2015 Urban Water Management Plan Update

Addendum for 2015 Bay Delta Plan Requirements
June 2021

Foreword

The California Urban Water Management Planning Act (Act) requires that urban water suppliers[1] prepare and adopt an Urban Water Management Plan (UWMP) to report, describe, and evaluate water deliveries and uses, water supply sources, efficient water uses, and demand management measures within the supplier's service area(s). The Act requires that these water suppliers update their UWMP every five years to stay current with state resource planning efforts and legislative priorities and submit the updates to the California Department of Water Resources (DWR) for verification of Act and California Water Code (Water Code) consistency.

The Calaveras County Water District (CCWD/District) developed and adopted its most recent 2015 UWMP Update on June 22, 2016 per CCWD Board of Directors (Board) Resolution No. 2016-32. This followed intensive public engagement and notification of UWMP preparation and submittal to DWR. Chapter 10 of the 2015 UWMP Update summarizes CCWD's compliance with UWMP adoption, submittal, and implementation procedures. On October 27, 2016, CCWD was notified by DWR that the District's 2015 UWMP Update met the requirements of the Act and Water Code. Copies of this notification and related correspondence are available on DWR's Water Use Efficiency Data (WUEData) web portal, at: https://wuedata.water.ca.gov/.

This Addendum will be appended to the 2015 UWMP Update. The numbers presented herein for District demand reflect the analysis conducted for the then-current 2015 UWMP. CCWD is currently preparing its next five-year UWMP update for 2020, with adoption and submission due to DWR by July 1, 2021. To guide development of UWMPs and to help ensure Act and Water Code compliance, DWR releases a UWMP Guidebook to urban water suppliers during each update cycle. The 2020 Guidebook includes new planning and legislative requirements for UWMP as compared to 2015, introducing new sections on climate change impacts, water shortage contingency planning, seismic risk, groundwater supply coordination, and drought risk assessment. The 2020 Guidebook also clarifies a prior oversight from the 2015 UWMP update cycle related to the California Code of Regulations (CCR) Section 5003 requirement of water suppliers indicating reduced reliance on water supplies with nexus to the Sacramento-San Joaquin River Delta region (also known as the "Bay Delta"). Many urban water suppliers, including CCWD, did not submit materials related to this requirement in their 2015 UWMP Update; as a result of the regulatory oversight however, DWR did not withhold approval.

With the new update cycle, CCWD must prepare and submit its 2020 UWMP and revise its 2015 UWMP update to retroactively adhere to the Bay Delta requirement. CCWD does so here with the new sections entitled "Compliance with the Delta Plan" provided herein. Approval of this Addendum followed the process outlined in **Section 10.6** of the 2015 UWMP Update. All unchanged information, appendices, and data in that UWMP remain valid.

[1] Required only for urban water suppliers which provide water for municipal purposes to more than 3,000 customers or supplies more than 3,000 acre-feet of water annually.

Appendix U is hereby added to CCWD's 2015 UWMP and shall include the following:

Compliance with the Delta Plan

1. The Delta Plan

The Bay Delta is an expansive inland river delta and estuary covering about 1,100 square miles located to the east of the San Francisco Bay Area. It is formed by the confluence of the San Joaquin and Sacramento Rivers, consisting of approximately 57 reclaimed islands and tracts developed out of marshes via the development of drainage systems and levees in the late 19th Century. The Bay Delta is one of California's most important regions, with its waters being used for agriculture, fisheries, and wildlife, and is an important component of California's water supply systems. Both the federal Central Valley Project (CVP), supplying mostly agriculture in the Central Valley, and the California State Water Project (SWP), supplying the urban Los Angeles and the San Francisco Bay Areas as well as agriculture in the San Joaquin Valley, directly divert from the southern Bay Delta. As such, the Bay Delta provides water for approximately two-thirds of California's population and for over 3 million acres of Central Valley farmland. Competing interests between CVP and SWP contractors, Bay Delta internal users, and upstream environments have long made management of the Bay Delta region a challenge for state and federal governments.

