were a capacity charge, it does not exceed the estimated reasonable cost of providing the service."

DISCUSSION

I. *Section 66013*

(1) Section 66013, subdivision (a) provides, "fees for water connections or sewer connections, or . . . capacity charges . . . shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed . . . ." Subdivision (b)(3) defines a capacity charge as "a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged."

The facts are undisputed in the instant case. "Where the material facts are conceded or undisputed, as in this case, the issue becomes one of statutory interpretation and therefore is purely a question of law" that we review de novo. (*San Diego County Water Authority v. Metropolitan Water District of Southern California* (2004) 117 Cal.App.4th 13, 22 [11 Cal.Rptr.3d 446] (*MWD*).)

"When interpreting a statute our primary task is to determine the Legislature's intent. [Citation.] In doing so we turn first to the statutory language, since the words the Legislature chose are the best indicators of its intent." (*Freedom Newspapers, Inc. v. Orange County Employees Retirement System* (1993) 6 Cal.4th 821, 826 [25 Cal.Rptr.2d 148, 863 P.2d 218].) "But the 'plain meaning' rule does not prohibit a court from determining whether the literal meaning of a statute comports with its purpose . . . . Literal construction should not prevail if it is contrary to the legislative intent apparent in the statute." (*Lungren v. Deukmejian* (1988) 45 Cal.3d 727, 735 [248 Cal.Rptr. 115, 755 P.2d 299].) " ' "Statutes should be construed so as to be given a reasonable result consistent with the legislative purpose." [Citations.] . . . "The court should take into account matters such as context, the object in view, the evils to be remedied, the history of the times and of legislation upon the same subject, public policy, and contemporaneous construction." ' "

(Carlton Santee Corp. v. Padre Dam Mun. Water Dist. (1981) 120 Cal.App.3d 14, 25 [174 Cal.Rptr. 413] (*Carlton Santee Corp*).)

II. *Capacity Charges*

The Northern Districts contend the capital portion, which is approximately 75 percent of the transportation rate, is a capacity charge under the plain meaning of section 66013, subdivision (b)(3) because the aqueduct system and its pipelines are facilities that benefit the member agencies in that they are needed to deliver water to the member agencies. Under that interpretation, the Northern Districts contend the capital portion is a special assessment and not a user fee.

(2) Under California case law, water rates are considered user or commodity charges because they are based on the actual consumption of water. (*Howard Jarvis Taxpayers Assn. v. City of Los Angeles* (2000) 85 Cal.App.4th 79, 83 [101 Cal.Rptr.2d 905] [ruling that water rates are not governed by Prop. 218]; *Isaac v. City of Los Angeles* (1998) 66 Cal.App.4th 586, 595–597 [77 Cal.Rptr.2d 752] (*Isaac*).) User rates are functionally distinct from special assessments, which are compulsory charges levied against certain properties for public improvements that directly or indirectly benefit the property owner and are not related to the use of the public improvement. (*Isaac*, at pp. 595–597; *San Marcos Water Dist. v. San Marcos Unified School Dist.* (1986) 42 Cal.3d 154, 161–162 [228 Cal.Rptr. 47, 720 P.2d 935] (*San Marcos*).) Further, the power to set water rates comes from the public agency's "proprietary and quasi-public capacity" (*County of Inyo v. Public Utilities Com.* (1980) 26 Cal.3d 154, 161 [161 Cal.Rptr. 172, 604 P.2d 566]), while the power to impose special assessments or other capital charges derives from the taxing power. (*Inglewood v. County of Los Angeles* (1929) 207 Cal. 697, 703–704 [280 P. 360].) "[T]he utility customer's agreement to pay a certain rate for a certain usage of utilities is a contractual obligation, and is far removed from the revenue raising devices of assessments and taxes." (*Isaac, supra,* at p. 597.) On the other hand, water rates are not distinguished from taxes by their use to fund capital improvements. Historically, water rates are usually used to recover all costs incurred in providing water, including the costs of building, maintaining and improving the water system. (*Hansen v. City of Buenaventura* (1986) 42 Cal.3d 1172, 1181 & fn. 9 [233 Cal.Rptr. 22, 729 P.2d 186].) Further, county water authorities are required to set rates to pay for bonded indebtedness. (71 West's Ann. Water Code, Appen., § 45-7, subd. (j).) For these reasons, the transportation rate, which is part of SDCWA's water rate, is not a capacity charge.

(3) We do not presume the Legislature " ' "intends to overthrow long-established principles of law unless such intention is made clearly to appear

either by express declaration or by necessary implication." ' " (*Fuentes v. Workers' Compensation Appeals Board* (1976) 16 Cal.3d 1, 7 [128 Cal.Rptr. 673, 547 P.2d 449].) Nothing in the language of section 66013 nor in its legislative history expresses an intention to impose a new standard on water rates. Section 66013, formerly codified as section 54991,[3] was enacted by Senate Bill No. 1454. The Senate Local Government Committee explained the impetus for the bill: "In 1981, the Legislature limited several types of local planning and development fees to the 'estimated reasonable cost of providing the service for which the fee is charged.' Charges above that level are treated as special taxes, subject to 2/3 voter approval [citation]. . . . [¶] When they approve development projects, local officials often require developers to install public facilities, dedicate land, or pay in lieu fees. These requirements are commonly called 'exactions' and are authorized by several statutes and local governments' inherent powers. Some developers believe that some local exactions are excessive; neither fair nor reasonable. They want to create a statutory test." (Sen. Local Government Com., Rep. on Sen. Bill No. 1454 (1985–1986 Reg. Sess.) Jan. 9, 1985.)

As introduced, Senate Bill No. 1454 required a broad definition of local government fees[4] and exactions to "not exceed the estimated reasonable cost of providing the service or facility for which the fee is charged . . . ." The bill's first amendment specifically excluded from that broad definition "taxes, special assessments, or charges by a utility for water, sewer, gas, or electric services" and clarified that it did include "charges for water or sewer connections or *capacity charges*." (Italics added.) The bill's second amendment, dated April 29, 1985, narrowed the bill's scope still further to development fees, other specifically defined fees, and capacity charges, which it defined. The language of the portion of the April 29, 1985 amendment that became section 66013 was not changed by the bill's subsequent amendments. The Assembly described Senate Bill No. 1454 as "[a]llow[ing] local agencies which provide water and sewer services to levy various fees including standby or availability fees, benefit assessments, and user fees." (Assem. 3d reading analysis of Sen. Bill No. 1454 (1985–1986 Reg. Sess.) Aug. 26, 1986.) This legislative history does not show the Legislature intended to impose a new standard on water rates.

[3] In 1990, former section 54991 was recodified as section 66013. Although former section 66013 has been amended by adding additional sections, those amendments did not change the relevant sections of former section 54991.

[4] The bill defined "fees" as "any monetary imposition or dedication or reservation of land imposed by a local agency from which the local agency derives revenues in excess of one hundred dollars ($100) per year."

The Northern Districts base their contention the capital portion is a special assessment upon *San Marcos*, *supra*, 42 Cal.3d 154.[5] In *San Marcos*, the Supreme Court held that "a one-time fee for capital improvements paid at the time of connection [and] based on anticipated sewage discharge" (*San Marcos,* at p. 159, italics omitted) is a special assessment from which public entities are exempt under article XIII section 3, subdivision (b) of the California Constitution unless "the Legislature authorizes [the] payment." (*San Marcos*, at p. 165, italics omitted.) The court held that although the fee, which was called a capacity fee, was a hybrid between a special assessment and a user charge, it would follow previous appellate court cases and "look[] to the *purpose* of the fee being charged, and not simply to the *form* of the fee . . . ." (*Id.* at p. 163.) However, the Supreme Court rejected the argument that *San Marcos* established a broad rule applicable to cases not brought under article XIII, section 3 of the California Constitution: "In deciding what constituted an assessment in *San Marcos*, we sought to determine and effectuate the constitutional purpose for exempting public entities from property taxes, a purpose that plays no role in interpreting the provisions . . . that are at issue here." (*Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, 422 [9 Cal.Rptr.3d 121, 83 P.3d 518] [analyzing art. XIII D of the Cal. Const.].) Further, *San Marcos* was decided on July 21, 1986, *after* the Legislature defined "capacity charge" in the April 25, 1985 amendment. For these reasons, we do not find *San Marcos* useful in "this strikingly different context." (*Richmond v. Shasta Community Services Dist.*, *supra*, 32 Cal.4th at p. 422.)

(4) Further, the Northern Districts' application of the "purpose test" of *San Marcos* ignores the traditional distinctions between different types of governmental revenue. Under the Northern Districts' interpretation, the sole criteria for determining whether a fee is a capacity charge is whether some portion of the revenue from that fee is expended on capital facility costs. Because most public agencies spend some portion of their funds to pay facility costs, at least a portion of every fee, charge, special assessment and many other taxes imposed by most agencies would be a capacity charge, including parking fees, recreational fees, and rental fees. It is not reasonable to assume the Legislature intended its definition of capacity charge to abolish the distinctions among the various types of governmental revenue sources, each of which is governed by its own statutory scheme.

(5) In reaching our conclusion, we reject the Northern Districts' contention the capital portion must be a capacity charge in order to adhere to the spirit of Proposition 13. In *Brydon v. East Bay Mun. Utility Dist.* (1994) 24 Cal.App.4th 178 [29 Cal.Rptr.2d 128], the court explained that block water

[5] The legislative history makes clear the Legislature was aware of *San Marcos* prior to the passage of Senate Bill No. 1454.

rates, which charge a higher amount per unit for water usage over a certain threshold, do not fall under Proposition 13: "The inclining block rate structure bears none of the indicia of taxation which California Constitution, article XIII A purported to address. The rate structure was not designed to replace property tax monies lost in consequence of the enactment of California Constitution, article XIII A. The rates were levied against water consumers in accordance with patterns of usage, and at no cost to taxpayers generally. The incremental rate was not compulsory to the extent that any consumer had the option of reducing his or her consumption. [¶] At the time of the enactment of California Constitution, article XIII A, the structure, procedure and standards for utility rate assessment were firmly established. . . . [¶] . . . [¶] Significantly, there is nothing in the legislative history of California Constitution, article XIII A which would remotely suggest an intention to accomplish a wholesale revision of the Public Utilities Code as to ratemaking procedure." (*Brydon v. East Bay Mun. Utility Dist.*, supra, 24 Cal.App.4th at p. 194.) Although the transportation rate is a postage stamp rate rather than a block rate, we find the analysis in *Brydon* compelling. The transportation rate was not designed to replace property tax revenue lost due to Proposition 13 nor is there any indication the Legislature intended to revise the statutory scheme governing water rates. For these reasons, neither the transportation rate nor the capital portion of that rate is a capacity charge under section 66013.

III. *Reasonableness*

(6) Even if the transportation rate were held to be a capacity charge, it does not violate section 66013. Subdivision (a) of section 66013 provides in part: "[W]hen a local agency . . . imposes capacity charges, those fees or charges shall not exceed *the estimated reasonable cost of providing the service for which the fee or charge is imposed* . . . ."[6] (Italics added.) Under the language of the statute, a capacity charge does not violate section 66013 unless it exceeds the cost of providing the service. The Northern Districts do not contend the total revenue collected through the transportation rate exceeds the capital, maintenance and operating costs of SDCWA's aqueduct, nor do they contend the capital portion exceeds the capital costs of the aqueduct. Therefore, the transportation rate and the capacity portion do not violate section 66013.

[6] Subdivision (a) of section 66013 provides: "Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or *imposes capacity charges*, those fees or charges shall not exceed *the estimated reasonable cost of providing the service for which the fee or charge is imposed*, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue." (Italics added.)

The Northern Districts contend section 66013 requires they be charged only the costs attributable to their specific burden on the system. They argue we must read subdivisions (a) and (b)(3) of section 66013 together as follows: "[F]acilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future" (§ 66013, subd. (b)(3)) "shall not exceed the estimated reasonable cost" (§ 66013, subd. (a)) "to the person or property being charged" (§ 66013, subd. (b)(3)) "of providing the service for which the fee or charge is imposed" (§ 66013, subd. (a)). We do not believe the Legislature intended we understand section 66013 through such a contorted juxtaposition of subdivisions (a) and (b)(3). Further, when the Legislature intends a fee to be based upon a particular user's burden on the facility, it has stated that intention clearly, even within the Fee Mitigation Act of which section 66013 is a part. For example, section 66001 provides that a local agency imposing a development fee "shall determine how there is a reasonable relationship between the *amount of the fee* and the *cost* of the public facility or portion of the facility *attributable to the development* on which the fee is imposed." (§ 66001, subd. (b), italics added.)

The Northern Districts also contend the legislative history of Senate Bill No. 1454 supports their interpretation. The bill as introduced limited charges: "The reasonable cost of providing a service or facility, including any equipment, shall be determined by the local agency allocating a share of the costs of the service or facility among all potential users of the service or facility based upon *a reasonable estimate of the burden on the public service or public facility directly attributable to the individual or parcel of property being charged*." (Italics added.) However, the April 29, 1985 amendment that added capacity charges also added the same limitation as now contained in section 66013, subdivision (a): "the estimated reasonable cost of providing the service for which the fee or charge is imposed." That amendment and future amendments limited the language upon which the Northern Districts rely *only* to development fees.

(7) The Northern Districts also rely on cases applying the following test: to show a fee is a regulatory fee and not a special tax, the government should prove "(1) the estimated costs of the service or regulatory activity, and (2) the basis for determining the manner in which the costs are apportioned, so that charges allocated to a payor bear a fair or reasonable relationship to the payor's *burdens on or benefits from* the regulatory activity." (*California Assn. of Prof. Scientists v. Department of Fish & Game* (2000) 79 Cal.App.4th 935, 945 [94 Cal.Rptr.2d 535] (*Fish & Game*), italics added; *Sinclair Paint Co. v. State Bd. of Equalization* (1997) 15 Cal.4th 866, 878 [64 Cal.Rptr.2d 447, 937 P.2d 1350]; *San Diego Gas & Electric Co. v. San Diego County Air Pollution Control Dist.* (1988) 203 Cal.App.3d 1132, 1146 [250 Cal.Rptr.

420].) In this case, the transportation rate satisfies that test by apportioning costs based upon the *benefits received*—the amount of acre-feet of water delivered.

Further, numerous cases have upheld flat fees in various contexts. Prior to the passage of section 60013, we upheld a uniform sewer connection fee for each residential household. (*Carlton Santee Corp., supra,* 120 Cal.App.3d 14.) Stating that a "site-specific review" is not required, courts have also upheld flat-rate development fees (*Garrick Development Co. v. Hayward Unified School Dist.* (1992) 3 Cal.App.4th 320 [4 Cal.Rptr.2d 897] [flat fee per square foot]; see also *Canyon North Co. v. Conejo Valley Unified School Dist.* (1993) 19 Cal.App.4th 243 [23 Cal.Rptr.2d 495] [same]) and flat regulatory fees (*Fish & Game, supra,* 79 Cal.App.4th 935 [filing fees for review of CEQA documents]). Moreover, a flat-rate water wheeling fee was upheld over SDCWA's argument that the fee should have been based on the distance the water traveled through the aqueduct. (*MWD, supra,* 80 Cal.App.4th at pp. 1431–1432.) For these reasons, the trial court correctly held the transportation rate was reasonable under section 66013.

