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

November 9, 2021

VIA EMAIL

Dr. Michael Hanemann
San Diego County LAFCO
2550 Fifth Avenue, Suite 725
San Diego, CA 92103
(hanemann@berkeley.edu)

RE: Water Authority Rebuttal to Responses to Draft Report

Dr. Hanemann:

Two weeks ago Rainbow, Fallbrook, and Eastern submitted comments to your Draft Report. In response, our staff has prepared rebuttal information, which is attached to this letter as Exhibit A. Additionally, Dr. Rodney Smith of Stratecon, Inc., has prepared a report on the claims made by A&N Technical Service, Inc., and that report is attached as Exhibit B. We ask that this letter and its attachments be provided to the Advisory Committee and to all LAFCO Commissioners (it is copied to Keene Simonds and Adam Wilson, so we ask that they do so).

Thank you for your consideration of these Water Authority comments.

Sincerely,

Mark J. Hattam
General Counsel

Attachments

cc via email:

Keene Simonds, Executive Officer, San Diego County LAFCO
Adam Wilson, Moderator, San Diego County LAFCO
Holly Whatley, Counsel, San Diego County LAFCO
Sandra Kerl, General Manager, San Diego County Water Authority
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

EXHIBIT A

WATER AUTHORITY REBUTTAL COMMENTS TO RAINBOW/FALLBROOK/EASTERN SUBMITTALS MADE IN RESPONSE TO DR. HANEMANN OCTOBER 11 DRAFT REPORT (11/09/2021)

1. Introduction

Water Authority staff provides these comments to the remarks submitted to Dr. Hanemann's draft report ("Draft").

Collectively, the agencies supporting detachment submitted five documents regarding the Draft: (a) comments by Eastern ("Eastern Comments"); (b) a joint letter from Fallbrook and Rainbow ("Joint Letter"); (c) a set of comments by Rainbow ("Rainbow Comments"); (d) a set of comments from Fallbrook ("Fallbrook Comments"); and (e) a report by Thomas Chesnutt and A&N Technical Services, Inc. ("A&N Report") attached to the Joint Letter. There was also a submittal by Ms. Kim Thorner stated to be in her capacity as a member of the Special Districts Advisory Committee ("Thorner Comments").

In this document the Water Authority goes through the main points raised in each of the above items. Though we have some serious differences with most of the conclusions stated in the documents, and much of the cited data is incorrect or misapplied (detailed below), it may be helpful to point out a few statements made in the submittals that show some areas of agreement:

- "SDCWA has developed a diversified portfolio of water supplies that include . . . higher reliability supplies (QSA and Desalination)." A&N Report, p.3. *We concur that these supplies are higher reliability*.

- In regards to departure fee Option 2 (Rainbow and Fallbrook pay only when take-or-pay limits are reached), the A&N Report agrees it should not be used: "We find this alternative patently unfair and difficult to recommend . . . ." A&N Report, p.3. Though we do so on different grounds, *we concur with that conclusion, and we again recommend Option 2 be removed from the report*.

- "The Report explicitly does not examine reliability from pipeline break (Page 11)." A&N Report, p.7. *We concur*. This is why we have repeatedly raised the issue. The issue of the Elsinore Fault must be considered. With the Water Authority, Fallbrook and Rainbow can receive water from north and south. With MWD (via Eastern) they can only receive water from the north, and are thus at greater risk in a major earthquake.

- Eastern states: "The higher wholesale rate cited in the Report is intended to allow EMWD to recover the costs associated with the use of EMWD infrastructure that is not required by wholesale customers with direct access to Metropolitan pipelines." Eastern Comments, p.4. *We concur*. This is precisely why we have noted, and why the Draft opines, that should Fallbrook or Rainbow ever actually have to use Eastern's own infrastructure (which would require major construction projects), they would have to pay higher rates than they claim to LAFCO.

- Rainbow and Fallbrook "request that the Ad Hoc Advisory Committee, LAFCO staff, and the Commission keep the applicable legal requirements and constraints in mind as it reviews Dr. Hanemann's analysis." Joint Letter, p.2. Though the parties disagree as to what laws are applicable and what they mean, *we concur the issue is very important*.

- Rainbow states, "We agree that take or pay water purchase contracts are fixed and debt payments are fixed." Rainbow Comments, p.5. *We concur*.

We now turn to our comments. We have organized the issues by general topic areas.

2. Water Supply/Reliability Issues

There are various arguments made in the comments about water supply/reliability issues in the Draft, many of them off point. We walk through the main ones here.

A. MWD v. Water Authority Supply: There is a fundamental water supply issue which is critical to understand: if Fallbrook and Rainbow move to Eastern their imported water will come 100% from MWD supplies, while at the Water Authority they would still have access to MWD water, *plus Water Authority QSA and desalinated water, and benefit from Water Authority stored supplies in case of a major seismic event*. *This clearly makes the Water Authority's supply and system more reliable*. Put another way, Eastern and the Water Authority can both buy MWD water, but Eastern's non-MWD supplies will not be physically accessible to Rainbow and Fallbrook, while the Water Authority's non-MWD supplies are and will be accessible to them. Thus, by definition, the Water Authority's supplies are more reliable than those of MWD alone, upon which management at Fallbrook and Rainbow want to rely.

The A&N Report and other comments confuse the reader with discussions about MWD's Diamond Valley Reservoir, or potential breaks on the Colorado River Aqueduct.[1] But all such remarks are meaningless. As member agencies of MWD, the Water Authority and Eastern can

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[1] It is important to note that just a few years ago, when writing a report for the Water Authority, *A&N and its principal author Thomas Chesnutt took quite a different position on a number of issues relevant here*. In its 2015 report, found starting at Attachment B at the link [Microsoft Word - Special A&F Agenda March 12 2015.docx (sdcwa.org)](sdcwa.org) , A&N found that Water Authority rates met cost-of-service requirements, that its QSA and desalination supply costs were highly reliable, were fixed costs, and that they benefited all member agencies. For example (emphases added): "[It constitutes a reasonable allocation of functional supply costs in that it better aligns the **fixed incremental supply costs** taken on by the Water Authority to make **highly reliable** potable water supplies available to its member agencies within the County of San Diego **with the benefits available to all water customers connected to the SDCWA integrated water system**"; and "Functional incremental supply costs for this purpose are understood to be associated with the **two highly reliable supplies** available to the San Diego County Water Authority that constitute the new and forward-looking supplies—i.e., the supply costs incidental to **IID Transfer water supply and the Carlsbad Desalination plant** . . . ."; and "There is a **clear nexus** between this fixed charge and the **benefits of highly reliable incremental supplies received by SDCWA customers**."

both access MWD's water system. Further, both MWD and the Water Authority receive water through the Colorado River Aqueduct. The difference is that the Water Authority gets higher priority Colorado River water through the same aqueduct as MWD.[2] Additionally, as explained in our past submittals, the Water Authority has greater preferential rights to MWD water than does Eastern, and therefore even as to just MWD water alone it is more reliable. Further, as between the two imported sources, the vast Colorado River system storage makes it less dependent on annual hydrologic conditions than the State Water Project system. This, coupled with California's higher priority to Colorado River supplies, makes the Colorado River supply a more stable imported source than the State Water Project supply. We doubt MWD would dispute this.

Demands that Dr. Hanemann somehow "quantify" the reliability difference, along the lines of "62.673% more reliable" or something similar, is not necessary. It is sufficient that the reliability difference is facially significant, in that the Water Authority offers QSA and desalinated water plus MWD water, while only MWD water would be available to Fallbrook and Rainbow upon detachment. A&N's comment that to "correctly characterize the relative reliabilities of the two systems would require a substantial modelling effort that is probably beyond the resources of the LAFCO to execute or evaluate" (p.11, A&N Report) is therefore incorrect. No such massive modeling effort is necessary.

The detachment advocates want Dr. Hanemann to add to his report a general statement along the lines of the uncertainty of the future in terms of water reliability. Though we must focus on the future, because any analysis of reliability for Fallbrook and Rainbow necessarily requires it, simply guessing about what might conceivably happen in water markets, or how governments will react to droughts, is pure speculation. We have to operate off the facts we know, and the water rights that exist today. Those we know about are these:

- *Fallbrook and Rainbow with Water Authority*: High priority QSA water, drought-proof desalinated water, Water Authority storage system,[3] plus MWD water and MWD storage with high preferential rights.

- *Fallbrook and Rainbow with Eastern*: MWD water and MWD storage with lower, or no, preferential rights. (MWD has stated that preferential rights are not transferrable, and Eastern has indicated that if the detachment should occur it will only be at no negative

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[2] Incredibly, A&N implies that the Water Authority's supplies are at greater risk than those of MWD: "For SDCWA, how reliable the QSA deliveries will be if Colorado curtailments cut deeply into California allotments is an important question. Further, that supply is entirely dependent on a single delivery corridor that could be disrupted by a catastrophic event at several locations." A&N Report, p.11. This is all a red herring. What water supply sources would MWD have if the SWP allocation is zero, and there were a break in the Colorado Aqueduct delivery corridor? Almost zero. Further, A&N raises the possibility of cutbacks on the Colorado River, without even stating that MWD's supplies will be cut before the QSA supplies for the Water Authority. This omission is very misleading.

