ADDENDUM TO THE 2015 URBAN WATER MANAGEMENT PLAN

Rancho California Water District

June 10, 2021

Appendix P
Data to Document Consistency with Delta Plan Policy WR P1

Background

The 2020 UWMP requires that an urban supplier that anticipates participating or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Sacramento-San Joaquin Delta (Delta), should include information in their 2015 and 2020 UWMPs that can then be used in covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance. In the event that a local or state agency proposes a project that is considered a covered action, that agency must submit proof that this project is consistent with the policies of the WR P1.

In order for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance, WR P1 states that:

"Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:

> *a) One or more Suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);*
>
> *(b) That failure has significantly caused the need for the export, transfer, or use; and*
>
> *(c) The export, transfer, or use would have a significant adverse environmental impact in the Delta."*

WR P1 subsection (c)(1) further defines what constitutes improved regional self-reliance and adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

C(1) Water suppliers that have done all of the following are contributing to reduced reliance on the Delta and improved regional self-reliance are therefore consistent with this policy:

> *(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;*
>
> *(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and*
>
> *(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in*

the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).

In fulfillment of Section c(1)(c), the District is providing the following documentation of the expected outcomes for measurable reduction in Delta reliance and improvement in regional self-reliance.

Summary of Expected Outcomes for Reduced Reliance on the Delta

The expected outcomes for the District's Delta reliance and regional self-reliance were developed using the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2020 (Guidebook Appendix C) issued in April 2021. The approach is presented in tables P1-P4 and the results are summarized below:

Expected outcomes for Regional Self-Reliance

- Near-term (2025) – Normal water year regional self-reliance is expected to increase by 34,820 from the 2010 baseline; this represents a 28% increase of 2025 normal service year demands (Table P-3).

- Long-term (2045) – Normal water year regional self-reliance is expected to increase by more than 49,000 AF from the 2010 baseline; this represents an increase of about 29% of 2045 normal year service area demands (Table P-3).

Expected Outcomes for Reduced Reliance on Supplies from Delta Watershed

- Near-term (2025) – Normal water year reliance on supplies from the Delta watershed is expected to decrease by about 1,760 AF from the 2010 baseline; this represents a decrease of 5.4 percent of 2025 normal water year service area demands (Table P-4).

- Long-term (2045): Normal water year reliance on supplies from the Delta watershed is expected to decrease by approximately 2,700 AF from the 2010 baseline; this represents a decrease of 7.4 percent of 2045 normal water year service area demands (Table P-4).

Demonstration of Reduced Reliance on the Delta

Consistent with the Appendix C guidance, demonstration of reduced reliance on the Delta involves setting a baseline and evaluating normal year water demands (potable and non-potable), estimating service area population and water use in gallons per capita per day, evaluating and projecting water supply sources to meet estimated normal year demands including supplies from the Delta, local groundwater and surface water supplies, and non-potable supplies.

Baseline and Expected Outcomes

In order to calculate the expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance, a baseline is needed to compare against. For consistency with reporting done by Rancho Water's wholesale suppliers (EMWD, WMWD, and their supplier, Metropolitan Water District of Southern California), Rancho Water is using year 2010 as the baseline year. This analysis uses a normal water year representation of 2010 as the baseline. Data for the 2010 baseline were taken from RCWD's 2005 UWMP as the UWMPs generally do not provide normal water year data for the year that they are adopted (i.e., 2005 UWMP forecasts normal year 2010, 2010 UWMP forecasts normal year 2015, and so on).

Service Area Demands without Water Use Efficiency

To demonstrate both regional self-reliance and reduced Delta reliance, normal water year demands were used rather than normal water year supplies to calculate the expected outcomes in terms of the percentage and volume of water used. The Guidebook recommends this approach as it "helps alleviate issues associated with how supply capability is presented to fulfill the requirements of the UWMP Act versus how supplies might be accounted for to demonstrate consistency with the WR P1." The single exception to this is the use of recycled water supplies (rather than demand) for 2010. This was done because the 2005 UWMP did not provide an estimate for recycled water demand within the service area.

Because WR P1 considers water use efficiency savings to be a source of water supply, suppliers such as the District that do not explicitly quantify water use efficiency savings in their UWMPs can calculate their embedded water use efficiency savings based on changes in forecasted per capita water use since the baseline. This efficiency is then added back to the expected outcome of water supplies that contribute to reduced reliance on Delta water. This is demonstrated in Tables P1-P2 and supporting narrative provided below.

Service Area Demands with Water Use Efficiency

Service area demands in Table P-1 represents total demands for the District including consumptive demands within the district (potable and non-potable), wheeled water, water discharged to the Santa Margarita River and unaccounted for water. Consistent with the guidance recommendations, total service area demands were adjusted to reflect only those demands that can implement water use efficiency but still include the embedded water use efficiency supply i.e. non-potable demands were subtracted. Components of Rancho Water's non-potable demand are recycled water, wheeled water and water discharged to the Santa Margarita River.