DISPOSITION

The judgment is affirmed. Appellants are to pay costs on appeal.

Benke, Acting P. J., and Irion, J., concurred.

Appellants' petition for review by the Supreme Court was denied November 17, 2004. Brown, J., did not participate therein.

ATTACHMENT 2

STRATECON 12/31/2020 REPORT ON METROPOLITAN LAFCO SUBMISSION

STRATECON INC.

December 31, 2020

VIA Email

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

Dear Mr. Hattam:

RE: Comments on Proposals by Rainbow Municipal Water District and Fallbrook Public Utility District, Reference Nos. RO20-04 and RO20-05 by the Metropolitan Water District of Southern California

The San Diego County Water Authority ("Water Authority") asked *Stratecon Inc* to review the above captioned submission by the Metropolitan Water District of Southern California ("Metropolitan") to the San Diego Local Agency Formation Commission ("LAFCO") dated September 17, 2020. Based on the information and analysis provided below, in my professional opinion, I conclude that Metropolitan's submission incorrectly states that the detachment would have no impact on the reliability of water service for Fallbrook and Rainbow customers and no increase in Metropolitan's reliance on water exports from the Bay Delta.[1]

The proposed reorganization will reduce the water supply reliability for residents in Fallbrook and Rainbow. By detaching from the Water Authority, Fallbrook and Rainbow would walk away from the Water Authority's superior water supply portfolio based on (i) more senior Priority 3 Colorado River water rights than Metropolitan's Priority 4 Colorado River water rights, and (ii) the drought-proof Carlsbad seawater desalination project. After detachment, Fallbrook and Rainbow's residents would have water service backed only by Metropolitan's junior Colorado River rights and a greater reliance on the notoriously variable State Water Project water supplies imported from the Bay Delta.

The proposed reorganization will also increase Metropolitan's reliance on the Bay Delta. As explained below, the Water Authority's water sources are less reliant on the Bay Delta than Metropolitan. Therefore, the detachment will increase Southern California's reliance on Northern California and the environmentally sensitive Bay Delta for water supplies, particularly in the years to come as the Water Authority continues to reduce its reliance on Metropolitan water service.

[1] See Attachment A for professional qualifications.

The discussion starts with the Water Authority's sources and use of water supply to provide the factual context to address the following issues discussed in Metropolitan's submission:

- Metropolitan Sources of Water
- Metropolitan's Water Sales and Deliveries to the Water Authority and Eastern Municipal Water District ("Eastern")
- Metropolitan Exchange Deliveries to the Water Authority
- Metropolitan's Emergency Storage
- Water Supply Reliability Issues Related to the Proposed Reorganization (water supply originating from Metropolitan and impact on the Bay Delta)

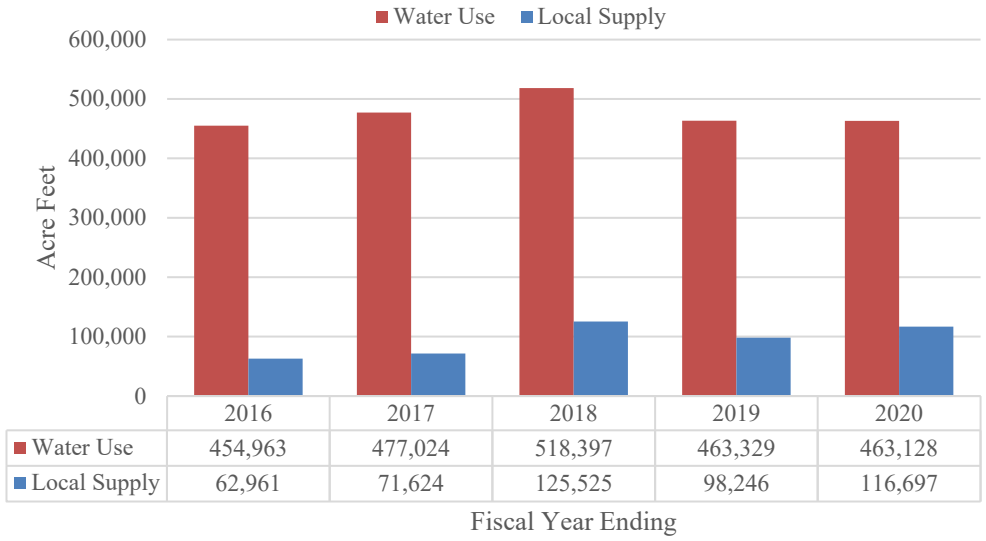
The discussion concludes by addressing Metropolitan's history of its rates and charges and the key drivers of its future. While the detachment proposals by Fallbrook and Rainbow bet on Metropolitan's future rates and charges, Metropolitan's submission is notably silent on that subject.

Water Authority's Sources and Use of Water Supplies

As the wholesale water provider in San Diego County, the Water Authority meets member agency water demands that exceed local supplies (see Figure 1).[2] Over the past five fiscal years, Water Authority service area water use increased from 454,963 acre-feet in Fiscal Year 2015-16, peaked at 518,397 acre-feet in Fiscal Year 2017-18 and fell to slightly above 463,000 acre-feet the following two fiscal years. Over the same period, member agencies' local supplies ranged between 62,961 acre-feet and 125,525 acre-feet.

[2] Compiled from Water Authority's Annual Reports, Fiscal Year 2015-2016 through Fiscal Year 2019-2020.

Figure 1
Water Authority Member Agency Water Use and Local Supply



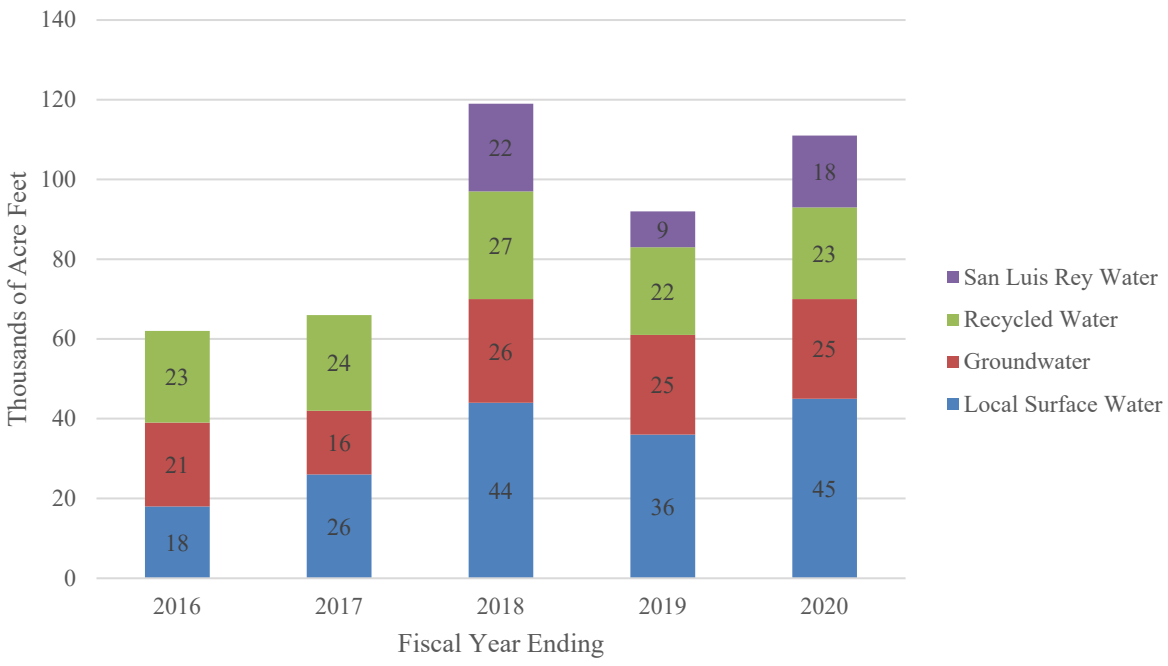
	2016	2017	2018	2019	2020
Water Use	454,963	477,024	518,397	463,329	463,128
Local Supply	62,961	71,624	125,525	98,246	116,697

Fiscal Year Ending

These member agencies' supplies are collectively comprised of local surface water, groundwater, recycled water, and Colorado River water received under San Luis Rey settlement (see Figure 2).[3] Local surface water is the most volatile local supply source, ranging from 18,000 acre-feet to 45,000 acre-feet annually, whereas groundwater and recycled water supplies are relatively stable. With water deliveries starting in Fiscal Year 2017-18, San Luis Rey water became another source of local water supply.

[3] *Ibid*.

Figure 2
Composition of Member Agency Local Supplies



The Water Authority serves its member agency customers using IID transfer water, canal lining water and desalinated seawater as a base supply and purchases of Metropolitan water as a supplemental supply (see Figure 3).[4] The volume of transfer water from the Imperial Irrigation District has increased over the past five fiscal years and will stabilize at its maximum annual quantity of 200,000 acre-feet in 2021. Canal lining water is at long-term annual volume of about 78,700 acre-feet, inclusive of the unused water from environmental mitigation projects the Water Authority is projected to receive. Desalinated seawater is approaching its maximum annual volume of 50,000 acre-feet. With the expansion of the Water Authority's base supply, coupled with increased rainfall in four of the past five years, purchases from Metropolitan have declined by more than 100,000 acre-feet per year over the past five fiscal years.

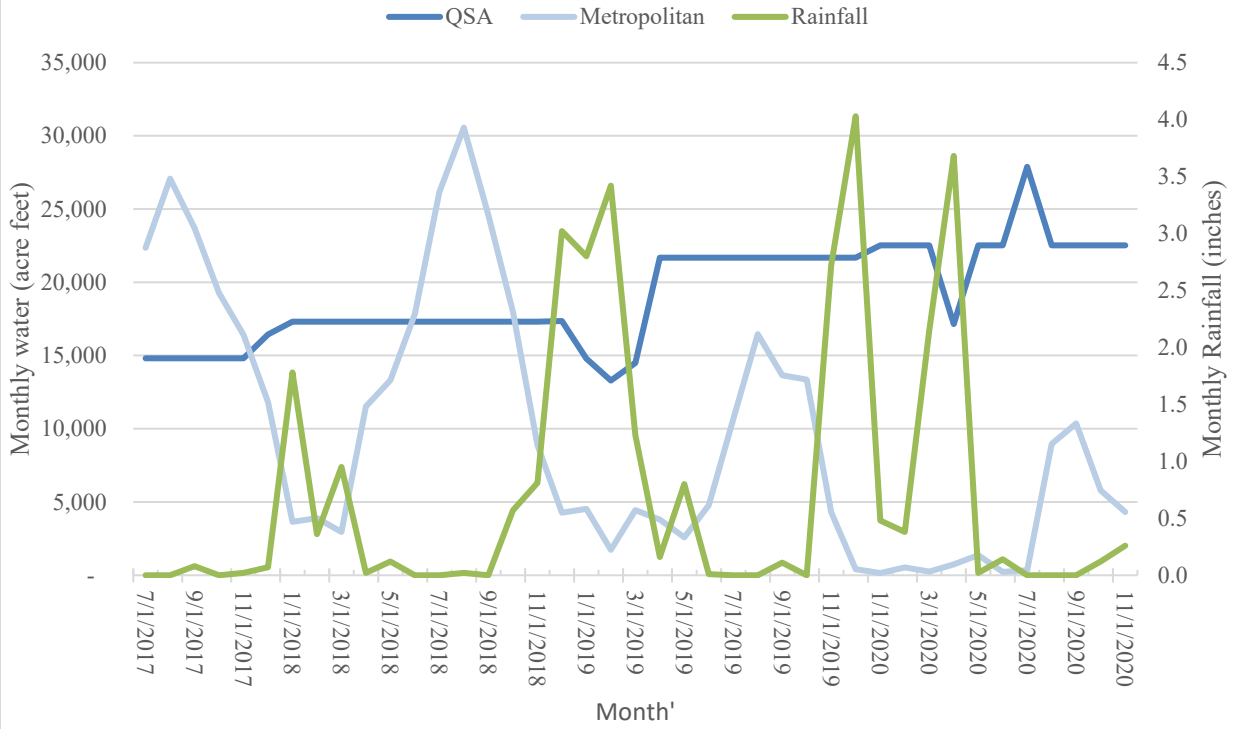
[4] *Ibid*.

Figure 3
Water Authority Sources of Water

The supplemental nature of the Water Authority's purchases of Metropolitan water is demonstrated by the monthly volatility of the delivery of Metropolitan water versus the monthly delivery of IID transfer and Canal Lining water ("QSA water"), which are part of the Water Authority's base supply—see Figure 4.[5] Increased rainfall reduces member agency demand for water and increases local surface water supplies; thereby, reducing the demand for supplemental water supplies from Metropolitan. Reflecting the supplemental nature of the Water Authority's purchases of Metropolitan water, monthly variation in rainfall explains 15 percent of the monthly variation in the delivery of Metropolitan water.[6] By contrast, monthly variation in rainfall explains less than 3 percent of the monthly variation in the delivery of QSA water.[7]

[5] Data from Water Authority. Rainfall is monthly rainfall at Lindbergh Field.
[6] Calculated with the data for monthly rainfall and monthly delivery of Metropolitan water.
[7] Calculated with data for monthly rainfall and monthly delivery of QSA water.

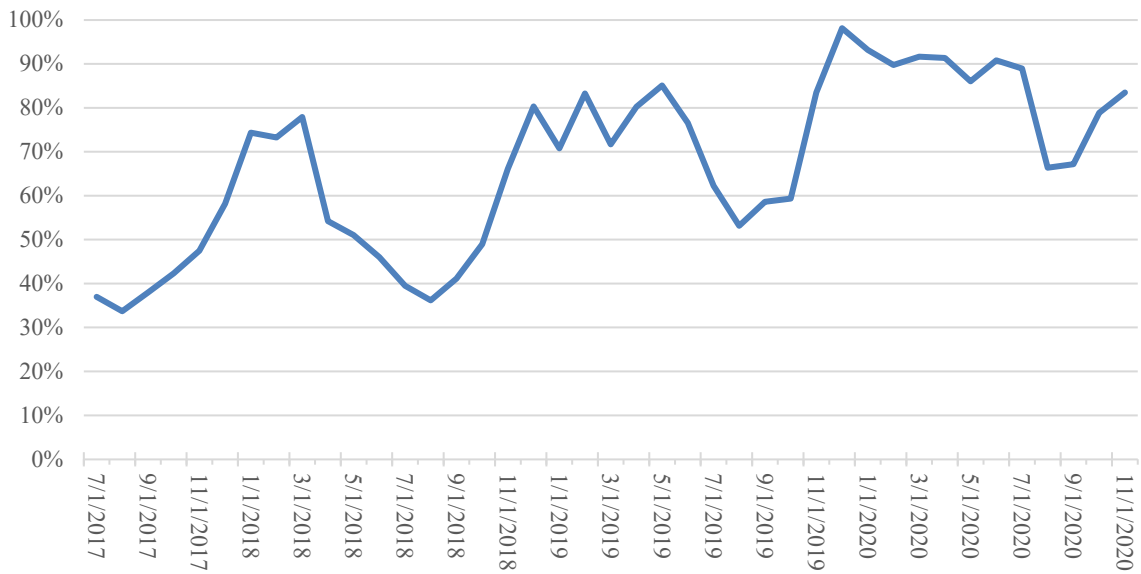
Figure 4
Monthly QSA and Metropolitan Water



The supplemental nature of Metropolitan water is also demonstrated by the monthly pattern of the proportionate share of QSA water relative to the total water delivered by Metropolitan to the Water Authority (see Figure 5).[8] The monthly share of QSA water peaks in the winter months and starts declining in the spring bottoming out in the summer. As monthly water demands start declining in the fall, the share of QSA water starts increasing in the fall to peak again in the following winter. The monthly share of QSA water peaks and bottoms out at higher levels in successive fiscal years because QSA water deliveries were 194,326 acre-feet in Fiscal Year 2017-18, 211,151 acre-feet in Fiscal Year 2018-19, and 259,815 acre-feet in Fiscal Year 2019-20.