[3] The A&N Report ignores the benefit of the Water Authority's Emergency Storage Project. The Emergency & Carryover Storage Project is a system of dams, reservoirs, interconnected pipelines and pumping stations designed to make water available to the San Diego region if imported water deliveries are interrupted. The E&CSP added 90,100 acre-feet of water storage capacity for emergency use, and more than 105,000 acre-feet of carryover storage capacity as a hedge against dry years.

impact on its current customers, who have made the payments to MWD accruing Eastern's proportionate share of preferential rights.)

It is therefore fundamentally incorrect to state that there is no material reliability difference on the above facts.

Finally, as a point of information, MWD has just issued a detailed water supply memorandum that explains its serious shortage of water for various portions of its service area. It can be found here: Adopt Resolution Declaring Water Shortage (legistar.com) (the "MWD Memo"). The Water Authority fully supports MWD's efforts to increase the water supply reliability of all of its customers, a subject that is completely separate and apart from these seriously flawed detachment applications.

B. Desalination Benefits Rainbow and Fallbrook: Both Fallbrook and Rainbow continue to claim that as Water Authority members they receive no benefit from the desalinated water plant at Carlsbad. For example:

> "FPUD has paid for desalination supplies since 2016 as part of SDCWA's rate structure, but has not received directly any of these supplies nor any benefit in terms of protection from drought cutbacks." Fallbrook Comments, p.6
>
> "FPUD and RMWD pay for Desalination Supplies they do not receive." Rainbow Comments, p.12.

However, any contention that, even currently, Fallbrook and Rainbow cannot be served desalinated water is false (even if the claim were relevant in a melded water supply portfolio, which it is not). They can be currently served such water in portions of their service areas, however they chose to operate their system in a different manner. Once the ESP buildout is completed in a few years (it was put on hold solely due to detachment) their entire service areas will be able to receive the water during an emergency event.

Here are the actual facts: Desalinated water is conveyed to the Twin Oaks Valley WTP ("TOVWTP") clearwells, where it is blended with TOVWTP effluent and delivered to the Water Authority's Pipeline 4. The blended water can be sent both north and south in Pipeline 4 depending on system demands and operational needs. Water sent north is able to be delivered by gravity to a point upstream of the Pipeline 4 MWD delivery point. In addition, the blended water can be pumped across to the First Aqueduct to supply all treated water connections south of the Lilac Tunnel. The Water Authority is currently able to deliver desalinated water to 52 of the 62 (85%) treated water service connections within its system, *including one FPUD connection (FB4) and four RMWD connections (RB3, RB6, RB7, RB11)*. Currently there are three FPUD (DLZ1, FB3, FB6), four RMWD (RB1, RB8, RB9, RB10), one Valley Center MWD (VC3), and two Yuima MWD (YMWD1, YMWD 2) treated water connections that are unable to receive desalinated water. *Following the completion of the final set of ESP projects, all remaining areas will be able to receive water from the TOVWTP clearwell, which includes desalination water, during an emergency event*.

Therefore, portions of both Rainbow and Fallbrook service areas can be served with desalinated water during normal operations or in an emergency even today, and once the ESP work is done in a few years (should detachment be denied) their entire service areas will be able to receive this water in an emergency. Of course, they also benefit when other agencies take desalinated water, or use water from the Water Authority's storage system, as that makes QSA and MWD water available for both Fallbrook and Rainbow to use.

A complete analysis on the differences in reliability between the Water Authority and MWD can be found on pages 76-85 of the Water Authority's September 18, 2020, Response to Reorganization Proposals (the "Response").

C. <u>Moving to Eastern Is Not the "Same Water" at Lower Cost</u>: There is continued misinformation being promulgated to LAFCO by detachment advocates about what annexation to Eastern means. For example, in the Rainbow Comments on page 4, Rainbow General Manager Kennedy tells LAFCO and Dr. Hanemann this:

> "It is erroneous to say that somehow when the change occurs the agencies will receive only MWD supplies. The relationship between MWD member agency and sub agency will be the same with EMWD as with SDCWA – just at a much lower cost."

This statement is patently false in every respect. First, as noted in the Draft, Rainbow will be entirely reliant on MWD for its imported water after detachment. Indeed, when Rainbow GM Kennedy is speaking to his own Board he has admitted this (emphasis added):

> "Under our agreement with them [Eastern], <u>*we are just strictly getting Metropolitan water from them*</u>." May 5, 2021, Rainbow MWD Engineering And Operations Committee Meeting Transcript, p.39.[4]

Similarly, Eastern notes in its previously submitted February 12, 2020, Technical Memorandum on page 1 that "Fallbrook and RMWD would remain dependent on the reliability and availability of Metropolitan supplies." Additional information that documents Fallbrook and Rainbow's complete reliance on MWD supplies should detachment occur can be found on pages 76-77 of the Water Authority's Response.

Second, the relationship will not be the same. With the Water Authority both Rainbow and Fallbrook have their own seats on our Board, and have access to not just MWD water but to all Water Authority supplies and facilities as well, including QSA and desalinated water and ESP facilities. With Eastern they will have no seat or seats on the Eastern Board, and will have no access to any of Eastern's supplies or infrastructure at all.

Finally, there is no certainty any MWD rates will be lower. MWD has major water supply and infrastructure work that needs to be done, all as pointed out in the Draft and in our Response. We do not make these comments to be critical of MWD in any way, just to observe that they

[4] Submitted to LAFCO July 16, 2021; see 637641845243430000 (sdlafco.org)

have major planned investments coming soon that will of course affect the rates for purchases of their water.

D. Diamond Valley Reservoir: The advocates for detachment claim that somehow MWD's Diamond Valley Reservoir is more reliable than the Water Authority's supply and is more than sufficient for any drought. For example:

> "The combination of regional storage [Diamond Valley Lake] and local projects makes the MWD system more resilient to large scale disruptions than SDCWA's." A&N Report, p.11.
>
> "MWD holds several times its annual Colorado River allocation in storage in Diamond Valley Lake – just north of the two agencies. This supply provides MWD a much higher level of reliability during drought or aqueduct disruption than a contracted supply does." Rainbow Letter, p.14.

Both comments attempt to distinguish Diamond Valley Lake (DVL) as an additional layer of water supply reliability for Eastern, and thus Fallbrook and Rainbow, under Metropolitan's water supply portfolio. This is a completely false premise, and misleads, because as noted above, ***the Water Authority has the same and in fact greater access to this supply source as Eastern*** based on our agency's greater preferential rights based on past investments at MWD. DVL, and all other MWD storage, does not provide any additional reliability to Rainbow MWD or Fallbrook via annexation to Eastern, because all MWD member agencies have access to MWD's system. Rainbow and Fallbrook already benefit from DVL as Water Authority member agencies, just as they would at Eastern. The difference is the Water Authority has QSA + desalination + local storage + MWD, while detachment would leave Fallbrook and Rainbow with MWD only, and again, with zero preferential rights to its water supply.

Additionally, any existing supply in DVL during a drought does not necessarily mean no MWD allocations. For example, in the last drought in 2016, DVL available water in storage was not a sole determining factor when MWD went into allocations, imposing a 15% reduction in MWD supply to the San Diego region, which because of our separate supplies amounted to a far lower reduction in San Diego County (less than 1%). This latter example is critical, because it shows the applicable water supplies "in action," yet is completely ignored by the detachment advocates.[5]

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[5] It is again worth noting the clear statement made by expert Ken Weinberg whom Rainbow and Fallbrook rely on in their applications to LAFCO, as cited on pages 78-79 of our Response: "As evidenced in the last two droughts where cutbacks were initiated by MWD (2010-2011 and 2015-2016) SDCWA reliability was greater and cutbacks substantially lower than the MWD regional cutback level. Although MWD maximum cutback levels during both those droughts was 15%, SDCWA because of its more reliable supplies, provided greater reliability to its member agencies M&I customers during both shortages." Neither Dr. Hanemann or LAFCO should rely on theoretical opinions by detachment advocates, as one can see the real world results from actual MWD shortages in recent years, and even today, in response to drought conditions.

In the newly released MWD Memo, page 2, MWD itself states limitations on DVL (emphasis added):

> "Diamond Valley Lake, Metropolitan's largest surface water reservoir and source of dry-year and emergency water supplies, has only been replenished with State Water Project supplies since the discovery of Quagga mussels in Colorado River water. Under a zero percent SWP Allocation, *insufficient SWP supplies exist to meet normal potable demands in areas where Metropolitan depends on the SWP to meet its agencies' demands, nor can it serve SWP supplies to other agencies or replenish storage in Diamond Valley Lake*."