In 2009, the California Legislature passed a package of bills intended to improve management of the state's water resources. One of these bills was the Sacramento-San Joaquin Delta Reform Act (Delta Reform Act), which created the Delta Stewardship Council (Council) and established the coequal goals of securing a more reliable water supply and protecting, restoring, and enhancing the Bay Delta ecosystem. The Council was directed to develop a Delta Plan to further those coequal goals in a comprehensive and enforceable manner and was also given regulatory authority over certain types of activities, referred to as "covered actions", that occur within the boundaries of the Bay Delta and could impact the achievement of one or both of the coequal goals. The Delta Plan, released by the Council in May 2013, includes several items related to the preparation of UWMPs, based around the following concepts:

- Agencies seeking approval to pursue covered actions in the future will need to demonstrate compliance with the Delta Plan in their UWMPs.

- The Delta Plan also provides recommendations for information that urban water suppliers receiving water from the Bay Delta, or watersheds upstream of the Bay Delta, should include in their UWMPs.

Additionally, the Delta Plan specifies the following requirements related to UWMPs:

- Demonstrate reduced reliance on the Bay Delta by improving regional water self-reliance.

- Include an Expanded Reliability Element detailing how the water supplier is reducing reliance on the Delta, including a plan for possible interruptions in Bay Delta water supplies for up to 36 months.

The purpose of this Appendix is to demonstrate CCWD's compliance with the Delta Plan by providing information on the areas discussed above. CCWD is not currently considering, nor does not it anticipate considering in the future, projects or programs located in and around the Bay Delta that

would constitute a "covered action" as defined in the Delta Reform Act of 2009 (Reform Act)[2]. Therefore, DWR Guidebook suggested Tables C-1 through C-4 have not been included in this chapter.

2. Reduced Reliance Requirement

Requirements for demonstrating reduced reliance on Bay Delta water supplies are outlined in the Delta Plan Water Resources Policy 1 (WR P1) and CCR Section 5003(c), which states:

> *(1) Water suppliers that have done all of 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).*
>
> *(2) Programs and projects that reduce reliance could include, but are not limited to, improvements in water use efficiency, water recycling, stormwater capture and use, advanced water technologies, conjunctive use projects, local and regional water supply and storage projects, and improved regional coordination of local and regional water supply efforts*

3. Bay-Delta Reliance

CCWD's water service areas and applicable water supplies are described in the 2015 UWMP **Section 3.2**. These service areas are served by one of four different water sources: the Calaveras River, the Stanislaus River, the Upper Mokelumne River (or its tributaries), or groundwater from portions of the Eastern San Joaquin Groundwater Subbasin (Subbasin). CCWD holds water rights to the surface water systems, which allow for storage and diversion for use within Calaveras County (County), subject to the availability of runoff, senior water rights of other users, downstream fishery flow requirements, and other river uses (e.g., recreational use requirements).

[2] Per Water Code Section 85057.5(a) , a "covered action" means a plan, program, or project as defined pursuant to Section 21065 of the Public Resources Code that *meets all of the following conditions*: 1) will occur, in whole or in part, within the boundaries of the [Bay-]Delta or Suisun Marsh, 2) will be carried out, approved, or funded by the state or a local public agency, 3) is covered by one or more provisions of the Delta Plan, and 4) will have significant impact on achievement of one or both of the coequal coals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and state interest in the [Bay-]Delta.

CCWD is not reliant on the Bay Delta for its water supplies from the Calaveras River, Mokelumne River, or Stanislaus River in its service areas. The County, CCWD's water storage infrastructure, service areas, and water rights points of diversion are all upstream of the Bay Delta region, as they are located in the Sierra Nevada Mountains and foothills. The District is neither a CVP nor a SWP contractor, and none of its water supplies originate or are diverted from the Bay Delta. In addition, there are no return flows out of the County (i.e., flows outside of use of wastewater spray fields as described in the 2015 UWMP **Section 3.2**), and as a result CCWD water supplies are not being used downstream of the County. CCWD is not currently considering, nor does not it anticipate considering in the future, projects or programs that would constitute a "covered action" as defined in the Reform Act.