[8] Share calculated from the data in Figure 4.

Figure 5
QSA Share of Total Water Deliveried by Metropolitan



Regional water storage in San Diego County (Water Authority storage and member agency reservoirs) also manages the variability in water supplies and water demands. Regional storage capacity increased in the summer of 2015 by 27 percent with completion of raising San Vicente Dam (see Figure 6).[9] Since 2014, the volume of water in storage has increased from 218,202 acre-feet in the end of January 2014 to 368,368 acre-feet by the end of November 2020. Local rainfall is a driver of monthly changes in regional water storage (Figure 7). Monthly variation in rainfall explains 27 percent of the monthly variation in the change in regional water storage.[10]

[9] Data from Water Authority staff.
[10] Calculated with data from Figure 7.

Figure 6
Regional Water Storage

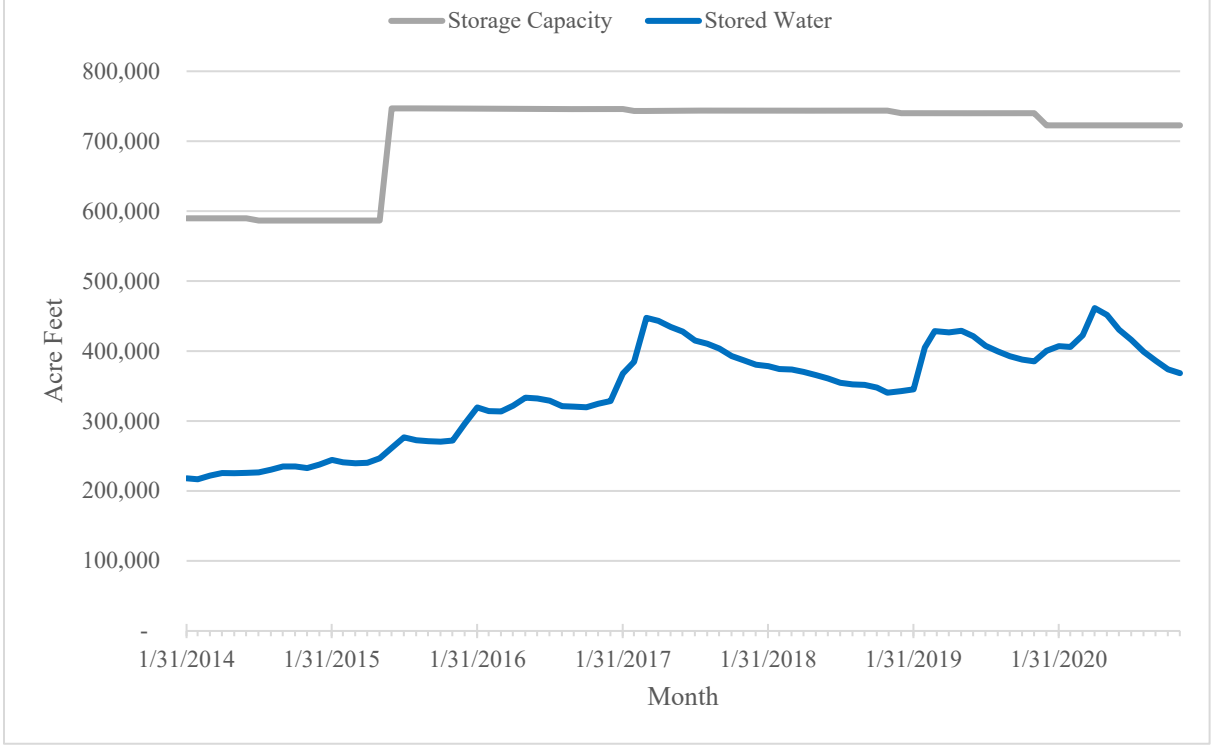
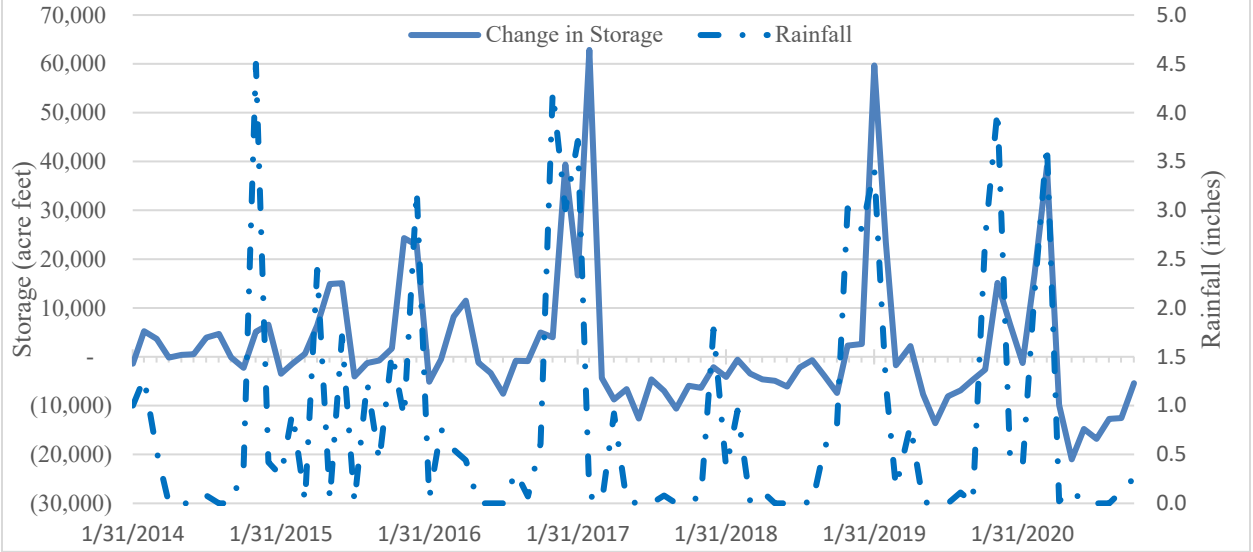


Figure 7
Monthly Change in Regional Water Storage and Monthly Rainfall



The future portends a continuation of the trend of reduced reliance on Metropolitan water through 2030 (see Table 1).[11] With the Water Authority's base supply stabilizing at its long-term annual amount of 328,700 acre-feet by 2021, the Water Authority's demand for Metropolitan water will reach bottom at 43,502 acre-feet by 2030 (almost 50% below the Water Authority's purchase of Metropolitan in the Fiscal Year 2019-20). After 2030, the projected increase in member agency demand for Water Authority water will increase the Water Authority's demand for Metropolitan water, although the projected demand does not exceed the Water Authority's purchases of Metropolitan water in Fiscal Year 2019-20 until after 2040.

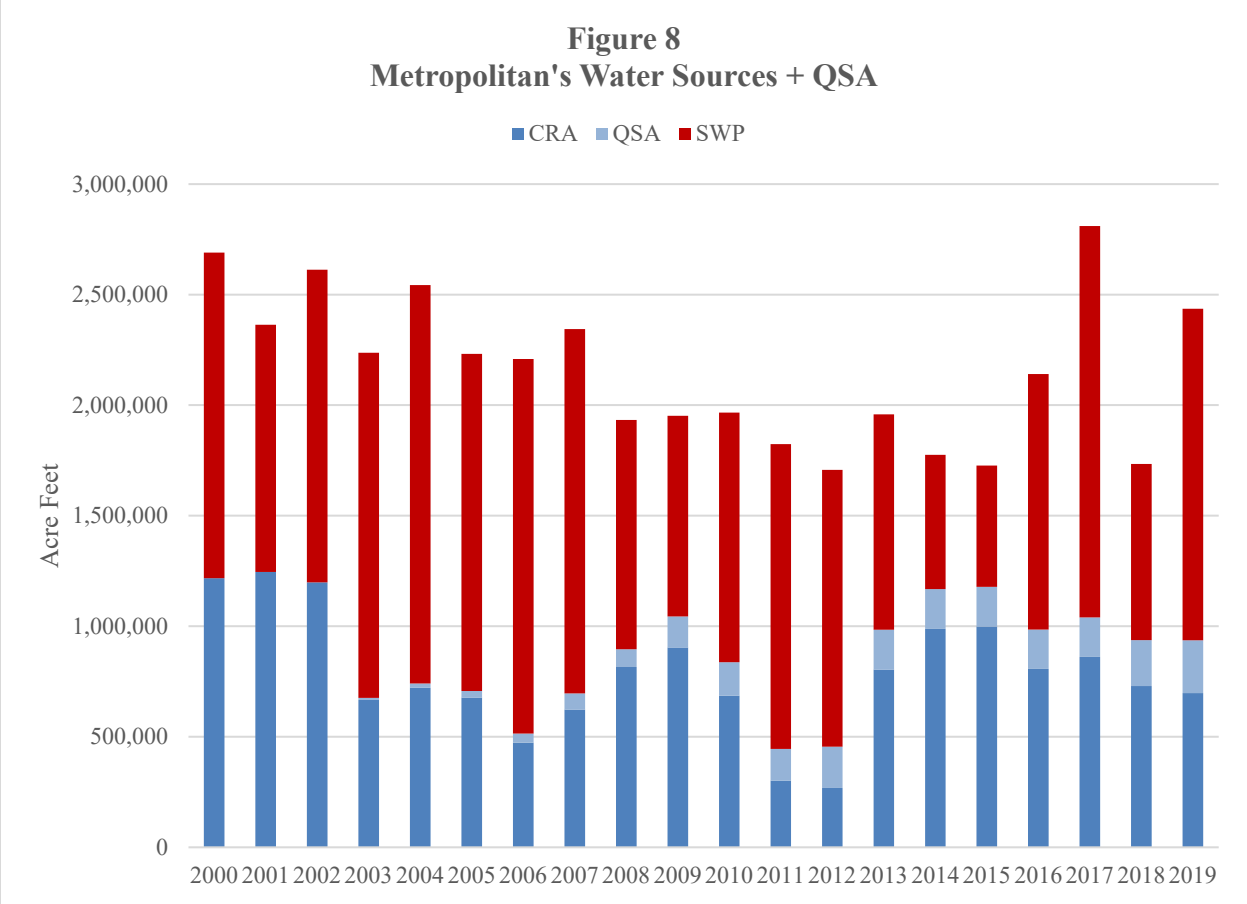
Table 1
Projected Member Agency Water Demand and Regional Supplies

Item	2025	2030	2035	2040	2045
Member Agency Demand	561,569	584,221	604,093	619,572	636,256
Local Supply					
Surface Water	46,542	46,442	46,442	46,242	46,242
Water Recycling	54,805	58,305	58,405	58,505	58,605
Groundwater/Recovery	31,070	32,270	32,270	28,770	28,770
Seawater Desalination	6,000	6,000	6,000	6,000	6,000
Potable Reuse	33,042	53,202	53,202	53,202	53,202
San Luis Rey Transfers	15,800	15,800	15,800	15,800	15,800
Sub-Total	187,259	212,019	212,119	208,519	208,619
Water Authority Demand	374,310	372,202	391,974	411,053	427,637
Water Authority Supply					
Base Supply					
IID Transfer Water	200,000	200,000	200,000	200,000	200,000
Canal Lining Water	78,700	78,700	78,700	78,700	78,700
Seawater Desalination	50,000	50,000	50,000	50,000	50,000
Sub-Total	328,700	328,700	328,700	328,700	328,700
Supplemental Supply					
Metropolitan Water	45,610	43,502	63,274	82,353	98,937
Total	374,310	372,202	391,974	411,053	427,637

[11] Data from presentation of Revised 2020 Urban Water Management Plan and Demand Forecast at a Special Meeting of Water Planning and Environmental Committee, of Water Authority Board of Directors, November 12, 2020.

Metropolitan's Sources of Water

Metropolitan states that "on average, water supply to Metropolitan's service area is made up approximately 30% SWP, 20% Colorado River (including the Water Authority's QSA water), and 50% Local Supplies."[12] Excluding the 50% local supplies, Figure 8 shows imported water sources since 2000: (1) Metropolitan's water supplies from its Priority 4 entitlement and Colorado River programs, (2) the Water Authority's IID transfer and canal lining waters, and (3) Metropolitan water from the State Water Project.[13] The annual variability in water supplies from the State Water Project reflects variability in annual SWP allocations.[14]



SWP water represents the major source of Metropolitan water supplies (see Figure 9). Since 2003 (with implementation of the QSA), SWP water supplies have averaged 62.9% of

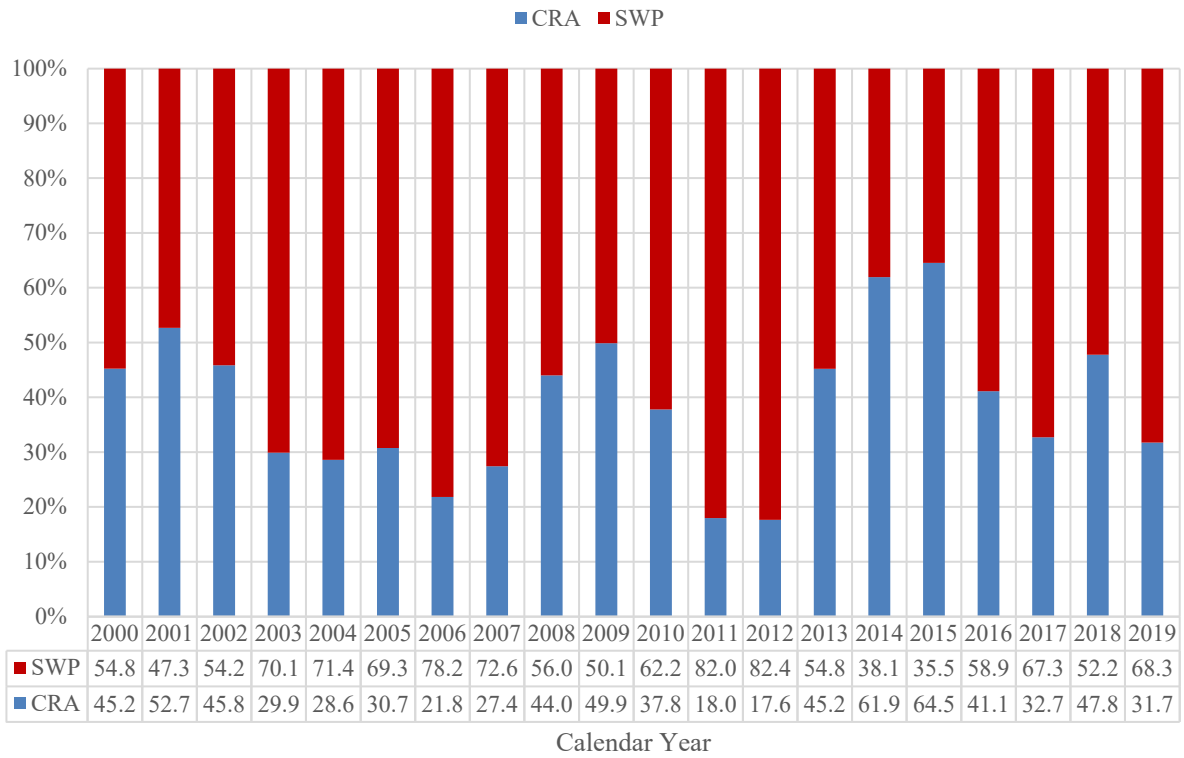
[12] See attachment to Letter from Jeff Kightlinger, General Manager of Metropolitan, to Keene Simonds, Executive Officer San Diego Local Agency Formation Commission, dated September 17, 2020 (hereinafter cited as "Metropolitan Comment", p.2)

[13] Data compiled from Metropolitan's 2015 Urban Water Management Plan and Metropolitan staff "Water Supply and Drought Management" memoranda for data after 2015.