The outcome of Table P-1 is a calculation of water use efficiency since the baseline year (2010). The calculation uses the change in gallons per capita per day and service area population to estimate water use efficiency in years 2015 through 2045 compared to the baseline year of 2010. The calculated water use efficiency is then added back to service area demands to estimate water use efficiency since the baseline (Table P-2).

- Baseline (2010) values – RCWD's 2005 UWMP, Table 3-3: Annual Average Consumptive Water Demands in RCWD Service Area, Table 3-4: Additional Water Uses and Losses; Table 2-5: Planned Water Supplies (The 2005 UWMP did not report recycled water demand as a single category. Therefore planned recycled water supply was used for 2010)

- 2015 values – Rancho Water's 2010 UWMP, Table ES-1: RCWD Past, Current, and Projected Water Use by Sector (AFY)

- 2020 values – Rancho Water's 2015 UWMP, Table 4-5: Demands for Potable and Raw Water - Projected, Table 4-6: Total Water Demands (AFY)

- 2025-2045 – RCWD's 2020 UWMP, Table 2-12: Projected Water Use 2020 to 2015 by Rancho Water Service Area Land Use– Normal Year (AF).

- Service area population for 2010 were taken from the previous (2005) UWMP. Consideration was given to using 2010 UWMP service area population projections for 2015, but because the 2015 UWMP had the benefit of complete Census data, year 2015 population data was taken from the 2015 UWMP. 2020 service area population projections were taken from the 2015 UWMP. Year 2025-2045 service area demands were taken from the 2020 UWMP.

Table P-1 Calculation of Water Use Efficiency

Service Area Water Use Efficiency Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands with Water Use Efficiency Accounted For	87,700	82,405	82,244	75,041	78,193	79,875	81,984	84,157
Non-Potable Water Demands	10,550	9,381	11,380	13,453	13,632	13,806	13,980	14,152
Potable Service Area Demands with Water Use Efficiency Accounted For	77,150	73,024	70,864	61,588	64,561	66,069	68,004	70,005

Total Service Area Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Population	121,324	140,390	154,222	157,451	163,731	167,344	172,286	178,670

Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Per Capita Water Use (GPCD)	568	464	410	349	352	352	352	350
Change in Per Capita Water Use from Baseline (GPCD)		-103	-157	-218	-216	-215	-215	-218
Estimated Water Use Efficiency Since Baseline		**16,250**	**27,206**	**38,535**	**39,556**	**40,345**	41,553	43,611

Tale P-2: Calculation of Service Area Demands Without Water Use Efficiency

Total Service Area Water Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands with Water Use Efficiency Accounted For	87,700	82,405	82,244	75,041	78,193	79,875	81,984	84,157
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		16,250	27,206	38,535	39,556	40,345	41,553	43,611
Service Area Water Demands without Water Use Efficiency Accounted For	**87,700**	**98,655**	**109,450**	**113,576**	**117,749**	**120,220**	**123,537**	**127,768**

Supplies Contributing to Regional Self-Reliance.

In Table P-3, the estimate of water use efficiency is taken from Table P-2. Other water supplies, such as recycled water and advanced water technologies were taken from previous and the current UWMP. Recycled water values represent the planned recycled water production at the SRWRF; advanced water technology volume used in the table represent the District's indirect potable reuse project which is anticipated to be online in 2027

The results illustrate that, in the near-term (2025), the expected outcome for normal water year regional self-reliance will increase by 34,800 AF over the baseline year and in the long-term (2045), the District can expect a continued increase in regional self-reliance of 41,000 AF over the baseline year.

Table P-3 Calculation of Supplies Contributing to Regional Self-Reliance

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Use Efficiency	0	16,250	27,206	38,535	39,556	40,345	41,553	43,611
Water Recycling	7,890	4,500	4,599	4,175	4,354	4,528	4,702	4,874
Stormwater Capture and Use								
Advanced Water Technologies					550	550	550	550
Conjunctive Use Projects	0	0	0	0	0	0	0	0
Local and Regional Water Supply and Storage Projects								
Other Programs and Projects the Contribute to Regional Self-Reliance	0	0	0	0	0	0	0	0
Water Supplies Contributing to Regional Self-Reliance	**7,890**	**20,750**	**31,805**	**42,710**	**44,460**	**45,423**	**46,805**	**49,035**

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands without Water Use Efficiency Accounted For	87,700	98,655	109,450	113,576	117,749	120,220	123,537	127,768

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies Contributing to Regional Self-Reliance	7,890	20,750	31,805	42,710	44,460	45,423	46,805	49,035
Change in Water Supplies Contributing to Regional Self-Reliance		**12,860**	**23,915**	**34,820**	**36,570**	**37,533**	**38,915**	41,145

Percent Change in Regional Self Reliance (As Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Percent of Water Supplies Contributing to Regional Self-Reliance	9.0%	21.0%	29.1%	37.6%	37.8%	37.8%	37.9%	38.4%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		**12.0%**	**20.1%**	**28.6%**	**28.8%**	**28.8%**	**28.9%**	29.4%

Reliance on Water Supplies from the Delta Watershed

In order for a covered action to demonstrate consistency with the Delta Plan, WR P1 requires that water supplies report expected outcomes for measureable reductions in supplies from the watershed either as a percentage or volumetric amount. Table P-4 shows the expected outcomes for reliance on supplies from the Delta watershed for the District's service area. The methodology used was as described in Appendix C of the Guidebook. While results in the table demonstrate that Rancho Water is showing a measurable reduction in reliance on the Delta (by percent and in volume), this determination is artificial and infeasible as described below.