E. There Is No Meaningful "Supply Benefit" for Other Water Authority Member Agencies if Detachment Occurs: It is claimed that there is a net benefit to the Water Authority's member agencies should Fallbrook and Rainbow detach because more QSA water will be available to the remaining member agencies. However, as documented in the Water Authority's 2020 Urban Water Management Plan, the Water Authority has sufficient supplies to serve all of its member agencies' demands through 2045. Something "benefits" someone only if they need it. That is not the case here. Because there is no supply shortage, there is no meaningful supply benefit to the Water Authority if Fallbrook and Rainbow detach.

Instead, there is a significant negative impact to the Water Authority's remaining member agencies financially if detachment occurs. Supporting information on the negative financial impacts of detachment can found on pages 48-67 of the Water Authority's Response.

F. Eastern Growth: Eastern states that:

> "In EMWD's 2020 UWMP, projections for future water demands were calculated using a higher level of per capita water use than the actual 2020 per capita water use. This is a conservative planning assumption that accommodates for population growth occurring at a faster than projected rate. In reality, on a per capita basis, EMWD would expect demands to either remain consistent with 2020 levels or even decrease, given the implementation of statewide legislation such as SB 606 and AB 1668 and EMWD's ongoing investment in conservation programs and water use efficiency outreach within its service area."

Per Eastern's Urban Water Management Plan ("Eastern UWMP"), if Eastern's per capita annual demands remain consistent with 2020 levels, retail potable and raw water demands will increase by 19,300 AFY by 2035 (Calculated using data from Tables 3-3, 3-4 and 4-5 of Eastern UWMP). Table 6-15 of the 2020 Eastern UWMP shows no increase in groundwater or desalinated water supplies and only a 12,000 AFY increase in indirect potable reuse water supplies. The remaining demand from growth will result in an increase demand on MWD water to meet Eastern's retail demands, in addition to wholesale demands.

3. Financial Issues

There are various arguments made as to financial issues. They are replete with misinformation and misleading claims. We address the main ones here.

A. Eastern To Charge $1,154/AF While Water Authority Charges $1,833/AF: This incorrect assertion was addressed in the Water Authority's Response to LAFCO at page 102, where we noted:

> "Fallbrook and Rainbow also have not been accurate in describing even the current rate differential. They compare the MWD rate (+$11 per acre-foot for Eastern's book entry) against the full published Water Authority rate. But they don't pay the full Water Authority rate."

Despite explanation of this more than a year ago, Rainbow and Fallbrook continue to provide wrong and misleading rate information to Dr. Hanemann and LAFCO. The Water Authority's rates are comprised of both fixed and variable charges. The purported "EMWD" rate excludes hundreds of millions of dollars in other rates collected by MWD, such as the Readiness-to-Serve and Capacity Charges.

In addition, notably absent from this "price differential" claim is the fact that the Water Authority differentiates by customer class in accordance with cost-of-service legal requirements and industry standards (M&I Rates and Special Agriculture Rates). Furthermore, Rainbow and Fallbrook pay the transportation rate on just a fraction of their total of demands, also ignored in the false rate comparison.

When calculated correctly, the rate Rainbow and Fallbrook collectively pay is $1,517/AF (for Water Authority) vs $1,222/AF at Eastern. This substantially reduces the delta by nearly 60%, from $679 to $295/AF. This additional cost reflects the additional investment in reliability provided to Rainbow and Fallbrook's customers. Additionally, as explained in many submittals to LAFCO, the Water Authority is also past its major capital investment cycle, whereas MWD is about to start multi-billion dollar projects, which will reduce or eliminate that differential. While the Water Authority anticipates working cooperatively and collaboratively with MWD and its member agencies with respect to cost allocation relating to these investments, it is evident that the major driver of the projects will be to secure a more reliable and sustainable water supply for agencies that need it.

It should be noted that many of Rainbow and Fallbrook's agriculture customers, especially those with higher-margin crops, choose to forgo the lower cost, but less reliable water of the PSAWR Program; *they want higher reliability with no threat of cutbacks and choose to pay more for uninterrupted supply*. Ms. Tracy Largent, Rainbow's Finance Manager, noted this fact on October 12, 2021, in publicly reporting to Rainbow's Budget and Finance Committee, stating: "The results of the customers that were formerly TSAWR that signed up for PSAWR – about 34 percent of our customers switched over to the permanent SAWR program, of all the customers that were formerly TSAWR. . . . The feedback we've been getting from the nurseries and the farmers is that 'we don't want the cutbacks in the situation that there's a drought' – they just can't afford to take that cutback." Detachment would not only take this higher supply reliability option away from them, but would also force less reliable water onto all residential, agricultural and commercial properties.

B. Hanemann Supposed Error Re Water Authority Avoided Costs: The A&N Report contends it found an error regarding avoided costs, that "traces back" to a Dr. Hanemann e-mail of 6/22/21. A&N Report, p.3. A&N is relying on outdated and draft information. While Dr. Hanemann's draft tables have been updated based on input from both Rainbow and SDCWA, the figures provided by the Water Authority in our September Response at Table 4.7 remain unrebutted.

Given its draft nature, Dr. Hanemann's initial June table (Table 10) mistakenly showed that the Water Authority would "avoid" $3.6M in transportation costs. However, as Dr. Hanemann presented to the LAFCO Ad Hoc Advisory Committee in July, the costs associated with transportation are fixed and thus were removed. With this correction and compared to the Water Authority's September Response at Table 4.7, Dr. Hanemann concluded, "Bottom line: with regard to a single year analysis, I am essentially on the same page as SDCWA [Table 4.7 of the September Response]."

C. Water Authority's Alleged "Profit": A&N makes this grossly inaccurate claim on page 7 of its report: "SDCWA recovers approximately 652 $/AF profit on each AF sold to FPUD/RMWD, clearly inconsistent with cost of service." However, A&N then rebuts its own claim by stating on the same page, "Granted this net revenue [also incorrect] goes to pay for important highly reliable desalination water… and the emergency storage project…"

To make claims of public agency "profit" while excluding significant reliability costs, not to mention all staffing, maintenance, and debt costs, appears to be purposefully inaccurate. It is founded on the false premise that one must only pay for the actual pipe used by that individual person, *which is not how a postage stamp rate system such as found at both MWD and the Water Authority works*. What is ironic is that Rainbow, Fallbrook and Eastern all use postage stamp rate systems. A&N's contention is as off point as would be a Fallbrook customer saying, "the only pipe I personally use costs $100, but you are charging me $1,000, so you are making a $900 profit." In reality, Fallbrook is charging for its system, and allocating that cost recovery across users of the system – there is no "profit."

D. Allegation That Three-to-Five Years Is Payment Enough: The A&N Report states that "many of the avoided costs have a shorter year roll-off" and "an alternative 3-5 years should be thoroughly evaluated." However, they provide no examples of costs that would be avoided that were not already included in the Water Authority's September Response to LAFCO. Contrary to the A&N assertion, the majority of Water Authority costs are fixed liabilities incurred previously. The Water Authority is only calculating recovery of future costs previously incurred (debt and contractual). The Water Authority's existing rate structure and length of rolling averages is not relevant to defining an appropriate departure fee. The rates are set annually to ensure adequate recovery of costs and assume continued participation and rate-setting authority over all member agencies. Furthermore, the Water Authority's Infrastructure Access Charge is fixed and unavoidable – yet not discussed by A&N.

E. $30-$40 Million in ESP Savings: The Water Authority has always been clear that there would be some savings if the final stage of the ESP project is not completed. We said this in 2020. *See* Response page 61, footnote 65. However, the claimed "savings" of $30-$40 million in costs with detachment is overstated as these costs would be debt-funded and recovered/paid over 30 years. The detachment advocates ignore the important "flip side" to this issue: that once we complete the ESP project, all their service areas can directly receive desalinated and storage water, an added reliability benefit which they will not receive at all at Eastern.

F. Alleged Net Revenue Impacts, and Claim That Less Than 1% of Annual Budget Provided by FPUD/Rainbow: Rainbow and Fallbrook's Joint Letter Table 1 on net revenue impacts is not accurate. It incorrectly compares net revenue with a completely different calculation. The net impact (revenues less expenditures) of detachment ranges from $16.4M to up to $45M depending on the Water Authority's ability to mitigate (avoid) variable supply costs. This is clearly defined (using actual results) in the Water Authority's Response (Table 4.7).

The Water Authority's 10-year outlook in Table 4.10 of the September Response was based on a detailed rate model (assumed increases and demands), but the numbers provided by Rainbow and Fallbrook in Table 1 make no such adjustments – further showing error in their claimed impact. It should also be noted that should Rainbow and Fallbrook's demands fall as precipitously as they claim, demands Water Authority wide would likely also fall. This would greatly exacerbate the losses from detachment. As noted in the Water Authority's September 2020 Response, "This greater impact reflects the possibility of demands falling below the Water Authority's contractual take-or-pay obligations. Without detachment, sales remain above this threshold. However, with detachment, the Water Authority may be below this threshold in certain years, and not be able to mitigate the impact with avoided costs." This detailed 10-year forecast was provided to Dr. Hanemann and as noted in the Draft Report was deemed "reasonable."

