



September 1, 2020

**VIA Email**

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

Dear Mr. Hattam:

**RE:** Impact of Fallbrook and Rainbow Detachment on Southern California's Reliance on the Bay Delta

The San Diego County Water Authority ("Water Authority") asked *Stratecon Inc*<sup>1</sup> to address the following question:

If the Fallbrook Public Utility District ("Fallbrook") and the Rainbow Municipal Water District ("Rainbow") detach from the San Diego County Water Authority ("Water Authority") and annex into the Eastern Municipal Water District ("Eastern") as they propose, is Eastern's Technical Memorandum correct that there will be no increase in Southern California's overall reliance on the Bay-Delta when looked at long term?<sup>2</sup>

Based on the information and analysis provided below, in my professional opinion, I conclude that Eastern's Technical Memorandum is incorrect. By detaching from the Water Authority, Fallbrook and Rainbow would walk away from the Water Authority's water portfolio that is significantly less reliant on the Bay Delta than the water portfolio of the Metropolitan Water District of Southern California ("Metropolitan"). 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 when the Water Authority's purchases from Metropolitan are scheduled to be significantly reduced.

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<sup>1</sup> See Attachment A for professional qualifications of Dr. Rodney Smith of Stratecon Inc.

<sup>2</sup> Technical Memorandum, Water Resources and Facilities Planning Department, *Analysis of Eastern Municipal Water District's Water Supply and System Reliability with the Potential Annexation of Fallbrook Public Utility District and Rainbow Municipal Water District*, February 12, 2020 (hereinafter cited "Eastern Technical Memo").

The discussion addresses the following:

- Eastern’s analysis
- Factual Setting of Fallbrook and Rainbow
- Stratecon’s analysis

### *Eastern’s Analysis*

Eastern’s analysis of the issue is the following:<sup>3</sup>

“FPUD and RMWD are currently being supplied with imported water from the Metropolitan Water District of Southern California (Metropolitan) Robert A. Skinner Water Treatment Plant via the Metropolitan/San Diego Aqueduct, and would continue to be supplied *with the same water* by EMWD. The potential de-annexation of FPUD and RMWD from SDCWA is not anticipated to have any significant impacts to regional and local water supply or system reliability and no new supplies would need to be developed or imported. The de-annexation of FPUD and RMWD from the SDCWA would not result in Metropolitan, as a State Water Contractor, increasing its reliance on the Sacramento-San Joaquin Delta (Delta) since FPUD and RMWD would continue to be supplied from Metropolitan’s Robert A. Skinner Water Treatment Plant.

The de-annexation of FPUD and RMWD would allow for SDCWA to reduce the amount of imported water it purchases from Metropolitan and EMWD would increase its imported water purchases from Metropolitan the amount equivalent to SDCWA’s reduction. **There would be no net increase in imported water to the region.** Under all conditions presented in their respective 2015 Urban Water Management Plans, both SDCWA and EMWD include imported water supplied by Metropolitan as part of their long-term water supply portfolios, thus both remain reliant on imported water supplied by Metropolitan to meet their service area demands. Whether FUPD and RMWD are part of SDCWA or EMWD would not change SDCWA and EMWD’s combined demand for imported water from Metropolitan.”<sup>4</sup>

I characterize the first paragraph as an argument based on “the same water” and the second paragraph as an argument based on “unchanged total demand for Metropolitan water.”

Eastern’s Technical Memorandum restates its argument in the section “Impact of Southern California Reliance on Delta Supplies.”<sup>5</sup>

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<sup>3</sup> *Ibid*, p.1, emphasis in italics added, emphasis in bold and underlined in original.

<sup>4</sup> The statement in bold and underlined does not address the specific question of reliance on water supplies from the Bay Delta.

<sup>5</sup> *Ibid*, p. 26.

“As EMWD and SDCWA are both member agencies of Metropolitan, this move would have a net zero impact on the California Delta when considered from a regional perspective. Since FPUD and RMWD’s imported water needs are currently being met with water from Metropolitan’s Robert A. Skinner Water Treatment Plant, the existing condition would essentially be maintained under EMWD management and no new supplies would need to be developed or imported.”

The Eastern narrative does not offer any further information or analysis on the question.