Infeasibility of Demonstrating Reduced Reliance on the Delta

Although Rancho California Water District receives imported water from the Central Valley Project and the State Water Project, it is not a member agency of Metropolitan Water District of Southern California (MWD), the sole agency which manages the statewide integrated conveyance system through with the CVP and SWP supplies are distributed. Rather, the District is a customer of EMWD and WMWD, both themselves member agencies of MWD. As such, the District, through its rate payers provides revenue to EMWD and WMWD, who together with Metropolitan's other member agencies, funds operations that MWD undertakes to reduce reliance on the Delta. Therefore, while there is a direct nexus between MWDs investments and

regional self-reliance on the Delta, a similar accounting is infeasible for Rancho Water .i.e. as it is not responsible for Delta infrastructure or operation projects, it cannot independently assert reduction in Delta reliance. Metropolitan's own 2020 UWMP corroborates this by stating:

> *"Because of the integrated nature of Metropolitan's systems and operations, and the collective nature of Metropolitan's regional efforts, it is infeasible to quantify each Metropolitan member agency's individual reliance on the Delta. It is infeasible to attempt to segregate an entity and a system that were designed to work as an integrated regional cooperative".*

Further, the District's demands on MWD's member agencies are not commensurate with demands on the Delta because, like most member agencies, EMWD and WMWD receive blended resources from Metropolitan, as determined by Metropolitan – not the individual agency. In short, as a customer of Metropolitan's member agencies, Rancho Water has even less of an ability to control the percent of water Delta water it receives from its wholesalers. Notwithstanding this, consistent with the Appendix C methodology, the District has included its CVP/SWP (indirect) contract supplies in Table P-4.

CVP/SWP Contract Supplies. CVP/SWP contract supplies were estimated based on the percentage of Delta supplies provided as a percent of overall imported supplies from Rancho Water's imported water suppliers. Given that all of Rancho Water's imported supplies come from Metropolitan, data from that agency provided in its Draft 2020 UWMP, Table A.11-3, was utilized to estimate the percentages of supplies from the Delta watershed.

Table P-4 illustrates that from 2015 to 2020 Rancho Water reduced reliance on the Delta and is projected to continue on this path Delta through year 2045.

Table P-4: Calculation of Reliance on Water Supplies from the Delta Watershed

Water Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
CVP/SWP Contract Supplies	14,908	12,472	12,548	13,146	13,369	13,339	12,120	12,230
Delta/Delta Tributary Diversions								
Transfers and Exchanges of Supplies from the Delta Watershed								
Other Water Supplies from the Delta Watershed	-	-	-	-	-	-	-	-
Total Water Supplies from the Delta Watershed	**14,908**	**12,472**	**12,548**	**13,146**	**13,369**	13,339	12,120	12,230

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands without Water Use Efficiency Accounted For	87,700	98,655	109,450	113,576	117,749	120,220	123,537	127,768

Change in Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies from the Delta Watershed	14,908	12,472	12,548	13,146	13,369	13,339	12,120	12,230
Change in Water Supplies from the Delta Watershed		(2,436)	(2,360)	(1,762)	(1,539)	(1,569)	(2,788)	(2,678)

Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Percent of Water Supplies from the Delta Watershed	17.0%	12.6%	11.5%	11.6%	11.4%	11.1%	9.8%	9.6%
Change in Percent of Water Supplies from the Delta Watershed		**-4.4%**	**-5.5%**	**-5.4%**	**-5.6%**	**-5.9%**	**-7.2%**	**-7.4%**

2015 Appendix P

The District is submitting the information in the 2020 UWMP Appendix F as a new Appendix P attached to Rancho California Water District's 2015 UWMP consistent with WR P1 subsection (c)(1)c. In accordance with the requirements of the California Water Code, the District provided notice of the availability of the 2020 UWMP (including this appendix which will also serve as the new Appendix P to the 2015 UWMP) and the 2021 WSCP and the public hearing to consider adoption of both plans. The Addendum to the 2015 UWMP was posted on the District's website at ranchowater.com on May 10, more than 30 days in advance of the public hearing on June 10. The Addendum to the 2015 UWMP was adopted by the Board of Directors by Resolution No. 2021-6-18 on June 10, 2021.