[14] Correlation between SWP Allocation and Metropolitan's SWP supplies is 0.88. Correlation measures the degree to which variation of one variable (Metropolitan's SWP supplies) is related to variation of another variable (SWP Allocation).

Metropolitan's total imported water. The annual variability in the share of SWP water reflects the variability in annual SWP allocations.[15]

Figure 9
Composition of Metropolitan's Imported Water Supplies



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SWP	54.8	47.3	54.2	70.1	71.4	69.3	78.2	72.6	56.0	50.1	62.2	82.0	82.4	54.8	38.1	35.5	58.9	67.3	52.2	68.3
CRA	45.2	52.7	45.8	29.9	28.6	30.7	21.8	27.4	44.0	49.9	37.8	18.0	17.6	45.2	61.9	64.5	41.1	32.7	47.8	31.7

Metropolitan Water Sales Deliveries to the Water Authority and Eastern

Metropolitan notes that the Water Authority and Eastern are both Metropolitan member agencies that purchase water from Metropolitan.[16] Both receive a blend of water from the SWP, Colorado River and any additional Metropolitan water supplies, consistent with MWD board policies as to both agencies, and with respect to the Water Authority, consistent with the terms of the Exchange Agreement. Water is conveyed through Metropolitan facilities. As shown in Figure 4 of Metropolitan's Comment,[17] imported Colorado River water enters Metropolitan through the Colorado River Aqueduct from the east. Imported SWP water enters the SWP East Branch from the northeast, and the SWP West Branch from the northwest. Colorado River water is blended with SWP water from the East Branch and delivered south to San Diego. Colorado River water is also sent west in the Metropolitan service area and is blended with SWP water from the SWP East Branch to serve other Metropolitan member agencies in Orange County and further west in Los

[15] Correlation between SWP Allocation and Metropolitan's share of SWP water is 0.74.
[16] Metropolitan Comment, p. 5.
[17] *Ibid*, p. 6.

Angeles County into the San Fernando Valley. SWP water is exclusively used in pockets of Metropolitan's service area near Metropolitan's connections to the SWP East Branch and SWP West Branch.

Metropolitan's discussion is silent on how Metropolitan would use its own water sources to deliver water to the Water Authority or Eastern, before and after a detachment.

Metropolitan Exchange Deliveries to the Water Authority

Metropolitan summarizes the underlying agreements of the Water Authority's transfer with the Imperial Irrigation District and the Water Authority's exchange agreement with Metropolitan. The discussion includes the statement:[18]

> "The exchange water that Metropolitan delivers is no different than the water SDCWA purchases from Metropolitan."

For the purposes of assessing the impact of detachment, one must discuss how Metropolitan would source its water deliveries before and after a detachment (see below). Metropolitan is silent.

Metropolitan's Emergency Storage

Metropolitan summarizes how Metropolitan's storage is reserved to meet water supply emergencies. The discussion includes the statements:[19]

> "Together, Metropolitan's diverse portfolio of supplies, flexible, interconnected regionwide infrastructure and emergency storage provide its member agencies with *water supply reliability*. In fact, Metropolitan's overall water storage is at historic levels, currently in excess of approximately 3.8 million acre-feet." (emphasis added)

The first sentence is an assertion of water supply reliability, not a demonstration of water supply reliability (see below). The second sentence does not acknowledge that Metropolitan's current storage reflects an unusually high SWP allocation in 2019 (75%)—the 2020 SWP allocation is 20%. Metropolitan storage has also increased due to a decade long decline in water sales (see below). In addition, Metropolitan also does not discuss the numerous calls by non-Metropolitan agencies on Metropolitan's stored water.

[18] *Ibid*.
[19] *Ibid*, p. 8.

Water Supply Reliability Issues Related to the Proposed Reorganization

Metropolitan asserts that the proposed detachment would have no impact on the water supply originating from Metropolitan and would have no impact on the Bay Delta. Metropolitan's assertions are incorrect.

Water Supply Originating from Metropolitan

Metropolitan's argument that the detachment would have no impact on the water supply originating from Metropolitan is as follows:[20]

> "Currently, SDCWA requests that Metropolitan deliver water for SDCWA directly to Rainbow and Fallbrook. Under the proposed reorganization, Metropolitan's member agency Eastern would now make the same request to Metropolitan. Metropolitan's water service to Eastern by *delivering directly to the Applicant's service area will continue to consist of the same blends of source water already provided to that area*." (emphasis added)

I characterize this argument as the "same water" would source water demands before and after the attachment.

It is useful to consider the factual setting of current water service to Fallbrook and Rainbow. Treated water deliveries are made through four active turnout structures to Fallbrook and eight active turnout structures to Rainbow (see Table 2).[21] For Fallbrook, sixty-five percent of water deliveries are through Flow Control Facilities owned by Metropolitan and thirty-five percent of water delivers are through Flow Control Facilities owned by the Water Authority.[22] For Rainbow, twenty-four percent of water deliveries are through Flow Control Facilities owned by Metropolitan and seventy-six percent of water deliveries are through Flow Control Facilities owned by the Water Authority.[23]

Table 2
Annual Treated Water Delivery to Fallbrook and Rainbow (acre feet)

Flow Control Facility	*Pipeline to Turnout Structure Owner*	*Flow Control Facility Owner*	*2015*	*2016*	*2017*	*2018*	*2019*
DeLuz 1	Metropolitan	Metropolitan	2,492	2,257	2,107	2,122	1,258
Fallbrook 3	Metropolitan	Water Authority	2,759	2,743	1,631	1,344	2,297
Fallbrook 4	Water Authority	Water Authority	890	1,196	1,405	1,416	746

[20] *Ibid*.

[21] Preliminary Report, *Potential Detachment Impact on the Water Authority's Infrastructure System*, San Diego County Water Authority, August 2020.

[22] Percentages based on cumulative water deliveries from 2015 through 2019.

[23] *Ibid*.

Flow Control Facility	*Pipeline to Turnout Structure Owner*	*Flow Control Facility Owner*	*2015*	*2016*	*2017*	*2018*	*2019*
Fallbrook 6	Metropolitan	Metropolitan	3,765	4,156	4,232	4,612	3,457
Sub-Total			9,906	10,352	9,375	9,494	7,758
Rainbow 1	Metropolitan	Water Authority	2,715	2,368	2,454	3,305	2,578
Rainbow 3	Water Authority	Water Authority	3,686	4,026	3,443	4,487	2,456
Rainbow 6	Water Authority	Water Authority	2,301	2,519	2,646	1,991	1,978
Rainbow 7	Water Authority	Water Authority	1,721	2,496	2,995	3,744	1,428
Rainbow 8	Metropolitan	Metropolitan	3,499	2,502	2,875	1,011	2,963
Rainbow 9	Metropolitan	Metropolitan	1,582	1,639	1,593	1,732	1,292
Rainbow 10	Metropolitan	Water Authority	981	1,062	979	914	318
Rainbow 11	Water Authority	Water Authority	1,332	1,136	1,099	718	635
Sub-Total			17,817	17,748	18,084	17,902	13,648
Grand Total			27,723	28,100	27,459	27,396	21,406

Understanding the sources of water delivered to Fallbrook and Rainbow requires consideration of the sources and operations of the Water Authority's water supplies. Under its Exchange Agreement with Metropolitan, the Water Authority exchanges water available from its long-term water conservation and transfer agreement with IID and the lining of the All American Canal and Coachella Canal at Imperial Dam (collectively "QSA water") for a like amount of water Metropolitan makes available to the Water Authority. The Water Authority receives its purchases of water from Metropolitan commingled with the exchange water from the IID transfer and canal lining.

To the extent Metropolitan mixes State Water Project ("SWP") water and its own Colorado River water to meet its exchange obligation to the Water Authority, the delivery of exchange water has a priority claim on Metropolitan' own Colorado River and SWP water supplies. The SWP water and Metropolitan's own Colorado River water used to meet Metropolitan's exchange obligation to the Water Authority is offset by the amount of QSA water not used in the direct delivery of exchange water to the Water Authority.

The Water Authority serves its member agencies using QSA water and desalinated seawater as a base supply and purchases of Metropolitan water as a supplemental supply (see above). Before detachment, Fallbrook's and Rainbow's water deliveries are backed by QSA water and desalinated seawater. Purchases of Metropolitan water are supplemental water supplies mostly to address seasonal variability in water demands (see discussion of Figures 4 and 5). After detachment, Fallbrook and Rainbow would purchase all their water directly from Metropolitan. Deliveries to Fallbrook and Rainbow would no longer be backed by the Water Authority's QSA water and desalinated seawater. Instead, Fallbrook and Rainbow would rely solely on Metropolitan's own Colorado River water supplies and imported SWP water.

In contrast to Metropolitan's assertion, the "same water" would not be used to meet Fallbrook's and Rainbow's water demands after detachment. Metropolitan states:[24]

> "All the delivered water to the Applicants (Fallbrook and Rainbow) will continue to come from Metropolitan from the exact same sources. . . . The transfer of those service connections to Eastern would not change Metropolitan's reliability."

But the question is not whether detachment would change the reliability of Metropolitan's water sources. The question is whether detachment would change the reliability of Fallbrook's and Rainbow's water service provided to their customers because the Water Authority's supplies are more reliable than Metropolitan's.

The water sources used to provide water service to Fallbrook and Rainbow is not the same before and after detachment (see Table 3). Under the Exchange Agreement, the Water Authority makes IID transfer water and Canal Lining water ("QSA water") available to Metropolitan who delivers the same quantity of water to the Water Authority. The exchange water reflects a combination of QSA water made available to Metropolitan, Metropolitan's own Colorado River water supplies and State Water Project water. After detachment, Fallbrook and Rainbow would rely exclusively on Metropolitans own Colorado River supplies and State Water project water.

Table 3
Water Sources Providing Fallbrook and Rainbow Water Service
Before and After Detachment

Water Source	*Before Detachment*	*After Detachment*
Water Authority Sources		
• IID Transfer Water	X	
• Canal Lining Water	X	
• Desalinated seawater	X	
Metropolitan Sources		
• Own Colorado River water	X	X
• State Water Project	X	X

The impact of the detachment on the reliability of Fallbrook's and Rainbow's water service depends on the relative reliability of the Water Authority's and Metropolitan's water supplies. Table 4 provides a list of issues to determine the comparative reliability of water sources.

[24] Metropolitan Comment, pp. 9-10.

Table 4
Comparative Assessment of Water Sources

Water Source	*Water Authority*	*Metropolitan*	*Comment*
Colorado River water	Priority 3 QSA Water	• Priority 4 MWD water • PVID Land Fallowing • IID conservation	• Water Authority senior to Metropolitan Priority 4 • Metropolitan faces risks from Priority1/2 overruns • Water Authority on same priority with IID conservation
Desalinated seawater	Carlsbad plant	none	Drought-proof
State Water Project	Limited usage, depending on supplemental water needs from Metropolitan	Base element of MWD supply	Metropolitan's SWP water is subject to significant drought/hydrology/regulatory limitations

The Priority System. California has an annual entitlement to 4.4 million acre-feet of Colorado River water. Available water is allocated in the following priority:

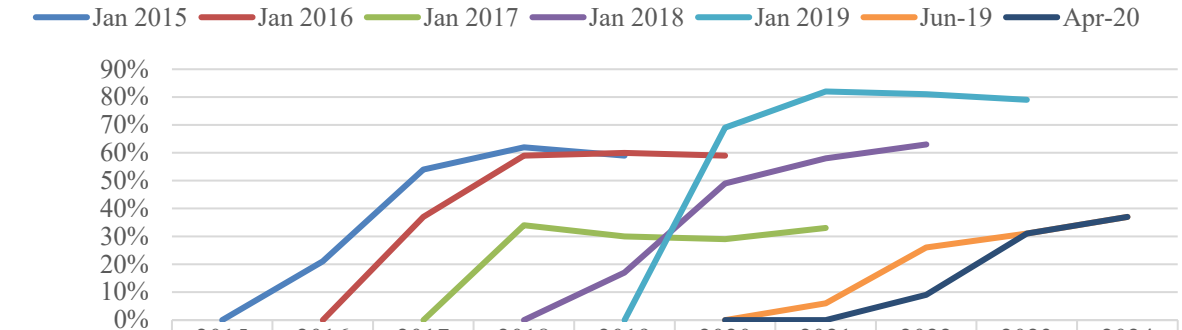
- Indians Tribes and miscellaneous present perfected rights (PPRs) recognized in the U.S. Supreme Court Decision in *Arizona v. California.*
- The next 3.85 million acre-feet per year to agricultural water users, first to the Palos Verde Irrigation District (Priority 1), second Yuma Water Project (Priority 2), third 3.1 million acre-feet per year to IID and the Coachella Valley Water District, "Coachella", (Priority 3), less actual Colorado River use by Indian Tribes and miscellaneous PPRs up to 14,500 acre- feet per year.[25]
- Metropolitan has the fourth priority of 550,000 acre-feet per year less use by Indian Tribes and miscellaneous PPRs above 14,500 acre-feet per year.