Table U-1A and **Table U-1B** show the composition of District water supplies for 2015 and projected through 2040 for normal and single-dry years, respectively. As discussed in this chapter, CCWD recognizes that its water use efficiency and watershed management efforts upstream of the Bay Delta likely has positive impacts to the downstream areas.

Table U-1A: Annual CCWD Water Supply Portfolio for Normal Year

Water Supply Source (Sub-Region)	Water Supply (AFY), *Projected post-2020*[1]					
	2015	2020	2025	2030	2035	2040
Calaveras River (Sub-Region A)	31,665	31,864	31,898	31,932	31,966	32,001
Mokelumne River (Sub-Region C)	2,030	2,030	2,030	2,030	2,030	2,030
Stanislaus River (Sub-Region B)	76,300	76,638	76,736	76,834	76,932	77,032
Groundwater (Sub-Region D)	65	65	65	65	65	65
Water Supply Total[2]	**110,060**	**110,597**	**110,729**	**110,861**	**110,993**	**111,128**
Water Supplies from the Delta Watershed	**0**	**0**	**0**	**0**	**0**	**0**
Demands Total	6,440	14,362	21,551	28,622	36,419	45,632

NOTES: (1) See **Section 7.3** of 2015 UWMP for information on 2020 through 2040 water supply projections. (2) Recycled water is included in supply totals.

Table U-1B: Annual CCWD Water Supply Portfolio for Single-Dry Year

Water Supply Source (Sub-Region)	Water Supply (AFY), *Projected post-2020*[1]					
	2015	2020	2025	2030	2035	2040
Calaveras River (Sub-Region A)	8,437	8,636	8,670	8,704	8,738	8,773
Mokelumne River (Sub-Region C)	200	200	200	200	200	200
Stanislaus River (Sub-Region B)	70,530	70,868	70,966	71,064	71,162	71,262
Groundwater (Sub-Region D)	45	45	45	45	45	45
Water Supply Total[2]	**79,212**	**79,749**	**79,881**	**80,013**	**80,145**	**80,280**
Water Supplies from the Delta Watershed	**0**	**0**	**0**	**0**	**0**	**0**
Demands Total	6,440	14,362	21,551	28,622	36,419	45,632

NOTES: (1) See **Section 7.3** of 2015 UWMP for information on 2020 through 2040 water supply projections. (2) Recycled water is included in supply totals.

4. CCWD Delta Nexus

As shown in **Figure U-1**, the Calaveras River, Mokelumne River, and Stanislaus River (tributary to the San Joaquin River) all flow to eastern and southern portions of the Bay Delta, collectively their total flow volume contributed to around 6 percent of Bay Delta inflows per year on average (from 2002 to 2015), as shown in **Table U-2**.

