Appendix F. Reduced Delta Reliance

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Background

An urban water supplier that anticipates participating in or receiving water from a proposed project, such as a multiyear 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 UWMPs that can then be used in the certification of consistency process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Regulations, Title 23, §5003).

Delta Plan Policy WR P1 is one of fourteen regulatory policies in the Delta Plan. The Delta Plan is a comprehensive, long-term, legally enforceable plan guiding how federal, state, and local agencies manage the Delta's water and environmental resources. The Delta Plan was adopted in 2013 by the Delta Stewardship Council (DSC). Delta Plan Policy WR P1 identifies urban water management plans (UWMP) as the tool to demonstrate consistency with the state policy that suppliers that carry out or take part in covered actions must reduce their reliance on the Delta.

Vallecitos Water District's (District) information on its reduced reliance on the Delta is documented below and can be used in future certifications of consistency with WR P1 for potential future water supply covered actions in the Delta.

1 Process to Demonstrate Reduced Reliance on Delta

Consistent with Appendix C in the California Department of Water Resource's Draft UWMP Guidebook 2020 (DWR Guidebook), the District's analysis followed Steps 1 through 4 in the DWR Guidebook to document consistency with WR P1 and produce data and information covering the District's 2015 and 2020 UWMPs as noted below.

1) Quantify the water use efficiency supply volume
2) Quantify total water supplies;
3) Quantify water supplies that contribute to regional self-reliance; and
4) Demonstrate reduced reliance on water supplies from the Delta watershed.

2 Quantifying Total Water Supplies

To demonstrate reduced reliance on the Delta, the District compared its projected Delta water use against a baseline. The baseline, shown in Table C-1, was determined as the 2010 water demand.

3 Quantifying Water Supplies that Contribute to Regional Self-Reliance

To demonstrate consistency with the Delta Plan, WR P1 subsection (c)(1)(C) states that water suppliers must report in their UWMP the expected outcome for measurable improvement in regional self-reliance as a reduction in water used from the Delta watershed. To determine whether there is an increase in regional self-reliance, the baseline calculated in Table C-1 is used to compare against the water supplies listed in Table C-3 that contribute to regional self- reliance. The comparison is done over five-year periods, from 2015 through 2045, to calculate how regional self-reliance will change over time.

Table C-3 lists the sources of water supplies and volumes that contribute to regional self-reliance. As shown in the table, the District's reliance on the Delta watershed has decreased compared to the baseline as the percent of local water supplies that contribute to regional self-reliance increases. The volumes of the individual supplies that contribute to regional self-reliance can be found in Section 6 of the District's 2010, 2015 , and 2020 UWMPs.

The water supplies included in Table C-3 that contribute to regional self-reliance are represent the District's verifiable supplies from recycled water and desalinated water production within the "Local and Regional Water Supply and Storage Projects" category. Imported water supplies from San Diego County Water Authority (SDCWA), and indirectly the Metropolitan Water District of Southern California (Metropolitan), may include a percentage of water from the Delta watershed, and SDCWA imported supplies are excluded from the list of supplies that contribute to regional self-reliance in the San Diego region.

4 Reduced Reliance on Water Supplies from the Delta Watershed

WR P1 subdivision (c)(1)(C) requires water suppliers to report on the expected outcomes for measurable reductions in water supplies from the Delta watershed. The District purchases water from SDCWA, and the only potential source of water from the Delta watershed is water imported from SDCWA and Metropolitan. Because water provided by Metropolitan to SDCWA can include supplies that comingle Delta watershed and Colorado River supplies, SDCWA had incorporated Metropolitan's forecast as a reasonable methodology to forecast the percent of Metropolitan water supply from the Delta watershed and the Colorado River, at least until Metropolitan provides the methodology approved by the Delta Stewardship Council as anticipated. Accordingly, the District presented its report of reduced reliance on the Delta watershed conservatively assuming all of SDCWA's supplies to the District include Delta watershed and Colorado River supplies. Additional information on SDCWA's methodology can be found in Appendix M of SDCWA's Draft 2020 UWMP

Reduced Reliance Calculation

Table C-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	16,308	13,348	14,839	19,480	20,232	21,008	22,481	24,722
Non-Potable Water Demands	-	-	-	1,446	1,446	1,446	2,366	2,366
Potable Service Area Demands with Water Use Efficiency Accounted For	16,308	13,348	14,839	18,034	18,786	19,562	20,115	22,355

Total Service Area Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Population	87,728	93,897	105,741	108,371	110,484	111,370	120,813	127,195

Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Per Capita Water Use (GPCD)	166	127	125	149	152	157	149	157
Change in Per Capita Water Use from Baseline (GPCD)		(39)	(41)	(17)	(14)	(9)	(17)	(9)
Estimated Water Use Efficiency Since Baseline		4,107	4,818	2,112	1,752	1,141	2,344	1,289

Table C-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	16,308	13,348	14,839	19,480	20,232	21,008	22,481	24,722
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline								
Service Area Water Demands without Water Use Efficiency Accounted For	16,308	13,348	14,839	19,480	20,232	21,008	22,481	24,722

Table C-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	-	4,107	4,818	2,112	1,752	1,141	2,344	1,289
Water Recycling		-		3,500	3,500	3,500	3,500	3,500
Stormwater Capture and Use								
Advanced Water Technologies								
Conjunctive Use Projects								
Local and Regional Water Supply and Storage Projects	-				7,700	7,700	7,700	7,700
Other Programs and Projects the Contribute to Regional Self-Reliance								
Water Supplies Contributing to Regional Self-Reliance	-	4,107	4,818	5,612	12,952	12,341	13,544	12,489

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	16,308	13,348	14,839	19,480	20,232	21,008	22,481	24,722

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies Contributing to Regional Self-Reliance	-	4,107	4,818	5,612	12,952	12,341	13,544	12,489
Change in Water Supplies Contributing to Regional Self-Reliance		4,107	4,818	5,612	12,952	12,341	13,544	12,489

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	0.0%	30.8%	32.5%	28.8%	64.0%	58.7%	60.2%	50.5%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		30.8%	32.5%	28.8%	64.0%	58.7%	60.2%	50.5%

Table C-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	16,308	9,240	10,022	13,868	7,279	8,667	8,938	12,232
Delta/Delta Tributary Diversions								
Transfers and Exchanges								
Other Water Supplies from the Delta Watershed								
Total Water Supplies from the Delta Watershed	16,308	9,240	10,022	13,868	7,279	8,667	8,938	12,232

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	16,308	13,348	14,839	19,480	20,232	21,008	22,481	24,722

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	16,308	9,240	10,022	13,868	7,279	8,667	8,938	12,232
Change in Water Supplies from the Delta Watershed		(7,068)	(6,287)	(2,440)	(9,029)	(7,641)	(7,371)	(4,076)

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	100.0%	69.2%	67.5%	71.2%	36.0%	41.3%	39.8%	49.5%
Change in Percent of Water Supplies from the Delta Watershed		-30.8%	-32.5%	-28.8%	-64.0%	-58.7%	-60.2%	-50.5%