Fallbrook and Rainbow also contend that their leaving via detachment is no major issue because they only provide 1% of the budget of the Water Authority. Joint Letter, p.4. This is an incorrect argument. Using the "Actual High" numbers provided in their Table 1, $5.7M only affords the purchase of 5,025 AF of MWD treated water – just 21% of their 23,500 AF delivered in FY '21. Furthermore, the "FPUD Net Revenue (High)" of $550,679 is less than just Fallbrook's $605,000 of fixed IAC revenue to the Water Authority. The calculations offered by Rainbow and Fallbrook are completely illusory and impossible to defend. In FY 2021, Rainbow and Fallbrook's net value of water purchases from the Water Authority was $39.9M (6.16% of the Water Authority's total sales).

Despite apparent attempts to reduce their use of the Water Authority's system to bolster their detachment arguments, Fallbrook and Rainbow's FY '21 use is on par with their historical average share of 6.18%, and was higher than the previous year's use. The true and correct calculated revenue loss from a detachment is fully detailed in the Water Authority's Response to LAFCO in Section 4.

G. <u>Water Authority Book Assets</u>: Apparently Rainbow and Fallbrook believe the Water Authority's piping infrastructure throughout San Diego County makes the agency wealthy, because they continue to make arguments about the value of the Water Authority's book assets. First, some of that infrastructure was paid for by debt that is still outstanding. Second, other than reserves, which the Water Authority did credit in its detailed calculations in its Response, the infrastructure does not have an "open market" sales value because it is in the ground (literally) to provide member agency service. Here is the explanation we earlier provided in the Response (pp. 53-54):

> "Many liabilities have been incurred to fund the Water Authority's capital and infrastructure development, and its development of a water supply. However, much of this infrastructure has no external or intrinsic value outside the delivery of wholesale water to member agencies. Once invested, these assets serve only to deliver water and its related service to Water Authority members. Because many of these assets take years to plan and develop, they are also built to serve forecasted demands – all based on the premise of maintaining member agency status. While no value of the facilities or infrastructure assets is listed here, because they have no realistic open market sales value as in-place water infrastructure, the Water Authority maintains various cash reserves that have been funded through rates [reserves are listed an applied]."

H. <u>Water Authority Is Not Better Off With Fallbrook and Rainbow Gone</u>: Arguments continue to be stated that somehow the Water Authority will be better off if these agencies detach. As has been previously addressed, from a financial and San Diego County planning and economic perspective, this is untrue. No public agency the size of the Water Authority can reasonably be expected to adjust to the precipitous, unplanned loss of 6%+ of its carefully planned and calibrated revenue stream (contrasted with planned supply reductions over time consistent with state policy). As has been correctly stated by Dr. Hanemann and A&N, the Water Authority's costs (as of today) are fixed. The financial impact of detachment is immediate and provides loss of recovery for existing fixed costs (debt, staffing, infrastructure maintenance), all as has been extensively detailed to LAFCO. (*See* Section 4 of the 2020 Response).

I. <u>QSA Supplies And Rate Increases</u>: Arguments continue to be made devaluing the QSA water and claiming MWD's water is cheaper. These contentions are not correct or supported by any evidentiary record.

Rate comparisons such as those presented by Rainbow, Fallbrook, and EMWD improperly exclude other (rate) revenues and thus inaccurately reflect the "true" rates at issue. Simple comparisons to MWD often focus only on their "Full Service Treated Volumetric Cost -Tier 1 Treated Rate" ($1,143/AF). However, this excludes a number of fixed or other offsetting revenues from MWD: (1) $136M collected by a Readiness-to-Serve Charge; (2) $41M collected by a Capacity Charge; and, (3) a special property tax assessment that collects an addition $160M. (As defined in a recent MWD Board memo, without this special property tax the defined $1,143 rate would <u>*increase by 8%*</u>. MWD Board Action Memo of August 18, 2020 re Item 7-1.)

As accurately demonstrated on page 32 of Dr. Hanemann's Draft Report, when just RTS and CC are added to the volumetric rate, the MWD "All-In" rate is higher than QSA's "All-In" cost. Note, the MWD "All-In" rate also excludes the noted 8% collected via property tax (as this cost is not incurred based on system use).

Similarly, the provided Eastern "rate comparison" graphic excludes costs (rates) associated with the "EMWD Infrastructure Availability Charge/Assessment." As stated on Eastern's website, "The assessment for necessary infrastructure and infrastructure maintenance remains indefinitely on a property's tax bill to equitably distribute the cost of EMWD facilities in relation to benefits received by property owners."[6]

The Water Authority's "All-In" rate analysis shows a more comprehensive, true cost of water service. As is well documented and shown in Dr. Hanemann's Draft, when MWD's fixed costs are added to its volumetric rate, the "all-in" cost of MWD water is higher than that of QSA water. While the detachment advocates say they disagree, they provide no analytical support to refute these facts. The sustained and significant increases of MWD's rates have outpaced the contractual inflation escalations for QSA supplies. The successful lawsuit challenging MWD's unlawful rates further increases the already existing favorable pricing cross-over.[7] On the subject of a fair rate comparison, *see also* Response pp. 100-102.

J. Rainbow's Page 5 Graphic: Rainbow's graphic on page 5 of the Rainbow Comments is intended to show a huge delta in costs between MWD water via Eastern, and the Water Authority supplies. It is seriously in error because: (1) The "EMWD" rate excludes all costs from MWD via Eastern (confirmed or potential), as noted in the preceding subsection above. The "EMWD" Rate reflects only MWD's volumetric rate and not MWD's RTS charge, Capacity Charge, or property taxes; (2) MWD's 10-year rate forecast (MWD's last long range finance plan was done in 2004, and it does not have an updated Long Range Financial Plan) does not include multi-billion supply projects such as the Delta tunnel or the Regional Recycled Water Program, both of which are in planning phase. As detailed in the Water Authority's Long-Range Financial Plan:

> "While MWD faces many of the same challenges as the Water Authority, each agency is at a different cycle in their capital program. Where the Water Authority has shifted its focus from completing major capital projects to maintaining facilities, MWD is planning

[6] Standby Charge/Infrastructure Assessment - Eastern Municipal Water District (emwd.org)

[7] Dr. Hanemann should take note that the litigation expenses regarding the cost of transporting QSA water, which of course were included in rate increases over the past decade at the Water Authority, have recently resulted in over $80 million in disbursed payments to Water Authority member agencies, including payments of $2,251,572.99 to Rainbow and $1,534,663.30 to Fallbrook. These payments reduced the effective cost of Water Authority QSA supplies (between 2012-2018 – when overcharges occurred). The press release can be found at https://www.sdcwa.org/44-4-million-in-mwd-overcharges-being-returned-to-local-water-agencies-2/

several concurrent multi-billion-dollar investments. The purpose of the financial sensitivity analysis wasn't to fully capture a "worst case" or "best case" scenario, but rather encapsulate a range of annual increases. Given that the timing, scope, cost, and financing plan of these facilities remain unclear, a high-low was developed to reflect partial funding of these projects and/or changes in water sales. When MWD fully funds these projects over the planning period, or expedites project timelines, MWD rates would need to increase well beyond the "high" scenario.";

(3) MWD's existing financial reports and rates do not reflect the current trend of lower demand/sales levels, nor do they include funding/costs associated with multi-billion-dollar capital projects; and (4) any comparison of cost without attributable discussion/context of reliability is incomplete and misleading.

K. Supposed "Portfolio Mismanagement" by Water Authority: On page 9 of the A& N Report they assert that with a detachment obligation "FPUD/RMWD would be shouldering the entire responsibility for portfolio mismanagement by SDCWA." There is no such mismanagement, and A&N is irresponsible for making such an assertion with no evidence to support the claim. The Water Authority has rightly been lauded – after its 1990's experience of relying almost solely on MWD for water (which Fallbrook and Rainbow now want to duplicate) – for developing local, highly reliable and sustainable local supplies of water via the QSA conservation agreements and desalination. These water supplies have reduced reliance on the Bay-Delta, and given San Diego County water ratepayers substantial control over their own destiny – while still remaining a MWD member agency (in spite of all of our differences and even litigation, the Water Authority has never sought detachment from MWD). That is not "mismanagement," but is a definition of success that could not be made more clear than it is today as the state suffers yet another devastating drought condition.

L. Affordability Impacts: On page 5 of the A&N Report they show a graphic of retail water costs with various water agencies in Southern California, purporting to emphasize affordability. However, A&N has not noted a very important point: other member agencies of the Water Authority do not match Fallbrook's high retail water rate.