Figure U-1: CCWD Delta Nexus

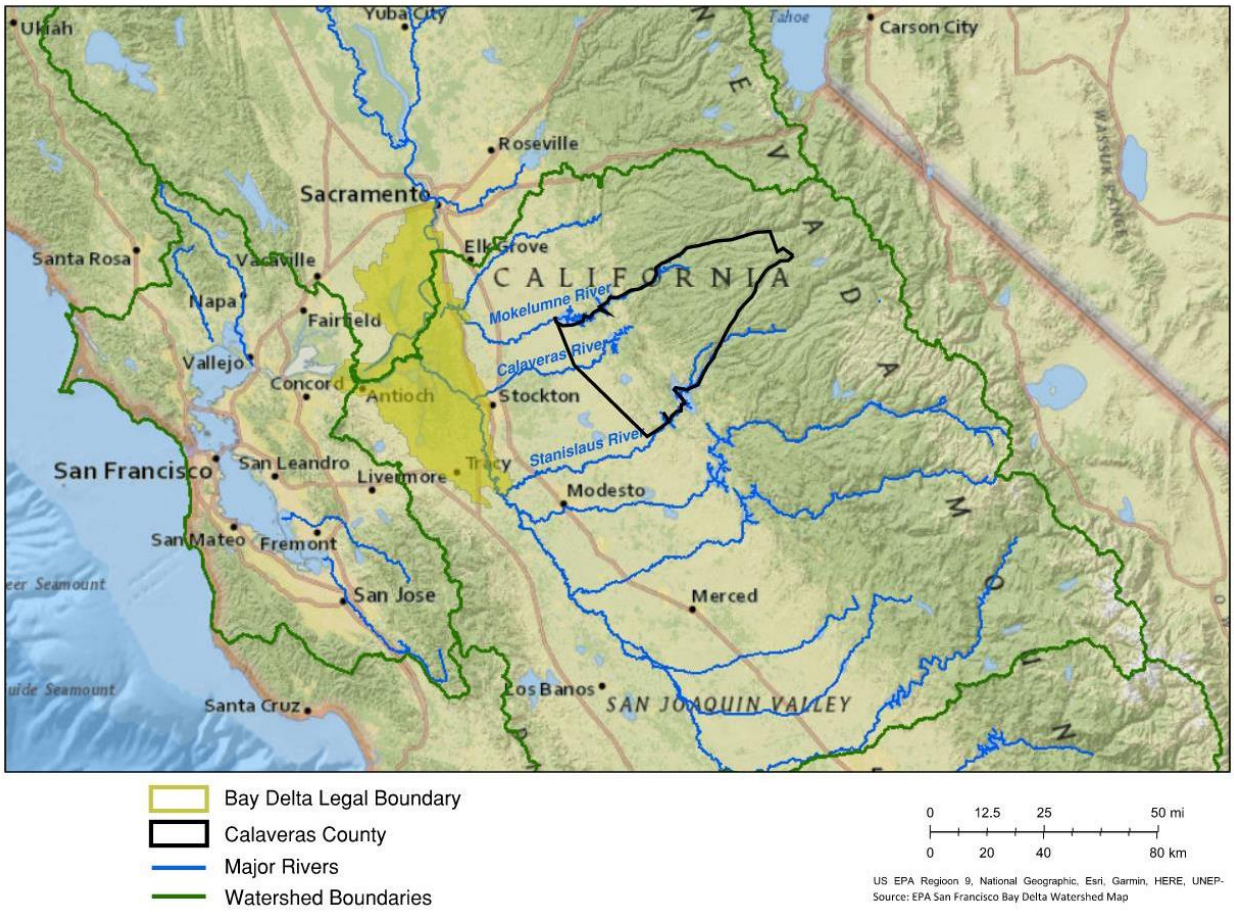

Table U-2: Local River Contributions to Bay-Delta Region Inflows (2002-2015)

River (Tributary to Bay-Delta region)	Avg. Inflow[1] (TAFY)	% Avg. Bay-Delta Inflow[2]	Variation[3] (TAFY/yr)	Inflow % Range
Calaveras River	40	0.2%	±35	<0.1 to 1.0%
Mokelumne River	402	2.4%	±281	0.4 to 5.1%
Stanislaus River	612	3.8%	±384	0.6 to 7.6%
Total Inflows (Calaveras, Mokelumne, Stanislaus)	**1,054**	**6.4%**	**±707**	**1.1 to 13.8%**

NOTES: TAFY = thousand acre-feet per year, (1) Average annual inflow to Bay-Delta from 2002 to 2015 from DWR California Data Exchange Center (CDEC) unimpaired inflow figures minus estimated downstream diversions, compiled by Public Policy Institute of California and UC Davis Center for Watershed Sciences in 'San Joaquin Valley Water Balance Tool', April 2017, (2) Based on 16,500 TAFY average inflow to Bay-Delta region from California Water Plan Update 2018 (Bulletin 160) Water Data Portfolio estimates, (3) Standard deviation of annual river inflow data for 2002 to 2015.