If available Colorado River water to California falls below 4.4 million acre-feet per year, the first cutbacks are borne by Metropolitan. Only if the shortfall in California's available Colorado River water exceeds Metropolitan's Priority 4 rights (as adjusted by the use by Indians Tribes and miscellaneous PPRs above 14,500 acre-feet per year), will there be any cutbacks in water available to the agricultural priorities.

[25] The first 14,500 acre-feet per year of use by Indians and miscellaneous PPRs deducted from IID and Coachella's Priority 3 right by the respective ratio of IID's 11,500 acre-feet per year obligation and Coachella's 2,500 acre-feet per year obligation to the total obligation of 14,500 acre-feet per year.

Priority 3 versus Priority 4. The risk of Colorado River water shortages is becoming material (see Figure 10).[26] In successive forecasts starting in 2015, the prospect of a shortage of Colorado River water was looming "next year" with increasing risk in subsequent years (although the January 1, 2017 forecast backed off from earlier forecasts due to high runoff). The January 1, 2019 forecast was the most alarming with shortage becoming virtually unavoidable in the early 2020s. Due to a high runoff in the Colorado River Basin, the June 2019 forecast stretched out shortage risk into the mid-2020s. The April 2020 forecast has the risk of shortages returning to earlier projections by 2023.

Figure 10
Probability of Any Lower Colorado River Water Shortage by Forecast Date



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Jan 2015	0%	21%	54%	62%	59%					
Jan 2016		0%	37%	59%	60%	59%				
Jan 2017			0%	34%	30%	29%	33%			
Jan 2018				0%	17%	49%	58%	63%		
Jan 2019					0%	69%	82%	81%	79%	
Jun-19						0%	6%	26%	31%	37%
Apr-20						0%	0%	9%	31%	37%

Calendar Year

The Drought Contingency Plan ("DCP") calls for California to make an annual contribution of 200,000 acre-feet to 350,000 acre-feet, or a cumulative contribution of up to 1,050,000 acre-feet through the life of the DCP, based on the Bureau of Reclamation's latest hydrology projections -- available through conservation to increase Lake Mead storage when the elevation of Lake Mead drops to and below 1,045 feet.[27] The DCP was executed without IID's

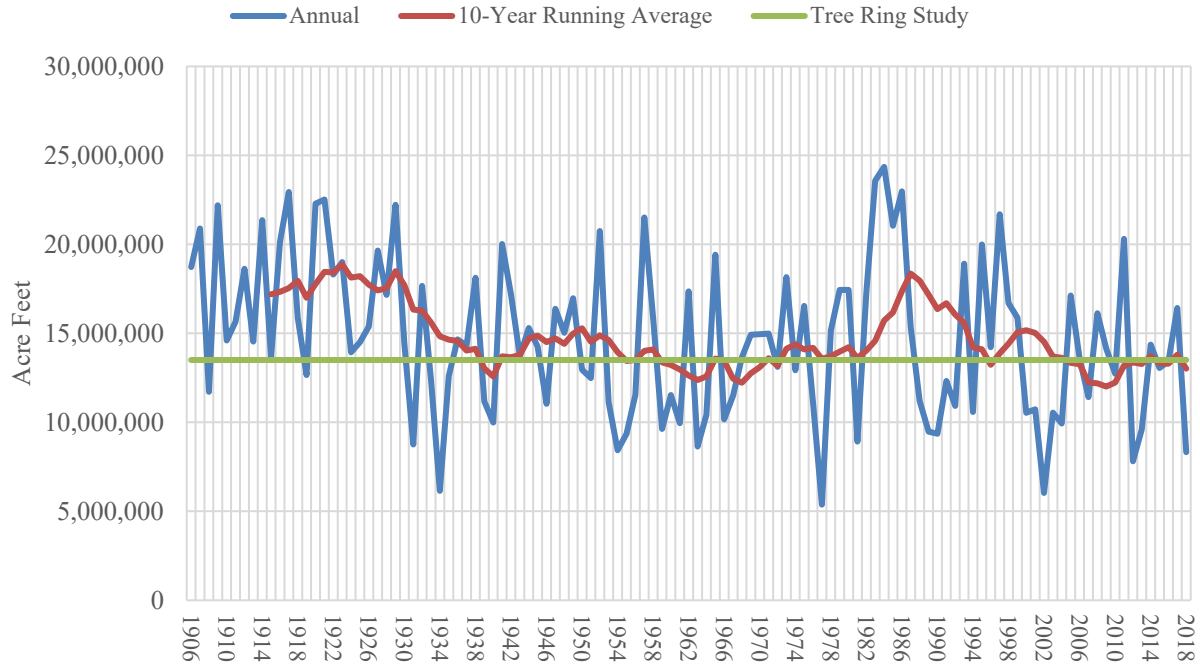
[26] Compiled from Reclamation's Five-Year Projections of risk of water shortages.

[27] See "What the Drought Contingency Plan Mean for California", https://www.ppic.org/blog/what-does-the-colorado-river-drought-plan-mean-for-california/#:~:text=What%20Does%20the%20Colorado%20River%20Drought%20Plan%20Mean%20for%20California%3F,-Gokce%20Sencan%20May&text=This%20drought%20contingency%20plan%20(DCP,water%20shortages%20in%20the%20basin.

participation. Metropolitan is legally responsible to cover California's obligation. The DCP continues through 2026 as a bridge to an anticipated longer-term agreement among Colorado River Basin parties (including Mexico). With California agreeing to obligations under the DCP, should one anticipate that the long-term agreement will have a smaller, larger, or same obligation?

The future for the Colorado River depends on which road we are traveling. Have we been in a prolonged drought, or are the unusually wet hydrologic conditions in the early 20th century giving way to the long-term average calculated by tree-ring studies (see Figure 11)? Under the former belief, the last decade was a drought. Under the latter belief, a drought in the first decade of the 21st century was broken by the year 2011 until returning in 2018. Have we been experiencing the long-term "new normal?" The nature of the risks we are managing depends on which world we are inhabiting. The value of seniority of Colorado River water versus junior Colorado River water will increase over time.

Figure 11
Annual Natural Flow of Colorado River Water at Lees Ferry



Climate change is another factor affecting future water supplies. By the last quarter of this century, climate change is estimated to reduce runoff on the Colorado River by 10%.[28]

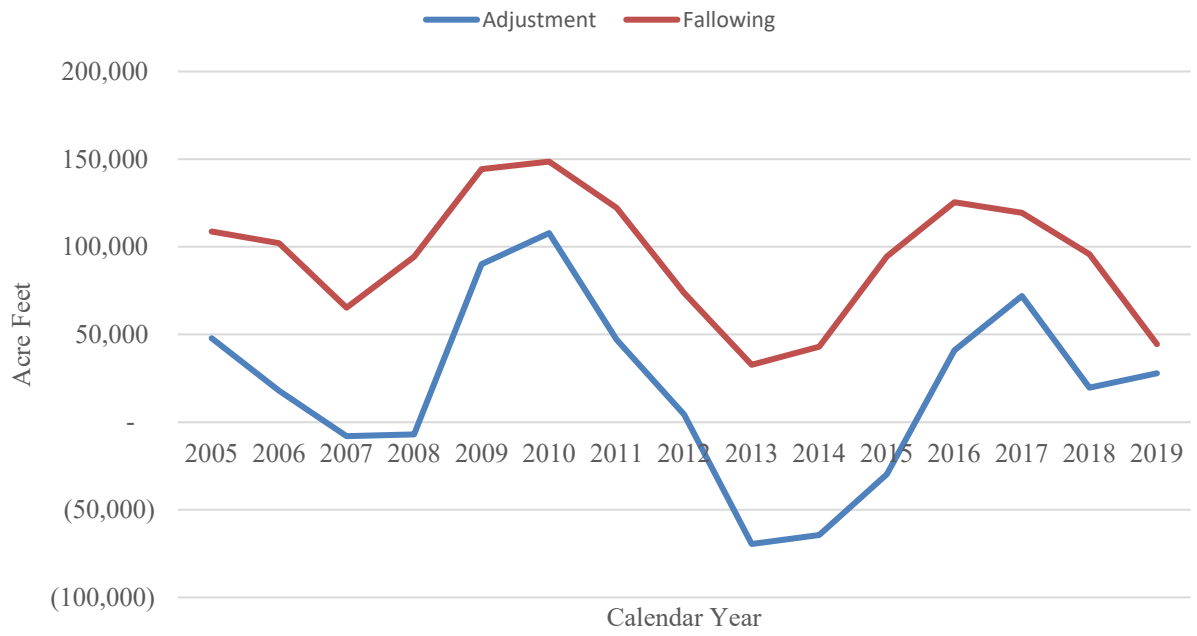
[28] See "San Diego's Future—Warmer, Drier and Wetter," by Dan Cayan and David Pierce, Board of Directors Meeting of the San Diego County Water Authority, July 23, 2020, p. 14.

With the Water Authority's QSA supplies having IID's Priority 3 water rights, and Metropolitan having Priority 4 rights, the water sources of the two agencies are not "the same." Detachment would reduce the water supply reliability of Fallbrook and Rainbow's water service.

PVID Land Fallowing and IID Conservation Agreements. Metropolitan has entered into long-term water conservation agreements with IID and the Palo Verde Irrigation District ("PVID"). Metropolitan recently purchased land in PVID and is now the largest landowner in PVID. Metropolitan also has access to unused Priority 3 water, Intentionally Created Surplus credits, engages in interstate banking arrangements and related transfers with the Southern Nevada Water Authority and participates in system efficiency projects in the Lower Basin.

Under the QSA, Metropolitan's available Colorado River water is adjusted annually depending on whether the consumptive use of Colorado River water under Priority 1, 2 and 3b is below or above 420,000 acre-feet.[29] Priority 1, 2 and 3b are, respectively, the consumptive use of Colorado River water by PVID, the Reservation Division of the Yuma Project and the Lower Palo Verde Mesa.[30] By reducing PVID's use of Colorado River water, PVID land fallowing increases the amount of Colorado River water available to Metropolitan (see Figure 12).

Figure 12
Metropolitan's Agricultural Adjustment of Colorado River Water Supplies and PVID Land Fallowing

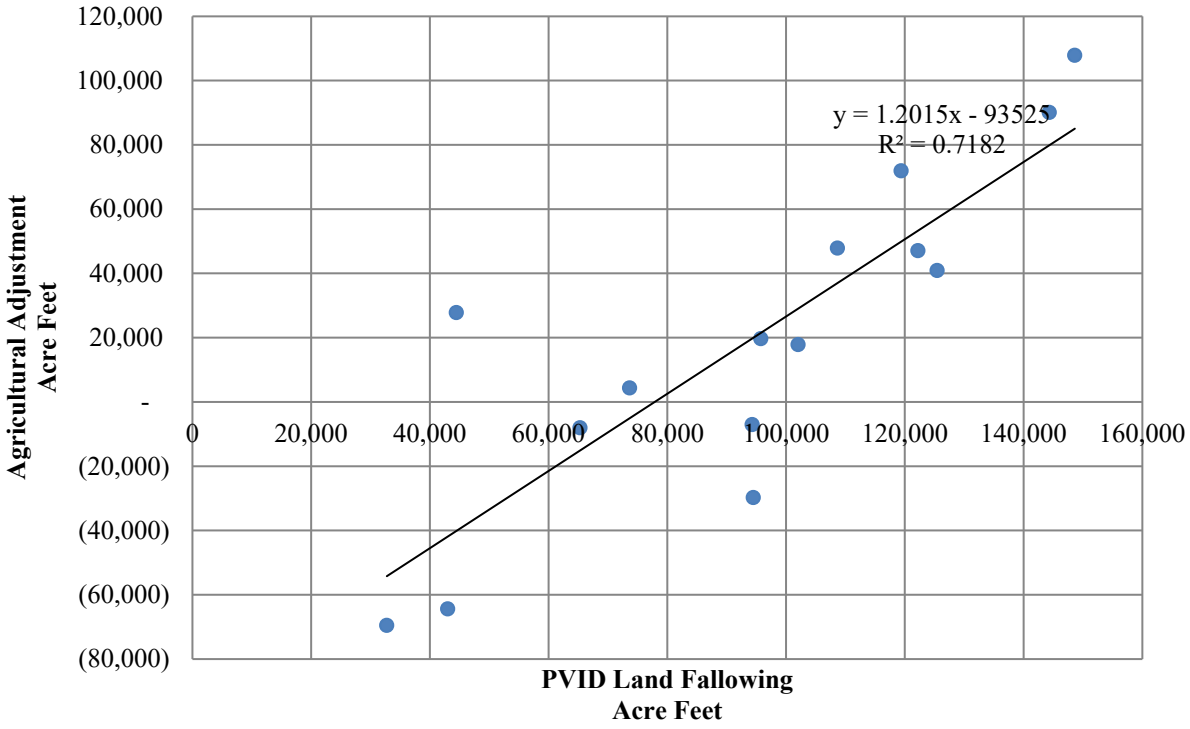


[29] Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement", October 10, 2003, Section 4d http://www.usbr.gov/lc/region/g4000/crwda/crwda.pdf

[30] The Bureau of Reclamation also includes the use of Colorado River water on Yuma Island in the calculation.

Figure 13 plots Metropolitan's Agricultural Adjustment (on the vertical axis) versus the amount of water conserved by PVID land fallowing (on the horizontal axis) to illustrate how land fallowing under Metropolitan's agreement with PVID is a key driver of Metropolitan's Agricultural Adjustment. The annual variation of the amount of water conserved by land fallowing explains 72% of the annual variation in Metropolitan's Agricultural Adjustment for available Colorado River supplies from the consumptive use of Priority 1, 2 and 3b. For the period 2005-2019, "Metropolitan Agricultural Adjustment" has averaged 19,768 acre-feet. Even though PVID land fallowing averaged 94,293 acre-feet, there has been sustained overruns by Priority 1, 2 and 3b relative to the 420,000 acre-foot benchmark.[31]

Figure 13
Metropolitan's Agricultural Adjustment of Colorado River Water Supplies versus PVID Land Fallowing (2005-2018)



Metropolitan must engage in significant land fallowing to offset its liability for underwriting the risk that the consumptive use of Colorado River water by Priority 1, 2 and 3b (plus Yuma Island) exceeds 420,000 acre-feet per year. Metropolitan must conserve about 77,800 acre-feet of water by land fallowing for Metropolitan to avoid its liability for Priority 1, 2 and 3b overruns (see Figure 13).[32] Metropolitan's average net increase in annual Colorado River water

[31] Without land fallowing, the estimated value of Metropolitan adjustment is -93,525 (the intercept in the equation in Figure 13).