***Factual Setting of Fallbrook and Rainbow***

Treated water deliveries are made through four active turnout structures to Fallbrook and eight active turnout structures to Rainbow (see Table 1).<sup>6</sup> For Fallbrook, sixty-five percent of water deliveries are through Flow Control Facilities owned by Metropolitan and thirty-five percent of water deliveries are through Flow Control Facilities owned by the Water Authority.<sup>7</sup> 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.<sup>8</sup>

**Table 1  
Annual Treated Water Delivery to Fallbrook and Rainbow (acre feet)**

<i>Flow Control Facility</i>	<i>Pipeline to Turnout Structure Owner</i>	<i>Flow Control Facility Owner</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>
DeLuz 1	Metropolitan	Metropolitan	2,492	2,364	2,107	2,080	1,258
Fallbrook 3	Metropolitan	Water Authority	2,759	2,410	1,631	1,344	2,297
Fallbrook 4	Water Authority	Water Authority	890	1,811	1,405	1,416	746
Fallbrook 6	Metropolitan	Metropolitan	4,035	3,957	4,232	4,612	3,457
Sub-Total			10,176	10,542	9,375	9,452	7,758
Rainbow 1	Metropolitan	Water Authority	2,714	2,435	2,454	3,305	2,578
Rainbow 3	Water Authority	Water Authority	3,686	4,079	3,443	4,487	2,456
Rainbow 6	Water Authority	Water Authority	2,301	2,530	2,646	1,991	1,978
Rainbow 7	Water Authority	Water Authority	1,721	2,686	2,995	3,744	1,428
Rainbow 8	Metropolitan	Metropolitan	3,544	2,473	2,878	1,012	2,959

<sup>6</sup> Preliminary Report, *Potential Detachment Impact on the Water Authority’s Infrastructure System*, San Diego County Water Authority, August 2020.

<sup>7</sup> Percentages based on cumulative water deliveries from 2015 through 2019.

<sup>8</sup> *Ibid.*

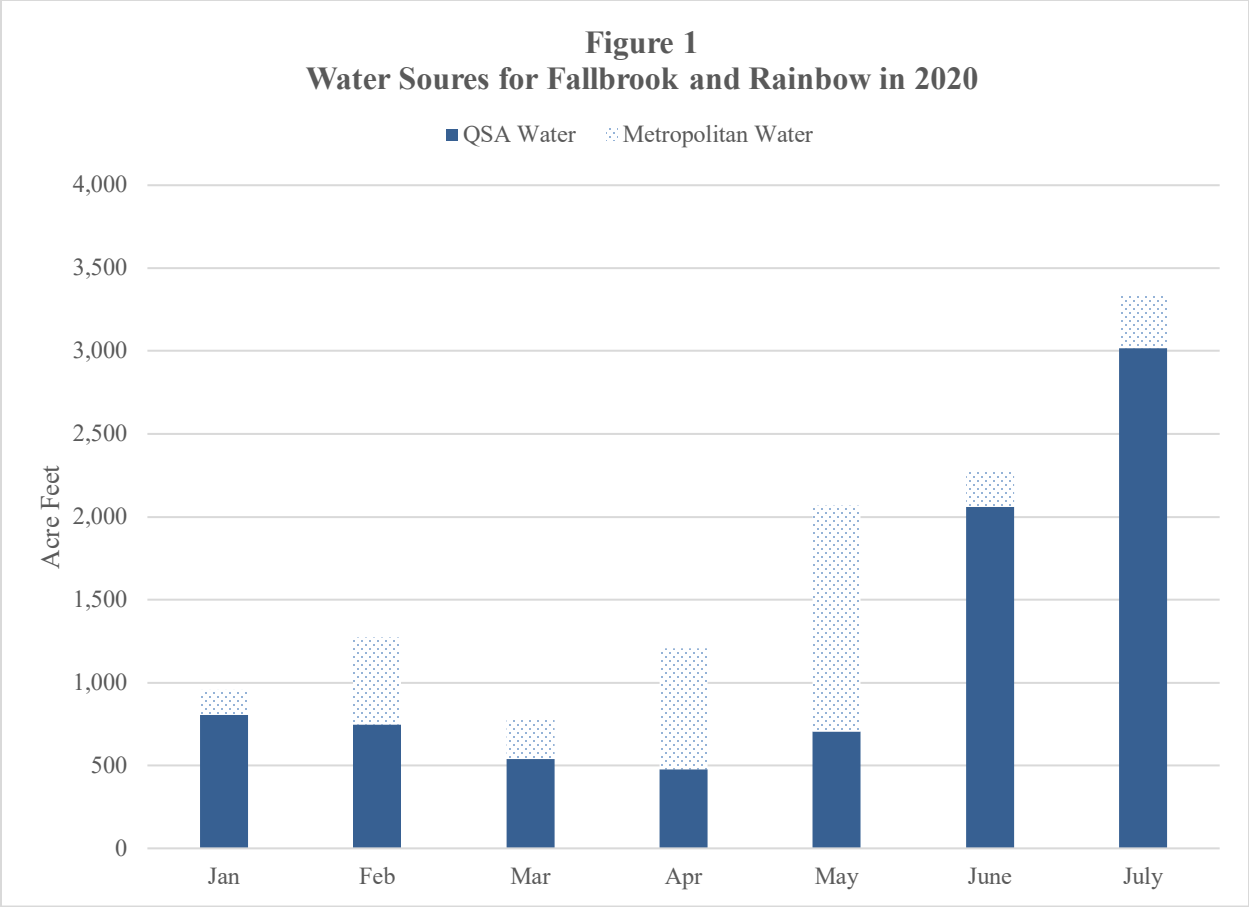
<i>Flow Control Facility</i>	<i>Pipeline to Turnout Structure Owner</i>	<i>Flow Control Facility Owner</i>	2015	2016	2017	2018	2019
Rainbow 9	Metropolitan	Metropolitan	1,589	1,682	1,612	1,739	1,369
Rainbow 10	Metropolitan	Water Authority	981	1,089	979	914	318
Rainbow 11	Water Authority	Water Authority	1,332	1,177	1,099	718	635
Sub-Total			17,868	18,151	18,106	17,910	13,721
Grand Total			28,044	28,693	27,481	27,362	21,479