During 2015, the District used a total of 6,440 AF to satisfy its demands for potable and raw water – representing less than a thousandth of the inflow volume provided to the Bay Delta by the three watersheds.[3] Although changes to CCWD operations and water use could theoretically impact Bay Delta inflow volumes, the impact would be relatively small as compared to other larger urban water suppliers in California.

CCWD does maintain watershed management and health jurisdiction over the Calaveras River, Mokelumne River, and Stanislaus River Watersheds within portions of the County. Additionally, reservoirs located in the County, such as New Melones and New Hogan Reservoirs, are used by the U.S. Bureau of Reclamation to supplement downstream CVP system demands. Given these considerations, District upper watershed management will likely not lead to significant supplies being made available for users and uses downstream of the reservoirs. Although often difficult to quantify, CCWD's focus on reducing wildfire and watershed environmental risks, and improving District-wide water use efficiency, likely helps reduce state-wide strains on water supply infrastructure and may even improve water quality in the Bay Delta region.

5. CCWD Programs

The following sections provide an overview of the District's water use efficiency, rate structure incentives, recycled water, and watershed management efforts implemented by CCWD at the time of the 2015 UWMP Update. The Delta Plan lists similar water supplier programs used to reduce reliance on Bay Delta supplies. Section 9.1 of the 2015 UWMP further details these and other efforts.

5.1 Water Use Efficiency

The District signed the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) in 1991, and views conservation as an integral part of its water resource stewardship responsibility. CCWD has implemented several water conservation and water use efficiency measures, even prior to the MOU, such as conveyance system leak detection and repair, 100-percent metered service, metered rates, public information programs, and water waste prohibitions. These efforts have helped CCWD decrease the need for water supplies in all year types and has generally improved the water use efficiency of District facilities (e.g., reduction in pipeline leaks and treatment plant usage).

During periods of water shortage or drought, CCWD has asked customers to meet voluntary or mandatory rationing goals. During these periods, the District has increased customer outreach and expanded conservation programs to help customers meet these goals. One of the District's most effective efforts in 2015 was the formation of Calaveras Conserves, a County-wide conservation group, which included every major water supplier in the County and was aimed at providing residents with water conservation restriction information and water use efficiency promotion. The coordination and infrastructure remain in place for Calaveras Conserves participants to continue water conservation efforts if needed in future water shortage conditions. **Chapter 8** of the 2015 UWMP details CCWD's Water Shortage Contingency Plan, which describes how the District plans to engage with its customers, enforces prohibitions on use, and tracks consumption in the service areas.

[3] Based on 16,500 TAFY average inflow to Bay-Delta region from California Water Plan Update 2018 (Bulletin 160) Water Data Portfolio estimates, (3) standard deviation of annual river inflow data for 2002 to 2015.

5.2 Customer Rate Structure

The Delta Plan Recommendation WR R4 also suggests including an evaluation of the extent to which the supplier's rate structure promotes and sustains efficient water use. CCWD bills customers bimonthly using standardized, district-wide base rates plus volumetric charges. Since 2007, the District has maintained a tiered volumetric rate structure that was designed to promote water conservation. The base rate for residential and commercial users in 2015 included 1,000 cubic feet (cf) of water per billing period. This rate was multiplied by a capacity multiplier, which was determined by the size of the customer's meter. Customers who used more than 1,000 cf during a single billing period are charged based on the tiered rates, thereby incentivizing customers to use less water and spend less during a billing period. The rates as of 2015 are discussed in **Section 9.2.3** of the 2015 UWMP.[4]

5.3 Recycled Water

Recycled water is also in integral (but currently small) part of the County's integrated water resources supply portfolio. CCWD, as the County's retail and wholesale water purveyor, understands the importance of treating and using recycled water to reduce potable water demands, often reviewing ways to utilize its wastewater facilities to provide recycled water to potential customers. Recycled water also has the benefit of being a "local supply," thereby increasing regional self-reliance and resilience. In addition, recycled water availability is not strongly affected by differences in hydrology from year to year, making it a drought-resistant supply. **Section 6.5** of the 2015 UWMP reviews District opportunities and plans to expand its wastewater and recycled water program.