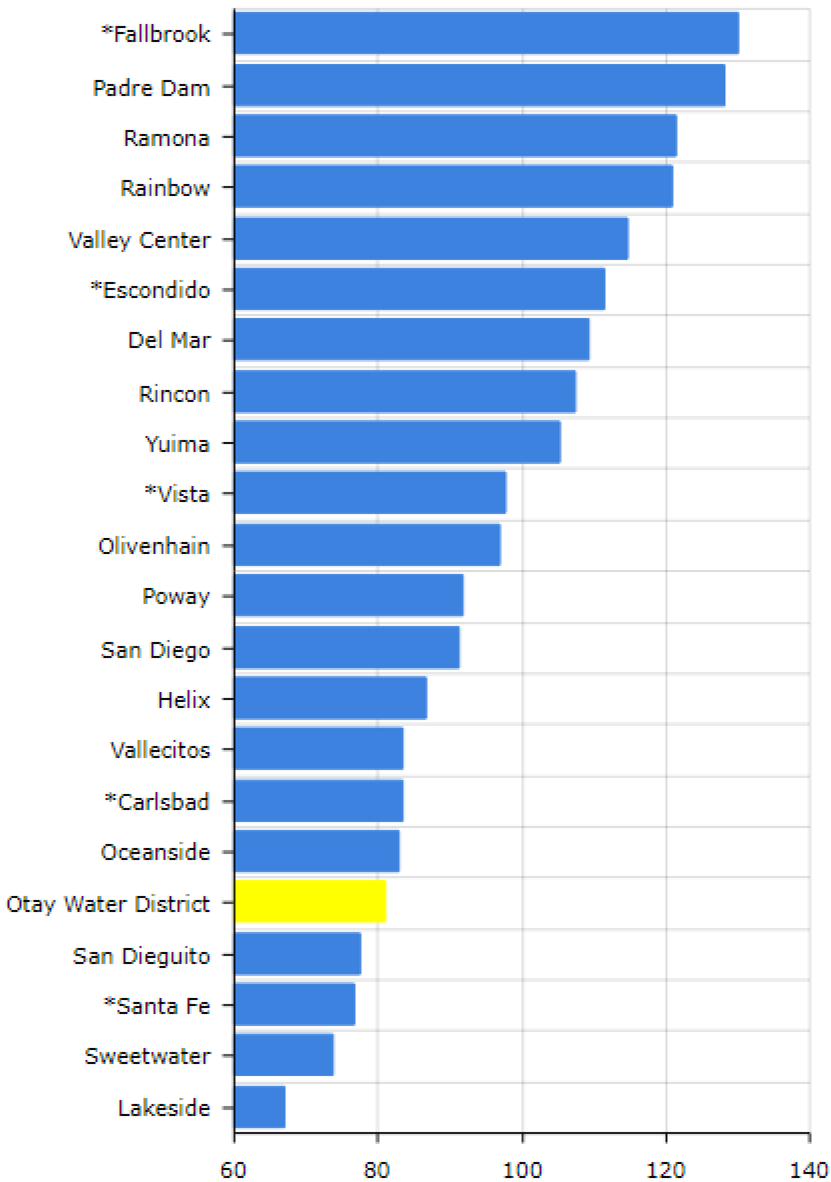
For example, here is a graphic that Otay Water District prepared showing Water Authority member agency water rates:[8]

[8] https://otaywater.gov/about-otay/news-and-documents/dashboard/rate-comparison/

Survey of Member Agency Water Rates

Projected Water Bill for 2022

(Based on 11 units of water use and 3/4 meter size.)



**At the time of the survey in September 2021, the member agency's FY 2022 rate was unavailable. An estimated increase was applied equal to the other districts' average FY 2022 known rate increases.*

One can see from the above that Rainbow and Fallbrook are first and fourth in highest rates in San Diego County. As all agencies depicted are Water Authority member agencies, this positioning is a reflection not of the Water Authority's charges as claimed, but of the costs of their own retail systems. Some agencies face their own internal significant infrastructure rehabilitation and replacement costs, and it makes comparisons such as those referenced by A&N misleading. Unlike the referenced A&N comparison, Otay's table also defines the assumptions used (11 CCF and 3/4" Meter) for clarity and context.

In regards to affordability, the Water Authority is part of a new MWD caucus formed to identify and address the needs of disadvantaged communities. The Water Authority supports continued investment in local and sustainable water supply investment and is working with MWD and its member agencies as part of the "One Water" campaign advocated by its new General Manager, Adel Hagekhalil. The Water Authority believes that a reliable and sustainable water supply is affordable for most of Southern California.

4. Legal Issues

The Hanemann Draft makes clear it is not dealing with legal issues. The Water Authority has stated in many filings with LAFCO that there are significant legal issues involved in detachment,[9] and it assumes they will be dealt with in due course outside the work of Dr. Hanemann, who is not an attorney and whose scope does not include legal analysis.

Nonetheless, there are assertions of law submitted in some of the comments by the detachment advocates, and so the main ones are addressed briefly here.

a. *Propositions 218 and 26, and Cost-of Service*

Numerous claims are made in various submittals about how any exit fee violates cost of service principles in provisions such as Propositions 218 and 26. The essence of their argument is: "no exit fee is allowed because we would be paying for services not received, thus violating Proposition 218 and 26 (and other similar laws)."

First, Proposition 218 does not apply to a wholesale agency such as the Water Authority, which does not impose property-related fees and charges. Only retail agencies such as Rainbow and Fallbrook must comply with Proposition 218 when they set retail rates and charges.

Second, a detachment fee payable by a retail agency to the Water Authority *is not a charge for service*. Rather, it is a charge to pay a proportional share of previously-incurred obligations upon *leaving* the service area, and is contemplated by existing law. It would be imposed so that remaining members of the Water Authority would not be unfairly burdened with the detaching

[9] As indicated in prior submittals to LAFCO, the Fallbrook and Rainbow applications to LAFCO are cases of "first impression" that could lead to other applications and proceedings across the state. The legal issues in this sought detachment are similar to the legal issues which exist with respect to a member agency's potential detachment from MWD, and thus the current process could have impacts far beyond just this proceeding. The MWD Board of Directors began its discussion of potential impacts just this week at its November 8 Water Planning and Stewardship Committee. Further discussions and policy deliberation there is expected.

agencies' proportional share of the obligations -- an attempt to leave without paying the bills, as Fallbrook and Rainbow seek to do here. The concept is very clear in laws such as the County Water Authority Act and Government Code section 57354.

By way of comparison, current laws and agencies such as LAFCO *require* that lands which are annexed into a district directly assume all obligations of that district (with no “cost of service” prerequisites). Take for example the recent annexation of land into Rainbow that this LAFCO approved. In May of this year, LAFCO approved RESOLUTION NO. 2021-011, the Meadowood Annexation. In that approval Resolution, LAFCO noted in item 13: “The affected territory *will be liable* for any existing bonds, contracts, and/or obligations of the Rainbow MWD as provided under Government Section 57328.” (Emphasis added.) What does that statute say? (emphasis added):

> 57328. Any territory annexed to a city or district *shall be liable* for payment of principal, interest, and any other amounts which shall become due on account of any outstanding or then authorized but thereafter issued bonds, including revenue bonds, or other contracts or obligations of the city or district, but not of any improvement district within the district. It shall be subject to the levying or fixing and collection of any of the following which may be necessary to provide for that payment: (a) Taxes or assessments. (b) Service charges, rentals, or rates. (c) Both taxes or assessments and service charges, rentals, or rates.

In other words, when land is annexed into a district, the land becomes liable for the district obligations. This is parallel to the construction of the continuing debt and contract obligation policy found in the LAFCO detachment statute, Government Code section 57354, which states (emphasis added):

> 57354. Any territory detached from a city or district shall continue to be liable for the payment of principal, interest, and any other amounts which become due on account of any bonds, including revenue bonds, or other contracts or obligations of the district and any improvement district within which the detached territory has been situated, as are outstanding on the effective date of detachment. It shall be subject to the levying or fixing and collection of any of the following which may be necessary to provide for that payment: (a) Taxes or assessments. (b) Service charges, rentals, or rates. (c) Both taxes or assessments and service charges, rentals, or rates.

Given these laws, lands in Fallbrook and Rainbow, if made part of Eastern, will be statutorily liable for all of Eastern’s obligations going forward, yet Fallbrook and Rainbow assert that the agency they are leaving, the Water Authority, should not be paid for the obligations actually incurred to provide water service to Fallbrook and Rainbow customers. The nearly identical construction of these statutes indicates that they had a parallel legislative intent: to provide for the territory to assume all obligations for both past and future debt and contracts from which the territory had benefited or will benefit.

Thus, there is not a cost-of-service issue here at all. There is, however, a cost of detachment issue. [10]

b. *Member Agency Obligations*

Various comment letters argue that member agencies have no obligations, and that Dr. Hanemann should not reference fixed amounts of any kind. These comments demonstrate meaningful confusion by the detachment advocates.

In the modern LAFCO era, when lands become part of a district, that land becomes liable for district obligations. Government Section 57328. However, that statute did not exist when the Water Authority was formed under the County Water Authority Act ("CWA Act"). Rather, under the CWA Act member agencies are subject to fees and charges at the Water Authority, and in addition their lands could be taxed for the obligations of the agency. For example, CWA Act section 45-5(8) states the Water Authority can impose taxes to cover any of its obligations ; Section 45-7(j) allows taxation for bonds; Section 45-9(b) allows tax levies, tax liens are created via Section 45-9(g), etc.