Understanding the sources of water delivered to Fallbrook and Rainbow requires consideration of the sources and operations of 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 the Imperial Irrigation District (“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 San Diego. The Water Authority receives its purchases of water from Metropolitan commingled with the exchange water from the IID transfer and canal lining.

The Water Authority operates its system using QSA water as a base supply and purchases of Metropolitan water as a supplemental supply. Table 2 shows the 2020 monthly volume of treated water purchased from Metropolitan and the volume of QSA water treated at Lake Skinner. Treatment of purchased Metropolitan water equals only about 11 percent of the QSA water treated at Lake Skinner through July. Even if all purchases of treated Metropolitan water were for only Fallbrook and Rainbow through July 2020, QSA water provides the backbone of current water service to Fallbrook and Rainbow (see Figure 1).

**Table 2**  
**Monthly Water Authority Purchases of Treated Metropolitan Water and QSA Water Treated at Lake Skinner in 2020 (Acre-Feet)**

<i>Month</i>	<i>Purchases of Treated Metropolitan Water</i>	<i>QSA Water Treated at Lake Skinner</i>
January	150	3,593
February	526	3,532
March	244	2,624
April	731	4,341
May	1,360	6,491
June	214	4,241
July	322	7,739
Cumulative	3,547	32,561



***Stratecon’s Analysis***

As discussed above, Eastern asserts that Fallbrook and Rainbow will receive the “same water” before and after detachment and the regional demand for Metropolitan water will be unchanged by detachment. I disagree.