[32] The value of "x" that yields an estimated Metropolitan Adjustment of zero using the equation in Figure 13.

supplies after accounting for the liability of Priority 1, 2 and 3b overruns (19,768 acre-feet) is about 21% of the average annual amount of 94,293 acre-feet of land fallowing.[33]

Table 5 compares Metropolitan's Colorado River water supplies before and after 2003. For the ten years before 2003, Metropolitan's Colorado River water supplies averaged 1,203,822 acre-feet due to unused Lower Basin entitlements and surplus water. With implementation of the QSA, California is now limited to its basic 4.4 million acre-foot annual entitlement unless the Secretary of the Interior declares the availability of surplus water, which has not happened nor anticipated to happen. From 2003 and thereafter Metropolitan's supplies from its Priority 4 rights and transfer agreements with IID and PVID averaged 664,061 acre-feet. When combined with the average amount of unused Priority 3 water available, Metropolitan's Colorado River water supplies averaged 752,990 acre-feet. Therefore, the end of the era of unused entitlement water and surplus water means that, despite its programs over the past eighteen years, Metropolitan has 450,832 acre-feet per year less Colorado River water. The Water Authority' QSA water supplies offset 237,711 acre-feet of Metropolitan's reduced Colorado River water supplies in 2019. When the Water Authority's QSA water supplies reach their long-term level, it will offset 277,000 acre-feet per year of Metropolitan's reduced Colorado River water supplies over the long-term.

Table 5
Comparison of Metropolitan's Annual Colorado River Water Supplies Pre and Post 2003

Item	***Acre Feet***	***Comment***
Pre-2003	1,203,822	Mostly Priority 4 and Priority 5 water
Post-2003		
Priority 4	550,000	Exclusive of liability for Indian/Misc. PPRs
IID	94,293	Per-2003 agreement
PVID	19,768	Inclusive of liability for Priority 1, 2 3b overruns
Sub-Total	664,061	
Unused Priority 3	88,929	In excess of Priority 4 right pre-2003 agreement
Total	752,990	
Lost Supply	450,837	

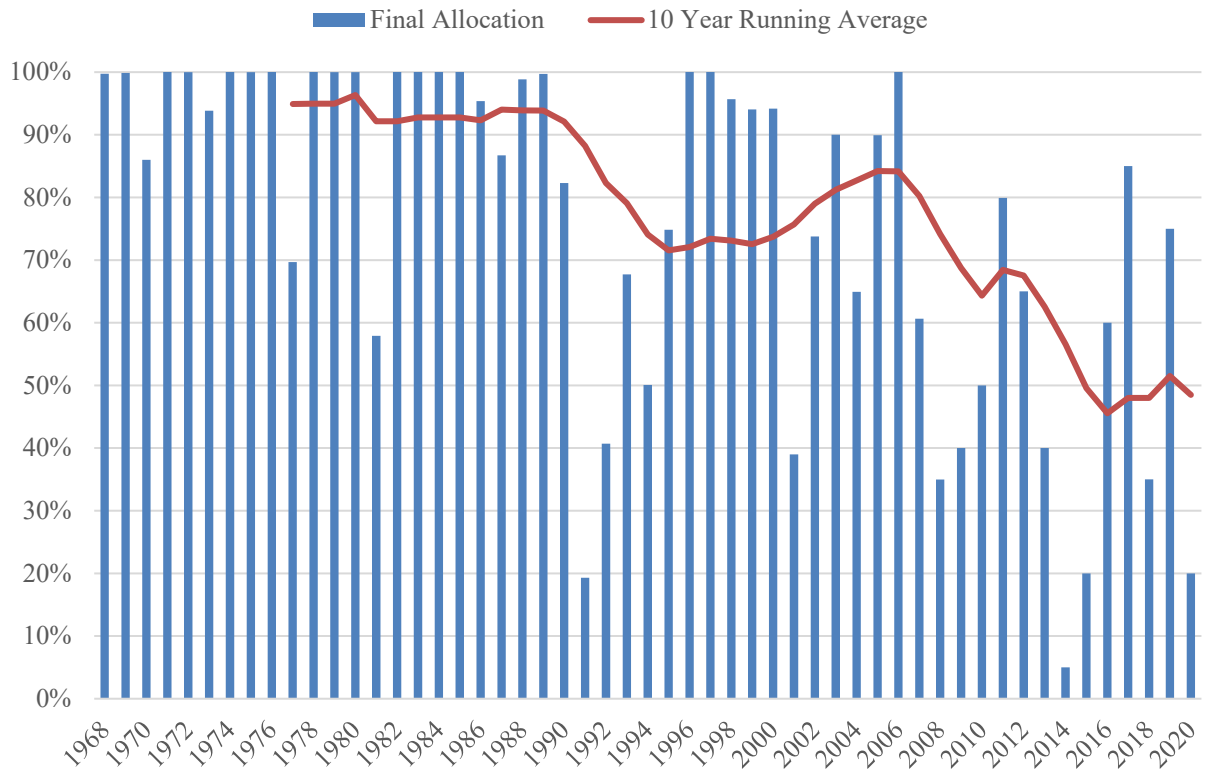
SWP Water. The history of SWP allocations has three distinct time periods (see Figure 14). Between 1968 through 1989, SWP allocations averaged 95%.[34] Spurred by the 1991 drought, SWP allocations dropped and averaged 73% through the 1990s. There was a brief recovery in SWP allocations, increasing by 10 percentage points until the early 2000s as environmental

[33] 19,193 AF equals the projected Metropolitan Agricultural Adjustment from Figure 13 when PVID land fallowing equals 94,293 AF.

[34] Before the 1994 Monterey Amendment, agencies submitted water requests reflecting their actual water demands. With the Monterrey Amendment, available water was pro-rated in accordance with requests. This provided an incentive for agencies to request their full entitlement amounts (see Figure 15).

problems in the Delta mounted. Since then, average SWP allocations have been declining. The final SWP Allocation for 2014 was only 5% (most of the year the declared SWP Allocation was zero). The Final Allocation for 2015 was 20%. Final Allocations increased in 2016 and 2017, plummeted in 2018, increased to 75% for 2019 and fell again to 20% in 2020.

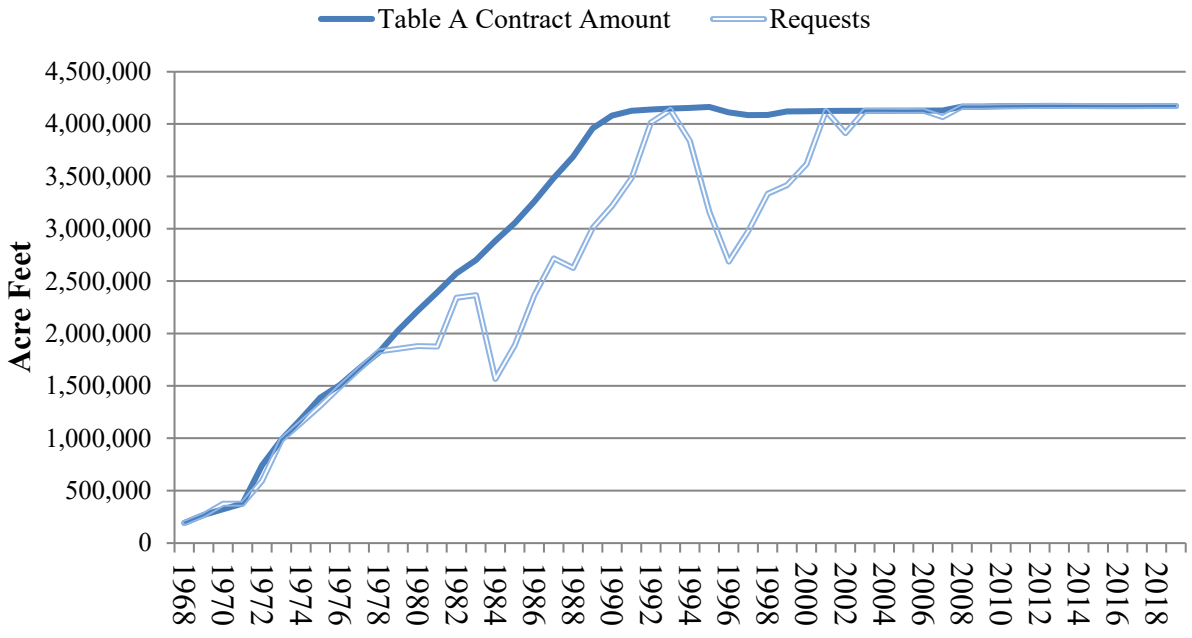
Figure 14
State Water Project Allocation History



The period of 90%+ SWP Allocations corresponded to the scheduled build-up of the SWP (see Figure 15). SWP Contract Amounts grew until 1990. Therefore, the relevant historical period for SWP Allocations going forward is the post-1989 record. After the Monterey Amendments to SWP contracts, SWP contractors now request their full contract amounts each year.

The legendary disputes over water exports from northern California to Southern California have been ongoing for over 40 years when the State Water Resources Control Board initiated hearings to revise water quality standards in the Bay Delta. Since 2003, the loss of Colorado River water supplies forced increased reliance by Metropolitan on the State Water Project. With the continued collapse of the delta ecosystem, the 2009 Delta Reform Act included the state policy requiring water suppliers to reduce Delta reliance. Consistent with that policy directive and hydrology, the 10-year running average of State Water Project allocations fell from 65% to 50% by 2020.

Figure 15
Build Up of SWP and Requests



Conclusions Regarding Metropolitan's Water Sources. The year 2003 represents a turning point for Metropolitan's water sources. On the Colorado River, the era of large volumes of Priority 5 Colorado River water ended with implementation of the QSA. On the positive side, the QSA paved the way for Metropolitan's long-term PVID fallowing program that has conserved, on average, 94,293 acre-feet per year. On the downside, Metropolitan assumed the risk for overruns by Priority 1, 2 and 3b. The net effect has been that its PVID venture has yielded, on average, 19,768 acre-feet per year of Colorado River water. The year 2003 was also a turning point for Metropolitan with respect to SWP supplies with the emergence of a decreasing trend in SWP Table A Allocations.

Metropolitan's Water Supplies are Less Reliable than the Water Authority's. Metropolitan's water sources include junior Colorado River rights, a PVID land fallowing program with a Priority 1 right subject to the risk of overruns by Priority 1&2 (80% of Metropolitan's land fallowing program is needed to offset the risk of Priority 1&2 overruns), a water conservation agreement with IID and reliance on the volatile SWP for almost two-thirds of its water supplies. In contrast, the Water Authority's water includes QSA conserved water supplies based on a more seniority priority than Metropolitan's Priority 4 rights and equal priority to Metropolitan's much smaller water conservation agreement with IID.

Impacts on Bay Delta

Metropolitan argues that a detachment will have no impact on the Bay Delta. It reaches its conclusion stating, "because identical water will continue to be delivered from Metropolitan's service connections regardless of which Metropolitan member agency services them."[35]

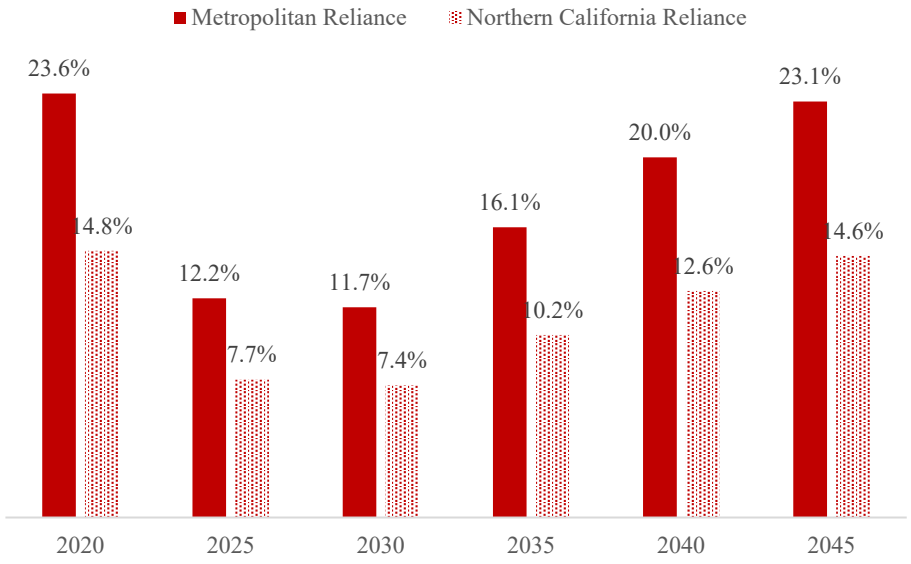
Metropolitan uses the "same water" argument advanced in addressing the water supply originating from Metropolitan (see above). However, the water sources providing water service to Fallbrook and Rainbow are not the same before and after detachment. Before detachment, water service to Fallbrook and Rainbow is secured by the Water Authority's base supply (QSA water and desalinated seawater) supplemented by purchases from Metropolitan's own Colorado River water and State Project water. After detachment, water service to Fallbrook and Rainbow is only available from Metropolitan's own Colorado River and SWP water supplies. Therefore, by becoming a Metropolitan customer (via Eastern), the volume of Metropolitan water would sell to Fallbrook and Rainbow is a new water demand, at least to the extent the Water Authority would not otherwise buy water at any given time from Metropolitan.

Metropolitan is substantially more dependent on imported water from Northern California than the Water Authority. Metropolitan relies on the SWP for 62.9% of its water supplies (see Figure 9). With the Water Authority's low and declining reliance on Metropolitan, the Water Authority's reliance on water from Northern California is substantially less than Metropolitan's (see Figure 16).[36] The first bar in the chart for each year equals the share of the Water Authority's total water supplies (base supply plus purchases of supplemental water from Metropolitan) represented by purchases of supplemental water from Metropolitan. The second bar in the chart for each year equals the Water Authority's reliance on Metropolitan (the first bar) multiplied by Metropolitan's reliance on SWP water (62.9%).

[35] Metropolitan Comment, p. 9.

[36] Water Authority reliance on Metropolitan based on data in Table 1. Water Authority on Northern California equals reliance on Metropolitan (data in Figure 16) multiplied by 62.9%.

Figure 16
Water Authority Reliance on Metropolitan and Northern California Water



Metropolitan's Water Rates and Charges

The stated motivation for Fallbrook and Rainbow seeking detachment from the Water Authority is the belief that Metropolitan's future water rates will be less than the Water Authority's. The Metropolitan Comment is entirely silent on Metropolitan's history and future of its rates and charges. Metropolitan's rates and charges have a long history of increasing faster than inflation. The challenges facing Metropolitan going forward are substantial.

History. Metropolitan's real (inflation-adjusted) water price has been on an increasing trend since 1960 (see Figure 17).[37] The real water price was increasing through the mid-1980s, fluctuated around no trend through 2007, and has been on a sharp upward trend thereafter (see Table 6). There is a stubborn dynamic of Metropolitan water rates increasing faster than inflation.

[37] Data compiled from Metropolitan annual reports and resolutions. Water rate is for untreated full service until 2003 and Tier 1 rate for untreated water service thereafter. Readiness-to-Serve ("RTS") charge equals RTS revenue requirement divided by the RTS Base (Metropolitan's 10-Year running average of total firm deliveries). Real Water Rate equals sum of the Water Rate and the RTS Charge adjusted by the Consumer Price Index where 2020$ = 1.0.