Member agencies (such as Rainbow and Fallbrook) are responsible to pay any and all lawful fees and charges set by the Water Authority. CWA Act Section 45-5(13), 45-7(j). These include, for example, volumetric rates charged on water sold, and fixed charges that are not based on volumetric sales (such as the Infrastructure Access Charge).

Thus, as established by the Legislature, the Water Authority Board of Directors could impose rates and charges on member agencies (both fixed and otherwise), and tax member agency lands if necessary. One such necessity is when there is a detachment. The Legislature, via the CWA Act, protected the remaining member agencies by providing that the lands which detach are subject to taxation, all as explained in the Water Authority Response at pages 152 *et seq*.

It is correct that most member agencies at the Water Authority and at MWD (which is set up in similar fashion by the Legislature) do not have contractual water supply agreements with the applicable wholesaler, and thus do not have direct privity obligations to pay the wholesale agency's debts and contracts. However, as member agencies, *their obligation is to pay rates and charges as lawfully set by the Board of Directors, consistent with state law and Board policy*. Then, per the Legislature, if they detach, the lands in the agencies' jurisdictional boundaries must pay via taxation (which in today's world requires voter approval, and thus a LAFCO condition to that effect).

Ms. Thorner objects to Dr. Hanemann's use of the phrase "commitments are long-term in nature, and they impose a fixed and ongoing financial burden on SDCWA and its member agencies." Dr. Hanemann in no way used this language to mean what apparently Ms. Thorner and the agencies who want to detach represent, namely that Dr. Hanemann means that their agencies are

[10] Though not discussed by the commenting letters, there is a separate legal issue that the Water Authority called out to LAFCO in its Response: that imposing property taxes requires voter approval, and thus to effectuate the County Water Authority Act, LAFCO is required to condition any detachment on voter approval of having their lands taxed by the Water Authority.

directly bound under the Water Authority's supply contracts. That is not a fair reading of the general term "burden" used by Dr. Hanemann here. Member agencies pay the costs associated with long-term Water Authority obligations not by paying the contracts directly, but by paying indirectly via wholesale rates and charges (and in some cases taxes on their lands).

c. *LAFCO Policy*

The Joint Letter makes an argument that Dr. Hanemann and LAFCO should discount any agencies' view but their own, based on Section 4 of LAFCO's Policy L-108. The text of that section reads (emphasis added):

> "During its review and processing of jurisdictional proposals, the Commission shall place primary reliance on the input and recommendations of the local agency responsible for availability of water supply and delivery when a proposal is submitted for consideration that may impact an agency service area, sphere of influence or services being provided. It will be the intent of LAFCO to rely upon the subject agency to provide sufficient analysis of proposals impacting water supply and availability for LAFCO review. The use of resource documents such as Master Plans for Facilities and Urban Water Master Plans of the regional and local water agency will be encouraged as part of the project submittal process. This process is routinely included as part of submittal of "will serve letters" to planning agencies. In the future, any such water agency must also verify that enough water is reasonably expected to be available from that agency to provide the proposed service during a drought emergency. *Where more than one service area or agency is impacted by a proposal the Commission shall seek input from all affected agencies*."

Amazingly, the Joint Letter at page 3 highlights a great deal of text in the Policy, *but not the last sentence*. Yet, that is the key text. The Policy assumes a limited service area change, but then adds that if multiple service areas are affected, *as is the case here*, then LAFCO is required to consider input from all of them. LAFCO is honoring its Policy by doing just that.

5. Conclusion

The Water Authority appreciates consideration of the comments submitted above.

EXHIBIT B

STRATECON INC.

November 8, 2021

VIA Email

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

Dear Mr. Hattam:

RE: Fallbrook PUD and Rainbow MWD Technical Memorandum, "Review of LAFCO Report on Reorganization"

The San Diego County Water Authority ("Water Authority") asked Stratecon Inc[1] to review the report by Thomas Chesnutt and A&N Technical Services, Inc. ("Technical Memorandum") commenting on the draft report issued by Professor Michael Hanemann and attached to the above captioned joint submission by Fallbrook Public Utility District ("Fallbrook") and Rainbow Municipal Water District ("Rainbow") to the San Diego Local Agency Formation Commission ("LAFCO") dated October 25, 2021.

Based on the information and analysis provided below, in my professional opinion, I conclude that the Technical Memorandum presents an undeveloped and discursive narrative lacking analytical and factual foundations (i) to address the financial issues of detachment and (ii) obfuscates the critical point that the reliability of the Water Authority's water supply is materially superior to the reliability of the water supply from the Metropolitan Water District of Southern California ("Metropolitan"). Remarkably, the Technical Memorandum is silent about the most relevant issue for analyzing the impact of detachment: what are the circumstances facing Metropolitan's water supply, upon which Fallbrook and Rainbow now want to exclusively rely for imported water in the <u>future</u> that set the context for assessing the impact of detachment.

The discussion reviews the Technical Memorandum in each of the three areas addressed by Professor Hanemann (financial impact, departure fee, water supply reliability). As emphasized below, detachment analysis must address all the reasonably anticipated future circumstances in these areas.

[1] See Attachment A for professional qualifications of Dr. Rodney Smith of Stratecon Inc.

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Financial Impact of Detachment

The Technical Memorandum argues that a "complete" financial analysis of detachment must include the financial impact of detachment on Fallbrook and Rainbow. In that the issue involves the financial impact on other Water Authority member agencies, I disagree. The discussion of the financial benefit of Fallbrook and Rainbow is based on a "static" analysis of water rates in 2022 and does not address the impact on Fallbrook and Rainbow's rate payers from substituting the Water Authority's fixed charges with fixed charges imposed by the Eastern Municipal Water District ("Eastern").

Detachment is about the impacts in the future, not the past or even today. Metropolitan has a history of water rates increasing faster than inflation.[2] Metropolitan faces a future of deteriorating yields from the Colorado River and SWP that will place upward pressure on Metropolitan's rates and charges (see below). Metropolitan faces future investments to expand the scope and reliability of its water supplies.

In contrast, the Water Authority has recently increased rates to fund Emergency Water Storage and Carlsbad desalination plant. These long-lived investments provide benefits into the distant future, long after the bonds financing the Emergency Water Storage are retired and capital payments paid for the Carlsbad desalination plant are retired when ownership transfers to the Water Authority for $1 in 2045.

Finally, the Technical Memorandum asserts that Fallbrook and Rainbow do not receive benefits from the Water Authority's Carlsbad desalination plant or the Emergency Water Storage.[3] The assertion attempts to promote a narrative over any analysis of how the Water Authority system is operated to meet the water demands of member agencies.

Departure Fee

The discussion of a departure fee is also discursive. Both alternatives offered by Professor Hanemann and the Technical Memorandum lack the benefit of a reasonable analytic framework to identify issues and prepare estimates. I agree with Professor Hanemann that "it should be keyed to the portion of SDCWA's outstanding obligations"[4] that serve Fallbrook and Rainbow. However, the scope of the obligation should be linked to how the Water Authority uses its "bundle of assets" to meet the water demands of member agencies. The duration of a fee should be tied to the duration of identified obligations. From this perspective, Professor Hanemann's "scope" is too limited.

The Technical Memorandum discussion of "positive features of Solution 1" are incomplete at best:[5]

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[2] See December 2020 Letter, pp. 24-26.
[3] *Ibid*, p. 7.
[4] *Ibid*
[5] *Ibid*.

- Agricultural deliveries: Not all agricultural water deliveries are subject to interruption (see discussion of “Special Agricultural Water Rate” below).
- The exclusion of Carlsbad desalination lacks justification by any analysis of how the Water Authority operates its system.
- The duration of annual payments should be tied to the duration of underlying commitments.
- The discussion of the transfer of obligations for Metropolitan capacity charges and other charges misses the point that detachment would exchange Fallbrook and Rainbow ratepayer obligations to the Water Authority for ratepayer obligations to Eastern. This should be part of the analysis of how detachment impacts Fallbrook and Rainbow ratepayers going forward, something that is missing from the discussion.

Solution 2 lacks foundation to the issue at hand. What are the existing obligations undertaken by the Water Authority in reliance of Fallbrook and Rainbow remaining in the Water Authority and the Water Authority’s obligation to provide reliable and affordable water service to meet member agencies water demands? What is the framework used to propose Solution 2? None.

Water Supply Reliability

The Technical Memorandum states, “assessing reliability of the SDCWA and MWD system is much more complex than as presented, *making it not possible to arrive at a usable conclusion in this setting.*”[6] The discussion argues that Professor Hanemann ignores the reliability benefit of Diamond Valley Lake for Metropolitan and how reliable the Water Authority’s QSA supplies will be in the face of curtailments on the Colorado River. The discussion concludes with the observation:

> “The correctly characterize (sic) the relative (reliability) of the two systems would require a substantial modelling effort that is probably beyond the resources for the LAFCO to execute or evaluate. “

Rather than throwing in the towel on assessing water supply reliability, professional economic assessments of systems undertake an analytic assessment of the factors driving water supply reliability of the respective systems, as well as take advantage of “natural experiments” and “revealed preference.”