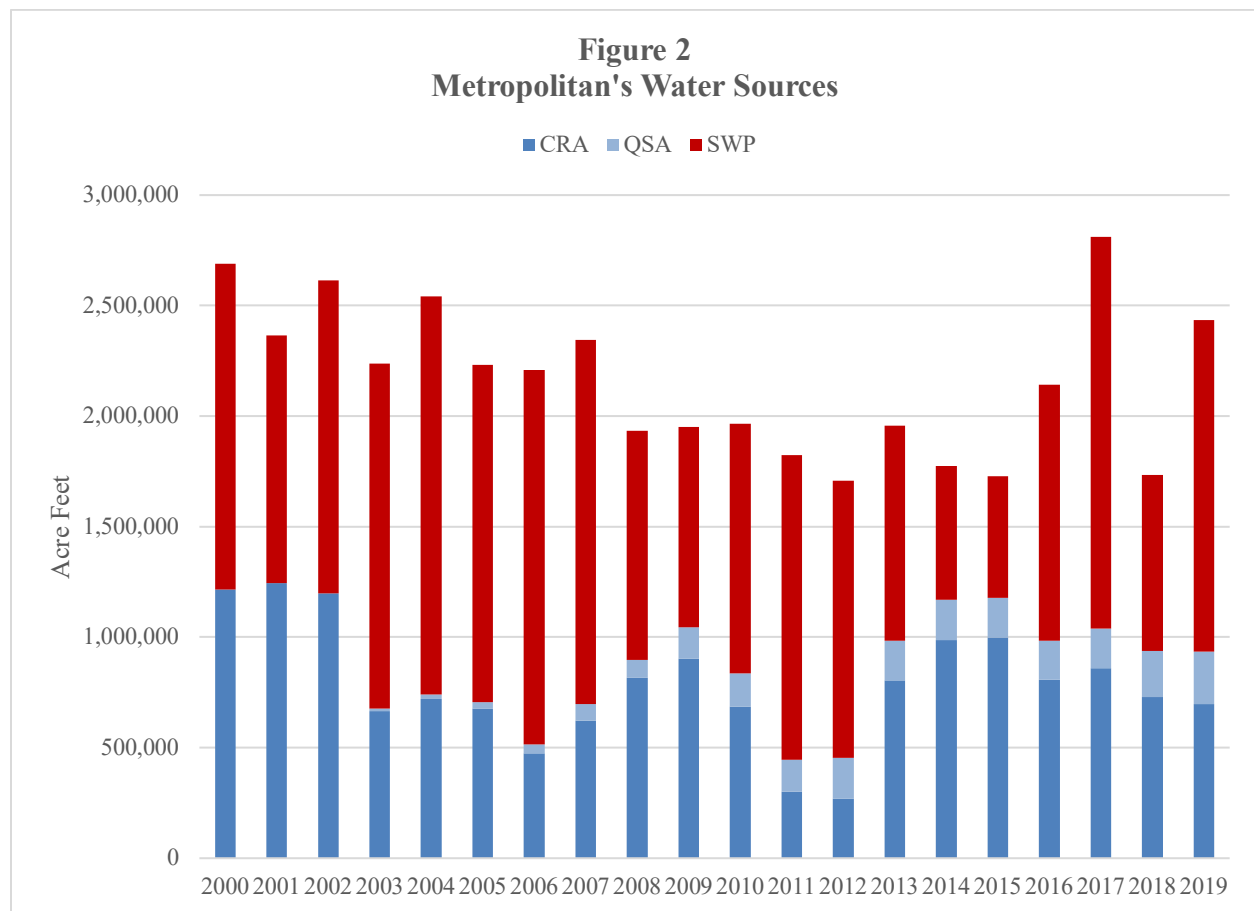
*Fallbrook and Rainbow Water Sources before and after Detachment*

Before detachment, Fallbrook’s and Rainbow’s water deliveries are backed by QSA water. For water deliveries through July of this year, QSA water made up 70% of Fallbrook’s and Rainbow’s water supplies.

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. Instead, Fallbrook and Rainbow would rely on Metropolitan’s own Colorado River water supplies and imported water from the State Water Project (“SWP”).

Detachment increases Fallbrook and Rainbow reliance on Metropolitan water supplies by 70% of their water deliveries.<sup>9</sup>

Metropolitan is substantially more reliant on Northern California water than the Water Authority. Figure 2 shows Metropolitan’s imported water sources since 2000: (1) Metropolitan’s water supplies from its Priority 4 entitlement and Colorado River programs, (2) Colorado River water exchanged by the Water Authority, and (3) water from the State Water Project.<sup>10</sup> The annual variability in water supplies from the State Water Project reflects variability in the annual SWP allocation.<sup>11</sup>