Figure 17
History of MWD Untreated Water Rates

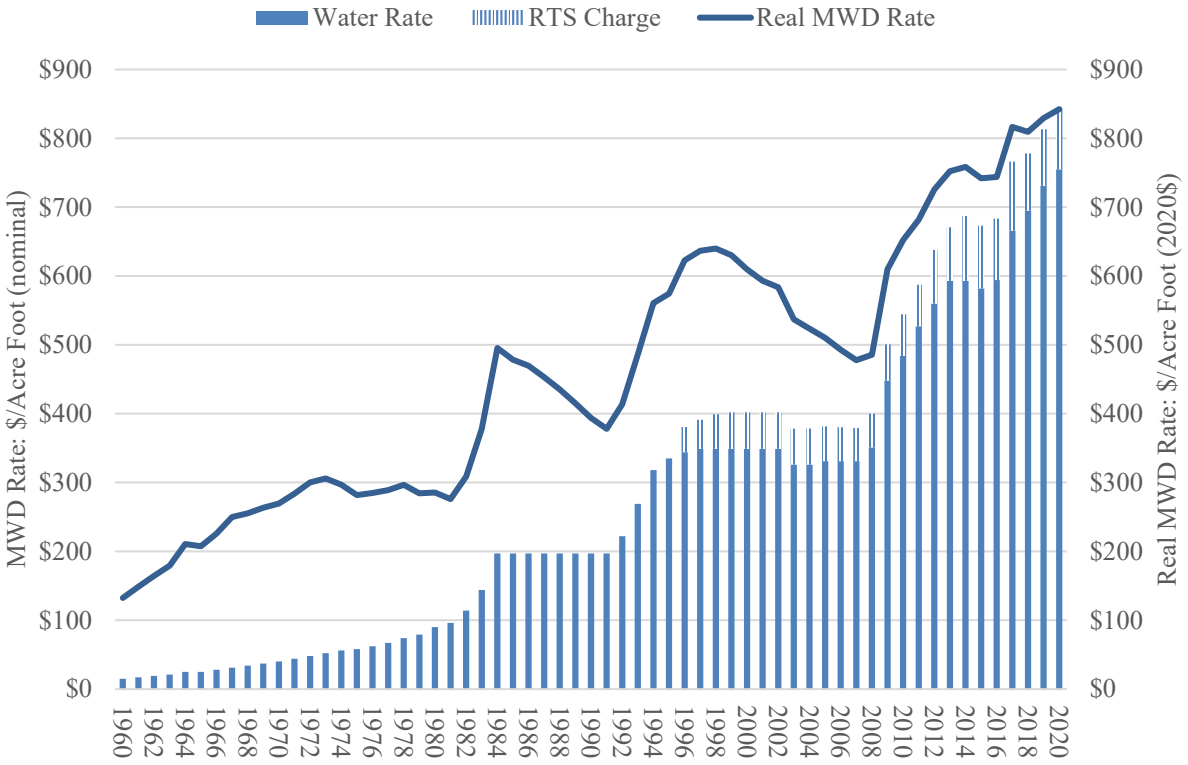


Table 6
Annual Increases in Metropolitan's Water Rate by Eras

Cumulative Annual Growth Rate	*1960-1984*	*1985-2007*	*2008-2020*	*1960-2020*
Metropolitan Water Rate	11.3%	3.0%	6.4%	6.9%
Inflation	5.4%	3.0%	1.6%	3.7%
Real Metropolitan Water Rate	5.7%	0.0%	4.7%	3.1%

The drivers during these time periods provide a context for predicting Metropolitan's future. The first period (1960-1984) was a transition from property taxes to water rates as well as phasing in payments for the State Water Project. The second period (1985-2007) was a period of rising water sales from the ramp up of deliveries from the State Water Project and continuation of a full Colorado River Aqueduct. The third period (2008-2020) reflects Metropolitan's need to develop new water supplies to replace lost Colorado River water, declining allocations from the State Water Project and declining water sales (see below).

Metropolitan's rate for full water service is now based on components for water supply, system access, water stewardship (in past years), and system power (see Table 7). The largest component is system access followed by the Tier 2 and Tier 1 rates for water supply. Since 2008,

the System Access rate and the Tier 1 supply has increased, respectively, by almost 6% per year and 7.4% per year faster than inflation.

Table 7
Composition of Metropolitan's Full-Service Rate for Untreated Water*

Time Period	*Tier 1 Supply*	*Tier 2 Supply*	*System Access*	*Water Stewardship*[38]	*System Power*	*Tier 1 Full Service*	*Tier 2 Full Service*	*Readiness-to-Serve Charge*
CAGR								
2003-2020	6.4%	3.9%	5.4%	6.3%	2.5%	5.1%	4.4%	3.1%
2008-2020	9.1%	4.6%	7.6%	8.3%	1.8%	6.6%	5.4%	4.9%
2020 Rate	$208	$295	$346	$65	$136	$755	$842	$87
Real CAGR								
2003-2020	4.2%	1.8%	3.3%	4.1%	0.4%	2.9%	2.2%	1.0%
2008-2020	7.4%	3.0%	5.9%	6.6%	0.2%	4.9%	3.7%	3.3%

*CAGR (cumulative average growth rate)

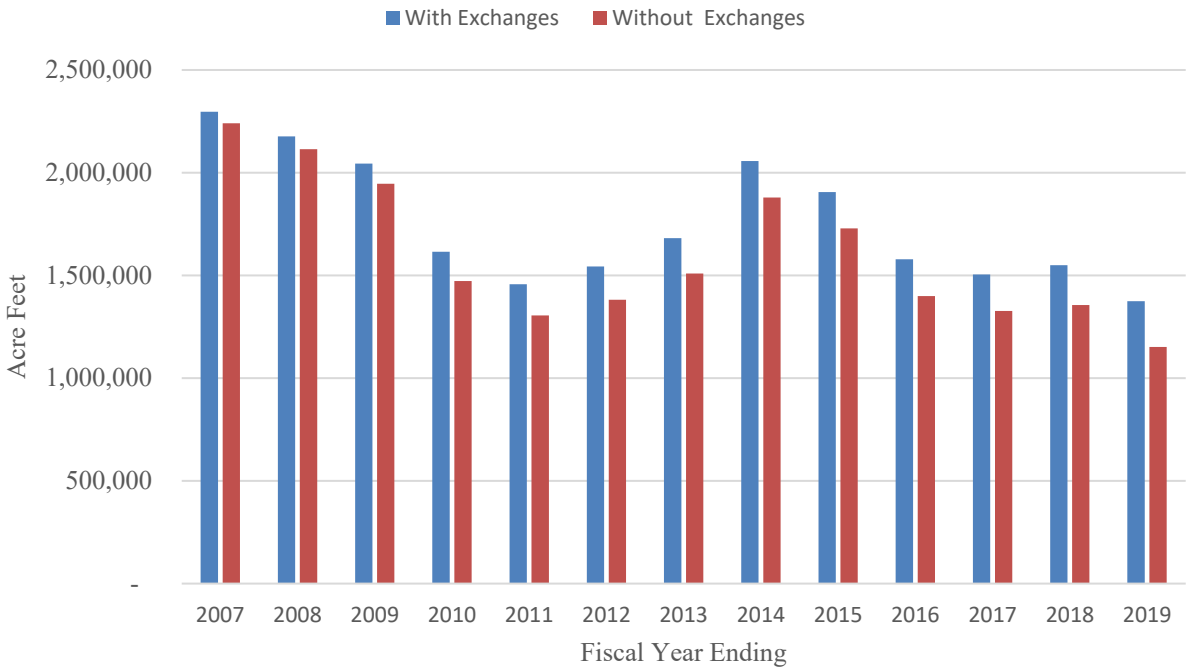
Future Challenges. Metropolitan's water rates and charges face further upward pressure. Given Metropolitan's extensive fixed costs, deteriorating yields from the Colorado River and SWP place upward pressure on rates and charges. Metropolitan will need to undertake new investment due to Metropolitan and SWP asset management programs, a potential regional recycled program, extension of its SWP contract and the delta tunnel project to secure SWP supplies. In addition to an escalating Metropolitan revenue requirement, the inevitable escalation in Metropolitan's water rates will reduce Metropolitan's water sales and further feed back into increases in Metropolitan's rates and charges. Given Metropolitan's recent experience, the feedback of declining sales to water rates and charges may be substantial.

Metropolitan's water sales have been in material decline (see Figure 18),[39] falling by 1,088,829,486 acre-feet per year from Fiscal Year Ending 2007 to Fiscal Year Ending 2019.

[38] MWD chose not to charge the WSR for rate years 2021-22, but has not decided what to do for the future.

[39] Data compiled from Annual Reports of the Metropolitan Water District of Southern California, Table "Water Use by Metropolitan's Member Agencies" Table 1-2 in the 2019 Annual Report and comparable tables in earlier annual reports. Metropolitan includes San Diego's Colorado River supplies in its estimate of firm supply. The data Water Sales with exchanges is the data provided in Metropolitan's annual reports. The data Water Sales without exchanges subtracts the Water Authority's Colorado River water.

Figure 18
Metropolitan's Total Water "Transactions" vs. Sales



Conclusion

Metropolitan's submission to San Diego LAFCO misstates the impact of the detachment on water service reliability for Fallbrook and Rainbow customers and misstates the impact on the Bay Delta. Metropolitan provides no analysis or data in support of its assertions. It neglects to acknowledge how the Water Authority's sources of supply used to provide service to Fallbrook and Rainbow differ from the water supply sources available to Metropolitan which will be used to serve Fallbrook and Rainbow via Eastern MWD if the reorganizations are approved.

Metropolitan is also silent on its history and future of its rates and charges—the stated motivation for Fallbrook and Rainbow seeking detachment from the Water Authority. Metropolitan history of rates and charges shows a stubborn dynamic of increasing substantially faster than inflation. Going forward, Metropolitan faces a future of new key cost drivers that will further increase Metropolitan's revenue requirements. In the face of Metropolitan's decline in water sales over recent years, Metropolitan will be setting rates and charges based on escalating revenue requirements collected on a declining base of water sales.

Thank you for the opportunity to review Metropolitan's Comment on the proposed detachment. Our state has struggled with the south's reliance on the north for decades. Southern California's water demands stress the local economies and ecosystems in the north. The Fallbrook and Rainbow detachment proposal would intensify the conflict, reduce the reliability of water

service of Fallbrook and Rainbow water customers, and increase their exposure to Metropolitan's record of rapidly increasing water rates historically that may be expected to accelerate in the future.

Rodney T. Smith, Ph.D.
President

Attachment A
Rodney T. Smith, Ph.D.

Rodney Smith is President of *Stratecon Inc* (www.stratwater.com), an economics and strategic planning consulting firm specializing in the economics, finance, and policy of water resources, President of *Baja Norte Water Resources, LLC*, a project developer of bi-national water projects.

Dr. Smith is involved as an advisor in the acquisition of water rights throughout the western United States and in the sale and leasing of water rights and water supplies to public and private sector water users. This first-hand experience in the decades long development of water markets provides industry expertise to identify the best candidate locations for electronic water markets, proper market design and navigate related public policy issues.

He has consulted extensively for public and private sector clients, including high net worth investors, on business and public policy issues concerning water resources, including California's Drought Water Bank, the government of New South Wales, Australia's effort to privatize irrigation organizations, and the economic, financial, legal, and political dimensions of water transactions in many western states. Rod worked on the IID/San Diego County Water Authority Agreement, the settlement of Colorado River disputes on behalf of the Imperial Irrigation District, and the acquisition of 42,000 acres from the United States Filter Corporation, a unit of Veolia Environment. He is routinely involved in economic valuation of water rights, water investments, and negotiation of water acquisition and transportation agreements. He also performed studies on the economic risk of water shortages and valuation of surface water and groundwater storage. He has also served as an expert witness in the economic valuation of groundwater resources, disputes over the economic interpretation of water contracts, economics of water conservation and water use practices, and the socio-economic impacts of land fallowing. He served as an outside advisor and author of *Water Transfers in the West*: *Projects, Trends and Leading Practices in Voluntary Water Trading*, by the Western Governors Association and the Western States Water Council (2012).

Dr. Smith has written extensively on the law, economics, and finance of water resources and water policy. In 1987, he created and became co-editor of Stratecon's paid-circulation publication *Water Strategist: A Quarterly Analysis of Water Marketing, Finance, Legislation, and Litigation,* In January 1999, the publication became a monthly web-based publication (www.waterstrategist.com) and information service, *Water Strategist*, which extended its coverage to include developments in the emerging private corporate participation in western water matters. In addition, Stratecon, Inc. introduced *The Water Strategist Community*, (www.waterchat.com), a web-based news portal providing free access to the direct press releases and important reports from over 300 public agencies, water firms and bond rating agencies. In 2011, Stratecon stopped publishing *Water Strategist* and replaced it with a contract research service based on its proprietary database. Earlier in 2013, Stratecon introduced prediction markets to the water industry (www.waterpolicymarkets.com), and in 2014, Stratecon introduced Journal of Water (www.journalofwater.com).

Rod is also known for his books *Troubled Waters: Financing Water in the West* and *Trading Water: A Legal Framework for Water Marketing*, sponsored by the Ford Foundation through grants to the Council of Governors' Policy Advisors. Former Secretary of the Interior Bruce Babbitt wrote forwards for both books.

Dr. Smith received his Ph.D. in Economics from the University of Chicago and a Bachelor of Arts in Economics from the University of California at Los Angeles. Prior to making a full time commitment to the private sector, he was a professor of economics at Claremont McKenna College for fifteen years, Director of the *Lowe Institute of Political Economy*, and a member of the editorial board of *Economic Inquiry*, the professional economics research journal of the *Western Economics Association*. In 1989, he was the John M. Olin Visiting Professor of Law and Economics at Columbia Law School. In the late 1970s and early 1980s, he was also a visiting assistant professor of economics at the Graduate School of Business, University of Chicago, where he also served as the Associate Director of the *Center for the Study of the Economy and the State*, founded by the late Nobel Prize winner in economics, George Stigler. Rod started his career after graduate school as an economist at the RAND Corporation, where he participated in a study commissioned by the California Legislature on the role of markets to address California's water problems.

ATTACHMENT 3

STRATECON 12/31/2020 REPORT ON FALLBROOK DELTA STEWARDSHIP LETTER

STRATECON INC.

December 31, 2020

VIA Email

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

Dear Mr. Hattam:

RE: Comments on Fallbrook Public Utility District "Analysis of Reduced Reliance on Delta Under Proposed Reorganization" submitted to Delta Stewardship Council on December 17, 2020

The San Diego County Water Authority ("Water Authority") asked *Stratecon Inc* to review the above captioned submission ("Fallbrook Analysis") by the Fallbrook Public Utility District ("Fallbrook").[1] Based on the information and analysis provided below, in my professional opinion, I conclude that the submission incorrectly states that the detachment would not impact the Metropolitan Water District of Southern California ("Metropolitan") reliance on water exports from the Bay Delta.[2]

The proposed reorganization would change the water rights backing the water service to Fallbrook. Under the reorganization, Fallbrook would walk away from the Water Authority's superior water supply portfolio based on (i) the Imperial Irrigation District ("IID") more senior Priority 3 Colorado River water rights than Metropolitan's Priority 4 Colorado River water rights, and (ii) the drought-proof Carlsbad seawater desalination project. Fallbrook residents would have water service backed only by Metropolitan's junior Colorado River rights and a greater reliance on the notoriously variable State Water Project water supplies imported from the Bay Delta.[3]

[1] The Fallbrook Analysis does not indicate the source of data it relies on in purporting to assess Metropolitan's comparative regional self-reliance on the Bay Delta in 2010 and 2025 (page 4). To the author's knowledge, Metropolitan did not prepare a consistency analysis in connection with its 2015 UWMP and has not yet released any pubic draft for its 2020 UWMP update. To the extent that LAFCO deems the consistency analysis relevant to the issue at hand (*Stratecon* does not believe that it is), it should require the information be provided by Metropolitan directly.