The underlying fundamentals of the Water Authority’s and Metropolitan’s water portfolio support the presumption that the Water Authority’s water supply is materially more reliable than Metropolitan’s water supply. The water sources used to provide water service to Fallbrook and Rainbow is <u>not</u> the same before and after detachment (see Table 2). Under the Exchange Agreement, the Water Authority makes IID transfer water and Canal Lining water (“QSA water”) available to Metropolitan, which is then obligated to deliver the same quantity of water to the Water Authority. The exchange water “molecules” reflect a physical combination of QSA water

[6] Technical Memorandum, p. 11 (emphasis added).

made available to Metropolitan, Metropolitan's own Colorado River water supplies and State Water Project water, but the water supply source is the volume of conserved water from IID and canal lining under the QSA. Under detachment, Fallbrook and Rainbow would rely exclusively on Metropolitan's own Colorado River supplies and State Water Project water, different and fewer water supply sources.

Table 2
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 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 3 provides a list of issues to determine the comparative reliability of water sources. Based on information available in 2020, the underlying fundamentals demonstrate that the Water Authority's water supply reliability is superior to Metropolitan's.[7] The discussion below updates the analysis for new information available in 2021.

Table 3
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

[7] See *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* , letter dated December 31, 2020 from Rodney T. Smith, Phd to Mark J. Hattam, General Counsel San Diego County Water Authority (hereinafter cited as "December 2020 Letter").

Water Source	*Water Authority*	*Metropolitan*	*Comment*
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

Colorado River. The long-anticipated declaration of water shortages in the Lower Colorado River basin occurred in August 2021. Table 4 provides the Bureau of Reclamation's most recent 5-year projections of the probability of future shortages in the Lower Basin.[8] Table 4 also provides California's Drought Contingency Contributions by the elevation at Lake Mead that trigger California's DCP obligations.[9] While California did not incur any DCP Contribution obligations in 2021 and it not anticipated to incur any in 2022, the Bureau of Reclamation is projecting an increasing likelihood of significant DCP Contributions thereafter. California's expected DCP Contributions are 144,500 AF in 2024, 215,500 AF in 2025 and 170,500 AF in 2026.

Table 4
Estimated Probability of Shortages and California's
Drought Contingency Plan Contributions

Shortage Trigger	*DCP Contribution (AF)*	*2022*	*2023*	*2024*	*2025*	*2026*
>1040-1045	200,000	0%	3%	13%	9%	0%
>1035-1040	250,000	0%	0%	9%	6%	0%
>1030-1035	300,000	0%	0%	25%	13%	9%
<1030	350,000	0%	0%	6%	41%	41%
	Expected	0	6,000	144,500	215,500	170,500

Metropolitan is legally responsible to cover California's obligation. The current 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 existing DCP, should one anticipate that the long-term agreement will have a smaller, larger, or same obligation given recent circumstances on the Colorado River? With an emerging realization that the Colorado River is severely over-appropriated, look for California to be pressured to "chip in" more.

The emergence of shortages on the Colorado River and their likely continuation reflects a long-standing view among practitioners that the Colorado River system is severely over-allocated. My December 2020 Letter stated:[10]

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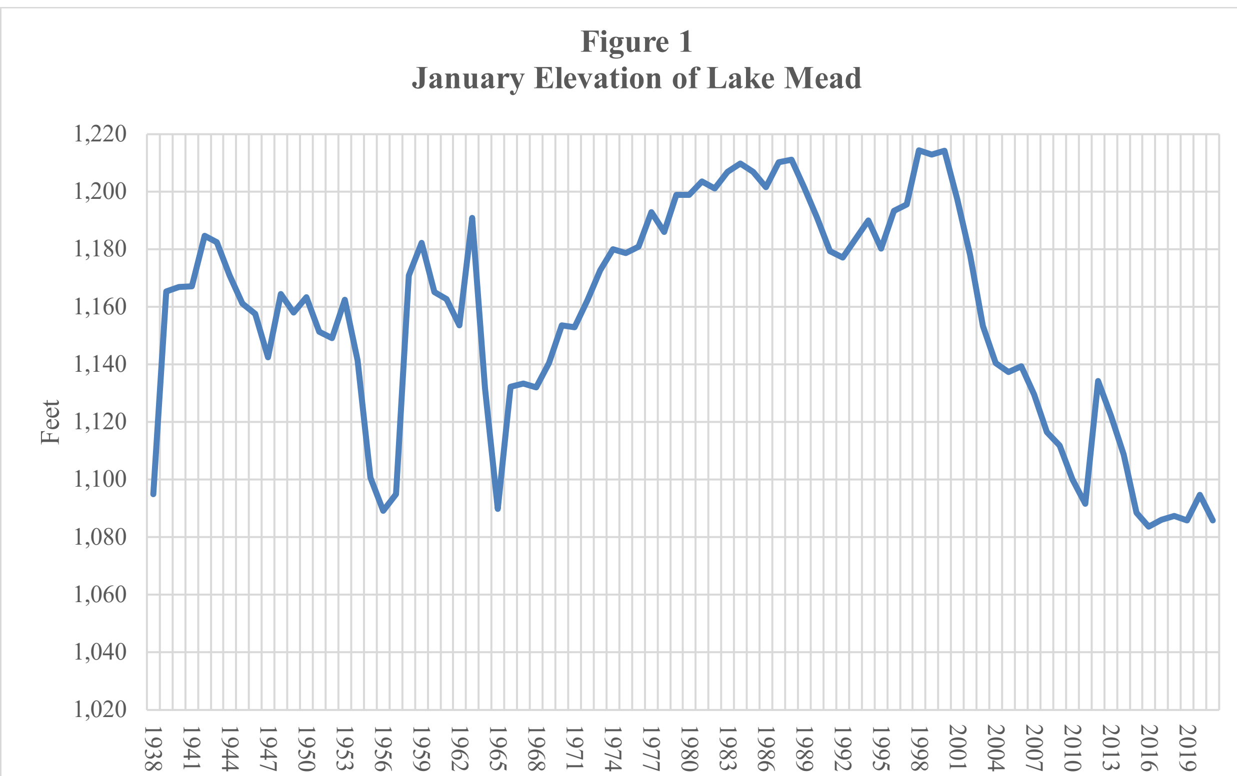
[8] https://www.usbr.gov/lc/region/g4000/riverops/crss-5year-projections.html

[9] Attachment B, p. 3 to Agreement Concerning Colorado River Drought Contingency Management and Operations, executed by Seven Colorado River Basin states.

[10] December 2020 Letter, p. 17.

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."

The history of the January elevation of Lake Mead suggests that curtailments in Colorado River water deliveries involves a "new normal" rather than severe drought (see Figure 1). The elevation of Lake Mead peaked at the end of the 20th century. Since the turn of the century, there has been a 20-year decline in Lake Mead's elevation so that, by January 2020, the elevation stood below the level in 1938 (the third year of filling Lake Mead). In other words, the data suggest that while Lake Mead's elevation has hovered above shortage triggers for more than a decade, the continuation of the deteriorating conditions on the Colorado River suggests that steeper and regular water shortages are reasonably anticipated in the future.

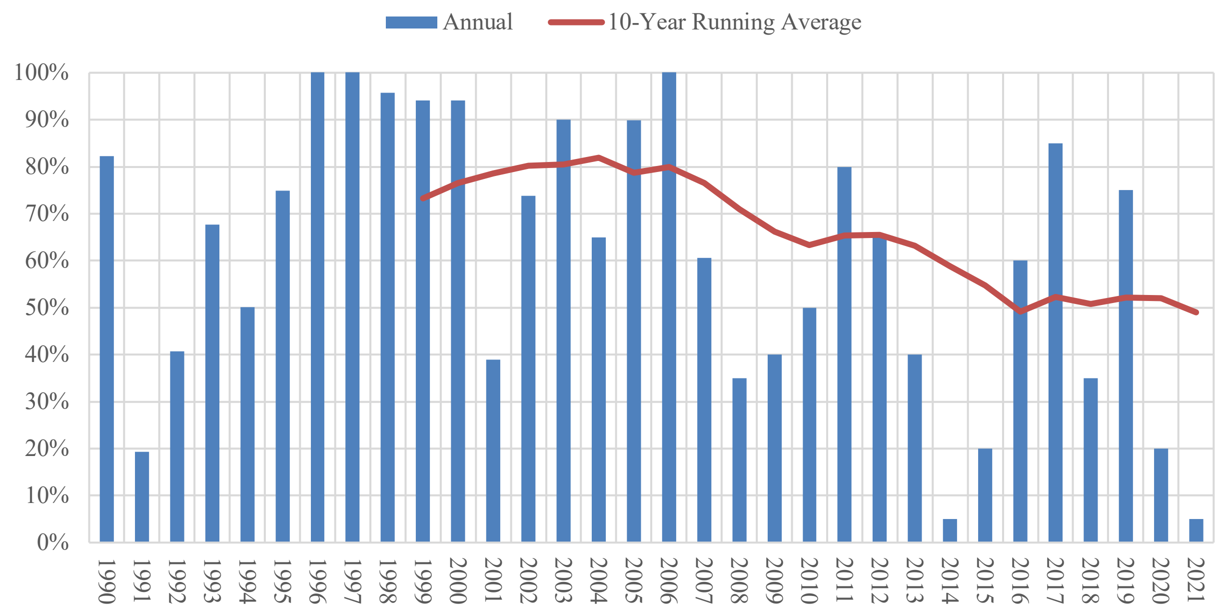


Though California does not suffer the first cutbacks on Colorado River water such as face Arizona and Nevada, if available Colorado River water to California falls below 4.4 million acre-feet per year, the first cutbacks for California are borne by Metropolitan. Only if the shortfall in California's available Colorado River water exceeds Metropolitan's Priority 4 rights of 550,000 AF/year (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, including the Water Authority's Colorado River water supplies.