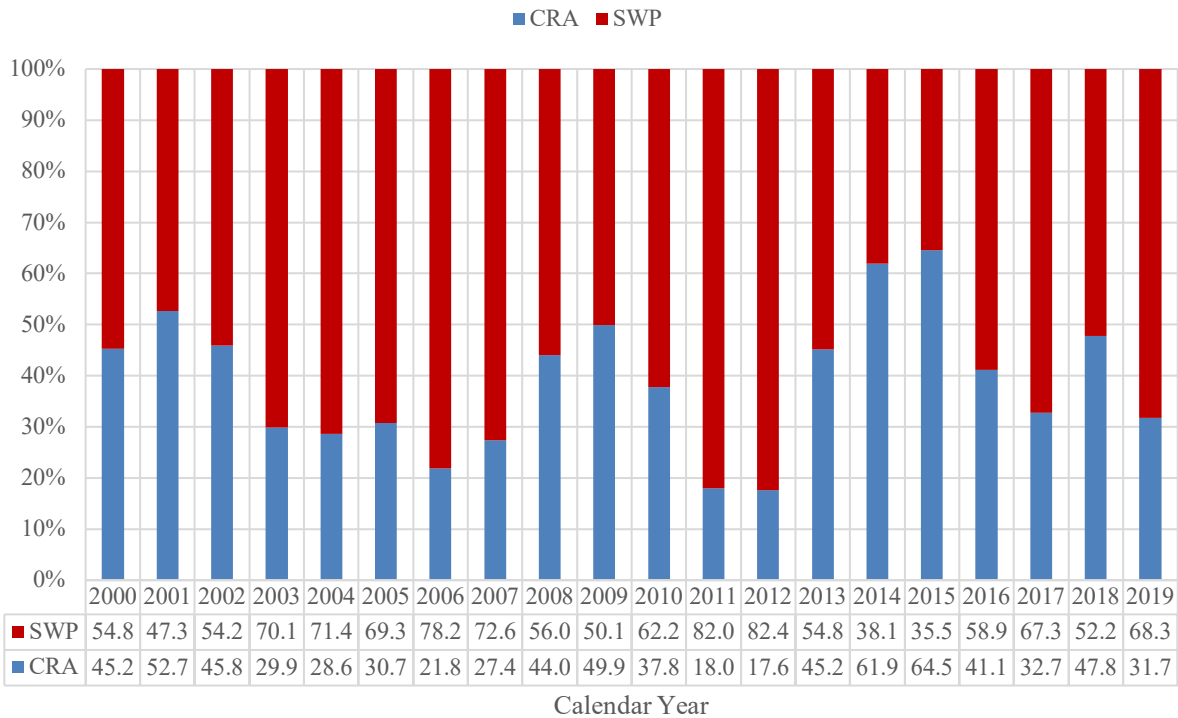
SWP water represents the major source of Metropolitan’s own water supplies (see Figure 3). Since 2000, SWP water supplies have averaged 61.3% of Metropolitan’s total imported water.

<sup>9</sup> 70% in text equals cumulative treated QSA water relative to cumulative total deliveries in Figure 1.

<sup>10</sup> Data compiled from Metropolitan’s 2015 Urban Water Management Plan and Metropolitan staff “Water Supply and Drought Management” memoranda for data after 2015.

<sup>11</sup> 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).

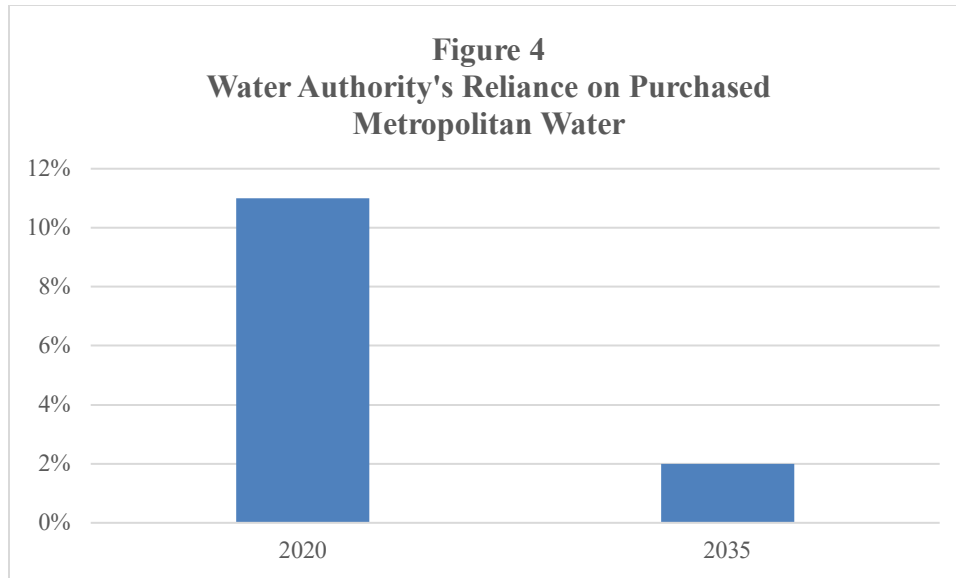
**Figure 3**  
**Composition of Metropolitan's Imported Water Supplies**  
**(Exclusive of San Diego CWA Colorado River Supplies)**