5.4 Watershed Management

CCWD participates in many in-County and regional planning efforts to improve the integrated management of its shared watersheds. An example includes CCWD's involvement in the Integrated Regional Water Management (IRWM) Program, aimed at encouraging multi-agency coordination to improve water supply reliability and watershed management based on a state-funded grant program, for two regions: 1) the Mokelumne River and Calaveras River watersheds via the Mokelumne-Amador-Calaveras (MAC) IRWM Group, and 2) the Tuolumne-Stanislaus IRWM Group covering the Stanislaus River watershed and southern parts of the County. The District also participates in the Upper Mokelumne River Watershed Authority (UMRWA), which leads the MAC IRWM Group and has been a valuable organization for the Mokelumne River Watershed and northern parts of the County (see 2015 UWMP **Section 2.2** for details).

Thanks to collaborative planning efforts such as the IRWM Program, CCWD has a platform to work together with other agencies, tribal governments, non-governmental organizations, and other interested parties on projects and programs aimed at regional water supply improvements and holistic water management opportunities. Many of these efforts have worked to identify, investigate,

4 The CCWD Board of Directors voted on May 23, 2018 to approve a five-year rate plan that includes water and wastewater rate increases for all residential, non-residential, irrigation/landscape and agricultural customers. The base rate charge for all customers is determined by the size of a customer's meter (i.e., inflow pipe diameter, typically 1 inch or smaller). In addition, a water usage rate charge applies for each 100 cubic feet (cf) of water used, based on customer (sector) type. Residential customers who use more than 1,000 cf during a single billing period are charged higher rates based on the tiered rate structure. The current rates are discussed in **Section 9.2.3**, with the latest rate information available online at: https://ccwd.org/customer-service/rates/.

and/or implement methods to better manage and operate the County's water resources as a whole which improve regional and state-wide (downstream) benefits.

6 Delta Vulnerabilities

The Bay Delta is vulnerable to a variety of natural hazards and emergency events, including earthquakes and flood-inducing levee failures. Several of the Bay Delta's inner islands are over 15 feet below water levels (i.e., sea level), meaning even a modest earthquake in the San Francisco Bay Area could induce water rushing in and flooding these islands, devastating the Bay Delta region. Under worst-case scenarios of multiple levee failures and islands flooding, so much water would likely be displaced from the Sacramento River that sea water from San Pablo and Suisun Bays would be "sucked in" towards the region. Experts predict this would cause such a dramatic increase in the salinity of Bay Delta water that in-Delta users and the SWP and CVP systems would be unable to function. These scenarios could leave many Californians without adequate water supplies for an untold period of time and would be very costly to repair. CCWD's location upstream of the Bay Delta means District supplies are not directly vulnerable to these in-Delta risks or to possible supply interruptions from the Bay Delta. However, it remains unclear to what degree the state would rely on upstream water supplies to help "flush" salinity and improve water quality under any extreme emergency conditions.

The Calaveras River, Mokelumne River, and Stanislaus River watersheds are themselves vulnerable to natural hazards and emergency events. Earthquakes in or around the County could cause devastating erosion, mudslide, or other conditions which adversely impact river flows and downstream infrastructure. Wildfire conditions, such as was seen in 2013 with the Rim Fire in the nearby Stanislaus National Forest, also introduce in-stream sediment loading (decreasing water quality) and reduce natural upper watershed consumptive uses leading to more uncertainty in potential downstream flood conditions. In addition, several dams and reservoirs on these river systems (e.g., New Melones Reservoir, New Hogan Reservoir, Pardee and Camanche Reservoirs) are aging and may be operated very differently in the future to account for these hazards and to improve environmental conditions. Several of these upstream vulnerabilities could ultimately impact the amount of water made available to the Bay Delta region. The District monitors these conditions in coordination with appropriate state and federal agencies, and regional partners, and maintains Local Hazard Mitigation Planning documents to increase disaster preparedness. UWMP **Section 7.1** also lists constraints on CCWD's water sources, including factors that could adversely impact water supplies.

