

Appendix K – Reporting on Reduced Delta Reliance

Regulatory Background

Urban water suppliers that anticipate 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) are required to demonstrate reduced reliance on the Delta in their 2015 and 2020 Urban Water Management Plans (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).¹ The Delta Plan Policy WR P1 identifies the 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.²

Carlsbad Municipal Water District's (CMWD) 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.

Carlsbad Municipal Water District Reliance on Delta Watershed

CMWD currently has two local water supplies, recycled water and desalinated seawater. The remainder of CMWD's potable water supply is purchased from the San Diego County Water Authority (Water Authority). In 2015, 100% of CMWD's potable water was imported water supplied by the Water Authority. The Water Authority's imported water supplies are primarily sourced from the Colorado River via transfers from Imperial Irrigation District (IID), and from the State Water Project (SWP) and Central Valley Project (CVP) via Metropolitan Water District of Southern California (MWD).

CMWD's only imported water supplies that originate in the Delta watershed are imported water supplies delivered by the Water Authority via MWD. Recognizing that the Delta supplies are threatened by uncertain long-term reliability issues associated with drought shortages, climate change, seismic events, environmental impacts, and flow restrictions, and that imported water purchases are becoming increasingly expensive, CMWD has taken actions to reduce demand for imported water from the Water Authority as supplied by MWD, and is continuing to explore future opportunities to continue to reduce its reliance on imported water.

As part of its *Draft 2020 UWMP*, the Water Authority completed a Delta Reliance analysis to evaluate reduced Delta reliance consistent with Appendix C in the California Department of Water Resources' (DWR) *Draft UWMP Guidebook 2020* (DWR Guidebook). Given that CMWD's only potential source of water from the Delta watershed is water purchased from the Water Authority, CMWD relies on the Water Authority's Delta reliance analysis to also demonstrate reduced regional reliance on the Delta.

¹ *Draft Urban Water Management Plan Guidebook 2020*, California Department of Water Resources, August 2020, p. C-1.

² *Ibid.*, p. C-2.

Water Authority Reduced Reliance on Delta Watershed

The Water Authority's *Draft 2020 UWMP* documents consistency with WR P1 by quantifying the water supplies that contribute to regional self-reliance and demonstrating reduced reliance on the Delta watershed, as summarized below.

Quantification of Water Supplies that Contribute to Regional Self-Reliance

Water suppliers must report the expected outcome for measurable improvement in regional self-reliance as a reduction in water used from the Delta watershed. **Table 1** lists the sources of water supplies and volumes that contribute to regional self-reliance.³ As shown in the table, the Water Authority's reliance on the Delta watershed, and consequently CMWD's reliance on the Delta watershed, decreases over time as the percent of water supplies that contribute to regional self-reliance increase over time. CMWD's individual supplies that contribute to regional self-reliance can be found in Chapter 6 Water Supplies in CMWD's 2020 UWMP.

Table 1 – 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 (opt)
Water Use Efficiency	79,960	6,737	74,141	62,411	66,921	73,035	81,625	85,698
Water Recycling	33,668	38,660	40,459	42,993	46,493	46,593	46,693	46,793
Stormwater Capture and Use	-	-	-	-	-	-	-	-
Advanced Water Technologies	-	-	56,000	56,000	56,000	56,000	56,000	56,000
Conjunctive Use Projects	-	-	-	-	-	-	-	-
Local and Regional Water Supply and Storage Projects	235,924	250,436	355,120	402,599	423,959	484,021	480,521	480,521
Other Programs and Projects that Contribute to Regional Self-Reliance	-	-	-	-	-	-	-	-
Water Supplies Contributing to Regional Self-Reliance	349,552	295,833	525,720	564,003	593,373	659,649	664,839	669,012
Service Area Water Demands without Water Use Efficiency	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Service Area Water Demands without Water Use Efficiency	795,410	654,022	661,722	618,169	645,165	671,509	695,860	716,469
Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Water Supplies Contributing to Regional Self-Reliance	349,552	295,833	525,720	564,003	593,373	659,649	664,839	669,012
Change in Water Supplies Contributing to Regional Self-Reliance		(53,719)	176,168	214,451	243,821	310,097	315,287	319,460
Change in Percentage Regional Self Reliance (As a Percent of Water Demand without WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Percentage of Water Supplies Contributing to Regional Self-Reliance	43.9%	45.2%	79.4%	91.2%	92.0%	98.2%	95.5%	93.4%
Change in Percentage of Water Supplies Contributing to Regional Self-Reliance		102.9%	180.8%	207.6%	209.3%	223.5%	217.4%	212.5%