In contrast, the Water Authority is substantially less reliant on imported water from Northern California (see Figure 4).<sup>12</sup> With Metropolitan purchases 61.3% reliant on water from Northern California, the Water Authority’s reliance on water from Northern California is 6.7% in 2020 and projected at 1.2% in 2035.<sup>13</sup>

<sup>12</sup> Water Authority staff “Increasing San Diego Water Supply Reliability Through Supply Diversification”

<sup>13</sup> Numbers in text equals the Water Authority’s reliance on Metropolitan multiplied by 61.3%



*Regional Demand for Metropolitan water before and after Detachment*

Eastern assumes that the Water Authority would reduce its purchases from Metropolitan by the amount of water delivered to Fallbrook and Rainbow (see above). As explained above, only 30% of the water delivered to Fallbrook and Rainbow in 2020 is being purchased from Metropolitan. The bulk of the water delivered (70%) is backed by QSA water. After detachment, QSA water would no longer back water deliveries to Fallbrook and Rainbow.

However, there are additional dynamics about the future demand by the Water Authority for Metropolitan water ignored by Eastern. In 2018, the Water Authority adjusted downward its projections of future water demands in San Diego.<sup>14</sup> This reduced the projected demand for Metropolitan water by 2035 to 10,225 acre-feet.<sup>15</sup> Yet, Fallbrook and Rainbow project much higher amounts needed than 10,225 acre-feet.<sup>16</sup> That additional water would be QSA water, and therefore not from the Bay-Delta.

Second, the COVID-19 pandemic will face the water industry with declining sales.<sup>17</sup> Therefore, it is reasonable to anticipate that the Water Authority will have minor reliance on purchases of Metropolitan water. In this instance, the detachment proposal will simply shift water demands from the Water Authority (with little reliance on northern California Bay-Delta water) to Metropolitan, which will have a high reliance on northern California water from the Bay-Delta.

<sup>14</sup> See Water Authority staff memorandum to Water Planning Committee, *Interim Long-Range Water Demand Forecast "Reset"*, February 14, 2018.

<sup>15</sup> *Ibid*, Table 2, p. 4.

<sup>16</sup> Fallbrook projects purchasing 13,001 acre-feet of imported water by 2035 (Fallbrook 2015 Urban Water Management Plan, p. 37) and Rainbow projects purchasing 20,262 acre-feet by 2035 (Rainbow 2015 Urban Water Management Plan, p. 26).

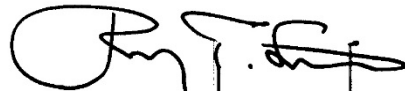
<sup>17</sup> "Financial Impact of the COVID-19 Crisis on Drinking Water Utilities," American Water Works Association and Association of Metropolitan Water Agencies, April 14, 2020.



## ***Conclusion***

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. Eastern further relies only on information available from 2015 Urban Water Management Plans, despite the availability of a 2018 update from the Water Authority that suggests that the Water Authority's future may be one of minor, if any, reliance on Metropolitan water with no 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 by moving from reliance on the Water Authority's Colorado River water from the QSA onto reliance on MWD, which in turn relies heavily on Bay-Delta water.

A handwritten signature in black ink, appearing to read 'Rodney T. Smith', with a stylized flourish at the end.

Rodney T. Smith  
President

**Attachment A**  
**Rodney T. Smith, Ph.D.**

Rodney Smith is President of *Stratecon Inc* ([www.stratwater.com](http://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](http://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](http://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](http://www.waterpolicymarkets.com)), and in 2014, Stratecon introduced Journal of Water ([www.journalofwater.com](http://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.