The following attachments to Appendix U include:

- *60-day notice of the Addendum*
- *Adoption resolution of this Addendum*

CALAVERAS COUNTY WATER DISTRICT

120 Toma Court • Post Office Box 608 • San Andreas, CA 95249 • Main Line (209) 754-3543

March 9, 2021

[RECIPIENT NAME]
[RECIPIENT ADDRESS]

Re: Notice of Preparation of CCWD's 2020 Water Shortage Contingency Plan and Required Addendum to 2015 Urban Water Management Plan

Dear [RECIPIENT]:

Last month, the Calaveras County Water District (CCWD) provided you a letter notice indicating CCWD will be updating its Urban Water Management Plan (UWMP) for the 2020 update cycle per the California Urban Water Management Planning Act (Act, under California Water Code Sections 10610-10657). This 2020 UWMP update is due to the Department of Water Resources (DWR) by July 1, 2021, and CCWD anticipates having a public review draft ready by late-April 2021. You will be notified as CCWD makes that draft available, schedules related public hearing(s), and prepares for adoption of the 2020 UWMP.

The prior letter also indicated that a component of the 2020 UWMP update will include a 'Water Shortage Contingency Plan' (WSCP), implementing DWR's state-wide drought water shortage stages and defining how CCWD will provide water use notices, implement water conservation members, and engage with the public in Calaveras County (County) during future drought conditions. Per the Act, the WSCP is separate from the UWMP update, and must be therefore adopted by CCWD as a standalone plan, even though these documents will share several water supply planning and analyses concepts. Please consider this letter as notice that CCWD intends to prepare its WSCP in parallel to the UWMP update process. The WSCP will similarly be provided in a public review draft, via public hearings, and will be reviewed for adoption by the CCWD Board of Directors (Board).

Lastly, CCWD was recently notified by DWR that despite their October 27, 2016 confirmation of CCWD's 2015 UWMP (adopted June 22, 2016 under Board Resolution 2016-32) having been found consistent with then-applicable Act requirements, CCWD must amend this prior UWMP to include certain missing elements. California Code of Regulations Section 5003 required all urban water suppliers to document their reduced reliance on water supplies with a nexus to the Sacramento-San Joaquin River Delta (Delta) region, starting in 2015, consistent with the State's 2009 Delta Reform Act. Many water suppliers in California did not address this requirement in their 2015 UWMPs given unclear guidance from DWR, especially for those areas which do not directly receive water supplies from the Delta region (including Calaveras County). CCWD is now preparing a brief addendum to its 2015 UWMP to resolve this missing content and plans to follow DWR's guidance regarding public review drafts, noticing, and Board adoption. It is worth noting that even though the UWMPs are called "updates", these five-year plans are considered standalone analyses subject to then-applicable Act requirements and DWR review. As such, issues with past requirements,

including this Delta-related addendum, must be amended into the UWMP applicable to that time period rather than simply incorporated into the next UWMP update cycle.

For more questions on the UWMP update process, CCWD's plans for WSCP-defined actions, or to follow the amendment to CCWD's 2015 UWMP, please feel free to contact me via e-mail at brada@ccwd.org or phone at (209) 754-3094. Hearing date information, along with all public review draft materials, will be posted online at www.ccwd.org.

Sincerely,

Brad J. Arnold, PE
Water Resources Program Manager
Calaveras County Water District

cc: Michael Minkler, General Manager
Jessica Self, CCWD External Affairs Manager
CCWD File