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 directly reduce the water supply reliability of Fallbrook and Rainbow's water service.

State Water Project. The history of SWP allocations has three distinct time periods (see Figure 2). Between 1968 through 1989, SWP allocations averaged 95%.[11] 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 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, fell again to 20% in 2020 and plummeted again to 5% in 2021. Most are pessimistic about the prospects for 2022, where 5% allocations are anticipated.

Figure 2
State Water Project Allocation History



[11] 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

While Metropolitan has a significant amount of water in storage, there are operational constraints limiting the use of stored water to offset lost SWP water supplies. The low SWP allocation this year translates into a loss of almost 900,000 AF of SWP water.[12] With restricted take capacity of water stored in the SWP and Central Valley, Metropolitan entered into an exchange agreement with Los Angeles Department of Water & Power ("LADWP") where Metropolitan will deliver Colorado River water to LADWP in exchange for LADWP's Owens Valley water that can be distributed to Metropolitan Member Agencies reliant on SWP water. Continued deterioration in the yield of the SWP will place greater reliance on Metropolitan's junior priority to Colorado River, which is increasingly subject to curtailment risk under the existing Drought Contingency Plan and its extension beyond 2026.

There is additional evidence demonstrating that the Water Authority's investments in QSA water and Carlsbad desalination increased its water supply reliability relative to Metropolitan's. On September 28, 2020, the Water Authority board approved the permanent Special Water Agricultural Rate offering agricultural water users in San Diego County lower water rates in exchange for lower water supply reliability during water shortages and emergencies.[13] In exchange for receiving less water supply reliability by foregoing the reliability benefits of QSA water and Carlsbad desalination, participants in the program pay the following prices for untreated and treated water (see Table 1).[14] In comparison, the melded untreated M&I water rate is $940/AF and $1,109/AF, respectively, for 2021 and 2022.[15] The melded treated M&I water rate is $1,235/AF and $1,319/AF, respectively, for 2021 and 2022.[16]

Table 1
Special Agricultural Water Rates

Service	2021	2022
Untreated Water	$777/AF	$799/AF
Treated Water	$1,104/AF	$1,143/AF

Participation in the program is voluntary. The marketing experience provides a "natural experiment" of how eligible agricultural water users value water supply reliability.[17] Only a minority of the eligible agricultural water users who previously enrolled in the Water Authority's

[12] Estimated based on the different between the 10-year moving average of SWP allocations (50%) and this years 5% allocation on Metropolitan's 1,911,500 AF SWP Contract A amount.

[13] Water Authority Press Release, "Special rates designed to support regional farm economy" https://www.sdcwa.org/new-agricultural-water-rate-program-benefits-san-diego-county-growers/

[14] From Water Authority's rates and charges, see https://www.sdcwa.org/member-agencies/rates-charges/

[15] *Ibid.*

[16] *Ibid.*

[17] The 2021 Nobel Prize in Economics was awarded to three U.S. economists who have advocated the use of natural experiments to provide insight into economic behavior and policy assessment. See 'Natural Experiments' Lead to an Economics Nobel, David Henderson, *Wall Street Journal*, October 21, 2021. https://www.wsj.com/articles/natural-experiments-lead-economics-nobel-prize-11633986097 A natural experiment uses an event to test a hypothesis about economic behavior.

temporary program have enrolled in the Special Agricultural Water Rate program.[18] In other words, most of the eligible agricultural water users have rejected the trade-off of lower supply reliability for lower water rates. These agricultural water users revealed a preference for higher water supply reliability at higher prices than lower water supply reliability and the lower prices offered under the Water Authority's program.[19] Such agricultural water users in San Diego County find the Water Authority's superior water supply reliability worth the higher price for water service.

The natural experiment and revealed preference from the marketing experience of the Special Agricultural Water Rate program suggests that San Diego County agricultural water users would find the "trade-off" from detachment unappealing. As discussed above, a full analysis of detachment must also include an analysis of how detachment further impacts rate payers by substituting Eastern's fixed charges for the Water Authority's fixed charges.

Whatever the future of Metropolitan's water supply, the Technical Memorandum is written with an incomplete focus that neglects to tell the reader that all of Metropolitan's supposed strong supply positions, such as storage at Diamond Valley Lake, are equally accessible to the Water Authority. Both Eastern and the Water Authority can buy Metropolitan water, so this is not a supporting argument for membership at Eastern versus membership at the Water Authority. The key point is that the Water Authority has more supply sources than just buying Metropolitan water, while after detachment Rainbow and Fallbrook would only have access to Metropolitan water for their imported supplies.

Detachment Analysis Must Be Forward Looking

The decision to detach or remain in the Water Authority involves the future. A timeline for implementation of detachment includes LAFCO decision making, possible litigation and (if detachment is even allowed) voter approval. Therefore, the question about relative water supply reliability and water rates of the Water Authority versus Metropolitan is about the future. So, what are the dynamics?

The Water Authority has made the investment to secure a reliable water supply for its member agencies. The impact of service improvements on water rates has already been experienced. Going forward, the impact of these investments will attenuate as debt financings are retired and ownership of the Carlsbad plant transfers in 2045 for $1. The yield from QSA water and desalinated seawater are not at risk of the hydrology or Bay Delta regulation confronting Metropolitan's water supplies.

In contrast, Metropolitan has junior priorities in Northern California and on the Colorado River water available to California. Metropolitan's status quo is deteriorating yields from its existing water portfolio. Metropolitan, of course, can undertake investments to improve its

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[18] *See* staff of Water Authority's comments being submitted to LAFCO on November 8, 2021.

[19] Revealed preference assumes that a decision-maker's preferences are revealed by their decisions. For background, see https://en.wikipedia.org/wiki/Revealed_preference.

position, such the single tunnel project and regional recycling. Such investments will undoubtedly prove both vital and expensive. As a result, new cost drivers will supplement Metropolitan's longstanding track record of water rates increasingly substantially faster than inflation.

Water transfers will not be a cheap solution for Metropolitan's challenge. Considering the Central Valley and Northern California, transfer prices for water delivered in the Central Valley routinely exceed $1,000/AF in dry years. Water transfers are one of Stratecon's key business areas. For 2021, Stratecon has discussed transfers with prices above $1,500/AF.

In the 1990s, when Congress passed the Central Valley Improvement Act, it was anticipated that an active market would be liberated involving the transfer of water from "low-valued" agricultural uses to "high-valued" municipal and industrial uses. Since then, agriculture has been transformed. Along highway 99 in the Central Valley, cotton is no longer king. Along highway 46 from Bakersfield to Paso Robles, annual crops have disappeared. Instead, permanent crops (almonds, pistachios, pomegranates, and vineyards) are "high-valued" agricultural users that outbid municipal water and industrial users. Historical narratives of the inefficiency of water use in agriculture is giving way to new economic realities. Especially with implementation of the Sustainable Groundwater Management Act in the Central Valley, market prices of water will jump in the face of permanent restrictions on groundwater, which historically backstopped the unreliability of water supplies from the Central Valley Project and the SWP.

Water markets are geographic. The dynamics in the Central Valley and Northern California may prove different than for Southern California.

Conclusion

Professor Hanemann got many things correct: (i) by detaching, Fallbrook and Rainbow will not have access to the same water, (ii) detachment will increase Metropolitan's reliance on the Bay Delta, (iii) Metropolitan's water rates have a history of increasing substantially faster than inflation, and (iv) the Water Authority has a more reliable water supply than Metropolitan. Regarding the last conclusion, he did not quantify his conclusion, but that is not necessary. This undoubtedly reflects his scope of work where he relied upon information provided by interested parties. Fallbrook and Rainbow's initial position was that it was the "same water." With Professor Hanemann concluding that this is not the case, it is inevitable that the discussion moves to quantification of the difference. Ironically, with the submission of the Technical Memorandum, the Fallbrook/Rainbow new position is "who knows."

In fact, more than enough is known, and is dispositive.

Rodney T. Smith
President

Attachment A
Rodney T. Smith, Ph.D.

Rodney Smith is President of *Stratecon Inc* (www.stratwater.com), an economics and strategic planning and 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, an 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 the 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.