[2] See Attachment A for professional qualifications.

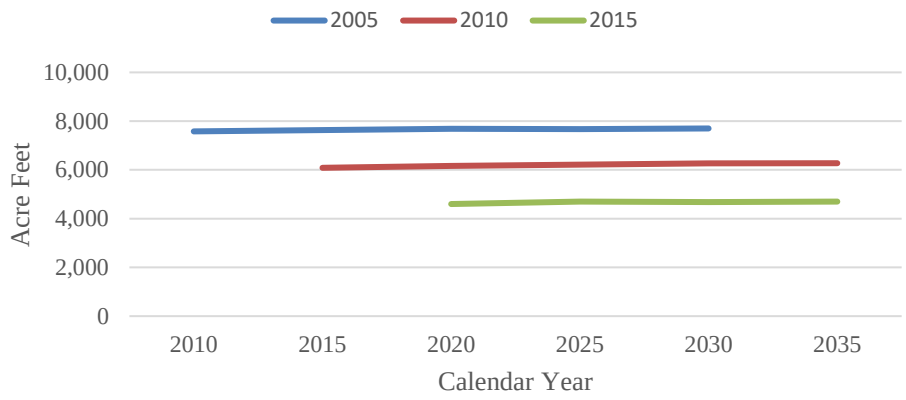
[3] Metropolitan acknowledges significant long-term risks associated with its water supplies. "These risks include climate change, compliance with state and federal laws such as the Federal and California Endangered Species Acts, tightening regulations for constituents of emerging concern and uncertain demographic forecasts." See December 15, 2020 Draft Report on Retrospective of the 2015 Integrated Resources Plan (Attachment B) at Summary and Risks Remain (pp. 35-36). December 15, 2020 Draft Report on Retrospective of the 2015 Integrated Resources Plan

The proposed reorganization will increase Metropolitan's reliance on the Bay Delta. As explained in detail in my contemporaneous submittal on Metropolitan's submittal to LAFCO (and thus not addressed here), the Water Authority's water sources are both more reliable and less reliant on the Bay Delta than Metropolitan. Therefore, the reorganization will increase Metropolitan's reliance on Northern California and the environmentally sensitive Bay Delta for water supplies, particularly in the years to come as the Water Authority continues to reduce its reliance on Metropolitan water service.

The Fallbrook submission also includes a variety of statements that, at best, are diversionary to ascertaining the impact of the reorganization on Metropolitan's reliance on the Bay Delta. The use of projections of from Urban Water Management Plans ("UWMP") does not address how a reorganization would change demands on Metropolitan's water sources. Fallbrook conflates statutorily limited discussion of water conservation and future projects in UWMP's with the issue at hand—the impact of a reorganization on Metropolitan's reliance on the Bay Delta. It mischaracterizes Stratecon's analysis.

UWMP planning often does not match what happens, even assuming projections are based on the best available facts. Consider the projections of Fallbrook's Local Water Supplies from the Urban Water Management Plans of 2005, 2010 and 2015 (see Figure 1).[4] In the 2005 plan, local water supplies were planned to be almost 8,000 acre-feet per year by 2010. In the 2010 plan, local water supplies were planned to be about 6,000 acre-feet per year by 2015. In the 2015 plan, local water supplies were then planned to reach almost 5,000 acre-feet per year by 2020.

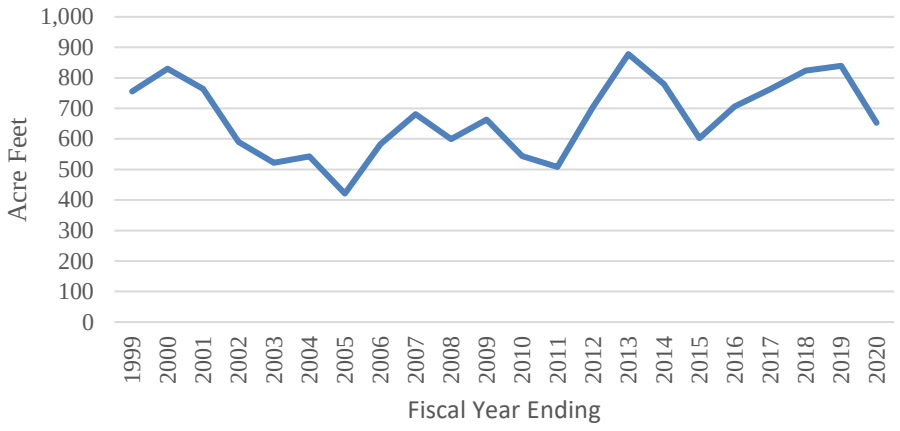
Figure 1
Projected Fallbrook Local Water Supplies by Year of UWMP



[4] Compiled from Fallbrook Public Utility District Urban Water Management Plans, Table 4, p. 8 (2005), Table 4, p. 10 (2010), and Table 6-9, p. 37 (2015).

In retrospect, the three Urban Water Management Plans overstated the timing and size of Fallbrook's increased local water supplies (see Figure 2).[5] With completion of Fallbrook's Santa Margarita Conjunctive Use Project with Camp Pendleton, Fallbrook will now expand its local water supplies.

Figure 2
Fallbrook Local Supplies



The takeaway is that Urban Water Management Plans are designed to serve the purpose established by the California Legislature: they are a planning tool. Fallbrook's experience demonstrates that actual outcomes may deviate from plans. In 2005, Fallbrook anticipated developing groundwater supplies from the Santa Margarita River by 2010 with an estimated yield of 6,000 acre-feet per year.[6] A decade later, the project is just around the corner at lower estimated yield of 3,100 acre-feet per year.

A planning tool should not be confused as an assessment tool of the proposed reorganization. How will Metropolitan use its own water supplies to meet Fallbrook and Rainbow's water demands? Analysis of actual operations and agreements within the context of actual data provides the best framework.

Instead, Fallbrook conflates water conservation efforts and other projects by water agencies in Southern California with the issue at hand. Fallbrook states that, "Claiming that increased reliance on the Delta by MWD can be determined by just assessing MWD's percentage of SWP and Colorado River supply negates the efforts being undertaken by all MWD member agencies and sub-agencies like FPUD."[7] The percentages that Fallbrook finds objectionable are facts about the composition of Metropolitan's water supplies, which Fallbrook and Rainbow would

[5] Compiled from Water Authority's annual report on Sources and Uses of Member Agency water.
[6] Fallbrook's 2015 Urban Water Management Plan, Table 4, p. 8.
[7] Fallbrook Submission, p. 24.

exclusively rely upon under a reorganization. Recognizing facts does not "negate" any other water conservation efforts or development of new local supplies.

Fallbrook's submission muddles two issues: (1) what is the impact of the reorganization on Metropolitan's reliance on the Bay Delta and (2) what is the impact of other programs and projects undertaken in Southern California on Metropolitan's reliance on the Bay Delta. Those are not the same question, though Fallbrook's discussion attempts to combine the former issue (relevant to assessment of the proposed reorganization) into the latter issue (which is not related to the assessment of the proposed reorganization).

Fallbrook also comments on Stratecon's earlier letter concluding that the "detachment will increase Southern California's reliance on Northern California for water supplies." Eastern's "Technical Memorandum" "asserts the contrary by assumption. It fails to mention, let alone analyze, the role of the Water Authority's historic agreements with IID and the Coachella Valley Water District in the Water Authority's water sources and how the Water Authority uses QSA water."[8] However, what follows in Fallbrook's discussion then ignores the issue.

Instead, while recognizing that the Water Authority's QSA water "is an important part of MWD service area's overall efforts along with many other activities, to reduce reliance on the Delta,"[9] it argues that "SDCWA's QSA supplies did not create 'new' water."[10] This view evidences a lack of understanding of the role of the Water Authority's underlying agreements in making QSA water available through the necessary regulatory approvals from the State Water Resources Control Board and Bureau of Reclamation. "New water" is in fact made available to the Water Authority and Metropolitan (from extension of Metropolitan's 1988 Conservation Agreement with IID) from IID's water conservation programs and the lining of the All American and Coachella Canals.

Fallbrook further mischaracterizes Stratecon's review by stating that Stratecon seems "to be operating in a vacuum that [the] only factor reducing southern California's reliance on the Delta is SDCWA's Colorado River supply Agreements."[11] Stratecon's analysis addressed the first issue identified above, i.e., the impact of the reorganization on Metropolitan's reliance on the Bay Delta. Stratecon did not, nor did it need to, address the impact of other initiatives and projects in Southern California. Whatever the impact of the other initiatives on Metropolitan's reliance on the Bay Delta, the proposed reorganization would mean that Metropolitan's reliance on the Bay Delta would increase relative to its reliance based on the impact of other initiatives.[12]

[8] *Ibid*, p. 26.
[9] *Ibid*, p. 27.
[10] *Ibid*.
[11] *Ibid*.
[12] *Ibid.*

The Delta Watermaster's email to Sandy Kerl is crystal clear that the issue is not whether Southern California as a whole is taking steps to reduce reliance on the Delta, as argued by Fallbrook. Mr. George discusses the 2013 Delta Plan, Appendix G at G-5 and writes:

> "It is important to recognize that reliance on water from the Delta varies . . . throughout California, and from region to region and water supplier to water supplier . . . the key is that *every water supplier must do their part* and take appropriate action to improve regional self-reliance and contribute to reduce reliance on water from the Delta watershed." (emphasis added)

Metropolitan has identified that the reliability of its State Water Project supplies requires construction of a project involving one or more tunnels. The last time the Department of Water Resources attempted to certify that such a project was consistent with the Delta Water Plan, it withdrew its application due to objections by numerous parties that all of the suppliers who received water from the State Water Project, including Metropolitan, had not taken all appropriate steps to reduce reliance on the Delta. The proposed reorganizations of Fallbrook and Rainbow would only add to such a finding and thereby threaten implementation of a project Metropolitan deems essential to its future water supply reliability.

Conclusion

Fallbrook's submission to the Delta Stewardship Council misstates the impact of the proposed reorganization on Metropolitan's reliance on the Bay Delta. Fallbrook provides no substantive analysis or data in support of its presumptions. It neglects how the water supply sources backing the Water Authority's service to Fallbrook and Rainbow differs from the water supply sources backing Metropolitan's proposed water service to Fallbrook and Rainbow via Eastern.

Thank you for the opportunity to review Fallbrook's Submission. Southern California's water demands stress the local economies and ecosystems in the north. The Fallbrook and Rainbow reorganization proposal demonstrates regression—or "backsliding" in the words of the Delta Watermaster—by stepping away from actions already taken to reduce demand on the Bay Delta and would intensify the conflict.

Rodney T. Smith, Ph.D.
President

Attachment A
Rodney T. Smith, Ph.D.

Rodney Smith is President of *Stratecon Inc* (www.stratwater.com), an economics and strategic planning consulting firm specializing in the economics, finance, and policy of water resources, President of *Baja Norte Water Resources, LLC*, a project developer of bi-national water projects.

Dr. Smith is involved as an advisor in the acquisition of water rights throughout the western United States and in the sale and leasing of water rights and water supplies to public and private sector water users. This first-hand experience in the decades long development of water markets provides industry expertise to identify the best candidate locations for electronic water markets, proper market design and navigate related public policy issues.

He has consulted extensively for public and private sector clients, including high net worth investors, on business and public policy issues concerning water resources, including California's Drought Water Bank, the government of New South Wales, Australia's effort to privatize irrigation organizations, and the economic, financial, legal, and political dimensions of water transactions in many western states. Rod worked on the IID/San Diego County Water Authority Agreement, the settlement of Colorado River disputes on behalf of the Imperial Irrigation District, and the acquisition of 42,000 acres from the United States Filter Corporation, a unit of Veolia Environment. He is routinely involved in economic valuation of water rights, water investments, and negotiation of water acquisition and transportation agreements. He also performed studies on the economic risk of water shortages and valuation of surface water and groundwater storage. He has also served as an expert witness in the economic valuation of groundwater resources, disputes over the economic interpretation of water contracts, economics of water conservation and water use practices, and the socio-economic impacts of land fallowing. He served as an outside advisor and author of *Water Transfers in the West*: *Projects, Trends and Leading Practices in Voluntary Water Trading*, by the Western Governors Association and the Western States Water Council (2012).

Dr. Smith has written extensively on the law, economics, and finance of water resources and water policy. In 1987, he created and became co-editor of Stratecon's paid-circulation publication *Water Strategist: A Quarterly Analysis of Water Marketing, Finance, Legislation, and Litigation,* In January 1999, the publication became a monthly web-based publication (www.waterstrategist.com) and information service, *Water Strategist*, which extended its coverage to include developments in the emerging private corporate participation in western water matters. In addition, Stratecon, Inc. introduced *The Water Strategist Community*, (www.waterchat.com), a web-based news portal providing free access to the direct press releases and important reports from over 300 public agencies, water firms and bond rating agencies. In 2011, Stratecon stopped publishing *Water Strategist* and replaced it with a contract research service based on its proprietary database. Earlier in 2013, Stratecon introduced prediction markets to the water industry (www.waterpolicymarkets.com), and in 2014, Stratecon introduced Journal of Water (www.journalofwater.com).

Rod is also known for his books *Troubled Waters: Financing Water in the West* and *Trading Water: A Legal Framework for Water Marketing*, sponsored by the Ford Foundation through grants to the Council of Governors' Policy Advisors. Former Secretary of the Interior Bruce Babbitt wrote forwards for both books.

Dr. Smith received his Ph.D. in Economics from the University of Chicago and a Bachelor of Arts in Economics from the University of California at Los Angeles. Prior to making a full time commitment to the private sector, he was a professor of economics at Claremont McKenna College for fifteen years, Director of the *Lowe Institute of Political Economy*, and a member of the editorial board of *Economic Inquiry*, the professional economics research journal of the *Western Economics Association*. In 1989, he was the John M. Olin Visiting Professor of Law and Economics at Columbia Law School. In the late 1970s and early 1980s, he was also a visiting assistant professor of economics at the Graduate School of Business, University of Chicago, where he also served as the Associate Director of the *Center for the Study of the Economy and the State*, founded by the late Nobel Prize winner in economics, George Stigler. Rod started his career after graduate school as an economist at the RAND Corporation, where he participated in a study commissioned by the California Legislature on the role of markets to address California's water problems.