Demonstration of Reduced Reliance on Water Supplies from the Delta Watershed

Water suppliers are required to report on the expected outcomes for measurable reductions in water supplies from the Delta watershed. For CMWD, the only potential source of water from the Delta watershed is water purchased from the Water Authority via MWD. Because water provided by the Water Authority via MWD can include supplies that comingle Delta watershed and CVP supplies, and because MWD has not provided the anticipated methodology approved by the DSC, the Water Authority (and therefore CMWD) has incorporated the MWD's forecast in its entirety as a reasonable methodology to forecast the percent of MWD water supply from the Delta watershed and the CVP. **Table 2** calculates the reduced reliance on the Delta watershed within the entirety of the MWD service area, to serve as a regional approach for this requirement.⁴

³ *Draft 2020 UWMP*, San Diego County Water Authority, March 2021, Appendix J, Table 2.

⁴ *Draft 2020 UWMP*, Metropolitan Water District of Southern California, February 2021, Appendix 11, Table A.11-3.

Table 2 – Calculation of Reliance on Water Supplies from Delta Watershed ⁵

Water Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
CVP/SWP Contract Supplies	1,472,000	1,029,000	984,000	1,108,670	1,108,670	1,108,670	993,980	993,980
Delta/Delta Tributary Diversions	-	-	-	-	-	-	-	-
Transfers and Exchanges	20,000	44,000	91,000	8,000	8,000	8,000	8,000	8,000
Other Water Supplies from the Delta Watershed								
Total Water Supplies from the Delta Watershed	1,492,000	1,073,000	1,075,000	1,116,670	1,116,670	1,116,670	1,001,980	1,001,980
Service Area Water Demands without Water Use Efficiency	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Service Area Water Demands without Water Use Efficiency Savings	5,493,000	5,499,000	5,219,000	4,598,000	4,737,000	4,877,000	4,981,000	5,100,000
Change in Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Total Water Supplies from the Delta Watershed	1,492,000	1,073,000	1,075,000	1,116,670	1,116,670	1,116,670	1,001,980	1,001,980
Change in Water Supplies from the Delta Watershed		(419,000)	(417,000)	(375,330)	(375,330)	(375,330)	(490,020)	(490,020)
Change in Percentage of Supplies from the Delta Watershed (As a Percent of Water Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (opt)
Percentage of Total Water Supplies from the Delta Watershed	27.2%	19.5%	20.6%	24.3%	23.6%	22.9%	20.1%	19.6%
Change in Percentage of Water Supplies from the Delta Watershed		-7.6%	-6.6%	-2.9%	-3.6%	-4.3%	-7.0%	-7.5%

The CVP/SWP contract supplies in **Table 2** include MWD's SWP Table A and Article 21 supplies.⁶ The values in **Table 2** do not include supplies from San Luis Carryover storage or Central Valley storage programs. The transfers and exchanges of supplies from the Delta watershed shown in **Table 2** include supplies from the San Bernardino Valley MWD Program, Yuba River Accord Purchase Program, the San Gabriel Valley MWD Program, and other generic SWP and Central Valley transfers and exchanges. Additional information can be found in Section 3.2 and Appendix 3 of MWD's *Draft 2020 UWMP*.⁷

⁵ Metropolitan Water District of Southern California, *Draft 2020 UWMP*, February 2021, Appendix 11, Table A.11-3.

⁶ *Ibid.*, p. A.11-7.

⁷ *Ibid.*, pgs. A.11-7 – 11-8.