Appendix K: Consistency with Delta Plan Policy WR P1

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Data to Document Consistency with Delta Plan Policy WR P1

As stated in the 2020 UWMP Guidebook Appendix C (Final version dated April 2021):

> "An urban water supplier (Supplier) that anticipates participating in or receiving water supply benefits from a proposed project (covered action[1)] 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 provide information in their 2015 and 2020 Urban Water Management Plans (UWMP's) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, *Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance* (California Code Reg., tit. 23, § 5003)."

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

> "(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and 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)."

[1] Cal. Code Regs., tit. 23, § 5001, subd. (j): A "Covered action" is defined as "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, or a reasonably foreseeable indirect physical change in the environment … "directly undertaken by any public agency""(Pub. Resources Code, § 21065) that (i) will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh, (ii) will be carried out, approved, or funded by the state or a local public agency, (iii) is covered by one or more provisions of the Delta Plan, and (iv) will have a significant impact on achievement of one or both of the coequal goals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and state interest in the Delta."

Preparation of UWMPs and Implementation of Projects from the UWMP

SCV Water completed and submitted to DWR, 2005, 2010, and 2015 Urban Water Management Plans, in addition to this 2020 UWMP. SCV Water has identified, evaluated and implemented projects that are locally cost effective and technically feasible which improve local reliability and reduce reliance on the Delta.

Expected Outcomes for Measurable Reduction in Delta Reliance

The expected outcomes for SCV Water's Delta reliance and regional self-reliance were developed based on the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2020 and are summarized in Tables K-1 to K-4 below. This 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, conjunctive use projects, surface water, transfers and exchanges, and non-potable supplies. Inputs to Table K-1, K-2, and K-3 include:

- **Baseline**. 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 conversations had with DWR, SCV 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 SCV Water'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**. Service area demands, including demands for non-potable water, for 2010, 2015, and 2020 were taken from projections from the previous (2005, 2010, and 2015) UWMPs. Service area demands 2025 to 2045 were taken from projections developed as part of the 2020 UWMP.

- **Service Area Population**. Consistent with the methodology for service area demands (using normal year projections from the previous UWMP), 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.

The outcome of Table K-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.

Supplies Contributing to Regional Self-Reliance. In Table K-2, the estimate of water use efficiency is taken from Table K-1. Other water supplies, such as groundwater, a non-Delta tributary transfer and recycled water were taken from previous UWMPs (2005 projections were used for 2010 etc.) For years 2025-2045 supplies were taken from projections prepared for the

2020 UWMP.(Note that a correction was made to 2010 value for Local and Regional Water Supply and Storage Projects. The 2005 UWMP incorrectly reported the entire Alluvial Aquifer basin yield as being available for water municipal purveyor use instead of reducing that quantity used by non-purveyors such as agriculture and other private well owners. Accordingly, the 35,000 AF basin yield amount was reduced by 15,000 AF to account for non-Agency use by agriculture and other users leaving 20,000 AFY for municipal purveyor use. That modified value along with Saugus Formation groundwater and Buena Vista/Rosedale-Rio Bravo Transfer resulted in the reported supply)

The outcome of Table K-2 is an estimate of the supplies contributing to regional self-reliance.

- **SWP Contract Supplies**. SWP contract supplies were estimated based on the percentage of Delta supplies provided as a percent of overall imported supplies from the State Water Project. Given that all of SCV Water's imported supplies come directly from DWR, data provided in the 2019 Delivery and Capability Report was utilized to estimate the percentages of supplies from the Delta watershed.

The outcome of Table K-3 is a calculation of the percent change in supplies from the Delta watershed relative to the 2010 Baseline.

Table K-3 illustrates that from 2010 to 2015, SCV Water reduced reliance on the Delta and is projected to have a net reduction in reliance on the Delta from the baseline, through year 2050.

Reduced Reliance Calculation - Data Template

Table K-1: Optional Calculation of Water Use Efficiency -To be completed if Water Supplier does not specifically estimate Water Use Efficiency as a supply

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	91,450	72,343	68,900	76,400	81,700	88,700	93,600	97,500
Non-Potable Water Demands	500	1,250	565	1,850	3,670	5,540	6,950	7,950
Potable Service Area Demands with Water Use Efficiency Accounted For	90,950	71,093	68,335	74,550	78,030	83,160	86,650	89,550

Total Service Area Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Population	301,774	272,500	289,100	332,100	362,100	392,500	411,900	422,100

Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Per Capita Water Use (GPCD)	269	233	211	200	192	189	188	189
Change in Per Capita Water Use from Baseline (GPCD)		(36)	(58)	(69)	(77)	(80)	(81)	(80)
Estimated Water Use Efficiency Since Baseline		11,034	18,795	25,540	31,101	35,133	37,490	37,664

Table K-2: Calculation of Service Area Water 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	91,450	72,343	68,900	76,400	81,700	88,700	93,600	97,500
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		11,034	18,795	25,540	31,101	35,133	37,490	37,664
Service Area Water Demands without Water Use Efficiency Accounted For	91,450	83,377	87,695	101,940	112,801	123,833	131,090	135,164

Table K-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		11,034	18,795	25,540	31,101	35,133	37,490	37,664
Water Recycling	500	1,250	565	1,850	3,670	5,540	6,950	7,950
Stormwater Capture and Use								
Advanced Water Technologies								
Conjunctive Use Projects								
Local and Regional Water Supply and Storage Projects	42,000	44,600	47,755	48,880	49,450	52,190	52,190	52,190
Other Programs and Projects the Contribute to Regional Self-Reliance								
Water Supplies Contributing to Regional Self-Reliance	42,500	56,884	67,115	76,270	84,221	92,863	96,630	97,804

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	91,450	83,377	87,695	101,940	112,801	123,833	131,090	135,164

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies Contributing to Regional Self-Reliance	42,500	56,884	67,115	76,270	84,221	92,863	96,630	97,804
Change in Water Supplies Contributing to Regional Self-Reliance		14,384	24,615	33,770	41,721	50,363	54,130	55,304

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	46.5%	68.2%	76.5%	74.8%	74.7%	75.0%	73.7%	72.4%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		21.8%	30.1%	28.3%	28.2%	28.5%	27.2%	25.9%

Table K-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	67,600	58,100	58,800	55,220	53,310	51,410	49,500	49,500
Delta/Delta Tributary Diversions								
Transfers and Exchanges								
Other Water Supplies from the Delta Watershed								
Total Water Supplies from the Delta Watershed	67,600	58,100	58,800	55,220	53,310	51,410	49,500	49,500

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	91,450	83,377	87,695	101,940	112,801	123,833	131,090	135,164

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	67,600	58,100	58,800	55,220	53,310	51,410	49,500	49,500
Change in Water Supplies from the Delta Watershed		(9,500)	(8,800)	(12,380)	(14,290)	(16,190)	(18,100)	(18,100)

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	73.9%	69.7%	67.1%	54.2%	47.3%	41.5%	37.8%	36.6%
Change in Percent of Water Supplies from the Delta Watershed		-4.2%	-6.9%	-19.8%	-26.7%	-32.4%	-36.2%	-37.3%